Contents

1. Economic Mobilization for Survival, 1940–45

Rapidly increasing military spending during the Second World War pulled the United States out of the Great Depression. The dramatic transformation from a peace-time to war-time economy required a massive mobilization of factors of production.

Many of those previously unemployed were quickly hired. New sources of labor, including women leaving the home and blacks migrating from rural to urban areas, were found to replace those going to war and to fill new positions in the expanding industrial economy. Higher wages, patriotism, and government directives and indirect compulsion served to mobilize workers and influence them to migrate to where they were most needed. Questions of race and sex discrimination arose as black males and white and black women moved into new spheres of production.

Relatively peaceful relations between organized labor and employers evolved. The American Federation of Labor (AFL) and Congress of Industrial Organizations (CIO) gave "no-strike" pledges to the federal government and the National War Labor Board (NWLB) pushed the introduction of "maintenance of membership" clauses in collective bargaining agreements. Though a "no-strike" pledge was in effect, many strikes, mostly of short duration, occurred.

The federal government used financial incentives and rules and regulations to mobilize the necessary war production. The manufacture of consumer items was restricted so that industrialists focused on military goods. As the expansion of private sector manufacturing capacity was inadequate, the government constructed many new war plants which were operated by private companies.

Macroeconomic policies shaped the overall economic environment. They included monetary and fiscal policy and wage and price controls. The monetary policy was subordinated to the goals of fiscal policy. The war-time fiscal policy, characterized by huge federal budget deficits, provided striking evidence of the ability of properly developed policy to foster an economic expansion. Wage and price controls, complementing the fiscal policy, slowed the inflationary spiral guaranteed to emerge in a war economy.

Overall, the domestic economy performed relatively well. Important transformations occurred in the economy and society during the Second World War. All the changes caused by the war were not permanent and many of the war-time institutions were consciously dismantled. But crucial aspects of the postwar institutional framework evolved during this time. The impact of the war would be felt for many years to come.

ECONOMIC GROWTH

The defense buildup began in June 1940 after the Germans invaded France. At that time, the central problem facing the economy was a lack of effective demand for goods and services. There was substantial unused capacity and many were out of work. Approximately two years later, there were high employment levels and labor shortages were developing in some areas and occupations. By 1944, the unemployment rate had fallen to a low of 1.2 percent, a level never again achieved in the postwar period.

The total output of the economy in constant prices – the real Gross National Product (GNP) – increased from $319.8 billion (in 1972 dollars) in 1939, the last year unaffected by the war or the prospect of war, to a peak of $561.9 billion (in 1972 dollars) in 1944. The GNP is composed of personal consumption expenditures, investment expenditures, government (federal, state and local) purchases of goods and services, and net exports of goods and services. Federal government purchases of goods and services, mainly military related, grew from $22.8 billion in 1939 to $269.7 billion in 1944. This increase is virtually identical to the overall increase in real GNP. Consumption expenditures rose moderately though not as fast as disposable income as people were "forced" to save a larger proportion of their income. There was a decline in real private investment, mainly due to a fall in residential investment (*Economic Report of the President*, 1985, pp. 234–235).

Thus, the output of armaments came from expanded production. As the war progressed, the main economic problem was no longer a lack of effective demand. The government provided the demand for goods and services. Rather, it was increasing the nation's ability to produce the necessary output. Herein lay the importance of effectively mobilizing labor and capital for war production.

THE LABOR MOBILIZATION

The economic expansion was facilitated by a substantial increase in the number of people employed. Between 1939 and 1944, total civilian employment rose from 45.8 million to 54.0 million, a gain of 8.2 million. Membership in the Armed Forces increased to 11.4 million from 0.4 million. Thus, approximately 19.2 million additional people were either working or in the Armed Forces. Of these 8.8 million came from the ranks of the unemployed as there were 9.4 million unemployed in 1939 and only 0.6 million without work in 1944. The additional 10.4 million were people who had been out of the labor force in 1939, over one-half of whom were civilian women (Wool, 1947).

The dynamism of the labor force is clearly reflected in the changing status of blacks and women. At this time, both black males and white and black women could be viewed as important components of the labor reserve, available to be "mobilized for service" in the expanding sectors of the economy. Initially, the new jobs arising from the defense buildup were filled by prime-aged white males, most of whom were previously unemployed or holding less desirable positions. Black males and white and black women were trained for the war industries only after the supply of prime-aged white men was exhausted.

