

## CHAPTER 8

# THE AMERICAN ECONOMY DURING THE 1940s

Throughout the interwar period the United States had been staunchly isolationist in foreign policy.<sup>1</sup> With Hitler's invasion of Poland in September of 1939, this sentiment began to change. The United States began to expand its military production and by late 1941 the United States was clearly preparing for war. In May of 1940, the National Defense Advisory Council was established to advise the government on its military preparedness. In September of 1940, Congress passed the Selective Service Act, establishing the first peacetime draft in the history of the United States, and the military was actively drafting men by 1941. In an economy with idle resources, it was easy to expand military and civilian production and still increase the size of the armed forces.

### The Second World War

With the Japanese attack on Pearl Harbor on December 7, 1941, the United States shifted into a full-fledged war economy, and factories were quickly transformed to build military equipment. To facilitate this transformation, controls were imposed on the allocation of resources and the types of products produced. The reduction in the production of civilian products was soon accompanied by price controls and rationing.

Real incomes rose, and unemployment virtually disappeared. (See Figure 8.1.) Prices rose little but this does not mean that there was little inflation because inflation is a fall in the value of money and with price controls inflation is registered by people's inability to purchase goods even though they have the money to do so. Price indexes are of doubtful relevance in the presence of price controls and rationing. (See Figure 8.2.)

On July 16, 1942, the War Labor Board handed down its "Little Steel" ruling directing that wage increases for union employees of the little steel firms be held to 15 percent because that was how much the consumer price index (CPI) had increased. This made the CPI a "cost of living" index, something that the Bureau of Labor Statistics had previously asserted it was not. The War Labor Board then began to tie wage increases to increases in the CPI. The AFL (American Federation of Labor) and CIO (Congress of Industrial Organizations) began a series of vigorous attacks on the CPI, arguing that it was biased and understated rates of price inflation.<sup>2</sup>

Because of the priorities of war production, business investment and home construction dropped

sharply during the war; in fact, residential construction nearly ceased. Real per capita consumption was no larger in 1944 than in 1941 and was even less in 1942 and 1943. The decline was concentrated in durable goods consumption.

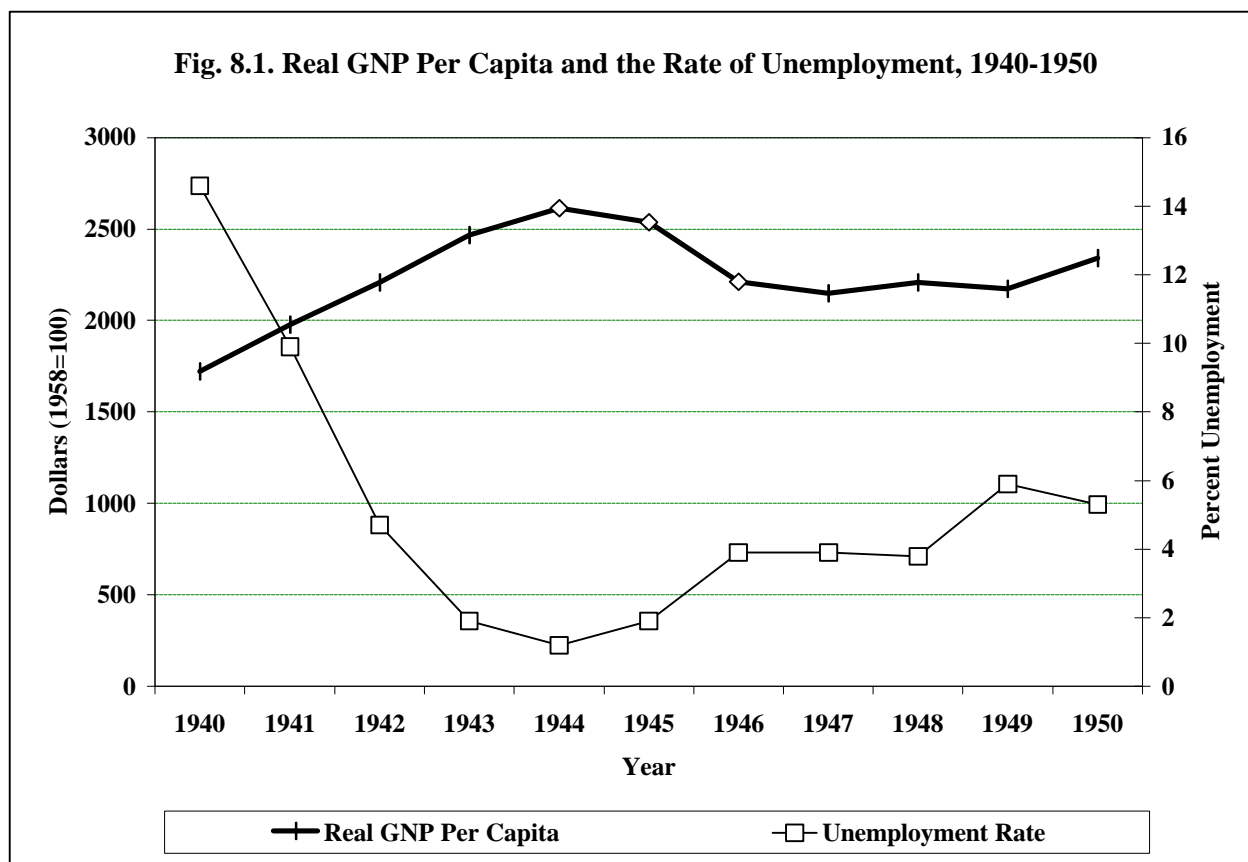
### *Administrative Changes During the War*

Because it is easy to become lost among the "alphabet agencies" created to administer and control war and civilian production, we will concentrate on the most important of these agencies and administrative changes.<sup>3</sup> In May of 1940, an Office for Emergency Management (OEM) was created; in January of 1941, the Office of Production Management (OPM) took over establishing production and procurement priorities. The Office of Price Administration and Civilian Supply—set up in August of 1941—had the task of providing price guidelines to reduce inflation and guidelines to the OPM concerning essential and nonessential civilian goods. Prior to December of 1941, these two agencies were not very successful. They had limited powers and were "ungainly, lumbering, tortuously fashioned administrative structure[s]."<sup>4</sup>

With the entrance into the war after the attack on Pearl Harbor, changes were made in the administrative machinery. The War Production Board (WPB) replaced several prewar agencies and concentrated its efforts in the allocation of raw and semifinished materials among producers. The Office of Price Administration (OPA) was made a separate agency. The War Labor Board (WLB) worked with the Employment Service and the National Labor Relations Board to stabilize wages and ensure smooth labor-management relations. To make sure that it was able to stabilize wages, the WLB was given the power to seize plants and firms that violated wage guidelines. It could cancel contracts, request that the WPB deny a firm's priority in resource allocation, and refer firms to the Bureau of Internal Revenue for the disallowance of tax deductions on wages paid in excess of the WLB's directives.<sup>5</sup> In order to develop more unified programs and policies, the Office of War Mobilization (OWM) was created in 1943 and given a status equal to that of the OEM and the WPB. By the end of the war 165 agencies had been created. This proliferation of agencies, many of which were independent of the others led to conflicting directives, edicts, and bans in the attempt to mobilize and direct resources for war production.<sup>6</sup>

In spite of the administrative problems the U.S. economy produced a massive amount of war

**Fig. 8.1. Real GNP Per Capita and the Rate of Unemployment, 1940-1950**



materials. Prior to the Second World War, the United States had produced less than 1,200 combat planes and less than 1,200 tanks.<sup>7</sup> During the five years of the war, the United States built nearly 300,000 planes, over 72,000 naval ships, nearly 5,000 merchant ships, 17,000 tanks, and 17.4 million rifles, carbines, and side arms.<sup>8</sup> By 1944 the United States was producing 40 percent of the world's armaments, and its production supported the entire Allied war effort.<sup>9</sup> So prodigious was the American production of war goods that by the summer of 1944 the WPB actually cut back on military production.

### *Mobilizing the Population*

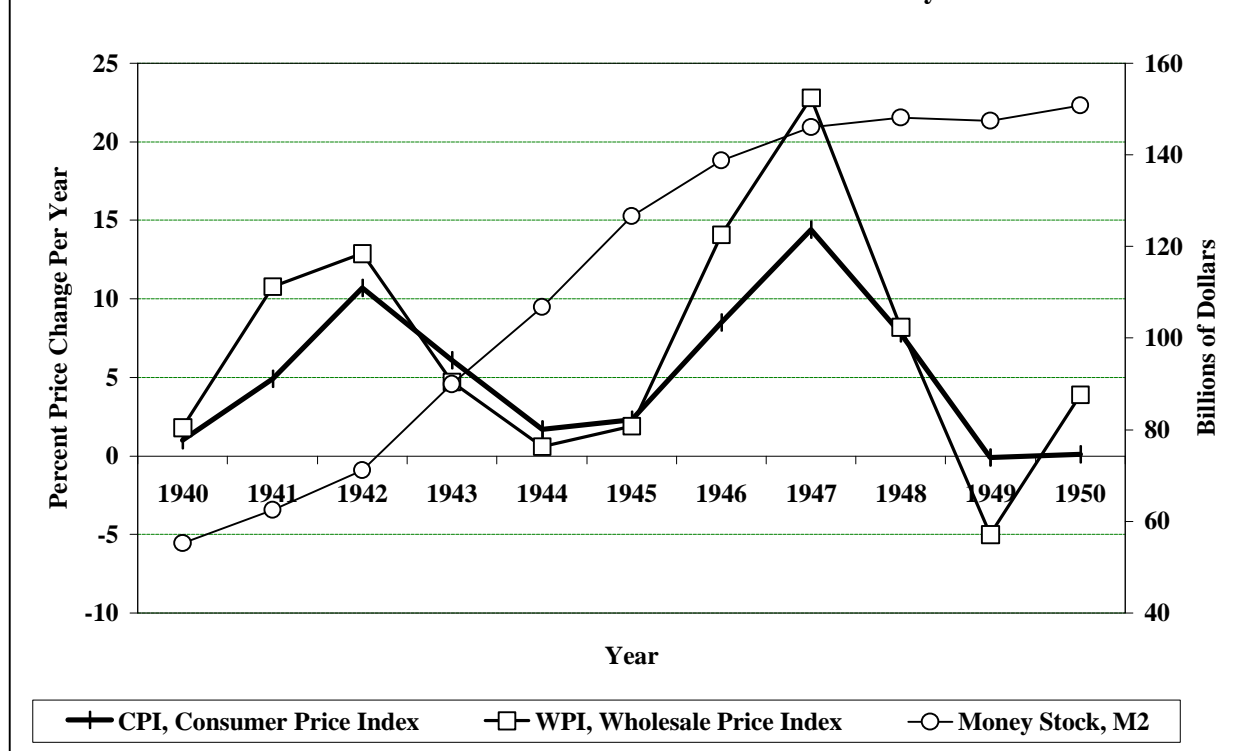
The entry of the United States into the war led to explosive increases in military personnel. From less than 500,000 men and women on active duty in 1940, the number increased to over twelve million in 1945. However, even with an increase of more than 11.5 million military personnel, the civilian labor force declined only 1.78 million during the war. (See Figure 8.3.) There were a number of sources for this additional labor. Unemployment effectively disappeared, and the overall participation rate also increased. In 1940 less than 28 percent of the women of working age were in the labor force, compared to over 36 percent by 1944. Even so, by the beginning of 1943, there was a labor shortage. Firms began

pirating and hoarding labor and, in spite of controls, nominal and real wage rates rose, as did the average work week in manufacturing.

