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4 By Way of Analogy: The Expansion of the Federal Government in the 1930s

Hugh Rockoff

4.1 Ideological Change and the Growth of the Federal Bureaucracy

The major turning point in the growth of the federal government was, of course, the New Deal. A host of programs were added that in themselves account for a substantial share of the growth of government in the twentieth century, and the propensity to add new programs increased. The New Deal was the result of a unique concatenation of forces: the unprecedented magnitude of the contraction, the political accident that the party favoring bigger government was out of power when the contraction began, and the unique personalities of Hoover and Roosevelt were among the most important.

Moreover, as many historians of the Great Depression have recognized, there was an important ideological factor in the equation: intellectuals had already been converted to the cause of an expanded federal sector. It is hard, of course, to be certain about the role of this factor. But there were earlier crises, in the 1830s and especially the 1890s, that were also severe in terms of depressed incomes and unemployment. Ideology, and in particular the ideology dominant among intellectuals and opinion makers, appears to be a good candidate explanation for the failure of earlier crises to produce a change in the role of government of the same order that occurred in the 1930s.

While it is easy to see that there was an ideological shift—from widespread skepticism about the ability of the central government to improve the functioning of the economy to widespread faith in the competence of government—it is harder to see what produced it. To shed additional light on the ideological preconditions for the New Deal, I will explore the attitude of economists to-

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The author thanks his discussant, Stanley L. Engerman, and the editors for their detailed and thoughtful criticisms. The remaining errors are the author's.

ward government intervention in the decade preceding the depression. As it turns out, virtually all of the reforms adopted in the 1930s—minimum wages, social security, unemployment compensation, the Civilian Conservation Corps, and so on—had been championed by economists. When the depression came, moreover, economists played a major role in bringing their reforms into being by writing the legislation, testifying in support of it before Congress, and implementing the new programs (Barber 1996).

What had persuaded the intellectual descendants of Adam Smith to favor Big Government? One answer was given by George Stigler in his famous essay "The Economist and the State." Stigler argued that economists had switched their support first from mercantilism to laissez-faire and then from laissez-faire to Big Government without any discernible reasons! Economists should have based their support for or opposition to government intervention on empirical studies of the effects of intervention, but they had failed to do so. As usual, its better to let George say it: "The economic role of the state has managed to hold the attention of scholars for over two centuries without arousing their curiosity" (Stigler [1965] 1986, 111).

Here, however, I will argue that on the eve of the New Deal American economists believed that there was an abundance of empirical evidence from experiments in Germany, Scandinavia, and (especially) English-speaking countries proving that an expanded role for government would work well. The studies based on those experiments would not satisfy modern standards of rigor, certainly not Stigler's, and their authors, with a few exceptions, have been forgotten. But the quantity and consistent thrust of those studies, I believe, moved the profession toward support of the modern mixed economy. In other words, I will argue that the New Deal was just what the doctors (of economics) ordered and that they believed their advice was soundly based on the clinical evidence.

Liberal economists were only one small part of the intellectual support for an expanded federal sector that was in place before the depression. It is conceivable that events would have unfolded along lines similar to what actually transpired even if the economists had remained loyal to Adam Smith, although there might have been many differences in the details. My hope is that by looking at what persuaded economists to support the New Deal we may find a clue to the arguments that were broadly persuasive.

Before turning to the economists, however, I want to take a closer look at just how important the programs created by the New Deal were to the growth of the federal government in the 1930s and beyond.

4.2 The New Deal and the Expansion of the Federal Government

It is a commonplace that the growth of government power cannot be measured merely by looking at the number of federal employees or the amount of money they spend. To take what is perhaps the most extreme example, a change in the membership of the Supreme Court can permanently alter the effective role of government, even though quantitative measures of the size of government are unchanged. Typically, economists note this problem and then discuss employment and spending on the feeble grounds that these are the only statistics available, a procedure I shall follow. However, I can plead in my defense that the portrait of the growth of the federal government that results from looking at the quantitative data is consistent with portraits drawn on the basis of qualitative data such as changes in the legal system, for example, Higgs (1987) and Hughes (1991).

4.2.1 The Federal Labor Force

The ratio of federal employees (excluding the military and the postal service) to the total civilian labor force is plotted in figure 4.1. This series shows a dramatic upward ratchet in the 1930s and a second upward ratchet in the 1940s. A good part of the World War II ratchet, however, is to be found in the Veterans Administration. When employees of the Veterans Administration are excluded (the lower line) the wartime ratchet drops by one-half. The remaining World War II ratchet, moreover, is lost in the postwar period. By the end of the 1980s the federal labor force share is back to where it was at the end of the 1930s.

Was the expansion of the federal labor force in the 1930s mostly the result of adding new agencies or expanding old agencies? Skepticism about the motives of bureaucrats might lead us to expect that it was older agencies that expanded the most. In the expansive atmosphere that prevailed in the early days of the New Deal, we would expect bureaucrats in established agencies to try to increase their workforces. The established bureaus would try to formulate plans to fight the depression calling for more employees, plans that would be funded during the emergency because the Congress was controlled by legislators favorable to an expansion. Later, the inherent inertia in government would prevent conservative legislators from removing all of the workers and canceling all of the new programs added during the emergency. Porter (1980) asserted that this happened during World War II; and it would not be unreasonable to think that it also happened during the depression.

Figure 4.2 provides a test. I divided federal agencies into three categories: (1) New Deal agencies (the Works Progress Administration, the Federal Deposit Insurance Corporation, and so on), (2) old agencies that produced a final product (the Post Office, Veterans Administration, and so on), and (3) old agencies that produced intermediate services (the Treasury Department, Government Printing Office, and so on). The assumption is that since the demand for the services of category 3 was derived partly from the new agencies, we would expect the agencies in category 3 to expand during the depression, even in the absence of an exploitation of the emergency by the bureaucracy.

Figure 4.2 displays the annual increase in employment in each category from 1934 to 1938. Civilians working for the military and emergency workers hired by the Civilian Conservation Corps are excluded. Two features stand out. First, the increase in the federal labor force was concentrated in 1934 and 1935. By

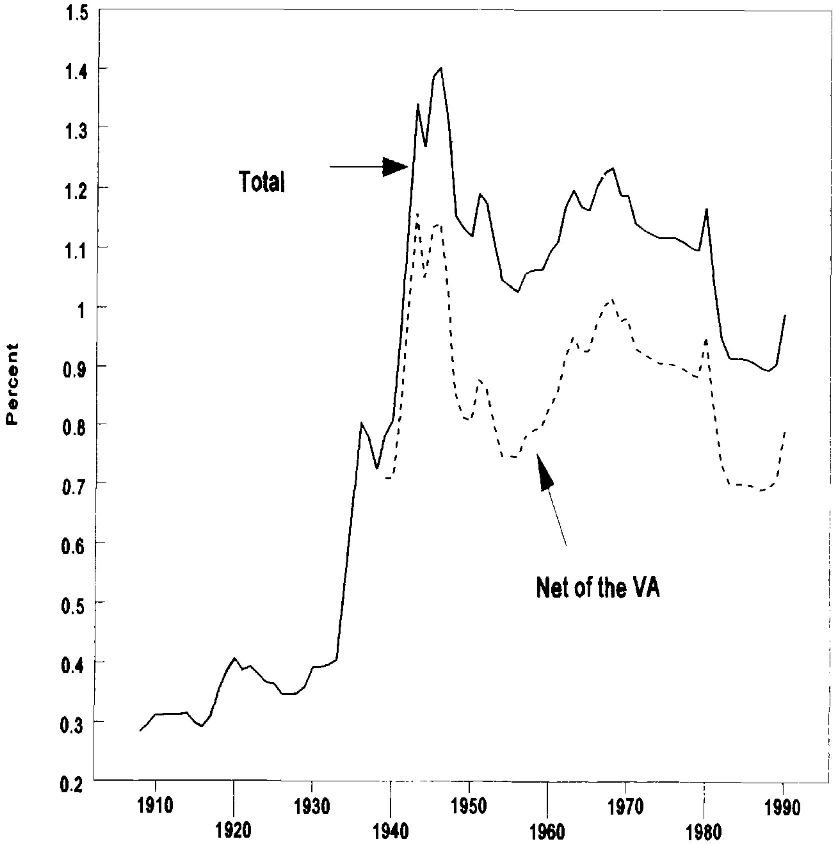

Fig. 4.1 Federal civilian employment, 1908–90 (percentage of civilian labor force)

Sources: U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington, D.C., 1975), series D4, D14, Y308, and Y313; and the continuations of these series reported in U.S. Bureau of the Census, *Statistical Abstract of the United States* (Washington, D.C., various issues).