The employment of blacks in civilian jobs increased by almost one million from April 1940 to April 1944, with the number of employed black men rising from 2.9 to 3.2 million and the number of employed black women from 1.5 to 2.1 million. In addition, almost three-quarters of a million entered the Armed Forces. There was a vast shift of blacks from the farms to the factories. The proportion of employed black men on farms declined from 41 to 28 percent and the proportion of employed black women in agriculture fell from 16 to 8 percent. Close to 30 percent of black men were craftsmen or operatives – mainly industrial workers – in 1944 as compared to only 17 percent in 1940. The proportion of employed black women in these occupational groups grew from 6.5 percent in 1940 to 18 percent in 1944. Also, a substantial number of black women left extremely badly paid positions as domestic servants to take better-paying jobs in the industrial and service sectors (Wolfbein, 1945).

The most important factor explaining this occupational upgrading was the general increased demand for labor in the war industries and the shortage of white male workers. Though the military buildup had been on for two years, blacks composed only 3 percent of the war-production work force in the summer of 1942. By the fall of 1944, they were more than 8 percent, slightly less than the overall proportion of blacks in the labor force (Weaver, 1946, p. 79).

With the development of labor shortages in the latter part of 1942, traditional behavior patterns of employers, unions, training institutions and government agencies limiting the labor market options of blacks were forced to change. Initially, many employers refused to hire blacks for positions other than menial work deemed suitable for them. A Bureau of Employment Security survey in September 1941 found that over half of the anticipated openings in the defense industries would be explicitly closed to black applicants. Firms in the aircraft and ordnance industries only considered black workers for janitorial positions (Kryder, 2000, pp. 39, 103). The President of North American Aviation frankly stated:

> While we are in complete sympathy for the Negro, it is against company policy to employ them as aircraft workers or mechanics… regardless of their training…. There will be some jobs as janitors for Negroes. (Quoted in Foner, 1982, p. 238)

However, given labor shortages, employers reluctant to employ blacks in other than traditional positions would eventually be unable to profitably utilize their plant and equipment.

Initially, some unions organizing workers in defense industries excluded blacks from membership either by provisions in their constitutions or unwritten policy. Others, while accepting them implicitly, provided them with a second-class status by organizing them in segregated auxiliary locals having no say in overall union affairs and discriminated against these black locals in referring people to jobs (Northrup, 1944). Where a closed shop agreement existed, employers were only allowed to hire union members. In this situation, if blacks were unable to join the union they were unable to be hired (Weaver, 1946). In most instances closed shop arrangements were not in effect and employers were able to hire anyone they wished. Here, the racism of the employers combined with the racism of the workers and the practices of the unions to restrict black opportunities. Eventually, the necessities of war production forced the upgrading and entrance of blacks into many new occupations and plants. Furthermore, government litigation broke down color bars in some of the unions which still had them. Under pressure from the black community, President Roosevelt issued an executive order banning racial discrimination in defense industries and set up the Fair Employment Practices Committee which began functioning on July 18, 1941. Its objectives were to gain war industry positions for blacks and individuals from other minority groups and raise the morale of victims of discrimination.

Initially, many government-funded schools training workers for the defense industries would not accept blacks either because blacks could not join unions or because they could not get job offers. In addition, the policies of the US Employment Service served to reinforce the labor market discrimination experienced by blacks. For example, from October 1940 to March 1941, blacks were only 4 percent of the placements made by the US Employment Service in 20 main defense industries. And the vast majority of those placed were given unskilled work (Weaver, 1946, p. 20).

Even in areas where blacks lived and had the necessary skills or were willing to be trained, they were rejected while whites, even without training, were recruited from other parts of the country. The depletion of the white male labor supply caused this pattern to change. By 1942, most northern areas where labor shortages existed made training more available to blacks. In the South, progress was slower but eventually training opportunities opened for them. Furthermore, these labor market developments resulted in substantially more blacks being placed in a wider range of occupations by the US Employment Service.

As the racial bars began to bend, blacks responded to their newfound opportunities. Their migration rates significantly increased, surpassing those of whites. Most blacks migrants left the South and went to areas in the North and West having defense jobs to fill. They were more likely than whites to be found in areas classified as experiencing acute labor shortage (Kryder, 2000, p. 111). Here, the relative proportion of blacks in skilled and semi-skilled occupations significantly grew.

The entrance of blacks in occupations and industries from which they had previously been excluded did not always progress smoothly.

There were instances where white males went on strike over the hiring and promotion of blacks. While they occurred in the early part of mobilization, they became more prevalent in 1943 and 1944 as more blacks were hired or promoted in defense industries. In addition, there were strikes by blacks against racial discrimination. Overall, there were 50 strikes in 1943 and 57 strikes in 1944 over racial questions (Crowther and Cole, 1944, p. 938, 1945, p. 968).

