



social welfare policies, no one will suggest that they are not bold and provocative. *Growing Public* is a most readable and insightful and, yes, irreverent volume that will be discussed by all concerned with these front-page issues.”

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# Growing Public

## *Social Spending and Economic Growth Since the Eighteenth Century*

### Volume I *The Story*

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## Patterns and Puzzles

### CONTROVERSY

Over the next one hundred years, there will be waves of intense debate over using taxes for social programs. Defenders will package such programs as high-return investments that benefit most of society and tax only those people whose share of income and wealth could stand to come down. Opponents will decry the two-sided stifling of initiatives that invites both the taxed and the subsidized to be less productive. Both sides will invest in studies showing that they are right.

This future debate seems to follow naturally from the flow of history, the logic of self-interest, and the inevitable help-versus-incentives quandary.

The two opposing sets of arguments have been rediscovered and repeated for centuries, mainly in debates over social transfers to the poor. Any reading of the social history of early modern Europe turns up all the arguments we hear today. Long before the Fabians, there was a Left argument that the poor, elderly, and uneducated were people who needed help through no fault of their own. Many of these unfortunates could never be self-supporting, so that harsh work incentives would be cruel and unproductive. Others were the "able-bodied" whose productive potential could handsomely repay any society that wisely invested in them.

And long before Malthus there was a conservative argument that any combination of taxes and transfers is doubly costly. It erodes incentives to work, to take risks, and to accumulate, both for those being taxed and for those receiving benefits based on their low incomes. Such a system makes the poor, the elderly, and the uneducated worse off in the long run, by shrinking the size of the whole economy and by trapping them into dependence on public largesse. Self-help is the key to getting out of poverty and having enough saved up for old age. Accordingly, traditional conservatism keeps rediscovering the efficiency of the marketplace and the value of tough work incentives.

Aside from any simple projection of past history into the future, one can forecast that the same debate will continue if only by the logic of self-interest. Humans' self-interests will differ because their earning-power endowments will always differ. They are sure to take opposing sides in any discussion of the merits of using some people's tax money to help others with insurance or human development. In fact, the whole history of debate over social programs is just a shifting back and forth between two poles of self-interest. Newly popular arguments in the debate reflect shifts in the balance of power between the two long-fixed poles, not new ideas.

New facts cannot end the debate. This is partly because the equilibrium between self-interests will prevent resolution. People have different self-interests, and these are still the dominant force governing how people vote.<sup>1</sup> There will always be a political tug-of-war between those who are more likely to benefit from redistribution and those who would be taxed by it.

More fundamentally, the debate cannot have a clear resolution because there is no escape from the conflicts involving the desire to help others and the desire to give them incentives for self-help. We are most familiar with this conflict in debates over helping the poor. In any debate over public assistance, or what the Americans call welfare, we are caught within a triangle where the three corners represent three social goals: helping people in a given state, giving them an incentive to avoid that state, and keeping down the program budget. Any movement within this triangle must move away from at least one corner, one goal. No new facts can alter this.

Yet new facts can raise the level of the debate. They arm all sides with an awareness of how tax-based social spending would affect collective goods that all profess to care about – social peace and the size of the economy. The competitiveness of the intellectual marketplace, and of the political marketplace in electoral democracies, allows new facts to exert pressure toward these collective goods. At the very least, new facts can speed up society's rejection of bad arguments.

#### THE ROAD FROM HERE

Most of the facts we need come from a history dating back to the late eighteenth century. Back then, in the age of Adam Smith and the dawn of classical economics, governments hardly imposed any taxes at all, and there were practically no social programs, by today's standards. The facts are not easy to assemble, because the early facts are so scattered among the archives and because today's large social programs are so complex in their effects. Yet they do yield answers to the big historical questions about tax-based social spending:

- Why so late in history? That is, why did no country before the end of the eighteenth century have even 3 percent of its national product devoted to redistributive social programs?

- Why so big? That is, why did social spending expand to claim over one-third of national product in so many countries?
- Why was this rise so much greater in some countries than in others?
- Why no sunset? That is, why did social spending as a share of national product stop growing, yet not decline, after about 1980 in the leading countries?
- How much has the rise of social spending cost us in terms of lost economic growth? Why hasn't its rising cost brought social spending to its sunset?
- Will today's developing countries and transition economies go through the same history?

The scope of this story will keep widening as this volume progresses. Our view is narrow at first, because social spending was so limited before the twentieth century. Geographically, Part Two begins in Western Europe and North America alone in the eighteenth and nineteenth centuries. In the dawn of social spending, there were only two kinds of redistributive tax-based social spending to discuss: poor relief and public schools. Chapters 3 through 6 grapple with the puzzle that England and Holland led in poor relief, but first the German states and then North America led in the support for public schooling. By the period 1880–1930, social programs had spread enough that we can widen our focus to twenty-one countries. For this period we can also survey several government-budget categories – a few kinds of taxes and several social-spending categories, now including unemployment compensation, public health, and housing subsidies, as well as poor relief and public schooling. By this point, in Chapter 7, we can draw on statistical patterns as well as on institutional and budgetary history. It turns out that the differential rise of social spending is best explained by international differences in democracy, aging, income, and religion.

The real boom in social spending came in the latter half of the twentieth century. Chapter 7 finds that a few forces again suffice to explain most of the differences in the social-spending boom, with some countries developing true welfare states while others stick with minimal government social programs.

Population aging will bring social budget crises for a few highly industrialized countries, but not for the rest of the world, as Chapters 8 and 9 will show. Social spending patterns in developing countries have much in common with the earlier history of the core set of industrialized countries belonging to the Organization for Economic Cooperation and Development (OECD). Asia is not as different as we thought, either from the OECD core or from Latin America, once the same explanatory variables are introduced. What had passed for a wholly different approach to pensions and other social programs turned out to be explainable in terms of democracy, income levels, and the aging of the population. The transition economies of Eastern Europe and the former Soviet Union also fit the same broad patterns, though

they have been dealt a particularly difficult hand by the collapse of previous regimes that had promised more growth, and even more social security, than they delivered.

Chapters 10 through 12 tackle the most controversial part of the topic: What about those rising costs of the welfare state? They prove surprisingly elusive. Volume 2 will statistically confirm a puzzle posed later in this chapter: There is *no* clear net economic cost to the welfare state, either in our first glance at the raw numbers or in deeper statistical analyses that hold many other things equal. To avoid accepting a statistical mirage, Chapters 10 through 12 take a deeper look into the underlying institutional mechanisms. It turns out that there are good reasons why radically different approaches to the welfare state have little or no net difference in their economic costs. Those reasons are many, in terms of an institutional list, but they boil down to a unified logic: Electoral democracy, for all its messiness and clumsiness, keeps the costs of either too much welfare state or too little under control. This interpretation is also consistent with the disturbing rise of European unemployment from the 1970s through the 1990s.

To keep this complex and widening topic under control, an initial clarification about social spending and transfers is in order. As our focus shifts back and forth between different programs, a reader may well wonder, “Is this a book about redistribution? Don’t the various social programs differ greatly in the extent to which they redistribute between rich and poor? For what purpose can you add different types of social spending together?”

Social programs do differ greatly in how much they redistribute between rich and poor, and just adding their expenditures together is not a measure of redistribution. In fact, as we shall see, as social spending redistributed more and more overall, the average redistribution of each extra dollar dropped. That is, programs drifted from being help-the-poor programs to being broad social safety nets that gave many benefits back to the income classes who paid the taxes. Still, there is a definite redistributive element to all social spending, and this is what makes it so controversial. To deal with the continuum of degrees of progressivity in a study focusing on explaining society’s demand for social programs, we shall use these two definitions:

*Social spending* consists of these kinds of tax-based government spending:

- basic assistance to poor families, alias “poor relief” (before 1930), “family assistance,” “welfare” (in America), or “supplemental income”;
- unemployment compensation, alias “the dole”;
- public noncontributory pensions, in which the funds come from persons other than the recipient and his or her employer;<sup>2</sup>
- public health expenditures;
- housing subsidies; and
- public expenditures on education.

The distinct term *social transfers* shall be reserved for all of the social spending above *minus* government expenditures on education.

These terms, and the list above, are designed to bring order to the blurry differences in redistributive “progressivity” – the rate of transferring income from rich to poor. In general, social spending categories are ranked as follows in terms of their progressivity:

Basic assistance and unemployment compensation			
> pensions and public health	> housing subsidies		
> primary public education	> secondary public education	> higher education	

Since the controversy of these programs, and the fear that they damage the economy, runs in this order of their progressivity, this book will focus a bit more heavily on social transfers than on education. It will also concentrate more on basic aid to the poor, the most controversial program of all, than on other social transfers.

We begin with an age in which almost none of this existed.

#### TAXING, SPENDING, AND GIVING IN THE LATE EIGHTEENTH CENTURY

In 1776, when Adam Smith’s classic *Inquiry into the Nature and Causes of the Wealth of Nations* was published and the American colonies declared their independence from Britain, the modern age of social spending had not yet dawned. People paid hardly any taxes for the social programs that take such a large tax bite from paychecks today. Most poor people received negligible help from anybody. The elderly received no public pensions, mainly because few people survived to be elderly and average working incomes were too low to support many dependents. Most children did not go to school, and parents had to pay for those who did.

#### Poor Relief, Public and Private

In the late eighteenth century the payment of taxpayers’ money to the poor, or “poor relief” as it was called before the 1930s, was just becoming noticeable as a share of the average wage or the average income anywhere in the world. As Table 1.1 suggests, it exceeded one percent of national income only in the Netherlands and in England and Wales. By the 1820s England and Wales had become the world’s center of poor relief, both in fact and in public debate, the Netherlands having cut back its commitments in the wake of the damage

TABLE 1.1. *The Low Levels of Tax-Based Social Spending in the Late Eighteenth Century and Early Nineteenth*

Country	Year	Percent Shares of Gross National Product	
		Relief for the Poor	Public Education, Primary through University
Belgium	1820	1.03	
	1850	0.28 <sup>a</sup>	0.38
England and Wales	1776	1.59	0
	1820-1821	2.66	0
France	1850	1.07	0.07
Netherlands	1833	0.63	0.13
	1790	1.70	
	1822	1.36	
Sweden	1850	1.38	0.29
United States	1829	0.02	
All other countries	1850	0.13	0.33
	1776-1815	Zero or negligible	Zero or negligible

Note: The poor relief estimates are from Lindert (1998), and the estimates of public education expenditure estimates are from Lindert (2001).  
<sup>a</sup> The poor relief figure is for 1840-47.

its economy suffered in the wars of 1792-1815. Yet even in England and Wales around 1820, as Table 1.1 shows, poor relief was still less than 3 percent of the income, and this was as high as its share got in any country before 1930.

Yet even this amount of transfers - tiny by today's standards - was enough to spark great controversy at the end of the eighteenth century and into the early nineteenth. Reverend Malthus wrote his famous *Essay on Population* in 1798 largely to criticize England's rising practice of local poor relief. He argued that helping the poor just invited them to have too many children. Giving birth to extra laborers would eventually force wages back down to the bare subsistence level. David Ricardo agreed with Malthus' criticisms on this point. So did Parliament, when it passed the famous Poor Law Reform in 1834, cutting taxpayers' commitment to the poor. Even Karl Marx agreed that English poor relief was degrading in the late eighteenth and early nineteenth centuries, both when that relief was condescendingly given and when it was cut in the 1834 reform. He viewed both the giving and the taking away as parts of the internal contradictions of capitalism. Even today emotions continue to run strong on the issue of using tax money to help the poor.

One might think that the churches and other private donors supplied the help that the poor failed to get from tax-based public relief. But this conventional wisdom is probably wrong. As we shall see in Chapter 3, the rich variety of early charities gave the poor very little in Europe and the United States, even when church giving is included.<sup>3</sup> Private charity was not a substitute for taxed-based poor relief and was not crowded out by the later rise of that public aid. It was a complement, and the two rose, and occasionally fell, together. Back in the eighteenth century, both public and private aid were withheld from the poor.

### The Elderly

There were no public pensions for the elderly in the late eighteenth century.<sup>4</sup> Rather the elderly had to rely on their own assets, family help, and any self-insurance groups they had joined - unless they were truly poor. If they were truly poor in their old age, then they qualified for ordinary poor relief. What they received from local governments is already included in the meager poor-relief totals shown in Table 1.1.

The elderly poor may have been better supported than other paupers, since they fell into the "deserving" category by being less able-bodied, less fit for work. Some have even argued that before 1840 they were supported as well as pensioners in the late twentieth century.<sup>5</sup> Yet there were limits to what they were given, both as a share of national product and as a ratio of recipients' support to an average adult income. The elderly received a much smaller share of national income than their share of the whole population, meaning that the average money received by the average elderly person must have been well below the average income of the whole country, even if it compared well with the aid to younger paupers.<sup>6</sup>

### Public Education

While the elderly poor may have received their share of that small poor relief budget in the later eighteenth century, schools received only negligible aid. Table 1.1 lists some shares of national product going to public support of all levels of education in the leading countries in 1833 or 1850. No country collected even as much as one-half of 1 percent of national income in taxes for education. Small as these shares were, the shares back in the late eighteenth century were much smaller. Taxpayers had hardly begun to support education, especially the education of the poor, in the late eighteenth century, as Chapter 5 will show.

Why didn't the political leaders of the late eighteenth century believe in public education? This book will argue that the real reason was the unequal distribution of political voice, not a lack of intellectual leaders who saw a case for public schooling. In fact, both Adam Smith in Britain and Thomas

Jefferson in colonial America spoke out for using taxpayers' money to pay for the education of other people's children. Their view is worth noting, even though it was overruled by the self-interests of powerful persons opposed to taxes for schools.

Even though Adam Smith is best known for arguing in favor of free markets, he saw a case for having taxes and government spending provide useful things that individuals would not provide adequately themselves. National defense, justice, commercial infrastructure, and public education should be funded by taxes, or even directly provided as state services. The case arises from the same basic point, both in the *Wealth of Nations* and in today's economics: If individuals failed to capture all the social gains from providing these things, then individuals could not be relied upon to provide enough of them:

[An essential] duty of the sovereign or commonwealth is that of erecting and maintaining those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the [social] profit could never repay the expence to any individual or small number of individuals, and which it, therefore, cannot be expected that any individual or small number of individuals should erect or maintain. . . .

When the institutions or public works which are beneficial to the whole society, either cannot be maintained altogether, or are not maintained altogether by the contribution of such members of the society as are most immediately benefited by them, the deficiency must in most cases be made up by the general contribution of the whole society.<sup>7</sup>

This is not to say that Smith liked taxes and big government for their own sake. On the contrary, he saw waste in much of the government spending of his day, especially in the subsidy to unproductive high offices. He railed at length against tariffs on imported goods, such as England's infamous Corn Laws. And even where he approved of taxes as the basis for those "public institutions and public works," he approved of some kinds of taxes and not others. He preferred either user charges or proportional direct taxes on income. He disliked most indirect taxes (sales taxes, tariffs, excise taxes) and would probably not have approved of today's highly progressive income taxes.

Still, Smith did approve of charging taxpayers for some things, and one kind of social spending seemed to rank with national defense at the top of his list of tax-worthy public improvements. Smith favored tax support for public education at all levels, especially if the taxes were borne by the local beneficiaries of educating other people's children.<sup>8</sup>

Thomas Jefferson agreed with Adam Smith about public schooling. In 1779 Jefferson introduced his *Bill for the More General Diffusion of Knowledge* in the Virginia assembly, calling for a statewide system of free public elementary schools to be paid for by local taxpayers. Like Adam Smith, the main author of the Declaration of Independence felt that everybody, and not

just the parents of school-age children, was better off if all (white) persons had an equal maximum chance to achieve a liberal education at public expense. At the secondary level, he proposed, the burden should be shifted more to parents and away from taxpayers, though he called for full tax-based aid to the top-scoring students from elementary school. At the university level, Jefferson again saw a case for tax-based education. Unhappy with the performance of the private College of William and Mary, he called for state administration, state taxpayer funding, and secularization.<sup>9</sup> His bill was a harbinger of America's early leadership in public schooling, as we shall see in Chapter 5. Yet each time he introduced it in Virginia – in 1779, in the 1790s, and again in 1817 – it was defeated by those whose self-interest would be compromised by property taxes that would pay for common schools.<sup>10</sup> The same kind of political opposition was also characteristic of the British society that Adam Smith was trying to educate in the *Wealth of Nations*.

#### THE LONG RISE OF SOCIAL SPENDING

Starting from that negligible base in the late eighteenth century, social spending as a share of the national economy rose haltingly over the next one hundred years, then accelerated between 1880 and World War II, and boomed between World War II and about 1980. Since 1980 its share of national product has risen very little. Table 1.2 and Figure 1.1 show the progress of total social transfers (thus excluding public education) for several countries.<sup>11</sup>

The most obvious pattern in the rise of social transfers is that it happened to every OECD country sooner or later, mainly in the twentieth century. By 1980 all of them took more than 10 percent from taxpayers on behalf of the poor, the elderly, and the sick, even without including public educational spending. The loud message here is that the history of taxing and transferring is not just a miscellany of separate and unique national histories. There is an obvious common pattern, and later chapters will show that it is spreading to still other countries as their incomes grow. Is this a diffusion process, in which some countries learn from others the wisdom and technique of setting up social programs? Probably not. As we shall see, some basic common forces were at work in all countries, evoking similar responses that probably owed little to any diffusion of knowledge about tax-based social programs.

