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THE U.S. POSTWAR MIRACLE

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Introduction

We often hear that big cuts in government spending over a short time are a bad idea. The case against big cuts, typically made by Keynesian economists, is twofold. First, large cuts in government spending, with no offsetting tax cuts, would lead to a large drop in aggregate demand for goods and services, thus causing a recession or even a depression. Second, with a major shift in demand (fewer government goods and services and more private ones), the economy will experience a wrenching readjustment, during which people will be unemployed and the economy will slow.

Yet, this scenario has already occurred in the United States, and the result was an astonishing boom. In the four years from peak World War II spending in 1944 to 1948, the U.S. government cut spending by $72 billion—a 75-percent reduction.[2] It brought federal spending down from a peak of 44 percent of gross national product (GNP) in 1944 to only 8.9 percent in 1948, *a drop of over 35 percentage points of GNP* (see figure 1).

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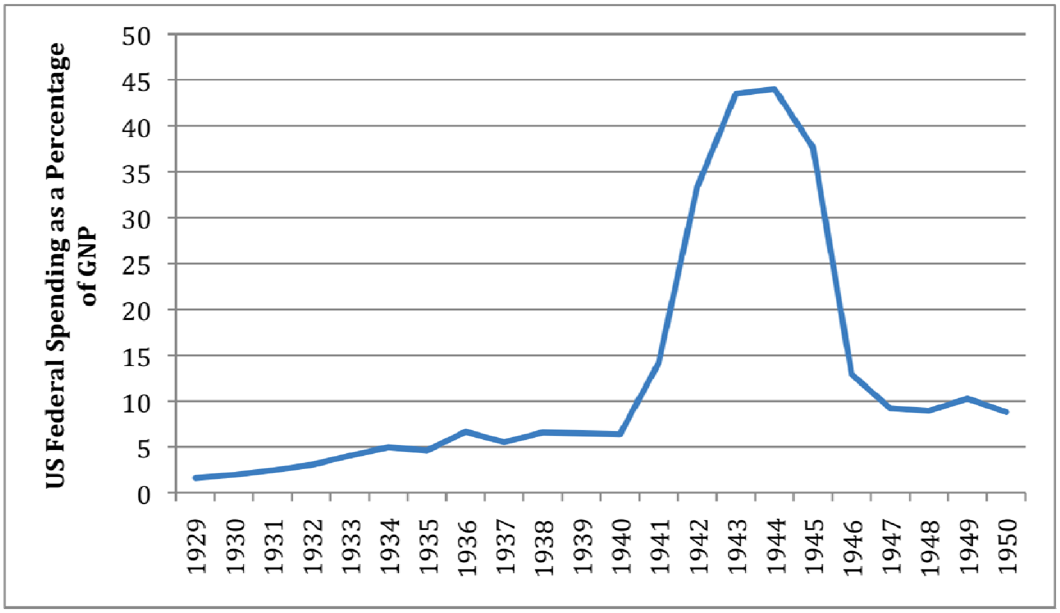
[2] All of the federal spending numbers used in this study are for Federal Government Consumption Expenditure and Gross Investment. According to the Bureau of Economic Analysis, "Government consumption expenditure and gross investment does not include current transactions of government enterprises, current transfer payments, interest payments, subsidies, or transactions in financial assets and in nonproduced assets such as land." During the period of concern, transfer payments and interest payments on the debt were small as a percentage of GDP.

Figure 1: Federal Government Spending as a Percentage of GNP, 1929-1950



Source: Data for spending comes from Series FGCEA and ASLEXPND in the economic research database at the Federal Reserve Bank in St. Louis. GNP data comes from Series GNPA. http://research.stlouisfed.org/fred2/categories/18

While government spending fell like a stone, federal tax revenues fell only a little, from a peak of $44.4 billion in 1945 to $39.7 billion in 1947 and $41.4 billion in 1948. In other words, from peak to trough, tax revenues fell by only $4.7 billion, or 10.6 percent. Yet, the economy boomed. The unemployment rate, which was artificially low at the end of the war because many millions of workers had been drafted into the U.S. armed services, did increase. But during the years from 1945 to 1948, it reached its peak at only 3.9 percent in 1946, and, for the months from September 1945 to December 1948, the average unemployment rate was only 3.5 percent.

Ask people who lived through that period as young adults what economic conditions were like, and you will inevitably get the answer that they experienced an economic boom. The U.S. economy during the post-World War II years is exhibit A against the Keynesian view that economies will necessarily suffer high unemployment and slow growth when governments make big cuts in government spending. Why did the U.S. economy do so well in the years following World War II given how badly it had done in the years preceding America's entry into the war? The answer, in a nutshell, is that dramatically reducing government spending and deregulating an economy can take that economy from sickness to health. In short, one of the main things a government can do to help a weak economy recover is to step aside.

The Setting

From the start of America's formal participation in World War II with Congress's declaration of war on December 8, 1941, to its peak war production in 1944, the U.S. economy, by all appearances, boomed. Measured in 1954 prices, real GNP rose from $238.1 billion in 1941 to $317.9 billion in 1944, an increase of 33.5 percent.[3] This increase translates to an average annual growth rate of 10.1 percent.

Many businessmen, and much of the public, were looking forward to a postwar boom as businesses started to produce goods for public, rather than government, consumption. Many economists, though, were much less optimistic. Although the Keynesian revolution in macroeconomic thinking was in its early years, a substantial percent of economists had become Keynesians. According to the Keynesian view, large reductions in government purchases of goods and services would lead to a decline in aggregate demand for goods and services. The result would be a decline in an economy's real output, along with a large increase in the number of unemployed people. For that reason, many economists predicted a postwar recession.