In addition to black males, white and black women had expanded job opportunities as labor shortages emerged. The number of women in the civilian labor force increased from some 14 or 15 million in mid-1940 to some 19 or 20 million in mid-1945. The labor force participation rate of women rose from 27 percent in April 1940 to 37 percent in April 1945 (Pidgeon, 1947, pp. 666, 670). Under normal circumstances some of these new women workers would have been expected to enter the labor force from 1940 to 1945. Kessler-Harris estimates that 3.5 million women workers who might not otherwise have entered the labor force did so during the war years. Seventy-five percent of these new female workers were married and many were over the age of 35 (Kessler-Harris, 1982, p. 277).

Work commonly thought of as "men's work", actually white men's work, was opened to women during the war. The most dramatic increase took place in war-related industries. While women had always been an important segment of the work force in nondurable manufacturing industries such as the making of apparel, textiles, shoes and food products, they had generally played a small role in the manufacture of durable goods. During the war, the proportion of production workers in durable manufacturing who were women rose from 8.6 percent in late 1939 to a wartime record of nearly 25 percent by late 1944. The number of women production workers in the transportation equipment industry (exclusive of automobiles) rose from less than 2000 in October 1939 to over half a million by July 1943. Similarly, their number increased by about a quarter of a million in the iron and steel, machinery and electrical machinery industries and by 150 000 in the automobile sector. Overall, while there were only 340 000 women production workers in durable goods industries in 1939, there were more than 2 million of them four years later (Pidgeon, 1947, pp. 666–667).

Not only did vast numbers of women enter manufacturing, a second place where women went to work was in offices. There was an increase of over 2 million women clerical workers. Almost half of the increase was accounted for by the federal government. By the end of the war, women were 38 percent of all federal workers, more than twice the percentage of the last prewar year (Chafe, 1972, p. 141).

Just as with black men, the most important factor explaining the wide availability of work for women was the shortage of white male workers. In the early phase of the defense buildup very few women were hired by the defense industries, primarily due to the large backlog of unemployed white men on which the munitions industries could draw. In addition, many employers felt hiring women would increase their cost of production. Women were viewed as lacking mechanical ability. New bathrooms would have to be built. Employers were also unwilling to risk costly conflict with their white male workers over employing women in traditionally male occupations. Furthermore, some employers who might have been interested in hiring women were restricted from doing so due to closed shop arrangements with unions. As with blacks, several unions representing workers in the defense industries initially barred women from their membership. A survey of 12 000 factories in early 1942 showed that employers in war industries were willing to employ women in only one-third of the jobs available.

In addition to facing difficulties finding work, women had problems gaining entrance into training programs. Women comprised only 1 percent of the 700 000 workers who received training in industrial skills in government financed training programs in the second half of 1941. The policy of the Office of Education operating these programs was that since women were not being hired by the defense industries they should not be trained for positions in them.

Barriers faced by women began to fall in 1942. Employers became more willing to hire them. According to Mary Anderson, the director of the US Women's Bureau, "almost overnight women were reclassified by industrialists from a marginal to a basic labor supply for munitions making" (Chafe, 1972, p. 137). Virtually all union bars against women as members disappeared by the end of 1942. As employment opportunities increased, so did access to government sponsored training programs.

As the sexual bars began to bend, women responded to their newfound opportunities. Many holding low-paid "women's jobs" quit for higher paying positions in the defense industries. Wages in munitions plants and aircraft factories averaged 40 percent higher than in factories producing consumer goods. While there was a conscious campaign to induce women to seek a job, the attractive wage and job opportunities and the suspension of overt animosity increased the willingness of women to work. Many women whose husbands went off to war needed a job to supplement the money received from the government, taken from their husbands' wages. Though the child-care programs funded by the government or provided by employers were unsatisfactory, their existence made it easier for some women raising families to also hold jobs.

Women ran into difficulties as they entered occupations and industries from which they had previously been excluded. Questions of sex discrimination were raised throughout the war period. Some male unionists struck to prevent women from being hired. For example, in November 1941, members of the United Auto Workers (UAW) struck a machine gun plant owned by the Kelsey-Hayes Wheel Co. when the firm hired women at 85 cents an hour which was 15 cents an hour less than the rate the men received. While the strikers might have demanded that women receive the same pay as men, instead they asked the company to remove women from all machine jobs in the plant (Milkman, 1980, p. 131). Eventually the UAW and other unions realized that women would be an important part of the industrial work force, at least for the duration of the war. Paying less to women than to men for equal work threatened the wage rates of their male members and thus they championed the notion of "equal pay for equal work". But discriminatory job classifications by sex still remained limiting the area of applicability of this notion. Also, many unions maintained separate seniority lists for men and women. This would have major implications when the demobilization occurred at the end of the war.

Black women faced even more difficulties than white women. They suffered from both sexism and racism. Employers running war plants willing to hire black men and white women were often unwilling to hire black women, or if they did employ them it was often for the worst, most poorly paid jobs. In Detroit, for example, in 1943 the Fair Employment Practices Commission estimated that 25 000 black women were available to work in defense plants but were unable to get hired. Employers argued that they were unwilling to hire black women at all or unwilling to hire them for better paying positions since they feared a backlash from their white workers, both men and women. And, in Detroit there were instances of hate strikes where white men and women staged job actions to protest the hiring or upgrading of black women (Anderson, 1981, p. 37).