Within this impressive upward trend in all countries, there were some intriguing changes in leadership, as suggested by the boldface entries in Table 1.2 and the top national paths in Figure 1.1. In the late nineteenth century, the social-transfer pioneers were the Scandinavian countries, especially Denmark and Norway, followed by Britain. Around 1900, these leaders were joined by Australia and New Zealand, which suddenly instituted generous public pension and health care programs. Before 1930, no leading role was assumed by North America or Japan or any Continental European country below Scandinavia.<sup>12</sup>

TABLE 1.2. Social Transfers in OECD Countries, 1880-1995, as Percentages of Gross Domestic Product at Current Prices

	1880	1890	1900	1910	1920	1930	1960	1970	1980	1990	1995
Australia	0	0	0	1.12	1.66	2.11	7.39	7.37	12.79	13.57	14.84
Austria	0	0	0	0	0	1.20	15.88	18.90	23.27	24.54	21.39
Belgium	0	0.17	0.22	0.43	0.52	1.20	13.14	19.26	30.38	22.45	27.13
Canada	0	0	0	0	0.06	0.31	9.12	11.80	14.96	12.91	17.38
Denmark	0.96	1.11	1.41	1.75	2.71	3.11	12.26	19.13	27.45	26.44	30.86
Finland	0.66	0.76	0.78	0.90	0.85	2.97	8.81	13.56	19.19	18.32	31.65
France	0.46	0.54	0.57	0.81	0.64	1.05	13.42	16.68	22.55	22.95	26.93
Germany <sup>a</sup>	0.50	0.53	0.59	..	..	4.82	18.10	19.53	25.66	20.42	24.92
Greece <sup>b</sup>	0	0	0	0	0	0.07	10.44	9.03	11.06	8.67	13.95
Ireland	0	0	0	0	0	3.74	8.70	11.89	19.19	16.20	18.30

(1880-1930: Welfare, unemployment, pensions, health, and housing subsidies)  
 (1960-1980: OECD old series; 1980-1990: OECD new series)

OECD Old

OECD New

Italy	0	0	0	0	0	0	0.08	13.10	16.94	21.24	23.71
Japan	0.05	0.11	0.17	0.18	0.18	0.21	4.05	5.72	11.94	10.48	12.24
Netherlands	0.29	0.30	0.39	0.39	0.99	1.03	11.70	22.45	28.34	26.94	25.70
New Zealand	0.17	0.39	1.09	1.35	1.84	2.43	10.37	9.22	15.22	16.22	18.64
Norway	1.07	0.95	1.24	1.18	1.09	2.39	7.85	16.13	20.99	18.50	27.55
Portugal	0	0	0	0	0	0	..	..	..	10.10	12.62
Spain	0	0	0	0.02	0.04	0.07	..	..	..	12.97	17.01
Sweden	0.72	0.85	0.85	1.03	1.14	2.59	10.83	16.76	25.94	29.78	33.01
Switzerland	..	..	..	..	..	1.17	4.92	8.49	14.33	..	18.87
U.K.	0.86	0.83	1.00	1.38	1.39	2.24	10.21	13.20	16.42	16.94	22.52
U.S.	0.29	0.45	0.55	0.56	0.70	0.56	7.26	10.38	15.03	11.43	13.67
Median	0.29	0.39	0.55	0.69	0.78	1.66	10.41	14.84	20.09	21.36	22.52

Sources: Lindert (1994), OECD (1985), OECD Social Expenditure Database 1980-1996 (CD Rom). For a similar chronology, with different detail, see Tanzi and Schuknecht (2000, Chapter 2).

Note: 0 = known to be zero; blank = not yet a sovereign state; .. = known to be positive, but number unavailable. **Boldface** = leaders. These exceeded the median-country share by 0.5 prior to 1930 or by 2.0 after 1960.

<sup>a</sup> Germany = West Germany only for 1960-1990.

<sup>b</sup> "1995" is actually 1993.



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Growing Public

Patterns and Puzzles

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**Panel A. From 1880 to 1930**

Country	1880	1890	1900	1910	1920	1930
Denmark	1.0	1.5	2.0	2.5	2.8	3.0
Australia	0.5	0.6	0.7	0.8	0.9	1.0
UK	0.5	0.6	0.7	0.8	0.9	1.0
Sweden	0.5	0.6	0.7	0.8	0.9	1.0
France	0.5	0.6	0.7	0.8	0.9	1.0
Netherlands	0.5	0.6	0.7	0.8	0.9	1.0
USA	0.5	0.6	0.7	0.8	0.9	1.0
Japan	0.5	0.6	0.7	0.8	0.9	1.0
Italy	0.5	0.6	0.7	0.8	0.9	1.0

**Panel B. From 1930 to 1995**

Country	1930	1940	1950	1960	1970	1980	1990	1995
Denmark	10	15	20	25	28	30	32	35
France	5	6	7	8	9	10	11	12
Netherlands	5	6	7	8	9	10	11	12
Italy	5	6	7	8	9	10	11	12
UK	5	6	7	8	9	10	11	12
Australia	5	6	7	8	9	10	11	12
USA	5	6	7	8	9	10	11	12
Japan	5	6	7	8	9	10	11	12
Sweden	5	6	7	8	9	10	11	12

FIGURE 1.1. Social Transfers as a Share of GDP, 1880-1995.

The ranks had been reshuffled by 1960, however. The upheavals of the World Wars and the Great Depression caused Continental Europe to shift dramatically toward progressive taxation and expanding social programs. One underlying reason, to be discussed again in Chapter 7, was a shift in the attitude of the Roman Catholic Church and Catholic political parties in favor of redistribution as a means to bring social justice and counter the threat of Communism. Thus in the postwar era, Scandinavians were joined in their welfare-state leadership by several other Continental countries – Austria, Belgium, France, Germany, Italy, and the Netherlands. Through it all, Japan, Switzerland, and the United States firmly resisted the rise of taxing and transferring, and they still have some of the lowest OECD transfer rates today. Chapter 7 will take up the challenge of explaining these international differences.

### The Robin Hood Paradox

A useful way to summarize the global history of social spending takes the form of a puzzle that prods us to think hard about the underlying political forces. The puzzle is this: *History reveals a “Robin Hood paradox,” in which redistribution from rich to poor is least present when and where it seems most needed.* Poverty policy within any one polity or jurisdiction is supposed to aid the poor more, the lower the average income and the greater the income inequality. Yet over time and space, the pattern is usually the opposite.

While there are exceptions to this general tendency, the underlying tendency itself is unmistakable, both across the globe and across the past three centuries. A global tour of nations shows stark contrast in the shares of gross domestic product (GDP) devoted to social security or social insurance programs of central governments. For example, in 1985-1990, such programs absorbed about 16.3 percent of GDP in the rich OECD countries and only 2.7 percent in developing countries, where poverty and inequality are greater.<sup>13</sup> Similarly among states in the United States, support for the poor takes a lower share of income in states with worse poverty and pre-fisc income inequality.<sup>14</sup> What Table 1.2 and Figure 1.1 are adding is the reminder that this is also a basic paradox of history. It was in the poorer and more unequal national settings before World War II that the least was given to the poor – or, equivalently, it is in today’s prosperous world with lower pre-fisc income inequalities that the poor get the most generous support by historical standards. Why should the pattern across polities be the opposite of the pattern of redistribution that is typically desired and designed within a polity? And why should governments provide less (more) social insurance where private insurance is less (more) available?

That policy paradox probably has been inefficient, in that aid to the poor probably has the most positive effect on labor supply and GDP where it is least given. To underline the paradox further, consider the traditional concern

that social programs subsidize leisure and therefore cut labor supply, hurting employers (and GDP) as well as taxpayers. This concern is reasonable today, even though a vast empirical literature has taught us not to expect a great response of labor supply to changes in average-tax wage rates.<sup>15</sup> Yet in the more distant past, and in the poorest countries today, there are important countertendencies. Granted, even in those poor settings it is plausible to believe that extra leisure was taken when funded, as Malthus and Britain's poor-law reformers of 1834 famously believed. But nutritional status and housing conditions were then so poor that extra poor relief almost surely had the effect of keeping more of the poor alive and working. Could the extra labor supply implied by this mortality response have outweighed the reduction in labor supply from subsidizing nonwork?<sup>16</sup>

In addition, Malthus' classic complaint about poor relief has an odd labor-supply implication: The more it encouraged fertility, the more extra labor it supplied a generation or two later. One should take George Boyer's demonstration that Malthus was right about poor relief and extra babies,<sup>17</sup> and amplify it by the extra labor supply they would bring even if they remained as welfare-dependent as the average person who received some relief.

If the net effect on labor supply was in fact positive, then poor relief could have promoted economic growth. As the extra workers entered the labor force, they would raise national product. In fact, their extra labor supply would have raised even the incomes of the propertied taxpayers who failed to give that relief when lives were at stake. It could have done this because having a greater supply of labor meant higher rents for landlords. If this was a distinct possibility, why was the relief not given to the poor, except in the interlude of England's Old Poor Law before 1834? We explore the determinants of early poor relief in Chapters 3 and 4.

### Is the Welfare State a Free Lunch?

Another puzzle that beckons is related to, but larger and more controversial than, the Robin Hood paradox.

Knowing that higher tax rates and higher subsidies to people who don't produce could discourage productivity, many of us naturally suspect that taxes and transfers should reduce the productivity of the whole economy. When we give to the poor, don't we subsidize their staying in poverty? When we give to the unemployed, don't we subsidize not getting a job? When we give to the retired, don't we subsidize early retirement? And so forth. These natural suspicions pose a sobering question when combined with the rise of social transfer programs shown in Table 1.2 and Figure 1.1. If the welfare-state countries of Europe are now spending between 25 and 35 percent of their national product on less productive people, and are taxing the more productive to pay for it, doesn't this damage economic growth?

Here arises the puzzle of a potentially free lunch. If the antiproducerive taxing and spending are as big as 25–35 percent of national product, why

TABLE 1.3. *How Social Transfers as a Share of GDP Correlate with Growth and Prosperity in 19 Countries, 1880–2000*

Time Period	The Coefficient of Correlation between the Initial Share of Social Transfers in GDP and	
	(a) the Growth of GDP/capita	(b) the Level of GDP/capita
1880s	0.10	-0.18
1890s	0.34	-0.05
1900s	-0.23	0.09
1910s	0.12	0.31
1920s	-0.24	0.49
1960s	-0.17	-0.07
1970s	0.14	0.00
1980s	-0.07	0.12
1990s (to 2000)	0.01	0.12
simple average of these	0.00	0.09
From 1880 to 1910	-0.02	-0.18
From 1960 to 2000	-0.11	-0.07

*Notes and Sources:* Social transfers/GDP for 1880–1930: Welfare, unemployment, pensions, health, and housing subsidies, as given in Lindert (1994, Table 1). Social transfers/GDP for 1960–1980: OECD old series (OECD 1985); 1980–1990: OECD new series (OECD 1998).

Real GDP per capita: Penn World Table 5.6, supplemented by Penn World Table 6.1 (Heston et al 2002) for 1990–2000.

The 19 countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece (1960s, on) Ireland (1960s on), Italy, Japan, Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States.

The same lack of any strong negative correlation was noted, in postwar data, by Slemrod (1995, 375–379).

don't we see a big negative effect on the level and growth of GDP per capita? Even if one grants that GDP is the result of many forces, the negative effect of social transfers should have been visible to the naked eye if each dollar transferred caused, say, a loss of \$0.60 per dollar transferred. That rate of output loss times 25–35 percent of GDP should have put a dent of 15–21 percent in the size of the economy. And if the antiproducerive programs have arisen almost entirely since 1960, shouldn't we see slow growth in those welfare-state countries since 1960?

Yet the history of economic growth is unkind to this natural suspicion. Neither simple raw correlations nor a careful weighing of the apparent sources of growth shows any clearly negative net effect of all that redistribution. Table 1.3 dramatizes the overall puzzle. Nine decades of historical experience fail to show that transferring a larger share of GDP from taxpayers to transfer recipients has a negative correlation with either the level or

the rate of growth of GDP per person. The average correlation is essentially zero. If we pooled all the decades of international experience, instead of just averaging them, we could find that social transfers had *positive* correlations with both the level and the growth of GDP per person. The strongly positive correlation with the level of GDP per person underlines the Robin Hood paradox: Taking all historical experiences as a single experiment, the richer the country, the more it tends to transfer to the poor, the sick, the elderly, and the unemployed.<sup>18</sup> So far, any negative feedback from social programs to productivity levels, or productivity growth, remains well hidden.

The puzzle deepens a bit when we switch from GDP per person, the usual measure of income and productivity, to GDP per hour worked, a better measure of labor productivity. If higher social spending dampens incentives to invest and to raise labor productivity, this should make the higher-spending countries fall further behind the lower-spending leaders like the United States and Japan. Yet as others have noted, countries like the Netherlands, France, and Germany have caught up with the United States in output per labor hour. In fact, in GDP per hour worked, the United States ranked below eight other countries in 1992. Six of these eight countries with higher output per hour worked were continental welfare states.<sup>19</sup>

Since we care more about well-being than about labor productivity alone, the free lunch puzzle is even deeper. Along with their near-American productivity levels, people in the countries with higher social budgets get to enjoy more free time every year and retire earlier. They work fewer hours per employed person. In 1997, for example, the average employed American put in 1,966 hours and the average employed person in Japan about 1,900 hours. By contrast, their counterparts worked only about 1,550 hours in West Germany and Sweden and only 1,400 in Norway.<sup>20</sup> The extra free time is valuable, as are the extra years of leisure enjoyed by elderly West Europeans because they retire earlier and live longer.

Nor is the puzzle strictly international. Within the United States since the 1960s, social transfers have taken a rising share of state product, and the variance in their generosity has also risen – and has been positively, not negatively, correlated with the level and growth of state product per capita. How can the generous states, like Connecticut, New Jersey, and California, get away with giving out more generous welfare and other transfers year after year? Why haven't they grown more slowly than other states? Why hasn't business deserted them, leaving them with fewer firms and more welfare families?<sup>21</sup>

By themselves, near-zero correlations and brief charts cannot prove or disprove any argument, nor can one win the debate about social spending and growth just by choosing a favorite contrast between two countries.<sup>22</sup> The only way out of the puzzle posed by the historical correlations is not a retreat into selective journalistic contrasts, but a determined march into multivariate analysis and institutional history to see what the cost of social

transfers might have been after other explanatory forces have been given their due. This difficult task is the subject of Part ~~6~~ <sup>6</sup>.

### An Educational Puzzle

A third leading puzzle in the history of social spending is the identity of the leaders in public education. The nineteenth-century leaders in providing mass schooling at taxpayer expense were not the leaders in poor relief. Britain, the Netherlands, and Scandinavia led in poor relief, even though they spent only tiny amounts by today's standards. Yet in providing tax money for mass primary schooling, the lead was taken by Prussia, a few other German states, and North America. Why were the identities so different? What made some countries tilt toward maintaining the poor while others opted for taxes to pay for schools?

The nations that led in tax-based mass schooling were themselves an odd combination. What did the autocratic German states have in common with *laissez-faire* North America? What attribute did either set of countries have that would bias it toward taxes for schools? Surely no historical law dictates that undemocratic German monarchies should have wanted all children schooled. It is equally strange that Upper Canada and the non-Southern states of the United States should have voted so early and spontaneously for higher local taxes. What forces promoted mass public education in these countries and not in Britain, the Workshop of the World, in the nineteenth century? Chapter 5 offers some answers.

Then, in the twentieth century, leadership in education changed again, in a way that demands an explanation in Chapter 6. Across the century, by most measures of educational inputs and achievements, the United States fell back into the middle of the ranks and Germany fell into the lower half, among the top twenty OECD countries. The fallback is not uniform, in that Americans continue to excel in the numbers of years spent in school. Yet in expenditures as a share of GDP, teachers per one hundred students, and test scores, these two leaders definitely fell back. For Germany, the usual one-word explanation for educational decline (Hitler) fails to explain why German children have a lackluster education even in the early twenty-first century. And why should U.S. education look so unimpressive at the primary and secondary levels, when U.S. higher education still leads the world in its job payoffs and its exports of educational services to the rest of the world?

Puzzles like these call for a deeper historical inquiry.

about fourteenth in students' test scores? Again, the concentration of voice was the enemy of education.

(#4) The great advance of social spending since 1880 is explained partly by the same political-voice motif, partly by population aging, and partly by income growth. Roman Catholicism was a negative influence on taxes and transfers before, but not after, World War II.

(#5) Postwar welfare states developed more fully in countries where the middle and bottom ranks traded places more and were ethnically homogeneous.

(#6) The same forces that explain the growth of social spending until the 1990s carry implications for the future of social spending in all regions — in the affluent OECD countries, in the transition countries, and in Third World countries. In Western Europe, the political power of the elderly and the generosity of their public pensions have already matured and will fade. The social transfers that aging societies have supported will not decline as shares of GDP, but the generosity of pensions per elderly person will decline. Support for the elderly will also be under pressure in the formerly communist countries. Among prospering countries in the Third World, however, pensions will probably become more generous as income grows.

(#7) The net national costs of social transfers, and of the taxes that finance them, are essentially zero. They do not bring the GDP costs that much of the Anglo-American literature has imagined. Accordingly, differences in these costs play almost no role in either the rise or the deceleration in social spending's share. No Darwinian mechanism has punished the bigger spenders.

(#8) That large social programs have cost little in practice is consistent with the rise of European unemployment since 1970. Differences in social insurance did play a role in the OECD differences in unemployment over time and space, but only a partial role. Furthermore, the loss in output was less severe because those who remained out of work tended to be less productive workers anyway. Therefore any percentage loss of output tends to be much smaller than the percentage of jobs lost.

(#9) Two general principles seem to explain why the welfare state does no net damage to GDP per capita and why welfare states will not collapse. The first is that high budget democracies show more care in choosing the design of taxes and transfers so as to avoid compromising growth. The second is that broad universalism in taxes and entitlements fosters growth better than the low-budget countries' preference for strict means testing and complicated tax compromises.

As of about 1780 hardly any taxes went into social spending in Western Europe or the United States, as Chapter 1 noted. The main kind of social spending was the modest poor-relief system, which was stretched thin to

## Findings

Since the eighteenth century, the rise of tax-based social spending has been at the heart of government growth. It was social spending, not national defense, public transportation, or government enterprises, that accounted for most of the rise in governments' taxing and spending as a share of GDP over the last two centuries.

The increasing role of social spending in our lives has been linked to three other great social transformations: the transition to fuller democracy, the demographic transition toward fewer births and longer life, and the onset of sustained economic growth. Social spending's share of national product derives its permanence from the likely permanence (we hope) of these three great transformations — that is, of democracy, of human longevity, and of prosperity.

### NINE CONCLUSIONS

Exploring these themes leads to a set of varied but logically consistent results. The rest of this chapter offers a guide to the whole set of arguments of the entire book, grouping most of them around these nine conclusions:

(#1) There was so little social spending of any kind before the twentieth century primarily because political voice was so restricted.

