

The Great Depression of 1946

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It seems inevitable that some Ph.D. student in economics some time soon will pick up a recent copy of the *Economic Report of the President* looking for a dissertation topic and learn that there was a Great Depression in 1946, a topic which he or she will then analyze using all the tools of modern economic analysis. The student will read that real gross national product in 1946 fell 19 percent, the largest single decrease in annual output in the century of recorded annual GNP data.¹ He or she will also learn quickly that from 1944 to 1947, real output fell by 22.7 percent. Looking up population figures, the student will observe that per capita output actually declined by more than one-fourth in real terms over the three years of conversion from war to peace, and did not regain the pre-depression (1944) level until 1964.²

From all of this the student will no doubt conclude that the heretofore neglected Great Depression of 1946 was the worst cyclical downturn in modern American economic history, and that by some measures it had a greater disruptive impact on the American economy than the earlier, more celebrated Great Depression of 1929–41. For example, in the earlier downturn, real per capita GNP surpassed the 1929 peak levels within 12 years, compared with 20 years it took to surpass the 1944 peak after the 1946 depression. Moreover, while the 1929–33 downturn was quantitatively a bit larger (30 percent vs. 23 percent), no single year exhibited a decline of the magnitude of that witnessed in 1946.

If the student is typical of most economics students today, he or

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¹See, for example, the 1990 *Economic Report of the President* (Washington, D.C.: Government Printing Office, 1990), pp. 296, 301.

²In 1982 dollars, the decline is from \$9,976 in 1944 to \$7,401 in 1947. Population data used in this calculation are from U. S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington, D.C.: Government Printing Office, 1975).

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she will lack a historical perspective. Therefore, that individual no doubt will fail to observe that the Great Depression of 1946 has been worsening every decade. In 1960, when *Historical Statistics of the United States, Colonial Times to 1957* was published, the reported decline in real GNP in 1946 was but 7.8 percent, and for the three years 1944–47 just 9.8 percent, hardly a great depression.³ When the next edition of *Historical Statistics* was published in 1975, however, the 1946 decline was a more robust 12 percent, and the total business cycle downturn (1944–47) saw a drop in real output of 14.2 percent.⁴

By 1981, when the Department of Commerce reported revised national income data, the 1946 drop had reached a truly “depressing” 14.7 percent, with the episodic decline reaching 17.4 percent.⁵ Five years later, in 1986, the 1946 depression truly earned the label of “great” when the latest revisions in statistics revealed the 19 percent drop discussed above. *The Great Depression of 1946 seems to be getting constantly worse, and if current trends continue should soon pass the 1929 depression in magnitude by any criteria.*

If our mythical student looks further in the *Economic Report of the President*, he or she will get even more puzzled and, perhaps, excited. The student will learn that the sharp decline in GNP occurred with unemployment rates below four percent, far below the normal peacetime rate in the twentieth century, either before or after the 1946 “depression.”

He or she will also learn that this relatively full employment was achieved despite an extraordinarily contractionary fiscal policy. The federal budget deficit on a national income accounts basis in 1944 was some \$54.5 billion, equal to 25.8 percent of GNP. That would be the equivalent in 1990 (in relation to GNP) of a deficit of about \$1,400 billion. By 1947, the federal budget was in *surplus* by \$13.4 billion, or 5.7 percent of GNP. The equivalent today (in relation to GNP) would be well over a \$300 billion surplus. Among other things, the government in pursuing this extraordinarily contractionary fiscal policy fired (or “released from employment”) roughly 20 percent of the total labor force. All of this had little impact on unemployment.

We know of no episode in American economic history that more

³See *Historical Statistics of the United States, Colonial Times to 1957* (Washington, D.C.: Government Printing Office, 1960), p. 139.

⁴*Ibid.*, p. 224.

⁵U.S. Department of Commerce, Bureau of Economic Analysis, *The National Income and Product Accounts of the United States, 1929–1976: Statistical Tables* (Washington, D.C.: Government Printing Office, 1981), p. 6.

keenly illustrates several insights from Austrian economics than the 1944–47 business-cycle experience. The ultimate irony is that the modern historical interpretation of that era suggests that it was a period that demonstrated the superiority of Keynesian economic doctrines. It was in this period that the death knell came to residual sentiments among the American economics profession that market coordination is the most appropriate and efficient means to assure reasonably “full” employment of productive resources. Politically, it was during this period that the federal government institutionalized Keynesian-style macroeconomic intervention with the Employment Act of 1946.

Despite the statistics cited above, conventional modern wisdom is that the transition from war to peace proceeded without a major downturn after World War II, and certainly there was no “depression.”⁶ Our subsequent discussion will show that interpretation is essentially correct. However, it is generally accepted that the smooth economic conversion resulted from “pent up” demand for consumer goods offsetting the reduction in defense spending. In other words, the Keynesian prescription that “demand creates its own supply” worked after World War II.

After studying this historical episode, we conclude the following:

(1) Conventional wisdom is correct on one thing: there was no depression in 1946, or anything resembling one.

(2) Accordingly, aggregate economic statistics need to be viewed with a skeptical eye, particularly in periods such as this where there are pronounced governmental interventions in markets.

(3) The failure of the nation to enter a depression after 1944, however, reflected not pent-up consumer demand so much as the dramatically ameliorative effects of changing relative prices on the macroeconomy.

(4) The smooth transition to peace was accomplished despite the existence of a fiscal policy that was the very antithesis of Keynesian economic prescriptions to deal with falling aggregate demand. The most dramatically contractionary fiscal policy in modern American history failed to materially alter the pace of economic activity.

(5) Keynesian economics triumphed in politics and among academic economists at the very time that empirical evidence was clearly exposing its explanatory weaknesses. The very empiricist-

⁶This is not to deny, however, that there was a fair amount of economic discontent in the period. Because of continuing price controls into 1946, there were shortages of many consumer goods; labor strife ran high, with days missed because of work stoppages reaching a new peak.

quantitative economists who rhetorically were selling the new economics of Keynes on the grounds that the evidence of the 1929–41 downturn showed the empirical bankruptcy of market-oriented economic doctrines were ignoring, perhaps deliberately, the 1944–47 empirical evidence that was devastating to the Keynesian paradigm.

(6) A market-Austrian interpretation of this historical episode is very much more in keeping with the evidence.

Statistics Do Lie

Some official Department of Commerce statistics on this historical episode as they were published in 1960, and as they were published in 1990, are included in table 1. Note that every single series has somewhat different numbers in 1990 than in 1960. Changes are comparatively minor for money GNP, the civilian unemployment rate, and civilian unemployment, but they are substantial for price changes as measured by the GNP price deflator and, as a consequence, for real GNP. Table 2 summarizes the percent change in the five statistics over the 1944–47 period.

Between 1960 and 1990, government economists approximately doubled their estimate of the inflation occurring from 1944 to 1947, thereby causing the estimated real GNP decline to more than double.

Table 1
Some Key Economic Indicators
as Reported in 1960 and in 1990

| <i>Indicator</i> | <i>Data Reported in 1960</i> | | <i>Data Reported in 1990</i> | |
|----------------------------|------------------------------|------------------------|------------------------------|--------------------------|
| | <i>1944</i> | <i>1947</i> | <i>1944</i> | <i>1947</i> |
| Civilian Unemployment Rate | 1.2% | 3.6% | 1.2% | 3.9% |
| Civilian Unemployment | 670 ^a | 2,142 ^a | 670 ^a | 2,311 ^a |
| GNP Price Deflator | 115 ^b | 141 ^b | 15.3 ^c | 22.1 ^c |
| Money GNP | \$211.4 ^d | \$234.9 ^d | \$211.4 ^d | \$235.3 ^d |
| Real GNP | \$183.6 ^{b,d} | \$165.6 ^{b,d} | \$1,380.6 ^{c,d} | \$1,066.7 ^{c,d} |

^aIn thousands

^b1929 dollars

^c1982 dollars

^dIn billions

Sources: 1960 Data: *Historical Statistics of the United States, Colonial Times to 1957*; 1990 Data: *Economic Report of the President, 1990*.