In addition to increasing the number of available workers, the mobilization of labor included inducing people to work where they were needed. Initially, a "free" labor market operated with people being free to choose where they wished to work, that is assuming they were able to find an employer willing to hire them. By the middle of 1943, there were few unemployed and many of them were in the process of moving from one job to another. As it was easy to find work, many were quitting jobs for better opportunities elsewhere. The quit rate rose from "a peacetime normal of 1 or 2 percent per month to a war time level of 6 or 8 percent" and "many firms found it necessary to hire and train 1000 workers in order to bring about a net increase of 100 in the work force" (Haber, 1945, p. 227). As insurance against such high labor turnover, many firms hoarded labor, hiring more people than were currently needed. In addition, it became more difficult to induce those remaining workers in nondefense industries to transfer to those areas most needed for war production.

As a result, some controls were placed on the operation of the "free" labor market. To limit hoarding, ceilings were placed on employment levels in particular war plants located in areas of the country experiencing the most severe labor shortages. To reduce labor turnover, restrictions were placed on employers to prevent their "pirating" of workers from other war production facilities and on the freedom of workers engaged in essential activities to change jobs. The policies of the Selective Service System also helped to channel workers. Those engaged in essential war work were given draft deferments. Others not engaged in such activities but having the necessary skills were given time to find such work before being inducted into the Armed Forces.

The distinction between a "free" labor market and a wartime "controlled" one should not be exaggerated. For many, the freedoms of the "free" labor market during the Great Depression amounted to little more than the unrestricted right to "pound the pavement" in an unsuccessful search for work. Most did not object to the war-time system of labor channeling which freed them from the burden of unemployment and induced them into war jobs. In a sense, "the war substituted a different and more elaborate set of controls for those that had existed all along" (Polenberg, 1972, p. 36).

THE STABILIZATION OF LABOR–MANAGEMENT RELATIONS

An increased supply of labor was important for the growing war economy. But the needed weapons would not have been made without relatively peaceful relations between employers and workers.

Substantial labor–management strife would delay production and likely increase its cost. Thus, a central goal of the Roosevelt administration was to create an environment in which relatively stable industrial relations would evolve.

As of 1940, some firms such as General Motors (GM), US Steel and General Electric (GE) had accepted the labor movement. However, many large and small firms were still avoiding unions and their legal responsibilities toward them. Even where workers had labor representation, unions often had great difficulties reaching agreement with employers on the terms of the first contract. Reflecting this situation, half of the strikes in 1940 and 1941 were over matters concerning union recognition or union organization. Had employers more readily accepted unions, the vast majority of strikes would have been over questions of compensation and working conditions rather than union recognition and organization. Eventually, some of the large employers capitulated. By the end of 1941, first contracts were finally being signed by such companies as Goodyear, Armour and Westinghouse. Workers for Ford and the Little Steel companies (Republic, Bethlehem, Youngstown and Inland) had their unions recognized by their employers. (These steel companies were called "Little Steel" to distinguish them from US Steel, the major steel producer in the United States at the time.)

Several serious strikes occurred in war-related industries in 1940 and 1941, and President Roosevelt threatened to seize the plants to maintain production. Finally, on June 9, 1941, he ordered the Army to reopen and operate a struck North American Aviation plant in Inglewood, California.

With the bombing of Pearl Harbor by the Japanese on December 7, 1941, production for the war effort took on added urgency. On December 17, 1941, President Roosevelt convened a conference of representatives of labor, management and the government to lay the basis for peaceful industrial relations in defense industries. Though substantial differences remained, from this conference emerged a no-strike pledge on the part of labor and a no-lockout pledge on the part of management and the creation of an NWLB.

The NWLB, a tripartite board with 12 members, four of them to represent labor, four to represent employers and four to represent the public, became the arena where labor–management disputes were often settled. Unsettled industrial disputes brought to the NWLB were those certified by the Secretary of Labor as likely to "interrupt work which contributes to the effective prosecution of the war" (Seidman, 1953, p. 81). The three major topics of concern faced by the NWLB were union security, worker compensation and day-to-day contract administration. Labor, in giving up the right to strike, surrendered its most powerful weapon at a time of low unemployment when its bargaining power would have been strongest. Union leaders wished a strong union security provision in return. This would protect them from anti-union employers trying to convince workers that unions were unnecessary, as unions had given up their major weapon and the NWLB was regulating wage increases. It would also protect them from other unions trying to "raid" their membership. Affiliates of the AFL and CIO often competed for the same workers.