(#2) The central role of political voice is shown by an exceptional early case. Both Britain's relatively high poor relief in 1782-1834 and its cutbacks in 1834 and 1870 fit the changing self-interest of those with voice.

(#3) Similarly, just noting the interests of those with voice helps to explain Chapter 1's education puzzles: Why did Germany and *laissez-faire* North America lead the way in tax-based public schooling, and why did Britain lag behind in the nineteenth century? How did the United States remain a leader in educational attainment, yet end up ranked

cover the poor and disabled of all ages. There were no mass public school systems, no tax-based health insurance, and no unemployment compensation beyond seasonal poor relief. Things stayed that way for the next one hundred years, except for the rise of mass public schooling, an interesting early rise and fall of Britain's poor-relief tax effort, and a slow upward creep in tax-based poor relief on the Continent.

The stirrings of a movement toward comprehensive social insurance programs were more evident after 1880. The real social-transfer pioneer from the 1880s on was Denmark, followed by the early pension schemes of Germany, Britain, Australia, and New Zealand.

The real boom in all sorts of social programs did not come until after World War II. Interestingly, the overall data make the rise of social spending look more monotonic than one would have thought from the tone of public discourse after 1980. For all the often-reported "crisis" or "demise" of the welfare state, all one really sees after 1980 is a slowdown, not a decline, in the shares of GDP that welfare-state taxpayers put into such programs.<sup>1</sup>

Familiar as the broad rise of social transfers may look, it should also seem curious. Why should it have been delayed for so long? Why did it march so far by 1980? Why has it stabilized since, neither retreating nor advancing? And what difference did it make to economic growth?

#### HOW SOCIAL SPENDING EMERGED BEFORE WORLD WAR II

*Conclusion #1. There was so little social spending of any kind before the twentieth century mainly because political voice was so restricted.*

If all residents had equal vote, and if the only way one could influence a political outcome was by using that single vote, the rich would be heavily taxed to support redistributive social programs. This seems likely as long as the middling (median) incomes are much closer to the bottom of the income ranks than to the top.<sup>2</sup> That is the way it is in most less-developed countries, just as it was in the earlier history of the most advanced countries. The distribution of before-tax income and wealth has been highly skewed, with the median income well below the mean income,<sup>3</sup> creating a golden opportunity for a Robin Hood. That he failed to show up in such settings must relate to a concentration of power in the hands of the rich.

Political power was indeed concentrated in the past. The only people allowed to vote were men who owned some minimum land value, earned some minimum income, or paid some minimum value of direct taxes. It was the retreat of such restrictions in nineteenth-century Europe that opened the initial door for a shift toward progressive taxation and social spending.

The spread of voting rights had nonlinear effects on social spending before World War II. Chapters 4, 5, and 7 trace the effects of switching from non-democracies to elite democracies and then to full democracies, with both

genders and all economic classes permitted to vote. Part of that history comes from written accounts and part from a systematic statistical analysis of twenty-one countries in the periods 1880-1930 and 1962-1995. For social transfers, such as aid to the poor, the elderly, and the sick, elite democracies tended to offer no more than the average nondemocracy, when other things are held equal. The elite democracies, in which fewer than 40 percent of men had the vote, were actually more opposed to overall social transfers, and to public pensions, than the average authoritarian nondemocracy. Only basic poor relief was given out as much in the elite democracies as in the average nondemocratic monarchy of that time. More dramatic were the effects of spreading the vote from an elite to nearly all adults. Once the right to vote was extended to poorer men, the stage was set for Lloyd George's assault on Britain's rich just before World War I and for corresponding political transitions in other countries. When that happened toward the end of the nineteenth century and the start of the twentieth, comprehensive nationwide social insurance programs began to emerge. Extending political voice to all adults raised spending on public schools as well.

*Conclusion #2. The central role of political voice is shown by an exceptional early case. Both Britain's relatively high poor relief in 1782-1834 and its cutbacks in 1834 and 1870 fit the changing self-interest of those with voice.*

The importance of historical shifts in who had voting power transcends the simple idea that the rich fight redistribution and lose that fight when voting rights march down the income ranks. Political historians rightly insist that the issue is much more complex. Even in a full democracy people lack the right to vote on each issue separately. Rather, they must elect representatives that trade influence on multiple issues.

Yet the link between economic self-interest and political voice is still there, even in cases that may seem to deny the link. A good illustration is the strange rise of English poor relief after about 1780, when only a small landed elite could vote. Why should such a society vote to tax itself 2 percent of GDP to support the poor, when it had not done so earlier? Why did Britain move back toward toughness after the Reform Act of 1832 had extended the franchise?

The whole pattern makes good sense, in time and in space, once one understands the self-interest of Southeast England's farmers and wealthy rural landlords and combines it with George Boyer's model of their approach to poor relief.<sup>4</sup> As seasonal hirers of farm labor in an industrializing and urbanizing economy, they had strong incentive to make sure that laborers stayed in their area across the low-income winter months instead of emigrating to cities and industrial centers. The richer the farmer or landlord, the more he or she hired labor. Local poor relief became a way of making the less landed households pay a share of local "poor rates" to retain a seasonal labor force they used little. The Reform Act of 1832 shifted voting rights toward rich

industrialists in the rising centers, who saw little merit in a system that kept workers in the stagnating rural Southeast.<sup>5</sup> The spatial pattern of generous poor relief in the rural Southeast and greater toughness<sup>6</sup> in prospering cities and the Northwest fits the same model of self-interest (though it is an exception to the Robin Hood paradox). Chapter 4 argues that England exhibited this pattern, while other countries gave more poor relief in cities, because of the peculiar political power of labor-hiring landlords and farmers in England.

Exploring the puzzles of early English and Continental poor relief in Chapters 3 and 4 turns up another striking conclusion that later chapters will rediscover for the postwar era. There was no "race to the bottom," in which governments compete in trying to attract investors and skilled migrants by slashing their social transfers. The rural parishes of southeastern England, and the cities of other countries, managed to levy higher local taxes and to give more to the local poor than other areas without seeming to suffer loss of business as a result of the aid. In fact they explicitly used such relief, decade after decade, to retain their local labor supplies. In the political fights over poor relief, it was typically the central government that tried to impose limits on local taxes and transfers and the local governments that tried to find ways to keep giving relief. The notion that local governments would race to the bottom in their taxes and transfers was not true in the nineteenth century, just as it is not true today. The reason seems to be that taxes and transfers had their benefits for some who had local political voice.

*Conclusion #3. Similarly, just noting the interests of those with voice helps to explain Chapter 1's education puzzles: Why did Germany and laissez-faire North America lead the way in tax-based public schooling, and why did Britain lag behind in the nineteenth century? How did the United States remain a leader in educational attainment, yet end up ranked about fourteenth in students' test scores? Again, the concentration of voice was the enemy of education.*

Similar reasoning about voice and economic interests helps to explain a curious pattern in the rise of tax-based mass public schooling. In the first half of the nineteenth century, the wave of mass schooling started in some of the German states, most visibly in Prussia. After 1860, the leadership shifted to North America and Australasia. England and Wales, the Workshop of the World, lagged behind, before catching up quickly in the period 1891-1914.

While every nation's educational history has its unique elements, two systematic causal forces emerge from the comparative political economy of mass schooling before 1914 (see Chapter 5 in Volume 1 and Chapter 15 in Volume 2).

The first causal force was the spread of voting rights. Abstracting from the specific character of ruling elites, we find a systematic influence of the

spread of voting rights upon primary-school enrollments. Other things equal, countries where a majority of adults voted had significantly more children in school than either nondemocracies or elite democracies where only a proper-tied minority could vote. Thus North America and Australia and even France were ahead of Britain in school enrollments between 1850 and 1900 in part because they were more democratic. Within North America, broad democracy had the same effect, in that the educational backwaters were those regions still controlled by a landed elite or by a single religion. The backwaters were the U.S. South, Quebec, and Canada's Maritime Provinces, whereas Upper Canada and the U.S. non-South were world leaders in schooling.

The second causal force seems to have been decentralization. Germany and North America, unlike Britain, left the decision of how much tax to pay for schools up to the localities. In Germany's case, one could even say that primary education was a matter left to local democracy, even though the national government was relatively undemocratic. Localities raised most of the taxes for schools, and locally elected and appointed officials ran the schools. The landed Junker elite could, and did, keep down the level of schooling, but only in its own localities. Similarly, plantation owners in the U.S. South could keep down education spending and taxes only in their own states. A decentralized approach to school finance, as in most of Germany and most of North America, brought a world in which localities competed for grants and business by providing attractive tax-based schools. The effect of decentralization on public schools does not always run in the same direction, however. There seems to be a systematic reversing relationship between decentralization and the long rise in demand for public goods that comes with economic development, as Chapter 5 explains.

Although the public funding of schools remains a positive influence, public provision and control of most schools can either help or hinder education, depending on who has voice and who can exit. In twentieth-century United States the rise of centralized power may have raised the quantity of schooling, but it seems to have lowered its quality, as suggested in Chapter 6. Throughout the twentieth century, the United States continued to be a leader in the quantity of education, measured by educational attainment. Yet in all the international test score comparisons from 1964 through 2000, U.S. teenagers have never finished in the upper half of the ranks among OECD nations.

Chapter 6 shows that several common suspicions about the sources of this student performance shortfall are *not* true. Though it is natural to say that quality should be stressed over quantity, the emphasis in the United States on schooling quantity (years) over quality (as reflected in achievement test scores) may have served U.S. growth well. Furthermore, the U.S. test score shortfall is not the result of inferior home backgrounds relative to those experienced by children in other countries. U.S. children are not behind as of ages nine or ten. Something detracts from their education in later grades. Nor are the shortcomings of U.S. education due to too much private education,

too little pay for teachers, low teacher quality, or even to a simple story of decentralization versus centralization. The shortcomings were not even due to a rigid flat pay scale that failed to pay according to teacher merit, for the simple reason that *all* OECD countries have failed to develop enough rewards for teacher performance.

Two defects of the U.S. system of primary and secondary education seem to explain its low performance on test scores. One defect takes the form of insufficient centralization, and the other takes the form of excessive centralization. The United States places too little stock in centralized achievement tests, making its students and teachers insufficiently accountable for curriculum learning. On the other hand, the United States gives too little voice to students and local teachers and too much voice to giant school administrations and to teacher unions. Ironically, Milton Friedman's call for school choice for individual students has been answered better in some European welfare states than in the United States.

*Conclusion #4. The great advance of social transfers since 1880 is explained partly by the same political-voice motif, partly by population aging, and partly by income growth. Roman Catholicism was a negative influence on taxes and transfers before, but not after, World War II.*

The changes in total social transfers from 1880 to 1930 are partly explained by three main sets of systematic forces (see Chapter 7 in Volume 1 and Chapter 16 in Volume 2). In all countries, part of the rise was explained by income. Of similar importance was the aging of the population: An older population was apparently one that preferred more social insurance. The third force was a set of voting-rights variables, which had a strong positive effect on the rise of social transfers (and taxes). Other things equal, heavily voting democracies taxed more and spent more on social insurance, especially those democracies that had granted women the vote.

#### LESSONS FROM THE POSTWAR BOOM

The great postwar rise in social transfers brought the same explanatory forces to center stage, but this time with different shares of the limelight. Electoral democracy is less important for explaining differences in nineteen OECD countries after World War II than in 1880-1930, for the simple reason that the OECD countries now differ less in their degrees of democracy. Population aging, however, continued to play a starring role. An older society seems to be one that wants higher tax-based social insurance.<sup>7</sup>

The age effect has some important dimensions that need emphasis. First, we must remember that at the moment it is a reliable statistical result in search of an underlying mechanism. Is it gray power that demands more social insurance (and, implicitly, taxes)? What share of that power has arisen,

as lives lengthen, because younger voters either want government help in handling their parents or foresee that they too face a long retirement? Is the aging effect getting credit for other forces that happen to be correlated with aging? A second point to emphasize is that the underlying analysis shows that (up to a point) an older population seems to be one that prefers higher social spending of all kinds and not just the more age-targeted higher public pensions and health care. Finally, the effect of an older population on the budget share of social transfers, or on their generosity per recipient, is not linear. Being a larger share of the population does not keep helping your redistributive fight forever. We return to this point shortly.

*Conclusion #5. Postwar welfare states developed more fully in countries where the middle and bottom ranks traded places more and were ethnically homogenous.*

It makes sense that social transfers and public education derived much of their political success from the willingness of swing voters, presumably middle-income voters, to identify with the need for such tax-based programs. The economic stake of middle-income voters is likely to depend on their social affinities.<sup>8</sup> For which group do middle-income voters say "That could be me" - the tax-burdened rich or the poor to be caught in safety nets? There is no easy way to measure such affinities, aside from being alert to whether middle-income voters share the same language, religion, and race with those at the top or bottom.

One way of measuring such affinities reveals robust effects, and one yields fragile effects. Ethnic homogeneity strongly promotes every kind of social transfer program through government. Stated the other way around, ethnic fractionalization is a strong negative influence on the political will to raise taxes for social spending and related public investments. This result stands out in global data sets as well as in recent studies of African and U.S. local governments.<sup>9</sup> There is some fragile support for the prediction that the pre-fisc income gap between middle and low incomes is also a negative influence on social transfers. That gap between middle and low incomes is wider in the United States than in any other OECD country, a fact that may have stifled redistribution to the poor in the United States.

#### SINCE 1980, AGING HAS BROUGHT NEW BUDGET PRESSURES

What happened to social spending since 1980 is not a simple story of retreat from the welfare state, despite the ideological wave ushered in by the Reagan-Thatcher era. As we have seen in Chapter 1, the shares of social transfers in GDP merely stagnated and did not decline. Would we expect the early twenty-first century to bring the rollback that did not come in the last two decades of the twentieth?

Some continue to predict a retreat. The most careful basis for such a prediction sets aside any journalism about a bold swing to the right in favor of a more plausible forecast based on incremental learning from past mistakes in the public sector. Vito Tanzi and Ludger Schuknecht predict that such a new sobriety will strongly outweigh the pressure to spend more on an aging population:

Governments will become more efficient and public spending (and taxation) will decline in the future in spite of demographic trends that will tend, under existing policies, to increase public spending. Spending will not decline to the levels seen 100 or 70 years ago, but it can be rolled back to levels closer to those experienced around 1960.<sup>10</sup>

The analysis of this book does not make the same prediction, at least not about social transfers. Rather, it foresees little change in government efficiency and a compromised response to the rising elderly share.

*Conclusion #6. The same forces that explain the growth of social spending until the 1990s carry implications for the future of social spending in all regions – in the affluent OECD countries, in the transition countries, and in Third World countries. In Western Europe, the political power of the elderly and the generosity of their public pensions have already matured and will fade. The social transfers that aging societies have supported will not decline as shares of GDP, but the generosity of pensions per elderly person will decline. Support for the elderly will also be under pressure in the formerly communist countries. Among prospering countries in the Third World, however, pensions will probably become more generous as income grows.*

Given the apparent roles of aging, income, and other forces in explaining countries' levels of social transfers since 1880, we can explore what the statistical analysis revealing these effects would predict about the near future. Some extrapolation is possible, since the results seem to give a large role to the age distribution of the population, which can be projected into the future with fair confidence.

Looking ahead to the older world of the year 2020 suggests where aging will strain public pension systems and all social transfer programs most over the early twenty-first century. That strain will be greatest in countries that are already committed to generous support ratios for the elderly and are older than the average OECD country. Which countries fit this description? Thanks to the relative predictability of age distributions, Chapters 8 offers suggestions. The strongest pressure within our OECD sample will be felt by Italy, with Austria, Belgium, Finland, France, Germany, Greece, Netherlands, and Spain not far behind. Japan, Norway, and Sweden have forestalled deep pension trouble by already raising the average retirement age well up into

the 60s. The pension crisis should also be less severe in countries like the United States, which are aging more slowly.

In Third World countries that actually succeed in developing, the political process will probably raise social transfers as a share of GDP, as suggested in Chapter 9. Their transfers to the elderly will probably rise even per elderly person, at least until those over the age of sixty-five reach 8 percent of their populations. Convergence toward the OECD standard of high social transfers will probably occur even in East Asia, contrary to the frequent rhetoric about antistatist "Asian values." As their populations age, even those countries where official dogma espouses Confucian traditions of reliance on family support will experience a rise in public pensions and other social transfers as a share of GDP. When an East Asian country passes the demographic threshold where persons older than sixty-five are more than 20 percent of the population, it will face new pressures on its public budget – just like Japan, which many had considered a country where people turn to family, not government, for help.

The extrapolations to 2020, based on statistical patterns in tax and transfer policy up to 1995, predict that the elderly will bear most or all of the burden of the OECD countries' pension crisis, in the form of reduced pensions per elderly person. The behavior of OECD countries until 1995 predicts no decline in the GDP shares of transfers or of nonpension transfers. There will be no race to the bottom, in which countries compete against each other to cut social-spending budgets.

What drives social spending in the long run, then, is the shifting balance of political power between income groups, age groups, and ethnic groups. For the world as a whole, no demise of social programs is imminent. The share of product that transferred through government social programs will probably not shrink, despite all the rhetoric predicting a rollback of the welfare state.

#### UNLOCKING THE FREE-LUNCH PUZZLE

*Conclusion #7. The net national costs of social transfers, and of the taxes that finance them, are essentially zero. They do not bring the GDP costs that much of the Anglo-American literature has imagined. Accordingly, differences in these costs play almost no role in either the rise or the deceleration in social spending's share. No Darwinian mechanism has punished the bigger spenders.*

It might seem as though a central explanation of countries' social-spending trends has been missed. Doesn't a large welfare-state establishment drag down growth and doesn't this loss of income tend to choke off the advance of the social spending itself?

Such intuition draws on a standard economic imagination that most economists share. We imagine an experiment in which Country A wisely holds



down social spending while Country B raises it to a third of GDP, raising marginal tax rates on both the taxpayers and the recipients. Both the taxpayers and the recipients respond by working less and taking less productive risk, thus lowering GDP.