The leading Keynesian wunderkind Paul Samuelson (much later, a winner of the Nobel Prize in economics) wrote in 1943:

> When this war comes to an end, more than one out of every two workers will depend directly or indirectly upon military orders. We shall have some 10 million service men to throw on the labor market. [DRH comment: he came very close on that number.] We shall have to face a difficult reconversion period during which current goods cannot be produced and layoffs may be great. Nor will the technical necessity for reconversion necessarily generate much investment outlay in the critical period under discussion whatever its later potentialities. The final conclusion to be drawn from our experience at the end of the last war is inescapable—*were the war to end suddenly within the next 6 months, were we again planning to wind up our war effort in the greatest haste, to demobilize our armed forces, to liquidate price controls, to shift from astronomical deficits to even the large deficits of the thirties—then there would be ushered in the greatest period of unemployment and industrial dislocation which any economy has ever faced*. [4] [italics in original]

Although Samuelson held out hope for a smooth postwar transition, his hope was based on the idea that the U.S. government would "retain direct controls," "taper off war production gradually," and "undertake income maintenance in the form of dismissal pay for soldiers, unemployment compensation, direct and work relief expenditure." As we

[3] This figure is computed from real GNP data in *Economic Report of the President* (Washington, DC: Government Printing Office, January 1965), 191, Table B-3.
[4] Paul Samuelson, "Full Employment after the War," in S.E. Harris, ed., *Postwar Economic Problems* (New York: McGraw-Hill, 1943), 51.

shall see, the U.S. government did *not* retain direct controls after 1946, did *not* taper off war production gradually, and did *not* provide much work relief. The only item from Samuelson's list that it did was provide unemployment compensation for out-of-work World War II veterans, and only a small percent of these veterans took advantage of this program. Moreover, the economy did not move from "astronomical deficits" to "the large deficits of the thirties," but actually moved to surpluses, which, in Samuelson's view, should have made the problem even worse.

Swedish socialist economist Gunnar Myrdal also warned of the coming bust. In a November 1944 article in the *Atlantic Monthly* titled, "Is American Business Deluding Itself?", Myrdal wrote:

> The economic uncertainty in America today centers in what is going to happen to this business boom when (1) the Federal demand for war materials diminishes and gradually disappears, and (2) the central control is replaced by free enterprise.
>
> Except for Nazi Germany and Communist Russia,--that is, for centrally planned economies,--we have no historical precedent for the stabilization of a boom. In an unregulated capitalistic society it appears that a boom must always have an end and lapse into crisis and depression. . . . How can chaos be avoided once the enormous inflationary pressure and the balancing controls are simultaneously removed?[5]

Myrdal also thought the "much greater optimism" that he saw in America in 1944 as compared to 1941–42 was unjustified. He anticipated that full employment in 1946 would call for 56 million jobs, 10 million more than in 1940, and that a minimum of 14.5 million people, "9 millions from the armed forces, 4 millions from industry, ½ million from the transport system, and 1 million from public administration," would lose their jobs after the war ended. For the economy to stay at full employment, he argued, there would have to be "a huge rise in wages in order to create a sufficient basis of purchasing power." Lacking that, Myrdal predicted "a high degree of economic unrest" and "[a]n epidemic of violence."

The Results

"[A]t the end of 1946, less than a year and a half after V-J day,[6] more than 10 million demobilized veterans and other millions of wartime workers have found employment in the swiftest and most gigantic change-over that any nation has ever made from war to peace."[7]
—Harry S. Truman, *Economic Report*, January 8, 1947, p. 1

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[5] Gunnar Myrdal, "Is American Business Deluding Itself?", *Atlantic Monthly* (November 1944): 51.
[6] V-J stands for Victory over Japan. V-J day was August 15, 1945.
[7] Quoted in Robert Higgs, "From Central Planning to Market: The American Transition, 1945–47," in Higgs, *Depression, War, and Cold War* (New York: Oxford University Press, 2006), 101.

Myrdal was right: a huge number of jobs were lost. Robert Higgs, citing census data, shows that the armed forces fell by 10.5 million between 1945 and 1947 when the postwar transition was complete. Civilian employment by the armed forces fell by 1.8 million, and military-related employment in industry fell off the cliff from 11.0 million to 0.8 million—a drop of 10.2 million, double Myrdal's estimates.[8] Where he was wrong was on the effects of demobilization. As demobilization proceeded rapidly, employers in the private sector, full of the optimism that Myrdal had considered delusional, scooped up millions of the soldiers, sailors, and others who had been displaced from the armed forces and from military industries.

Indeed, in just the 11-month period between August 1945 and July 1946, the number of people in the U.S. military fell from 12.0 million to 2.7 million, a drop of 9.3 million. Over those same 11 months, civilian employment grew from 53.6 million to 57.8 million, an increase of 4.2 million people. The number of unemployed people did increase, rising from 0.8 million to 2.3 million, but with a civilian labor force of 60.1 million, the 2.3 million unemployed people implied an unemployment rate of only 3.8 percent. As President Truman said, "This is probably close to the minimum unavoidable in a free economy of great mobility such as ours."[9]

Although the war essentially ended with V-J Day on August 15, 1945, the peak year for wartime spending was 1944. Therefore, a comparison of employment between 1944 and 1948, when the transition was complete, is instructive. Table 1 gives the change in employment, with 1944 as the baseline, in the industries that added the greatest number of workers and those that released the most workers.[10] Just two nongovernment industries—"other transportation equipment" and "iron and steel and other products, including ordnance"—lost 3,256,000 full-time equivalent jobs. Also, two sectors of the federal government, the civilian sector (not counting work relief or government enterprises) and the military, lost 10,963,000 full-time equivalent jobs.