Note: Dashed line shows employment excluding the Veterans Administration (VA).

1936 the expansion was over. In that year, there was little net change in the size of the government labor force; instead, what we see is an absorption by traditional agencies of some of the agencies created in the first years of the New Deal. Indeed, one can say that the increase in the share of the labor force working for the federal government in the twentieth century is basically the product of 1934 and 1935.

Second, the increase was dominated by employees hired by new agencies (category 1), or by existing agencies that could claim an increase in the derived demand for their services (category 3).

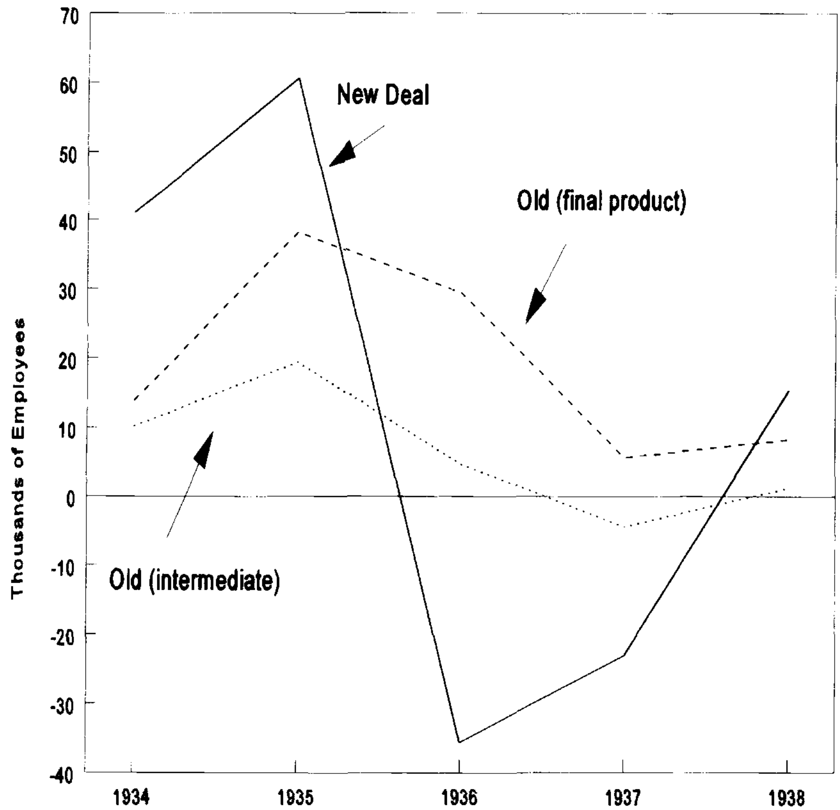

Fig. 4.2 Increases in the federal labor force by type of agency, 1934–38

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States* (Washington, D.C., 1939), table 166, p. 157.

Notes: The figure plots changes from one year to the next. "Old (final product)" agencies include the Departments of Agriculture, Commerce, Interior, Labor, State, and War, the Navy, the Panama Canal, the Post Office, the Veterans Administration, and smaller agencies. "Old (intermediate)" agencies include the Civil Service Commission, the Departments of Justice and Treasury, the General Accounting Office, and smaller agencies. "New Deal" agencies include the Agricultural Adjustment Administration, Civil Aeronautics Authority, Farm Credit Administration, Federal Deposit Insurance Corporation, Federal Emergency Administration of Public Works, Home Owners Loan Corporation, Reconstruction Finance Corporation, Social Security Board, Tennessee Valley Authority, Works Progress Administration, Department of Agriculture Emergency Conservation Work, and smaller agencies. Emergency workers are excluded.

Existing bureaus producing final products, however, were able to benefit when they could formulate acceptable plans or happened to be in the right place at the right time. Employment at the Post Office, for example, increased only 6.2 percent between 1933 and 1938; but employment at the Veterans Administration increased 15 percent.

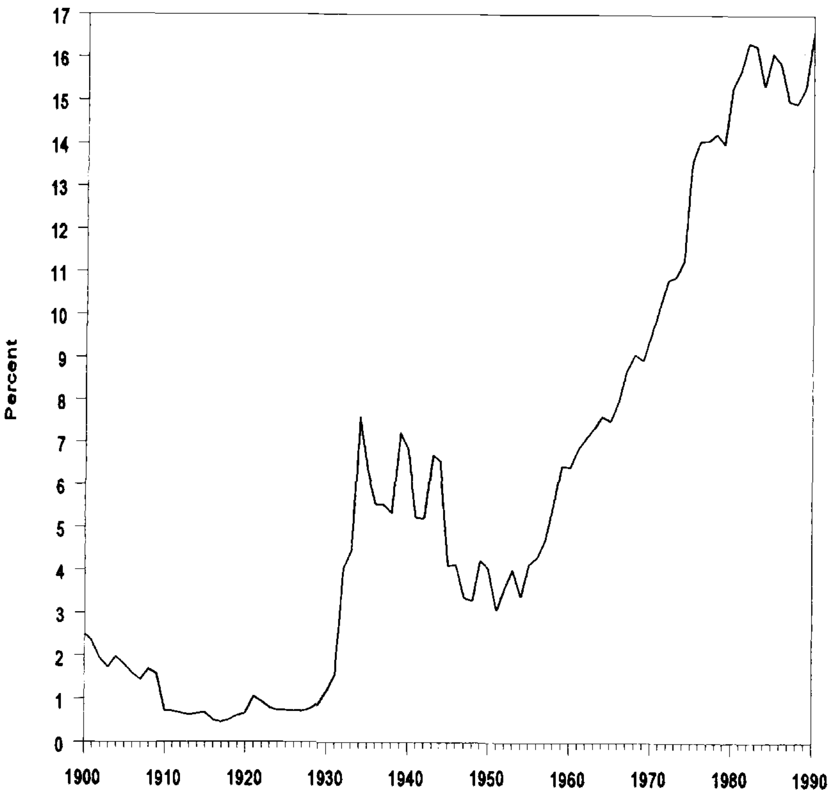

Fig. 4.3 Federal civilian spending, 1900–90 (percentage of GNP)

Sources: U.S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington, D.C., 1975), series Y463, Y466–Y469, Y472–Y474, Y476, Y485, Y494; and the continuations of these series reported in U.S. Bureau of the Census, *Statistical Abstract of the United States* (Washington, D.C., various issues).

Note: To go from total federal spending to federal civilian spending, deductions were made for spending by the military services and the Veterans Administration, for spending on international affairs, and for interest on federal debt incurred during wars.

4.2.2 Federal Spending

Figure 4.3 is a version of the familiar plot of total civilian spending as a percentage of GNP. In this case, in addition to deducting military expenditures from total outlays, I have also deducted expenditures on veterans' benefits, international affairs, and interest on the national debt incurred during the world wars and the Korean War. The goal was to get a measure of civilian spending as free as possible from war-related spending. Obviously, these adjustments could be refined: not all expenditures on international affairs are defense related, and my adjustments for interest incurred in wartime were relatively simple. But the broad picture resulting from alternative adjustments would be similar.

The spending data, like the employment data, show a sharp upward ratchet during the New Deal. Then there is a decline in the ratio during the 1940s, produced by the elimination of emergency relief programs and the rapid growth of the economy. Despite this decline, the ratio is substantially higher in the postwar years than it was before. The difference between the employment and spending plots lies in the period after 1950. Spending as a percentage of GNP continues to rise at a fairly rapid rate until the 1980s, driven mainly by the expansion of New Deal transfer programs (the most important being social security) and by the addition of transfer programs (the most important being Medicare and Medicaid) during the Little New Deal of the 1960s. The spending data, to sum up, suggest that the New Deal created an upward ratchet in both the level and rate of growth of the share of federal spending in GNP.

