The Reality of the Wartime Economy

More Historical Evidence on Whether World War II Ended the Great Depression

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With the U.S. economy having suffered its worst recession since World War II and currently being stuck in a very weak recovery, discussion of the causes of and recovery from the Great Depression has taken on a new urgency for makers of public policy. In trying to discern what sorts of policies might improve economic performance during the current recovery, many have argued that the boost in spending associated with the U.S. entry into World War II was key to boosting gross national product (GNP) and to overall recovery from the Great Depression. So, as some observers have asked, is a war or something like a war the medicine the economy needs right now? Or perhaps a better question is, Why haven't the wars in which the United States has been engaged recently pulled us out of (or prevented) the Great Recession? Paul Krugman has even argued that the threat of an invasion by aliens from outer space would help because it would lead to massive defense spending that would boost the economy. Even those who are skeptical of

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whether the increase in spending associated with Roosevelt's New Deal was responsible for meaningful recovery often argue that the wartime spending turned the trick.

In this article, we ask whether the U.S. economy during World War II can be meaningfully described as having "recovered" from the Great Depression. Our work builds on the earlier contribution to the topic by Robert Higgs (2006c, originally published in 1992). Higgs argues that the traditional macroeconomic measures of economic performance are inappropriate for wartime and that they overstate people's real economic well-being during the war. We review his contribution in more detail as we proceed. Our contribution complements Higgs's by examining a number of archival sources to explore how the wartime economy affected individuals and households. Rather than looking at traditional economic statistics, we explore newspapers, diaries, and other primary sources to discover the variety of ways in which the wartime economy actually amounted to a retrogression for many families because they had to supply additional labor, accept inferior goods, and do without many goods altogether as resources were diverted to the war effort and wartime controls constrained the market process. The evidence we present confirms Higgs's argument that wartime prosperity was largely an illusion and, thus, that wartime spending is not the path to genuine recovery from recession or depression.

World War II and the Great Depression: The Standard Debate

Although the question of how the Great Depression ended has not been studied as widely as the 1929 crash or the critical period between 1929 and 1932, it has been the focus of some scholarly writing. The narrative in basic surveys of American history typically argues that World War II ended the Great Depression. This canonical story credits President Franklin D. Roosevelt's New Deal policies with pulling the economy out of the depths of the Depression and thereby reducing both its length and magnitude. However, as important as the New Deal was in mitigating the economic crisis, according to this story, it was not sufficient to get the economy all the way out of the Depression, and recovery was completed only as a result of military production during the war. Even though the war ultimately involved the destruction of much of what was produced, the standard argument—still made today by Paul Krugman (2010)—was that a large enough increase in the demand for labor and capital for any purpose whatever was sufficient to generate overall recovery.

As noted, many in the discipline of economics still favor this account. Keynesian economists in particular favor it because they identify the war as having provided the needed boost to aggregate demand. Government spending, they claim, creates a multiplier effect on consumer demand, which eventually produces full employment. Keynesians of this stripe argue that any net increase in demand will benefit a struggling economy regardless of where it comes from or how it is spent. War may seem to be an attractive solution because it (supposedly) guarantees significantly larger than normal outlays in the name of victory. The long economic boom in the decades after

World War II has been seen as proof that government stimulus in the form of war spending effectively rescued the economy. To the extent that this story of the war's role in generating recovery is accepted, it helps to explain why John Maynard Keynes's ideas have spread throughout the general public. Keynesian aggregate-demand policy also found a congenial audience among politicians, for whom the opportunity to spend without taxing was too powerful a vote-getting strategy to pass up, even when it was not called for by Keynesian theory (Buchanan and Wagner [1977] 2000). After the 1970s stagflation, Keynesianism was largely pushed aside in the academic economics literature by a variety of other approaches, at least until 2008, but it never disappeared in its crude form as the default worldview among politicians, many intellectuals, the media, and the general public.

The contested status of the crude Keynesian story is seen in debates over the Great Depression in which several scholars have argued that the economy had recovered *prior* to World War II. In 1988, Brad DeLong and Larry Summers asserted in "How Does Macroeconomic Policy Matter?" that more than five-sixths of the decline in output had returned by 1942. This argument implies that fiscal policy during the war had little or no effect on the recovery. In a 1992 article titled "What Ended the Depression?" Christina Romer argued that monetary expansion led to growth during the late 1930s. Her extensive research and analysis make the case that the economy had already returned to normal prior to the war (1992, 782). Other work by Romer casts doubt on the multiplier effects of fiscal policy in general, in wartime or peacetime. If these results are correct, they also cast doubt on the view that World War II ended the Great Depression. They may still overstate the war's positive effects, however, because they remain rooted in the traditional economic aggregates and do not ask whether those changes in aggregates, especially during the war itself, really translated into higher standards of living and better lives for the average American. What if, when we dig below the traditional economic aggregates, we find that the war *reduced* the standard of living for many Americans, even as conventional measures of economic well-being make matters seem to be the reverse?

The Higgsian Revisionist Account

This question was first explored in a rigorous way by Robert Higgs (2006c), who argues that the economy did not fully recover until after the war was over—in other words, that the war itself did not end the Depression. According to his analysis, the war effort distorted economic metrics such as GNP and unemployment figures because of factors inherent to producing goods that would be used destructively and the significant intervention into markets required for governments to gear all economic activity to the war effort. An economy in which resources are devoted to producing outputs that will kill others or destroy their property and in which price-and-wage controls and a military draft are dominant features is not an economy whose health we can assess by using the standard tools. Higgs's work has been cited by nearly every author who after 1992 challenged the concept of wartime recovery, and it has been called on again during the current debate over what is needed to bring about a complete recovery.