The problem with this consensus is that the data refuse to confess that things work out that way. The basic empirical problem stares at us in the raw data, just as it did in Chapter 1. Across countries or over time, the coefficients linking growth to total government size are not negative, even in sophisticated multivariate statistical analysis. In the global cross-section, richer countries do not tax and spend less. Similar results were obtained among past studies that limited themselves to the effects of social transfers.<sup>11</sup> The longer sweep of history also refuses to cooperate. Among the advanced OECD countries, the period with the fastest-growing welfare states – between 1950 and 1980 – included history's best-ever golden age of growth (1950–1973), even though it also included the oil shocks that hit in 1973 and 1979. Whether one looks at levels or at rates of change, one cannot show any clear negative relationship between social spending and GDP per capita.

Those convinced that tax-based social programs must have large negative effects on GDP have tried two strategies. Some have doggedly tortured the data further, to get the right confession. But the preferred negative relationship to social spending remains elusive. Thus others have used the second strategy of retreating to computer simulations on imagined data, or imagining macro-extrapolations of a micro-study labor-supply slope, to get out the truth we know is there.

Manipulating statistical techniques may yet unlock the puzzle and show large negative effects of taxes and social spending on growth. So far, though, no negative effects look robust in international perspective or even in interstate contrasts within the United States.

Why not? The fundamental answer is that *the real world has never performed the extreme and simple tax-transfer experiment that economists and the public keep imagining*. Governments that spend an extra twenty percent of GDP on social programs do not simply raise the direct tax rate on productive people and turn over that 20 percent of GDP to people who choose not to work. They dare not do so, since the high marginal costs of mishandling huge programs could throw them out of office.

What exactly do the high-spending countries do instead? Chapter 10 shows a multitude of institutional facts that have been left off the blackboards, at least in North American classrooms.

#### How Welfare States Control the Disincentives

When taxes, transfers, and subsidies abound, marginal incentives are far more complex than the blackboard diagram of a tax imposed in an otherwise

perfect economy. The effects of changing any one marginal rate, such as raising the corporate income tax rate, often cannot be judged without extensive study of its interactions with a host of other taxes and subsidies, and with private market power. James Meade and other economists have called this distortion-filled world the world of the “second best,” to distinguish it from that first-best Garden of Eden so often portrayed in textbooks and in classrooms. To get reliable comparisons of welfare states versus free-market economies, one must wander through this second-best world. The kinds of policies carried further by welfare-state governments than by free-market-oriented markets might either raise or lower national product.

We now know several reasons why the damage from tax-and-transfer programs is offset or even completely reversed by other features of the welfare states.

On the taxation front, the high-spending welfare states have developed a style of taxation that few have noticed when debating the effects of the welfare state. In general, high-budget welfare states have a *more pro-growth and regressive mix of taxes*. The European high-budget countries do not have higher average rates of taxation on capital income. They have been cautious about the double taxation of dividends. Rather, they rely more heavily on labor income taxes and on flat consumption (or value-added) taxes. They also tax addition goods (e.g., alcohol and tobacco) more heavily, thus taxing complements to health-compromising leisure. Granted, the rates of overall taxation are still higher in the high-budget countries, yet their attention to the side-effects on economic growth seems to have led them to choose types of taxes that minimize or eliminate any damage to growth, relative to the types of taxes levied in the lower-spending countries such as the United States, Japan, or Switzerland. Chapter 11 illustrates this point from Chapter 10 by taking a closer look at the Swedish experience.

The high-spending countries have *fine-tuned the work incentives* of their welfare and unemployment compensation programs to limit welfare dependency among young adults. Their “transfers” to the unemployed and poor are in effect purchases of behavior and investments in job qualifications. It has never been the case that welfare and unemployment compensation offer young adults a lifetime of near-full pay regardless of the recipients’ behavior. In fact, some of the highest marginal tax rates on work have been those faced by the poor in the tougher means-tested environments like Britain and the United States. Only in the last decade of the twentieth century did these countries wisely offer tax breaks tied to work by low-income workers. This was a helpful, though belated, step toward the universalism of the welfare states, where the poor can often take home a larger share of the pay they gain by getting a job.

The higher-spending countries are also more open economies, with *lower import barriers*.<sup>12</sup> By subjecting more of their economy to the discipline of international competition, they have made producers operate more efficiently.

### Early Retirement: A True, but Limited, Cost

The most prominently costly part of social transfer policy in many Western European countries, including some of the welfare states, is their elaborate set of early-retirement incentives at taxpayer expense. Many men in the fifty-five to sixty-four age range retire earlier in the countries that heavily subsidize early retirement – Belgium, France, Germany, Italy, and the Netherlands – than in countries that spend less on the elderly. Since many of the earlier retirees would have been employed without the policy encouragement to retire early, surely that must have lowered GDP. This is one kind of intuitive skepticism that does carry weight. There must have been a GDP cost of this policy-induced earlier retirement.

The output cost of government subsidies to early retirement is limited, however, by several factors explained in Chapter 10. First, it is tied to international differences, not levels, in the employment rate of people aged fifty-five to sixty-four. Second, the fifty-five to sixty-four age group is only a small part of the total work force. Third, the extra retirement effect shows up clearly only for males. Finally, the average laid-off person of ages fifty-five to sixty-four was less productive at work than the average employee. It should not be surprising, then, that the statistical analysis of GDP per capita shows only a small effect of early-retirement policies on GDP.

### The Pro-Growth Side of High Social Spending

The welfare-state package to which the higher-spending countries are more committed includes certain *social-spending programs that make people more productive*. The best-known example is, of course, public education. While many studies find that private schools produce higher-achieving students, this quality differential is partly the result of self-selection in mixed public-private systems. The quality differential is also outweighed by the quantity effect, the fact that tax-based public schools raise total educational attainment.

A second example is their better fiscal and legal support for child care and parental leave. These supports for new parents' career continuity cut their human capital losses from being forced off their career paths.<sup>13</sup> For example, such social investments in careers have given Sweden one of the world's highest rates of relative earnings by women.

A third example is welfare states' greater reliance on public health programs. Chapter 10 reports that more public health expenditures significantly avert deaths relative to private spending of the same magnitude, and presumably also reduce morbidity, within the OECD countries.<sup>14</sup> Government investments in health have an even greater impact in countries that are still developing. Numerous studies have found that basic public health facilities not only lengthen life, but actually raise peoples' productivity within each

year of their adult lives. The United States is an unhealthy outlier partly because its history and ideology have blocked the shift to public health care and health insurance for all.

### Reconciling Europe's Unemployment with Its Satisfactory Growth

*Conclusion #8. That large social programs have cost little in practice is consistent with the rise of European unemployment since 1970. Differences in the generosity of social insurance did play a role in the OECD differences in unemployment over time and space, but only a partial role. Furthermore, the loss in output was less severe because those who remained out of work tended to be less productive workers anyway. Therefore any percentage loss of output tends to be much smaller than the percentage of jobs lost.*

The tentative finding that larger social spending entails little net cost in terms of GDP must confront the fact that unemployment has indeed risen to deplorable heights in OECD Europe since the 1970s. The possibility remains that social-insurance programs have caused many of those job losses. Indeed, the extensive OECD literature finds that more generous unemployment compensation and family support does raise the unemployment rate.<sup>15</sup>

Yet programs such as welfare and unemployment benefits are not the only leading suspects in the literature seeking to explain why so many Europeans are out of work. One other leading suspect is the set of workers' rights laws in several countries (Italy, France, Spain, Belgium, Britain, Ireland, and Germany), which seems to have created a firing-and-hiring problem in which few can lose their jobs from layoffs, so that few are hired.<sup>16</sup> A second is an official minimum wage rate that crowds up against the average wage rate of all production workers. Minimum wage rates need not generate much unemployment if they remain well below the average market wage rate for, say, semiskilled workers. But those in France, and in Italy before 1988, were high enough to destroy a noticeable fraction of jobs. The third leading suspect is a general background of politicized class antagonisms. Many authors have noted that labor markets can preserve full employment, even in the face of what may look like elaborate institutional rigidities, if there is relative cooperation and peace in labor-management bargaining.<sup>17</sup> By contrast, countries where labor-market rigidities are accompanied by antagonisms and high rates of work disruption have higher rates of unemployment, other things equal. Such antagonisms, inherited from history, cost jobs, partly because they are the reasons why those first two suspects – job protection laws and particularly high minimum wage rates – have so much more effect in some countries than in others.

In addition, the persons who end up being unemployed, when a less generous support system might have made them work, tend to be persons with

lower productivity. Thus preventing or delaying their reentry into paid work does not cut national product by much at all, even though it cuts the number of jobs.

#### Two Cost-Cutting Principles in Democratic Welfare States

*Conclusion #9. Two general principles seem to explain why the welfare state does no net damage to GDP per capita and why welfare states will not collapse. The first is that high budget democracies show more care in choosing the design of taxes and transfers so as to avoid compromising growth. The second is that broad universalism in taxes and entitlements fosters growth better than the low-budget countries' preference for strict means testing and complicated tax compromises.*

There are good reasons why the statistical tests reveal no clear net cost of massive social programs in developed democracies. In all likelihood, one underlying force behind these cost-cutting mechanisms is democracy itself, which arms whistle-blowers in the fights against either public waste or public underinvestment. Electoral democracy does not achieve finely tuned efficiency, but it has ways to limit the costs.

One principle limiting the cost of the welfare state is the budget-stakes principle. The higher the budget, the greater the stakes in designing social programs in ways that minimize the unit costs of the extra taxes and transfers. The high-budget welfare states have done more to address the dangers of getting taxes and transfers wrong than have low-spending countries like the United States. There is some evidence that political debates over expanding the welfare state were aware of the high cost of getting the design wrong. This seems to be a basic reason why they drifted toward relatively growth-promoting consumption taxes.

The other cost-cutting principle has been revealed over the centuries in countries that became both richer and more democratic. The universalism of today's high-budget welfare states, in which both entitlements and marginal tax rates are similar for the whole population, involves lower deadweight costs per dollar taxed and transferred than the older and narrower systems it is replacing.

Two main kinds of net national ("deadweight") costs associated with government budgets are their administrative cost percentage and the percent ratio of their incentive costs to the amounts taxed and spent. We can measure trends in the first of these and conjecture plausibly about the second.

Administrative cost percentages have historically declined, both in tax collection and in the administration of welfare and pension programs. Britain's tax-collection system, which was already a recognized model of efficiency by 1780, became increasingly cheap to administer, per pound collected, across the nineteenth and early twentieth centuries. So did the U.S. Internal Revenue

Service. These cost savings implicitly reduced the cost of any programs the tax revenues were spent on, such as the social programs that are our focus here.

The cost of administering poor-relief programs also dropped, especially in the great twentieth-century welfare-state expansion, but its cheapening was less a price drop, and more a shift in "quality," than on the tax-collecting side of the budget. In the age in which it was called "poor relief" and not "welfare" it was very expensive to administer. Administrative costs often ate up 25 percent of the budget, unlike today's welfare and social security programs, which can use as little as 2-3 percent of their budgets for administration. The old way of helping the poor, the sick, and the elderly was so much more expensive in those days because taxpayers wanted so much more monitoring of the behavior of the poor than today. The role of monitoring costs shows up as a strong contrast between the administrative cost shares on indoor (poorhouse, workhouse) and outdoor (at-home) relief. Wherever the share of outdoor aid given to persons in their own homes was higher, costs were lower and more of the budget was at the disposal of the poor themselves. By contrast, the tougher indoor relief was very expensive, because the poor had to be supervised so intensely, in an attempt to reform their behavior and keep them out of public view. Interestingly, both England and New York moved *toward* that tough and costly regime across the nineteenth century, raising the administrative cost share. Only since World War I, with welfare support given to the poor more abundantly and with fewer strings, did the welfare costs drop to today's rates.

Like administrative costs, the incentive cost of social programs probably also came down. On the tax collection side, the prevailing historical shift in tax collections was the same one we observe when scanning from lower-income to higher-income countries in today's global cross-section - a shift from (a) arbitrary and narrow taxes, to (b) customs and excise taxes, to (c) direct taxation on income and wealth, and finally to (d) broad-based consumption and labor taxes in the high-budget welfare state. The famous incentive costs of any tax rise with the elasticities of the behavior being taxed. These elasticities declined as the taxes evolved from (a) to (b) to (c) to (d) during the growth of government and the economy. Accordingly, the deadweight costs of the tax system also declined as the tax base became broader and more universal.

The switch to universalist welfare states, in which entitlements to basic income, to public health care, and to other services are shared by all, has also reduced at least some work incentive problems. By abandoning the strict means testing practiced in low-budget countries, welfare states allowed a poor person to keep a larger share of his or her pay when getting a job. Perhaps even more important was the universal access to public health care, which has performed better than the United States' complicated and bureaucratic health care and health insurance.

The two principles, the budget-stakes principle and the efficiency of universalism, are probably linked politically. Having committed themselves to universal entitlements, social democrats have had both the political need and the political chance to favor pro-growth tax mixes. It is easier to pass pro-growth, relatively regressive changes in the tax structure if the left opposition can be calmed by a commitment to spend tax proceeds on universalist safety net transfers. Such political bargains seem to have tied the postwar emergence of the welfare state to the rise of broad consumption taxes rather than taxes aimed at businesses and the wealthy. By contrast, conservatives in low-budget countries like the United States have lacked such protective political clothing for their preferred tax reforms. Having rejected the welfare state with its broad transfers and public health care, conservatives have looked like blatant redistributive grabbers when they have called for consumption taxes and tax relief for capitalists.

PART TWO

THE RISE OF SOCIAL SPENDING

## Keys to the Free-Lunch Puzzle

It is well known that higher taxes and transfers reduce productivity. Well known – but unsupported by statistics and history. This chapter dramatizes a conflict between intuition and evidence. On the one hand, many people see strong intuitive reasons for believing that the rise of national tax-based social transfers should have reduced at least GDP, if not true well-being. On the other, the fairest statistical tests of this argument find no cost at all. Multivariate analysis leaves us with the same warnings sounded by the raw historical numbers (back in Chapter 1). A bigger tax bite to finance social spending does not correlate negatively with either the level or the growth of GDP per capita. How can that be? Why haven't countries that tax and transfer a third of national product grown any more slowly than countries that devote only a seventh of GDP to social transfers?

The conflict between intuition and evidence can be explained with better tests and a closer look at institutions. Those well-known demonstrations of the large deadweight losses from social programs have overused imagination and assumption. There are good reasons why statistical tests keep coming up with near-zero estimates of the net damage from social programs on economic growth. It's not just that the tales of deadweight losses describe peculiarly bad policies. It's also that the real-world welfare states benefit from a style of taxing and spending that is in many ways more pro-growth than the policies of most free-market countries.

The keys to the free-lunch puzzle are:

- (1) For a given share of social budgets in gross domestic product, the high-budget welfare states choose a *mix of taxes that is more pro-growth* than the mix chosen in the United States and other relatively private-market OECD countries.
- (2) On the recipient side, as opposed to the tax side, welfare states have adopted several devices for *minimizing young adults' incentives to avoid work and training*.

- (3) *Government subsidies to early retirement* bring only a tiny reduction in GDP, partly because the more expensive early retirement systems are designed to take the least productive employees out of work, thereby raising labor productivity.
- (4) Similarly, the larger *unemployment compensation programs* have little effect on GDP. They lower employment, but they raise the average productivity of those remaining at work.
- (5) Social spending often has a positive effect on GDP, even after weighing the effects of the taxes that financed the spending. Not only public education spending, but even *many social transfer programs* raise GDP per person.

Once these keys are found, Chapter 11 will show how they have worked in Sweden, and Chapter 12 will suggest how the keys were fashioned by the political process.

#### THE FAMILIAR CAUTIONARY TALES MISS THE MARK

The intuition that taxing and giving hurts economic progress is centuries old. Since the 1970s a host of analytical supports have seemed to reinforce this intuition. This section surveys the new ramparts defending the old beliefs, noting their limitations.

#### Disincentives on the Blackboard

It is easy for anybody with undergraduate training in economics to believe that taxing some people to pay others who earn little will reduce national output, and cause deadweight losses of net national well-being. The effects could be drawn on the blackboard with two labor market diagrams, one diagram showing the labor market for those productive persons who pay taxes and the other showing the labor market of those low-skill persons who are poor enough to qualify for benefits.

The key insight in such a pair of diagrams is that there are costs on both sides of the tax-transfer system. In the market for productive effort, having to pay a higher tax will lower the after-tax wage rate for those supplying effort or raise what their employers must pay, tax included, or do both. Either the suppliers feel a disincentive to produce as much or their employers (or customers) feel a disincentive to pay for as much of their now-more-expensive services. There will be what economists call a "deadweight cost," here meaning the loss of something that was really worth more than it cost society to produce. The size of that cost depends on how much their production is cut, and we return to this. But clearly a new tax, to pay for transfers to somebody else, can give productive people a disincentive to produce so much.

On the recipients' side, there is also a disincentive to produce. For each extra dollar a low-skilled person earns with extra work, part or all of that dollar will be taken away from that person because he or she has less "need" for income support. Surely that too presents a disincentive to be productive. One can fiddle with the system, promising to let the recipients keep their first \$x of labor earnings before starting to deduct benefits. But sooner or later the benefits must be withdrawn if the person keeps earning more and becoming more self-sufficient. And the higher the earnings threshold at which the benefits are withdrawn, the more the program drains the government budget. There are disincentives on both sides, and both must be quantified to judge the damage done by taxing the productive and supporting the poor.

The logic is persuasive, but so far the story is fiction. The deadweight costs are something we imagine, not something we derived from facts and tests.

#### Harold and Phyllis

The recipient side of the imagined double disincentive was persuasively dramatized in 1984 by Charles Murray's book *Losing Ground*. Murray told us a parable of a young poor couple and then added citations to economists' empirical studies that seemed to back up his case.

The parable concerns Harold and Phyllis, a fictitious poor unmarried couple who have just finished high school and lack either the family resources or the inclination to go to college. Phyllis is pregnant. Now what?