Table 2
Percent Changes in Key U. S. Economic Indicators, 1944–1947

| <i>Indicator</i> | <i>1960 Data</i> | <i>1990 Data</i> |
|-----------------------------|------------------|------------------|
| Civilian Unemployment Rate | +200.0% | +225.0% |
| Civilian Unemployment (No.) | +219.7% | +244.9% |
| GNP Price Deflator | 22.6% | 44.4% |
| Money GNP | 11.1% | 11.3% |
| Real GNP | -9.0% | -22.7% |

Source: Calculated from data found in table 1 above.

Substantial price controls were in effect in 1944, but were essentially abandoned by 1947. Thus official statistics based on controlled prices should tend to understate true equilibrium prices in 1944, and overstate the true inflation at market-clearing prices observed between 1944 and 1947. Yet the statistical revisions have tended to *increase* the reported inflation from 1944 to 1947, not decrease it. Following from that, the revisions in statistics over time have reduced the reported inflation during World World II. For example, reading the 1990 *Economic Report of the President*, one learns that the GNP price deflator rose a modest 13.8 percent in the four years 1941 to 1945, a lower annual rate of inflation than prevalent in the past two decades.⁷ Yet if one looks at, say, the 1978 *Economic Report*, the reported 1941–45 inflation is 20.3 percent.⁸ A few years earlier, in the 1975 edition of *Historical Statistics*, the wartime inflation was 26.5 percent.⁹ Picking up the 1960 version of *Historical Statistics*, however, the increase in prices was reported to be 29.7 percent.¹⁰ As time passes, it looks like the government was increasingly successful in curtailing inflation in World War II, and increasingly unsuccessful in containing it in the postwar era.

To this point, the various data revisions certainly seem to give justification to a common Austrian suspicion of over-reliance on aggregate economic statistics, particularly price indices, in evaluating

⁷1990 *Economic Report to the President*, p. 298.

⁸1978 *Economic Report*, p. 260.

⁹*Historical Statistics*, p. 224.

¹⁰*Historical Statistics*, p. 139.

the economy. Beyond that, the revisions serve to increase reported economic growth during the command economy era of World War II, and reduce it during the era in which there was a return to increased reliance on market forces in resource allocation, a conclusion that Austrians find hard to accept with equanimity.

Despite our suspicions to the contrary, we must concede, however, that it is possible that the earlier statistics were flawed, and that the revisions have served to paint a more accurate portrayal of the economic history of the period. Perhaps even there really was a major depression in 1946 that no one was perceptive enough to recognize at the time.

One way to evaluate that possibility is to try to ascertain what prices would have been in the 1942–48 period if various historical relationships observed earlier held. Using those forecasted or predicted prices, we can then estimate trends in real GNP using the money GNP statistics on which there has been virtually no data revision and little dispute (see, however, below).

We developed a model to predict the GNP price deflator for the period 1916 to 1941, the era immediately before the World War II experience where price controls were imposed. The years chosen were dictated largely by data considerations. Four independent variables were chosen, two financial in nature and two proxying for real output. The financial variables were *M2* and the interest rate on four- to six-month commercial paper; the “real variables” were ton-miles of class A railroad volume and the total number of employed workers.¹¹

Ordinary least squares regression procedures were used to estimate the GNP price deflator during the 1916–41 period. Actual values for the four independent variables were used with the estimated regression coefficients and constant term to calculate a forecasted value of the GNP price deflator for 1942 to 1948. The forecasting was aided by the fact that the estimated regression had a relatively good statistical fit ($R^2 = .822$), with actual and estimated values being rather close for the years immediately preceding the war. (See the appendix for more details.)

Taking the estimated GNP price deflator numbers for 1942–48, along with the accepted money GNP numbers, we calculated real GNP by year. In table 3, we present our estimates, along with the official estimates as they were reported in 1960 and 1990. Turning first to prices, we estimated that true equilibrium prices rose far more during World War II than any of the official estimates. Our estimate

¹¹All statistics were gathered from the 1975 version of *Historical Statistics of the United States, Colonial Times to 1957*.

Table 3
U.S. Price and Real Output Trends, 1941-48:
Three Interpretations

| Year | Real GNP* | | | GNP Price Deflator | | |
|------|--------------|--------------|-----------------------|--------------------|--------------|-----------------------|
| | 1960 Data | 1990 Data | Authors' Estimates | 1960 Data | 1990 Data | Authors' Estimates |
| 1941 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1942 | 111.5 | 118.8 | 117.1 | 113.2 | 106.5 | 108.0 |
| 1943 | 122.7 | 140.3 | 128.0 | 124.2 | 109.4 | 119.7 |
| 1944 | 132.4 | 151.8 | 127.6 | 126.4 | 110.9 | 131.7 |
| 1945 | 130.4 | 149.0 | 116.1 | 129.7 | 113.8 | 146.1 |
| 1946 | 120.3 | 120.6 | 108.5 | 141.8 | 140.6 | 155.6 |
| 1947 | 119.4 | 117.3 | 115.7 | 154.9 | 160.1 | 161.6 |
| 1948 | 125.7 | 121.9 | 125.6 | 163.7 | 171.0 | 165.6 |

* Numbers are indexed, with 1941 = 100.
 Source: see text.

is that prices rose 46 percent from 1941 to 1945, compared with official estimates varying, over time, between 24 and 30 percent. The historical experience from which our calculations were extrapolated was an era largely (although not completely) free of price controls. Our estimated price index thus incorporates the disguised inflation hidden by the existence of controls that was manifested in shortages, black markets, shoddy quality of goods or services, etc.¹²

By contrast, we estimate that while inflation continued after the war (imprudently, we might editorially add), in a meaningful sense it was far less than what has been reported, since repressed, disguised inflation came out in the open. We estimate prices rose about 13 percent from 1945 to 1948, a rather substantial inflation rate, but far less than observed during the war or reported by governmental officials (26 to 50 percent, depending on the date of the statistics).

Our estimates of price trends are very similar to estimates for the net national product price deflator derived by Milton Friedman and

¹²For a discussion of the history of the World War II controls, plus some of the difficulties that controls brought about, see U. S. Department of Labor, *The General Maximum Price Regulation*, Bulletin No. 879 (Washington, D.C.: Government Printing Office, 1946).

Anna Schwartz.¹³ They estimate price increases of nearly 44 percent for 1941–45, much closer to our 46 percent estimate than to the official estimates of 24–30 percent. Similarly, they obtain a 16 percent increase for the 1945–48 period, only moderately larger than our 13 percent figure. By contrast, our estimated wartime inflation is considerably higher than that estimated by Mills and Rockoff, which we believe is implausibly low.¹⁴

Dividing money GNP by the estimated deflator to get estimated real GNP, we get a rather different historical interpretation than what the government statistics, particularly the recent ones, suggest. Our scenario suggests output grew substantially during World War II, but far less than the recent government revisions would suggest (and moderately less than the earlier governmental data suggested). Moreover, our results suggest output peaked in 1943, then held steady in 1944. The official versions have output rising noticeably in 1944.

Our estimates suggest a peak-to-trough decline in real output of slightly over 15 percent, compared with nearly 23 percent with the current official government numbers. Not only is our estimate of the decline about one-third smaller than what the current numbers suggest, but it also suggests that much of the decline occurred in the latter part of the war itself. The estimated 1946 output drop was only 6.5 percent, less than that for 1945. Moreover, we estimate output rose in 1947, rather than fell. Since we calculated that the 1947 output increase almost offset the 1946 decline, we suggest there was virtually no decline in output from 1945 to 1947, compared with the current statistical data's suggestion of a decline of 21 percent (the 1960 data revealed a fall in output of slightly over eight percent).