On the plus side, the major acquirers of labor were retail trade and automobile services, contract construction, wholesale trade, services, and motor vehicles and equipment. In total, these nongovernment industries added 4,658,000 jobs. The one government acquirer of labor was state and local government, with 571,000 added jobs.

[8] Higgs, "From Central Planning to Market," 111.
[9] *Economic Report*, 1.
[10] This is similar to Table 4 in Alexander J. Field, "The Impact of World War II on U.S. Productivity Growth," May 2005, http://www.crei.cat/activities/sc_conferences/24/papers/field.pdf. The difference is that Professor Field used 1943 as the baseline and I use 1944.

Table 1: Labor Acquirers and Labor Releasers 1944-1948 (in thousands)

(FTE means "full-time equivalent")		
Non Government Labor Acquirers	FTEs acquired	1944 FTEs
Retail trade and automobile services	1551	4926
Services	817	5165
Contract Construction	1158	1110
Wholesale trade	657	1771
Motor vehicles and equipment	425	341
Finance, insurance, and real estate	306	1364
Telephone and telegraph	206	486
Total Acquired	5120	
Labor Releasers	FTEs released	1944 FTEs
Other transportation equipment	2704	3175
Iron and steel and their products, incl. ordnance	552	2424
Total Released	3256	
Government Labor Acquirers	FTEs acquired	1944 FTEs
State and local	571	2713
Labor Releasers	FTEs released	1944 FTEs
Federal civilian (not work relief)	1142	2520
Military	9821	11365
Total Released	10963	

Source of Data: Author's calculations based on U.S. Department of Commerce, National Income and Product Accounts of the United States, 1929-1994, Vol. 2, Table 6.5A, p. 26.

Reducing Spending

Not only did the government drastically cut government employment in the postwar period, it also drastically cut government spending. The U.S. government cut spending from its peak level of $96.9 billion (44.0 percent of GNP) in 1944 to $24.2 billion (8.9 percent of GNP) in 1948, *a drop of more than 35 percentage points of GNP*.[11] The cuts in government spending happened quite quickly with demobilization so that, even by 1947, government spending was down to $22.6 billion.

While government spending fell like a stone, federal tax revenues fell only a little, from a peak of $44.4 billion in 1945 to $39.7 billion in 1947 and $41.4 billion in 1948. In other words, from peak to trough, tax revenues fell by only $4.7 billion or 10.6 percent. This is because President Truman and Congress cut tax rates on individual income only slightly. They reduced the top marginal tax rate from 94 percent in 1945 to 86.45 percent in 1946 and 1947 to 82.13 percent in 1948 and 1949. They reduced the lowest marginal tax rate from 23 percent in 1945 to 19 percent in 1946 and 1947 and to 16.6 percent in 1948.[12]

The Change in Government Policy

Why was the transition from a wartime economy to a peacetime economy so smooth? Why, with all of those government jobs lost and that huge decline in government spending, did the optimistic views of businessmen and of Americans generally turn out to be right? The reason, in a nutshell, is that the United States changed, as Myrdal himself had said, from a centrally planned economy to a relatively free one.

Central Planning during World War II

On April 28, 1942, less than four months after the U.S. government had officially entered World War II, the government imposed economy-wide price controls with its General Maximum Price Regulation. This regulation did not allow prices to rise above the highest level they had reached in March 1942. While economists in the Office of Price Administration, the federal bureaucracy that administered the controls, experimented with relaxing controls on items in short supply, President Franklin Roosevelt's famous "Hold the Line" order in April 1943 stopped such experimentation.

The inevitable result of these price controls was shortages of many goods. To deal with shortages, the government rationed many items, including cars, tires, gasoline, bicycles, typewriters, meat, sugar, coffee, cheese, canned milk, rubber footwear, shoes, and

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[11] Although today the federal government fortunately does not spend 44 percent of GNP, a 35 percentage point drop in GNP would amount to over $5 trillion.
[12] The data on marginal tax rates are from Joseph A. Pechman, *Federal Tax Policy, 5th ed.* (Washington, DC: Brookings Institution Press, 1987), 313.

stoves.[13] Also, the government forbade outright the production of many consumer items, including cars, refrigerators, sewing machines, and even bicycles.[14]

Rationing at the consumer level meant that people who shopped for rationed items had to pay two prices: the money price, kept purposely below the price at which the quantity demanded would have equaled the quantity supplied, and the coupon price, measured in the number of government-allocated coupons the shopper had to pay for the item.[15]

The government didn't just ration goods at the consumer level. It also rationed further up the chain. Never shy about starting bureaucracies, Roosevelt created two main agencies to allocate raw materials: the War Production Board in January 1942 and the Office of War Mobilization in May 1943.

In order to divert materials to the war effort, the War Production Board "banned double-breasted suits, vests, trouser cuffs, and patch pockets for men."[16] Possibly the only good result of its restrictions on the textile content of clothing, at least from the viewpoint of many men, was that the formerly rare two-piece women's bathing suit became quite common. The board also created the Controlled Materials Plan, which rationed steel, aluminum, and copper to industrial users. Hugh Rockoff, an economist and expert on World War II price controls, explains:

> Suppose a munitions manufacturer had trouble acquiring all of the steel he needed. Under the system that evolved in World War II, the munitions maker could get an order forcing a manufacturer to sell him steel at the ceiling price.[17]

The steel manufacturer no longer had the option to sell his steel to other buyers. Demand no longer dictated the price. The government did.