Mobilizing all of this labor produced many problems. War production tended to be concentrated in the industrial midwest and coastal states, particularly in the west. This required a substantial migration as blacks and farm labor moved from Southern and rural areas to industrial locations. Laborers just entering or reentering the labor force and workers moving to new jobs in war plants often had no skills or skills that were not adaptable to the production of war materials. Worker placement then included refresher courses, vocational training, and accelerated in-plant apprenticeship programs to overcome labor shortages.

In midwestern and coastal cities where new war plants were located, the influx of new workers resulted in shortages of housing and other services. Temporary housing construction was accelerated in an attempt to relieve the congestion. As more women entered the labor force, child care services had to be provided, though these virtually ceased at the end of the war. The migration of blacks to cities with concentrations of war production and the entry of women into the labor force brought a rising tide of discrimination complaints. To reduce discrimination in 1941 President Roosevelt ordered the

**Fig. 8.2. Rates of Change in the Consumer Price Index and the Wholesale Price Index and the Level of the Stock of Money**



establishment of a Fair Employment Practices Committee.<sup>10</sup>

**Unions.** Both the AFL and the CIO increased their membership by about two thirds during the war. By 1945 union members were 35.8 percent of the nonagricultural labor force, and they remained at about one third well into the 1950s. Increasing union membership was due to the effectiveness of the National Labor Relations Act and the scarcity of labor during the war. In addition the War Labor Board agreed to a “maintenance of membership” feature. New hires in a unionized plant automatically became union members unless they contracted out of this within 15 days of their employment.

Other agreements between unions and wartime administrators did not work as smoothly. A no-strike agreement was widely violated by wildcat strikes, though most were less than five days long.<sup>11</sup> Twice Roosevelt seized the coalmines because of strikes. Late in 1943 the railroads were seized for three weeks due to a strike threat. In fact, 63 government seizures were recorded during the war.<sup>12</sup> Most of the strikes concerned wage rates because the War Labor Board attempted to keep wage rate increases below the cost of living increases to reduce inflationary pressures and refused to grant wage rate increases to reflect rising productivity. In 1943 the

War Manpower Commission decided to freeze selected workers in their current employment if their jobs were in essential lines of production. This also incurred the wrath of labor because it stopped workers from moving to higher paying jobs.

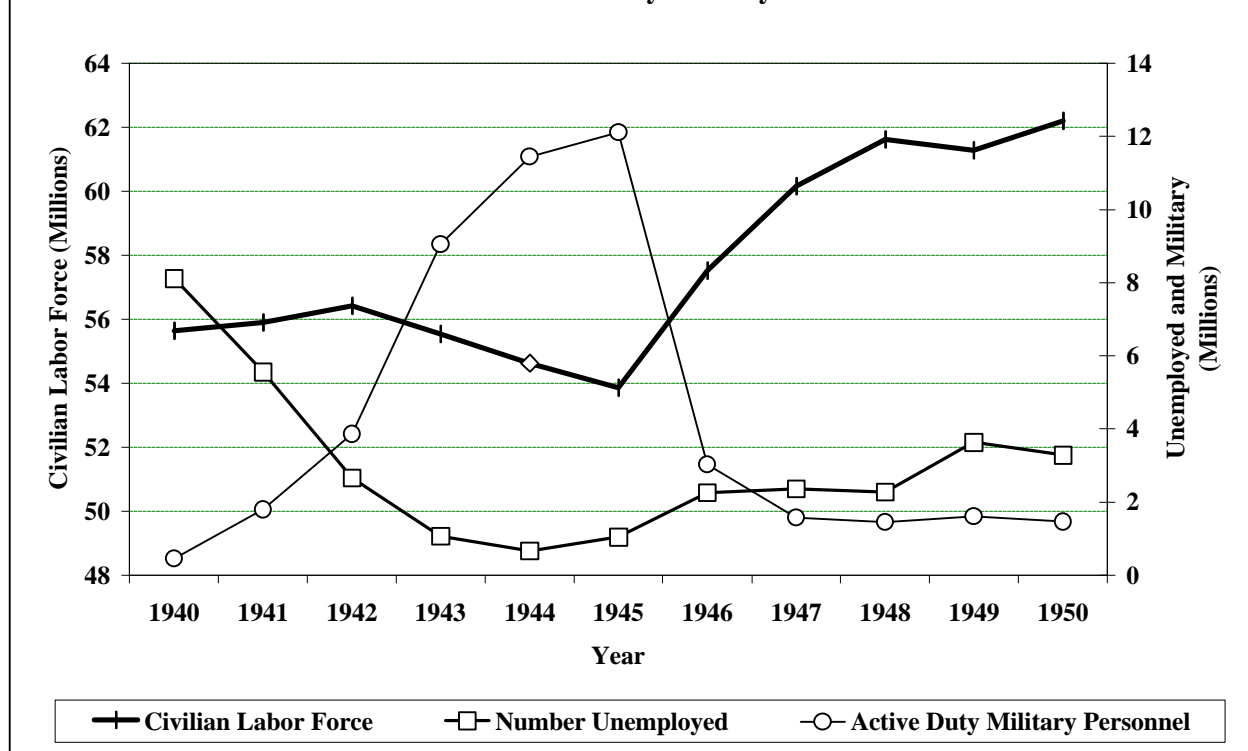
As Figure 8.4 shows, real manufacturing wage rates did rise, and combined with the increases in the average hours worked each week, real weekly and annual incomes rose during the war. The WLB did allow increases in fringe benefits because this did not directly increase wages and was construed as less inflationary. Workers received more vacations, holiday pay, higher overtime pay, work-shift premiums, health insurance, and other fringe benefits. The strike activity in 1943 led to the Smith-Connally Antistrike Act. On the whole, by the end of the war unions were in the strongest position they had ever held in the American economy.

### ***Expanding Production***

The expansion of agricultural and industrial production during the war, with fewer workers, was a dramatic accomplishment. Transportation, which had been a serious bottleneck in the First World War, did not cause problems in the Second World War.

**Agriculture.** By the time the United States entered the war, agricultural exports had eliminated the large stored surpluses of the 1930s.<sup>13</sup> Farm

**Fig. 8.3. The Civilian Labor Force, the Number Unemployed, and the Number of Active Duty Military Personnel**



production expanded by 17 percent during the war, while farm employment and population fell. The average size of farms rose 11 percent during the war. The transformation to tractor-based farming continued while farm productivity rose sharply. A large share of all farm production was exported to Allied nations and used to feed the armed forces.

This increased production was accomplished by the use of more tractors and other implements that released additional land for the production of crops for human consumption; by the greater use of wives and teenage children of farm families; by mechanical and scientific advances; and by the continued extension of electrical service to farmers. Continued genetic research and new insecticides and herbicides such as DDT and 2,4-D also raised farm productivity. Farm prices increased. The rising productivity and prices raised farm incomes, allowing farmers to reduce their mortgage indebtedness by 28 percent. Unlike during the First World War, few farmers went deeply into debt to expand.

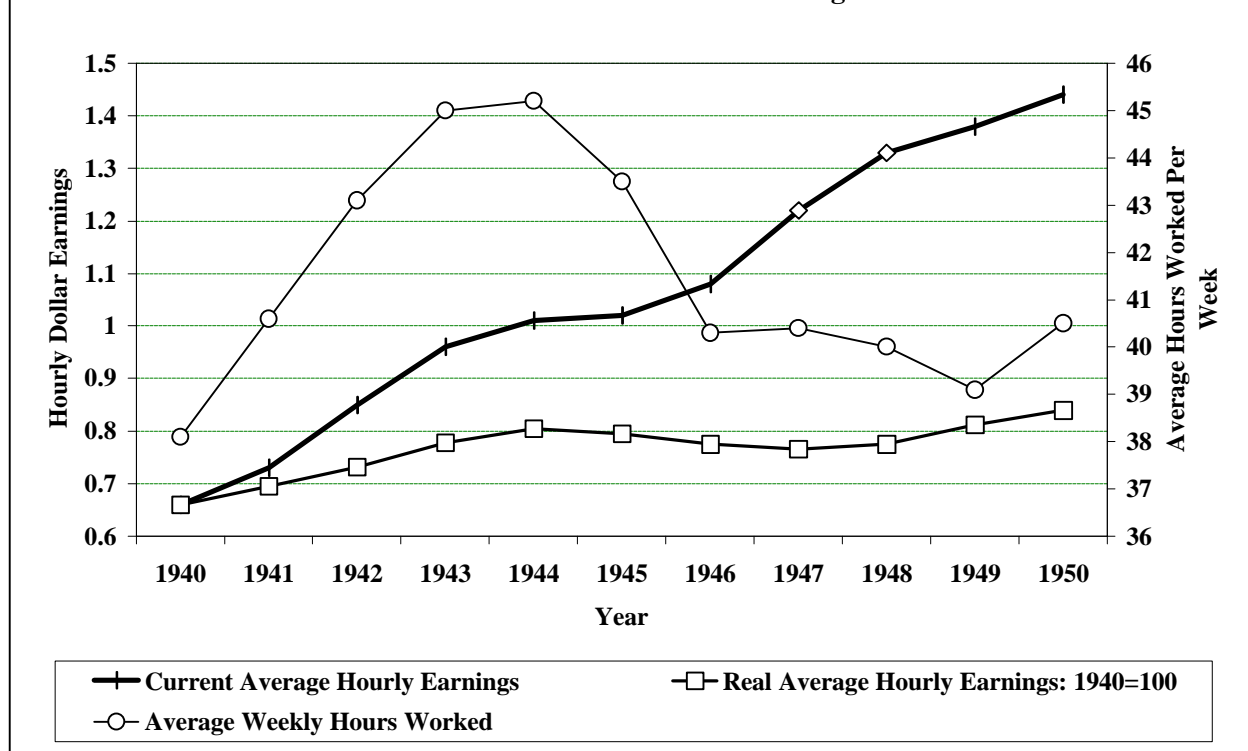
**Industry.** Manufacturing production expanded rapidly, while the growth of mining and utilities was much more modest and consistent throughout the 1940s. In manufacturing most of the growth came from the need for durable goods for the war effort. To facilitate this, the production of most consumer durable goods, such as cars, refrigerators,

sewing machines, and bicycles, was suspended for the duration of the war. By 1942 shortages of some materials appeared. New plants solved the aluminum shortages. Gasoline and fuel oil shortages were largely confined to the East Coast due to transportation difficulties, but the government built pipelines that alleviated these problems. Though rubber shortages occurred when the Japanese invasion cut off Southeast Asian supplies, the rapid expansion of synthetic neoprene and, particularly, buna rubber production eliminated all shortages by 1944.<sup>14</sup>