Again we can ask whether the increase in spending in the 1930s was concentrated in the new programs or whether it was spread throughout the government. In this case, as in the case of employment, New Deal agencies accounted for the bulk of the increase. I then divided civilian spending into five categories: (1) unemployment relief, which was new and was carried out mainly by new agencies such as the Civilian Conservation Corps; (2) pensions, which includes both new programs such as social security and older programs such as veterans' benefits that were expanded during the emergency; (3) spending on public works, which was carried out by new agencies and by a number of older agencies; (4) spending on agricultural relief, which was carried on by new agencies that were quickly scooped up by the Department of Agriculture; and (5) all other spending, which includes mostly programs that existed prior to the depression. The lines in figure 4.4 show the difference between civilian spending in each year and spending in 1931.

Evidently, relief expenditures (unemployment and agriculture) were the major source of increased spending in the 1930s. Even as late as 1942, relief expenditures are the largest source of the increase over 1931. Public works—to some extent another form of relief—were important in the middle years of the depression but were cut back sharply as the economy improved at the end of the decade and military construction increased. Pensions, although they would be the major spending legacy, are important mainly in the years when veterans' bonuses were paid. Traditional programs (all other) show relatively little growth in the 1930s, and some of this growth could be viewed as derived from the growth of the relief agencies.

All in all, the message here is similar to the message in the employment graphs: the federal government increased in size because it increased in scope. The hard question is, Why did the scope of the federal government increase so much in the 1930s?

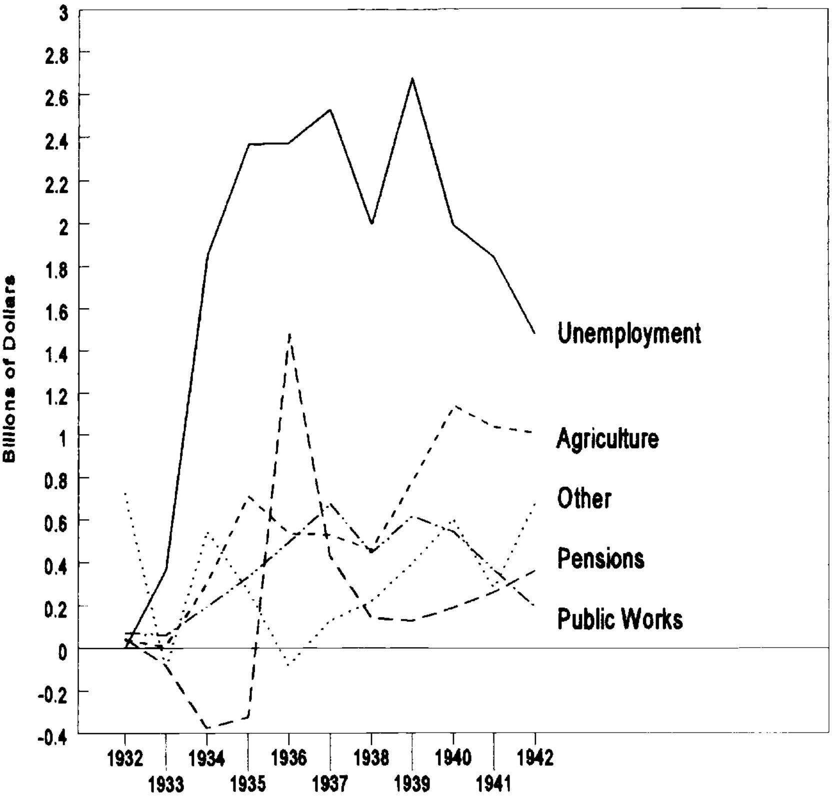

Fig. 4.4 Increase in federal civilian expenditures from 1931 levels
Source: U.S. Bureau of the Budget, *Budget for 1942* (Washington, D.C., 1942), table 8, p. 1046.

4.3 The Economists and the State, from World War I to 1929

The New Deal, as noted in the introduction, resulted from a unique concatenation of forces (see Higgs 1987, 170–71; Hughes 1991, 140–42): (1) the major factor, of course, was the sheer fury of the contraction—twenty-five percent unemployment created a not-to-be-denied demand that somebody do something; (2) the accident that the party generally favoring bigger government was out of power when the contraction began—The depression of the 1890s, by way of contrast, weakened the Democrats and strengthened the Republicans; (3) the personality of Hoover, who was unable to communicate his concern for the suffering produced by the depression, and the personality of Roosevelt, who proved to be a masterful tactician and strategist on behalf of an expanded role for government; and (4) the previous conversion of intellectuals to a favorable opinion of government intervention in the economy.

As noted in the introduction, it is with respect to item 4 that I hope to shed some additional light by looking at the attitude of economists in the years leading up to 1932 toward the reforms that became the New Deal.

Why is it important to look at what economists believed and how they came to those beliefs? In ordinary times, it is true, the opinions of economists got short shrift. Over 1,000 economists, including almost all the leading economists, signed a petition against the Smoot-Hawley tariff (Dorfman 1959, 674)—to no avail. But in the unique circumstances created by the depression the ideas of economists became important. Many of the new programs, including the Civilian Conservation Corps, unemployment insurance, and minimum wages, were advocated and shaped by economists.

It is important, moreover, to learn what persuaded economists that these programs would work because the evidence that persuaded them was probably broadly persuasive. Other groups of intellectuals were, if anything, even more enthusiastic than economists. Social workers, for example, were enthusiastic and influential advocates of social insurance (Berkowitz and McQuaid 1992, 38–39). But precisely because economists were the heirs of an intellectual tradition that took laissez-faire seriously, the arguments that convinced them that government intervention would be beneficial were likely to have been especially potent.

4.3.1 Just What the Doctor Ordered

There is no justification at all for viewing the economists in the 1920s as doctrinaire defenders of laissez-faire. That view is easily rejected by even a cursory study of the history of economic thought prior to the New Deal. Professional opinion, it is true, varied from subdiscipline to subdiscipline.

Macroeconomists, typically, were more conservative. The gold standard was generally accepted as the best long-run monetary framework. Even in the case of macroeconomics, however, there was considerable support for spending on public works to cure cyclical unemployment (Blaug 1978, 684–86). Chicago economists—Jacob Viner, Henry Simons, Paul Douglas, and Aaron Director, among others—were particularly vociferous about the need to create employment in the early 1930s through public works programs (Davis 1968; Tavlas 1976; Rockoff 1996).[1] Nevertheless, it is fair to say that the Keynesian revolution was to a great extent a product of the 1930s.[2]

Keynesian economics, in turn, had a major impact on the structure of the debate over new government programs. Before the Keynesian revolution, advocates of a new program had to overcome the argument that taxes would have

1. Although a number of leading economists favored deficit-financed public works, they did not agree on why public works would reduce unemployment. Douglas, e.g., argued simply that the direct effect of employing additional workers was unlikely to be offset by any plausible employment decreases in the private sector. Simons argued from the quantity theory of money: deficits meant more cash (or more bonds, which were practically money) and hence more total spending.

2. Stein (1969) and Barber (1996) describe the evolution of macroeconomic thought in the depression.

to be raised to pay for the new program and someone would have to consume less private goods. After the Keynesian revolution, the cost of a new program became (except in the special case of full employment) zero or negative.

Among microeconomists, the major focus in this paper, however, there was considerably more support for an expanded role for government before the depression.[3] At the far end of the spectrum from the macroeconomists were the labor economists, who "characteristically were among the staunch advocates of an expanded program of social insurance" (Dorfman 1959, 592). In general, as Dorfman shows, microeconomists championed a long list of reforms such as minimum wages, employment exchanges, old-age pensions, publicly owned regional power utilities, and so on: the programs that became the enduring achievements of the New Deal.