Deregulation after World War II

With the end of World War II, however, the government ended rationing, price controls, and production controls almost as quickly as it had started them. President Truman and his chief price controller, Chester Bowles,[18] actually wanted to keep price controls, and in June 1946, Congress passed legislation to continue the controls for nine more months.

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[13] Hugh Rockoff, *Drastic Measures: A History of Wage and Price Controls in the United States* (New York: Cambridge University Press, 1984), 128.
[14] The last car produced in the United States during the war was produced on February 10, 1942, just nine weeks after Congress declared war. David M. Kennedy, *Freedom from Fear: The American People in Depression and War, 1929–1945*, 645. In 1943, the entire U.S. automobile industry sold only 139 cars, and they were all sold from inventories. Rockoff, *Drastic Measures*, 29.
[15] See Robert Higgs, "The Two-Price System: U.S. Rationing During World War II," *The Freeman* 59, no. 4 (May 2009).
[16] Kennedy, *Freedom from Fear*, 645.
[17] Rockoff, *Drastic Measures*, 113.
[18] A liberal Democrat and father of Marxist economist Samuel Bowles.

Truman, however, objected to the sunset clause and other aspects of the bill that weakened price controls, so he vetoed it. The result was that price controls ended on June 30, 1946.

Prices, which had been repressed by these controls, shot up. Between mid-June and mid-July, food prices rose by 12.9 percent and meat prices rose by 29.6 percent. Of course, these do not represent real price increases because price controls on meat and other foods had caused shortages. Indeed, a butcher joke makes the point that it's small comfort to have "cheap" meat (or indeed any other good) when the very fact that it's cheap is what makes it unavailable:

Customer: What do you charge for filet mignon?
Butcher: $8.99 a pound.
Customer (outraged): $8.99 a pound? Why, I can get filet mignon from the butcher across the street for $7.00 a pound.
Butcher: Then why don't you buy it across the street?
Customer: Because he doesn't have any filet mignon left.
Butcher: Well, when I don't have any filet mignon left, I sell it at $6.00 a pound.

Congress and Truman responded to these quick price increases by reimposing price controls. The bill that Truman signed on July 25, 1946, however, had many exemptions, more checks and balances on the price controllers than during wartime, and a sunset clause requiring the Office of Price Administration to close by June 30, 1947.

Price controls actually ended sooner than that. On October 5, 1946, after the price controls had caused yet another meat shortage, Truman, aware of a mid-September Gallup Poll finding that a majority of the public had turned against price controls, ended the controls on meat prices. That fall, Republicans, the minority in both the House and Senate, ran campaigns for Congress with a two-word slogan: "Had enough?" Their leader, Senator Robert Taft of Ohio—known at the time as "Mr. Republican"—was an outspoken critic of price controls. In the November 5 Congressional elections, the Republicans gained 57 seats in the House of Representatives and 13 seats in the Senate, giving them a majority in both legislative bodies. On November 9, just four days after the election had stripped his Democratic Party of majorities in both bodies, President Truman abolished all remaining price controls except those on rental housing, sugar, and rice.[19] In December of that year, Executive Order 9809 abolished the rationing body, the Office of War Mobilization and Reconversion.[20] Thus did the planned economy transition to a relatively free one.

Why the Economy Adjusted

Two good things happened to the U.S. economy when the war ended. First, as noted above, the United States moved from a relatively planned economy to a relatively free

[19] This paragraph draws heavily on Rockoff, *Drastic Measures*. Interestingly, Rockoff does not mention the November 1946 midterm elections as a factor in Truman's decision to end controls.
[20] See http://www.archives.gov/research/guide-fed-records/groups/250.html#250.1

economy. Second, the huge reduction in government expenditures on goods and services (war materiel and draftees' services) freed up resources for an increase in private goods and services.

Why were these two developments so good? An economy is not a collection of aggregates but rather millions of people producing things that other people want and wanting to buy things that other people produce. Every time people exchange, if they get what they expect to get from the exchange, they gain. The idea that both sides gain from exchange is probably the most powerful simple conclusion in economics.

During the war, the government discouraged and reduced exchange among private parties in two ways. First, and by far more important, the federal government put itself on the consuming end of about 40 percent of the country's annual production. It used millions of years of draftees' services, millions of years of other labor services, and a huge percent of inanimate raw materials to produce war materials. And the unfortunate fact is that even wars that are worth fighting destroy both physical objects and people. Approximately four hundred thousand U.S. military personnel were among the tens of millions who died during World War II. [21] Once the war ended, all of the resources that would have been used had the war continued were now available for peacetime use. For example, a person who had been drafted into the military might come home and help build a house. Another might come home and work in a store, using the proceeds to buy the house that the first draftee helped build.

The second way the government reduced exchange was with price controls and rationing. Price controls, to the extent that they keep prices lower than they would be otherwise, cause there to be less production and prevent the market from allocating goods and services where they are most valued. Rationing adds to the misallocation because, in assigning ration coupons, governments make judgments about who gets what without the information a free economy would have yielded. Many of these judgments in World War II were based on political clout rather than on efficiency. So, for example, many congressmen received special X stickers to put on their cars, allowing them to buy all the gasoline they wanted at the artificially low prices that the government had set. Less politically powerful people got less gasoline.[22]

When the government removed price controls and rationing, people could look at the higher prices and consider whether they valued the goods and services enough to pay for them. Also, producers, wanting to make more money, would produce more of the higher-priced goods and services. In this way, getting rid of price controls and rationing unleashed people to trade so that goods and services went to their highest-valued uses. Moreover, because ending the price controls ended the shortages, shoppers no longer had

[21] See Congressional Research Service, "American War and Military Operations Casualties: Lists and Statistics," February 26, 2010, 6, accessed November 3 at http://www.fas.org/sgp/crs/natsec/RL32492.pdf.
[22] In his autobiography, *David Brinkley: A Memoir*, the late network newsman David Brinkley tells how he was unable to continue a serious romance during World War II because he couldn't legally buy gasoline to drive to the city where his lady friend lived. This was not a trivial consequence, as anyone who was ever young and in love can tell you.

to go from store to store looking for items in short supply. The removal of price controls substantially increased the number of mutually beneficial exchanges, causing the economy to boom.[23]

The GNP Data: What is the Truth about the Postwar Period?

