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Introduction

Richard B. Freeman, Robert Topel, and
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This is a study of an economy in transition and in trouble. Not an Eastern or a Central European economy seeking the path to capitalism, but a Western economy once heralded as offering a "third way" of operating a capitalist system. An economy that relies heavily on the state, unions, and employer associations; an economy that equalizes market outcomes with massive welfare state redistributions; and an economy that many regarded as the model welfare state. The troubles that have befallen that economy and the effort to reform its welfare state are well worth understanding.

In the 1950s and 1960s, Sweden's economic performance and effort to gain economic equality for its citizens won worldwide plaudits. Many heralded the "Swedish model" as offering a more rational and humane form of capitalism than more market-driven economies. In the 1970s and 1980s, Swedish economic performance slackened—by how much and why are questions open to debate. In the 1990s, Sweden's economy plunged into crisis. Huge budget deficits created a fiscal crisis in 1993, threatening the funding of welfare state redistributions and benefits. Unemployment, which had for decades been lower than in other developed economies, soared to levels not seen since the 1930s.

Sweden's position as a role model for other countries has been severely, if not irretrievably, tarnished. But rather than turning our backs on the Swedish model and studying more fashionable ones, we believe that there are important insights to be gained from a serious evaluation of the Swedish experience.

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These insights should be valuable to other countries as they consider the benefits and costs, the risks and problems, of welfare state solutions to economic and social problems.

How serious are Sweden's economic troubles? Have critics of the welfare state exaggerated those troubles? Are the troubles related to the welfare state? Can Sweden restore its economic health and preserve the successes of its welfare state? What are the limits and excesses of the Swedish welfare state? What can observers in other countries learn from Sweden's experience of having the government play a large role in markets?

These questions motivate this National Bureau of Economic Research (NBER)–Center for Business and Policy Studies (SNS) project. They are not the questions that outsiders to the Swedish scene have previously asked. This is because, until the late 1980s, early 1990s, Sweden seemingly had no greater economic problems than many other Western countries. For example, in 1985–86, American economists associated with the Brookings Institution examined the Swedish economy (Bosworth and Rivlin, 1987). While these economists noted areas in which Sweden, like the United States in the 1980s, consumed beyond its productive means, overall they were impressed by Sweden's living standards and absence of poverty and by how well the economy worked despite high taxes, a huge welfare state, limited wage differentials, and diverse interventions in markets. In 1986, Mancur Olson asked why Sweden did well for so long despite its extensive transfer system. He concluded that part of the answer lay in the competitive traded goods sector and part in high unionization, which internalized potential externalities from special interest negotiations in the labor market (Olson 1990). Other outsiders have given even more positive readings of the Swedish system (Layard 1991; Gibson and Hall 1993).

Swedish economists have been more critical. Many of them have criticized the extent of the welfare state, the inflationary tendencies of centralized collective bargaining, and other features that differentiated Sweden from the normal capitalist economy (Lindbeck 1993; Lundberg 1985; Bergström 1992; SNS Economic Policy Group 1992). The economic crisis of the 1990s made these criticisms more salient. Something went drastically wrong with the Swedish economy—be it the features these analysts stress or something else. In 1992, the Swedish government asked a group of Swedish economists, headed by Assar Lindbeck, to consider the best way to turn the economic situation around (Lindbeck et al. 1994). Many Swedish social scientists contributed background studies for this project, which yielded 113 recommendations for changes in policies.

The NBER-SNS project on Sweden enlisted ten American economists—and an equal number of Swedish economists—to study various aspects of the Swedish economy and welfare state. What is the value of having American economists look at the Swedish economy in 1993–94, so few years after publication of the Brookings study and so shortly after the Lindbeck commission's proposals? What insights might outsiders contribute to understanding Sweden's problems and possible path to recovery?

One thing outsiders bring is their ignorance of the details of the Swedish economy. This has virtues and dangers. Ignorance of details can make it easier to see problems in a broad perspective—the forest instead of the trees—and to question conventional wisdom. A case in point is Swedish thinking on exchange rates. In the fall of 1992, supported by all political parties, union federations, employer groups, bankers, and most economists, the Swedish government committed the nation to defend the krona's fixed exchange rate, almost as a matter of patriotic duty. Impressed by the failure of similar policies elsewhere (e.g., the fall in the British pound, the Italian lira, and the Mexican peso), the historical record of devaluations in Sweden, and the American experience with floating exchange rates, outsiders questioned the rationality of Sweden's commitment. So did currency speculators, who benefited at the expense of Swedish taxpayers when the krona was subsequently devalued again.

Outsiders can also offer an independent assessment of debates within Sweden about the country's economic troubles. For example, some Swedish analysts argue that Sweden has been in substantial relative decline for a long period of time. They are alarmed by Sweden's drop from near the top of international rankings of per capita income (SNS Economic Policy Group 1992; Henrekson, Jonung, and Stymne 1996; Lindbeck 1993). Others claim that these comparisons exaggerate the extent of Sweden's long-term problems and fail to show that these problems were caused by the welfare state (Korpi 1996). In principle, outsiders can offer a more objective view.

There may be a particular virtue in having American economists examine the Swedish scene. In terms of the role of government in economic activity, the United States and Sweden stand at opposite ends of the capitalist spectrum. The United States is the exemplar of unregulated labor markets, highly competitive product markets, and a small welfare state. To the extent that the United States and Sweden have similar economic problems, analyses that blame Sweden's problems on its welfare state or interventions in the economy may be misplaced. To the extent that Sweden moves to a more market-run economy, the American experience can offer some guidance. The poor U.S. record in the area of Sweden's greatest success, reduction of poverty, highlights the distributional problems that Sweden will want to avoid as it reforms the welfare state and gives greater play to market forces throughout its economy. Conversely, the United States and other countries that are confronted with the problem of rising poverty might learn from Sweden's apparent success in this area.

The great risk of an outsider's evaluation is that an outsider will get it all wrong. American economists lack the institutional knowledge of how things work in Sweden that natives gain from daily experience. Living in a society can give insights into social processes that a disinterested scholarly analysis might miss. Moreover, outsiders' analyses can be colored by the analysts' own values. If Americans simply care less about equality than Swedes do—say, for cultural reasons—their analyses may undervalue the virtues of redistributive policies. For these reasons and others, each paper in our project paired the talents of Swedish and American economists.

Did the project succeed in bringing outsiders' insights to bear on Swedish problems? Readers of this volume will make up their own minds, but one indicator of how the project fared can be garnered from the Swedish reaction. In 1995, a summary version of the volume was published in Swedish, and a joint SNS-NBER conference was held in Stockholm to discuss the results. Given the topic and Sweden's economic woes, the volume and conference received considerable attention. Most Swedish commentators took the study as a valuable perspective on the Swedish welfare state, irrespective of whether they agreed or disagreed with specific conclusions. But some took offense. One headline labeled the Americans as "cowboy economists," whose guns shot only blanks at Sweden's wonderful welfare system. Another newspaper likened the American team to a gang of creepy Wall Street financiers, opposed to any form of egalitarian policies. But these were far from the norm. For the most part, commentators reported that the findings (which we describe shortly) developed new arguments or evidence that illuminated Sweden's problems in insightful ways. The project advanced the Swedish debate by doing exactly what we hoped it would do: allowing Swedes to see themselves through outsiders' eyes.

This volume is designed for a broader audience than Swedes. It is meant for policy analysts, economists, and other social scientists in the United States, in the European Union, and elsewhere in the world where people are confronted with questions about welfare states and the role of government in enhancing economic well-being. Why should non-Swedes be interested in Sweden's troubles and its efforts to reform the welfare state? When Sweden was the idealized "third way," some analysts critical of more normal market economies were deeply interested in Sweden's experiences. They saw Sweden as offering a model for other countries to follow. Now that Sweden has run into economic trouble, many of those analysts look elsewhere for a successful alternative to more market-driven economies. Sweden—where's that? Why study a welfare state in trouble? Let's look only at successes. Book my ticket to Frankfurt—no, make that Berlin.

There are lessons from Sweden's economic problems that should be illuminating to those who admired the past successes of the welfare state. By the same token, those who tend to be critical of activist governments and of redistributive policies may learn from Sweden's successes. Sweden's effective elimination of poverty is a unique social achievement that deserves attention. How did Sweden succeed where others had failed? What are the costs of this success, and will reform threaten the basis for Swedish equality? The current economic crisis and the difficulties of reforming the welfare state also deserve attention, particularly from citizens in other European countries with large welfare systems. Sweden's commitment to egalitarian ideals and the welfare state makes it an extreme case among advanced capitalist countries. But we may learn more about the pitfalls facing all countries from an extreme and distinctive case than from modest variants.