One piece of evidence for this generalization is explored below: *the overwhelming majority of the articles on New Deal–type reforms published in major economic journals between World War I and 1929 were favorable.* We can conclude, confidently, that there was a large and active group of economists who favored New Deal reforms. The extent to which their arguments were persuasive with the remainder of the profession, the silent majority, is less certain. But as McCloskey (1994, 71–84) has argued, persuasion is itself an economic activity. Economists invested considerable time and effort in these studies over several decades. It is reasonable to believe that they persisted because they earned an adequate return on their investment. In any case, I will show that any economist who claimed to be guided by the evidence reported in the major journals would have been forced to conclude that the New Deal was made up of a valuable group of workable programs.

For the most part economists did not try to make the case for reform by relying on theoretical arguments. Even A. C. Pigou, who developed the concept of externalities into a formidable weapon for criticizing unfettered competition, and whose book *The Economics of Welfare* (1932) advocated most of the programs that were adopted in the 1930s, relied to a great extent on empirical evidence and "common sense" to make his case for a mixed economy.

Where did this empirical evidence come from? Before World War I, social insurance plans had been advocated on the basis of German models (Skocpol 1992, 160–76); but after the war the German experiments became the basis for labeling social insurance plans as foreign and subversive (Dorfman 1959, 111), so other examples had to be used. Some radical economists were strongly influenced by the U.S. experience in World War I. Rexford Tugwell, for example, thought that the War Industries Board had made the industrial economy per-

3. In an important book, *Socializing Security,* which came to my attention too late for me to incorporate its findings into this paper, David A. Moss (1996) discusses the American Association for Labor Legislation. Many of the economists mentioned below played a key role in the association, which vigorously promoted a range of measures intended to improve the security of workers. This paper complements Moss's work by examining the arguments for the feasibility of reform that the enthusiasts of reform found persuasive and with which they hoped to persuade their professional colleagues.

form like a "well oiled machine" and had "compressed ten years of economic progress into one." Or to take a more mainstream example, Frank W. Taussig in a famous paper in the *Quarterly Journal of Economics* (1921) asked "Is Market Price Determinate?" His experience on the price-fixing committee of the War Industries Board convinced him that the answer was no: there was a range of prices acceptable to the market, and hence scope for positive government intervention.

Tugwell, like other radicals, was also strongly influenced by the Soviet Union. During the 1920s he returned from a visit appalled by the political persecution but at the same time convinced that in central planning the Soviets were onto a good idea (Dorfman 1959, 509–10).

And some economists must have been influenced in their thinking about the welfare state by the experiments and writings of progressive employers such as Edward Filene and Gerald Swope. Certainly, progressive employers had an influence on politicians and policymakers, as documented by Berkowitz and McQuaid (1992).

But to judge from the major journals, American economists, typically, were not easily persuaded by experiments that held so little constant. For them, the most telling experiments were run in peacetime in economies similar to that of the United States. If need be, an experiment undertaken on the European continent, particularly in Germany, would do. But best, to judge from the journals, was an experiment in an English-speaking country: at the national, state, or local levels in the United States, Canada, Britain, Australia, or New Zealand.

4.3.2 The Evidence Supporting Intervention

To illustrate these points I will review a number of New Deal reforms and the evidence that economists believed they had that these reforms would be beneficial. I chose reforms, such as minimum wages, that could be challenged using fairly simple economic analysis, such as supply and demand curves. These would be the reforms, presumably, that would meet the most professional resistance. I have steered clear (for the most part) of monetary and fiscal policy because those issues are being covered in other chapters; and I have steered clear of antitrust because the attitude of the New Deal toward antitrust was ambiguous and its legacy limited.

The articles (mainly in the *American Economic Review*, the *Quarterly Journal of Economics*, and the *Journal of Political Economy*) and books discussed below had a very different rhetorical structure from their modern counterparts.[4] Typically, these articles focused on institutional details: who supported and who opposed reform, when laws were passed, what the content of the law was, what the penalties were for violating it, and so forth. Occasionally, some attempt at quantitative assessment was made, say by making a before-and-after

4. I will focus mainly on articles published between the end of World War I and 1929, but in a number of cases I discuss articles from before the war that appeared to have been especially influential.

comparison, but often a conclusion about the success of the law would be drawn without any explicit supporting evidence. The logic was that the author, having shown his extensive familiarity with the experiment, should be trusted. There were only a handful of attempts, among the articles I examined, to use statistical techniques to hold other things constant.

The Tennessee Valley Authority (TVA), 1933. What evidence was there that the government could successfully manage a huge regional power project?

One could always cite the Prussian railroads, an example that had apparently become, for socialists, the classic example of successful government management of a large-scale enterprise (Marshall 1907, 23). Taussig (1924, 431) cites the German post office, telegraph and telephone, railways (perhaps), and military organization (unmistakably) as examples of public enterprises that were well managed.[5] Only in Switzerland, however, does Taussig see (possibly) public industry with "a spirit of progress comparable to that of private industry."

Taussig also makes his point by reference to Australia:[6] "He who compares, for example, the railways of the United States and Australia will undoubtedly find some serious defects in Australia. But he will find crying evils in the United States. He will find greater efficiency in our country, but also tortuous management, and ominous consequences in the greater inequality of wealth; and he will not render an unhesitating verdict against the state railways of Australia" (1924, 434).

The evidence most directly relevant to the TVA concerned the Ontario Power Commission, a publicly owned company that sold electricity generated at Niagara Falls. Emerson Biggar (1921) presented a comparison of the Ontario Power Commission with privately owned companies in New York in the *Journal of Political Economy.* Biggar was adamant that public ownership in Canada had proved superior to private ownership in New York State. Biggar even offered a shred of quantitative evidence: rates for electricity were lower in Toronto, which was 90 miles from the falls, than in Buffalo, which was closer, or even in the city of Niagara itself (1921, 51–52).

Biggar also noted that the Ontario Power Commission had promoted rural electrification, while a private power company that supplied an area near Niagara known as "the garden of Canada" refused to supply farmers with electricity (1921, 52–53). The precedent here for the TVA and for the Rural Electrification Administration (1935) is obvious.

Eight years later H. W. Peck (1929), armed with far more quantitative data, returned to the comparison in a paper presented at the annual meetings of the American Economic Association. Peck showed that production costs per kilowatt hour were slightly lower in Ontario, although similar to production costs

5. Taussig wrote frequently on Germany and railroads, and in one case (1894) on the Prussian railroads, a piece in which he evaluated a German pamphlet critical of certain administrative policies.

6. Schumpeter says that Taussig's *Principles* "will help us appraise 'what students got' at that time," although Schumpeter probably had economic theory in mind (1974, 871).

for a comparable group of utilities in New York, while prices charged to consumers of electricity were substantially lower in Canada. Peck then considered several possible explanations for the difference. Taxes, for example, were higher for the New York utilities, and interest costs were lower for the Ontario Power Commission, possibly because the Canadian government guaranteed the bonds. But these differences could account for only a fraction of the difference in costs to consumers.

In the end Peck concluded that public ownership had proved better all around for consumers in Canada mainly because the philosophy that guided the Ontario Power Commission was service to the public, rather than maximizing profits. His discussant, J. Bauer (1929), offered no objection. Bauer's main point was that the regulatory system in the United States could probably be reformed and made sufficiently effective to eliminate most of the advantage from public ownership.

R. L. Dewey (1931) addressed the issue two years later in another paper presented at the annual meetings. Dewey did not undertake the detailed comparison of rates that Peck had performed. He cited, however, the Ontario–New York comparison, and a number of other cases in which publicly owned municipal power companies in the United States competed with privately owned companies, to show that public ownership produced lower rates.

One swallow doesn't make a summer. John Maurice Clark (1926, 422), who cited the Ontario system among the successes of public ownership (along with the Glasgow street railway system and, of course, the Prussian railways),[7] claimed that the Ontario Power Commission owed much of its success to one engineer who was in charge during its formative years, Sir Adam Beck. Clark concluded that while examples such as the Ontario Power Commission showed that public ownership was not necessarily disastrous, general considerations, such as the absence of a profit motive to hold down costs, suggested that one should make haste slowly with public ownership.