According to official government data, the U.S. economy suffered its worst one-year recession in history in 1946. The official data show a 12-percent decline in real GNP after the war. A 12-percent decline in one year would fit anyone's idea of not just a recession, but an outright depression. So, is the story about a postwar boom pure myth?

If you ask most people who were young adults in those years (a steadily diminishing number of people, so talk to them soon) about economic conditions after the war, they will talk about "the postwar boom." They saw it as a time of prosperity. Why is there a disconnect between their perceptions and the data? There are two reasons.

The first is what economists call an "index-number problem." When price controls were removed after the war, prices shot up. Therefore, the prices used to convert nominal GNP into real GNP made real GNP look lower than it actually was. Milton Friedman and Anna J. Schwartz note in their modern classic, *A Monetary History of the United States, 1867–1960*:

> The jump in the price index on the elimination of price control in 1946 did not involve any corresponding jump in "prices"; rather, it reflected largely the unveiling of price increases that had occurred earlier.[24]

Friedman and Schwartz make the same point I made with my butcher joke. For example, imagine that the free-market price of a pound of filet mignon during the war would have been $1.40 a pound. But imagine further that the government had set the price at $1.00 a pound. Then, when the price control was removed, the price would have shot to $1.40 a pound. Inflation statistics would have recorded some amount of inflation due to this large price increase. But those statistics would have overstated the real price increase because getting beef at $1.40 a pound is better for many of the people who couldn't, because of the shortage, get it at $1.00 a pound.

Second, the GNP and GDP data, which are supposed to measure the value of production, instead measure government spending on goods and services at their cost—that is, at the

[23] The story of U.S. postwar prosperity is somewhat similar to the story of West German postwar prosperity, a story I have told elsewhere. Price controls in West Germany, inherited from Hitler and enforced by the Allies, were much harsher than those in the United States, and therefore caused more hardship. But the basic story is similar. See David R. Henderson, "The German Economic Miracle," in David R. Henderson, ed., *The Concise Encyclopedia of Economics* (Indianapolis: Liberty Fund, 2008), http://www.econlib.org/library/Enc/GermanEconomicMiracle.html.

[24] Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton: Princeton University Press, 1963), 558.

price the government paid for them. But we no have no idea what the value of all those goods and services bought by the government during the war was worth. So we can't compare GNP during the war with GNP after.

Why, then, do I say that there was a postwar boom? People bought cars, houses, gasoline, tires, sugar, nylons, meat, and other things that they were unable to buy during the war. Also, the unemployment rate, as noted earlier, was very low.

The Postwar Recovery vs. the Prewar Economy

"[Y]ou have got to let business make money out of the process or business won't work."[25]
—Henry Stimson, Secretary of War, July 10, 1940, to September 21, 1945

Relaxing the assumption that huge declines in government spending will hurt an economy and understanding the destructive role that price controls and rationing played in World War II make it easy to understand why the economy could adjust so quickly after the war ended.

As noted, there is no good way to compare output after the war with output during the war because about 40 percent of wartime output was not sold in a market. But it does make sense to compare postwar output with prewar output. We can take 1941 as the last year before America's official entry into the war because the United States did not enter the war until December 8, 1941. In that year, real GNP (in 1964 dollars) was $287.1 billion. In 1946, the first full year after the war ended, real GNP was $337.9 billion, and in 1947, it was $336.8 billion (both in 1964 dollars). Thus, real GNP in the first two transition years after the war was more than 17 percent higher than before the war.

Why did the economy do much better after the war than at the beginning? We can't know for sure, but the most likely explanation is the change in administration from Roosevelt, who championed central government planning of the economy, to Truman, who was much less inclined to support government control.

Before the United States entered into World War II, the New Dealers—the faction of Franklin Roosevelt's administration that was most hostile to economic freedom—had significant power. During the war, they were largely displaced by more pragmatic people who were not hostile to free markets (thus the quote from Henry Stimson at the beginning of this section). Historian Alan Brinkley writes:

> Virtually none of them [Roosevelt's New Dealers] moved into important positions in the war bureaucracies; many of them lost their positions in the civilian agencies in which they had been serving. By the end of 1943, the

[25] Quoted in Kennedy, *Freedom from Fear*, 622.

> liberal diaspora was nearly complete. Almost no real "New Dealers" remained.[26]

One of the New Dealers who got a position of power was the economist John Kenneth Galbraith. As the deputy head of the Office of Price Administration, he used his power to, among other things, ban all tire sales.[27] Galbraith generated such opposition that he was forced out in 1943.