Sweden's Economic Troubles

Four issues are involved in judging Sweden's economic problems: (1) how well or poorly the economy performed prior to the 1990s crisis, from, say, the 1950s through 1989; (2) the magnitude and nature of the 1990s crisis; (3) the relation of welfare state institutions to the 1990s crisis; and (4) the consequences of the crisis for Sweden's ability to restore living standards and maintain its egalitarian goals.

The precrisis record has been the subject of controversy. On one side are analysts who stress the drop in Sweden's per capita income in purchasing power parity (PPP) units relative to other OECD countries. These observers also stress the relatively slow growth rate that brought Sweden to its current income level. According to the U.S. Bureau of the Census (1994, table 1370), Sweden's GDP per capita was the third highest of OECD countries in 1970 in purchasing power parity units. By 1990, it had slipped to eighth place, and, with the onset of economic crisis, it fell to seventeenth place in 1993 (U.S. Bureau of the Census 1995, table 1374). On the other side are those who argue that these comparisons exaggerate the country's long-term economic difficulties. They point out that critics' conclusions are sensitive to the countries that are used as bases for comparisons, the years analyzed, and the measure of income utilized. The decline in Sweden's relative position is unarguable, however. In 1970, Sweden's GDP per capita was 8 percent above the OECD average; in 1990, it was 2 percent below and, in 1993, 12 percent below the OECD average.[1]

Cross-country comparisons of living standards and growth rates are always difficult. On the measurement side, data used for cross-country comparisons are imperfect. National income statisticians have problems measuring the output of the public and service sectors, and they do not include household production as a component of income. These problems mar comparisons between countries like Sweden—which has a large public sector and sharply rising female labor force participation—and, say, Germany, which has a smaller public sector and relatively low female labor force participation. Further, exchange rates are inadequate for transforming incomes in one country into those in another in order to compare living standards. These rates fail to reflect differences in costs of living. Using exchange rates, for instance, Switzerland had a

1. Because Mexico is counted with the OECD in 1993 statistics but is not counted as an OECD country in earlier years, the 1993 and earlier comparisons leave Mexico out of the OECD average.

GDP per capita that was 42 percent above that in the United States in 1993. But the costs of nearly all goods and services in Switzerland were markedly above those in the United States at the going exchange rate, with the result that "true" living standards in Switzerland were not higher than those in the United States. Purchasing power parity estimates of the value of currencies provide an alternative way to transform national output into comparable units. Using these estimates, for example, Switzerland's GDP per capita was 5 percent lower than that of the United States in 1993. But estimated PPPs are also imperfect. For some countries, the 1990 OECD purchasing power parity GDP estimates differ from the comparable 1985 estimates in ways that go beyond differences in measured growth of real GDP. Still, income comparisons adjusted for PPP are superior to those based on exchange rates, which fluctuate wildly and remain out of line with living standards for years on end.

On the conceptual side, the extent to which other countries' experiences provide a valid counterfactual for a particular country such as Sweden is debatable. Indeed, some of the argument over Sweden's comparative record concerns which countries constitute the "right" comparison group. Ought that group to include Portugal or Spain or Turkey, or should it be limited to the OECD countries with the highest income per capita? Another conceptual problem relates to the inferences that one can legitimately draw about the effects of policies from broadly based country comparisons. If Sweden does more poorly in growth than countries with smaller welfare states, does this mean that the welfare state has reduced its growth rate? Perhaps, but then how does one square that with the fact that the United States has grown less rapidly than countries with larger welfare states? Many things differ among OECD countries beyond welfare state policies or any other specific economic program or practice. To assess the effects of those or other policies requires more than crude cross-country comparisons. Absent analyses of how specific programs and policies affect economic outcomes in Sweden itself, and simply informed by what other economies do in the same area, we would not be prepared to make any definitive statements about the cause of Swedish economic problems, much less about the possible effects of policy reforms. That is the type of analysis this project seeks to provide.

Problems with cross-country comparisons notwithstanding, such comparisons are still relevant to assessing Sweden's economic situation or that of any other particular country. They set the stage for detailed analyses of policies and programs by delineating what is unique to a particular country, in terms of both economic performance and economic institutions. They give a sense of the range of possible alternatives available to a country and can suggest clues to what may be working well or poorly.

The Pre-1990s Period

Measured against comparable OECD countries, Sweden's pre-1990 economic performance is mixed. Productivity growth, the investment share of

GDP, and some other indicators were comparatively weak over the period during which the welfare state expanded. But the record is not so weak as to make an overwhelming case that the welfare state was a drag on economic growth in the 1970s and 1980s. Here are some indicators:

1. In 1970, Sweden's GDP per capita was 78 percent of that of the United States, which placed it third among OECD countries. By 1989, Sweden's position relative to the United States was essentially unchanged (77 percent), but it had fallen behind Canada and Germany and was approximately tied by France and Japan. By 1993, Sweden had dropped well down in the rankings, being surpassed by France and Japan and such other countries as Austria, Italy, Norway, the United Kingdom, and Australia. The long-term trend after 1970 was that the highest-income countries grew more slowly than did low-income countries in the OECD. This can be illustrated by comparing the incomes of the four richest and four poorest OECD countries over time. In 1970, the ratio of the per capita GDP for the four richest countries to the per capita income of the four poorest was 1.55. This ratio had fallen to 1.27 by 1989. This means that the decline in the position of Sweden relative to the full set of countries through that period reflects a general compression in incomes across countries rather than something unique to Sweden. But the ensuing decline of Sweden to a position far below that of other OECD countries cannot be so explained; the income compression story is one of poorer countries catching up with richer ones, not of richer countries toppling in the per capita income tables.

2. Sweden's GDP per capita in 1989 reflects well on the productivity of the Swedish workforce. Given its lengthy vacations, holidays, generous sick and parental leave programs, and extensive part-time work, Swedish workers put in many fewer hours than American workers. Measured by output per hour worked in 1989, Swedish productivity was approximately 83 percent of American productivity. In addition, in 1989, the average Swedish worker had eleven years of schooling, whereas the average American worker had thirteen—a difference that goes a long way toward explaining the lower productivity per hour.

3. In 1990, Sweden was ranked sixth on the basis of various indicators of competitiveness in the International Institute for Management Development–World Economic Forum's World Competitiveness Report. The only European country that ranked higher was Germany. Measured by use of industrial robots, or information technology, or patents, Sweden rates high among OECD countries. Measured by various indicators of the efficacy of its markets, the country rates a bit above the middle of the pack. In the Competitiveness Report, executives rated Sweden low in the role of the state in the economy.

4. Data on consumption of major household capital items—washing machines, VCRs, telephones, and so on—in nine advanced OECD countries show that Sweden has not been a laggard as use of these goods has proliferated. It ranks high in consumption of some of these modern goods and lower in others, with an average ranking of 4. Given the high public sector share of Swedish

consumption, the position of the country with regard to these private goods confirms that Swedish living standards were among the best in the world at the outset of the 1990s. In part, of course, a high ranking in household capital goods reflects the past high position of Sweden in the OECD rankings of countries by GDP per capita: it takes a long time before changes in income levels show up in changes in consumption of major capital items.

A more negative picture is, however, shown in some other indicators:

5. The rates of growth of labor productivity and total factor productivity in the business sector for 1960–73 and 1973–89 put Sweden in the bottom tier of the growth table in both periods, along with Switzerland, the United States, and the other English-speaking countries (Australia, New Zealand, Canada, the United Kingdom).

6. Swedish outlays on government programs, which were reasonably "normal" until the 1970s, have increased more rapidly than in other OECD countries. Government expenditures averaged 35 percent of GDP in the 1960s. After that, they increased more rapidly than in other OECD countries, reaching an average of 63 percent in the 1980s, much higher than in other OECD countries. The 1990s crisis pushed government expenditures to about 70 percent of GDP.

7. Sweden's record in investment compared to other advanced OECD countries has been modestly below average. The country's capital/labor ratio, corrected for the high price of investment goods in Sweden, has fallen relative to many advanced competitors.

8. Sweden has had a greater rate of price and wage inflation than the United States or most other OECD countries and has consequently devalued its currency at fairly regular intervals. This belies the advantages of centralized or coordinating wage setting in controlling inflation, which analysts once argued was one of the benefits of "neocorporatist" systems such as Sweden's.