But the point I want to emphasize here is that there was no rejoinder to Biggar and Peck, and while other examples of successful government-owned and -operated utilities were reported in the major journals, there were few examples of failures.[8] An economist who claimed to base his or her opinion on the evidence reported in the leading journals would have been forced to conclude that the empirical evidence supported public ownership.[9]

7. Biggar (1917) compared private and public railroads in Canada, arguing that public railroads had proved superior because they had provided more honest administration, lower rates, and less legislative corruption.

8. Paul Douglas (1921) investigated the purchase of the Seattle street railway system by the city. This case had been cited in the press as an example of the folly of public ownership because the city had been forced to raise fares. But Douglas concluded that "the city has probably done as well or better than any private company would have done" (1921, 47).

9. During the 1920s there was a major controversy in New York over the development of power sites along the St. Lawrence, the controversy that had motivated Peck's study. Governor Roosevelt had strongly supported public development.

The minimum wage, 1938. The minimum wage is a particularly good test of the attitude of economists toward intervention. What evidence was there that minimum wages would work?

Lots! Harvard professor Arthur Holcombe's (1910) article in the *Quarterly Journal of Economics* discussed the British Act of 1909 and noted that it was modeled on the successful law of the province of Victoria in Australia, and he expressed the hope that a minimum wage law would soon be adopted in the United States. His 1912 article in the *American Economic Review* cited experiments in Victoria, New South Wales, Great Britain, Minnesota, Wisconsin, and Massachusetts. There was no mistaking the conclusion: "Some immediate protection, however, for the American standard of living is necessary and an appropriate means is the establishment of a minimum wage" (Holcombe 1912, 37).

Sidney Webb's (1912) article in the *Journal of Political Economy,* "The Economic Theory of a Legal Minimum Wage," was also, as you might expect, extremely enthusiastic. The title is misleading. The article is essentially a presentation of the case for minimum wages based on the Australian experience:[10] "In this matter of the Legal Minimum Wage the sixteen years' actual trial in Victoria is full of instruction. . . . In the five sweated trades to which the law was first applied sixteen years ago, wages have gone up from 12 to 35 per cent, the hours of labor have invariably been reduced, and the actual number of persons employed, far from falling, has in all cases, relatively to the total population, greatly increased" (973).

How did minimum wages produce such positive results? One of Webb's central arguments had a modern ring to it: minimum wages forced workers to augment their human capital. "The young workman, knowing that he cannot secure a preference for employment by offering to put up with worse conditions than the standard, seeks to commend himself by a good character, technical skill, and general intelligence" (1912, 979).

Three years later Edith Abbott (1915) provided a largely factual, but clearly positive description of British minimum wage laws in the *Journal of Political Economy.* After the war, Kathleen Derry and Paul Douglas (1922) reported on the minimum wage laws (for women) in Canada, again in the *Journal of Political Economy.* Much of the article was descriptive. One section, on British Columbia, however, provided what modern economists would recognize as an elementary "events study." Derry and Douglas showed that wages for women increased, that the minimum wage did not become a maximum, that the distribution of wages was compressed, and that the employment of minors did not increase in the wake of the law.

They did not comment explicitly on the decrease in hours worked, equally

10. Webb's article was followed immediately in the journal by an article by Florence Kelly (1912) of the National Consumers's League that described the current state of minimum wage legislation in the United States.

apparent in their data. Implicitly, they seemed to be suggesting that the decrease in hours worked could have been prevented by a proposed regulation (which was disallowed by the courts) that would have forced payment of the minimum wage on a weekly basis, even if the employee only worked part time (Derry and Douglas 1922, 168). The possibility that this regulation would lead to employment at a lower wage in an uncovered sector, or unemployment, was not addressed.

Other reports, such as Douglas (1919), Lucas (1924), and Feis (1926), tended to be mostly descriptive, but they shared a favorable view of the effects of minimum wages. Lucas described Massachusetts's experiment and concluded that despite weaknesses that could be corrected by making the law mandatory, "it is apparent that the Massachusetts law has done much to ameliorate the condition of working women" (1924, 50). There is no suggestion of any negative effects. Aryness Joy described the state of Washington's experiment and concluded that "it has, of course, with all its limitations, been a great gain" (1926, 714).

The last article about minimum wages to appear in a major journal before the depression was by G. V. Portus (1929) in the *American Economic Review.* Writing with the authority of a professor at the University of Sydney, Portus provided a critical history of labor market regulation in Australia. Although noting a number of problems—for example, that regulation had tended to "stereotype" wages—he found more to praise. Wage regulation had eliminated "sweating," had maintained real wages at close to their prewar level during the war and its aftermath, and had increased real wages since that time. His policy conclusion was that wage regulation should be carried out at the national level rather than at the provincial level.

Pigou's *Economics of Welfare* (1932) devoted considerable space to minimum wages and the lessons to be learned from various experiments. The first question he addressed was whether evasion will be so persuasive that regulation is rendered ineffective. Pigou concluded that minimum wage regulation can be successful. The argument is that violations can be detected and that governments have a variety of powerful sanctions that can be brought to bear against those who violate the act. To illustrate Pigou cited a range of sanctions employed in wartime British legislation, and from legislation in Australia and the United States ([1932] 1962, 537–40).

Pigou argued, however, that minimum wages would reduce real GDP by driving some workers to lower wage occupations. Interestingly, he drew attention to a weakness of the Australian analogue ([1932] 1962, 603). In Australia agriculture was still the largest sector. Workers displaced by minimum wages in the industrial sector could find work in the agricultural sector without significantly driving down wages. This was unlikely in Britain, where the agricultural sector could not easily absorb displaced industrial workers.

What about the argument that minimum wages will force workers to augment their human capital? Again, Pigou was skeptical. Little can be learned, he said, from the fact, for example, that people who move from low-wage to high-wage districts are soon earning the high wage: the more able workers choose to migrate. What is needed is a natural experiment. He cited the improvements in the quality of the men drafted in the war and, more to the point, some wartime British experiments with minimum wages in tailoring and box making as hopeful signs, but he did not consider these experiments adequate to clinch the case ([1932] 1962, 608–9).

In the end, Pigou provided a relatively modest endorsement for a national minimum wage. It will lower national income, and it will lower total labor income from wages. But *if* there is an adequate system of government support for the unemployed—his own favorite was a national minimum standard of income—then total labor income, including both the wages of those employed and the transfers received by those left unemployed, might be higher than in the absence of a national minimum wage, and that outcome would justify the policy ([1932] 1962, 692–93).

The Securities and Exchange Commission, 1934. What evidence was there that the government could regulate successfully the issue of securities? In this case, there were studies that pointed out difficulties with government intervention. In the end, however, most, although not all, of the studies argued for regulation by a government bureau in Washington.

Emil Friend (1908), writing in the *Journal of Political Economy,* discussed German stock exchange regulation. It was one of the most negative assessments of regulation to appear in the journals before the depression. Friend conceded that the German regulations were a response to genuine abuses: attempts to corner the grain market. But he concluded that speculation is inevitable in security markets and that attempts to curb it are likely in the long run to do more harm than good. Other discussions of security regulation focused on American experiments, and although some of these articles noted problems, they usually endorsed more regulation.

E. T. Miller (1907) discussed the Texas Stock and Bond Law passed in 1893, which regulated the sale of railroad securities. Miller thought that the system had discouraged investment in improvements. His major recommendation, however, was not an abandonment of the system, but an increase in the fares charged by railroads, which were also regulated in Texas.

James W. Angell (1920) in a paper in the *Journal of Political Economy* reported, somewhat hastily one would think, on the results of the Illinois Blue Sky Law passed in June 1919. It was not an empirical study in the typical modern sense—there were no statistics; instead, it was based mainly on interviews and correspondence with regulators, security dealers, and so on. Angell was not happy with the results of the Blue Sky Law. He worried that economic development might be reduced and that fraud would not be reduced. He viewed these problems, however, as the result of the structure of the law with its emphasis on punishing securities dealers and its limitation to Illinois. He recommended a national law that would control the issue of securities at their "source" and so prevent, through government supervision, the possibility that a fraudulent security would ever be issued.