Employer representatives felt that there was no need for any union security arrangements other than the protections afforded by the Wagner Act and the National Labor Relations Board (NLRB). Their preferred situation was the open shop, where employers are free to hire anyone and employees are not required to join a union to maintain their jobs. They feared that any union security clause would unduly strengthen labor after the war, when free collective bargaining would, hopefully, return. Union representatives had no interest in the open shop. Rather, they preferred the union shop, where a person must join a union shortly after being hired to retain the job.

The compromise reached by the NWLB on disputes brought to it concerning union security issues was the following: (1) closed shop arrangements would not be approved; (2) where an established union shop existed, it would be maintained; and (3) where a union shop did not exist but was desired by a union, maintenance of membership would often be provided. Under a maintenance of membership clause, union members who did not resign from a union during a "15 day escape period", usually at the beginning of a collective bargaining agreement, would have to retain their membership over the life of the contract. Those who did not maintain their union standing could lose their job. But no one, not already a union member, would be required to join a union in order to be hired for a job. Basically, the maintenance of membership arrangement prevented employers from eliminating unions from their firms and reduced jurisdictional conflict between unions by requiring union members to stay put in their unions.

By 1945, approximately one-third of workers under collective bargaining contracts were covered by maintenance of membership provisions. And extremely few workers chose to leave their unions during the "escape period". Overall union membership increased from 9 million in 1939 to 14.8 million in 1945. Unions were particularly prevalent in the manufacturing, mining and transportation sectors. By 1945–46, more than 80 percent of workers in the transportation and mining sectors worked in unionized plants and almost 70 percent of workers in manufacturing were covered by collective bargaining agreements (Harris, 1982, p. 43).

The second major question taken up by the NWLB was labor compensation. This issue is crucial for peaceful industrial relations during a war-time emergency as many strikes are likely to occur over this matter. In addition, trends in labor compensation have implications for price stability. Regulation of such payments is often one component of an anti-inflation strategy.

Initially, the NWLB ruled on wage and fringe benefit questions only in those disputes referred to it. Its rulings did not directly apply to situations where labor and management were able to come to an agreement by themselves. Wage increases were based on a formula developed in the Little Steel companies case decided by the NWLB on July 16, 1942. As the Consumer Price Index (CPI) had risen by 15 percent from January 1, 1941 to May 1, 1942, the NWLB sanctioned wage improvements to increase wage rates for particular occupations by no more than 15 percent from January 1, 1941 to May 1, 1942. The NWLB used this 15 percent measure in cases following Little Steel. Yet, the logic of this figure could only be maintained if prices remained stable after May 1, 1942. If not, increases in occupational wage rates would be outstripped by increases in the cost of living and severe strains would develop in labor relations.

Prices did not remain stable. Also, the fact that many wage negotiations were settled outside the purview of the NWLB proved problematic. As the defense buildup rapidly expanded and labor shortages emerged, employers became more concerned with maintaining an available work force than in keeping wage costs down. Also, the government contracted for war products on a cost-plus-fixed-fee basis. Thus, increases in labor costs could eventually be passed on to the government. Conditions were ripe for wage increases exceeding the NWLB guidelines.

As the threat of inflation became more serious, on October 2, 1942 the US Congress passed the Economic Stabilization Act which directed President Roosevelt to stabilize all wages and salaries, as far as practicable, on the basis of their levels as of September 15, 1942.

With this legislation, the NWLB became responsible for stabilizing wages throughout the society, not just in situations where labor disputes existed. Stiff penalties were provided for violations of the wage stabilization program.

The Little Steel formula continued as the basis on which general wage increases were determined. As this was a wage stabilization program and not a wage freeze, wage increases would be allowed if they were needed to "correct maladjustments or inequalities, to eliminate substandards of living, to correct gross inequities, or to aid in the effective prosecution of the war" (Taylor, 1948). Employers and unions used great ingenuity in gaining increases in hourly earnings based on inter-plant and intra-plant wage inequities, incentive systems, merit increases and the like. In addition, bargaining over fringe benefits, such as travel time allowances, night-shift differentials, and vacations and other holidays with pay, became prevalent. They were deemed noninflationary and thus more likely to be approved.

Due to the rulings of the NWLB, wage rate increases were probably less than they would have otherwise been, especially given the general shortage of labor. The basic wage rate in manufacturing rose by 24 percent from January 1941 to July 1945 while the cost of living increased by about one-third. But the weekly earnings of manufacturing employees rose by 70 percent from $26.64 to $45.45 (Seidman, 1953, p. 129). This was due to the abundant opportunities for overtime and to the fact that while wage rates were stabilized, the wages received by workers were not, given opportunities for upgrading, merit increases and the reclassification of jobs. Despite higher taxes, the take-home pay of the average factory worker rose more than did the cost of living.