Certainly our estimates are more consistent with the written commentary of the period, which emphasized the comparative smoothness of the transition from war to peace. They also are about what one would expect if one accepts the premise that wartime inflation was understated because of price controls, and consequently postwar inflation, while real, was overstated. Our estimates would seem consistent with the 1960 Department of Commerce data modified to take account of price interventions by the federal government.

¹³Milton Friedman and Anna J. Schwartz, *Monetary Trends in the United States and the United Kingdom* (Chicago: University of Chicago Press for the National Bureau of Economic Research, 1982).

¹⁴Geoffrey Mills and Hugh Rockoff, "Compliance with Price Controls in the United States and the United Kingdom during World War II," *Journal of Economic History* 47 (March 1987).

Whether our estimates are correct or not, it is clear that the aggregate government statistics on output, prices, etc., must be used with extreme caution, and that data "revisions" do not always bring about improved insight into historical phenomena.

Why the Error in the Government's Revised Statistics?

Why is it that the official GNP statistics for the reconversion period become continually worse over time? Examination of the calculation procedures used reveals that the recent estimates are a complete statistical artifact.

The aggregate GNP price deflator is the weighted sum of several component price indices, such as the personal consumption expenditures index (which, in turn, has several components), the index for exports, imports, government purchases of goods and services, and private investment. Numbers are indexed around a base year, currently 1982. Over time, the price index for the government purchases of goods and services has risen significantly more than for other components. For example, in 1982 it is estimated that the aggregate price of government goods and services averaged 8.13 times the 1946 level, compared with "only" a 4.55-fold increase in the price of consumer goods. Since 1982 is set equal to 100, that means the 1946 index number for the government goods and services price deflator is 12.3 (100 divided by 8.13); the figure for the personal consumption expenditure deflator is 22.0.

As reconversion proceeded, the weights used to measure consumption's contribution to the aggregate price index dramatically increased, while the weights used to measure government purchases contribution dramatically decreased.¹⁵ Since the consumption index had

¹⁵A numerical example, suggested by an anonymous referee, might help the reader see the point.

| Year | 1946 as base year | | 1949 as base year | |
|------|----------------------|---------------------|----------------------|---------------------|
| | Consumption Deflator | Government Deflator | Consumption Deflator | Government Deflator |
| 1946 | 100 | 100 | 40 | 25 |
| 1947 | 105 | 200 | 60 | 50 |
| 1948 | 200 | 300 | 80 | 75 |
| 1949 | 250 | 400 | 100 | 100 |

If the weights of the consumption and the government expenditures components of the GNP deflator in this hypothetical example were 60% and 40%, respectively, in 1947,

a bigger number (22 in 1946) than the government purchases index (only 12.3), the calculated aggregate GNP deflator rose in part merely from the shift from government spending to consumer spending.

The 1990 data show the total GNP price deflator rose from 15.7 to 19.4 from 1945 to 1946, an increase of 23.6 percent. Yet the sub-components of the index are all reported to have increased less—consumption by less than nine percent, investment by about 15 percent, government purchases by four percent, etc. Only by changing the weights and by arbitrarily giving higher numbers to the non-government purchases component of the index do you get this type of result, which is then used with nominal GNP data in calculating equally artificial real GNP. Had prices of governmental purchases risen exactly the same as other components in the index over time, the distortion would not have been observed. In earlier years, the distortion was smaller because the disparity between the government purchases price index and the other index components was much smaller than observed now (since the series have diverged more over time because of consistently faster rising prices of governmental goods and services).

Reevaluating Governmental Expenditures

It can be argued that even our estimates above *understate* the robustness of the postwar economy, and *overstate* wartime growth, because of a second flaw in the data. While transactions in the private market economy are appropriately valued for GNP calculations by using equilibrium prices, governmental purchases of goods and services may be overvalued, since they are not generally sold in a truly competitive market environment.¹⁶

Looking at it from the demand side, many consumers of governmental services are forced to “purchase” those services at a cost (reflected in taxes, inflation, or higher interest rates) above what the consumer would be willing to pay if permitted to buy the services on a non-coercive basis. Typically there is a “deadweight loss” as opposed to the consumer surplus typical in non-coercive market transactions. From the supply perspective, monopolistic governmental bureaucrats lack the incentive to minimize resource use, and thus services

and 80% and 20% in 1948, then the deflator would have risen by 29.4 percent (from 170 to 220) between 1947 and 1948 using 1946 as the base year. If one uses 1949 as the base year, however, we would have calculated an increase of 41.1 percent (from 56 to 79) for the same period.

¹⁶For a study that carries the argument here much further than we have chosen to take it, see Robert Batemarco, “GNP, PPR, and the Standard of Living,” *Review of Austrian Economics* 1 (1987): 181–86. See also Murray Rothbard, *America’s Great Depression* (Kansas City: Sheed and Ward, 1963).

are provided less efficiently than if sold competitively in the private market economy. This is probably why, for example, governmental purchase prices have risen more than private sector prices over time.

Suppose that during the 1941–48 period, governmental purchases of goods and services had a true value equal to 75 percent of the stated value used in calculating GNP. Suppose also the true GNP price deflator is as we have estimated it in table 3. Under these assumptions, real output rises but 18.8 percent from 1941 to 1943, falls very slightly in 1944 and by a bit over seven percent in 1945. The 1946 decline in real GNP is a paltry 1.1 percent. Output by 1947 is less than two percent below 1944 levels, and by 1948 output exceeded the wartime peak by about six percent (compared to a 19 percent decline using data in the 1990 *Economic Report of the President*).

We calculated the numbers in the previous paragraph to illustrate the importance of the assumption that government purchases of goods and services are valued at the amount of government expenditures. The 75 percent valuation chosen was arbitrary. For example, had 50 percent been used, there would have been a calculated *growth* in real GNP in 1946, and a noticeable decline in output in the late war years. What the true figure should be is debatable. Nonetheless, it seems highly likely to us that the true GNP growth during World War II tends to be seriously overstated because of the increasing relative importance of governmental expenditures, and tends to be understated in the postwar years because of the reverse phenomenon.

Simultaneous with our work, Robert Higgs has examined the real output question for the 1940s.¹⁷ His conclusions are similar to ours; indeed Higgs goes further. Carefully examining the pioneering work of Simon Kuznets, the contributions of William Nordhaus and James Tobin, as well as others, Higgs believes World War II was not a period of prosperous growth that is typically depicted, and, more relevant to this paper, that there was prosperity and no downturn in the postwar reconversion period.¹⁸ He believes, correctly in our judgment, that the military command economy of the war tended to lead to excessive output valuations that have led to fundamentally flawed national income statistics.

¹⁷Robert Higgs, "Wartime Prosperity? A Reassessment of the U. S. Economy in the 1940s," paper presented to the Cliometric Society meetings, Washington, D.C., December 1990.

¹⁸See, for example, Simon Kuznets, *National Product in Wartime* (New York: National Bureau of Economic Research, 1945); see also William Nordhaus and James Tobin, "Is Growth Obsolete?" in *Economic Growth*, NBER General Series 96 (New York: National Bureau of Economic Research, 1972).