During the war American technological developments far surpassed those of Great Britain, Germany, Japan, and other countries while the production of war materials generally resulted in a great diffusion of existing and new technical knowledge and expertise.<sup>15</sup> There were no lightning technological breakthroughs. Instead, there was a continued accumulation of small developments and steady improvements due to the learning process.

The expansion of military production by American industry proved to be a task that was neither easy nor quickly embraced.<sup>16</sup> Prior to December, 1941, business was reluctant to accept the new defense contracts because of worries about the possibility of substantial excess capacity if new plants were built, limitations on returns on

**Fig. 8.4. Current and Real Average Hourly Earnings and the Average Weekly Hours Worked in Manufacturing**



investment or excess-profits taxes, and if government financed the new capacity, the possibility that it might move to competitively restructure the industry. Finally, most businesses were again producing for a newly robust civilian market and were not anxious to forgo this for much more risky defense production. The result was what some business critics called the “strike of capital” in the summer of 1940.<sup>17</sup>

Several solutions to the problem of obtaining business cooperation were adopted. Advertised competitive bidding was for the most part discarded. In its place cost-plus-fixed-fee contracts were negotiated with businesses able to satisfy the military requirements. The fixed fee was usually limited to 7 percent of the *estimated* costs. However, as production geared up, the learning curve allowed most producers to lower costs, and fixed fees as a percent of costs then rose substantially. The effect of cost-plus-fixed-fee contracts was to guarantee businesses a profit.

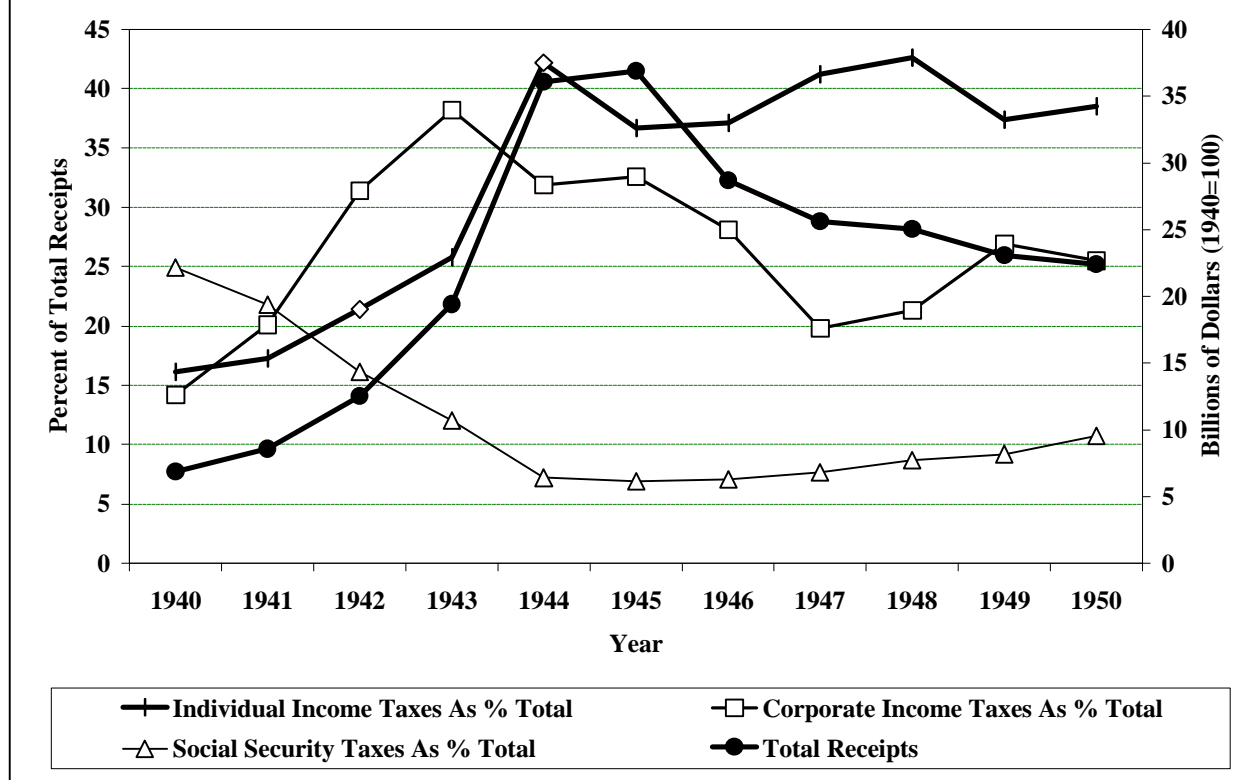
Advance payments and progress payments provided working capital, reducing business borrowing. Tax laws were changed. Corporate profits taxes were increased and excess-profits taxes imposed. However, Congress allowed an accelerated depreciation of facilities built for war production, and loss carry-back provisions on corporate income taxes provided a form of income averaging, further

reducing the likelihood of businesses paying excess-profits taxes.

To overcome business inertia in the construction of facilities, Congress allowed the army and navy to directly construct plants, which were then leased to private operating companies.<sup>18</sup> As a result most of the risks were again borne by the government. From July 1940 through June 1945, one third of all corporate plant construction was financed by the federal government, while over 70 percent was government-financed in the basic metals, metal fabricating, and chemicals industries.<sup>19</sup> By June of 1945, some estimates found that the federal government’s Defense Plant Corporation owned between 10 and 12 percent of American industrial capacity. At the end of the war, 90 percent of the facilities to produce synthetic rubber, aircraft, magnesium, and ships; 70 percent of the facilities to produce aluminum; and 50 percent of the facilities to produce machine tools were DPC owned.<sup>20</sup> The corporate lessees had great freedom in operating these plants and generally expected to be able to purchase the plant after the war at a “fair” price.

One of the enduring criticisms of the process was that most contracts and production went to the large corporate firms.<sup>21</sup> In July, 1941, six large firms held nearly one third of all military contracts, and by the middle of 1944, 26 large corporations leased 50

**Fig. 8.5. Federal Government Receipts and Its Components**



percent of all Defense Plant Corporation facilities. In response to complaints that small firms were unable to obtain contracts, Congress authorized the creation of the Smaller War Plants Corporation (SWPC) but on the whole it was not very successful. Smaller firms did better at becoming subcontractors, and estimates suggest that 30 percent of war production was subcontracted to the smaller firms. The issue of the treatment of smaller firms surfaced again during reconversion and the disposal of surplus war facilities.

**Transportation.** There was concern about the performance of the transportation system as the war began, but the fears turned out to be unwarranted. The Second World War marked the last great period of prosperity for the railroads. During the war the movement of freight and passengers by motor vehicles was reduced through gasoline rationing to reduce rubber tire consumption. Inland waterway traffic also dropped because the military production bound for the coasts generally could not move this way. The share for oil pipelines rose because of government construction of oil pipelines. Railroads' share of freight traffic rose by over 9 percent from 1940 to 1943 and then slipped slightly through 1946. Railroad passenger traffic showed an even greater rise as wartime gasoline rationing led travelers to switch to the trains. With the end of the

war, railroad passenger traffic commenced on a sharp decline that would continue into the 1970s.

### *Financing the War*

To finance the war, the federal government drew on its experience in raising funds during the First World War, maintaining the income tax system during the interwar period, and selling debt during the 1930s.<sup>22</sup> Taxes were raised almost everywhere possible; however, taxes provided only about 46 percent of the federal expenditures during the war. The bulk of the increased tax receipts came from increased personal and corporate income taxes. Figure 8.5 shows how individual federal income taxes collected changed during the war.

Though personal income taxes had increased during the 1930s, they continued to focus on the upper income families and individuals. As war preparations were made the personal exemptions declined, the rates rose, and the level of income at which taxes were first paid dropped. (See Table 8.1.) With the onset of the war in 1942, rates were raised dramatically. By 1945 individual income tax receipts were 20 times larger than in 1940.<sup>23</sup> In June of 1943, Congress approved the Current Tax Payment Act. Drawing upon experience with the pay-as-you-go Social Security taxes, federal income taxes were now to be withheld by the employer as incomes were

**Table 8.1 Individual Income Tax Brackets**

<u>Year</u>	<u>Personal Exemptions</u>		<u>First Bracket</u>		<u>Top Bracket</u>	
	<u>Single</u>	<u>Married, 2 Dependents</u>	<u>Rate</u>	<u>Income</u>	<u>Rate</u>	<u>Income</u>
1936-39	1,000	3,300	4.0	6,000	79.0	5,000,000
1940	800	2,800	4.4	4,000	81.1	5,000,000
1941	750	2,300	10.0	2,000	81.0	5,000,000
1942-43	500	1,900	19.0	2,000	88.0	200,000
1944-45	500	2,000	23.0	2,000	94.0	200,000
1946-47	500	2,000	19.0	2,000	86.45	200,000
1948-49	600	2,400	16.6	2,000	82.13	200,000
1950	600	2,400	17.4	2,000	84.36	200,000

**Source:** Department of Commerce, *Historical Statistics of the United States: Colonial Times to 1970* (Washington, D.C.: U.S. Government Printing Office, 1976).