In addition to the issues of union security and worker compensation, the NWLB dealt with matters regarding day-to-day contract administration and dispute settlement. Many employers had little experience in union–management relations and little interest in dealing with unions beyond the absolute minimum required by law. Realizing that peaceful labor relations required a means for handling day-to-day disputes between labor and management, the NWLB attempted to strengthen the grievance procedures in mass production industries. Broad procedures were set up to speed dispute settlement. When a settlement of a grievance could not be reached, an arbitrator was to be brought in to resolve the dispute. In its rulings on day-to-day contract disputes, the NWLB defended management's right to manage the enterprise. The union was left to police the contract and challenge management in instances where it felt management was violating the agreement. Overall, the NWLB codified the notion that management acts and the union grieves (Harris, 1982).

While the NWLB was stabilizing labor–management relations, conflicts did not disappear. Though labor leaders gave a no-strike pledge, there were 14 731 strikes from December 8, 1941, the day after Pearl Harbor to August 14, 1945, VJ day, when the Japanese surrendered ending the war. The vast majority were short "wildcats", occurring within the term of the contract. As such, only a very small amount of labor time was lost due to strikes (Crowther, 1946, p. 723). In most cases union leadership quickly forced workers back to work. Many local union leaders paid for this behavior as they were defeated in union elections in 1944–45.

The major question in the disputes was labor compensation as workers felt their wage rates were being unfairly stabilized while prices were rising. While some union leaders called for prices to be rolled back, the best the government would offer was a price freeze. Labor's frustration with the Little Steel formula came to a head in the large coal strikes of 1943. Four hundred thousand bituminous coal miners struck on three separate occasions in May and June for wage increases which could not be reconciled with the Little Steel formula. The government seized the mines stating that the strikes interfered with the war effort and threatened to end the draft deferments of the miners.

Congress reacted to these strikes by passing the War Labor Disputes Act (also known as the Smith–Connolly Act) over the President's veto. Designed to weaken the bargaining strength of labor, it increased the power of the President to seize plants useful in the war and made it a crime to encourage strikes in such plants. It required a 30-day "cooling off" period and a strike vote conducted by the NLRB before a strike could be called in a defense plant. Supplementing the War Labor Disputes Act were many state laws passed in 1943 restricting the activities of unions. Most disputes were eventually settled peacefully by the NWLB. But governmental seizure of struck plants was used in cases due to labor intransigence and cases due to management's unwillingness to abide by NWLB rulings.

THE MOBILIZATION OF PRODUCTION

Developing a labor force and stabilizing industrial relations were two important preconditions for armament manufacture. In addition, as the government was not going to undertake all such production in government-owned and operated plants, it needed to gain the cooperation of private industrialists. Such behavior could be induced by providing monetary incentives to them. For as Henry L. Stimson, the Secretary of War from 1940 to 1945, clearly stated:

> If you are going to try to go to war, or to prepare for war, in a capitalist country, you have got to let business make money out of the process or business won't work. (Quoted in Polenberg, 1972, p. 12)

And the war was highly profitable for business. Corporate profits after taxes rose from $5.8 billion in 1940 to $10.7 billion in 1944 (*Economic Report of the President*, 1985, p. 328).

Yet, the responses of business people to market incentives are not totally predictable. Thus, such incentives were supported by rules and regulations concerning what was to be produced and what was forbidden to be made. The Second World War led to the most extensive set of governmental economic controls ever experienced in the United States. Overall, excluding military agencies, there were about 165 economic and noneconomic emergency war agencies (Vatter, 1985, p. 87).

Prior to Pearl Harbor, major industries were reluctant to prepare for defense. Some industrialists felt that American intervention would not occur and most were unwilling to convert from profitable peacetime work. It was feared that those who shifted into defense production would lose a large share of the domestic market to competitors who continued to produce for that sector. In addition to being against the conversion of existing capacity, they were unwilling to consider an expansion of capacity. Remembering the depressed conditions of the 1930s, many business people were concerned that they would be left with excess capacity when the war ended. There were even those firms such as Standard Oil of New Jersey, Dow-Chemical, US Steel, DuPont, General Motors and the Aluminum Company of America which were assisting the growth of Nazi industry and delaying America's preparation for war (Bernstein, 1968, p. 291).

In mid-1940, the US Congress gave President Roosevelt the authority to decide in which instances the production of military supplies should take precedence over civilian production. A year later, as shortages were developing in inputs used for both armaments and consumer items, the President was allowed to authorize priorities for essential civilian goods. Some goods would be forbidden to be produced, quantities of others would be limited and restrictions would be placed on the use of essential inputs in the making of nonessential civilian items. In January 1942, President Roosevelt created the War Production Board (WPB), whose job was to exercise general responsibility over the economy. The Second War Powers Act of March 1942 permitted the WPB to allocate materials or facilities in any manner it thought necessary for defense. Basically, it had the right to force industrialists to convert their plants to military production. Those who did not comply with its directives could be prosecuted.