Economic Interpretations of the Postwar Reconversion

It was widely believed during the latter part of World War II that substantial unemployment would develop after the war. A review of forecasts by Michael Sapir confirms the fact that many economists believed a severe recession or depression was coming.¹⁹ That view was held by most federal officials as well; as one well-known writer on the subject put it, "In the summer of 1945 the belief was fairly widely held in Washington that unemployment would be a serious problem during the winter of 1945-46 and a strong deflationary tendency was predicted."²⁰

In part, the prediction of depression reflected the influence of the secular stagnationists, led by leading Keynesian disciple Alvin Hansen, who argued that the investment boom that had stimulated American economic growth had stalled after the closing of the frontier and the slowdown in population growth.²¹ In part, it reflected a more short-term Keynesian concern with falling aggregate demand in the face of decreased government expenditures. The thought of a rapid reduction in government military spending provided nightmares to some Keynesians. Hansen, writing in 1943, said: "When the war is over, the government cannot just disband the Army, close down munitions factories, stop building ships, and remove all economic controls."²² Yet that is precisely what the government did (although it took a year to remove most controls).

Politicians took the dire predictions of economists seriously. Speaking to the Congress a few days after the Japanese surrender, President Truman said of reconversion, "Obviously during the process there will be a great deal of inevitable unemployment."²³ Truman was concerned that a fall in purchasing power would retard recovery. In calling for an increase in the minimum wage and extended

¹⁹Michael Sapir, "Review of Economic Forecasts for the Transition Period," National Bureau of Economic Research, *Studies in Income and Wealth* 9 (March 1949): 275-351. One forecaster who correctly foresaw the low postwar unemployment was W. S. Woytinsky. See his "What Was Wrong in Forecasts of Postwar Depression?" *Journal of Political Economy* 55 (April 1947): 142-51. See especially his comment on page 143; see also Lawrence Klein's comment in Sapir, *op. cit.*, pp. 352-57.

²⁰Robert A. Gordon, *Business Fluctuations*, 2nd ed. (New York: Harper and Row, 1961), p. 464. Everett Hagen's forecast, for example, predicted an unemployment rate of 14.8 percent for the first quarter of 1946. See Sapir, *op. cit.*, p. 332.

²¹Alvin Hansen, "Economic Progress and Declining Population Growth," *American Economic Review* 29 (March 1939): 1-15.

²²In a publication for the National Resources Planning Board, *After the War, Full Employment*, quoted in Hugh S. Norton, *The Employment Act and the Council of Economic Advisers, 1946-1976* (Columbia, S.C.: University of South Carolina Press, 1977).

²³*New York Times*, September 7, 1945, p. 16, col. 3.

coverage, Truman said “the existence of substandard wage levels sharply curtails the national purchasing power and narrows the markets for the products of our firms and factories.”²⁴

A few days earlier, the prestigious Committee for Economic Development, representing 2,900 businessmen and headed by prominent industrialist Paul G. Hoffman (Chairman of the Studebaker Corporation) called for federal aid to assist the newly created jobless to move to areas where jobs were created.²⁵

At the same time, however, the use of two conventional Keynesian unemployment remedies, tax cuts and public works projects, was largely rejected. Truman did call for the passage of a Full Employment Act, but proposed little in the way of new public works spending or tax relief to stimulate aggregate demand.²⁶ Indeed, prominent Republicans were more vehement in calling for income tax cuts than the Democrats, with the ranking Republican member of the House Ways and Means Committee calling for a 20 percent income tax cut.²⁷ The *New York Times*, summarizing Congressional feelings on public works spending, concluded:²⁸

Only a short time ago, the tendency at the nation's capital was to think in terms of public works as a major factor. It now seems to be agreed that they should be regarded only as a part of a broad program, or as a last resort in an emergency, and that private enterprise must be relied upon to provide the large-scale employment necessary.

Despite the pessimistic concerns of economists and politicians, most of the news around the time of the Japanese surrender was upbeat with regards to the reconversion process. Within three days of V-J Day, one reporter wrote “reports indicate that industry is reconverting its plants from war to peace much more quickly and early, and that reconversion unemployment is much smaller than anticipated.”²⁹

This did not stop the economic forecasters from predicting massive unemployment. Indeed, the faster-than-expected discharge of

²⁴Ibid.

²⁵*New York Times*, August 28, 1945, p. 38, col. 4.

²⁶*New York Times*, September 7, 1945, p. 16, col. 1. The original proposed full employment legislation, however, would have mandated counter-cyclical fiscal policy measures if necessary to obtain full employment. We are indebted to our colleague and Truman scholar Alonzo Hamby for this insight.

²⁷*New York Times*, August 28, 1945, p. 1, col. 2. Rep. Harold Knutson repeated his call for a 20 percent individual income tax reduction plus an end to the corporate excess profits tax in late September, to no avail.

²⁸*New York Times*, September 2, 1945, p. 10, col. 1.

²⁹*New York Times*, September 2, 1945, p. 1, col. 2.

soldiers led some of them to revise their estimates of unemployment *upward*. For example, on September 1 *Business Week* predicted GNP in 1946 would be 20 percent below the 1944 levels and that unemployment would peak “closer to 9,000,000 than 8,000,000.”³⁰ The 9,000,000 figure represented about 14 percent of the projected civilian labor force.

Businessmen and Wall Street did not listen to the economists. The Standard and Poor Industrial stock index rose more than 30 percent from the fall of 1945 to the fall of 1946. As one commentary put it, “the simple fact is that the transition from war to peace production isn’t proving too rough.”³¹ As early as September 1945, *Business Week* was revising its estimate of unemployment for the end of 1945 down to 4.0 to 4.5 million from 6.0 million.³² A CED survey of top businessmen predicted relatively high employment levels, with the number of jobs to rise 24 percent above the 1940 level and only 12 percent below the wartime peak.³³

Still, even in December 1945 economists were predicting that “depression is just around the corner.” Robert Nathan predicted six million unemployed by the spring of 1946, implying an unemployment rate of 10 percent.³⁴ Veteran Department of Labor economist Isidore Lubin decided, in *Business Week*’s opinion, to “play in safe,” predicting a wide range; six to nine million unemployed.³⁵ Even the minimum estimate turned out overly pessimistic by nearly a factor of three.

The Revised Keynesian Interpretation of Reconversion

Yet within a year of the war’s end, it was clear that the pessimistic predictions were spectacularly wrong. Accordingly, economists rushed to put a new interpretation on events consistent with the new Keynesian theology that became deeply instilled in many of them. The postwar prosperity (they did not have the benefit of the statistics in the 1990 *Economic Report of the President*) was attributed to pent-up demand. In December 1946, the first report of the newly created Council of Economic Advisers, drafted primarily by Edwin Nourse, was representative of the new interpretation: “We have a postponed consumer demand, enterpriser ambitions, and purchasing

³⁰*Business Week*, September 1, 1945, p. 9.

³¹*Business Week*, September 15, 1945, p. 9.

³²*Business Week*, September 29, 1945, p. 9.

³³*New York Times*, September 10, 1945, p. 32, col. 3.

³⁴*Business Week*, December 27, 1945, p. 10.

³⁵*Ibid.*

power which hold the potential of some years of great activity . . .³⁶

The view expressed by the Council quickly became enshrined in many cited works published in this period. One of the nation's foremost experts on business cycles, Robert A. Gordon, wrote:

Even with the decline in government spending, aggregate demand was sufficient to maintain full employment. . . . Consumption increased rapidly in the face of a decline in GNP. Here lies the main part of the answer to the mildness of the reconversion recession.³⁷

Alvin Hansen said much the same thing:

The country came out of the war rich in monetary assets and monetary savings and desperately short of consumers' durables, houses, business plant and equipment. This laid the ground work for a vast postwar prosperity. . . .³⁸

The Hansen-Gordon interpretation quickly found itself a part of the standard surveys of American economic history published in the 1950s and later. In the popular second edition of the Harold Williamson-edited textbook on American economic history, Harold Somers noted:

A striking aspect of the postwar economy was the failure of predictions of postwar depression made by most economists. In general, the effect of deferred demand, financed by accumulated liquid holdings, was underestimated.³⁹

The author of the leading selling textbook for many years, Harold Faulkner, echoed this theme, somewhat perceptively, however, giving a bit more emphasis to the investment and export demand dimensions of aggregate demand:

The "temporary props" for this prosperity were mainly three: business expenditures for reconversion and for new construction and equipment; heavy consumer spending, much of it for commodities unobtainable during the war, and heavy export of goods and services . . .⁴⁰

While modern textbook authors, perhaps bewildered by the contemporary statistics for that era, now play down the postwar recon-

³⁶Council of Economic Advisers, *First Annual Report to the President*, 1946, p. 18.