William Z. Ripley (1914) covered an impressive range of evidence in an article in the *American Economic Review.* His procedure was to cite case after case of railway securities regulation, in each case grading the state regulators on their performances. Some regulators earned high marks and others failed. His policy conclusion was that the state regulatory agencies should be eliminated in favor of regulation by (a more powerful) Interstate Commerce Commission. Moreover, to eliminate state regulation, the commission would have to be given powers commensurate with those held by the most powerful state regulators.

The last relevant study published in one of the major journals before the depression (Frederick 1929) looked at the reform that Ripley had advocated; at how well the regulation of railway securities by the Interstate Commerce Commission (a power granted in 1920) had worked in practice. Frederick concluded that "on the whole, the regulation of railway securities by the Interstate Commerce Commission has been beneficial to all [investors, railways, and consumers of railway services] concerned" (1929, 201).[11]

Employment exchanges, 1933. What evidence was there that national employment exchanges would improve the allocation of labor?

There was little discussion in the journals of this question, in part I suspect because it was accepted as almost self-evident that the adoption of a nationwide system of publicly owned employment exchanges would improve on the existing system that relied mostly on private employment bureaus.[12] The argument was that a public system would not be tempted to defraud job seekers. Frankel discussed the German example in the *Journal of Political Economy:* "In passing the Public Employment Exchange Law of July 13, 1922, Germany . . . has come to have an instrument which, while it cannot of itself create work opportunities, can help minimize greatly the ever present unemployment problem" (1924, 207).

Pigou agreed that employment exchanges should be run by the government. "Experience seems to show that, if they are to win an extensive clientele, they should be public—not run as a private speculation by possibly fraudulent private persons" ([1932] 1962, 516). Most of his analysis was concerned with

11. Walker (1927) criticized securities regulation. It was a "think piece" and did not discuss actual experiments with regulation.

12. Ohio established the first state employment agency in 1890. The federal government established an employment service in 1907 within the Bureau of Immigration and Naturalization. After 1918 it was an independent unit within the Department of Labor. But it was generally regarded as underfunded and ineffective.

how to create incentives for maximizing their use by potential employers and employees ([1932] 1962, 512–18). He considered, in this context, the experience of labor exchanges in Britain, France, Germany, and South Africa.

Bank deposit insurance, 1934. What evidence was there that bank deposit insurance would prevent bank failures?

Here at last we come to a reform that was not endorsed by economists in the 1920s on the basis of empirical evidence. There were a number of experiments with state-run deposit guarantee schemes in the early years of the century. Cooke traced the progress of these experiments for the readers of the *Quarterly Journal of Economics* in a half-dozen articles (Cooke 1909–10, 1913, 1915, 1921, 1924). Surveying the wreckage in his final article, Cooke (1924) considered the possibility that the national banking system might be successful where the state-run systems had failed because of the comptroller's tradition of close and effective supervision. But he shrank from recommending it. The vision of the national banking system going down in flames, even if a remote possibility, was too much.

There were, however, no foreign experiments with nationwide deposit insurance to decide the viability of a nationwide system. (Deposit insurance, in fact, reversed the normal process of diffusion: it was the apparent success of the American example that led subsequently to adoptions in other countries.) From the vantage point of the 1920s, the possibility remained open that a nationwide system—particularly if it avoided some of the problems of the state systems, such as allowing banks to withdraw when large losses and special assessment loomed on the horizon—could be made to work. This possibility was exploited by the proinsurance forces in Congress during the depression.[13] The absence of a strong professional consensus prior to the New Deal may explain one anomaly. Deposit insurance was the only major New Deal reform that Roosevelt opposed (Calomiris and White 1994, 146).

Unemployment insurance, 1935. How did economists know that unemployment insurance financed by an employer tax would protect workers without seriously reducing the incentive to work and bankrupting employers?

This question is especially pertinent because economists played a major role in the enactment of unemployment compensation. The first state unemployment insurance act was passed in a special session of the Wisconsin legislature in 1932. It was introduced by Harold Groves, a colleague and former student of John R. Commons at the University of Wisconsin. A similar bill, the work of Isaac M. Rubinow, an economist at Ohio State, Paul Douglas, and other economists, was introduced at about the same time in the Ohio legislature. The Ohio bill, however, was defeated partly because of opposition from employers

13. See Calomiris and White (1994) for an explanation of how deposit insurance came to be adopted.

on the grounds that a state plan would leave them at a competitive disadvantage (Dorfman 1959, 628–29).

Those economists were activating reforms that a large number of American labor economists believed had been shown to be workable by experiments in Europe. But this confidence was not centuries old. One of the first discussions of unemployment compensation at the annual meetings of the American Economics Association occurred not long after the turn of the century when Charles Tuttle (1902) presented his case for unemployment compensation in a paper entitled "The Workman's Position in the Light of Economic Progress." Tuttle's paper was devoted almost entirely to establishing the worker's ethical claim to compensation from his employer, and from the state, when the worker was unemployed as a result of technological progress. Tuttle suggested, tentatively, that compensation might take one or more of three forms: (1) "free public employment bureaus" and "perhaps free railroad transportation," (2) "making the business owner liable to a money damage for the summary dismissal of a faithful and efficient workman," and (3) an "indemnity fund" financed in part from "general tax revenue" and in part from "some sort of special tax" upon the entrepreneur (Tuttle 1902, 210–11).

In the tradition of the day, the journal recorded the opinions of eight discussants. Most sympathized with the ethical case for compensation but worried about whether compensation was practical. What would be the effect, for example, on the incentive to work? David Kinley, one of the leading economists of the day, simply declared that Tuttle's "proposal would be difficult if not impossible to put into effect" (1902, 218). And William W. Folwell declared the idea "wholly impractical" (1902, 230). Several discussants tried to provide examples to show that unemployment compensation was practical, but they could only come up with rough approximations. Samuel L. Lindsay, for example, pointed to the British "Workingman's Compensation Act" (for work-related injuries) as a possible precedent (1902, 222).

Perhaps the most interesting try was by John R. Commons, because Commons would become an influential advocate of unemployment compensation in the decades to come. Commons offered an example from "some five or six years ago," when Massachusetts had indemnified workers who lost their jobs as the result of a large water project by paying them six months' wages (1902, 231). Commons assured his colleagues that the initiative of the workers was not undermined in this experiment. He acknowledged, however, that this example was not entirely persuasive, and at the end of his remarks he expressed the hope that "if we set about as economists trying to discover practical means for indemnifying the laborer I think we can find lessons from other countries and different states, and draw upon our own economic foundation for plans which would be practical and would combine theory and practice" (Commons 1902, 232). Two decades later this challenge had been largely met, at least to the satisfaction of many liberal economists. Frank W. Taussig summarized some of the evidence for a system of unemployment insurance in his *Principles* *of Economics:* "A number of cities in Belgium and elsewhere have adopted the 'Ghent system' (first developed in that place with apparent success) of offering a supplement to the trade-union unemployed benefit; . . . the same system has been adopted on a national basis in Denmark and Norway" (1924, 366–67).

The ablest discussion of the Ghent system, in the major journals was by Rubinow (1913) in the *Journal of Political Economy.* Rubinow first discussed a number of older European plans in which workmen could elect to insure with a fund run by a city. His conclusion was that these plans suffered from two common insurance problems: moral hazard (workers were tempted to choose unemployment) and selective risks (workers who were more likely to lose their jobs were more likely to sign up for insurance). The Ghent system, which began in 1900 and spread rapidly across Europe, Rubinow explained, avoided these problems by using the trade unions to set rules and supervise adherence. "It is fair to say that the Ghent system was the first successful method of organizing social unemployment insurance" (1913, 422).

Rubinow, however, was not satisfied with the Ghent system because it was restricted to trade unions and therefore excluded the most destitute workers. Some form of compulsory insurance, Rubinow argued, was required.

The British system established in 1911 provided, of course, a much closer analogue to a nationwide state-run system of unemployment compensation. In 1925 Newman A. Tolles provided a critical summary of the British literature for readers of the *Quarterly Journal of Economics.* Tolles's evaluation was highly favorable. True, the system had to be bailed out with general funds after the war, but that was only because the benefits had been recklessly expanded just before a depression hit. The cost of the bailout was large, but the suffering alleviated made the cost worthwhile.[14] Maintenance of the unemployed had not undermined their will to work, and overall the prevention of unemployment had been neither helped nor hindered.