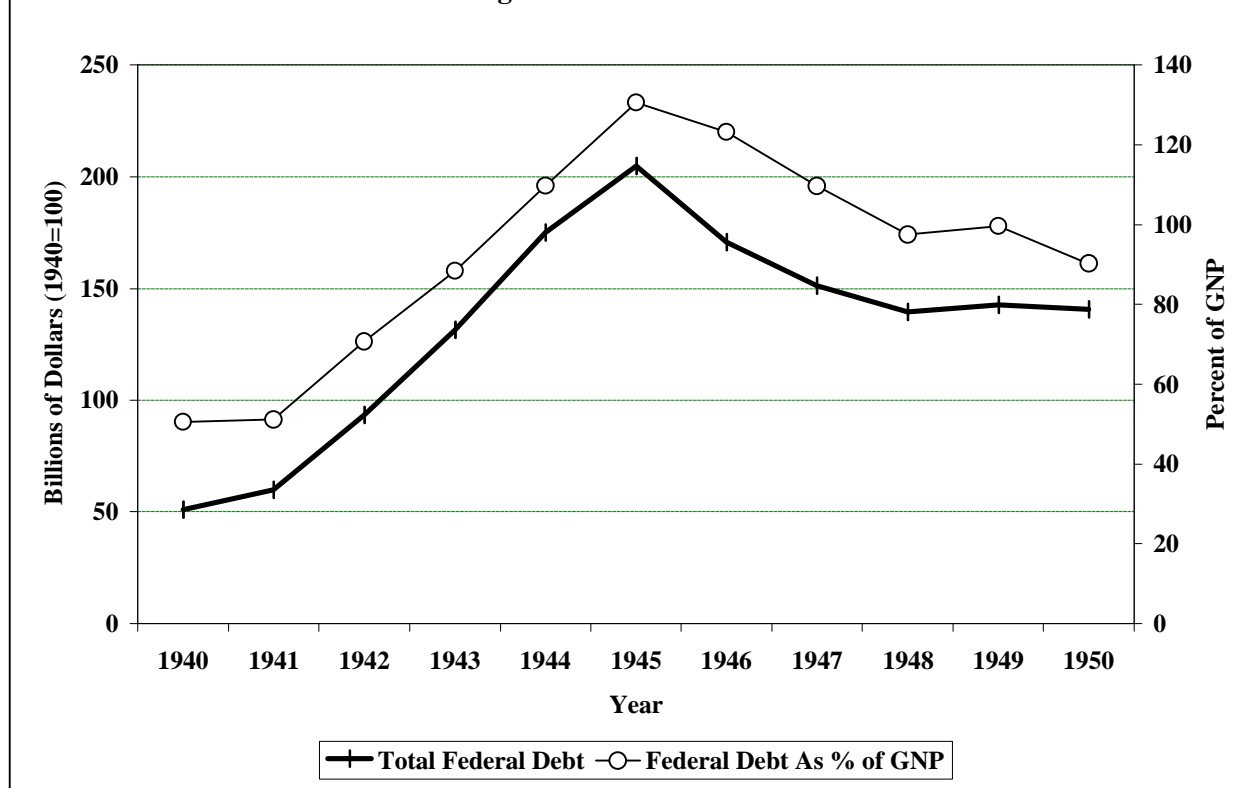
received. This move reduced borrowing problems for the government, reduced collection costs, and made it more difficult for individuals to avoid paying personal income taxes.

Though other taxes were also increased, personal and corporate income taxes provided the bulk of the tax revenues. The Second World War transformed the federal income tax into a nearly universal tax, something that was almost inevitable given the revenue demands generated by the war. At

the end of the war, few families and individuals escaped paying some federal income taxes. The withholding feature was adopted by the states as more and more of them imposed income taxes.

The portion of federal expenditures financed by tax receipts during the Second World War was smaller than the portion financed by tax receipts during the First World War. Part of the difference is explained by the much more costly nature of the Second World War compared to the First World War.

**Fig. 8.6. The Federal Debt**



Congress also had to consider the disincentives to work and produce that might have arisen if taxes had been made even higher for most families and individuals. By the end of the war, there were signs that patriotism was becoming less effective in eliciting the participation of the civilian population in the war effort.

The other method of financing the war was through direct borrowing. Figure 8.6 shows both the level of the federal debt and the federal debt as a percent of Gross National Product from 1940 through 1950. As can be seen, there was a huge increase in the federal debt because about 54 percent of the expenditures during the war were financed by federal borrowing. The debt as a percent of GNP rose from 50.6 percent in 1940 to 130.5 percent in 1945, the largest relative debt in the history of the United States, and then began to decline.

There were seven War Loan drives and a final Victory Loan drive between November 1942 and December 1945. These were aimed at institutional and individual investors believing that sale of these bonds would reduce their cash and thus reduce inflationary pressures. Banks were allowed to create War Loan deposit accounts whereby funds were loaned to individuals to purchase federal securities. These accounts carried no reserve requirements.

Because the stock of money expanded rapidly during the war and taxes did not rise enough to soak up all of the excess real and nominal income, one would have expected a rapid price inflation. Though prices rose more rapidly in 1941 and 1942, they rose much more slowly until the end of the war in 1945. This was due to the extensive array of wage and price controls and rationing imposed on the civilian economy. Controlling prices and rationing goods and services left civilians with considerable income that they could invest in government bonds directly or indirectly by placing the funds in banks, which then invested in government bonds. The controls therefore became an additional way to force consumers to save and thus transfer real resources to the federal government.

### ***Wage and Price Controls***

Roosevelt's first moves toward wage and price controls came when he established a Price Stabilization Division of the National Defense Advisory Council on May 29, 1940, but it had little effect because compliance was voluntary.<sup>24</sup> On April 11, 1941, the Office of Price Administration (OPA) was established. After Pearl Harbor this office was given the power to require that its price guidelines be adhered to. On April 28, 1942, the Office of Price Administration issued the General Maximum Price

Regulation (GMPR) which froze prices at the highest level reached in March of 1942. In April, 1943, President Roosevelt issued the famous "Hold the Line" Order to stop further price increases. A full-fledged set of wage and price controls combined with rationing were imposed and held in place until VJ Day when Japan surrendered. From VJ Day to June 1946, there was a diminishing influence of these controls. In June of 1946, wage and price controls were removed, but complaints about rising prices led to their selective reimposition in July of 1946. They were removed for good in October of that year.

### ***The Rationing of Consumer Goods.***

According to Hugh Rockoff, the *siege motive* was the initial rationale behind the rationing programs as the government sought to more fairly ration goods and ensure that shortsighted consumers spread out their consumption. Another rationale that soon appeared was to *aid in the enforcement of price controls*. By assuring each consumer of a small share of a commodity, rationing inhibited the scramble for supplies that produces black markets and other forms of evasion. Food rationing, in particular, was undertaken to aid in the enforcement of price controls.<sup>25</sup> Tires were the first commodity to be rationed, because the war cut off natural rubber supplies from Southeast Asia. To reduce the wear of existing tires on automobiles, gasoline was rationed to reduce driving. Durable goods were also soon rationed as manufacturers switched to the production of munitions.

***Rationing Techniques.*** The government used two primary rationing techniques: the *unit system* and the *point system*. Under the unit system a ration ticket permitted the consumer to purchase a specified quantity of the rationed good at the fixed monetary price. This was used for most products other than processed foods, meats, and fats. The share for each consumer could be made equal or, as for gasoline, relatively complex to tailor the consumer's ration to his or her "needs."

The point system was used to ration processed foods [the "blue" point system] and meats and fats [the "red" point system]. Under point rationing the consumer was given a certain number of points that could be used to purchase a specified range of rationed commodities that sold at varying point prices. The consumer had to pay the controlled money prices for the food products. According to Rockoff, this allowed consumers some choice while still receiving a fair share of the controlled commodity. "The system also gave the rationing authorities some flexibility: they could alter point prices to correct imbalances between supply and demand of particular commodities."<sup>26</sup>



**Problems with Price Controls and Rationing.** The ration tickets were like currency and were frequently referred to as ration currency. Consequently there was *counterfeiting* of ration coupons and sometimes *currency overissue*, which lead to *point inflation*, or bare shelves, an issue which became critical in late 1944 when the OPA invalidated all small-change tokens to ensure that they could not be accumulated and then used to empty store shelves.<sup>27</sup>

A third problem with rationing was *market efficiency*. Because prices could not adjust between commodities and regional variation of prices for a single commodity could not occur, prices could not reallocate supplies, and locational shortages developed. Shortages of fluid milk in various southern and western cities arose in 1942 and 1943.<sup>28</sup> The gasoline market in the northeast was plagued by shortages,<sup>29</sup> and shortages of clothing, particularly in the west and in rural areas, periodically appeared.

A fourth problem was with *evasion* of the rationing controls, which became widespread toward the end of the war. To suppress evasion, the OPA had to seek more and more control over the market place. There were four sanctions: injunctions, license suspension, treble damage suits, and criminal proceedings. The treble damage suit was the most used sanction. The bulk of the OPA sanctions occurred in a few areas: for example, in 1944, 68.6 percent of the sanctions were in meat and dairy, groceries, agricultural commodities, gasoline rationing and rent.<sup>30</sup>

**Food.** Overcharging of food prices and tie-in sales were frequent events. Wholesalers complained that meat packers forced them to take a variety of unwanted products along with more desirable cuts. Quality deterioration, or “adulteration,” became a serious problem. Fat was added to hamburger. The butterfat content of milk was reduced. Cornstarch was added to spices. Coffee was stretched with fillers. Upgrading, where lower quality merchandise was sold as if it were higher quality, and shortweighting were common. A famous case was the “shrinking candy bar.” Between 1939 and 1943, 19 of 20 candy bars had shrunk in size, hiding a price increase of 23 percent. Candy makers also substituted inferior ingredients. The worst black market was in meat, particularly beef and poultry.