In short, from the 1970s through 1990, the Swedish economy showed weaknesses. But most other advanced economies also had problems in the era following the oil price shock, albeit of differing kinds. The United States experienced a 20 percent fall in the real earnings of less-educated young men and a massive rise in inequality. Most European Union countries developed high rates of long-term unemployment. Looking at the pre-1990s crisis data, we appreciate how different analysts, focusing on different contrasts or years or variables, can come down more, or less, harshly on the nation's economic performance. There is no smoking gun in the aggregate data; rather, what we have is a "fuzzy" record of general economic weakness, whose causes are not transparent. But the 1990s downturn in Sweden's economy was so severe as to cast a pall on the country's earlier growth performance and on the more optimistic readings of that performance.

Veering into a Ditch: The 1990s Crisis

From 1990 to 1994, Sweden experienced an extraordinary economic crisis. The contraction of the Swedish economy over this period exceeds the problems of any other developed country (save for Finland, owing in large part to the collapse of the Soviet market):

1. In terms of output, the Swedish economy went into a major tailspin from 1990 through 1993. GDP fell each year, for a cumulative drop of some 5 percent. Industrial production fell by 8 percent, and retail sales dropped by 13 percent. These changes occurred in the absence of a worldwide recession.

2. Gross capital formation fell by nearly one-third, with the largest contraction occurring in residential construction.

3. Employment dropped by over 12 percent, with declines in the number of persons working in the public sector as well as in the private sector. Hours worked in mining and manufacturing fell by 23 percent between 1990 and 1993. The country's exemplary record in controlling unemployment collapsed. In late 1993, aggregate unemployment stood at 9.3 percent; the rate of joblessness (which includes persons on labor board programs for employment training, relief works, youth measures, and so on but not measures for the handicapped) reached over 14 percent. The youth unemployment rate reached 21.4 percent!

4. The central government's financial balance deteriorated sharply, and the deficit/GDP ratio rose to 13 percent in 1993!

The depth of the crisis exceeded the prognostications of the experts. In 1992, SNS analysts (SNS Economic Policy Group 1992, table 1), who were among the most pessimistic, anticipated that GDP would fall by 2.0 percent in 1991 and by 1.5 percent in 1992 and then rise in 1993 by 1.5 percent, for a cumulative drop of about 2.0 percent. They expected unemployment at the end of 1993 to reach 4.5 percent. The OECD economic survey team did no better: a projected cumulated decline in GDP of 0.6 percent, with an unemployment rate of 5.2 percent for 1993.

The ditch into which the Swedish economy fell was a steep one—with some of the characteristics that the economic Cassandras had predicted would be the result of an excessive welfare state.

Diagnosing the Crisis

How one interprets the crisis experience in Sweden is critical to how one assesses the longer-term Swedish economic record. If the crisis was "just" a cyclic problem exacerbated by bad shocks, from which the economy rapidly bounced back, the pre-1990s experience would continue to look like a mixed bag, with some symptoms of economic troubles but nothing definitive to show that the society had truly run aground. If the crisis is a more structural break, the economic woes of Sweden are more serious and better attributed to fundamental economic problems than a severe cyclic downturn.

We find a pure "bad cyclic shocks" reading of the 1990s crisis implausible. We would be shocked (as economists are, sadly, often shocked by future events) if the economy grew sufficiently rapidly to bring GDP to its precrisis levels in short order, much less to raise GDP per capita to the level that it would have been at had economic growth been maintained at the (sluggish) rates of the 1980s. The highest per capita growth rate that Sweden attained in the 1980s was 3.9 percent (1984). It would require two years' growth at that high rate to bring Swedish GDP from its 1993 level to its 1990 level. It would require another four years to bring it to the level that even the modest 2 percent growth rate of the 1980s would have created through the 1990s. In fact, in 1996 Sweden was back to its 1990 level of GDP. Thus, rather than a quick recovery, the economic loss from the 1990s crisis cost the country approximately six years of economic growth. This was a major disaster for the Swedish economy and welfare state.

We identify three (not necessarily exclusive) hypotheses as potential explanations of the disaster. The first is that it was a symptom of long-run economic deficiencies that, for whatever reason, took their toll suddenly in the 1990s, rather than more gradually over time. Lindbeck et al. (1994, 209) refer to this as systems failures: "The most obvious systems failures in the economic sphere are perhaps the high public spending, overly-generous social security, wide marginal tax wedges, low private—including household—saving, detailed regulations and cartelization in various markets, lax anticartel legislation, and an inflation-prone system of wage formation." This explanation posits that underlying structural problems made the Swedish economy susceptible to a major downturn, just as some of the diverse problems of the 1920s presumably made various economies susceptible to the 1930s downturn. To accept this hypothesis, we need both a model and supporting evidence showing that cumulated problems are likely to show up not only in gradual erosion but also in a sharp and sudden drop. It is possible that this is a correct interpretation. But at present we have no such model, and it is no easy task to identify threshold points for crises.

The second explanation is that Swedish policy makers blundered in their policy reforms. Financial market deregulation and tax reform would have improved the functioning of the economy but contributed instead to a real estate boom and bust and a dramatic increase in household savings. The Lindbeck et al. commission refers to "policy mistakes" in its report, blaming some combination of systems failure and policy mistakes for the crisis. Calmfors (1993, 56) comes down more harshly on macroeconomic policy in particular, arguing that a "'softer launching' of non-accommodating policies . . . would have been a much better strategy" than those that were adopted.

The third explanation is that change per se has costs that economic analysts and policy makers typically understate. If Sweden had known no policy blunders—if the government had done exactly what some all-knowing analyst had told it—there still might have been a crisis. Swedish decision makers and institutions had, after all, adapted to a particular economic system, and perhaps any change in the system was bound to create problems. It is plausible that a highly regulated welfare state economy is so tightly connected—a "house of cards"—that changes away from regulations, high benefits, and taxes etc. have greater short-run costs than in a more decentralized economy (Freeman 1995).

On this scenario, reform is costly in the near term, even if it is worthwhile as a long-term investment.

We do not take a position with respect to these (possibly overlapping) explanations. While it is critical for some purposes to assess why the Swedish economy went into a tailspin in the early 1990s and the extent to which the welfare state contributed to this, it is even more important to realize that the crisis has changed the basis for the Swedish welfare state. Sweden today is a much poorer country than it would have been had its growth followed the normal OECD pattern in the 1990s. Swedish real GDP per capita is considerably below what it would have been; the public sector deficit is larger than it would have been and the rate of joblessness higher than under any noncrisis scenario. These facts in themselves carry an important message: they make it nearly impossible for the country to afford its traditional welfare state spending. The Swedish production possibilities frontier has shifted inward, at least for the near term.

A shrunken production possibility frontier raises different issues than the causes of slackened growth. The issue for the 1990s is not only whether to reform the welfare state but also how to bring spending in line with a shrunken budget constraint in the most efficacious way. Those who believe that welfare spending and taxes did not cause Sweden's economic woes face much the same constrained choice as those who believe that they did. Fewer resources mean smaller programs. In this circumstance, it is critical to determine the microeconomic costs and benefits of welfare state policies so that the government cuts in programs are least burdensome and so that socially desirable programs can be made to work more effectively. From this perspective, analyses of the sort undertaken in this NBER-SNS study of the workings of particular aspects of Sweden's economy, of its welfare state programs, and of its interventionist policies in product and labor markets can be particularly cogent in determining directions for policy reform.

Summary of Findings

Foreign economists have been invariably struck by several things about the Swedish economy: by the egalitarian wage and income distribution combined with low unemployment (until the 1990s); by the large public sector and the accompanying high tax burden; by the extent and generosity of income transfer programs; by the regulated and cartelized labor market; and by extensive labor market policies. They have also been struck by the fact that Sweden is a prosperous country with virtually no poverty but with high prices for consumer goods. Finally, they have been struck by the fact that these outcomes are found in a country that is so highly exposed to international competition.

The studies in the NBER-SNS project examined these aspects of the Swedish welfare state and economy by developing new data or analyses or by synthesizing extant knowledge. In this section, we summarize some of the central findings of each study regarding these points. Because our project was not designed to produce a single picture of the Swedish economy, the discerning reader may notice occasional disagreements among chapters in matters of emphasis or interpretation. We regard these internal disagreements as a strength rather than a weakness of the book. Had we all agreed on everything, it would have been a sign that the project leaders had selected the wrong team or had created the wrong intellectual environment for individual analysts to "do their own thing."

The Welfare State

The most important achievement of the Swedish welfare state is that it has succeeded in eliminating poverty. It has done this in part by creating one of the most egalitarian income distributions in the developed world. In the 1980s, the disposable income of households in the highest decile in Sweden was roughly twice as high as that of households in the lowest decile of the distribution. For comparison, top-decile incomes in the United States are about six times greater than those in the bottom decile. As a result, while the United States has a much higher (28 percent) real income per capita, poor Swedes have higher earnings than poor Americans: the incomes of bottom-decile Swedes are 63 percent higher than those of bottom-decile Americans.