In discussing the British act (which provided for an array of social insurance besides unemployment compensation) Taussig concluded that "an extraordinary forward step was taken in the field of social reform." Social insurance would be expensive, but Taussig was optimistic because "when a country plunges into war, treasure is poured out on a scale that would cover, many times, the expenditure needed for the contested social reforms" (1924, 367).

The only negative reference to the British system in the major journals was by Leo Wolman (1929). Wolman believed that certain aspects of the British system had retarded recovery from the last recession by discouraging labor mobility. These features included the use of labor exchanges (which were supposed to find people jobs) to administer unemployment benefits,[15] rigid defini-

14. Despite Tolles, the perception remained that the British system had been too generous. For that reason, the U.S. system limited the length of time a worker was eligible (Baicker, Goldin, and Katz, chap. 7 in this volume).

15. Wolman's discussant, Squires (1929), pointed out that it would be simple enough to separate the two functions.

tions of suitable alternative employment (which discouraged reemployment in expanding industries), and excessive benefits. As a model for American reform Wolman preferred a private, union-based system, inaugurated in Chicago in 1923 that covered the men's clothing industry. In retrospect, perhaps the most interesting point about Wolman's paper is that the discussion had moved far beyond whether there should be unemployment insurance, the subject of Tuttle's 1902 paper, to how any negative side effects could be minimized.[16]

Although the obvious precedents were the Ghent system and the British system of 1911, I should note that the Soviet Union was not ignored completely. In an article in the *Journal of Political Economy* (anxious as always in those days to publish an article celebrating government intervention in the economy) A. Abramson (1929) reviewed social insurance in Russia. He concluded that "it must be admitted that they have certainly been successful in so far as social insurance is concerned" (398).

The Civilian Conservation Corps, 1933. What evidence was there that an "industrial reserve army" would relieve unemployment? And what evidence was there that it would improve the character of the young men it employed, that it would not be just a dole?

Nothing like the Civilian Conservation Corps, as far as I have been able to determine, was discussed in the journals. Nevertheless, it is a relevant example of the commitment of economists to an expanded role for government because the idea for the Civilian Conservation Corps, according to Dorfman (1959, 671), came from Richard T. Ely's *Hard Times: The Way In and the Way Out* (1931). Ely was then one of the famous old men of economics; he had been president of the American Economic Association in 1900–1901, and his textbook *Outline of Economics,* first published in 1893, was still among the leaders in the 1930s.

Ely's plan was very similar to the actual Civilian Conservation Corps. His "industrial reserve army" would have a permanent "general staff" that in good times would concentrate on planning conservation projects, such as reforestation, and would formulate its plans so that in "hard times" the industrial reserve army could be rapidly and indefinitely mobilized to incorporate the unemployed. The permanent general staff would earn salaries commensurate with administrative salaries in the private sector. But the ordinary worker would only earn a salary similar to base pay in the regular army. When good times returned, employers would simply call on the peacetime army for men, who would immediately be mustered out and be fit and ready to report for active duty in the private sector.

Ely was indebted to William James's ([1910] 1912) essay "The Moral Equivalent of War" for the basic idea. James proposed a universal national

16. Similarly, Yoder (1931) was concerned mainly with getting the incentives right, and Witmer (1931) with getting the benefits structure correct.

service. All young men, including especially our "gilded youth," would be conscripted and set to work, for a time, in mines, forests, and so on. In this way they would learn martial values, the one good thing about militarism, without becoming part of a war machine. Ely's twist was to turn James's peacetime army into a countercyclical policy.

As empirical models of successful peacetime armies Ely cited the Salvation Army and the Jesuits, but the most influential model was the German army before World War I.[17]

> German militarism before the World War was so repellant to most thoughtful Americans that they generally failed to see great benefits brought to Germany through military training. I was a student in Germany for three years, and during various visits to Germany afterwards I was strongly impressed by the bright side of military training. . . . The army was a school of many different kinds. Those who had not attained a certain minimum of school education had regular classes to bring up their deficiencies. The discipline of the army was on the whole an excellent thing. It taught order, it taught men to work together and to do the things that they were told to do without question, simply because it was their duty. Loyalty was cultivated and men were taught to work hard. In short it afforded a discipline of life. All of this was a preparation for the economic life, and was a help in making Germany prosperous before the War. (1931, 100)

How was the peacetime army to be financed, especially when hard times required a significant mobilization? Ely argued that it could be financed by issuing long-term government bonds. "The experience of the World War . . . shows the almost undreamed of and almost limitless capacity to raise funds by millions and by billions when needed to save our selves from disaster" (Ely 1931, 109).

He added that it would be a good idea if a reserve fund—modeled on the Prussian War Chest—were kept in Washington and the states. The president (the Kaiser?) could then be given the authority to declare an emergency and use the reserve funds for immediate mobilization (Ely 1931, 111–12).

Ely was more frank than most would have been in citing his German inspiration. After the war any plan based on a German model could easily be attacked as the product of a militaristic and undemocratic state and therefore inappropriate for the United States. But at least in Ely's case we can see a process at work that is familiar today: Japanese institutions are recommended because the economy as a whole has been successful.

Thus, to sum up, on the eve of the depression the economics profession (or at least an important segment of it) was ready with an arsenal of reform plans, ranging from minimum wage laws to industrial reserve armies, for the New Deal to use in its war against the depression. The general assumption that lay

17. Ely earned his Ph.D. at Heidelberg and was an apostle of the German historical school.

behind these plans was that markets frequently fail to produce socially desirable results, and that the central government was normally competent to diagnose and correct the problems created by unfettered markets. This assumption, massively reinforced by the depression itself, inevitably structured the debate over subsequent reforms, and constituted one of the most enduring legacies of the depression.

4.4 The Postwar Era

In the postwar era the evolution of opinion (both professional and public) about the appropriate economic role of the federal government followed the inverse of the path described in the preceding sections. In particular, just as the depression of the 1930s encouraged the public to adopt the enthusiasm for government intervention already prevalent among leading economists, the stagflation of 1970s encouraged the adoption of a new skepticism about government already evident among economists at an earlier date.

4.4.1 The Continuation of the New Deal Regime, 1946–76

The agencies and programs established in the 1930s survived and often as not expanded. In some cases the expansion in a particular area seemed almost inevitable given the initial federal commitment.

This is well known in the cases of social security and bank deposit insurance. Another example is medical research. The National Institutes of Health can trace their origin to an amendment to the Social Security Act of 1937. A steady expansion followed in the postwar era: Mental Health (1946); Allergy and Infectious Disease (1948); Dental Health (1948); Heart, Lung, and Blood (1948); Arthritis, Metabolism, and Digestive Diseases (1950); Child Health and Human Development (1962); General Medical Sciences, to cover diseases that did not have their own institutes (1963); Alcohol Prevention and Drug Abuse (1966); Environmental Health Science (1966); Eye Institute (1968); Aging (1974); and Neurological and Communicative Disorders (1976).

Part of the explanation for the persistence and expansion of the institutional structure created in the 1930s was the interest groups created. Once in place, an agency or program created a group of constituents, whether arthritis researchers or peanut farmers, who lobbied continually for their program's expansion, and who could be counted on to launch a vigorous counterattack against any attempt at curtailment. A congressman who voted to reduce or simply limit the spending of an agency immediately felt the wrath of the offended interest group; the benefits created by such a reduction, however, would be spread over a large group of taxpayers and go unnoticed and unrewarded at election time.

This phenomenon has been described by Milton Friedman and Rose Friedman as an "iron triangle" of beneficiaries, bureaucrats, and legislators (1984, 42–51). But, of course, the terms one uses reflect one's ideology. Arthur Schlesinger, Jr., sees the persistence of liberal programs as evidence that "affirmative government" has on balance served the public well: agencies survive because they do good (1986, 245–48).

But the postwar years witnessed more than the survival and expansion of the programs begun in the 1930s, they also witnessed the continued dominance of an ideology that held that government was competent to enter new areas and could afford to do so,[18] that the burden of proof was on those who opposed meeting problems with an expansion of government. The dominance of a liberal ideology reached its peak in the 1960s with the large number of new agencies and programs created in the Little New Deal of the Kennedy-Johnson era—the addition of Medicare to social security, creation of the Departments of Transportation and Housing and Urban Development, and so on.