Murray offers one script for 1960 and another for 1970, after U.S. welfare policy had become more lenient. In 1960, Harold has to take a dead-end job in a laundry, because he does not yet qualify for much unemployment compensation, and Phyllis' having the baby would not give them much Aid to Families with Dependent Children (AFDC) support.<sup>1</sup> Phyllis considers not marrying Harold and trying to live off the higher single-parent AFDC. But she rejects having to live separately or having to risk being caught living together and losing all entitlements. Besides, she could not supplement her AFDC single-mother aid with her own labor earnings, because benefits in 1960 would be withdrawn as soon as the earnings came in, typically dollar for dollar, leaving her with no gain from working. So they get married and Harold is the sole supporter — in the 1960 scenario.

In the 1970 scenario, the incentives are changed by a wave of Great Society programs and court rulings. AFDC now pays something comparable to working at a bottom-skill job. In addition, the new "thirty-and-a-third" rule, legislated in 1967, allows Phyllis to keep the first \$30 of her monthly earnings and a third of any subsequent earnings. That is better than losing 100 percent of benefits, but it is still a marginal tax rate of 67 percent, however. Worse, if they are married, anything Harold earns counts against Phyllis' support. There is less reason to get married in the 1970 scenario, however,

since the Supreme Court struck down the man-in-the-house rule and welfare agencies could no longer police whether a man lived in the house of a woman receiving AFDC. "The bottom line is this: Harold can get married and work forty hours a week in a hot, tiresome job; or he can live with Phyllis and their baby without getting married, not work, and have more disposable income."<sup>2</sup> Under 1970 conditions, they agree on nonmarriage, living together, having more children, his seldom working, and living dependently ever after.

These first two kinds of arguments, the economist's theory on the blackboard and the parable of disincentives for the Harolds and Phyllises of the world, share the obvious limitation that they are fiction. Educated and plausible fiction, perhaps, but still not evidence from the real history of any country that tried generous social transfers. Granted, Charles Murray did choose his example with the help of historical wisdom. Writing in the early 1980s, he did seize on a historical moment when the marginal disincentive to work and to marry hit its peak. Both at the start of the 1970s and especially in the early Reagan years, welfare benefits were strictly meant tested rather than universal entitlements for the whole population. Later we shall note how this setting discouraged work more than in later years or in the true welfare states.<sup>3</sup>

#### Micro-Studies of Labor Supply

If there are disincentives on both the taxpayer and the recipient sides, how do we know whether people respond to the incentive gaps? If they don't adjust their effort or their willingness to innovate and take risks, then the disincentives to be productive would have no growth consequence. Some further kinds of analysis have been designed to argue that people will respond, leading to a loss of output.

Economists have probed deeply into a key parameter that sets the scale of losses from work disincentives. That parameter is the elasticity of labor supply, which measures the percentage change in labor supply as a share of the percentage change in after-tax wage that caused it. How big is the elasticity of labor supply relative to the net after-tax wage? That matters a great deal to the debate, since loss of labor effort is imagined to be a main vehicle taking us from the extra disincentives to the lost output and well-being.

The after-tax wage is something that we imagine could be changed either through market forces that determine the pretax wage or by changing the tax and subsidy incentives. Economists have used large data sets of individual households' labor supplies to infer how changing tax rates would cause lost employment, to which the main losses in GDP and well-being would be tied if taxes were changed. Careful econometrics has produced a

range of estimates and a general understanding of the estimation difficulties.<sup>4</sup> Economists specializing in labor economics and public finance, surveyed in the 1990s, tended to agree that the elasticities of labor supply with respect to the after-tax wage were between zero and 0.50 for both men and women, though a few outliers believed in either elasticities above 0.50 or negative elasticities (as if people would work less in response to a higher wage). The specialists have agreed that women's labor supply is more elastic than men's labor supply. If both sexes faced a 10 percent increase in take-home wage rates, women's labor supply should respond by 3.5 percent more than men's essentially zero response.<sup>5</sup>

The main limitation to this literature is that most of it has been written in the wrong laboratory. Most of the studies try to use *nonpolicy* variation to infer the effects of policy changes. The large data sets consisting of surveyed households in one country, typically the United States, don't provide the real-world laboratory in which the whole national tax and benefit structure is transformed from a relatively free-market economy into a high-budget welfare state. Rather the people in the sample differed mainly in their gross wage rates, as well as their wages net of taxes and benefits, for individual reasons. It is not a fiscal policy experiment, not a test of the welfare state environment.

Part of this literature, however, does succeed in exploiting differences in policy regimes to see how people respond to changes in work incentives. Some were controlled-sample experiments in which some people were given one set of welfare and tax incentives not given to a control group, as in the U.S. "negative income tax experiments" of the 1960s and 1970s. These tended to yield rather modest elasticities of labor supply response like those just summarized.<sup>6</sup> Other valid policy experiments used interstate differences in welfare policies to infer the differences in labor supply. These tend to confirm that marginal rates of taxation do matter, especially when they are combined with work hours requirements.<sup>7</sup> Yet if this smaller group of studies confirms that more generous guarantees of a minimum income discourage work, why don't such guarantees drag down the GDP of high-budget welfare states? We return to this puzzle below.

#### Simulations

The next type of analysis uses computer simulation models to follow how the effects of taxes and welfare payments would reduce output and well-being. It focuses mainly on the cost of the tax side, though some exercises in this genre also allow for those productivity disincentives on the recipients' side.

Since the 1970s several economists have used basic theory and computer simulations to estimate how much, in their view, greater taxes and social

spending will cost the nation as a percentage of the amounts transferred. While the reasoning would have been clear to an eighteenth-century critic of poor relief, the analytical apparatus is much more sophisticated. Our focus here is on their results, not on the details of their assumptions.

The deadweight-cost argument rests on a strong negative influence of tax-based spending on GDP, an influence that should rise with the square of the tax wedge. In an article in the *Journal of Political Economy*, Browning and Johnson argued in 1984 that each dollar redistributed to the poor not only costs taxpayers that dollar but also entails an additional \$2.49 of deadweight costs around 1976.<sup>8</sup> At that time the Browning-Johnson estimate was atypical both in method and in magnitude. Yet even measures based on more widely accepted welfare economics, such as Charles Stuart's estimate of \$0.72 in deadweight costs on top of the dollar taken from taxpayers, also suggested substantial costs. Alternative simulations by Ballard and Triest got deadweight-cost rates like those of Stuart, such as \$0.50-1.30 in certain baseline cases.<sup>9</sup> These are still noticeable costs.

A more recent set of simulations has raised the imagined price once again. In a 1999 article in the *Review of Economics and Statistics*, Martin Feldstein estimated the welfare losses from the income tax around 1991. His focus was limited to the tax side, with emphasis on tax-avoidance behavior other than the usually imagined withdrawal of labor and capital. Having an income tax system at all has cost us only 32 cents in welfare for each dollar collected. Expanding the marginal income tax rates by 10 percent would be worse, however, costing \$2.06 for each dollar raised. And making the income tax system more progressive would bring a deadweight loss of \$3.76 for every dollar of revenue.

High as these estimates may seem, they all leave out a cost we should include if we are to quantify the effects of the tax-transfer system on the level of gross national product, something easier to measure than deadweight losses or gains in well-being. The deadweight cost concept allows any loss of productive effort to be offset in part by the value of one's own extra home time (if one works fewer hours) or of one's energy. Any drop in gross domestic product is *not* offset by that personal saving of time and energy, so the resulting drops in GDP would be typically bigger in the simulations run by these studies than their deadweight-loss price tags have shown us. If these studies are correct, the GDP loss from extra taxes and social spending must be huge.

The most glaring limitation of the simulation-based estimates of the deadweight cost per dollar redistributed is their sheer extravagance. How could countries spending a sixth of GDP on welfare alone and, taking half of GDP in taxes, defy their logic? Surely the deadweight costs should show up empirically. Consider the fact that Sweden spent 20 percent more of GDP on tax-based social transfers than the United States in 1995. If we used the simulation-based deadweight cost multipliers, Sweden's decision to have

such a large welfare state must have cost Sweden anything from 10 percent (the bottom Ballard-Triest estimates) to 50 percent of GDP (Browning-Johnson), or even higher if Sweden had a progressive tax system like that Feldstein imagined. Such large figures, again, refer only to the deadweight costs, not the larger GDP costs. Such huge effects cannot be plausible unless empirical tests can somehow establish such large costs. Nor did any of the simulation studies provide the evidence, the empirical tests. Like the blackboard exercises and the parables, they are educated fiction. The computer was told to imagine a virtual reality. We await the true tests.

### Global Growth Econometrics

The final kind of evidence of the growth costs of government spending takes the econometric form of a significantly negative coefficient on government consumption in recent studies that explore the determinants of 1960s-1980s growth in scores of countries around the world.<sup>10</sup> These studies succeed in taking many factors into account, including political instability and type of political regime. The fact that they get negative effects of government consumption suggests a cost of bigger government that stands out when other factors have been given their due.

The econometrics of economic growth in global cross-sections cannot be used to assess the cost of redistributive taxes and transfers, however. Their government consumption, which negatively affected growth, does not even refer to social spending.<sup>11</sup> Rather it is government purchases of goods and services other than for current national defense and education, excluding all transfers and most public education services. It therefore consists of an eclectic set of purchased services, including government payrolls.

Even as a comment on the costs of what it does measure, the government consumption measure fails to show costs relating to OECD democracies, for at least two reasons. One is that the government consumption sector is a service-producing sector for which the accepted way to measure its outputs is by measuring its inputs, mainly inputs of labor time. Therefore, by design, no productivity gains can be measured, even if those services are improving. Therefore, a larger government consumption sector automatically lowers the measured labor-productivity growth of the whole economy, regardless of its performance. A second reason for the negative effect of government consumption comes from the sample's inclusion of Third-World nondemocracies. These did indeed waste a lot of money in government consumption between the 1960s and the 1980s. In 1987, for example, such government consumption was 37 percent of GNP in Kenneth Kaunda's Zambia and 26.4 percent in Robert Mugabe's Zimbabwe. The share may have been similar in Mobutu's Zaire, though we lack specific figures. The fact that such kleptocracies were bad for economic growth tells us nothing about Europe's welfare states.



## WHAT BETTER TESTS SHOW

The best laboratory for finding the harm that heavy taxation and redistribution might do to economic growth should have these attributes:

- (a) Social transfers take a large share of national product on the average — large enough to show their damage to GDP per capita.
- (b) Their share varies greatly over the sample.
- (c) The units of observation are the polities that set policy toward taxes and social transfers.
- (d) We have credible data on most of the usual leading sources of growth, not just the budgetary policies being judged.
- (e) The sample is a pooled time-series and cross-sectional analysis, in order to walk the least dangerous line between the perils of time-series analysis and the perils of cross-sectional analysis.
- (f) We have enough separate insights on the sources of both social transfer behavior and economic growth to identify both sides of the simultaneous system explaining both social spending and growth. Other studies have omitted this simultaneity between policy determination and the sources of growth, with possible biases in their growth results.
- (g) We allow the GDP effects of social transfers to be nonlinear. Theory says they should rise nonlinearly, but authors of past empirical studies have failed to explore this crucial twist.

These attributes call for a postwar OECD sample, whether or not it is supplemented by data from non-OECD countries in the good data club. The tests are presented in Chapter 18 of Volume 2. Here I shall simply summarize two key results:

- (1) The data do confirm the usual intuition if we ask about imaginary bad versions of the welfare state. For example, if a country foolishly taxed only capital or property, and taxed them so heavily as to fund a Swedish level of social transfers, then yes, there would be large costs in terms of GDP, though the deadweight costs would be smaller.
- (2) The overriding fact about the cases of costly welfare states, though, is that *they never happened*. Such costs only arise when the patterns are *extrapolated beyond the sample range*, beyond the actual historical experience. Within the range of true historical experience, there is no clear net GDP cost of higher social transfers. Here the econometrics confirm the general drift of the institutional and historical facts we turn to next.

## HOW CAN THAT BE TRUE?

How can the statistical evidence contradict our common belief that taxing and transferring through government will lower national product?

Institutional history can explain how econometric near-zero results are not only plausible but even likely. Knowing more of the recent history of the high-budget welfare states can stimulate fresh thinking about how program costs and benefits are handled in practice, even though we cannot offer a complete accounting of all growth effects. The keys are to be found on both the tax side and the social spending side of the welfare state. Let us turn first to the taxpayers' side, before looking at the transfer recipients' side and the pro-growth social programs.

## THE WELFARE-STATE STYLE OF TAXING: PRO-GROWTH AND NOT SO PROGRESSIVE

Postwar history has brought the evolution of a different style of taxation in the countries where social transfers take a large share of GDP. Contrary to what many have assumed about redistributive welfare states, that style tends to raise GDP and inequality, relative to the tax mixtures in the lower-spending countries. In some high-tax high-budget social democracies, the taxation of capital accumulation is actually *lighter* than the taxation of labor earnings and of leisure-oriented addictive goods. That, at least, is what the latest attempts to compare tax rates across countries seem to tell us.

Measuring the growth effects of the whole tax system is at least as difficult as measuring the growth effects of government social expenditures. The first problem is to decide between marginal tax rates and average tax rates. There are advantages and drawbacks to each.

Knowing that it is marginal rates, not average rates, of taxation that govern choices about how much to work or accumulate or innovate, economists have tried to measure the growth effects of "the" marginal rate of income taxation.<sup>12</sup> Yet as the path-breaking authors in this line of research freely admit, marginal tax rates are not only harder to find for a large sample of countries, but hard to trust as well. There are two core problems with using marginal tax rates as quantifiable growth influences. One is that marginal rates of taxation are too numerous to summarize. Even a single income-tax code typically has a multiplicity of marginal rates, and it is not obvious how to average them into "the" marginal rate. The other core problem is that individuals find numerous ways, mostly legal, to make the effective marginal rate lower than the top official marginal rate. Many individuals switch activities or assets so as to cut the effective tax, and it is hard to measure the lower marginal incentive they actually face.

The difficulties of gathering and interpreting marginal tax rates have led other researchers to develop the "average effective tax rate" (AETR), first in a series of articles by Enrique Mendoza and coauthors and then in some OECD studies.<sup>13</sup> Once again the authors have been candid about the limitations of their estimates. All the usual ambiguities about the final incidence of taxes apply to the AETRs, as well as to the marginal rates. While the AETRs may

TABLE 10.1. Marginal and Average Tax Rates 1991-1999 versus the Social Transfer Share of GDP 1995

Top Marginal Tax Rate on Dividends in 1998	Tax Wedge on the 1999 Percent Rate of Return on Capital in Manufacturing	Average Effective Tax Rates, 1991-1997 on Income of Labor	Transfers in 1995, versus - Social as a Percent of GDP
48.5	1.6	22.6	14.8
25.0	1.2	41.8	21.4
15.0	1.1	39.7	27.1
54.1	4.0	28.7	18.1
40.0	2.3	42.8	30.9
28.0	1.3	44.5	31.6
61.0	4.0	40.2	26.9
55.9	1.6	35.9	24.9
0.0	0.4	24.3	14.4
48.0	2.1	25.1	18.3
12.0	1.0	36.3	23.7
65.0	2.9	24.0	12.2
60.0	2.8	41.0	25.7
33.0	1.5	24.2	18.6

Norway	28.0	1.1	35.5	26.9	27.6
Portugal	25.0	1.1	22.7	20.5	15.2
Spain	47.6	2.3	30.4	13.7	19.0
Sweden	30.0	1.9	48.5	18.7	33.0
Switzerland	43.9	1.9	30.2	8.4	18.9
U.K.	40.0	2.3	21.0	16.9	22.5
U.S.	46.6	2.6	22.6	6.1	13.7
Simple average	38.4	2.0	32.5	17.1	21.8
Correlation with social transfer share	-0.135	-0.045	0.882	0.615	

*Sources and Notes:* The marginal tax rates on top dividend income are from Carey and Tchilingirian (2000, Table 13). The figures for the average tax rates on labor income and on general consumption are from Table 4 of the same source, though Carey and Rabesona (2002) imply somewhat different rates. The simple average of the rate-of-return wedges on retained earnings, new equity, and lending at interest refer to rates in the manufacturing sector, as estimated by Jourard (2001, Table 5). The cigarette tax rates are from <http://www.drugs.indiana.edu/drug-stats/cig-tax-burden>, last accessed on December 12, 2000. The tax rate on alcoholic content was derived using data from OECD Revenue Statistics 1965-1999 (OECD, 2000b); OECD Health Data 2000 (OECD, 2000a); and United Nations (1998) World Population Prospects, 1996 Revision. The environmental tax shares of GDP are taken from Jourard (2001, 24). The social transfers shares are derived from OECD's CD-ROM OECD Social Expenditure Database 1980-1996 (1999) and from World Penn Tables, version 6.0, early file as of December 2000.

The regression line slopes' confidence intervals exclude zero at the 5 percent level in all the upward-sloping cases, but not for capital and property taxes.

have the defect of not being the most incentive-relevant marginal rates, they capture in their own indirect way many of the effects of tax exemptions and tax avoidance.