Roosevelt's death cleared the way for President Harry Truman. Although he was a New Dealer, Truman had no love for "the long-haired boys" who were associated with the most anti-market parts of the New Deal—people such as Ben Cohen, William O. Douglas, trust-buster Thurman Arnold, price controller Leon Henderson, and Felix Frankfurter. In 1945 and 1946, Truman got rid of a number of New Dealers, including two of the most prominent ones: former vice president Henry Wallace and Harold Ickes.[28]

Higgs points out that the polling data bear out the perception of a regime change under Truman. As a result of the change, writes Higgs, "Investors were then much more willing to hazard their private property than they had been before the war, as both survey data and financial market data confirm."[29]

And invest they did. As table 2 shows, gross private domestic investment in real 1964 dollars was $44.4 billion in 1941. For all the war years it was half or less of that 1941 level. In 1946, it shot up to $51.7 billion, grew slightly to $51.8 billion in 1947, and then grew to $60.6 billion in 1948.

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[26] Alan Brinkley, *The End of Reform: New Deal Liberalism in Recession and War* (New York: Knopf, 1995), 145, quoted in Robert Higgs, "Regime Uncertainty: Why the Great Depression Lasted So Long and Why Prosperity Resumed After the War," in Higgs, *Depression, War, and Cold War*, 19.
[27] Rockoff, *Drastic Measures*, 129.
[28] Wallace was pro-Soviet and, as FDR's vice president, had been given a number of war powers. FDR stripped him of these powers in 1944. FDR appointed him Secretary of Commerce, but Truman fired him in September 1946. Ickes, who had been Secretary of the Interior for the whole of FDR's presidency, resigned in February 1946.
[29] Higgs, "Central Planning to Market," 114.

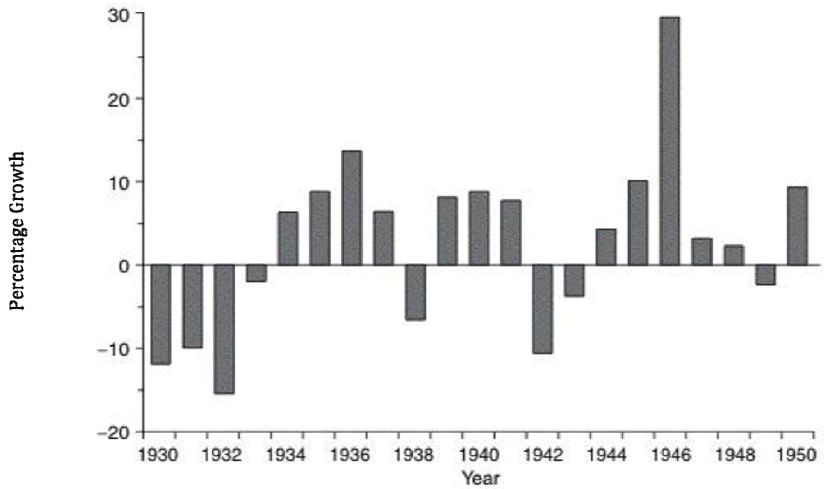
Table 2: Gross Private Domestic Investment, 1929-1950 (in 1964 dollars)

Year	Total investment (in billions)
1929	43.4
1930	29.8
1931	18.6
1932	5.5
1933	5.9
1934	10.2
1935	19.2
1936	26.2
1937	32.4
1938	19.3
1939	26.7
1940	35.3
1941	44.4
1942	22.8
1943	13.6
1944	15.4
1945	21.1
1946	51.7
1947	51.8
1948	60.6
1949	48.4
1950	68.2

Source: Economic Report of the President, January 1965, Table B-2.

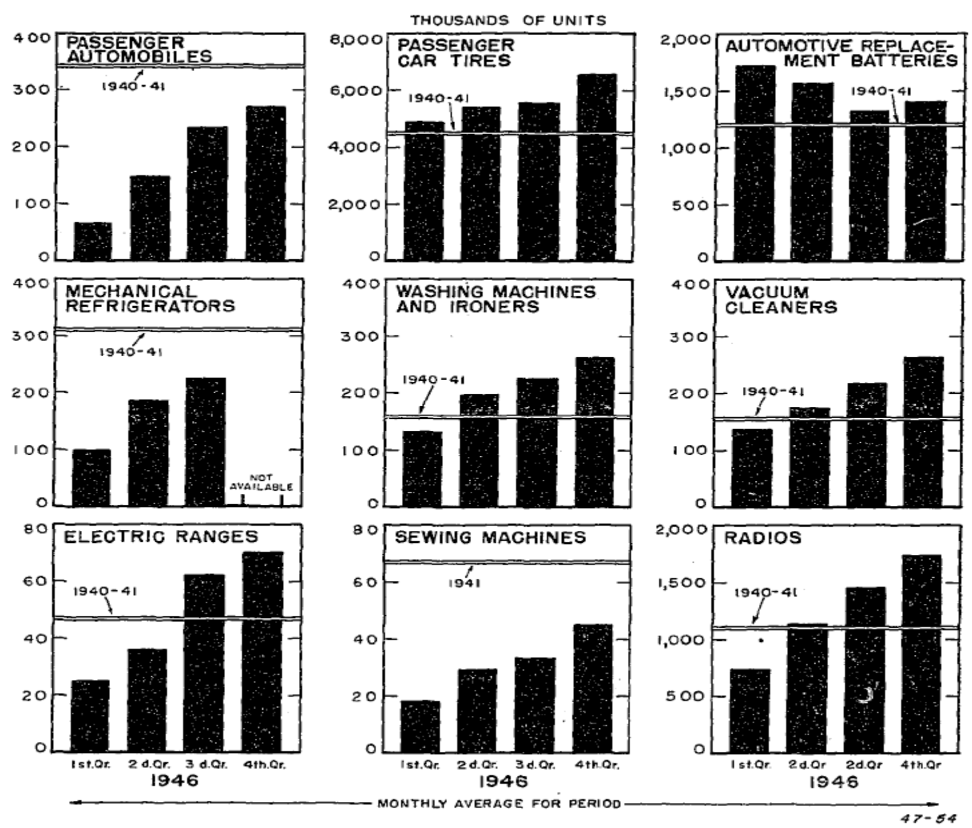
The massive increase in private investment was one of the major factors in the postwar boom, because the boom in private investment led to a boom in private output. Figure 2 shows the growth rate in real private gross domestic product in 1987 dollars. In 1946, private gross domestic product (GDP) rose by a stunning 29.5 percent, an all-time record for the U.S. economy. This output took many forms: cars, car tires, refrigerators, washing machines, vacuum cleaners, electric ranges, sewing machines, and radios, to name a few (see figure 3).