Behind the extreme equalization of income in Sweden is a combination of more equal hourly pay, more equal employment (compared to other European countries), more equal distribution of hours of work for those who work (compared to the United States), and, last but not least, strongly equalizing taxes and transfers. In the 1970s and 1980s, the dispersion of factor incomes in Sweden increased. Yet the difference in disposable incomes decreased substantially.

In chapter 1, Anders Björklund and Richard B. Freeman ask how raising the earnings and income of the bottom parts of the income distribution was achieved without creating a massive loss of jobs for the less skilled. The authors refute the argument that the egalitarian outcome can be attributed to an exceptionally homogeneous population: people of Swedish extraction living in the United States exhibit as much inequality as do other Americans, while people of foreign ancestry in Sweden have an income distribution comparable to that of native Swedes. If it is not the Swedes, then it must be the system. One possibility is that the system generates a more equal distribution of years of schooling. This does not seem to be the case: the dispersion of years of schooling in Sweden is actually larger than that in the United States. Another possibility is that, at lower levels of schooling, the quality of education in Sweden is better than in the United States, producing less dispersion in school skills. Spending on education and test scores of students in Sweden are, in fact, less dispersed than in the United States. But the dispersion in test scores in Sweden is no smaller than in European countries that have failed to combine a narrow income distribution with high levels of employment. By itself, a more egalitarian set of school outcomes cannot explain the Swedish success in combining a narrow wage distribution with high employment for so long.

Who is willing to employ low-productivity workers at high wages? One answer has been the public sector. While the public sector has not employed a disproportionate share of low-paid workers, it has employed an increasing share of low-paid workers over time. Another, more speculative answer is that a compressed wage distribution has made able workers (within any given skill group) reduce their working time, which has increased the demand for less-able workers—work sharing of sorts. Who foots the bill? The taxpayers pay for the public sector, but consumers pay for the high wages of less-able workers through higher prices in the nontraded goods sector.

A key question when the public sector has to reduce government spending is the effect of reductions in various programs on the distribution of income. Björklund and Freeman argue that, because Sweden has such a high "social safety net," ongoing and potential reforms are no real threat to the egalitarian income distribution in Sweden, citing child allowances as the one possible exception. Overall, the safety net is so high that reductions in spending are unlikely to cause real poverty or even a substantial rise in income inequality.

Another important aspect of the Swedish welfare state is the public sector. The Swedish welfare state differs from other modern Western economies in that it has greatly enlarged the role of government in the provision of services, especially those that are traditionally produced in the household and family. All employment growth in Sweden since the early 1960s has been in services provided by the local government. And all of that growth has been in the increased employment of women. Underlying this development has been the rapid growth of publicly provided day care for preschool children. Employment in public day care has grown explosively since the mid-1970s to be almost half as large as employment in the education sector. An important reason for this is Swedish family policy. In 1991–92, public expenditures for families with preschool children (parental leave, publicly provided day care, etc.) were almost 3.5 percent of GDP. This comes to about SKr 60,000 ($10,000 at that year's exchange rate) per preschool child.

In chapter 2, Sherwin Rosen raises the question whether this policy has been welfare enhancing. He notes that much of what is produced by Swedish women in the market is services (care of children and the aged) that the family produces in many other countries. These services have economic value in those countries, even though this value is difficult to measure and is not counted in official estimates of GDP. This means that Sweden's economic well-being is overstated because Sweden has made the household sector a part of the money economy.

It is well known that taxes and subsidies distort individual decisions, which reduces overall economic welfare. We also know that tax-induced distortions in one sphere may make other taxes or subsidies optimal for "second-best" reasons. Rosen's analysis of subsidized child care builds on this idea. He shows that there can be an efficiency gain from subsidizing the market work of parents of young children through state-provided child care, which offsets the distortionary effect of high marginal tax rates on the decision to work in the (taxed) market sector. High marginal tax rates imply an implicit subsidy of (nontaxed) work in the home. Even so, it is not necessarily the case that subsidies increase efficiency. They reduce the distortion of the choice between staying at home with one's children and taking a market job. But the subsidy and the higher taxes required to finance it introduce a new distortion, lower prices for the subsidized goods, which produces an excessive consumption of subsidized services and of other services that are produced through (nontaxed) work in the household. Under reasonable assumptions, Rosen shows that subsidies to day care in Sweden imply efficiency losses and that those losses are potentially large. Real living standards could be improved if the subsidies were reduced and households paid for more of these services themselves in the market.

This analysis brings out an often neglected aspect of subsidies that offsets one distortion. They may readily create new and perhaps larger distortions. It is, to varying degrees, applicable to other Swedish welfare state policies. By creating a tax burden that is among the highest in the Western world, Sweden risks large efficiency losses. Successive tax reforms in the 1980s and the reform in 1991 have reduced some of the distortions of economic decisions induced by the old tax system. Yet, as long as government expenditures are as high as 60–70 percent of GDP, distortionary taxes risk large deadweight losses. In many cases, so do the transfer programs the taxes fund. The implication is that tax financing should be used only for programs whose social gains exceed budgetary costs, the deadweight loss from taxes, and the deadweight loss from the transfers.

In chapter 3, Erik Norrman and Charles E. McLure Jr. describe the distortions that the Swedish tax system created and show how these distortions have been reduced by tax reforms. Sweden's tax system prior to "great reform" in 1991 was a hybrid of different principles of taxation. The reforms have moved the tax system closer to an "ideal" income tax system by (i) increasing uniformity and horizontal equity between households, (ii) reducing tax-induced distortions of investment finance and kinds of investment, and (iii) broadening the tax base and lowering formal progressivity. However, it is important to recognize that, even in Sweden, formal progressivity did not correspond to actual progressivity since high-income earners could convert high-taxed labor income to low-taxed capital income through deductions for interest payments. Strikingly, actual progressivity for a high-income earner was unchanged by the reforms.

High progressive taxes can have a redistributive effect. But the redistribution goals of the welfare state have been increasingly realized through transfers to specific groups, where a substantial part is redistribution across an individual's life. The tax system, too, has worked and still works in that way. Much progressivity occurs across age groups rather than across individuals with different lifetime earnings. Both the tax and the transfer systems thereby substitute for saving and insurance that individuals could have arranged privately without the deadweight losses created by taxes.

The authors note that, while the tax reforms (including abolishing double taxation of dividends) have not solved all Sweden's tax-related problems, they have led to vast improvements. They have reduced the disincentives for market work and saving and should lead to a more rational allocation of the nation's capital. The complexity of the system has been reduced. The perceived fairness of the system should improve markedly. Norrman and McLure argue that these changes should be safeguarded—especially since changes in themselves carry costs.

The Labor Market

The "Swedish model" in the labor market has two key elements. The first is centralized wage bargaining. The second is active labor market policies. In the 1970s, this model was widely praised for contributing to Sweden's high living standards, low income inequality, and low unemployment. Two decades of slow economic growth and the 1990s economic crisis with its record high unemployment and enormous government deficit have fueled doubts about the virtues of the Swedish labor market model. Critics argue that Sweden has produced an ossified labor market that has reduced the country's growth prospects.

From the mid-1960s through the 1970s, wage and income inequality fell in Sweden along all observable dimensions (age and education groups, gender, etc.). This decline was larger and more rapid than what would have been generated by market forces alone. In chapter 4, Per-Anders Edin and Robert Topel explore the reasons for the decline in earnings inequality and examine how centralized wage bargaining helped Sweden maintain full employment for so long despite the strong narrowing of wage differentials.

It is important to note that the Swedish Employers' Federation (SAF) was the main initial proponent of centralized bargaining. Coordinated wage setting was seen as a method to prevent costly wage competition between unions. At the same time, coordinated wage setting was a precondition for the strongly egalitarian wage policies that the Swedish Trade Union Association (LO) came to pursue. For ideological reasons, the goal of this policy evolved, in the 1970s, from "equal pay for equal work" to just "equal pay."

Edin and Topel argue that a critical component of the centralized wage settlements was that wages for skilled workers were held down. Employers and unions joined forces to set a wage for skilled workers that was initially lower than their marginal product, creating excess demand for them. The argument is consistent with the constant "shortage of technicians" in Sweden. These wage contracts allowed employers in high-wage sectors to earn higher than normal profits. Excess profits attracted capital, which raised the demand for both skilled and unskilled labor. While there was excess demand for skilled workers, the wages of unskilled workers rose. The result was wage compression and a movement of labor from low- to high-wage sectors of the economy. This was accomplished without creating excess supply of less-skilled labor, which would have shown up as unemployment. The "solidarity" wage policy thus accomplished its objectives in reducing wage differentials and maintaining full employment.