By the late 1930s, the country had already experienced nearly a decade of depression. The future remained bleak as renewed warfare in Europe seemed imminent. The New Deal had failed to restore private investment to its pre-Depression levels, and unemployment rates still hovered around 10 percent. Higgs argues that Roosevelt's "bold experimentation" in the form of the numerous expansions of government power associated with both the first and the second New Deals, coupled with his hostile rhetoric toward business and his principal subordinates' hostile attitude toward investors and private enterprise, had caused private investors to remain unwilling to invest much in job-creating capital. However, late in his second term Roosevelt made yet another shift in his policies, bringing on a new set of advisers and subordinates. By 1942, he had abandoned many of his advisers responsible for the New Deal social reforms and replaced them mostly with businessmen. This switch was motivated first by his concerns regarding reelection and later by the need to accelerate war production (Shlaes 2007). Knowing he would need private-sector cooperation for any significant U.S. involvement in the war, Roosevelt sought to improve his strained relationship with the business community.

The usual argument for the economic benefits of the war focuses on unemployment and GNP. To be sure, the war effort wiped out unemployment almost completely. In 1939, more than 17 percent of Americans in the labor force remained without a job. By 1943, nearly every able-bodied man was at work (Higgs 2006c, 63). Some have argued that this dramatic reduction in unemployment is proof that the war ended the Depression, but that claim hinges on the nature of the employment in question. The draft affected not only those who were drafted, but also many who volunteered. Many American men willingly enlisted, fearing that if they were drafted, they would end up in the infantry, fighting on the front lines (Higgs 2006c, 81–82). As Higgs (1987) argues elsewhere, the draft is a classic way in which governments conceal the true costs of their activities by "bidding away" human capital at an artificially low price through the use of coercion. Combined with the costs of the form of the war action the draftees endured, such conscription distorted the choices faced by those who had not yet been drafted, artificially encouraging them to volunteer. Thus, the effects of the draft as well as of wage controls elsewhere make unemployment figures very unreliable as measures of how well the economy was doing between 1941 and 1945.

The double-digit jumps in GNP between 1940 and 1944 are another factor that has contributed largely to the myth of wartime prosperity. The federal government made large investments to build up certain industries crucial for war. One estimate is that $16 billion of capital was invested in industries in only two years, between 1941 and 1943. This amount may be compared to a total of $20 billion during the entire preceding decade. The difference was that more than 80 percent of this investment came from the federal government (Clark 1943, 24). Nearly all factories producing consumer durable goods were shifted to production of munitions. This shift forced a change in lifestyle for the American public. For example, new appliances were unavailable, so Americans were forced to maintain old refrigerators and stoves beyond their usual lifespan. Even though GNP statistics signaled a massive increase in production, the American consumer in fact had fewer purchasing options available.

Higgs (2006c) offers a number of powerful arguments for his claim that a standard reading of the standard macroeconomic measures vastly overstates the economy's health during World War II. He points out that unemployment statistics during wartime also deserve critical scrutiny. It is very easy to reduce the unemployment rate through a military draft that removes millions of men from the labor market, and the same processes of creating war materials that boosts GNP also require labor to complement the capital converted to wartime uses. In view of the draft of 10 million men and the enormous demand for workers to build tanks, guns, and ships, it is no surprise that the war drove down the unemployment rate. Like the increase in GNP, however, this drop in unemployment did not translate into improved standards of living or a genuinely recovered private economy.

Higgs also argues that economies subject to wage and price controls are more difficult to judge in terms of GNP and related indicators. GNP uses market prices to measure the value of final products. If those prices are capped by law, market prices do not reflect the actual value to consumers, and GNP is accordingly distorted. To the extent that such controls cause surpluses and shortages, the deadweight losses and costs associated with nonprice forms of competition (for example, queues, rationing schemes, and side payments) are not captured in standard measures. Because GNP measures only the flow of resources regardless of the uses to which those resources are put, they do not allow us to make a leap from observed changes in GNP to inferred changes in consumer welfare. Expenditures to blow up a city and rebuild it count the same as expenditures to create new goods and services that add to consumers' wealth or utility. Therefore, Higgs argues, we should view wartime GNP figures with much skepticism.

Higgs attempts to compensate for these distortions in a variety of ways. He computes an alternative measure of real personal consumption per capita using Milton Friedman and Anna Schwartz's (1963) deflator for net national product. This alternative measure tries to take into account the effects of price controls and other elements of the wartime situation. Using this deflator, Higgs shows that real personal consumption per capita was essentially flat from 1939 to 1945, rising only a total of 6.8 percent over the six-year period (2006c, 71). Only in 1946, with the conclusion of the war, did it start to rise significantly. If we also take into consideration the continued low level of private investment during the war, it is hard to make the case that even if Roosevelt's New Deal policies did not end the Depression, his war spending did. Neither claim seems plausible if Higgs is correct.

When scrutinizing how GNP reflects production during war, the method of pricing these products becomes essential. Prior to 1940, the U.S. military was a relatively small operation. Invitations for bids were publicly announced for particular goods and services. This protocol allowed any number of contractors to compete on the open market to submit a competitive price. As World War II rapidly became a battle of production, a new system was implemented that allowed a few large contractors who specialized in specific technologies to have great influence in setting the prices of their products sold to the government. This form of pricing makes GNP more difficult to interpret because the prices for military goods did not arise in genuinely competitive markets and therefore are even less reliable as indicators of genuine opportunity cost than are the disequilibrium prices of a competitive market (Higgs 2006c, 87–88).