³⁷Gordon, *Business Fluctuations*, pp. 465, 467.

³⁸*The Postwar American Economy Performance and Problems* (New York: W. W. Norton, 1967), p. 5.

³⁹"The Performance of the American Economy Since 1919," in Harold F. Williamson, ed., *The Growth of the American Economy* (Englewood Cliffs, N. J.: Prentice-Hall, 1954), p. 713.

⁴⁰Harold U. Faulkner, *American Economic History*, 7th ed. (New York: Harper, 1954), p. 713.

version experience, there still seems to be acceptance of the notion that consumers spent America into prosperity. Jonathan Hughes, who sensibly still uses the less-biased 1960 data in analyzing the period, says "consumers now could find something to own: new cars, refrigerators, soft goods. The country went off on a well-earned spending binge."⁴¹ We could find no textbook that explicitly rejected the Hansen-Gordon interpretation.⁴²

Thus within a few years of the end of World War II, the orthodox Keynesian demand explanation for the low unemployment during the postwar transition had become enshrined in the literature and in the training of more than a whole generation of economic historians. The postwar experience was cited as further evidence of the efficacy of demand management macroeconomic policies, when in reality overwhelming empirical evidence refuted that very conclusion.⁴³

Assessing the Keynesian Interpretation

There are two empirical problems with the "pent-up demand" explanation of the postwar reconversion: timing and magnitude. It is alleged that consumption and investment spending rose dramatically to offset declining government spending, so that aggregate demand was maintained, thereby permitting essentially full employment. Table 4 gives data on some key economic indicators by quarters for the 1945-47 period. By most indicators, the economic decline associated with the postwar reconversion reached its trough no later than the first quarter of 1946. In that quarter, the civilian unemployment rate peaked, while industrial production and nominal GNP reached their lows for the business cycle.

⁴¹Jonathan R. T. Hughes, *American Economic History*, 3rd ed. (Glenview, Ill: Scott Foresman, 1990), p. 522.

⁴²Robert C. Puth, however, shows some skepticism with the data. Using the modern data developed in the mid-1980s, Puth says the 1945 GNP figures "may have substantially overstated the level of economic welfare." See his *American Economic History*, 2nd ed. (Chicago: The Dryden Press, 1988), p. 537. We would also concede that had consumer goods been more readily available in 1946, consumption spending would have been greater, so the demand-side story could have been more factually accurate. The fact remains, however, that high-level consumption spending did not occur, even if the public was willing for it to do so.

⁴³As an anonymous referee perceptively pointed out, the adoption of the pent-up demand line of defense meant a theoretical retreat for Keynesians. Previously, the view was that increases in aggregate demand could lead to almost infinite increases in total output (implying a positively sloped aggregate supply curve at all price levels). Implicitly, Keynesians were now accepting the view that consumption spending during World War II had been "crowded out" by increased government spending, and that reduced government spending after 1945 led to a reversal of this process. Of course, proponents of the Keynesian perspective never pointed out this theoretical weakness.

Keynesian analysis argues that changes in aggregate demand determine the level of both nominal and real economic activity. Using armed forces employment as our measure, military activity peaked in the second quarter of 1945. From that time to the trough of the mild downturn in the first quarter of 1946, government purchases of goods and services fell an extraordinary 67.5 percent, or \$65.7 billion.

Table 4
Eight Key American Economic Indicators,
Quarterly Data, 1945 I to 1947 IV

| Quarter | Money GNP ^a | Unemp. Rate ^b | Corp. Profits ^c | Ind. Prod. ^d | Layoff Rates ^e | Average Workwk Manuf. ^f | Govt. Purch. ^g | Housing Starts ^h |
|---------|---------------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|--|------------------------------|--------------------------------|
| 1945 I | \$217.6 | 1.10% | \$10.2 | 123 | 0.67 | 45.4 | \$98.6 | 123 |
| II | 219.2 | 1.17 | 9.6 | 117 | 1.23 | 44.6 | 97.3 | 156 |
| III | 210.4 | 2.11 | 6.9 | 98 | 5.57 | 42.0 | 80.2 | 191 |
| IV | 206.8 | 3.66 | 6.5 | 86 | 1.77 | 41.4 | 55.2 | 393 |
| 1946 I | 197.7 | 4.14 | 8.8 | 84 | 1.77 | 40.7 | 31.6 | 718 |
| II | 205.3 | 4.02 | 11.5 | 87 | 1.37 | 40.1 | 26.2 | 685 |
| III | 215.6 | 3.66 | 15.5 | 93 | 0.77 | 40.2 | 25.5 | 630 |
| IV | 220.7 | 4.07 | 18.0 | 96 | 0.90 | 40.5 | 26.9 | 625 |
| 1947 I | 225.1 | 3.81 | 18.4 | 98 | 0.87 | 40.5 | 24.6 | 702 |
| II | 229.3 | 4.08 | 17.6 | 98 | 1.17 | 40.2 | 25.4 | 747 |
| III | 233.6 | 4.06 | 17.6 | 99 | 0.90 | 40.1 | 25.5 | 912 |
| IV | 244.0 | 3.72 | 19.3 | 101 | 0.87 | 40.8 | 26.1 | 1,007 |

^aSeasonally adjusted, in billions.

^bCivilian unemployment rate, seasonally adjusted.

^cAfter-tax corporate profits, in billions, seasonally adjusted.

^dIndustrial production, seasonally adjusted. 1947-1949 = 100.

^eLayoff rates per 100 workers in manufacturing, not seasonally adjusted.

^fAverage hours worked per week, manufacturing, not seasonally adjusted.

^gGovernment purchases of goods and services, not seasonally adjusted, in billions.

^hHousing starts, in thousands, seasonally adjusted.

Sources: Geoffrey H. Moore, ed., *Business Cycle Indicators* (Princeton: Princeton University Press for the NBER, 1961); GNP: Department of Commerce, *National Income & Product Accounts of the United States* (Washington: Government Printing Office, 1981); Government Purchases: *1949 Statistical Supplement to the Survey of Current Business* (Washington, D.C.: Government Printing Office, 1950).

Over the same period, consumption spending rose but \$14 billion, barely 20 percent of the fall in government spending. Whatever the merits of the "pent-up" demand argument, there was only a modest increase in consumption during the critical period of demobilization and reconversion, to be sure in part because of capacity constraints on consumer goods industries. Investment spending rose a more robust \$21.6 billion, and net exports by \$9.8 billion, but collectively the increases in demand fell about \$20 billion short of decline in government spending, leading money GNP to fall a rather sharp 10 percent.