The wage agreements implied a hidden income transfer from high- to low-wage workers. At the same time, the reduced skill differentials meant reduced incentives for workers to acquire skills. In the long run, this implies less investment in human capital. Consistent with this, Edin and Topel show that college enrollment rates fell as the college/high school wage differential was reduced in the 1970s but subsequently rose with the returns to schooling in the 1980s. The authors warn that the imbalance therefore increases over time and increasingly undermines this kind of wage agreement. A complete breakdown of central bargaining would, according to this argument, lead to considerable widening of wage differentials or, if this is not allowed to happen, unemployment for unskilled labor. Both, in fact, occurred in the 1990s.

How do Swedes respond to wage compression, taxes, and transfers? If their economic decisions are not affected very much, perhaps the distortions created by the welfare state and the labor market do not matter very much. A key question is how incentives affect labor supply.

In chapter 5, Thomas Aronsson and James R. Walker show how the welfare state gives a strong incentive for people to participate in the labor market because benefits in most social programs are closely tied to market work. This contributes to high labor force participation in Sweden. But the welfare state also gives incentives to workers to limit hours worked and possibly effort as well. Econometric estimates on Swedish data show that male labor supply is not very responsive to changes in the net wage (after tax and benefits), but they do show responsiveness by women. But Aronsson and Walker criticize these studies for being limited to the number of formal hours of work, which most individuals cannot freely vary. They argue that labor supply can respond along many other dimensions. When you allow for this, there is evidence that the Swedish welfare state has created strong disincentives to work. One example is how Swedes use generous state-provided sickness benefits, which the state has historically funded, giving both the firm and workers an incentive to exploit the system by reporting more sick days than they might under an alternative financing scheme. As a result of this incentive, the healthy Swedish population (which has one of the lowest mortality rates in the world) reported considerably more sick days than workers in other countries for many years. As part of its effort to reform the welfare state, Sweden toughened the rules for sickness benefits in the 1990s, which presumably explains a subsequent sharp drop in sickness leave.

Labor supply can also adjust in a quality dimension. The willingness of individuals to invest in human capital is one such dimension that is affected by economic incentives. As noted, rates of enrollment in higher education in Sweden have varied closely with movements in wage premia to college-trained workers. The internal rate of return to college education declined throughout the 1970s until it was modest around 1980. After that it recovered, but through the mid-1990s it is still significantly below rates in the United States and most other advanced OECD countries. The implication is that Sweden would have had a much better-educated workforce in the 1990s had income differentials not been so compressed in the 1970s.

The other important element of the Swedish model in the labor market has been Sweden's active labor market policies. Many observers have argued that these policies are responsible for Sweden's historically enviable unemployment experience. Total spending on government labor market programs, including unemployment compensation, was close to 3 percent of GDP in Sweden in 1990, with two-thirds going for "active programs." By contrast, the United States spent 0.5 percent of GDP on all labor market programs in the same year. In 1993–94—when unemployment was at a record high in Sweden—spending on all labor market programs rose to nearly 6 percent of GDP, with 2.9 percent of GDP going for the active programs that were supposed to keep unemployment low.

Whatever virtue they might have, active labor market policies did not prevent the dramatic rise in Swedish unemployment after 1990. The analysis of these policies by Anders Forslund and Alan B. Krueger in chapter 6 suggests that the inability of the active programs to arrest the growth of unemployment should not surprise us. They find that employment relief programs, which constitute a sizable share of the active programs, displaced private employment to a considerable extent, at least in the construction sector. In that sector, every public relief worker displaces up to 0.7 regular jobs. Displacement is less clear for health and welfare workers in the public sector. Forslund and Krueger also review micro studies of Swedish training programs that show that the returns on these programs do not readily justify their costs. The rate of return on a training program depends on the effect of training on future earnings and the probability of getting a new job. To motivate the programs, the rate of return generated from higher future earnings should be at least 3 percent. The weighted average of estimated rates of return from extant studies suggests that the payoff is well below 3 percent. In fact, one can question whether the programs have had any effect at all.

International comparisons using 1980s data have shown a negative relation between unemployment and spending on labor market policies. This has given some observers a favorable impression of Sweden's labor market policies. Forslund and Krueger show that the relation does not hold in the 1990s. Indeed, the same analysis for 1993 shows a positive relation: the larger such expenditures, the higher the rate of unemployment! This finding suggests that the earlier cross-country result was not robust and is likely to have been a statistical artifact—a correlation not due to a genuine causal relation.

Although the results are discouraging, they are consistent with American studies of job market programs (which often involve random assignment of people to programs in an experimental design). The U.S. studies show that, at their best, these programs have modest positive effects on the employment and earnings of participants but are no panacea to joblessness (U.S. Department of Labor 1995). The evidence that Swedish labor market programs have, at best, similar marginal returns suggests that the extensive allocation of resources to the programs merits serious reevaluation. Sweden's low precrisis unemployment rate was not the result of labor market policies, and those policies did little to arrest the increase in unemployment during the early 1990s crisis.

Lars Ljungqvist and Thomas J. Sargent explore the unemployment issue from a different direction in chapter 7, which deals with the role of taxes and transfers in unemployment. Their analysis, based on a simulation model, shows how Swedish taxes, in combination with unemployment insurance, affect efficiency and unemployment. They emphasize "search unemployment," the amount of time workers spend searching for a job, and "reservation wages," the lower limit of wage offers that an unemployed worker will accept. The reservation wage increases when unemployment compensation is more generous, which increases search unemployment as well. Many empirical studies show this effect; the longer people are eligible for unemployment compensation, the longer they remain jobless. When unemployment benefits run out, there is invariably a spike in the job-finding rate.

Until the 1990s crisis, Sweden combined generous unemployment compensation with low unemployment, in contrast to the experience of most European countries in the 1980s and 1990s. One reason for this, according to Ljungqvist and Sargent, was the narrow distribution of wages and the progressive tax and benefit system, which reduced the return to searching for a job while unemployed. In a country like the United States, it pays to search more than it does in Sweden because rates of pay vary more across employers. Another reason was that labor market officials could legitimately press the unemployed to take available jobs: after all, the jobs were there.

But the Swedish policy had a cost. Less job search means that individuals are less likely to be employed in their most productive job. The "tax wedge" therefore reduces total output. Note that the narrow wage dispersion in Sweden also reduces search and thus lowers unemployment at the cost of efficiency. The analysis also suggests that the 1990s jump in unemployment in Sweden will not readily be reduced. The reason is both generous unemployment compensation and the fact that it is more difficult to enforce the requirement of job acceptance in a situation with high unemployment. And greater wage inequality raises the equilibrium rate of search unemployment.

Product Markets and Firm Size

Welfare state policies and the institutions in the labor market affect productivity and growth. So does the organization of product markets. It is not clear whether Sweden's product markets are more regulated than markets in other countries or whether its regulatory policies are more distortionary. What is clear, however, is that Sweden has had a more lax attitude toward cartels and other barriers to competition than other countries and that these barriers often endure because of supporting regulations. To Americans schooled in antitrust policy, it is particularly surprising that until recently Sweden allowed cartels among producers and even kept a public record of them. Stefan Fölster and Sam Peltzman make use of this fact in their analysis in chapter 8, where they explore the effect of weak competition and regulations on Swedish prices.

Sweden is a high-price country. In 1990, OECD data show that Sweden had the second highest price level of all OECD countries when GDP per capita is taken into account. The United States had the lowest. After the large depreciation of the krona in 1992, Sweden still had the fifth highest cost level. One reason for this is Sweden's high value added tax. Another reason is the high wages of unskilled labor in the service sector. A third reason is, as Fölster and Peltzman show, lack of competition and regulatory policies.

Even though Fölster and Peltzman restrict their analysis to the traded goods sector, they find evidence that weak competition contributes to high product prices in the Swedish market, with regulations playing a larger role than cartels by themselves. Without the support of regulation, many cartels would not survive. Fölster and Peltzman estimate that interventions in product markets have raised Swedish prices and reduced productivity and growth. These findings suggest that monopoly profits in cartelized industries have been dissipated in higher costs. Although Swedish antitrust policy became more restrictive when the government brought it in line with European Union policy, informal restraints may continue to affect competition. In pursuing a more restrictive antitrust policy, the authors suggest that numerical measures of concentration may be a misleading guide to policy. Firms often grow large because they are more efficient than competitors. Removing institutional obstacles to entry (including imports) and regulatory restraints on competition merits higher priority.