Let us turn to a mixture of the two approaches. For capital incomes, let us look at two kinds of marginal rates paid by corporations and top-income households. Capital incomes have not been subject to higher rates of taxation in the welfare states than in, say, the United States. So say the top marginal tax rates on dividends and on all sources of capital invested in manufacturing.<sup>14</sup>

Whatever one might have thought, smaller-government countries such as Japan, the United States, and Canada tax business investors at least as heavily as the welfare states of Scandinavia or Belgium. Taken at face value, the estimates in Table 10.1 and Figures 10.1 and 10.2 imply that the taxation

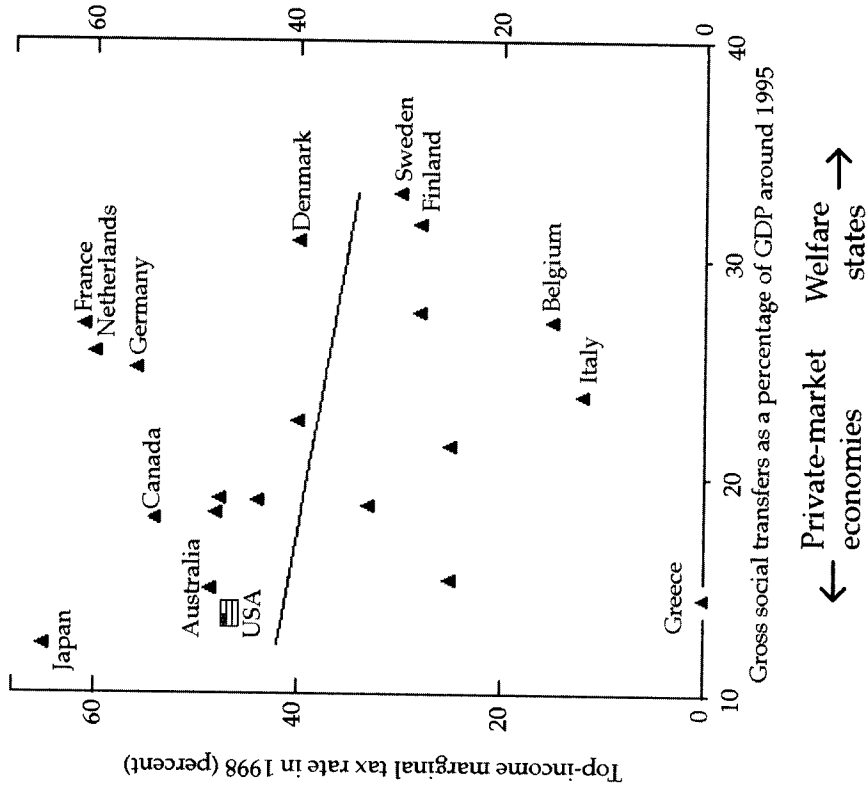


FIGURE 10.1. Marginal Tax Rate on Dividends Earned by Top Incomes 1998, versus Social Transfers 1995.

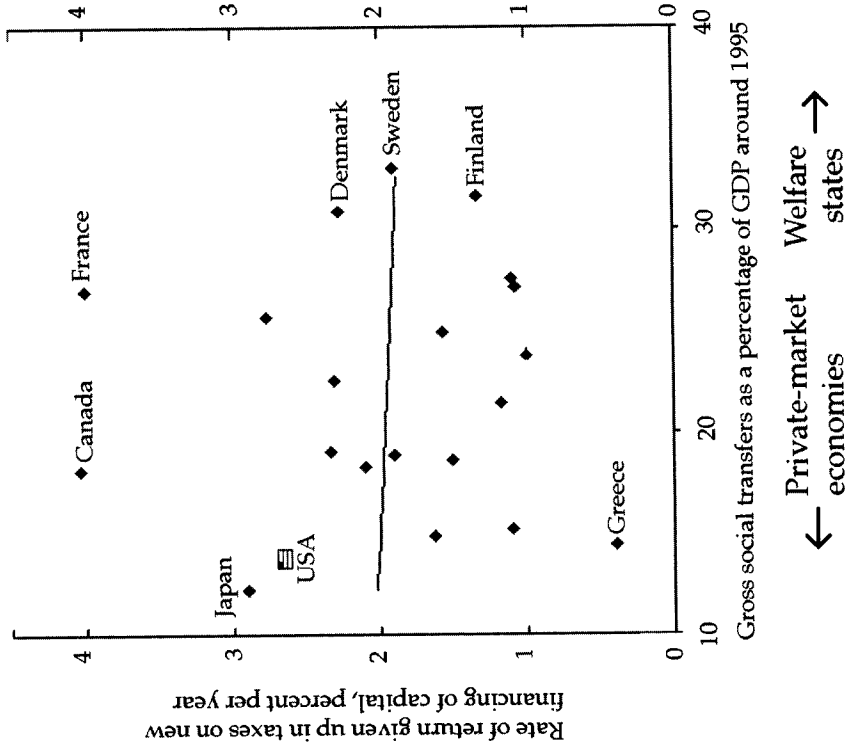


FIGURE 10.2. Marginal Tax Wedge on Capital Finance in Manufacturing 1999, versus Social Transfers 1995.

of capital and property is slightly negatively related to the social-transfer share of GDP, a proxy for welfare state democracy. One institutional mechanism underlying the burden on capital in low-spending Canada, Japan, and the United States in Figure 10.1 is their double-taxation of dividends, as both corporate income and household income. Other countries, including the welfare states, either excuse dividends from personal income tax or give it a lighter tax rate.<sup>15</sup> The U.S. Canadian, and Japanese taxation of business investors is also slightly higher as an average of all three sources of corporate investment funds – retained earnings, new equity, and lending to manufacturing businesses – as shown in Figure 10.2. So far, the clear conclusion is that business dividends and real investments are taxed no higher in the high-budget welfare states.

The capital-taxation issue has been explicitly debated in countries like Sweden, with attention to issues of international capital mobility as well as

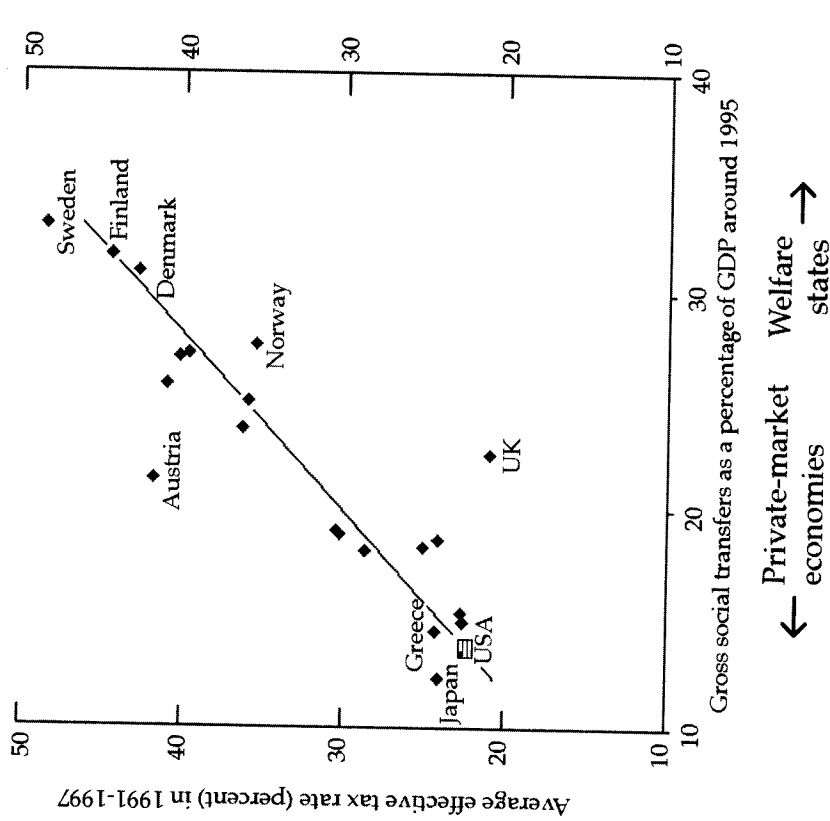


FIGURE 10.3. The Average Tax Rate on Labor Income versus Social Transfers, 1991-1997.

to issues of equity. Indeed, in Sweden in the 1980s, the effective net tax rate on personal capital income was actually negative for the top 60 percent of the income ranks, once one adjusts for the generous provisions regarding deductions of interest payments and other tax advantages. It has been estimated that the taxation of personal capital income *reduced* government tax revenues by half a percent of GDP as of 1982. Part of the tax relief on capital came from the distinction between real and nominal income in the presence of rising prices. Wealthy households got to deflate their gross capital incomes to pay on only their real incomes in prices of an earlier year. Yet they got to deduct the full nominal value of interest payments on debts incurred to pay for their capital assets. Accordingly, many wealthy households took on higher gross assets and debt than otherwise, thus avoiding virtually all taxes on capital income. As of 1982, the final effective tax rate on capital income was still positive for modest-income households but actually negative for the

wealthy.<sup>16</sup> Thus the true average tax rates on Swedish capital and property incomes were lower than the rates shown here.

By contrast, labor incomes have been taxed more heavily in the welfare-state countries, as Figure 10.3 shows. Their preference for taxing labor rather than capital is regressive, of course. It is also pro-growth, to the extent that capital is internationally mobile and would take positive productivity effects with it when migrating. Indeed the difference here resembles a change in the tax system that U.S. public economists have favored on growth grounds, namely full replacement of all capital income taxation with labor taxation. The median U.S. specialist in public economics thinks that the shift from capital taxation to labor taxation would raise the annual growth rate of GDP by 0.2 percent.<sup>17</sup> The pro-growth regressive switch in tax mixture has been put into effect - in the welfare states, not in the United States.

Consumption taxes are more pro-growth than income taxes, as many conservatives have insisted. If you are subject only to a 15 percent consumption tax now and forever, with no income tax, your incentive to save is not

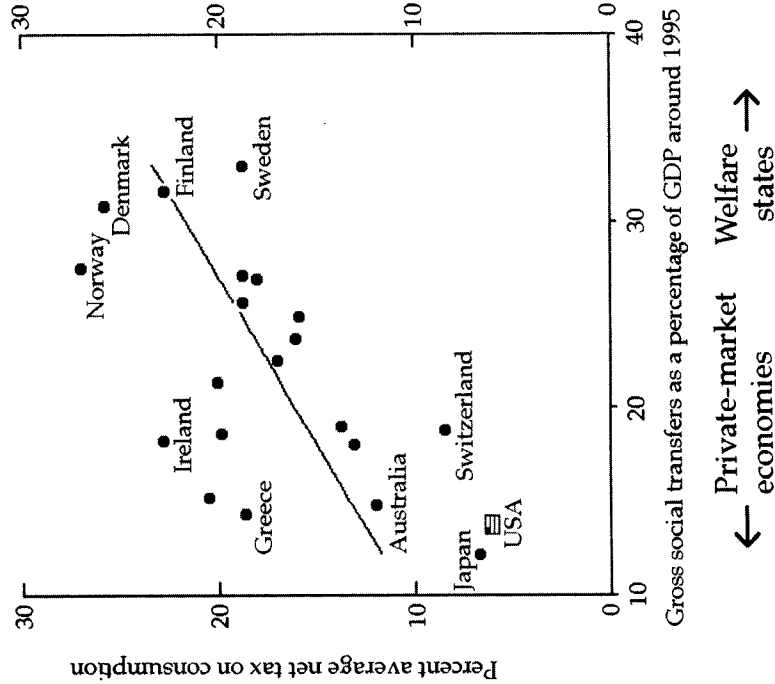


FIGURE 10.4. The Average Tax Rate on Consumption 1991-1997 versus Social Transfers 1995.

strongly affected. Either you pay the 15 percent on today's consumption or you pay the same 15 percent when consuming a future accumulation of income. As long as we discount your future taxes at the same discount rate you earn on the accumulated savings, the present value of your consumption taxes is the same whether you spend now or you save so that you and your heirs can have more to spend later.<sup>18</sup> Income taxes, by contrast, take from your saved income twice, both when you initially earned the income you decided to save and again when your savings earns new capital income.

As Figure 10.4 shows, the welfare-state democracies also tax consumption more heavily, just as they tax labor incomes heavily. The heaviest tax rates on general consumption tend to be those in Scandinavia (and Ireland). By contrast, this more pro-savings and pro-growth form of taxation has been less preferred in low-spending Japan, Switzerland, the United States, and Australia.

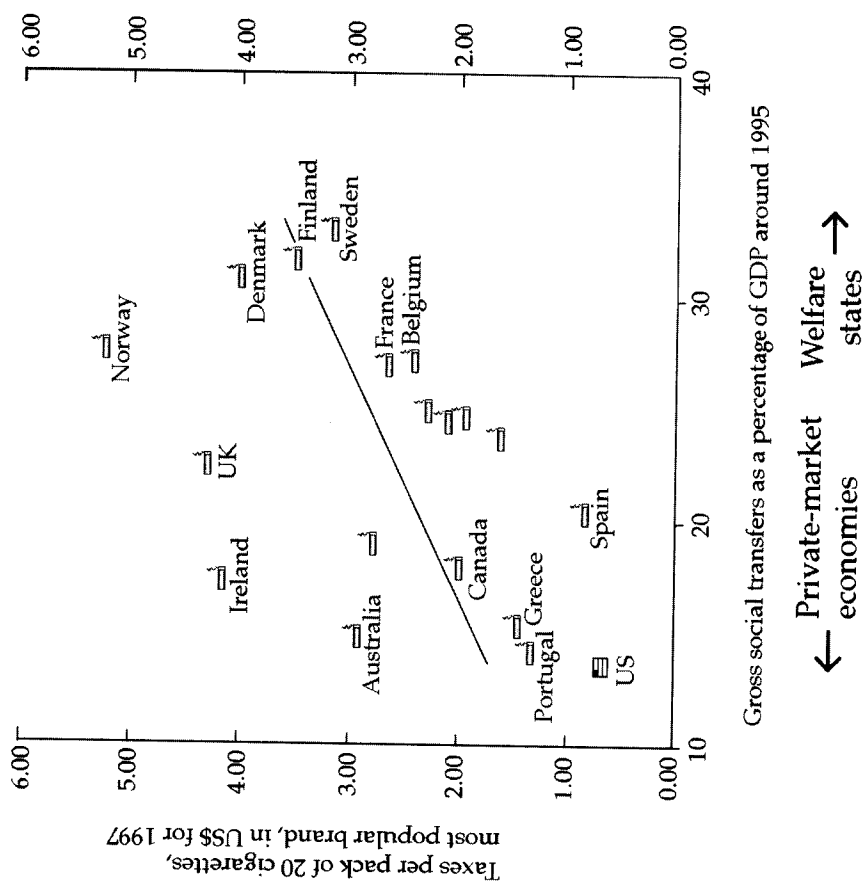


FIGURE 10.5. The Average Tax Rate on Cigarettes 1997 versus Social Transfers around 1995.

The difference even extends to the design, as well as the overall level, of consumption taxes. The consumption tax is not only higher, but *flatter* in high-budget Europe than in the low-spending countries. Food and other necessities have historically had to pay the same consumption tax rate as other goods in Denmark, Norway, and Sweden, in contrast to the practice in other settings, such as exempting foods from state sales taxes in the United States. Similarly, luxuries usually do not bear special higher tax rates in the same three Scandinavian countries or in Germany or Ireland.<sup>19</sup>

Another striking pattern emerges when we look at the taxation of specific types of consumption goods. To encourage work ethic, health, and a cleaner environment, one would want to shift taxation away from productive activities and toward the consumption of addictive goods that are complements to leisure or threaten health and environmental quality. To serve these social goals, one would want to lower the general tax rates on income and consumption and raise the specific tax rates on tobacco, alcohol, and gasoline – even though such a shift takes a greater percentage tax bite from lower income groups.

Which countries put the heaviest taxes on three kinds of goods with external costs is shown in Figures 10.5–10.7. The heavier the reliance on social transfers through government, the heavier the tax rates on cigarettes, alcohol,

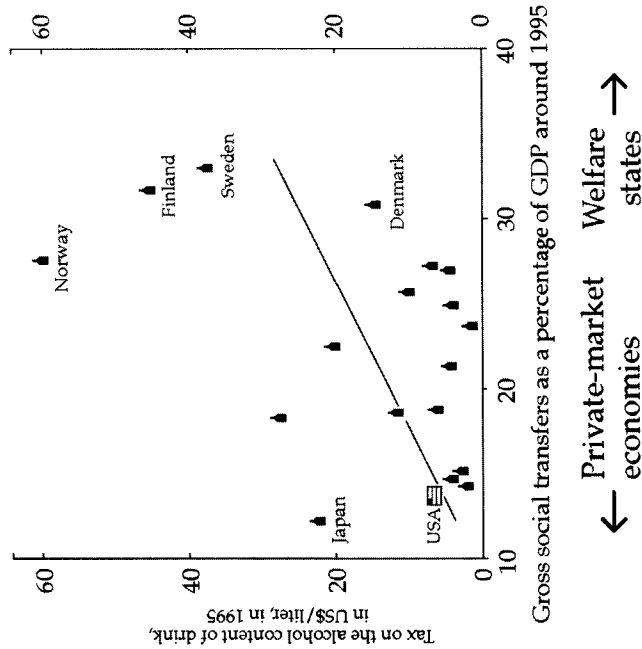


FIGURE 10.6. The Average Tax Rate on Alcohol Content of Drinks, versus Social Transfers in 1995.

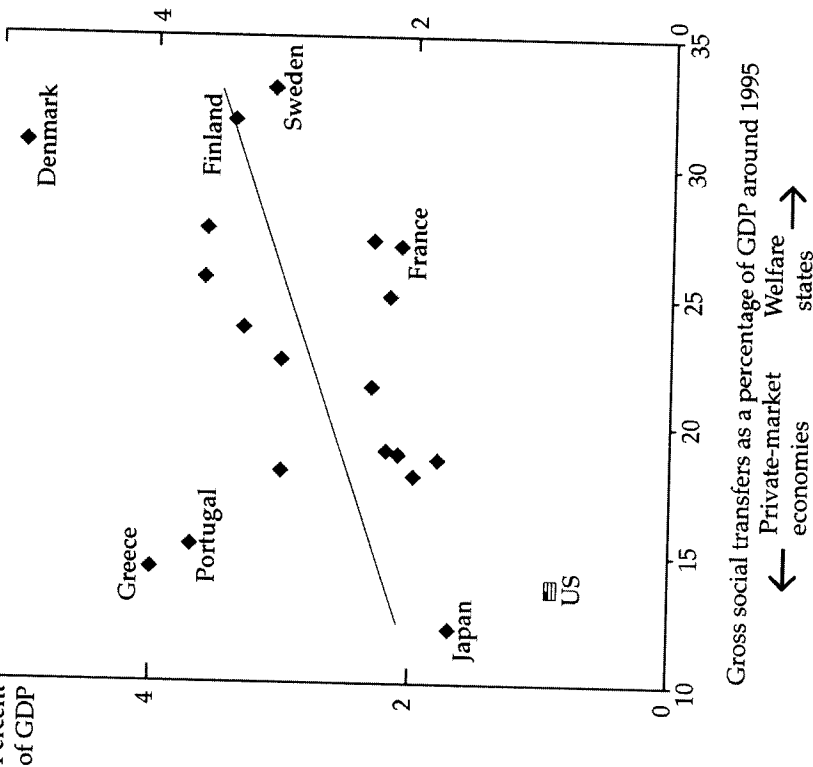


FIGURE 10.7. Environmental Taxes as a Share of GDP in 1998, versus Social Transfers.

and such environmental-cost products as gasoline. Behavior that has bad externalities ends up being punished more in welfare states. In each case, special national factors might have played a role. For cigarettes, it might be that tobacco producer interests, as in the United States and Japan, lobbied for holding down the tax and for delays in the rise of antismoking laws.<sup>20</sup> For alcohol, it might be that Scandinavian governments are able to exploit a less elastic demand. For gasoline and other environmental-cost goods, the correlation may be reinforced by the United States' peculiar policy taste for heavy energy consumption, which might be unrelated to budgetary fights over the welfare state. Yet the correlations with social transfer budgets remain.