Higgs offers instead a war-adjusted concept of GNP that builds from Simon Kuznets's "peacetime" GNP, which deletes all war outlays, and he then further subtracts "gross war construction and durable munitions" (2006c, 65). By this measure, GNP in 1945 was just 5 percent higher than in 1939, hardly evidence of true economic recovery. By 1949, GNP had improved 47.5 percent over 1939, as many of the wartime controls were removed, military spending fell drastically, and returning soldiers added their production to the economy. Thus, even if World War II might have increased traditional measures such as GNP and employment, it is not at all clear that it led to a revitalization of the private sector in this process any more than did the New Deal spending.

Throughout the war, the greatest economic fear was about what would happen once the war ended. Economists and politicians recalled the severe contraction that had occurred following the Great War. Speculation about how the economy would accommodate the 10 million servicemen who would enter the civilian labor market included astronomical rates of unemployment. It was assumed that without careful government planning the U.S. economy would sink back into a depression. Many even cautioned that the consequence of such an enormous wartime boom might be a depression worse than the previous one (Clark 1943, 1). In a speech to a group of businessmen in Chicago in 1942, former president Herbert Hoover warned that the country "must have just as effective preparedness for peace as for war" (qtd. in Clark 1943, 1). This statement demonstrated that many were anxious about "winning the peace" and restoring the most effective economic system.

Those who had studied the period following World War I questioned whether the private sector could manage to support the country in peacetime. Instead of rushing "back to normalcy," many thought the United States might pursue some "middle way," ensuring that private industry would have the opportunity to remain at full production (Clark 1943, 2). The National Resources Planning Board (NRPB), an official advisory group, recommended such measures in a March 1943 report to the president. The NRPB drafted a bill of rights announcing that it be the "declared policy of the United States government to promote and maintain a high level of production and consumption" and "underwrite full employment" (NRPB 1943). The decade of economic hardship during the 1930s had scarred the American people, and everyone was attempting to devise some way to ensure they would never return to depression again. Although many feared such a return, the NRPB policy seemed to resemble many of the early New Deal policies that FDR had abandoned because they had done little to aid the economy. Cooler heads fortunately prevailed, however, and further misguided policy was largely avoided after the war.

Rationing, Deadweight Loss, and Economic Retrogression

Even as national income rose, the standard of living was actually falling during the war. The apparent prosperity seen in economic aggregates was illusory. As Ludwig von Mises wrote of World War I,

> All at once there were no longer any unsalable products; enterprises that for years had run only at a loss yielded rich profits. Unemployment . . . disappeared completely, and wages rose. The entire economy presented the picture of a gratifying boom. Soon writers appeared who sought to explain the causes of the boom.
>
> Every unprejudiced person can naturally have no doubt that war can really cause no economic boom, at least not directly, since an increase in wealth never does result from destruction of goods. . . . [W]ar does bring good sales opportunities for all producers of weapons, munitions, and army equipment of every kind but what these sellers gain is offset on the other hand by losses of other branches of production and. . . . [T]he real war losses of the economy are not affected thereby. War prosperity is like the prosperity that an earthquake or plague brings. ([1919] 1983, 154)

Some might object to this conclusion as applied to the U.S. experience in World War II because the war was fought entirely outside national territory. On the home front, although Americans did not experience the horrific violence of war, they did share much of the economic hardships. The war was referred to as the "people's war" in newspapers, and everyone was forced to make adjustments (Fleming 1942, 17). Shortages became common as the government tried to manage production and limited the use of many everyday products. During the war, "Americans had less money with which to buy fewer goods." As one historian asks, "How can this be called anything but economic retrogression?" (Woods 2004, 27).

The greatest example of economic retrogression during the war was a return to self-sufficiency. Even with rationing, food supplies remained scarce, and many Americans were forced to grow their own food. Although "victory gardens" did help to supplement purchased food, their cultivation was a major step backward in terms of the economic benefits created through the division of labor. Harvested fruits and vegetables were canned or dried as women sought to ensure a stable food supply through the winter months (Thomas 1987, 104). Rural households might have been able to survive on a diet of home-grown foods, but urban populations often did not have the space or know-how to grow their own food, so the latter were generally affected more by rationing than were rural populations.

The great period of economic advance that occurred during the century preceding World War II was characterized by industrialization. The U.S. economy was transformed from a country of farmers and craftsmen to a nation of massive industrial production. Consider the improvements that were realized following the Civil War. Trains, typewriters, electric lights, manufactured clothing, and automobiles all made products cheaper and life easier for ordinary Americans. With industrialization came greater specialization. This division of labor made workers more productive. Instead of handcrafting an entire product from start to finish or growing a variety of crops to feed a family, the expanding and deepening of the division of labor allowed people to use their talents and knowledge more efficiently on a narrower stage of the production process.

During the war, the opposite movement occurred. As manufacturing was refitted for war production, there was a reversal in the trend toward specialization. Those remaining on the home front were forced to produce for themselves what they had previously been able to purchase. The household again became a center of production rather than consumption alone. The pressures of wartime meant a clear loss in productivity for those forced to engage in the more difficult processes of growing and canning their own food as well as sewing and resewing clothing to make it last longer. Women had less time to spend caring for their children as other household tasks, such as saving cooking grease or tin foil, consumed their time. Although manufacturing continued throughout the war and even increased, it was concentrating heavily on producing war supplies and munitions rather than consumption goods, especially consumer durables.