As it is impossible to summarize all the resource allocation decisions of the WPB, a few examples will suffice. Most civilian construction and most investment for nonmilitary purposes were forbidden. The last car was produced on February 10, 1942. After that, the automobile companies produced more than 50 percent of all aircraft engines, 33 percent of all machine guns, 80 percent of all tanks and tank parts and 100 percent of all Army trucks. Car companies also produced about 20 percent of all airplanes made for the war effort (Gropman, 1996, pp. 59–60). Nonmilitary, nonessential use of steel, copper, other metals and rubber was prohibited. As a result by September 1942, the production of the following items for civilian use had been prohibited: electric refrigerators, vacuum cleaners, sewing machines, electric ranges, washing machines, radios, phonographs, metal household furniture and many other household appliances. There was a reduction and simplification of styles of many consumer goods (Webb, 1942, 1943).

The conversion of existing facilities was not adequate to meet defense needs. The WPB developed procedures to induce owners of business to expand. Most military contracts were issued on a cost-plus-fixed-fee basis providing manufacturers with a guaranteed profit. Those who increased capacity were allowed to amortize the cost of expansion over only five years even if the facilities had a productive life of more than five years. This lowered their taxable income and expanded their earnings ability.

Expansion of private sector manufacturing capacity remained inadequate. The government was forced to construct many new war plants which it then leased to private companies for a nominal fee. These plants were mainly in the following industries: (1) transportation equipment, except automobiles, which includes the building of ships, airplanes, railroad equipment, tanks and combat vehicles;

(2) chemicals and allied products which includes the small-arms ammunition industry; (3) iron and steel and other products; and (4) nonferrous metals and other products. In September 1943, approximately 20 percent of all workers in the munitions industries were working in government-owned, privately operated plants (Schloss, 1944, pp. 40–41).

MACROECONOMIC STABILITY

Macroeconomic policy shaped the overall economic environment in which the mobilization of labor and capital occurred. The central macroeconomic problem was to guarantee that adequate resources were made available for war production with minimal disruption to the economy and society. Macroeconomic policies included fiscal and monetary policies and wage–price regulations. In addition, the rationing of consumer goods and the rules and regulations governing the allocation of capital and labor complemented those policies more normally thought of as comprising a macroeconomic strategy.

Three possible means of financing the war and gaining the needed war materials are the following:

(1) Taxes paid by individuals and businesses to the federal government could be raised by an amount equal to the additional military expenditures. Due to the increase in taxation, consumer demand would be less than it would have otherwise been at the new level of GNP, freeing up factors of production for use in defense industries rather than in consumer goods production.

(2) Rather than totally financing the war through increased taxation, a second alternative would be to partially pay for the war in this manner and raise the rest of the necessary money through increasing the annual federal budget deficit. Bonds would be sold by the US Treasury to fund the deficit. The output of armaments would mainly come from expanded production. If the economy operated at close to full capacity, an inflationary situation would develop. The government would be able to pay whatever price it needed to for military output. Those unable to maintain their standard of living in the face of inflation would be indirectly paying for the war by cutting back on their demand for goods and services.

(3) To lessen the likelihood of inflation, lower the prices of military goods and guarantee that the desired weapons would be produced, the federal government could institute a set of controls on the economy. Such controls might include wage–price controls, rationing of consumer goods, prohibitions on the production of consumer goods, directives on the production of military goods by the private sector and the development of government-owned and perhaps operated weapons facilities. Wage–price controls would deal with inflation. Rationing would allocate consumer goods and services in an equitable manner. Restricting the production of nonessential goods would free up factors of production for the defense sector and increase the willingness of private sector firms to become defense contractors. Government facilities would guarantee the needed output. In this strategy, "compulsion" replaces "voluntary" market incentives as the primary resource allocation mechanism.

The strategy ultimately utilized by the federal government combined elements of options (2) and (3). Government expenditures rose substantially during the war. Taxes were raised and tax revenue dramatically increased. But, less than half of federal government expenditures were funded by tax revenues (Murphy, 1950, p. 251). Substantial federal budget deficits were run every year during the war. The funds to cover the deficits were raised through the sale of government bonds by the US Treasury.