**Clothing.** This was a most difficult area for OPA because it was a highly diversified commodity and seasonal changes made it hard to specify prices. In addition to this, much cotton was used, and the cotton industry had powerful “friends” in Congress. Evasion took two forms: quality deterioration and forced uptrading. One official testified that quality deterioration took forms such as men’s shorts made

of cheesecloth with enough added sizing to give it form until washed once, women’s slips made of coarse, heavily sized muslin; “water-resistant” baby pants that allowed a third of a glass of water to drain through after being washed once; and cotton sweaters that were so loosely knit they could not hold their shape.<sup>31</sup> More important toward the end of the period was “forced uptrading” because profit margins were typically larger on higher priced lines.<sup>32</sup>

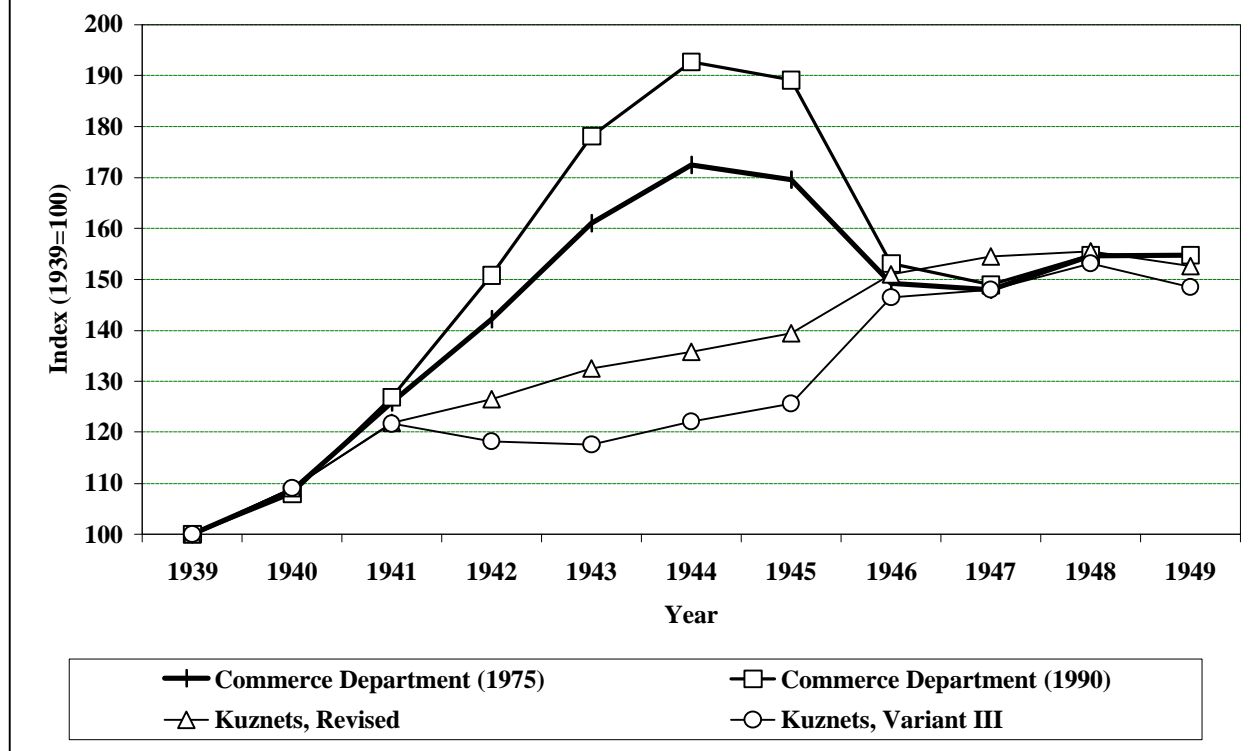
Firms were often concerned with the long-range impact of the controls, because some regulators saw the programs as a way to eliminate brands and trademarks to make markets, in their opinions, more “competitive.” For example, Coopers Incorporated, now Jockey International, did not engage in forced uptrading because it had no low-priced lines and did not object to the price controls. Rather, the firm objected to concentration and standardization programs that would have destroyed the value of the Jockey brand, which it had spent several decades creating.<sup>33</sup>

**Shelter.** Despite apparently widespread support for rent controls, evasion was widespread. Owner-occupied housing was not controlled. Rental owners could evict the current tenants and then sell the property to them, or anyone who would buy it, at the market price. This could be varied by allowing the purchaser to pay in monthly installments in which the accumulation of equity was extremely slow; that is, the tenant was simply paying rent above the legal maximum. Other forms of evasion included bribes and cash on the side. In Portland, Oregon, in June of 1946, rents ranged from \$38 to \$60 for five unfurnished rooms. Black market bribes ranged from \$5 to \$500 to get an apartment with monthly side payments of \$10 to \$15. In Chicago a six-room apartment could be rented for the OPA ceiling of \$75 per month; however, the tenant also had to buy the furniture for \$1,500. Maintenance expenditures were often reduced.<sup>34</sup>

**Fuel.** Often stations would sell gasoline without receiving ration coupons, and the counterfeiting of these coupons was common. Early in 1944 Chester Bowles estimated that 5 percent of all gasoline was purchased without coupons or with counterfeited or stolen coupons. By January of 1945, it was estimated that 1 of every 16 gasoline stations had sanctions imposed. Without price adjustments spot shortages arose, and quality deterioration was common.<sup>35</sup> Quality deterioration, upgrading, shortweighting, tie-in sales, and cash on the side were also common problems in coal.

**Rationing and Price Controls: Conclusions.** Rockoff argues that the controls did reduce inflation and “protect vulnerable incomes” as long as they were applied across the board and

**Fig. 8.7. Indexes of Real Gross National Product, 1939-1949**



backed up by committed enforcement and rationing. When controls were removed at the end of the war, prices surged. In his opinion the bureaucracy necessary to administer the controls during the Second World War was not really a “large” one. However, there was evidence of an extensive black market, which could have been controlled only by an “extension of governmental power that would have been unacceptable to most Americans in a peacetime economy.”<sup>36</sup>

Rockoff concludes that the state is able to control prices, but this necessitates a vast regimentation of economic life. Such a regimentation may be appropriate in times of war so as to protect the incomes of “vulnerable groups” and to reduce inflationary expectations. But the community has to be willing to accept this, and during the Second World War it was. As soon as the war ended, however, this was no longer the case; the costs of wage and price controls and rationing swung against the benefits, and they were ended.<sup>37</sup> Rockoff argues that it is the ultimate inevitability of the government regimentation of economic activity that “makes permanent controls on the the Second World War model an unacceptable alternative.”<sup>38</sup>

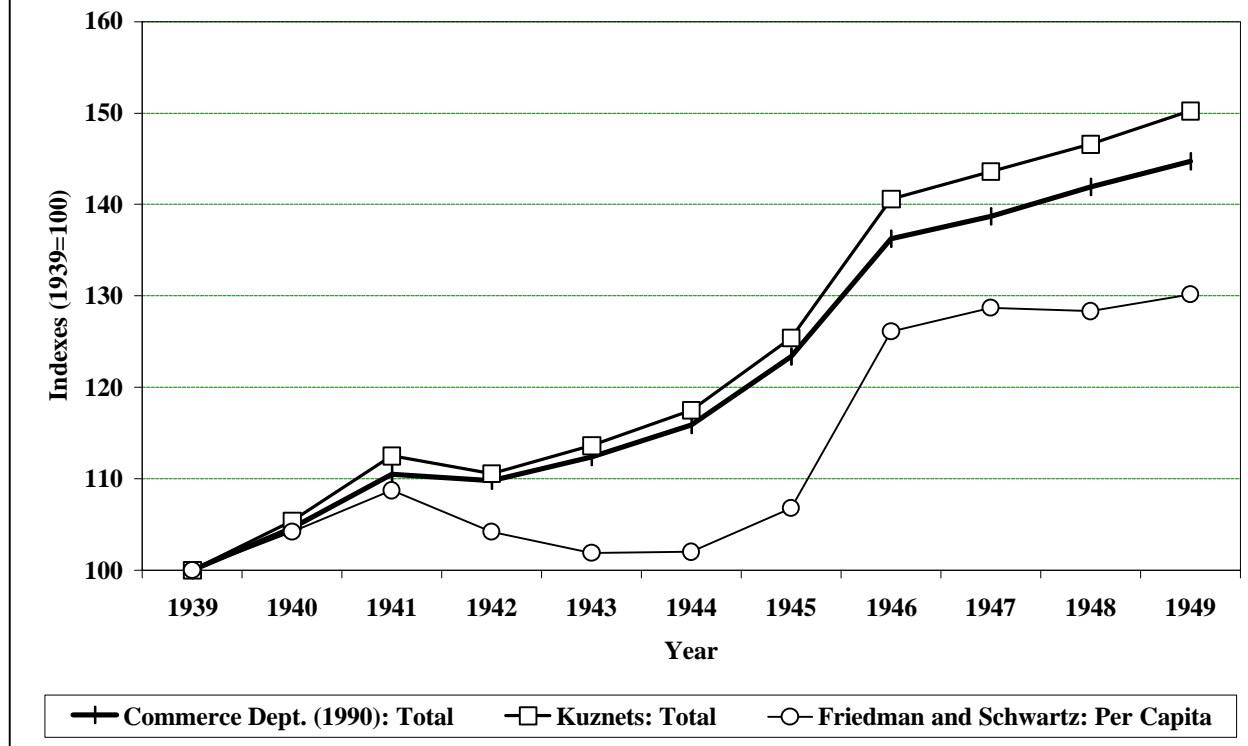
***The Second World War and the Recovery from the Thirties***

It has long been an article of faith that the Second World War brought an end to the long depression of the thirties. The rapid rise of government spending associated with the war was the missing Keynesian aggregate demand stimulus, and this brought about the move to full employment. This demonstration of the Keynesian model was probably the most important force in bringing about the quick acceptance of Keynesian theory in the postwar period.

But there have long been questions not only about what caused the recovery but also about how much recovery there was prior to 1946. For example, monetary policy changed dramatically as the Fed engineered a rapid expansion of the stock of money by expanding the high-powered money.<sup>39</sup> (See Figure 8.2.) Given such a monetary policy, one could hardly ascribe the expansion solely, or perhaps even primarily, to fiscal policy.