Thus the welfare-state choice of a large overall tax burden to support transfers is usually accompanied by the political choice of taxes that promote growth and environmental quality – without equalizing incomes much more than in lower-spending countries.<sup>21</sup> This is not just a temporary condition captured in our 1995 snapshots. It has been the case over the last third of the twentieth century, with some softening of the relative taxes on capital after

1980. We are several steps closer to understanding how high shares of social transfers in GDP might not have meant any reduction in GDP per capita.

#### RECIPIENTS' WORK INCENTIVES

On the recipients' side, as well as on the taxpayers' side, welfare states seem to avoid huge disincentives. In some policy dimensions, recipients of transfers in high-budget countries have *more* incentive to work than their U.S. counterparts. In other policy dimensions, the higher-budget welfare states do indeed discourage more work, but with little effect on GDP.

#### The Poor May Face Lower Work Disincentives in the Welfare State

Just as the high-budget countries often have lower marginal tax rates at the top of the income spectrum, so too they can have lower marginal tax rates at the bottom, with high marginal tax rates only across the broad middle range of incomes. If that is true, then the debate over work incentives needs to be redirected. The net effect on labor supply and GDP may depend on something never researched, namely whether work and productivity respond more sensitively to marginal tax rates in the middle range or at the ends. If the response is greater in the middle range, then the welfare state indeed reduces work and GDP. But if conservative fears are correct in emphasizing that the supply of effort is most fragile at the two ends of the income spectrum, then it is possible that the pattern of marginal tax rates in the high-budget welfare states discourages work less than the pattern prevailing in low-budget countries.

Fortunately, we have the benefit of a long policy debate and careful research that has penetrated the jungle of marginal incentives faced by those at the bottom of the income spectrum, most of it relating to the United States and the United Kingdom. The policy under investigation is the policy toward poor lone parents – or unmarried “welfare mothers” in the U.S. parlance. A pair of studies has grappled with the whole complexity of the tax and transfer system that people face in that situation.

The United States' national policy has traditionally faced poor lone parents with high marginal tax rates, cutting off aid as soon as the recipient earns even a low-wage income.<sup>22</sup> The Social Security Act of 1935 set up AFDC this way. The then-small population of single mothers, mainly young widows who were expected to stay at home with the children, faced a 100-percent marginal tax rate on any earnings. Such strict “means testing” of benefits had become controversial by the 1960s, when the share of women who sought work outside the home had risen considerably. Economists Milton Friedman and James Tobin, among others, called for a change in policy that would let the poor keep much of their benefits while still earning modest amounts outside the home. In 1967 such concerns helped to shape

TABLE 10.2. Hurdles in the Path Out of Poverty: Marginal Net Tax Rates Faced by a Lone Parent with Two Children in the United States and Britain in 2000

The Change in the Parent's Work Scenario:	United Kingdom		Sweden 1991	
	From no Work to Part Time Min. Wage	From Part Time to Full Time, Min. Wage	From no Work to Part Time Min. Wage	From Part Time to Full Time, Min. Wage
If there were no Tax Credits for Low-Pay Work (no EITC in U.S., and no WFTC in U.K.)	52	67	12	28
Median of 12 U.S. states	52	67	12	28
United Kingdom	52	67	12	28
With the Actual Tax Credits for Low-Pay Work (EITC in U.S. and WFTC in U.K.)	141	83	12	28
Median of 12 U.S. states	141	83	12	28
United Kingdom	141	83	12	28
From no Work to Part Time Min. Wage	52	67	12	28
From Part Time to Full Time, Min. Wage	67	83	28	65
From Min-Wage to \$9/hour, Full Time	27	2	65	69
The Whole Jump, from no Work to \$9/hour Full Time	51	60	45	33

Each number is a marginal net tax rate, or the change in (gross earnings - benefits), as a percentage of the change in gross earnings

The Change in the Parent's Work Scenario:

The Change in the Parent's Work Scenario:	United Kingdom		Sweden 1991	
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From no Work to Part Time Min. Wage	52	67	12	28
From Part Time to Full Time, Min. Wage	67	83	28	65
From Min-Wage to \$9/hour, Full Time	27	2	65	69
The Whole Jump, from no Work to \$9/hour Full Time	51	60	45	33

Sources and Notes: The sources are Acs et al. (1998), Brewer (2000), and Gustafsson and Klevmarcken (1993). EITC = Earned Income Tax Credit on modest wage incomes in the United States. EITC started on a modest scale in 1975 and was expanded in 1986-1994. This calculation based on October 1997 rates ignores some state supplements to the federal EITC that were being set up around 2000. WFTC = Working Families Tax Credit in the United Kingdom, which reached its current levels in June 2000, after starting more modestly in 1971. Part-time work = 20 hours a week, and full-time work = 35 hours a week. Min. wage = For the United States the national minimum wage as of October 1997, or \$5.15 an hour. For comparison with the United States Brewer's calculation for the United Kingdom uses £3.65 an hour as the \$5.15 minimum wage and £6.50 as the \$9 wage. These calculations assume a 30-day month of 4.29 (=30/7) work weeks. I have ignored any effect of EITC on other benefits or tax rates. I have assumed that the U.S. parent has not yet exhausted her lifetime welfare eligibility under the U.S. welfare reform of 1996 (PRWORA). In the U.S. case, none of these work scenarios receives enough net disposable income to lift the three-person household out of poverty. Working full time at \$9 an hour brings a net income of only \$1351 a month, whereas the official poverty line for such a household was \$1367 in 1997. Each of these calculations ignores consumption taxes. The twelve U.S. states analyzed by Acs et al. are Alabama, California, Colorado, Florida, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, Texas, and Washington. In all twelve cases, every contrast between rates is in the same direction as described in the text. The Swedish rates are the averages of those generally characteristic of a single adult student, a couple with children in day care, and an absent parent subject to child support, all in Stockholm 1991.

new legislation lowering the marginal tax rate to two-thirds, but in 1981 Congress and the Reagan Administration reverted to stricter means testing and raised the marginal tax rate back to 100 percent. Meanwhile, related welfare programs expanded and became more complex, so that an accurate measure of the true marginal tax rate would require an in-depth study of the combination of AFDC, Food Stamps, medical care for the poor, subsidized housing, child care subsidies, and Supplemental Security Income for groups with particular needs.

Yet the concern about heavily taxing work by the poor continued to push both the United States and Britain toward a system that lowered the marginal tax rate for those getting a low-paying job. In both countries this took the form of a tax credit for low-earning households, beginning in the 1970s but becoming a major factor only in the 1990s. In the United States, this tax credit is the Earned Income Tax Credit (EITC) started in 1975 and greatly expanded in 1993. The British counterpart is the Working Family Tax Credit (WFTC), started as the Family Income Supplement in 1971 and fully implemented in 2000. Similar employment-conditioned benefits now exist in Australia, Ireland, Canada, Finland, France, and New Zealand, most of them countries with relatively low social transfer budgets.

The 1990s drift toward EITC and WFTC lowered marginal tax rates at the bottom of the income spectrum, raising them in the "phase-out range" further up the ranks. The upper panel of Table 10.2, even though it is based on conditions in the year 2000, aptly shows the state of play before the 1990s, such as the 1970s world of Charles Murray's fictitious Harold and Phyllis. When the poor didn't get any tax credits for low-pay work, they faced very high marginal tax rates in both countries. By taking on low-paying work, a single mother could lose more than half of her earnings in withdrawn benefits, a higher marginal tax rate than is faced by most people.

What would happen if instead of tough means testing, we let poor lone parents keep much of their extra earnings? This experiment has crept into U.S. and British policy when EITC and WFTC were phased in. It's a step toward the universalist approach to family benefits in some high-budget welfare states, where you keep your benefits, still paid for by taxpayers, even if your earnings rise toward the national average. The lower panel in Table 10.2 shows us the results under this policy of tax credits for low-paid work, as practiced in these two countries plus Sweden. In the United States and Britain it lowers the tax rates from getting a job at all and from moving from part-time to full-time work at minimum wages. On the other hand, it raises the marginal tax rate higher up the ladder, as shown by the third column of numbers. Reaching that phase-out range is inevitable, since somebody somewhere up the income ranks must pay the extra taxes if the poorest people don't. Still, the final column reveals that the drift toward broader forgiveness from taxes has brought a net reduction in marginal tax

rates for the whole range of options facing lone parents in the bottom income ranks.

So at the bottom of the income spectrum, as at the top end subject to taxes on capital and property income, the universalist welfare states may well have lower marginal tax rates than the lower-budget countries, which emphasize strict means testing. Table 10.2 implies that Sweden was a more universalist case, keeping the marginal tax rate below 50 percent for people below the threshold for defining poverty.<sup>23</sup>

If welfare states really have lower marginal tax rates at the top and bottom of the income spectrum, but higher tax rates in the middle, do they discourage work more, or less, than the low-budget governments of Japan, Switzerland, and the United States? Putting it this way shows that the net balance of work disincentives rests on something that nobody has measured yet. How do these conflicting responses net out for the labor force as a whole? We don't know yet. For now, it is time to take one step backward, away from the common implicit assumption that higher-tax countries have higher marginal tax rates up and down the income ranks.

### Early Retirement: Good Riddance to Old Lemons?

The most dramatic withdrawal of people from paid work has occurred in the fifty-five to sixty-four age group, not among young single mothers or work-shirking young men. As we saw in Chapter 8, many European countries took dangerous steps to subsidize earlier retirement. This invitation to quit work earlier, combined with the rise of senior life expectancy, has hastened the crisis over pension budgets.

So surely, one might think, it is in the lavish public subsidies to earlier retirement that we finally discover a program that must have taken a large toll on gross domestic product. And the subsidies are indeed lavish in some cases. Take the case of France versus the United States. In 1995, France spent 10.9 percent of GDP on public pensions, disability, and survivors' benefits, which was more than double the U.S. share of 5.2 percent. Many of the extra French benefits went to people who were in the fifty-five to sixty-four age group, in the form of more generous pensions, more generous disability payments, and special unemployment benefits for that age group.<sup>24</sup> In the same year, the percentages of people in the fifty-five to sixty-four age group who were working differed as follows:

	France	United States
Both sexes	33.6	55.1
Men	38.4	63.6
Women	28.9	47.5



Doesn't France's paying people to quit work in their mid-fifties and early sixties mean dramatic losses in GDP? Hasn't the United States gained GDP by restraining the invitation to earlier retirement?

In fact, public subsidies to early retirement have only a negligible cost in terms of GDP, for three main reasons.<sup>25</sup> First, we must remember that the incentive to retire in the fifty-five to sixty-four age range is built into many private employers' pension plans as well as public social security programs. A world in which taxpayers decline to subsidize early retirement is still a world in which each extra year of work just before age sixty-five can still pay a tax in the form of lost retirement benefits. Private and public pension programs vary in their net retirement incentives, and the average difference is less than the public subsidy viewed alone.<sup>26</sup>

Second, even in the smoking-gun cases where public pension programs do kill some work incentives, and the GDP loss cannot be zero – as in Belgium, France, Germany, Italy, and the Netherlands<sup>27</sup> – the loss of output is still quite small. Some basic accounting guides us toward a rough answer. Here is a definitional relationship between the gross domestic product per capita, numbers of workers, and the age distribution: GDP per capita = GDP per worker *times* (total workers divided by the fifty-five to sixty-four population) *times* (fifty-five to sixty-four population divided by total population).

Converting this into rates of change and rearranging terms yields a link between the growth of GDP per capita and the amount of labor lost by subsidies to earlier retirement: The percentage change in GDP per capita induced by retirement subsidies = (A) the percentage change in productivity per worker *plus the product of these three terms*:

- (B) induced percentage change in employment for the fifty-five to sixty-four age group,
- (C) the share of those fifty-five to sixty-four who are employed (if no subsidies), and
- (D) the ratio of the fifty-five to sixty-four age group's population to total employment.

For France in 1995, the policy-induced percentage change in employment (B) might have been as great as the whole difference between the French and U.S. employment shares for the age group, or (33.6 percent minus 55.1 percent = -21.5 percent. This looks like a large number. In fact, it was larger than the percentage shortfall of France's GDP per worker below the U.S. GDP per worker in 1995, or 19 percent. But the GDP effect of the jobs given up by France's fifty-five to sixty-four year olds is smaller. Using the formula above, this induced change of -21.5 percent in employment for the fifty-five to sixty-four age group must be multiplied by the two fractions (C) and (D). One is the initial share of those in the fifty-five to sixty-four age group who would have jobs if there were no early-retirement subsidy (C). That initial share would be something below France's actual share of 0.336,

but let's use the 0.336 multiplier to get a conservatively high number. The next fraction is the ratio of France's fifty-five to sixty-four population to France's total employment for all age groups. This works out to 0.259. So the policy-induced change of -21.5 percent gets multiplied by (0.336 times 0.259), which brings it down to a net GDP loss of less than 1.9 percent – if the same ratios applied to all women. They do not. The effects on women's work are smaller, suggesting a still lower GDP cost. The same point holds for five main smoking-gun cases of taxpayer subsidies to early retirement – Belgium, France, Germany, Italy, and the Netherlands – though it does not apply to the longer-working populations of Canada, Japan, Sweden, Norway, and the United States.

The third reason deserves the most attention here. Subsidizing early retirement probably *raises productivity* per worker. That is, it raises (A) in the simple accounting above. Those who retire early have lower-than-average productivity in their age group. Having them quit work means an even lower percentage cost in GDP than in employment.

Could early retirement have no cost at all in terms of GDP? Could the marginal productivity of a retiring senior worker be zero? Such an absolute-zero result was actually suggested by Xavier Sala-i-Martin in 1996. In what we might call his "good riddance to geezers" hypothesis, Sala-i-Martin argued that older workers could be so counterproductive in their effect on the whole work unit's output that their marginal product is in fact zero. That might be the case if senior workers have excessive power and are especially hard to get rid of once their marginal product has dropped off. He quoted the controversial remarks of Doctor William Osler in a valedictory address at Johns Hopkins University on February 22, 1905:

My...fixed idea is the uselessness of men above sixty years of age, and the incalculable benefit it would be in commercial, in political, and in professional life, if, as a matter of course, men stopped work at this age... That incalculable benefits might follow from such a scheme is apparent to any one who, like myself, is nearing that limit, and who has made a careful study of the calamities which may befall men during the seventh and eighth decades [of life]. Still more when he contemplates the many evils which they perpetuate unconsciously, and with impunity.<sup>28</sup>

Sala-i-Martin says that university faculties illustrate Osler's point. Faculties could still produce as much if they paid professors over, say, fifty-five to leave campus permanently. The idea deserves further investigation (by younger faculty?), even if the assumption that an extra fifty-five to sixty-four year-old adds zero to the economy seems extreme, at least to this author.

The truth, if less extreme, does point in the same direction. The productivity of the lost labor is reduced by the way in which the early-retirement incentives are structured. Countries that invite early retirement actually send a more urgent invitation to the less productive workers. The Gruber-Wise research team found a much greater early-retirement subsidy for workers

earning only in the 10th salary percentile than for workers earning in the 90th. Lower-earning, and presumably less productive, workers were given much less incentive to continue work in those same five countries – Belgium, France, Germany, Italy, and the Netherlands – and also in Canada, Japan, Spain, and Sweden. Of the eleven countries studied by the Gruber-Wise research team, only the United States and Britain kept the tax on senior workers low at all salary levels up to age sixty-five.<sup>29</sup> There is at least some evidence that such generous exit packages were approved and manipulated by employers as a way of getting rid of less productive and more problematic workers.<sup>30</sup>

There is indirect evidence that less productive senior workers do respond more strongly, given the stronger invitation, relative to more productive seniors. The OECD found a definite relationship between educational level and the employment shares at different age groups.<sup>31</sup> Those who stay on the job tend to be more educated in any age group, but especially in the fifty-five to sixty-four age group. For French men in 1995, with generous early-retirement subsidies in effect, there was a particularly strong educational twist in the age-employment profile. The share of men with a university education who were still at work in the fifty-five to sixty-four age group was 30 percentage points greater than if they had retired as fast as the less educated. This pattern, combined with the biased retirement incentives we have just noted, suggests that early-retirement policies deliberately and successfully culled out the less productive and kept the more productive at work.

#### Does the Dole Also Harvest Lemons?

Thus far my listing of work incentive studies has given only light treatment to a core kind of transfer payment: classic unemployment compensation, or what British history has called “the dole.” Doesn’t this kind of subsidy to not working (for a while) lower job-taking? The answer is yes, it does lower employment, according to both past writings and new results aired in Volume 2.<sup>32</sup> But here a puzzle arises: If the dole clearly cuts employment, why does it not visibly reduce GDP?

The resolution to this part of the puzzle is twofold. First, the true effect of unemployment compensation on GDP could be negative, but small enough to hide within the broad confidence intervals in statistical tests. Second, jobs may be lost with very little reduction of GDP if the more generous unemployment compensation widely practiced in Europe actually raises the average productivity of those who continue to work. This might occur because European governments use unemployment compensation as a way to get the least productive workers out of their jobs, to leave a more productive labor force at work, just as we saw them doing with early retirement policies. That is, the dole may be so implemented in practice that it casts out “lemon” workers,

those with the lowest contribution to overall labor productivity. Indeed, Chapter 19 in Volume 2 revises the econometrics of European job markets to show that more generous unemployment compensation goes with higher productivity per worker or per labor hour, other things equal.