Every region and community dealt with the changing reality of the wartime economy differently. A study of the wartime experience of families living in El Paso, Texas, makes clear the degree to which rationing affected everyday life, uncovering the advantage enjoyed by those who lived on the U.S.–Mexico border. Richard A. Dugan describes how El Pasoans were largely able to maintain their desired level of consumption by supplementing what their ration books enabled them to buy with goods that were readily available at market prices across the border and that did not require using up any ration tickets (2000, 56). This resort might seem to be an effective way to purchase more without taking more than what the Office of Price Administration (OPA), the agency in charge of the rationing process, considered to be one's "fair share," but the OPA quickly spoke out against this conduct, declaring that El Pasoans were not participating in our "shared national sacrifice" and maintaining that the "benefit of location" should not be exploited (qtd. on 56).

As the OPA tightened ration quotas, both consumers and retailers continued to import more and more goods from Mexico. The OPA was reportedly surprised that Americans were willing to use Mexican sugar that was unbleached and therefore brown in color (Dugan 2000, 63). The reality remained, however, that even if Americans considered Mexican sugar inferior, the alternative was to go without or make do with very little owing to OPA rationing. It was suspected that the local soda plants were using Mexican sugar as they continued production after El Paso's Coca-Cola plant cut production by more than one-third in 1942 (Dugan 2000, 63). Because of U.S. rubber rationing, one Mexican car dealer reported an increase in the sale of tires to American buyers (Dugan 2000, 58). El Paso, like many rural communities, was able to bypass some of the worst effects of rationing by supplementing rationed goods. Many Americans, in particular those living in cities, did not have this advantage and hence felt the ration program's full force. Even those who could avoid rationing were able to do so only by incurring significant transaction costs.

Not only were various consumer items unavailable, but those that could be found were of inferior quality. Substitute goods were of substandard construction and were often uniform, precluding consumers' choice of styles, shapes, and sizes. The reduction in variety and precision of sizes is yet another form of economic retrogression, and the consequent welfare losses for consumers are difficult to quantify in traditional measures. Living with shoes a half-size too big or being unable to get the cut of meat one prefers surely entails a reduction in well-being, even if it is not captured in GNP. As the OPA tightened rations on particular items or items became completely unavailable, consumers turned to clearly inferior substitutes. Several products still sold today became widely accepted as substitutes during the war, including margarine as a substitute for butter. Boxes of Kraft Macaroni and Cheese became popular during the war because they were provided at a two-for-one discount per ration ticket ("World War II Rationing" n.d.). Spam also became a substitute for those craving meat. Other substitutes included "honey for sugar, corn oil for olive oil, cotton or rayon for wool, paper containers instead of tin; and wood furniture instead of metal" ("Making Do With Less" n.d.). The effects of these changes in consumption cannot be measured easily by economic aggregates but were the reality for families during the war. Even if household income remained the same or even increased, Americans were forced to live poorer lives during the war owing to the reduced quality, quantity, and variety of products available.

In an effort to conserve resources, there was also a movement to eliminate unneeded luxuries. Consumers were given fewer choices because production was limited. Fewer models, colors, styles, and flavors were available. "Victory suits," which eliminated extra fabric, including cuffs from men's pants, gained popularity ("Making Do With Less" n.d.). Like refrigerators, clothing was also expected to last longer as consumer production fell during the war. With so much capital and labor devoted to the war effort, the textile and clothing industries suffered. The limited supplies of cotton and manpower were being directed toward high-end goods. Manufacturers could make more profit on more expensive clothing, such as fancy dresses, given the allowances of the government-issued price schedule. Lower-cost items, such as children's clothing and underwear, remained in scarce supply (Lindley 1944). This example is just another instance of rationing quotas clashing with consumers' preferences.

At the beginning of the war, officials knew that many necessities would be in high demand. Newspaper articles from the early 1940s make clear that the extent of the rationing was not fully anticipated. In May 1942, Leon Henderson of the OPA explained that although some rationing would be necessary, he believed "that it would not be possible to ration everything" (qtd. in "Nation Must Sacrifice" 1942). It seemed that many shortages could be overcome by increasing production. Although some forms of production did increase, the extent of the rationing that took place shows that production was not able to keep up in many product lines.

The reason for rationing gasoline was twofold. Although it effectively conserved gas, which was needed to fuel military vehicles, it also was the best method the OPA had to conserve rubber used to produce tires. Limiting the supply of gas would limit driving and therefore the use of tires, reducing the demand for rubber. Conserving rubber was especially important because it had been imported almost exclusively from Southeast Asia prior to the war from areas over which Japan gained control immediately after the attack on Pearl Harbor (Zebrowski 2006). The OPA was implicitly determining how much people were allowed to drive. Those employed in defense industries were provided with additional allowances. Limits on driving were also part of the retrogression of the division of labor because the higher cost of transportation limited the ability to exchange across larger geographic areas. Author Kay Hall tells of her father's constantly patching their tires during the war and of "thinking it was commonplace to have flat tires" (1995, 9). Again, the effects of rationing added up to a reduction in economic well-being.