Slightly more than half of the bonds were sold to individuals, corporations, insurance companies, and state and local governments. The rest were purchased by commercial banks and the Federal Reserve system (Chandler, 1951, p. 133). The government's goal was to place most of its war bonds in the hands of individuals and nonfinancial corporations. Media campaigns were designed to induce people to save more and purchase government securities. Payroll savings plans were implemented at work where, with the worker's approval, deductions were automatically taken from paychecks and used for war bonds. Due to war-time regulations which reduced the supply of consumer goods, personal savings as a percentage of disposable income rose from 5.5 percent in 1940 to 25.2 percent in 1944 (Freeman, 1960, p. 56). Approximately 40 percent of the value of personal savings and 25 percent of corporate business savings went into government bonds (Chandler, 1951, p. 135).

As the US Treasury was unable to secure adequate funds from individuals and nonbank entities, it was forced to borrow heavily from commercial banks and the Federal Reserve system. The Federal Reserve played the role of lender of last resort. It was committed to purchasing as large a volume of bonds as necessary to enable the government to raise its funds at low and stable rates of interest. Low rates of interest lowered the cost of financing the war effort. Fixed rates of interest reflected stability in the bond market and made it impossible for bond speculators to profit off the war effort.

Yet, this action by the Federal Reserve meant that monetary policy was totally subservient to fiscal policy. The money supply was strongly determined by the government's need for funds from the Federal Reserve. Whenever the Federal Reserve would purchase government bonds from the US Treasury, it would write a check. As this money was spent, the supply of money in the economy would expand. This increase in the supply of money in a war economy was inflationary.

Fiscal policy was supplemented by direct controls over prices, wages, and the production and use of goods and services. Price controls, along with the previously discussed wage controls, were used to lessen the likelihood of inflation. During 1941, price controls were placed only on a small number of particularly scarce commodities since inflation was thought to be a problem affecting only a small segment of the market. By the spring of 1942, the problem of inflation was seen to be more systemic in nature. On April 28, 1942, the General Maximum Price Regulation was issued, placing a ceiling over most prices, excluding many farm prices, at the highest levels reached the month before. Prices of most agricultural commodities were not really controlled until 1943. These price controls were fairly effective. The annual rate of inflation slowed from 10.7 percent in 1942 to 6.1 percent in 1943 to 1.7 percent in 1944 and 2.3 percent in 1945. The relatively high rate of inflation in 1943 was totally due to trends in food prices (*Economic Report of the President*, 1985, p. 296).

As prices were regulated and consumer goods were in short supply, there was an excess demand for particular commodities. Without an explicit system of rationing, those most likely to be able to purchase necessary items would be those who were most friendly with the local shopkeeper or who arrived earliest in a morning or who were most able to stand in lines. A formal system of rationing was implemented to more equitably distribute consumer goods. Shoes, gasoline, coffee, canned food and sugar were some of the goods rationed. Ration coupons were issued to individuals and families giving them the right to purchase a particular amount of the relevant items. They would present these coupons to the local shopkeeper when making a purchase. In order to replenish the inventory, the dealer would have to present these coupons to the suppliers. Eventually the ration coupons would end up in the hands of the government.

Rationing lowered the demand for particular products by limiting the freedom of people to purchase all they desired. By helping to adjust the demand to the limited supply, rationing complemented the price controls in the fight against inflation. It also provided the majority of the society with access to consumer goods. In this way, it made the restrictions on consumer goods production seem less onerous. But, those unable to afford necessary items were still shut out of the market as they would have been without an explicit system of rationing.

IMPLICATIONS OF THE WAR MOBILIZATION

The war-time economy evolved during an emergency. Decisions were taken, not because their long-run implications had been thought out but, because the situation seemed to offer no other choice. These decisions, however, had implications for the economy in the years to come.

The labor force was permanently changed by the war-time experience. Women would be more likely than men to lose their jobs in war industries during the demobilization and many would leave the labor force. However, the decline in female labor force participation would quickly cease and the participation rate would begin to rise, eventually surpassing its war-time high. Black men would not return to the farms but would remain an important component of the industrial work force.

The war-time growth in union membership solidified the presence of unions in the economy. The war-time regulation of industrial relations forced employers to recognize and deal with unions in a reasonable manner. While the NWLB and its rules would quickly disappear from the scene at the end of the war, its decisions would continue to influence the overall direction of labor–management relations in the postwar period. Unions would not disappear nor would collective bargaining. However, with the end of the war, the nature of collective bargaining and with it the proper roles of labor and management would be in dispute.

By the end of the 1946, most of the administrative controls would be removed from the economy and many of the war-time agencies would be dismantled. There would be a quick, substantial conversion, at least temporarily, to a peace-time economy. But the federal government would not shrink to its prewar size. It would have an important role to play in the postwar economy and would increasingly come to be seen as being responsible for the overall performance of the economy. However, its policy agenda and policy tools would be in dispute.

The domestic political economy would develop in a postwar world shaped by an international monetary system created at Bretton Woods, New Hampshire in 1944. These monetary arrangements would be particularly advantageous to the United States. The United States would dominate the world economy, at least for a short while.

Index