Opposition to the market, if not support for Big Government, reached its peak in the rebellion of college-age youths in the 1960s. The rebellion seemed to be a fulfillment of Schumpeter's prediction that capitalism would undermine itself (1943, 146). An increasingly large fraction of the population, Schumpeter argued, would go on to higher education, where it would inevitably be indoctrinated in a withering criticism of capitalism developed by intellectuals. As the future was to show, however, the willingness of young people to act on their professors' ideas would soon fade, and perhaps even more surprising, the characterization of the intellectual, or at least the economist-intellectual, as an unrelenting critic of the market was about to change.

4.4.2 Crisis and Ideological Change in the 1970s

In the 1970s we had a period of economic crisis, followed by a shift to a new, and in this case more conservative, ideological regime. The economic crisis of the 1970s, of course, was not nearly as severe as the crisis of the 1930s, and partly for that reason, the shift in public opinion was not as great. While the 1930s could be described as a swing of the pendulum from right to left, the 1970s would be described as a swing from the left to the center.

Nevertheless, there are a number of striking parallels between the 1930s and 1970s. As in the 1930s, a macroeconomic fluctuation, best addressed, one would think, with macroeconomic medicines, produced pressures for medicines to deal with long-term problems in specific industries. More to the point, for our purposes, the shift in public opinion in the 1970s, like the shift in the 1930s, was preceded by a shift among economists. And in the 1970s as in the 1930s the shift in professional opinion seems to have been based to on a reading of empirical evidence. In the 1970s, however, the role of evidence from abroad was much less important than it had been in 1900–1929. When programs were merely a gleam in an American reformer's eye, the only available

18. Michael A. Bernstein (1994) has argued persuasively that the consensus among economists in favor of active government "planning" was strongly reinforced by the prominent role that economists played in the Office of Price Administration, the War Production Board, and other agencies in World War II, and in cold war defense-related activities.

evidence was from other countries that had already tried the experiment; after World War II one could examine how New Deal reforms had worked in the United States.

Much of the leadership for the shift in professional opinion came from Chicago. In macroeconomics Milton Friedman revived monetarism, publishing (with Anna J. Schwartz) *A Monetary History of the United States* in 1963. I will not pursue the impact of the monetarist revolution here, except to note that the fall of Keynesian macroeconomics and the rise of neoclassical macroeconomics inevitably altered the terms of debate over any proposed expansion of the federal government. Before the 1970s it was possible to argue that the cost of adding a new agency was essentially zero or negative, except when the economy was at full employment. In microeconomics, George Stigler, who produced influential empirical critiques of regulation, was the dominant figure. He published *The Citizen and the State* in 1975, collecting papers originally published in the 1960s and early 1970s.

Perhaps, however, as Thomas McCraw (1984, chap. 7) has pointed out, Alfred Kahn better represents the "intellectual odyssey" of the profession in the postwar era. Kahn entered graduate school in the late 1930s, and his early work on antitrust, much of it published in the 1940s and 1950s, was heavily influenced by the institutionalist tradition of Veblen, Ely, and Commons. Kahn then held that neoclassical microeconomics did not provide a sound basis for evaluating antitrust policies, in part because consumer preferences, the satisfaction of which played such a large role in neoclassical economics, were easily manipulated. Gradually, however, Kahn's opinions changed. His masterwork, *The Economics of Regulation* (1970), although it did not abandon his institutionalist insights or his liberal politics, made a strong case for marginal cost pricing and for allowing market forces to operate. In 1974 he became chairman of the New York Public Service Commission, which regulated utility rates. Here he became a national figure by putting marginal cost pricing strategies into effect: for example, peak load charges for electricity and, more controversially, charges for directory assistance.

In 1977 he became chairman of the Civil Aeronautics Board, and here he went even further in promoting market forces. Pressure for deregulation had been growing for some years and had broad political support. Much of the support for reform was based on the experience in California and Texas. There, intrastate carriers were permitted much greater latitude in setting fares, and as a result fares were much lower than on comparable interstate routes regulated by the Civil Aeronautics Board. Under Kahn the industry, which had become a tightly regulated cartel, was deregulated: special fares and cuts in rates were permitted, and new entrants were encouraged. It was the first major effort to deregulate an American industry.

In the pre-1939 period we had no way of knowing the opinions of the "silent majority" of economists. The best that I could offer was the argument that the profession as a whole was likely to have been persuaded, at least to some extent, by the articles appearing in the leading professional journals and that in any case what mattered most was the opinion of the "weighty" economists who wrote for those journals. In the postwar era we can learn something more from opinion polls.

Alston, Kearl, and Vaughan (1992) surveyed a stratified sample of 1,350 economists. Most relevant for our purpose is the breakdown by vintage—year in which they received their highest degrees. The change in macroeconomic ideas was the most dramatic: 9.4 percent of economists who received their highest degrees before 1961 agreed that "the macro economy is generally self-correcting"; but 27.5 percent of those who received their highest degrees between 1971 and 1980 agreed. On the microeconomic side the change was less dramatic, although still clearly present: 55.6 percent of the pre-1961 vintage agreed that a "minimum wage increases unemployment"; but 66.7 percent of the 1971–80 vintage agreed. Agreement with "marginal tax rates impact work effort" was 14.8 percent for the pre-1961 vintage, but 27.3 percent for the 1971–80 vintage. Agreement with "income redistribution is legitimate" was 64.2 percent for the pre-1961 vintage, but only 47.3 percent for the 1971–80 vintage. There appears to have been, it is interesting to note, a slight swing to the left for the 1981–90 vintage, presaging perhaps, a swing in public opinion.

The Reagan administration hoped to attack the New Deal all along the line, by cutting taxes and government spending, as well as cutting government regulation. But its successes were limited (Higgs 1987, 255–56; Hughes 1991, 205–7). Tax rates were cut, and there was additional deregulation (most of which was already in the pipeline) in communications, transportation, and financial services. But the administration's efforts to cut expenditure programs fizzled when proposed cuts were attacked by outraged constituencies and their congressional supporters. David Stockman, who drew up the list of proposed cuts, described the process in *The Triumph of Politics* (1986). Perhaps the main legacy of the Reagan Revolution was ideological: the shift in the burden of proof from those who oppose federal solutions to economic and social programs to those who favor them, something to be measured by the relative paucity of new programs since the 1980s, rather than by the elimination of older ones.

4.5 Ideology as Explanation

In the decades prior to the Great Depression microeconomists championed a wide range of social and economic reforms such as minimum wages, old-age pensions, unemployment compensation, large-scale public works to cure unemployment, industrial armies to be mobilized in depressions, and so on. When the Great Depression created a uniquely receptive political environment, those reforms were adopted, permanently altering the role of the central government.

What had persuaded economists, the heirs of Adam Smith, to favor a major expansion of government? Undoubtedly, the economists were responding to a range of social and political forces that lay outside their discipline. Empirical evidence developed by economists, however, was important in converting the profession to a liberal (in the American sense) view of the role of government in the economy. American economists were influenced by the apparent success of government economic intervention in a wide range of countries, including Germany, Belgium, Russia, and the Scandinavian countries. Perhaps most important, however, were experiments in English-speaking countries—Australia, Canada, Great Britain, New Zealand, and the United States. This was sensible. Experiments in wartime economies, in Russia, even in Germany, as persuasive as they were to many, did not hold enough things constant to persuade the skeptical.

In retrospect there is nothing unique in the influence traced in this paper. Who can doubt that in recent decades the attitude of economists toward the role of the state has been influenced powerfully by natural experiments such as East Germany versus West Germany or mainland China versus the "tigers" of Southeast Asia, and by the economic success of Japan?

The growth of the federal bureaucracy in the 1930s illustrates the point made recently by a number of economic historians (Higgs 1987; Fogel 1989; North 1990) that major changes in economic institutions cannot be understood without taking ideology and ideological change into account. The history of economic thought, I believe, provides a lens for bringing the ideological dimension of economic change into focus.

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