Shopping became a bureaucratic nightmare. Because there were more ration coupons than supplies, grocery shopping often required women to visit several stores to find needed supplies. These larger transaction costs associated with finding goods to purchase, regardless of the drop in quality of what would eventually be purchased, represent an economic loss owing to the war. In many cases, stores facing both food and labor shortages had to shut down (Thomas 1987, 103). These conditions created an extreme hardship especially for working women: "After eight or ten hours of riveting or welding or soldering, these wives and mothers had to stand in long lines in the stores and cope with rationing. By the time they reached the market at the end of their workday, the limited supplies were often depleted—unless they were fortunate enough to have a grocer who looked out for them, saving a good cut of meat or slipping a package of cigarettes into their grocery bag" (Gluck 1987, 13). In January 1943, the Women's Club of Mobile, Alabama, petitioned the OPA to adjust rationing quotas. Because municipal population at the time of the most recent census determined distribution quotas, changes in population had left some areas with less than their fair share (Thomas 1987, 103). In the absence of market-clearing prices, goods had to be distributed according to criteria other than willingness to pay, and various forms of nonprice rationing outside of the official rationing system emerged, including a great deal of favoritism based on "who you know." Price controls were put in place to allow all Americans to have equal access to goods during the war, but they created instead a system of payoffs, back-room deals, and black markets that benefited only those with a comparative advantage in exploiting the system rather than those who could best provide demanded goods at low prices and those who needed the goods.

"Mr. Civilian" was the nickname one journalist used in a 1942 article in the *Atlanta Journal Constitution* in describing the average American and the challenges he faced at that time. In an attempt to purchase soda to serve at a small gathering at his home, Mr. Civilian was forced to visit seven stores, which was more than a great inconvenience because it wasted two gallons of valuable gasoline (Barnwell 1942). This story demonstrates how the various wartime controls and rationing often conflicted with each other rather than offering a consistent set of policies.

Another such example recounted a time when Mr. Civilian attempted to buy toothpaste. The clerk behind the counter explained Mr. Civilian would need to bring his own tube to be refilled—still another illustration of lost productivity. Women had to waste time searching for essential home items. In a rationed economy, the sticker price for goods was kept (artificially) low, but the true cost of obtaining them, including time and other transactions costs, was often quite high.

To enforce rationing policies, the government resorted to numerous propaganda campaigns designed to shame Americans into using less. These campaigns sought to make all Americans feel they were part of the war effort through appeals to patriotism and the duty to share the sacrifice. One type of government propaganda informed Americans that even with rationing, they were significantly less affected than other Allied nationals who faced far greater scarcity, as in England and Russia. Another similar campaign reminded Americans of the importance of rationing: to keep the soldiers supplied, "so they'll have enough" ("Making Do With Less" n.d.). It was as much about shared sacrifice as anything else, as we saw in the case of the OPA's reaction to local solutions such as those used in El Paso. A second type of government propaganda was instructional and provided recommendations about how to conserve resources in every aspect of life from driving to eating. The government defended rationing on the grounds that it assured everyone would receive his "fair share," even though in many cases it proved ineffective in doing so. The third form of propaganda was a direct attempt to scare Americans into cooperating with rationing laws. Hollywood studios cooperated to produce several short news-reel films that depicted scenes of Americans engaging in black-market activities and then explained the resulting criminal prosecution of counterfeiting ration tickets or purchasing items above government prices.[1]

1. "Black Marketing," Office of War Information, U.S. Government. Available at: http://www.youtube.com/watch?v=J8UX46saT_C.

Rationing made planning difficult, especially as ration amounts and product availability changed. "Hoarding was an evil which the government opposed but never precisely defined," one historian observes (Thomas 1987, 102). Women were made to feel unpatriotic if they engaged in any conduct that might be considered hoarding, even if in reality they were only trying to keep their family supplied with vital necessities.

A Case Study in Retrogression: Electrical Appliances in Northern New York

One way we can see the retrogression of the American household's consumption possibilities during the war is through a fascinating series of advertisements placed by the Canton Electric Light & Power Company, the local electric utility in Canton, New York, in the *St. Lawrence Plain-Dealer*. These ads generally ran weekly during 1942 and 1943 in the same place in the paper. We display here a selection of them with brief commentary on each to connect them with our larger argument in this article.

The ad in figure 1 appeared on March 17, 1942, about four months into the war. The store had inventories of by then standard consumer appliances in stock. However, note the language: "still," a "fairly good supply," and "while they are still available." It was already clear to retailers at this early stage in the war that they would face challenges in maintaining inventories of these items, and the implications for consumers were clear: buy now or risk not being able to find what you need later. This inability to buy consumer goods because resources were being diverted to the war effort illustrates one of the many opportunity costs that the war economy entailed for American households.

Two months later, on May 12, 1942, the tone of the ads had changed (figure 2), with the key phrase being "now is the time to buy" because "production of most of these items has stopped," and only the supply in stock is available. Households were beginning to feel the effects of the diversion of resources more acutely. With production of consumer appliances "stopped," households would have to forgo exchanges they would like to make, perhaps invest more in repairs, and live with products inferior to those they would buy in peacetime. This evidence strongly suggests that the war did not cause an economic "recovery" in a sense that was meaningful to American consumers. The difficulties encountered in gaining possession of the available consumer goods also implies that Higgs's consumption measures may actually *overstate* the real situation for families.

An ad in July 1942 (not shown here) reveals that for a period of time electric ranges could not even be sold and that they were then available for sale again. They were still no longer being *produced,* but those in stock could be sold again in July. Presumably during the "no sale" period, the existing stock was being refitted or turned to scrap metal for war purposes. This example indicates the importance of

Figure 1
Canton Electric Light & Power Company Advertisement, March 1942

Source: *St. Lawrence Plain-Dealer* (Canton, N.Y.), March 17, 1942.

Figure 2
Canton Electric Light & Power Company Advertisement, May 1942

Now is the time.........

If you are thinking about getting a new

WASHING MACHINE
IRONER MIXER
ELECTRIC FLATIRON
HEATING PAD ELECTRIC CLOCK
PERCOLATOR TOASTER
WAFFLE IRON
VACUUM SWEEPER
WATER HEATER, etc
NOW is a very good time to do it.