An important but little researched question is how a welfare state like Sweden's affects entrepreneurial activity and the birth of new firms. Some economists have argued that, by providing a high safety net for entrepreneurs who fail, a large welfare state should encourage risky entrepreneurial activity (Sinn 1995). But high and distortionary taxes, high wages, and cost-increasing regulations and cartels will create disincentives for start-up and small firms. In chapter 9, Steven J. Davis and Magnus Henrekson find that Swedish policies have in fact discriminated against new, small, and labor-intensive firms and against family-owned firms as well. High statutory tax rates on corporations (especially prior to tax reform) coupled with deductions for investments translated into low effective taxes for older, capital intensive firms with accumulated profits. The tax system also favored institutional ownership at the expense of family-owned firms. The system of credit rationing prior to the deregulation of the late 1980s was biased in favor of the larger established corporations as well. Centralized wage bargaining, which eliminated the relation between size of firm and pay, and high employment security increased costs for new firms. Finally, the public sector monopoly in many service activities removed private entrepreneurs from a large and growing sector of the economy.

Presumably in part as a result of these policies, Sweden has disproportionately few small firms, and Swedish industry is more dominated by very large firms than the United States. Davis and Henrekson find that the industrial distribution of Swedish employment is tilted away from industries that typically support small firms. Even within manufacturing, Sweden has a larger share of jobs in industries dominated by large firms than the United States. In addition, Sweden has relatively few workers in low-wage industries and more in medium-wage industries. The implication is that Sweden's policy of wage compression has accomplished one of its avowed purposes, eliminating many low-wage jobs, consistent with Edin and Topel's analysis in chapter 4. The costs of such a policy might be low during an era of full employment and rapid economic growth, but, during a period of high unemployment, such policies can be costly. Davis and Henrekson conclude that policies discriminating against smaller, owner-operated enterprises and new entrepreneurs are a potentially sizable drag on the Swedish economy. Some goods and services are likely to be more efficiently produced by small firms, but these firms are "crowded out" of the product market by government services or larger firms. Given the shift in employment from goods-producing to service-producing industries, Swedish policies could be a serious hindrance to the expansion of jobs and recovery from the 1990s crisis.

The International Economy

Sweden is a small open economy, highly dependent on the outside world. In chapter 10, Edward E. Leamer and Per Lundborg describe how the world economic environment affects Sweden and its welfare state. Factors of production, especially financial capital and knowledge capital, are internationally mobile, and manufactured goods are traded internationally. Leamer and Lundborg argue that part of Sweden's laggard growth in recent decades can be explained by the interaction between the welfare state and changes in the global marketplace.

The starting point for Leamer and Lundborg's analysis is that gains from trade accrue especially to countries whose mixes of productive factors are very different from the rest of the world. In the 1950s and 1960s, Sweden was uniquely endowed with both physical and human capital. It experienced large gains from international trade. Subsequently, Sweden had a lower rate of investment in both physical and human capital than other countries, which—according to earlier chapters—can at least be partly attributed to Sweden's redistributive policies. Sweden's mix of factor supplies became less distinct as other countries have caught up in the 1980s. On one side, Sweden was crowded in world markets by countries that are relatively capital rich and thus could compete in products where Sweden used to have a comparative advantage, that is, in capital intensive products. On the other side, Sweden was crowded by poorer countries competing in production that uses relatively large amounts of unskilled labor at wage rates that are unconscionable from a Swedish standpoint.

A lower rate of capital accumulation and increased competition can account for Sweden's slower growth and lost market shares since 1970. Leamer and Lundborg warn that economic liberalization in Asia, South America, and Eastern Europe has meant a dramatic increase in the supply of unskilled workers in the global economy, putting pressure on lower wages for unskilled workers and higher compensation for scarce talents. While Sweden seeks to maintain narrow wage differentials, the international market is dictating increased differentials. They also note that Sweden's strong comparative advantage in forest resource products means that relatively much physical capital is absorbed in the capital intensive forest sector, making the country's endowment in forest resources a mixed blessing: it contributes to national income but necessitates a high rate of investment, which can reduce investment elsewhere to the extent that international capital mobility is imperfect.

Looking into the future, Lundborg and Leamer conclude that, unless Sweden restores its position as a country relatively well endowed with physical capital and skilled workers, Swedish workers will find themselves in direct competition with low-wage, low-skill workers in the international marketplace. If, on the other hand, Sweden is able to resume its position as a relatively capital rich country, it will find that the gains from increased trade will be broadly shared within the country. In order to have high and relatively egalitarian earnings in the future, Sweden must invest in human capital, specialize in human capital intensive tradable goods, and abandon low-skill tradable goods, whose relative price in world markets will be determined by low-wage countries. The dilemma of the Swedish welfare state is that, in order to increase investments in human capital and maintain high incomes and a relatively egalitarian distribution as well as to finance a higher social safety net in the long run, Sweden may have to accept greater income inequality in the short run.

Through a Glass Darkly: Sweden's Welfare State and Its Economy as a Whole

From an outsider's perspective, there are four great puzzles in interpreting Sweden's experience with the welfare state and its supportive economy. The first is how, until the 1990s crisis, Sweden maintained a narrow wage structure with high employment for so long. Why did wage compression fail to create an unemployment problem for low-skill workers, of the type found in many other European countries in the 1980s? If the United States were to double its minimum wage to bring the bottom tier of employees as close to the median as in Sweden (a change far greater than those assessed in studies of any employment effect of the U.S. minimum or proposed by advocates of a higher U.S. minimum), the consequences for employment would surely be serious.

The second puzzle is how, with such a high tax and benefits system, Sweden avoided a supply-side incentive crisis: why did the welfare state–induced gap between market activity and consumption not destroy the work ethic of the ordinary citizen and lock the poor into a welfare trap? With much lower welfare benefits, the United States created a system in which many of the poor are caught in a bind, with such high effective marginal taxes (via loss of benefits) that it barely pays them to work.

Both these puzzles reflect the economist's surprise that the Swedish economy worked as well as it did. Mancur Olson found his answer in Sweden's being a small open economy that had to meet international competition and in the all-encompassing nature of the union movement (Olson 1990). The Swedish debate over just how the economy performed prior to the 1990s crisis offers an alternative perspective, with the claim that the economy was not so successful after all.

The third puzzle, which is especially poignant to Americans who see homelessness and urban blight in virtually all cities, is how Sweden's welfare state conquered poverty. If the Great Society War on Poverty in the United States had succeeded in its lofty goals, opposition to welfare state expenditures in the United States would surely be seriously tempered. But that war failed. The success of Swedish policies seems to have produced a very different debate over welfare spending than that in the United States, with conservative Swedes as well as Social Democrats supporting the basic precepts of the welfare state.

The fourth puzzle, referred to earlier, is why the Swedish economy went "over the brink" in the 1990s. What is it about the welfare state and the Swedish economy that produced a fall in real output at just the time of real reform? The late 1980s, early 1990s changes in the tax system, in wage setting, in the rules for benefits, in the regulation of markets, should have increased economic efficiency. But these reforms did not prevent a major economic downturn.

As noted, our project was not designed to develop a single model or theme to address these "big" puzzles. Some unifying themes, however, emerge from the studies that offer answers.

Sweden as an Interrelated System

The first unifying theme is that many aspects of the Swedish welfare state and economy fit together in a *systemic* way. Low unemployment, high taxes, wage compression, high labor participation with limited hours of work, subsidized day care, etc. reinforce one another in sometimes surprising ways. Using a wide variety of analytic methods, the authors in this volume have stressed the linkages among welfare and economic policies in what we will call the logic of the "welfare state system."

Consider, for example, the relation between wage equalization and employment. The compressed wage structure was associated with effectively constant private sector employment. This made public sector employment growth the necessary engine for full employment. Such growth required in turn high taxation and a reasonably efficient public sector to deliver services that citizens want. The high taxes themselves arguably feed back onto the wage-determining process, making it easier for high-skill workers to accept wage compression: after all, much of a wage increase would be lost in progressive taxes.

The research in this volume also points to several other effects of wage compression on the supply and demand sides of the labor market that buttress employment rather than work against full employment. On the supply side, compression lowers search unemployment: with little wage variation in the economy, people have little incentive to search for the best-paying job. Compression, highly progressive taxes, and welfare benefits work together to reduce the incentive to work long hours and arguably fueled the desire for additional vacation and holiday time.