It has also been noted that there was a shift in demand toward the capital goods sectors, the sectors that had contracted the most during the thirties and then were hit with large relative wage increases from unionization at the end of the thirties. Thus, the nature of the war demands may have provided some coordinating price adjustments that otherwise would have been slower to occur and brought about a more rapid recovery.<sup>40</sup> In addition,

**Fig. 8.8. Indexes of Real Consumption and Real Consumption Per Capita**



the extra saving, voluntary and quasi-voluntary, allowed the rapid expansion of the production of war materials.<sup>41</sup>

However, since the early work of Simon Kuznets on the national income and product accounts, there have been questions about how much recovery actually occurred during the war. As Figure 8.7 shows, the official Department of Commerce data point to an enormous rise in real GNP during the war and an equally sharp drop after the war. Real consumption, outlined in Figure 8.8, shows a decline from 1941 to 1942 and a slower recovery until the end of the war. In real per capita terms, consumption declines and does not exceed its postwar value until 1946. Even this consumption series should be viewed with considerable skepticism because consumers were often forced into long-distance relocation for jobs and placed in crowded housing. Transportation became increasingly difficult as there were no new cars produced, used car prices rose sharply, and gasoline was rationed and increasingly unavailable. Many goods simply disappeared. "People were...working harder, longer, more inconveniently, and at greater physical risk in order to get the available goods."<sup>42</sup> This is hardly evidence of a pronounced recovery.

Robert Higgs has pointed out that by 1944 the armed forces had pulled in more people than the

total number of unemployed workers in 1940.<sup>43</sup> Between 1940 and 1943 the number of unemployed workers fell by 7.05 million, while the number in the armed forces rose by 8.4 million.<sup>44</sup> No macroeconomic model is required to understand why unemployment—one of the measures of the contraction—disappeared.

The sharp increases in GNP are also problematical. Simon Kuznets (a leader in developing national income accounting and primary creator of the United States' national income accounts) had criticized the figures because they inadequately corrected for inflation during the war and "did not satisfactorily deal with the decline in the relative prices of munitions during the war." Though the Commerce Department admitted that Kuznets' criticisms were correct, they would not make any corrections.<sup>45</sup> In 1952 Kuznets produced revised estimates of national product during the war years that showed no fall in real GNP after the war.<sup>46</sup> Kuznets also argued for a "peacetime" concept of GNP when examining long-term growth and to this end developed another GNP estimate, Variant III, which excluded military spending other than for military capital stock.<sup>47</sup> These estimates show a decline in real GNP during the war.

Finally, the figures themselves cannot be taken to mean what they would seem to mean.

During the war there were extensive price controls and rationing of commodities and services. Credit was controlled, and the government created a command economy to direct the allocation of scarce resources according to government priorities. But the national income statistics presuppose a free market system with uncontrolled prices. These figures simply cannot be compared to years when markets directed economic activity. The national income data showing such amazing prosperity during the war is simply not believable. As Higgs says, "As the war ended, real prosperity returned."<sup>48</sup>

### **The Postwar Boom**

Economists using the new Keynesian analysis said that when the war ended, the decline in government spending acting through the consumption multiplier would lead to a severe depression, and suggested that government spending remain at high levels to avoid this. The actual results were quite different. American consumers had been unable to purchase durable goods for four years; with the end of the war and the reconversion from military to civilian production, they went on a spending spree, buying houses, cars, refrigerators, furniture, and other durable consumer goods that had not been produced since the war began.

#### ***Demobilization and Reconversion***

As early as 1943, demobilization planning began. In 1944 Congress created the Office of War Mobilization and Reconversion (OWMR) to avoid the chaos that had reigned at the end of the First World War, but the advance preparation had little influence at the end of the war.<sup>49</sup> Termination of war production contracts had actually begun as early as 1943, and by 1944 some contracts were terminated with as little as three days notice.<sup>50</sup> In June of 1944, the War Production Board issued Priorities Regulation 25 directing the regional offices of the WPB to allow civilian production in plants where war contracts were fulfilled or terminated. The regional WPB offices could then allocate supplies to those plants. The issuance of PR 25 set off a bitter struggle; by the fall of 1944, there was little implementation of it. Barton Bernstein argued that in order to prevent smaller firms, whose contracts would have been terminated, from gaining a competitive advantage, particularly in the scramble for resources, big businesses effectively stopped the process.<sup>51</sup>

When the war ended with VJ Day on August 14, 1945 a battle ensued between the two most important agencies, the WPB under Julius Krug and the OPA under Chester Bowles.<sup>52</sup> With the end of the

war, Krug began a policy of deregulation, arguing that the free markets would rapidly employ the returning soldiers and modify any price increases. Bowles argued that price controls and resource allocations had to be gradually removed to modify unacceptable inflation, reduce big businesses' unfair advantage in obtaining scarce resources, and stop a likely shift toward the production of less essential, higher priced luxury items. Though President Truman issued a directive which apparently overrode Krug's decontrol program, he quickly began removing controls and by November 3, 1945 only 55 of 650 wartime control orders remained. The OPA more gradually removed price controls, and not until June of 1946 were all removed, only to have some briefly reimposed in July of 1946.

The majority of the government's capital investments were in separate facilities, but the rest were "scrambled" facilities, where government-constructed plants and equipment were intermingled with privately constructed and owned plants and equipment. In the case of scrambled facilities (about twenty-two hundred plants) the operators of the plants were clearly in a favorable position to purchase the facilities once the war ended; in fact, there probably was no other feasible alternative. The lessees of the separate plants usually had options allowing them to purchase the plants and equipment once the government's needs ceased at the end of the war.

On October 3, 1944, Congress passed the Surplus Property Act to ensure that the disposal of the facilities constructed by the DPC were consistent with their social goals, primarily strengthening small businesses, reducing monopolistic tendencies, and obtaining a "fair," or high, value for the properties.<sup>53</sup> The act's goals were not always consistent. For example, attempting to receive a high price for a facility often required selling it to a large or dominant firm rather than a smaller firm because the plants were designed for large scale production.

In only a few industries was concentration clearly affected by the disposal of surplus property. Dow Chemical was the only feasible purchaser of the magnesium plants. The synthetic rubber plants were largely sold to the dominant rubber firms. Concentration in the synthetic ammonia industry was reduced because government plants were sold to three new entrants, reducing the market shares of Allied Chemical and Du Pont.<sup>54</sup> The most famous case was aluminum. In 1945 the Aluminum Company of America, Alcoa, had been found guilty of monopolization. The War Assets Administration decided that with the antitrust decision it would be inappropriate to sell the surplus aluminum plants to Alcoa and finally elicited bids from the Kaiser and

Reynolds Corporations after obtaining Alcoa's agreement that it would share its patents and essentially guaranteeing that the two new firms would not incur losses in aluminum production.<sup>55</sup>

### ***Some Other Postwar Changes***

The combined impact of the new prosperity and the end of the war led American families to begin having more children. In spite of the war the population growth rate rose from 0.7 percent per year in the 1930s to 1.13 percent per year from 1940 to 1946. With the end of the war, the baby boom raised the rate of population growth to an average of 1.77 percent a year. This baby boom continued into the early 1960s when it quickly ended.

***Automobiles.*** The automobile industry had seen a dramatic decline in the number of producing firms in the interwar period, and no new firm had entered since the twenties. The great postwar demand for cars led to the entry of new companies. Crosley, Tucker, and Playboy all tried to enter but only Crosley succeeded in producing a car for a few years. The Kaiser-Fraser company did begin production in 1946. However, they were insufficiently capitalized and by 1957 had withdrawn from automobile production—though they continued to produce Jeep utility vehicles at Toledo, Ohio. Kaiser-Fraser and the independents, had paid premium prices for labor and capital to get into production and develop a market share and this led to serious financial difficulties in the early 1950s.<sup>56</sup>

***The Taft-Hartley Act.*** The 1935 Wagner Act, or National Labor Relations Act, had marked a significant change in government's role in labor markets by giving labor new bargaining powers. In the postwar period Congress passed the Taft-Hartley Act, or Labor-Management Act, the first major amendment to the Wagner Act. Union membership had grown during the war, attaining greater economic and political power. During 1944 to 1946 there was a wave of strikes as unions sought higher wages and more benefits, which had they had been unable to obtain during the war.

The Taft-Hartley Act, in many ways a reaction to this, established a number of definitions of unfair labor practices more or less paralleling the Wagner Act's definitions of unfair management practices. Closed shops, secondary boycotts, jurisdictional strikes, featherbedding, union discrimination against nonunion employees, and the requirement that unions had to engage in collective bargaining were part of the act. The postwar anxiety about communism was also seen in the requirement that the services of the NLRB would only be available to unions whose officers signed affidavits that they were not communists. Finally, the act

allowed the president to call a "cooling-off" period in strikes so that collective bargaining could resume, a feature that has been used a number of times since 1947.

***Veterans' Benefits.*** In 1944 Congress, worried about the unemployment of the returning veterans, passed the Servicemen's Readjustment Bill, more commonly known as the G.I. Bill. The bill provided for veterans to receive one year of unemployment allowances of \$20 a week, and about a million veterans received this during 1946 and 1947.<sup>57</sup> It also provided for subsidies to veterans to purchase farms and homes and for payments to veterans who enrolled in on-the-job or apprenticeship vocational training or in colleges.<sup>58</sup> Roughly a million veterans enrolled in colleges from 1946 through 1948, nearly 850,000 in 1949 and almost 600,000 in 1950. From 1946 to 1948, veterans made up from 40 to 50 percent of the total college enrollment. The act opened the way for similar acts for Korean and Vietnam war veterans.<sup>59</sup> In many ways the G.I. Bill and the inundation of veterans onto college campuses changed the nature and face of higher education.

***The Full-Employment Act.*** In 1946 the federal government passed the Full-Employment Act, which redefined some of the roles of the federal government. This was "proposed in embryo form as early as 1943 by the National Resources Planning Board," and sections of the Surplus Property Act of 1944 also foreshadowed it.<sup>60</sup> Richard Gardner has argued that the bill represents the United States' response to British demands during the Second World War that the United States stabilize its economy if the dollar were to become the reserve currency of a new international financial order.<sup>61</sup> This law marked a fundamental shift in the concept of government responsibility because it directed the government to adopt policies to maintain employment, maximize economic growth, and maintain stable prices. Jonathan Hughes argues that unlike the New Deal changes in the role of the federal government, this one can be termed "revolutionary" in its redefinition of the roles and responsibilities of the individual and the state.<sup>62</sup> However, Robert Higgs has argued that the "ratchet effect" has led government to expand its role in the economy after every crisis since the turn of the century.<sup>63</sup>

### ***Postwar International Developments***

The international economy had been in disarray throughout most of the interwar period and early in the war the United States began a call for a reduction in trade barriers.<sup>64</sup> The world's stock of monetary gold increasingly came to be concentrated in the United States during the war, and at the war's end the

United States held about two thirds of the world's monetary gold stock.