Figure 2: Percentage Growth of Real (1987 dollars) Private GDP, 1930-1950



Source: Higgs (2006). Figure 5-2 on p. 103.

Figure 3: Output of Consumer Durables[1]



[1] Data represent production for batteries, tires, and automobiles, and shipments for all other products, except the base-period data for automobiles represent factory sales. The base period is the calendar year 1941 for sewing machines and the fiscal year 1940-41 for all other products.

Source: "The Economy in Reconversion: A Review of 1946." Bureau of Foreign and Domestic Commerce, U.S. Department of Commerce, Survey of Current Business: Vol. 27, No. 02 (February 1947). Can be found at http://library.bea.gov/cdm4/document.php?CISOROOT=/AnnRev&CISOPTR=1165&REC=10

How did industries shift so quickly from public service to private production? The main industry for which the story seems clear is the auto industry. When the auto companies shifted over from producing military trucks, jeeps, and airplanes to producing cars, rather than come up with new designs and dies, they simply used existing dies from 1941 to make the cars of 1946 and 1947 and even those of the first few months of 1948. To signal the start of the new designs in the late fall of 1948, the auto companies called these the 1949 models.[30] Even through the early challenges of lingering rationing and union strikes, the industry, fuelled by private investment and initiative and operating in a freer economy reconverted to peacetime production.[31]

Why Popular Explanations Are Wrong

Keynesians and others have their own explanations for why the Keynesian predictions of postwar economic disaster did not come to pass. The three most popular are: Rosie the Riveter went home; the G. I. Bill put many returning soldiers in college rather than into the workforce; and the American people stopped saving and started spending the money they had accumulated during the war. The data, however, do not support these explanations.

Rosie Goes Home

"There was no surge in unemployment," goes the first explanation, "because women left the defense plants and went back to being housewives and raising families."

This explanation is half true and totally misleading. First, approximately half of the women who entered the labor force in the early 1940s stayed. The number of women in the labor force rose from 14.5 million in 1941 to a peak of 19.4 million in 1944, declining to 16.9 million in 1947. In other words, of the 4.9 million women who entered the labor force between 1941 and 1944, 2.4 million stayed in the labor force.[32] Thus, there was still a need for millions of jobs to open up for newly demobilized male soldiers. The fact that the unemployment rate stayed in the low single digits is an outstanding success story.

Second, what defense plants? Almost all of them shut down or reconverted to peacetime uses after the war. Women who wanted to stay employed had to find other private work. As Higgs points out, "[T]he real miracle was to reallocate a third of the total labor force to serving private consumers and investors in just two years."[33]

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[30] Telephone interview with economic historian Gene Smiley, August 31, 2010.
[31] The appendix shows a timeline of events in the auto industry.
[32] Data are from the U.S. Department of Commerce, *Historical Statistics of the United States, Colonial Times to 1957* (Washington, DC: Government Printing Office, 1960), 71.
[33] Higgs, "Central Planning to Market," 111.

The G. I. Bill

The second explanation goes, "The economy adjusted smoothly because the G. I. Bill put so many of those 10 million demobilized soldiers and sailors into college."

At its peak, the G. I. Bill put 800,000 veterans into college in September 1946. Had all these veterans been officially unemployed instead, the unemployment rate would have been higher by only 1.4 percentage points.[34] Moreover, the special unemployment benefits given to veterans—$20 a week for up to 52 weeks—caused the unemployment rate to be even *higher* than it would have been.[35] Given that in 1946 the average weekly wage in manufacturing, a relatively high-wage industry, was $43.74 and the average weekly wage in the relatively low-wage retail industry was $28.31,[36] some veterans might have rationally held out and waited for a well-paying job. Indeed, in the first 11 months of 1946, although the average number of unemployed males was only 1.8 million, the average number of unemployed World War II veterans was 900,000. In other words, half of the unemployed males in 1946 were World War II veterans.

Pent-Up Demand and the Drawing Down of Savings

Keynesian economists also explained why their glum postwar predictions hadn't come true by arguing that people drew down their savings to finance their "pent-up demand" for the various goods they could not have during the war: cars, tires, refrigerators, stoves, and so on. In 1943, Paul Samuelson, in the article quoted at the beginning of this paper, laid out the idea that pent-up demand for consumer goods would cushion the blow of demobilization. Cited in almost every textbook on U.S. economic history, this explanation has become the orthodox one. There's a problem with this explanation, though: it doesn't fit the evidence.

There are two parts of this explanation. The first, which is plausible, is that there was pent-up demand due to the heavy rationing that the government imposed during the war. People were ready to buy cars, for example, after having not been able to do so for over three years. But Samuelson pointed out that this would be a short-term cushion at best. Of course, one could argue that the two years from 1945 to 1947 were short term. But then, after this pent-up demand was satisfied, there should have been a major drop in economic activity and a major increase in unemployment in the medium term. That didn't happen. The unemployment rate was 3.8 percent in 1948 and kicked up to only 5.9 percent in 1949.