Production of most of these items has stopped and only the supply in your dealers stock is available.

Now is time to buy!

Canton Electric Light & Power Co.

Phone 79 Across from the Park Main Street

Source: *St. Lawrence Plain-Dealer* (Canton, N.Y.), May 12, 1942.

recognizing the heterogeneity of the capital stock: such ranges could not be converted to military uses without cost, and the losses associated with such conversions included both the explicit expenditures for refitting plus the deadweight loss of forgone purchases of the desired consumer goods. Conversion to a war economy necessarily destroys economic value in a world where capital goods are heterogeneous. One cannot turn appliance factories into munitions factories without cost. This point is often lost in contemporary discussions of recession recovery and stimulus spending (Horwitz 2011).

By November 3, 1942, the Canton Electric Light and Power Company had given up altogether its attempt to sell consumer appliances and warned its customers to take good care of the equipment they currently owned because the repair or replacement of the motors in those devices would be nearly impossible (figure 3). An ad two months later (not shown here) simply encouraged people to keep all of their electrical appliances in good repair. This point supports Higgs's (2006c) observation that the wartime controls forced people to try to extend the lives of their capital and consumer goods longer than they normally would have because replacements were difficult to obtain. This situation presumably led to excess investment in maintenance and a large, expensive black market in parts. Both of these options were costly and reduced households' real well-being. Also worth noting is that Canton, New York, is located in the extreme northern part of New York, and any problems with home heating during the winter posed a serious threat to human life. When we consider the effects of wartime "stimulus" on economic well-being, we should not ignore the human impact of disappearing consumer-goods markets.

The company's ads in the following months shifted to encouraging people to buy war bonds as the company became part of the war propaganda effort. The last ad shown here (figure 4), from November 16, 1943, illustrates that the restrictions on consumption and their effects on well-being began to be justified by the war propaganda effort. However, its relevance to the story here is that the electric appliance company had totally stopped worrying about its major product and was instead encouraging people to cut back on their food usage as part of the war effort. The table of contents of the U.S. government's "food chart" *Food Fights for Freedom* shown in the ad is difficult to discern, but it indicates four things people should do:

- Produce as much of your own food as you can.
- Conserve as much food as you can.
- Share your food.
- Play square with your food.

Producing as much of your own food as possible was clearly costly for most households because it represented a retrogression in the division of labor and exchange, leading to fewer people exploiting their comparative advantages. The war effort had not led to genuine economic recovery, but to the retrogression of the market as self-sufficiency

Figure 3
Canton Electric Light & Power Company Advertisement, November 1942

ATTENTION

Users of Stokers and Oil Burners

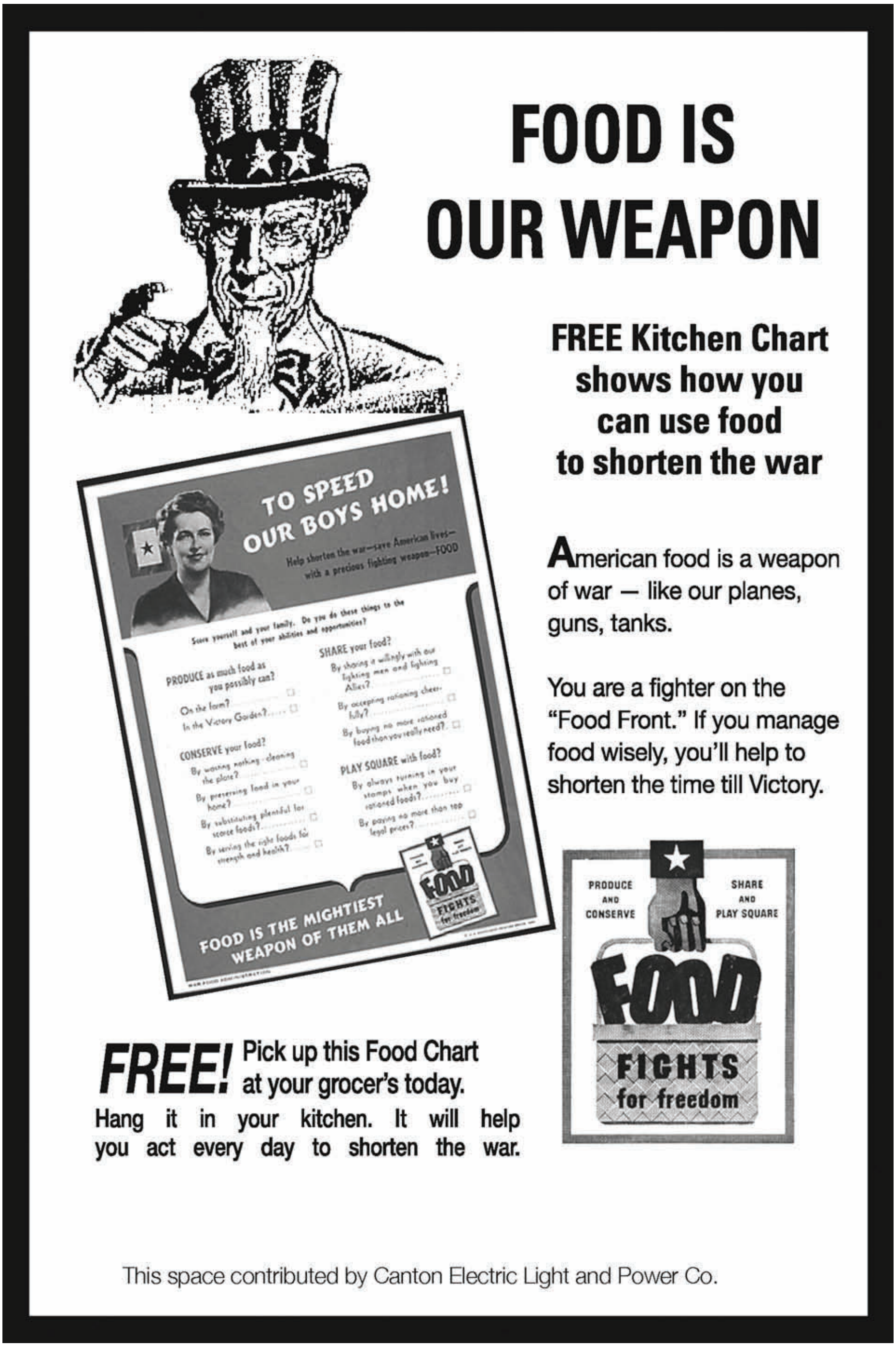
We feel it important to call your attention to the critical situation concerning the repair or replacement of small motors such as the type used on stokers, oil burners, etc. Due to the war emergency it is quite impossible to get replacement motors for civilian use; and it is becoming difficult to get broken-down motors repaired. We recomment to the users of furnace stokers and oil burners that they have the motors of this equipment checked over by their regular hearing service men or some other person competent to do so to see that they motor is in good running condition, that it is properly oiled and cleaned. If you will have this done now it may prevent a breakdown of your equipment later on in the very cold weather. A neglected motor may break down any moment; one in good condition will last almost a lifetime.