**Bretton Woods.** In July of 1944, the United Nations sponsored a conference at Bretton Woods, New Hampshire to consider the question of how to reconstitute the international economy. The representatives agreed to institute fixed exchange rates backed up by a stabilization fund to temporarily assist nations that were experiencing payments problems. The International Monetary Fund (IMF) was created as the stabilization loan fund envisioned by the United States with its monetary resources coming from the contributions of the member nations. The International Bank for Reconstruction and Development (IBRD) was created to facilitate the flow of long-term development capital, primarily to less developed countries, but it was always undercapitalized. The International Trade Organization (ITO) intended to promote freer trade through tariff and quota reductions, was stillborn. Some of the powers and goals of the ITO were resurrected in the General Agreement on Trade and Tariffs, or GATT, which arose in 1947 and was ratified in 1948.

**The Marshall Plan.** On June 5, 1947, in a commencement address at Harvard University, Secretary of State George Marshall proposed a program to bring about European recovery to relieve "hunger, poverty, desperation, and chaos."<sup>65</sup> The program, which France and Great Britain developed, treated Europe as a whole rather than as separate countries.<sup>66</sup> The Organization of European Economic Cooperation (OEEC) became the forerunner of the Schuman Plan of 1950, the European Coal and Steel Community of 1951, and finally of the European Common Market in 1957. As soon as a structure had been established in Europe and requests made, Congress passed an act directing that \$13 billion of aid be transmitted to Europe over a four year period.

Though Marshall's speech stressed humanitarian motives, the aid was also expected to stop the advances of communism in Europe. In addition, the economic recovery of Europe was expected to boost international trade and this would benefit American businesses. The Marshall Plan did stop the further encroachment of communism in Europe and accelerated the economic recovery of the war-torn European economies. Large amounts of raw materials and foodstuffs were shipped to Europe and allocated by the OEEC under the plan. However, it appears that the main reason the aid plan seemed to work so well was that the European nations already had skilled labor and the requisite technical knowledge. As the United States was to learn, aid sent to nations where these skills and knowledge did not exist did not produce the same results.

### ***Was It a Postwar Boom or "The Great Depression of 1946"?***

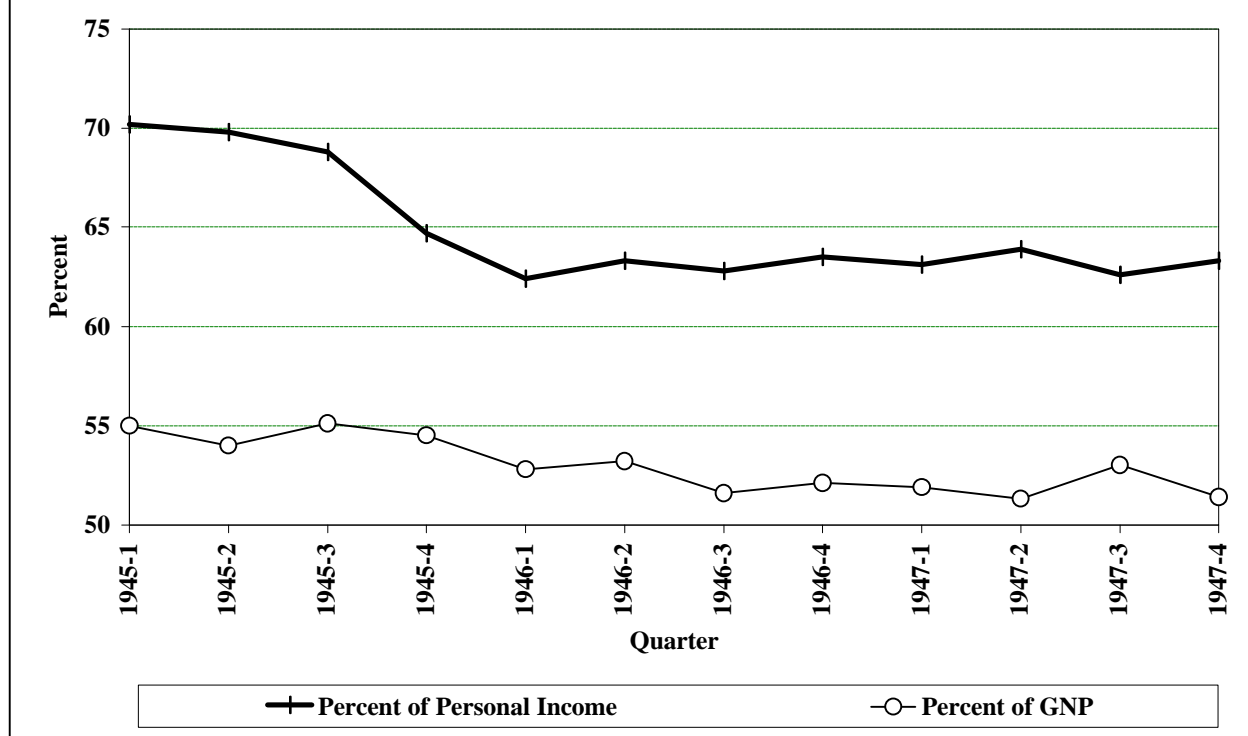
Although contemporary observers and later analysts have always called the immediate postwar years a boom period, someone examining a recent *Economic Report of the President*, say for 1990, would find that those figures show something else. The fall in real GNP from 1945 to 1946 was 19 percent, the largest single-year decline recorded for the United States, and the decline from 1944 to 1947 was nearly 23 percent, with nearly a 25 percent decline in real GNP per capita. Real GNP per capita did not regain its 1944 level until 1964, an astounding 20-year depression.<sup>67</sup> And this occurred with the rate of unemployment never rising as high as four percent between 1945 and 1948. In fact, as one traces through the annual *Economic Reports of the President* since 1960, this "depression," though mild at first, grows longer and deeper in each of the following *Reports*.

As was pointed out above, there is good reason to believe that the Commerce Department's real GNP figures for the war years are unrealistically high, and it is likely that real GNP, like real consumption, rose when the war ended. As Richard Vedder and Lowell Gallaway have shown, the unusual and, over time, increasingly severe contraction in the immediate postwar years is a statistical artifact.<sup>68</sup> The price index used to compute real GNP uses current period weights, which change every year. These changing weights combined with a faster rate of increase in the price of government goods and services have combined over time to make the postwar downturn become greater. Their estimates show no such significant decline. There was, in fact, an economic boom in the postwar years.

This boom occurred in the midst of an enormous decline in federal spending and a change from a budget deficit to a budget surplus. In 1944 and 1945 Keynesians were arguing that the expected decline in federal spending would lead to a severe depression at the end of the war. When the depression did not occur, it was explained by the opening of the pent-up demand for consumer goods. Vedder and Gallaway have argued that this interpretation is in error. From the second quarter of 1945 through the first quarter of 1946, the increase in consumption spending was only 20 percent of the decline in federal spending, and the increase in consumption and investment spending together were still \$20 billion short of the decline in government spending. Consumption spending did not rise above predicted levels until 1947.<sup>69</sup>

What does explain the boom and the employment of the 10.5 million men released from the armed forces? Vedder and Gallaway argue that

**Fig. 8.9. Employee Compensation as a Percent of GNP and as a Percent of Personal Income**



real wage rates declined and made it worthwhile for firms to employ the returning veterans. Using different estimates of the wage rate and price index, they found that almost all show declines in real wages—a median decline of 2.35 percent in 1946 and a median decline from 1945 of 7.15 percent in 1947.<sup>70</sup> A more accurate measure is the change in employee compensation as a percent of GNP or of personal income. These two measures are shown in Figure 8.9 and show the effect of falling real wages.

In addition to money wages not rising as fast as prices, part of the decline was due to the elimination of overtime work, because New Deal legislation had mandated time-and-a-half pay for overtime work, and part may have been due to some decline in union power in the immediate postwar years. The falling real wages spurred employment, increased corporate profits, and helped spur business investment demand, “the only truly robust component of aggregate demand” from the end of the war to 1947.<sup>71</sup> Thus, Vedder and Gallaway argue that neglected real wage adjustments in the labor markets were the driving force behind the immediate postwar boom.

### The United States at the End of the 1940s

The United States emerged from the Second World War with a strong economy. The dreary depression and war years were over, and its citizens could return to the business of producing and consuming goods. As the “arsenal of democracy,” it began providing a flow of consumer and military goods to other nations. But there were other important changes. With the end of the war, the United States, under the direction of the Federal Reserve System, embarked on a course of inflation from which no end is in sight. The war provided the opportunity to expand the personal income tax base to nearly the entire population and to raise the rates. And, at the conclusion of the war, the federal government stated its direct responsibility for guiding and controlling aggregate economic activity, and this was a momentous change.

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## Notes

1. Most of the discussion in this chapter is drawn from Harold G. Vatter, *The U.S. Economy in World War II* (New York: Columbia University Press, 1985). Another source of information is Alan S. Milward, *War, Economy and Society, 1939-1945* (Berkeley: University of California Press, 1979).
2. See Kathryn Smul Arnow, "The Attack on the Cost of Living Index," in Harold Stein, ed., *Public Administration and Policy Development: A Case Book* (New York: Harcourt, Brace and Company, 1952).
3. Most of this section draws upon Vatter, *The U.S. Economy in the Second World War*, chapters 2 and 4. Also see Otis Graham, Jr., *Toward a Planned Society: From Roosevelt to Nixon* (New York: Oxford University Press, 1976); as cited in Jonathan Hughes, *American Economic History*, 3d ed. (Glenview, IL: Scott, Foresman and Company, 1987), 494.
4. Vatter, *The U.S. Economy in World War II*, 37, 39.
5. The War Labor Board incurred the wrath of labor by carrying out the provisions of the 1943 Smith-Connally Antistrike Act. But it also received bitter denunciations from business for violating the wage guidelines by allowing great increases in fringe benefits, directing that women receive equal wages for equal work, requiring the removal of intraplant inequities and implementation of uniform wage structures, and protecting several union interests. Vatter, *The U.S. Economy in the Second World War*, 79.
6. *Ibid.*, 70-71.
7. Harry N. Scheiber, Harold G. Vatter, and Harold Underwood Faulkner, *American Economic History* (New York: Harper and Row, 1976), 408.
8. *Ibid.*, p. 408; and, Vatter, *The U.S. Economy in the Second World War*, 23.