The second part of the explanation is that people drew down their savings that they had accumulated during the war. But the term "savings" is what economists call a stock, whereas "saving" is a flow. If I draw down my savings this year, not only do I not save anything this year, but I also spend some of my stock of savings. So, if people were

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[34] Higgs, "Central Planning to Market," 116.
[35] Ibid.
[36] These data are from *Economic Report of the President, 1948* (Washington, D.C: Government Printing Office, 1948), 117, Table X.

drawing down their savings, they would have a negative rate of saving. They didn't. While the personal saving rate did fall substantially from a wartime peak of 25.5 percent in 1944 to 9.5 percent in 1946 and 4.3 percent in 1947, it remained positive.[37]

Was the Post-WWII Boom a One-Time Event?

As astonishing as the post WWII boom was, it was not a one-time experience. In the 1990s, the United States had a similar postwar boom. This time the "war" that ended was not a shooting war but the Cold War. President George H. W. Bush and Defense Secretary Cheney, recognizing that the Cold War had ended, set the U.S. defense on a glide path to fall from 5.9 percent of GDP in 1990 to 3.6 percent in 2000. President Clinton, when he took office in January 1993, kept in place the Bush/Cheney cuts. Then, when the Republicans took control of both houses of the legislature in 1995, they constrained domestic spending. The result: overall federal spending fell from 22.1 percent of GDP in 1991 to 18.0 percent in 2000. And, just as with the years following World War II, the United States experienced a boom. Between 1991 and 2000, real U.S. GDP grew by 40 percent, making the average annual growth rate 3.8 percent. Of course, there were other factors: the computer revolution and reductions in trade barriers, to name two. But could the first factor—the computer revolution—be due partially to declining spending on the military, freeing up technical talent to work elsewhere?

Yes We Can (Do It Again)

The post-World War II experience, although it probably did not astonish the businessmen whose optimism Gunnar Myrdal criticized, is, nevertheless, somewhat astonishing. One hesitates to draw too many lessons from one historical experience. But the combination of this experience with the United States' experience in the 1990s, Canada's experience in the 14 years from 1994 to 2008,[38] and Germany's experience after World War II does lead to some conclusions:[39]

1. Cuts in government spending, even large ones, do not necessarily produce a recession.
2. Private markets can respond quickly in such circumstances, replacing government-produced goods and services with private goods and services.
3. Such a quick response re-employs capital and labor quickly so that unemployment and underemployment are mitigated.

Increased private investment will not happen quickly unless the government effectively signals a reduced role in making decisions in private markets. At the end of World War

[37] The data are from Higgs, "Central Planning to Market," 108.
[38] See David R. Henderson, "Canada's Budget Triumph" (working paper, Mercatus Center at George Mason University, Arlington, VA, September 2010), http://mercatus.org/publication/canada-s-budget-triumph.
[39] Henderson, "The German Economic Miracle."

II, this was signaled by ending rationing of production inputs and of final goods and by terminating price controls; today, it could be signaled by placing a moratorium on new regulations, repealing the recently passed health care bill, and ceasing the subsidization and oversight of banks and auto firms.

Appendix: Chronology of Auto Industry Progress, 1944 to 1946

A look at *Ward's Automotive Reports* from 1944 to 1946 shows how the auto industry dealt with challenges of government quotas, labor-union work stoppages, and shortages of raw materials.

June 24, 1944
"Approximately 96 percent of the motor truck trailer production in 1943 was for military purposes."

"Military demands and an acute shortage of labor continue to restrict the availability of civilian automobile replacement parts."

June 2, 1945
"The General Motors chairman of the board expected to be awarded a total of 95,000 passenger cars out of the 1945 quota of 214,000." (The allowance was based on 1941 sales.)

June 23, 1945
The production ceiling for each company was as follows:

Company	**Second Half of 1945**	**First half of 1946**
General Motors	95,096	190,192
Chrysler	49,635	99,270
Ford	39,910	79,820
Studebaker	9,275	18,550
Hudson Motor	8,000	13,602
Packard Motor	8,000	12,118
Nash-Kelvinator	8,000	11,550
Willys-Overland Motors	8,000	8,000
Graham-Paige Motor	8,000	8,000
Crosley Corp.	8,000	8,000

June 30, 1945
Work on reconversion of car factories is going faster than expected due to the labor freed up by the severe drop-off in "war work."

July 7, 1945
"As matters currently stand, it appears that the Dearborn manufacturer [Ford] will be the only producer in the industry that will be able to realize regular car building operations during July and August."

"The reconversion of the Fisher body plants is no small task because of their large scale involvement in war materiel processing projects. Because of this condition, Chevrolet is reported as the only G.M. line that will be *allowed* two types of car bodies in the September distribution." (Emphasis added.)

July 21, 1945
Civilian production is difficult due to slow supply of materials. "Preference ratings given to military bookings remain a definite bar to distribution for general domestic purposes."

September 1, 1945
Ford has announced that he intends to more than double his last half of 1945 WPB [War Production Board] allowed quota of passenger cars now that production controls have been eliminated.

December 1, 1945
"Strikes, not only the big one against General Motors but others throughout the component branch of the industry, continue to hamper seriously or completely block truck and passenger car producers."

"Ford, forced to lay off some 40,000 hands because of strikes in 14 key feeder plants until their products are available, on Wednesday of this week produced only 579 Fords, 68 Mercurys, 18 Lincolns, 347 commercial cars and 478 trucks."