Canton Electric Light & Power Co.

Phone 79 Across from the Park Main Street

Source: *St. Lawrence Plain-Dealer* (Canton, N.Y.), November 3, 1942.

Figure 4
Canton Electric Light & Power Company Advertisement, November 1943



Source: *St. Lawrence Plain-Dealer* (Canton, N.Y.), November 16, 1943.

and autarky became increasingly necessary. Conserving and sharing food also reflected the decline in the availability of resources through the market, implying both fewer calories and lower-quality food, with their corresponding negative effects on health for many Americans. Encouraging people to "play square" was most likely a reference to the various rationing schemes that came with wartime price controls. The exhortation suggests a (likely correct) perception that consumption was increasingly a zero-sum game with the production of consumer goods at such a low ebb. Because of a more or less fixed supply of consumer goods, anyone who cheated on his rations was taking food away from others, unlike the situation in an uncontrolled market, where increases in demand bring forth an increase in the quantity of goods supplied. Food items clearly were relatively scarcer for consumers, and this heightened scarcity entailed significant opportunity costs for typical families.

What the People Said

In addition to these advertisements, we can examine other primary sources to see the war's economic effects on typical American households. One such source is correspondence between soldiers and their families. It is important to keep in mind that letters written to soldiers from home were often destroyed and rarely discussed sacrifices being made on the home front because everyone was sensitive to the dangerous nature of war, and people did not want to give their soldiers fighting around the world additional cause for worry. However, a series of letters written between 1942 and 1945 by Saidee Leach to her son Douglas, who was stationed with the U.S. Navy in the Pacific, are remarkably candid in detailing the everyday changes that had occurred at home in Providence.

The first of these letters, written in December 1942, noted the implications of the harsh winter coupled with ongoing fuel shortages. Mrs. Leach details how they had managed to conserve heat by wearing fur coats and living only in the kitchen during periods of extreme cold (Litoff and Smith 1991, 184). A second letter, dated January 1943, notes that the government had seized her typewriter, and she apologizes for typos, explaining, "I am using a 'Royal' which formerly belonged to a Howard Johnson which had to close due to the ban on pleasure driving" (184). Again, we see both the loss of consumption possibilities associated with restrictions on fuel usage as well as the settling for inferior goods and services.

Although production of war materials increased, the production of basic daily conveniences was limited. In her April letter, Mrs. Leach writes to her son regarding Easter dinner, which consisted of fried Spam because she "could not get fresh meat of any kind" (Litoff and Smith 1991, 186). In May, in another letter concerning food, she describes the process of obtaining food as "fun." She explains the complex transaction of pooling ration points with family friend Mrs. Buffum to buy a ham to divide evenly between them. She also writes that "potatoes have entirely disappeared and we are substituting macaroni, rice and Johnny cakes," but she then adds, "nobody seems to mind" (186). Later in 1943, in anticipation of Thanksgiving, she tells her son that the newspapers are reporting that turkeys will be unavailable because local farmers "absolutely refuse to kill their flocks for the prices allowed by the O.P.A." and that "distant birds are not expected to reach the eastern market" (187). She was pleased that she had won an opportunity to order one through a local lottery.

This letter highlights another problem of price controls. With the price of turkeys set artificially low, the turkey farmers refused to sell their product altogether. They instead gambled that the future value of their birds would be greater the following year. Price controls cause a mismatch of valuations between consumers and producers, reducing the surplus that both receive from exchange. The reduction in turkey purchases as well as in the other food items mentioned entailed deadweight losses for American families. GNP figures may record growth through the production and sale of military goods and services, but that increase in "output" should not be confused with "economic recovery" in any sense relevant to American households' day-to-day experience.

In a letter dated December 1944, Ms. Leach writes that she bought a piece of meat labeled "Utility Grade," "which is so far below Grade A that no points were required and by adding catsup to the kettle which helped to tenderize it, we had one of the nicest stews I ever made, but often we will get a pot roast that no amount of working can make tender" (Litoff and Smith 1991, 188). This sort of case was common, especially in regard to food whose quality might vary to the point that its edibility became a game of chance. Reductions in quality are difficult to capture in standard macroeconomic aggregates, but they surely created a large loss for American families during the war, casting further doubt on whether World War II really improved the economy in a significant way. As Lois M. Eubanks put it, "[W]e had plenty of money to buy what we needed but items were so scarce it was almost impossible to buy the things we wanted" (interview in Hall 1995, 112).