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9. Alan S. Milward, *War, Economy and Society: 1939-1945*, 67.
  10. One of the most serious cases of discrimination is still a controversial topic. In March 1942, 110,000 Japanese were harshly forced to leave their West Coast homes and businesses and “relocate” to ten internment camps. Most of those interned were *Nisei*, or American citizens. The relocation destroyed the agricultural base the Japanese had developed in truck farming, and one estimate suggests that they lost \$200 million worth of property. The government later paid \$38 million in recompense. In the late 1980s Congress voted to award \$20,000 to each survivor of the relocation camps. However, citing the continuing federal deficits, Congress refused to appropriate the funds to make the payments, and no payments had been made by 1990. Alan S. Milward, *War, Economy and Society: 1939-1945*, 135. See also Dillon S. Meyer, *Uprooted Americans* (Tucson: University of Arizona Press, 1971), 248, 254-255; as cited in Vatter, *The U.S. Economy in the Second World War*, 135.
  11. Scheiber, Vatter, and Faulkner, *American Economic History*, 412.
  12. John L. Blackman, Jr., *Presidential Seizure in Labor Disputes* (Cambridge: Harvard University Press, 1967), 261-75; as cited in Vatter, *The U.S. Economy in the Second World War*, 124.
  13. The two primary sources for most of the information in this section are Walter W. Wilcox, *The Farm in the Second World War* (Ames, IA: The Iowa State College Press, 1947); and, John T. Schlebecker, *Whereby We Thrive: A History of American Farming, 1607-1972* (Ames, IA: The Iowa State University Press, 1975). Information was also drawn from Vatter, *The U.S. Economy in the Second World War*, chapter 3; and Peter Fearon, *War, Prosperity & Depression: The U.S. Economy, 1917-1945* (Lawrence, KS: University of Kansas Press, 1987), chapter 16.
  14. Milward, *War Economy and Society, 1939-1945*, 179.
  15. *Ibid.*, 173. Chapter 6 in general covers war and technology.
  16. Most of the following discussion is drawn from an unpublished paper by Robert Higgs, “Private Profit, Public Risk: Institutional Antecedents of the Modern Military Procurement System in the Rearmament Program of 1940-1941.”
  17. One such critic was I. F. Stone, *Business As Usual: The First Year of Defense* (New York: Modern Age Books, 1941), 159, 163; as cited in Higgs, “Private Profit, Public Risk.”
  18. The Reconstruction Finance Corporation created a subsidiary called the Defense Plant Corporation which then financed the construction and leased the plants to corporate businesses. The problems in the development and approval of the Defense Plant Corporation are discussed in Clifford J. Durr, “The Defense Plant Corporation,” in Stein, ed., *Public Administration and Policy Development*.
  19. Calculated from table 3 in Higgs, “Private Profit, Public Risk.” Higgs’ source was Smaller War Plants Corporation, *Economic Concentration and the Second World War* (Washington: U.S. Government Printing Office, 1946), 38.
  20. Scheiber, Vatter, Faulkner, *American Economic History*, 407-8.
  21. Once small firms failed to land defense contracts, the priority allocations of resources then virtually assured that they would not be able to obtain them. Jim Heath, “American War Mobilization and the Use of Small Manufacturers, 1939-1943,” *Business History Review* 46 (Autumn 1972): 295-319; and Vatter, *The U.S. Economy in the Second World War*, chapter 3.
  22. This section primarily draws upon Margaret G. Myers, *A Financial History of the United States* (New York: Columbia University Press, 1970), chapter 15; and Vatter, *The U.S. Economy in the Second World War*, chapter 6.
  23. Myers, *A Financial History of the United States*, 346.
  24. This discussion is primarily based on Hugh Rockoff, *Drastic Measures: A History of Wage and Price Controls in the United States* (New York: Cambridge University Press, 1984). See also Vatter, *The U.S. Economy in World War II*, chapter 5.
  25. Rockoff, *Drastic Measures*, 127-28.
  26. *Ibid.*, 132.
  27. The OPA had issued tokens that could be used as change and could be stored and used to make purchases at a later date. By late 1944 surveys showed that consumers had built up a large stock of tokens. The OPA feared that a change in expectations or attitudes could lead consumers to run on stores and empty the shelves; i.e., “bankrupt” the rationing programs. The problem was that if used the tokens defeated the coupon rationing. If the tokens were invalidated they broke a promise to the consumers.

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- Chester Bowles of the OPA decided to invalidate all token currency issued before recent dates to make certain that they could not be used.
28. In some cases local governments relaxed standards to allow milk sales that in other times would not have been allowed. The sale of heavy cream was prohibited so as to increase the supply of whole milk. The OPA granted reductions in butterfat content without reducing the price of milk, in effect granting price increases.
29. German submarine warfare prevented tankers from providing normal supplies. Ocean tanker firms, afraid of losing postwar markets, prevented the OPA from directing that more oil be moved by railroad tank car to the northeast.
30. Ibid., table 5.5, p. 145.
31. Ibid., 151.
32. Manufacturers often added cheap trim to low-priced lines to transform them into high-priced lines. At one point, to attempt to control this, the OPA issued dollar-and-cents ceilings at the wholesale and manufacturing levels for a variety of garments and specified the construction of the garments entitled to those prices in great detail—all the way down to the diameter of the buttons.
33. Richard H. Keehn and Gene Smiley, "Small Business Reaction to World War II Government Controls," *Essays in Economic and Business History*, 8 (1990): 303-16.
34. Rockoff, *Drastic Measures*, 154-58.
35. A substance called "Lubrigas" was added to regular gasoline, and the product was then sold as "premium" gasoline. Rockoff, *Drastic Measures*, 159.
36. Rockoff, *Drastic Measures*, 174-175.
37. Ibid., 176.
38. Ibid., 140.
39. Gene Smiley, "Some Austrian Perspectives on Keynesian Fiscal Policy and the Recovery in the Thirties," *The Review of Austrian Economics* 1 (1987): 167.
40. The increased demands in the capital goods sectors, where unionization had been concentrated, allowed for a more rapid recovery in those sectors that had experienced larger cost and price increases and in response had decreased output and employment more.
41. Mark Skousen, "Saving the Depression: A New Look at World War II," *The Review of Austrian Economics* 2 (1988): 211-26.
42. Robert Higgs, "Wartime Prosperity? A Reassessment of the U.S. Economy in the 1940s," *The Journal of Economic History* 52 (March 1992): 49-53.
43. Ibid., 43.
44. Calculated from the *Historical Statistics of the United States: Colonial Times to 1970* (Washington, D.C.: U.S. Government Printing Office, 1976).
45. Higgs, "Wartime Prosperity?," 45-46. See note 13 on p. 46.
46. Simon Kuznets, "Long-Term Changes in the National Income of the United States of America Since 1870," in Simon Kuznets, ed., *Income & Wealth of the United States: Trends and Structure* (Cambridge: Cambridge University Press, 1952), 39-40, as cited in Higgs, "Wartime Prosperity?" 46.
47. Kuznets's justification was that "even though military durables and construction are used for military purposes, they represent capital that could be employed for nonmilitary purposes—a justification that seems far-fetched with regard to many forms of military capital." Higgs, "Wartime Prosperity?" 46.
48. Ibid., 58.
49. Vatter, *The U.S. Economy in World War II*, 85.
50. Ibid., 62-63.
51. Barton J. Bernstein, "The Debate on Industrial Reconversion: The Protection of Oligopoly and Military Control of the Economy," *The American Journal of Economics and Sociology* 26 (April 1967): 159-72.
52. This discussion draws upon Barton J. Bernstein, "The Removal of War Production Board Controls on Business, 1944-1946," *Business History Review* 39 (Summer 1965): 243-60. See also Vatter, *The U.S. Economy in World War II*, 83-88.
53. The following is based upon Louis Cain and George Neumann, "Planning for Peace: The Surplus Property Act of 1944," *The Journal of Economic History* 41 (March 1981): 129-35; and, Harold Stein, "The Disposal of the Aluminum Plants," in Stein, ed., *Public Administration and Policy Development*.
54. Ibid., 132.

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55. Stein, "The Disposal of the Aluminum Plants."
56. This information is drawn from John B. Rae, *The American Automobile Industry* (Boston: Twayne Publishers, 1984), chapter 9.
57. Vatter, *The U.S. Economy in World War II*, 136.
58. As cited in Vatter; see Keith W. Olson, *The G.I. Bill, the Veterans, and the Colleges* (Lexington, KY: University of Kentucky Press, 1974); and Davis R. B. Ross, *Preparing for Ulysses* (New York: Columbia University Press, 1969).
59. Olson, *The G.I. Bill*, table 1, p. 44; as cited in Vatter, *The U.S. Economy in World War II*, 137.
60. Vatter, *The U.S. Economy in World War II*, 150, and Cain and Neumann, "Planning for Peace," 130.
61. Richard Gardner, *Sterling-Dollar Diplomacy* (New York: Oxford University Press, 1956), as cited in Hughes, *American Economic History*, p. 505. See also Milward, *War, Economy and Society*, 337-45.
62. Jonathan R. T. Hughes, *The Governmental Habit: Economic Controls from Colonial Times to the Present* (New York: Basic Books, 1977), 148 and 197-98.
63. Robert Higgs, *Crisis and Leviathan: Critical Episodes in the Growth of Government* (New York: Oxford University Press, 1987).
64. Most of this discussion of the international economy and the Bretton Woods agreements draws upon Milward, *War, Economy and Society*, chapter 10; and, Vatter, *The U.S. Economy in World War II*, chapter 8.
65. The discussion of the Marshall Plan is based upon the following studies: Richard Mayne, *The Recovery of Europe* (New York: Harper and Row, 1970); Harry B. Price, *The Marshall Plan and Its Meaning* (New York: Cornell University Press, 1955); and Immanuel Wexler, *The Marshall Plan Revisited* (Westport, CT: Greenwood Press, 1983). The quotation is from Price, *The Marshall Plan and Its Meaning*, 25.
66. The Soviet Union denounced this and pulled out of the conference, and no other communist country joined the conferences.
67. This discussion draws upon Richard Vedder and Lowell Gallaway, "The Great Depression of 1946," *The Review of Austrian Economics* 5 (1991): 3-31.
68. *Ibid.*, 11-13.
69. *Ibid.*, 20-21.
70. *Ibid.*, 25.
71. *Ibid.*, 28.