On the demand side, the limited hours worked by many Swedes may have raised the demand for employees through a form of implicit work sharing. For a period of time, wage compression helped expand high-wage traded goods industries by providing them with less-expensive high-skill workers and buttressed demand for the less skilled in those sectors. In addition, wage compression affects the distribution of industrial employment and the size distribution of establishments. Eliminating low-wage sectors and firms makes it easier to maintain a narrow wage distribution. Compression also affected the price level: if low-skill workers are paid relatively high wages, the goods they produce will be high-priced goods. Even industrial regulation, with legal cartels, has a logic in this analysis, making it easier to maintain the high prices necessary for the high wages.

In short, many of the issues dealt with in this project link together, some in expected ways, others in unexpected ways, to resolve the wage compression–low unemployment puzzle.

As to Sweden's avoidance of welfare poverty traps, the basic answer, stressed in various ways by several researchers, is that most Swedish welfare programs are workfare programs, requiring some labor participation before people receive benefits or as a condition for receiving the benefits. Although not actuarially balanced, most Swedish welfare benefits are sufficiently work related that the term *workfare state* is arguably a more appropriate appellation for Sweden than *welfare state.* High taxation of wages that might otherwise induce people to stay out of the labor market is offset by benefits attached to work. Parents benefit through subsidies for child care. Other workers benefit through generous sick leave and vacation and holiday pay. By making these and other benefits conditional on work, Sweden limits tax-related work disincentives. By conditioning benefits on a limited amount of work rather than making them proportional to hours, moreover, Sweden created "kinked" budget sets that support the low hours or work sharing that characterizes the Swedish employment record.

Taken together, the wage compression, high employment, and work-related welfare system enabled Sweden to make the redistributions necessary for a successful war on poverty. But it did not avoid supply-side disincentives.

With a compressed wage structure, a person with a job is part of normal society. By contrast, in the United States, with highly dispersed wages, many hold jobs that pay so little that they fall into an economic and social underclass. The high rate of employment in Sweden meant that society could pressure people on unemployment insurance to take jobs, which existed. It is difficult to imagine how Sweden could have operated such an extensive welfare system absent the welfare benefit–work linkage. All these factors—along with the magnitude of government redistributive spending—enabled Sweden to conquer poverty while the wealthier United States failed to do so.

In sum, our research portrays Sweden as having a highly interrelated welfare state and economy in which many parts fit together—be they subsidies, taxes, collective bargaining, or wage compression—in ways that maintained high employment and wage compression, helped offset work disincentives from welfare benefits, and ultimately helped eliminate poverty. To say that parts of the Swedish welfare state and economy fit together in a systemic way does not, of course, mean that the fit resulted from some farsighted social engineering. More probably, it is the result of adaptation, as the government, business, consumers, workers, and unions each adjusted their behavior to that of the others. Once certain policies were in place, others followed naturally, until things fit together. To say that Sweden developed a distinct welfare state system also does not mean that all policies or programs were consistent or supportive, much less sustainable.

Viewing Sweden as a system is not, of course, new; virtually all discussions of the Swedish model or the Swedish way have a systemic flavor. But the diverse microeconomic links that make this welfare state and economy so interconnected have not previously been so fully drawn out, nor have so many of the separate links been developed in detail.

The picture of the Swedish welfare state and economy as a tightly connected system that emerges from our study suggests, finally, an interpretation of Sweden's 1990s problems and of the difficulties it may have overcoming them. If Swedish economic and political agents were fully adapted to the advanced welfare state prior to the 1990s, ensuing changes in the economic environment, particularly in the world marketplace, and welfare state reforms would almost by necessity be quite costly, as those agents adjusted to new incentives and market conditions. The analogy is with fitness landscapes in evolutionary theory—a terrain of peaks and valleys, in which creatures (societies) move to new mountain peaks only by descending from an existing peak (Freeman 1995). No single reform or policy can turn around a complex interrelated system in a short time span.

Costs of the Welfare State

The other theme that emerges from our study is that the costs of the Swedish welfare state have been high, both in budgetary expenses and in hidden economic costs due to deadweight or distortionary losses induced by taxes or benefits, and that some programs have not contributed to the society's great success in reducing poverty.

Sweden did not eliminate poverty by "magic." It paid a price, in the form of taxes and the loss of output owing to distortions. In the first instance, Sweden pays for its welfare benefits through taxes or public sector deficits. In the diminished economy of the 1990s, the government share of GDP reached 70 percent in 1993, accompanied by a sufficiently high deficit to produce a rapidly rising public debt/GDP ratio. This is unsustainable by itself. But Sweden also pays indirectly for its welfare benefits through deadweight losses in output as people respond to the incentives created by taxes and benefits. As noted, some taxes and benefits offset one another, keeping distortionary losses low. But other taxes and benefits are not offsetting, and, in a society with high tax rates and benefits, they can produce sizable distortions, even if they induce only modest responses.

The magnitude of the deadweight losses is difficult to assess. Estimates of deadweight losses due to taxes based solely on labor supply responses are as high as 40 percent for the period prior to the tax reforms and lower afterward. Other estimates are lower. But these estimates are limited to only a single dimension of responsiveness (hours worked) and thus may be lower-bound estimates of the labor supply reaction. For instance, they neglect the possible long-term consequences of high taxes and benefits for human capital formation. In a tightly connected system, moreover, partial equilibrium analyses of deadweight losses can be misleading. Much larger estimates have been made in models that seek to bring in additional economic responses, although these models and estimates are best viewed as illustrative: computable general equilibrium models are as much art as science.

The appropriate analytic tool for comparing the benefits of Sweden's welfare state programs and their costs is some form of benefit/cost analysis. For programs that require tax or deficit financing, the excess burden of taxation and the possible adverse effects of deficits on investment and long-term growth imply that the cost of any program exceeds its budget cost. With an estimated excess burden of taxes of 40 percent, for instance, a program is socially justifiable only if its benefits exceed budget costs by 1.40/1.00. In a period of huge public sector deficit, the appropriate benefit/cost ratio would probably be even higher.

The benefit side of programs must be examined by comparing outcomes with and without the programs or at different program levels. If the programs induce distortions in response to benefits or other spending, as they invariably will, the benefits must be reduced by those deadweight losses. Perhaps because it is easy to assume that popular welfare state programs necessarily generate substantial social benefits (why else would they be popular?), or perhaps because economists are more cost conscious than politicians, economic science offers very few estimates of the benefits of social programs. For instance, we have reasonable ideas about the direct and indirect costs of unemployment insurance systems but no real evidence on the value of such insurance to employees. Absent evidence of substantial benefits, one can legitimately question whether even politically sensitive programs could pass the proper benefit/costs test.

Implications and Lessons

What are the implications of our research for Sweden's efforts to reform its welfare state and reestablish a healthy economy? What can the United States and other countries with less extensive welfare states learn from the Swedish experience?

Implications for Swedish Reforms

Following its 1990s economic crisis, Sweden faces three major problems: lowering the rate of unemployment; reducing the government budget deficit; and attaining a new long-term growth path. It is only by solving these problems that Sweden will be able to achieve a healthy economy and welfare state.

With respect to reducing unemployment, our research has one strong message: active labor market programs, which have cost the society some 3 percent of GDP directly, do not appear to repay such extensive expenditures. Extant studies of programs do not yield the magnitude of returns that would justify such a high level of spending. With respect to "passive programs"—notably unemployment insurance—the general finding is that, the longer the benefits are available, the longer will be spells of unemployment. The social controls that Sweden has used to limit this distortionary response are likely to weaken in a period of extended high unemployment. This suggests that the generous Swedish unemployment insurance system—possibly suitable for a period of low unemployment—may be unsuitable for an era of high joblessness.

Given the state of Sweden's public finances and the high public share of employment, the solution to unemployment must rest with private sector job creation. Increased wage differences for groups with different qualifications can potentially contribute to this, by inducing the less skilled to obtain greater skills and by reducing the cost of low-skilled labor, particularly for private service sector jobs. Sweden offers special subsidies to employ youths. Our analysis suggests that marginal wage subsidies paid out of the public budget have greater costs than their budget value and thus should be compared critically to the alternative of greater wage differentials. By contrast, search unemployment arguments support the long-standing Swedish goal of similar pay for similarly skilled workers in comparable circumstances. This form of pay equalization can reduce unemployment. Equal pay for equal work is a valid principle that is supported by market forces—the law of one price—although there are problems with determining what equal pay means in a world with heterogeneous nonwage working conditions.