Perhaps the bluntest statement of what wartime meant for the average citizen came from an OPA bureaucrat. At a press conference concerned with worries about oil shortages, he said: "[I]f it ever came to a choice between risking pneumonia and getting oil to troops . . . I don't think any medical director would fail to choose the latter" (qtd. in "Government Halts Coffee Sales" 1942). Wartime of necessity attempts to impose a societywide welfare function, with almost all other goals subordinated to the war effort. This administrator's statement is simply an honest declaration of that position. Better citizens should be cold and risk pneumonia (which, at the time, was far deadlier than it is today) than to take resources from the war effort. Even if one thinks a particular war is worth fighting, that desirability does not change the reality of the war's economic effects on the average household. It should be concluded from this unavoidable reality that using the war experience as a model for peacetime economic recovery is highly problematic.

The End of the War

After VJ Day, war production did not taper off slowly but instead dropped quickly. Between fiscal years 1945 and 1947, federal government spending fell by 61 percent. During the war, federal government spending had reached 41.9 percent of GNP; by 1947, it had dropped to 14.7 percent (Henderson 2010). Not only did military production largely cease, but so did many of the controls over the civilian economy. Secretary of Agriculture Claude Wickard predicted that rationing would need to continue after the war, perhaps on an even stricter basis, because a significant period of time would be needed to return production to normal (McLaughlin 1943, 12).

The prediction of a postwar depression, however, never came true. In 1946, 10 million servicemen returned to the civilian labor market, and orders for war supplies were nearly halted. These changes resulted in the single greatest one-year drop in GNP in the nation's history—20.6 percent, which was greater even than the drop in 1932 in the depths of the Depression. But no real depression was experienced; instead, an era of unprecedented private-sector growth ensued. The other major factor that led to economic growth following the war was a dramatic increase in private investment, which had dropped significantly at the onset of the Depression, had remained low owing to the "regime uncertainty" in the late 1930s, and had nearly ceased during the war. The term *regime uncertainty* refers to the uncertainty generated by the Roosevelt administration's actions and rhetoric attacking private property and profit seeking by private investors (Higgs 2006b). In some ways, regime uncertainty remained substantial during the war. Factory owners were unsure whether the government would maintain control over production and prices at the war's conclusion. The other reason for low levels of private investment during the war was that the government did not make raw materials and components available except for investment projects directly related to the war program.

Those who credit the war with economic recovery by virtue of giant government expenditures and rising GNP must also explain the absence of any genuine economic downturn following the war. What should have been the "worst cyclical downturn" in U.S. history was barely noticeable in people's level of living. The lack of renewed depression in 1946 has drawn further attention to the limits of aggregate economic statistics, especially during war, when government action may heavily distort figures (Vedder and Gallaway 1993, 3–5). For the same reasons that the calculated GNP did not depict reality in describing what occurred in 1946 as the government reduced spending, we should be skeptical of the validity of the growth rates as government-sponsored production increased between 1940 and 1944. As Higgs (2006a) notes, the return of confidence and optimism with the Allied victory in the war was a significant factor in the postwar recovery, so to that degree the war—or at least the war's successful conclusion—mattered. However, this effect only shows the limits of the applicability of the war economy model to peacetime recovery from recession (Higgs 2006a, 104). It also raises the question of whether the costs and casualties of the war were worth its indirect effect on recovery when better policies could have achieved the same end at lower cost.

In the postwar period, the commonly held belief was that the American consumer had accumulated large savings due to rationing and the scarcity of consumer goods during the war. There is truth to this claim, as the earlier historical evidence suggests. This "forced savings" is often argued to have fueled the postwar boom. Although the war had caused "forced savings," leading to "pent up demand," Higgs challenges the standard story by pointing to data indicating that instead of spending down their personal savings to purchase newly available consumer items, households maintained their level of bank deposits, which in November 1945 reached an all-time high of $151.1 billion. These and other liquid assets continued to increase over the next two years as personal income increased, allowing for more saving *and* more consumer spending (Higgs 2006a, 107). Higgs's data on bank deposits and other liquid assets provide additional indirect evidence that the postwar recovery was the product of a change in policy regimes characterized by the scaling back of government's role in the economy and by the Truman administration's more market-friendly action and rhetoric.

Conclusion

The debate over World War II's role in ending the Great Depression has enormous relevance in connection with the current anemic recovery from the Great Recession. We have offered evidence to support Robert Higgs's argument that the wartime macroeconomic data significantly overstated the degree of genuine economic recovery. Higgs's evidence rests on his reinterpretation of several traditional macroeconomic indicators to compensate for the distinct features of a wartime economy. We show that if one digs below the aggregates and looks at how American households lived during the war, as shown in the media, letters, and journals, Higgs's case appears to be even stronger. Whatever the war's effects on seemingly booming conventional macroeconomic aggregates, it entailed a retrogression in the average American's living standards, and that disconnect should alert us to those aggregates' limitations. Whenever government commands resources, those who finance this acquisition, whether through taxation or purchase of government bonds, incur opportunity costs. Whether the diverted resources go toward building tanks and guns or toward repairing bridges and roads does not alter this fact. As we continue to debate the effectiveness of large-scale government expenditure to speed recovery from the Great Recession, we should not be looking at the wartime experience of the 1940s as a guide.

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