By the end of the first quarter of 1946, the process of reconversion was largely completed. Nearly seven million persons had left the armed forces, and government spending had fallen well over 90 percent of the way from the wartime peak to what would be the postwar low in 1947. Federal finances had moved from a massive deficit position (equal to 20 percent or more of GNP) to a budget surplus. Monetary policy also moved towards a much more contractionary stance, although monetary growth was still high by long term historical standards. Bank deposits and currency grew slightly over seven percent from the second quarter of 1945 to the first quarter of 1946, less than half the nearly 15 percent growth observed over the preceding three quarters (the third quarter of 1944 to the second quarter of 1945). The growth in bank reserves similarly declined by about 60 percent.⁴⁴

As the nation moved from a radically expansionary to a contractionary fiscal policy in less than a year, and as it dramatically slowed the extraordinary monetary expansion, did the nation witness what the Keynesian paradigm suggested would happen, and what virtually all economists predicted? No. Unemployment in the first quarter of 1946 averaged slightly over four percent. To be sure that was more than the rate of less than two percent existing in early 1945. Also, even our revised national income statistics would indicate there was some output decline. *Yet the rate of unemployment "peaked" at a rate low by historical norms, below the average of the prosperous 1920s, or the 1950s.* Unemployment was low, long before any "pent up demand" had an opportunity to play a role. Automobile production was still depressed in early 1946, and expenditures on other major consumer goods were still well below normal peacetime, much less abnormally high, levels.

⁴⁴See Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867-1969* (Princeton: Princeton University Press for the National Bureau of Economic Research, 1963), pp. 717-18, 741-42.

The latter point is empirically verified by the ordinary least squares estimation of simple consumption functions using three data sets for other (presumably “normal”) periods, then estimating what consumption should have been for the 1945–47 period assuming the consumption-income relationships of the other periods held. Specifically, we examined annual data for 1929–1941 and for 1948–1970, and quarterly data for the first quarter of 1948 through the fourth quarter of 1959.

The findings are interesting:

(1) All three data sets show that actual consumption did not rise above predicted levels until 1947, well after reconversion was largely over and after the labor market adjustment was completed.

(2) In 1946 consumption spending was still several billion dollars below predicted (“normal”) levels by all three data sets. In that connection, in the first quarter of 1946, the personal savings rate (personal savings as a percent of disposable personal income) was still nearly 11 percent, well above historical norms.⁴⁵

(3) The quarterly data suggest that actual consumption rose above “normal” or predicted levels only in the second quarter of 1947, nearly a year after demobilization was essentially completed, a year after real GNP had started to rise, and 19 months into a postwar labor market experience in which the unemployment rate had never exceeded 4.2 percent.

An Alternative Explanation for the Smooth Postwar Conversion

Before the rise of Keynesian economics, most economists believed that what is now termed “cyclical” unemployment resulted from wages in excess of their market-clearing levels. In figure 1, unemployment exists at wage w , and is denoted by the distance between the original demand for labor curve D_1 and the supply for labor curve S_1 at wage w . The observed unemployment can be eliminated in four ways:

(1) a lowering of the money wage from w to w' ;

(2) an increase in the marginal physical product of labor reflecting a technological advance or other productivity-enhancing development; this would lead the demand curve to shift towards D_2 , eliminating unemployment;

(3) an increase in the price of commodities, raising the nominal value of the marginal product of labor, leading to a shift in the

⁴⁵See U. S. Department of Commerce, Bureau of Economic Analysis, *The National Income & Product Accounts of the United States, 1929–1976*, p. 76.

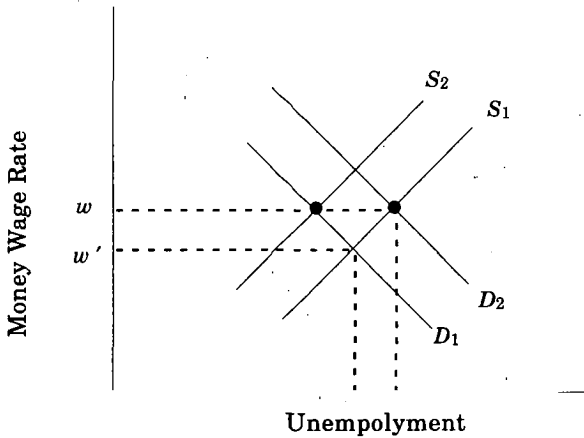


Figure 1. Wage Rates and Unemployment

demand curve; the shift in the demand curve could result from a combination of productivity advance and price increase;

(4) a reduction in labor supply to S_2 .

All four of the responses mentioned above impact on equilibrium wage levels, so it is not too much of an exaggeration to state that regarding unemployment, traditional labor market analysis suggests that "wages alone matter." This is in marked contrast to the Keynesian perspective that dominated economic thinking from the 1940s through the 1960s that, with little exaggeration, said that "wages do not matter." A small band of economists, including Ludwig von Mises, F. A. Hayek, Benjamin Anderson and W. H. Hutt, never abandoned the notion that wages are critical in unemployment determination, but these voices carried no weight in the development of the consensus interpretation of why America avoided a depression after World War II.⁴⁶

Yet the empirical evidence, which suggests that "pent up" demand played no meaningful role for nearly two years in which unemployment stabilized at low levels, is consistent with the theory espoused above. This is not to deny that consumers hungered for consumer goods. Nonetheless, in the critical reconversion period, the growth in actual consumption was modest compared with the reduction in federal defense-related spending.

⁴⁶For more on the role of wages in unemployment from the perspective of economic theory, the history of economic thought, and empirical evidence relating to the American experience, see Lowell Gallaway and Richard Vedder, "Wages, Prices and Employment: Von Mises and the Progressives," *Review of Austrian Economics* 1 (1987): 33-80.

Table 5
Selected Characteristics of the American
Labor Force, June 1945 and June 1946

| <i>Labor Force Characteristic</i> | <i>June 1945^a</i> | <i>June 1946^a</i> |
|---|------------------------------|------------------------------|
| Non-Institutional Population ^b | 105,290 | 106,210 |
| Total Labor Force | 67,590 | 62,000 |
| Total Employment | 66,700 | 59,430 |
| Federal Employment | 15,849 | 5,879 |
| Armed Forces | 12,130 | 3,070 |
| Civilian | 3,719 | 2,809 |
| Non-Federal Employment | 50,851 | 53,551 |
| Civilian Employment | 54,570 | 56,360 |
| Male | 34,710 | 39,650 |
| Female | 19,860 | 16,710 |
| Female Civilian Employment as % of Total | 36.39% | 29.65% |
| Unemployment | 890 | 2,570 |
| Male | 460 | 2,010 |
| Female | 430 | 560 |
| Unemployment Rate (% of Civilian Labor Force) | 1.60% | 4.36% |
| Unemployment Rate (% of Total Labor Force) | 1.32% | 4.15% |
| Labor Force Participation Rate | 64.19% | 58.37% |
| Employment-Population Ratio | 63.35% | 55.96% |

^aAge 14 or over.

^bIn thousands.

Sources: *1949 Statistical Supplement: Survey of Current Business*, p. 53; *Monthly Labor Review* (August and September 1946).

To begin our look at this evidence, it is interesting to compare labor force statistics at the height of mobilization, June 1945, with statistics just exactly one year later, June 1946 (see table 5).

The total labor pool grew by nearly one million over the year, yet the labor force fell by nearly 5.6 million. The end of the war was accompanied by an enormous drop in the labor force participation rate. In particular, millions of women voluntarily decided to withdraw from the labor force and reverted to their traditional roles as mothers, wives, and housekeepers. About 56 percent of the potential unemployment created by the almost 10 million decline in federal

employment was absorbed by voluntary exit from the labor force.

The word "voluntary" in the preceding paragraph is important. It is presumed in a free society that labor voluntarily enters into labor market decisions. Yet during World War II, millions of men were drafted and became part of the labor force; some of them may have not voluntarily been part of that labor force in the absence of conscription. Thus the wartime unemployment rates of under two percent were low, at least in part, because the normal rules of non-coercive labor market participation did not apply. Thus the postwar rise in the reported unemployment rate, modest as it was, still overstated the true recessionary conditions that existed.