Sweden's fiscal deficit in the early 1990s dwarfs the American deficit (and those of virtually all other OECD countries). Reducing the Swedish deficit—fueled by unemployment and reduced GDP—necessitates a contraction of the welfare state. While it would be soothing to report that recovery from the depression would in itself cure the deficit problem, this does not appear to be the case. The scale of cuts in programs or increases in taxes needed to restore fiscal solvency is large. The greater the rate of growth and the faster unemployment can be reduced, the smaller will be the required squeezing of programs or taxpayers. But the costless solution to fiscal woes—"grow the economy"—is even less practical than usual. Sweden's problems will not be solved simply through growth, even if growth reduces unemployment. Contraction of welfare spending is a budget necessity, not a matter of political philosophy.

Our analysis suggests that reductions in spending programs can have a double benefit, cutting both direct budget expenses and indirect deadweight losses. It also suggests that the benefits of some programs (e.g., the active labor market spending) may not justify the magnitude of these expenditures and that the indirect costs of other programs (e.g., subsidised day care) may also call for cutbacks. We also find that reductions in some programs will not seriously affect the income distribution (unemployment insurance) while reductions in others will (child allowances). At the same time, our analysis also suggests the danger of reducing programs or increasing taxes when those programs/taxes offset the distortionary effects of other programs/taxes.

On the growth front, many of our studies stressed the importance of additional human capital formation, through enrollments in universities and presumably through training workers with a given level of education within firms as well, and the need for greater earnings differentials to induce such investments. The tax disincentives that have discouraged the formation of small firms have been reduced and can be further reduced to make it easier to form new businesses. Reduced distortions of taxes on capital should help produce the greater investment that is needed to maintain Sweden on a new steady growth path. Over the long run, Sweden will have to move toward a more human and physical capital intensive society if it wants to maintain high wages and living standards for less-skilled workers. The implicit message in these results is that many features of the Swedish model were not sustainable over the long run.

A Short Postmortem

Since the completion of our project, the Swedish economy has made some progress in getting itself back on track, and policy makers have tried valiantly to restore the government's financial balance. In 1994 and 1995, economic growth picked up, sparked in large part by export industries benefiting from a devalued currency. But the rates of growth are such as to confirm our conclusion that Sweden suffered a permanent loss in its economic well-being. In 1995, Sweden roughly recovered the level of real GDP it had in 1990. The government deficit fell from its extraordinary 13 percent of GDP level in 1993 to below 8 percent in 1995 and is forecast to drop to 2 percent of GDP by 1997. This improvement has been achieved mainly through recovery of revenues as a result of economic growth, increases in taxes, and a general squeezing of programs that has included reductions in replacement rates for various social insurance programs. Despite increased interest payments on a rising public debt, the rate of government expenditures over GDP has fallen.

These developments have moved Sweden "out of the ditch," but, as of this writing, we do not believe that they have gone far enough to bring the economy into a safe zone, where the successes of the welfare state are sufficiently protected from possible adverse economic developments. Unemployment remains high, in double digits when those on labor market programs are included in the jobless total. Sweden appears to have fallen into the European Union position of high and possibly long-duration unemployment, which will make long-term demands on public spending for unemployment insurance or other safety net programs.

Our work suggests that there is still room for a major squeezing of programs before Sweden will risk endangering its conquest of poverty. Low-wage workers are not low wage by U.S. standards. Two-earner families provide an important form of private income insurance. All Swedes receive a significant proportion of their income in the form of social income that is not part of their personal earnings. And, finally, some welfare state programs are either nonredistributive or not particularly effective. Deeper analyses of these programs than we could undertake would provide better evidence on the most effective ways of cutting spending.

The greatest danger to Sweden's welfare state and its elimination of poverty is not sizable cuts in program expenditures to restore fiscal balance but modest cuts that leave the country liable to another economic crisis if Sweden falls into another major recession. The government budget balance in a country with as high a level of public spending as Sweden and significant welfare state committments to its citizens is extremely sensitive to cyclic changes in the economy. Sweden's welfare state may therefore be best served by establishing "clear blue water" between its budget and potential renewed deficits in the next economic downturn. This may in turn require a healthy surplus in government finances in booming times so that Sweden can run moderate deficits in recessions.

Lessons for the United States and Other Countries

The Swedish experience holds lessons for the United States and other countries that have less-extensive welfare states. While Sweden can no longer realistically serve as the "third way" role model that it once did, its success in eliminating poverty still merits attention, and its problems with a large welfare state offer warnings to other countries.

On the positive side, the fact that Sweden succeeded in abolishing poverty through a welfare system that encouraged work and went further than necessary to accomplish that goal offers hope that other countries, such as the United States, can also significantly reduce poverty and can do so without buying into the "third way." At its best, Sweden's welfare system is a workfare system that has avoided creating major poverty traps. Low earners in Sweden gain social benefits by working. The lesson we draw is that welfare and work need not be antithetical. By attaching many benefits to work, welfare can be used to draw people into the job market and into the mainstream of society.

That much of Sweden's welfare state went beyond what was necessary to eliminate poverty is also heartening to outsiders, particularly to Americans, for whom a large welfare state is virtually inconceivable. While our study did not attempt to estimate the magnitude of welfare state benefits or the specific programs necessary to reduce poverty massively, the share of GDP so needed is arguably far below the size of the Swedish welfare state.

Sweden's ongoing welfare state reforms show, further, that it is possible to start reducing a large welfare state (albeit under a financial gun) without destroying the social consensus favoring that state and its successes. The fact that many of the Swedish reforms, such as the tax reforms reviewed in chapter 4, were initiated by Social Democratic proponents of the welfare state and that more conservative Swedes calling for greater reforms have done so with the avowed purpose of preserving the welfare state is in stark contrast to political rhetoric in the United States. The American economists on the NBER-SNS project were continually impressed by the commitment of Swedes of all political persuasions to maintaining the successful elimination of poverty.

Since Sweden did fall into the "ditch," however, it is on the warning side that we draw more lessons—in this case, more for other European countries with large welfare states of their own than for the United States, where policies have gone in a very different direction.

The first warning is that the high level of public spending and taxation in a large welfare state like Sweden may be dysfunctional in the world of low economic growth rates and high joblessness that has characterized OECD Europe since the early 1980s. The danger to which Sweden's experience should alert others is that a severe economic downturn can quickly create massive public sector deficits, constrain policies that might spark a recovery, and force reductions in social safety programs. Generous unemployment insurance and labor market programs may become counterproductive if the economy falls into high unemployment.

The second warning is that the two distinctive aspects of the Swedish labor market—centralized bargaining and an active labor market program—do not appear anywhere near as desirable as their proponents have suggested. Centralized wage bargaining did not guarantee low inflation. And it produced wage compressions that arguably distorted investments in human capital and the industrial composition of employment. The benefits of centralized bargaining may exceed their costs in some situations, but Sweden is far from an exemplar in this respect. As for active labor market programs, our team was surprised that such a widely publicized and expensive set of programs did not seem to have much payoff. It is now clear that unemployment cannot be cured by pouring money into active programs.

The third warning is that one must go beyond the direct costs of welfare state programs to make a rational assessment of their value. One must look at the "true" social costs, including the deadweight losses due to both taxes and benefits. While, in some instances, second-best solutions in which the distortionary incentives of one program are offset by another may be justified, there is danger that this strategy will create other distortions; see the chapter 3 analysis of subsidized child care.

The fourth warning is that economic reforms in a large welfare state are likely to extract a sizable short-run economic cost. No one in Sweden anticipated that the country would veer into an economic ditch as it was reforming its tax system and financial market regulations. There were unintended consequences of Sweden's policy changes, some arguably due to the sequencing of reforms, others due to policy makers' and analysts' lack of foresight. In a complex economy, one cannot be sure on which margins firms, consumers, unions, and government agencies may make adjustments, with feedback for other decision makers.

The Swedish Model and the U.S. Model

Since the end of World War II, many non-Swedish social scientists, often with a leftist bent, have viewed Sweden as some form of social paradise. Swedes were seen as civilized collectivists afflicted by none of the economic problems of the rest of the world.

In the 1980s and 1990s, many non-American social scientists, often with a rightist bent, viewed the United States as some form of neoclassical market paradise. Americans were seen as hard-working individualists with none of the employment woes of the rest of the West. Sweden and the United States were widely viewed as polar opposites in the garden of capitalist economies: the extreme welfare state versus the extreme free market state.

Neither the image of Sweden as the ideal welfare state nor that of the United States as the ideal market economy was or is valid. Both our societies had and have major problems. But both the problems and the ways the two countries have tried to deal with them differ enough to give Americans a unique perspective on the Swedish situation—a perspective that offers both insights and possibly misreadings—as would Swedes presumably have on the American situation. While our study does not undertake this mirror analysis of looking at the United States through Swedish eyes (as Gunnar Myrdal did in the 1940s), we hope that what we found out about Sweden adds to our understanding of how the United States operates, as well.

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