Yet the sudden reversion of labor supply to more normal levels was not the only factor in the moderate postwar unemployment. Non-federal employment grew 2.7 million in this first postwar year, in a period before the major consumer goods industries had resumed full production. Indeed, factory employment in June 1946 was still more than 10 percent below the June 1945 levels (because of declining defense-related production), implying the job growth in non-manufacturing, non-federal employment was actually more than four million jobs. More than 27 percent of the problem that the release of 10 million government employees created was eliminated by increased civilian employment, most of it in the private sector. If defense industries are considered, demobilization from June 1945 to June 1946 meant the loss of over 11 million jobs, about four million of which (about 36 percent) were absorbed in the civilian economy.

Why was non-manufacturing civilian employment soaring by over 10 percent in one year, particularly when one considers that economists were widely predicting a resumption of the Great Depression of the 1930s, and when one considers that the mainline durable goods industries (which were in manufacturing in any case) were still at below normal production? How could millions of new civilian jobs be created when there was "underconsumption" by normal standards?

The answer lies, we think, in the other forms of unemployment-determining labor market adjustments discussed above: changes in money wages, prices, and the productivity of labor. The money wage divided by prices is called typically the "real wage." Real wages adjusted (by division) to take account of productivity changes can thus be called the "adjusted real wage." It is our contention that, in addition to reduced labor supply, a decline in the adjusted real wage helped absorb the more than 11 million workers released in the first year of the demobilization.

Directly calculating what happened to the adjusted real wages is

difficult for a variety of reasons. There is no accepted data series giving hourly wages for the entire labor force before 1947. Annual earnings figures are of questionable value because of a major reduction in overtime work at the conclusion of the war. Regarding prices, the deficiencies of price indices, particularly in a period when price controls are changing, are well known. Similarly, deficiencies in price indices impact on the calculation of labor productivity.

Nonetheless, we calculated the adjusted real wage for labor some 18 different ways, using three different measures of hourly wages, three different price indices, and two different estimates of changing labor productivity. Specifically, we used hourly earnings in manufacturing, retail trade, and contract construction for our money wage measure, and the consumer price index, wholesale price index, and GNP price deflator in calculating real wages, and real private gross domestic product per man-hour, and real private gross domestic product per unit of labor input as our measure of labor productivity.⁴⁷

The calculations reveal that for 1946, some 14 of 18 estimates show a decline in the adjusted real wage from 1945 levels, with the median decline being 2.35 percent. In no case was there an estimated increase in the adjusted real wage of greater than two percent. Similarly, making calculations for 1947 reveals even more striking results. Some 17 of 18 estimates of the adjusted real wage for 1947 are below 1945 levels (the single exception showed a 0.5 percent increase), with the median estimate recording a decline of 7.15 percent. Using the median, it would appear the adjusted real wage tended to fall some in 1946, and continued to fall in 1947, perhaps explaining the continued robust growth in employment that year.

Elsewhere we have argued that New Deal "underconsumptionist" reasoning led to wage-enhancing legislation that prolonged the Great Depression of the 1930s.⁴⁸ Some dimensions of reconversion served to reduce (although not eliminate) some deleterious unemployment effects of the New Deal legislative initiatives. For example, the peacetime transition meant a fall in the average work week, as weary wartime workers sought an increase in leisure time. With a fall in the length of the average workweek came a decline, other things equal, in money wages. Suppose a worker making one dollar per hour worked a 45 hour week in early 1945. Because of the Fair Labor Standards Act of 1938, the worker received \$1.50 per hour for hours worked past 40, or a total

⁴⁷The *Historical Statistics of the United States, Colonial Times to 1975* was used in the calculations. With that source, the price distortions with respect to the GNP price deflator were modest compared with later revisions.

⁴⁸Gallaway and Vedder, "Wages, Prices and Employment."

of \$47.50 for a 45 hour week, slightly over \$1.05 in average hourly pay. A reduction in hours to 40, the nominal hourly wage left unchanged, lowered the paycheck to \$40 (\$1.00 per hour), a decline in over 5 percent in the average hourly wage. This example was a common occurrence.

Another development, unrealized at the time, was the relative decline in the importance of labor unions in the economy. Labor union membership as a percent of civilian employment reached a peak in 1945 and declined after the war (and has continued to decline ever since). For example, in 1945, union membership equalled 26.59 percent of the civilian labor force; in 1946, the proportion had fallen fairly noticeably, to 25.03 percent, and then to 24.58 percent in 1947.⁴⁹ The decline occurred despite a rise in the proportion of workers who were male (more inclined to unionize). The decline in relative union importance reduced somewhat the pressures on wage levels that collective bargaining imposes.

At least two factors contributed to the relative decline in union strength. First, the shift in employment from the relatively union-intensive manufacturing sector to the less unionized service sector was a major factor. Even within manufacturing, however, the demise in the War Labor Board after late 1945 removed a pro-union form of governmental intervention. The WLB consistently promoted collective bargaining in war plants and the end of the war brought a close to this activity.

Because of the data problems mentioned earlier in the paper, however, we have only limited faith in the estimates of falling adjusted real wages given above. Fortunately there is an alternative way of discerning the change in adjusted real wages that avoids some of the problems associated with using price indices, etc. When the same price index is used in calculating real wages is utilized in determining what happened to labor productivity, it turns out that the adjusted real wage is simply equal to money wage payments divided by total output or, more appropriately, personal income.

Specifically, real wages are equal to hourly money wages (w) divided by some price index (P), or w/P . Similarly, labor productivity equals money output per hour (O) divided by a price index, or O/P . Assuming the same price index in both calculations, dividing w/P by O/P gives w/O . The latter variable is simply labor compensation as a proportion of GNP or, using distributive shares data, personal income.

⁴⁹Total labor union membership in U.S. unions rose but 77,000 in 1946, even as non-agricultural employment grew by nearly 2.7 million workers. See the *Historical Statistics of the United States, Colonial Times to 1957*, pp. 126 and 178.

Table 6
Compensation as a Percent of GNP
and Personal Income, 1945 to 1947

| Quarter | Employee Compensation* | Personal Income* | Money GNP* | Compensation as % of: | |
|---------|---------------------------|---------------------|---------------|-----------------------|-------|
| | | | | Personal Income | GNP |
| 1945 I | \$122.5 | \$174.4 | \$222.6 | 70.2% | 55.0% |
| II | 121.6 | 174.2 | 225.0 | 69.8 | 54.0 |
| III | 117.4 | 170.7 | 213.0 | 68.8 | 55.1 |
| IV | 109.1 | 168.6 | 200.3 | 64.7 | 54.5 |
| 1946 I | 105.1 | 168.5 | 199.1 | 62.4 | 52.8 |
| II | 109.8 | 173.5 | 206.3 | 63.3 | 53.2 |
| III | 114.0 | 181.4 | 221.1 | 62.8 | 51.6 |
| IV | 116.7 | 183.8 | 224.0 | 63.5 | 52.1 |
| 1947 I | 118.5 | 187.8 | 228.2 | 63.1 | 51.9 |
| II | 119.8 | 187.6 | 233.6 | 63.9 | 51.3 |
| III | 123.1 | 196.6 | 232.4 | 62.6 | 53.0 |
| IV | 127.7 | 201.7 | 248.6 | 63.3 | 51.4 |

*In billions of dollars.

Sources: *1949 Statistical Supplement, Survey of Current Business* (Washington, D.C.: Government Printing Office, 1950), pp. 6, 7; authors' calculations. GNP statistics differ from those used elsewhere in the paper because of more recent revisions; data for 1945 are not available in those revisions.

Table 6 gives data on employee compensation, personal income and gross national product by quarters. Note that the ratio of employee compensation to income or output falls after the conclusion of the war. Using labor's share of personal income, the decline is from the 69–70 percent level late in the war to about 63 percent in the 1946 and 1947 quarters. Using labor's share of GNP, the decline is from 54–55 percent in the late war (first three quarters of 1945) to 51–53 percent in the 1946 and 1947 quarters. However calculated, labor's share declined, meaning the aggregate adjusted real wage tended to fall. These findings thus are consistent with the results suggested by wage, price, and productivity data. Millions of workers were hired by business despite an uncertain economic future in large part because "the price was right."

The fall in the adjusted real wage meant an increase in remuneration of capital. After-tax corporate profits, never much over \$11 billion on an annualized basis during the war, rose to about \$18 billion (on an annual basis) by the last quarter of 1946.⁵⁰

Nominal interest rates remained extremely low, increasing the spread between anticipated return on invested capital and the cost of borrowed funds. For example, the average interest yield on a triple-A (Moody's) corporate bond in 1946 was 2.53 percent, the lowest of any year since that statistic has been kept.⁵¹ A major factor in the low interest rates, despite a relative tightening in monetary policy, was the government budget surplus that developed in 1946. The federal government, in effect, moved from being a supplier rather than a demander in the loanable funds market. Perhaps the most massive move towards a contractionary (in a Keynesian perspective) fiscal policy in the nation's history helped to create conditions in capital and money markets that assisted in the transition. The postwar era was a classic case of "reverse crowding out." Rising profits, and the anticipation of future increases, stimulated investment spending (the only truly robust major component of aggregate demand).

Rising profits led to rising equity values and higher net worths. Raymond Goldsmith estimates the national wealth rose far more in the two years from 1945 to 1947 (46.4 percent) than in the 16 years from 1929 to 1945 (31.1 percent).⁵² Whereas the anti-capitalistic innovations of the New Deal probably caused what was in real terms a *decline* in national wealth in the 1929–45 era, the modest but real retreat from interventionism along with a fall in the adjusted real wage and the associated rise in returns to capital led to a significant growth in wealth in the demobilization period.

An excellent case can be made, indeed, that the increase in autonomous consumption in the post-war era reflected increased spending *induced by rising wealth*. About two-thirds of the shift in autonomous consumption from 1945 to 1947 can be explained by the \$267 billion growth in national wealth during that period, if one accepts the Ando and Modigliani view that the marginal propensity to consume out of wealth is about .06.⁵³

⁵⁰The exact profit figure depends on whether the data are seasonally adjusted, take into account inventory evaluation adjustments, taxes, etc. See the *1949 Statistical Supplement to the Survey of Current Business* (Washington, D.C.: Government Printing Office, 1948), p. 6.

⁵¹*Historical Statistics of the United States, Colonial Times to 1975*, p. 1003.

⁵²*Ibid.*, p. 255.

⁵³Albert Ando and Franco Modigliani, "The 'Life Cycle' Hypothesis of Savings: Aggregate Implications and Tests," *American Economic Review* 53 (March 1963): 55–84.

In short, rather than “pent-up demand” preventing a depression, the evidence is more consistent with a distinctly non-Keynesian interpretation: A downward adjustment in labor supply and real wages, accompanied by a more responsible (non-deficit) fiscal policy, served to stimulate investment and consumption spending. Relative price adjustments brought about what Keynesians perceived to be an increase in aggregate demand, rather than the other way around.

Conclusions

Modern standard statistical sources suggest there was a very severe economic downturn in 1946. The evidence does not support that conclusion, and it is clear that statistical revisions have served to distort the historical experience. Keynesian economists *ex ante* predicted a major downturn after the war, but when it did not come they *ex post* abruptly changed their tune and argued that a surge in private spending, especially consumption and investment spending, prevented a downturn.

The evidence shows that aggregate demand rose too little and too late to explain the low unemployment that prevailed in the first two years after V-J day, the period in which demobilization was completed. What did happen was that labor markets, partially constrained by non-price factors in the wartime period, were allowed to function in a manner that prevented a serious decline. Labor supply abruptly fell, but in addition real wages, adjusted for productivity change, also fell, preventing a massive rise in unemployment.

To the extent aggregate demand was stimulated at all, it was because of the relative price changes outlined above. Lower adjusted real wages meant higher profits and rates of return on investment spending. A dramatic shift in governmental demand for loanable funds, far from contracting the economy as Keynesian economics suggests, kept interest rates at historic lows. Rising wealth associated with the high returns on capital led to increased consumption that ultimately led to a durable goods explosion—but one that took place long after reconversion had occurred without any major unemployment.

Appendix

Estimating the GNP Price Deflator and Real GNP

A model was constructed using real and monetary variables that provided a close statistical fit to the real GNP price deflator for the largely non-price control years 1916 to 1941; the model was estimated by ordinary least squares regression analysis using annual data:

$$(1) \text{ DEFLATOR} = 26.895 + 0.326 \text{ M2} + 2.717 \text{ CPAPER} \\ (1.190) \quad (1.573) \quad (3.776) \\ - 0.000 \text{ TONMIL} - 0.000 \text{ EMPLOY} \\ (0.093) \quad (0.012)$$

$$R^2 = .822, D-W = 1.715, F = 18.521,$$

where DEFLATOR refers to the GNP price deflator, M2 to that definition of money, CPAPER to the interest rate on commercial paper, TONMIL to the ton-miles of freight hauled by class A railroads, and EMPLOY to the number of employed persons; an autoregressive term is omitted, and numbers in parentheses are *t*-values.⁵⁴ The 1942-47 deflator was estimated from (1).

Econometrically Evaluating the "Pent-Up Demand" Argument

A simple bivariate Keynesian consumption function was statistically fitted, where the dependent variable was CONSUMPTION and the independent variable DISINC, for disposable income. Annual data were obtained from *Historical Statistics* (1975 Edition) for the years 1929 to 1941, and from the same source for 1948 to 1970. In addition, quarterly data for the years 1948 through 1959 were obtained from *The National Income & Product Accounts of the United States, 1929-1976*. The obtained statistical results follow:

$$1948-70 : \text{ CONSUMPTION} = 7.570 + 0.891 \text{ DISINC}, \bar{R}^2 = .9996, \\ (4.932) \quad (235.706) \quad D-W = 1.983;$$

$$1929-41 : \text{ CONSUMPTION} = 3.874 + 0.898 \text{ DISINC}, \bar{R}^2 = .9865, \\ (1.882) \quad (29.602) \quad D-W = 1.124;$$

$$1948-59 : \text{ CONSUMPTION} = 9.819 + 0.880 \text{ DISINC}, \bar{R}^2 = .9963, \\ \text{Quarterly} \quad (4.809) \quad (112.864) \quad D-W = 1.954.$$

⁵⁴All data were obtained from *Historical Statistics of the United States, Colonial Times to 1975*.

Actual vs. predicted values for 1945–47 using annual data (all dollar numbers in billions) were:

| <i>Year</i> | <i>Actual Value</i> | <i>Predicted Values:</i> | |
|-------------|---------------------|--------------------------|-------------------|
| | | <i>48-70 DATA</i> | <i>29-41 DATA</i> |
| 1945 | \$119.6 | \$140.5 | \$137.9 |
| 1946 | 143.9 | 149.1 | 146.6 |
| 1947 | 161.9 | 158.0 | 155.5 |

Using quarterly data for 1948–59, the predicted values for 1946–47 (all dollar numbers in billions) were:

| <i>Quarter</i> | <i>Actual Consumption</i> | <i>Predicted Consumption</i> |
|----------------|---------------------------|------------------------------|
| 1946 I | \$134.5 | \$144.5 |
| II | 139.6 | 147.3 |
| III | 148.4 | 152.2 |
| IV | 152.7 | 155.2 |
| 1947 I | 154.0 | 155.8 |
| II | 159.0 | 154.0 |
| III | 163.5 | 160.3 |
| IV | 167.6 | 162.4 |

Postwar consumption did not exceed “normal” levels in relation to disposable income until well into 1947—two years after peak mobilization.