#### SOME GROWTH BENEFITS OF HIGH SOCIAL TRANSFERS

Thus far, we have established that the GDP costs of early retirement and unemployment compensation are close to zero, even closer than their effects on labor time would imply. From these costs should be subtracted any small gains in work and earnings coming from the fact that higher-budget welfare states may impose a lower marginal tax rate on poor lone parents. The deadweight effects on well-being are smaller still, because the reduction in labor time means a gain in valuable home time. Were we to switch focus from GDP costs to true well-being, then the extra leisure and vacation time of the European welfare states would loom large enough to erase any net loss at all. Yet if we stick with the GDP focus of the free-lunch puzzle, there is still a bit more work to do. As long as there is a net reduction of work from the welfare-state package, we should still presume that the GDP loss is close to zero, but not zero.

The next step is to note that some kinds of social transfers have positive effects on the level and growth of GDP. Many types of social transfers are in fact pro-growth, and the growth benefits they provide tend to be greater in the higher-spending countries. If we set aside the clear productivity gains from extra public education, which are not defined as “social transfers” here and were covered in Chapter 6, what kinds of social transfers are most likely to have a positive GDP impact that has not been confronted yet?

#### Active Labor Market Policies: Not Much There

We start on the downbeat, with a social transfer that should have raised GDP, but probably brings very little net gain at best. Support for the unemployed often includes sizable expenditures on “active labor market policies” (ALMP), a rubric that covers public subsidies to job search, job retraining, and public sector jobs for those who are hard to employ.

Studies of the ALMP bundle of pro-job interventions suggest only modest payoff in improved job-holding and earnings and therefore a near-zero rate of return. The modesty and fragility of the gains show up in all three main parts of the ALMP bundle – job search assistance, retraining, and public sector jobs for the least qualified. The return is particularly low for males and not so bad for females, perhaps because females’ prior disruption of training was less rooted in an aversion to school.<sup>33</sup>

Such sobering limitations to the payoff of active labor market policies seem to square with three other kinds of findings by labor economists. First,

detailed studies have found that ALMP has often been used as a way to pad and extend ordinary passive unemployment benefits. Second, the vast research on interventions to improve the lot of disadvantaged youth has concluded that the earlier the intervention in the life cycle, the better. Interventions in prenatal, infant, and preschool care and training have achieved high returns, especially under certain program designs. Yet programs to set teenagers back on track have shown only weaker returns, unless one counts just keeping them off the streets and out of prison as a major social gain.<sup>34</sup> This earlier-is-better pattern squares with the low returns to retraining and public employment for young adults. Finally, economists are gravitating toward the belief that the greatest gains from public supports for work and earnings come from a mixture of carrots and sticks. For carrots, the emphasis increasingly favors tax credits for earnings such as the United States' EITC or Britain's WFTC, with only a very limited role for retraining programs.<sup>35</sup> On the stick side, work requirements are as effective as retraining programs for part of the population receiving public aid and tax credits. It seems likely that the ALMP policy bundle has not been sufficient to erase even the small net loss of jobs from the same countries' generous unemployment compensation. Yet, as Chapter 19 in Volume 2 shows, ALMP does not significantly change GDP because it raises the productivity of those at work by enough to cancel its negative effect on jobs.

#### Child Care Support and Career Investment in Mothers

Greater returns appear to have come from the welfare states' stronger support for career continuity for women, especially for mothers. The more modern and skilled-based the economy, the more our human capital is built up on the job. At least as important as extra schooling beyond secondary school is continuity of career development during employment. Whatever interrupts employment and makes one reenter the labor force later is doubly costly. Not only are earnings lost during the time spent out of work, but in a skill-based world one has to prove oneself again and catch up on job skills upon reentering. That people get paid less when reentering work reflects the loss of their productivity in employers' eyes as a result of their career interruption.

The gains from career continuity, and the losses from interrupting it, weigh more heavily on women who have children than they do on either men or childless women. Having a child necessitates at least some work stoppage for mothers, and the work time losses are still very unequally shared between mothers and fathers. How much this costs mothers in lifetime earnings potential depends on how long they are compelled to stay out of work and how much less employers pay and promote women who are perceived as shorter-term employees not riding the career escalator.

We have some hints that the lifetime pay disadvantage of mothers grows in settings where their child care demands are met only in private markets. First, in the United States between 1960 and 1986, the pay disadvantage

TABLE 10.3. Parental Leave and Child Care Provisions in Sixteen OECD Countries, 1994

Countries Ranked by Social-Transfer Share of GDP in 1995	Leave Provisions (Weeks)			Gov't Payments for Formal Infant Care as % of GDP
	Parental Leave	Maternal Leave	Separate	
<i>Countries with high social-transfer budgets</i>				
Sweden	62			1.36
Finland	26 to 156		17.5	1.08
Denmark	10 to 52		18	1.21
Norway	52			0.91
Belgium	130		15	0.08
France	0 to 156		16	0.24
<i>Countries with intermediate transfer budgets</i>				
W. Germany	156		14	0.27
Italy	26		22	0.10
United Kingdom	(none)		14 to 40	0.35
Austria	112		16	n.a.
<i>Countries with low transfer budgets</i>				
Switzerland 1988	8 to 12		8 to 12	n.a.
New Zealand	52			0.04
Canada	10		17	0
Australia	52		52	0.19
United States	(unpaid) 12			0.01
Japan	52		14	0

*Notes and Sources:* The infant care subsidies, from all levels of government, consist mainly of formal day care, excluding kindergartens. Some of these percentages refer to earlier years because of reporting changes: The France percentage is for 1989, and those for Italy and West Germany are for 1990. The care facilities used in Britain and the United States were primarily privately run.

The sources on family leave provisions and the family cost of infant care are Waldfogel (1998, 141) and Joshi et al. (1998, 10). The shares of infant care subsidies as percentages of GDP are from the OECD's CD-ROM (1999).

of married women relative to unmarried women widened for all ages up to about forty-six.<sup>36</sup> That disadvantage of married women was presumably a muted reflection of the disadvantage of mothers relative to all childless women. More concretely, the pay-path disadvantage of mothers is estimated to have grown in Britain between 1980 and 1991.<sup>37</sup> Both countries lacked any major government or legal support for women's reclaiming their old jobs after a childbirth interval or any major subsidy for formal child care.

Other countries, however, do have government and legal support for parental leave without job loss plus government support for infant care. The extent of such support is a hidden correlate of social transfers and a hidden source of their growth benefits. Table 10.3 shows which countries those are.

On the whole, countries that support women's careers with parental leave laws and with affordability of child care tend to be those with an overall commitment to social transfer spending. The countries offering new parents the least support are the United States, Britain, Canada, and Switzerland.

The first two columns of Table 10.3 summarize the number of weeks of legally mandated parental leave, sometimes with a separate maternal leave length. For those numbers of weeks, one or both parents can take time off work while retaining their right to return to the same job. Who pays for the leave differs from country to country. For some of the longer-leave countries, the burden is on the taxpayers and the government, especially in Scandinavian countries where the government is the dominant employer of women. In some, it is on the employer, which means that the employer and their employees in the aggregate implicitly pay for some cost of childbirth and infancy. In the United States, the parents must take unpaid leave. Only in 1993 was a national family medical leave act passed guaranteeing the right to reclaim one's job after twelve weeks of parental leave, but those twelve weeks were still without pay.

Government subsidies to the care of infants are more noticeable in Scandinavia and Finland than in other OECD countries. The family therefore shoulders less of a burden to buy infant care than in Britain, the United States, or New Zealand. Accordingly, Scandinavia and Finland also have low pay shortfalls for mothers relative to childless adults of the same age and the highest median wage rates for all women relative to the male median wage.<sup>38</sup> There seems to be a positive return on government investments in infant day care, though the rates of return have not yet been quantified.

Thus government financial and legal support for working mothers appears to be an underlying pro-growth feature of welfare states. It seems likely that this return can be cumulative over decades and generations. A major barrier to women's being promoted to more productive and higher-paying jobs has been "statistical discrimination." A common form of this discrimination is employers' perceptions that there is less need to invest in the intrafirm careers of young women because childbearing may take those women back out of the labor force.<sup>39</sup> The more continuity there is in women's careers, helped by subsidies and laws cutting the private cost of motherhood, the more the perception of a gender difference in job commitment will erode, allowing women more on-the-job accumulation of skills.

While the gains in women's work and in GDP from such career supports are hard to quantify, the hints at strong gains agree with other tendencies we have already noted. First, women tend to have a more elastic labor supply than men, so that a given percentage incentive should yield more extra work and earnings if aimed at women than if it is aimed at the same number of men. A supporting hint of such likely gains from this difference in elasticities comes from the fact that women's pay is already closer to men's in several European countries than in the United States, Canada, or Japan. Second, as noted in

the previous section, the payoff from job retraining and other active labor market policies looks more hopeful for women, because the women who qualify as needing such programs are less unresponsive to extra schooling and training than the corresponding group of men. Even though specific numbers still elude us, it makes sense that the more committed welfare states' career supports for mothers are likely to have a strong payoff in jobs and GDP.

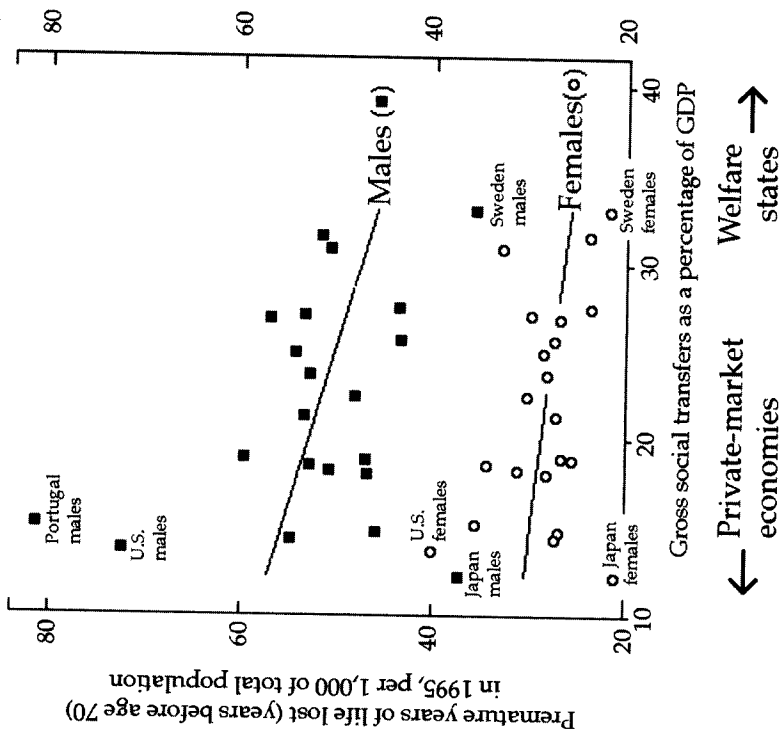
### Public Health Care

People are healthier and live longer in those democracies with a more public and more centralized approach to health care – and the superiority of comprehensive public health care explains part, though only part, of this difference. Here we have an abundance of evidence. To illustrate the possible pro-growth aspect of a public approach, this section focuses on the longevity issue, even though better health raises GDP *per person* only indirectly and modestly.

With life saving as with economic growth, a simple frontal view shows a positive correlation between such social benefits and the welfare state. Figure 10.8 hints that social transfers correlated negatively with male and female mortality in OECD countries in 1995. Both for males and for females, premature mortality looks lower in the higher-budget countries, such as Sweden. The correlation is not very strong, of course. Among low-social-budget countries, the United States stands out as being peculiarly unhealthy, and Japan stands out as being peculiarly healthy.

How could general social transfers be linked to the length of life? To move beyond crude correlations like that in Figure 10.8, we need some systematic way of separating the effects of public health care spending, the part of social spending most directly relevant to longevity, from the many other influences that we know will make nations differ in their average length of life.

One statistical study is particularly convenient for our present purpose of comparing nations' health. Using the new OECD standardized measures of premature mortality and a pooled cross-section approach, Zeynep Or finds that a greater public-expenditure share, for given total expenditures, significantly reduces mortality, especially among men, among OECD countries since 1980.<sup>40</sup> Table 10.4 reports some of the cross-sectional part of the results. In the mortality-change perspective, where minus signs are good, some familiar factors lower mortality down toward the world-best Japanese standard. Those factors include higher income, white-collar occupations, cleaner air, abstention from bad consumption habits, and greater total spending on health care. On balance, though, a more public approach to the same health care expenditures also helps significantly. It explains a small part of the United States' greater mortality. Even beyond this public-private contrast, however, the United States is a high-mortality outlier. Firearms are probably an unmeasured factor, as are cheeseburgers, fries, donuts, and lack of



Sources for Figure 10.8: OECD Health Policy Unit, which kindly supplied the mortality data used in Or (2000), and the OECD's CD-Rom for social expenditures and GDP.

FIGURE 10.8. The Rate of Early Death in 1992 versus Social Transfers 1995.

exercise. Similarly, Uwe Reinhardt, citing a Germany–U.S. comparison for 1990, decomposes the extra U.S. health cost per capita (PPP\$) into higher U.S. administrative costs, higher U.S. prices, less real use of inputs in U.S., and so forth.<sup>41</sup>

One of the mechanisms linking the average length of life to the public-private institutional choice is the mixture of types of care. Any medical system mixes basic care for the entire population, including hygiene assistance and other preventative care, with high-budget items designed to lengthen life for those middle-age and elderly populations who can afford it. In this difficult trade-off between broad basic care and sophisticated high-cost care, two conclusions seem inescapable: (1) any health delivery system must choose to let somebody die earlier, but (2) those systems that tilt more toward basic and preventative care seem to achieve longer average life expectancy.

Public health care systems, like private and nonprofit health care providers, must make life-and-death choices. While it is conceivable that an efficient public health system could bring net mortality reductions on all fronts, it does not work out that way in practice. So difficult are the choices that in practice the public health systems, like private medicine, must choose to let some kinds of patients die sooner. That does happen, and there seems to be a pattern to the differences in how public and private systems ration life. The public systems provide less of the highest-budget life-extending services and more of the basic health services protecting mothers, children, and the poor. For example, experiences with overinvestment in CAT scanners and in (in-hospital) renal dialysis has forced U.S. authorities to retreat toward rationing a lesser supply of the relevant equipment, much as the nationalized health systems of Britain, France, and Sweden have done.<sup>42</sup> By contrast, the evidence on basic ground-level health care, featuring preventative medicine through public clinics, has continued to have such a high return as to suggest underinvestment in such care in the more private health care systems.<sup>43</sup>

Still, the efficiency of public health care, and indeed the whole set of factors entertained by Or (2000), can explain only part of the differences in health and life expectancy between the welfare state populations and the most market-oriented populations.<sup>44</sup>

Another part of the explanation may lie in the differences in income gaps. Even for a given kind of health care system, the poor die younger. The relationship between income and wealth is strongly nonlinear. Health status and mortality have been more sensitive to income in the bottom income ranks than across the rest of society. Poverty shortens life through at least three channels: The poor are given less access to health care at public expense, they cannot afford to buy as much health care in private markets, and they take poorer care of themselves. The nonlinear relationship is such that redirecting health care away from those in the bottom fifth of the family-income ranks will lower the average health status and life expectancy of the whole nation.<sup>45</sup>

Historical studies suggest that income inequality, if accompanied by the private approach to national health, shortens life expectancy, both for the poor population and for the entire population. So says historical experience since the late nineteenth century, especially in the United States and Britain.<sup>46</sup> Careful international comparisons of today's health care systems agree, whether they are in-depth comparisons for two countries or broader statistical comparisons of many countries. The verdict is the same whether one is comparing high-income OECD countries, low-income developing countries, or both.<sup>47</sup>

A defender of free-market health might seek to retain the belief that the poor die younger because they do not take care of themselves. Historical and analytical studies do allow a little retreat in this direction, but only a little. It is true that for any given health system, even a free public system, the poor

TABLE 10.4. Health Care Systems and other Determinants of Life Saving, Selected Countries versus Japan in 1992

	(Negative = better life-saving relative to Japan)			
	Explaining premature years of life lost (PYLL) per 100,000 persons living in 1992 relative to Japan, both sexes			
	France	Netherlands	Sweden	U.K.
Actual excess mortality (PYLL) relative to Japan	34.7	19.3	6.0	28.2
Amount of excess PYLL due to differences in:				
Income and occupations	-5.9	-8.6	-9.9	-4.5
Pollution	6.3	8.8	10.4	9.9
Four bad consumption habits	25.9	14.9	6.7	15.0
Total health expenditures per capita	0.3	4.1	5.2	5.7
Public share of total health expenditures	-0.9	-1.3	-3.1	-2.8
Not explained by any of these forces	8.9	1.4	-3.3	4.8
OECD Average				61.3
				U.S.
				43.6
				-0.5

Sources and Notes: All estimates are from Or (2000/1), with displays results for twenty-one countries, 1970-1992. PYLL = Premature years of life lost before age 70, per 100,000 of population. An infant death counts as a loss of 70 years, and a death at age 65 counts as 5 years lost. Thus the United States excess of 61.3 relative to Japan in 1992 is equivalent to 6.13 excess U.S. deaths at age 60 per 100,000 of population where the corresponding Japanese would have survived to age 70. Alternatively, the 61.3 is equivalent to almost one (61.3/70) extra infant death per year per 100,000 of population.

Income and occupations = the sum of two products of (regression coefficients\* the differentials or changes) in two independent variables.

The two are real GDP per capita in 1990 international dollars and the share of white collar workers in the total labor force.

Pollution = the contribution to PYLL from NO<sub>x</sub> emissions per capita, in kilograms per year

Four bad consumption habits = the contributions to premature mortality made by

(1) liters of alcoholic beverages per person over 15;

(2) consumption expenditure on tobacco per person over 15, U.S.\$ at 1990 price levels and PPs for tobacco consumption;

(3) butter consumption per capita, in kg per year; and

(4) sugar consumption per capita, in kg per year.

Total health expenditures per capita is measured in U.S.\$ at 1990 price levels and PPs for medical consumption.

Public share of total expenditures = the share of public expenditure in total health expenditure.

Not explained by these = the sum of the residual, or prediction error, plus (for Panel(A)), the fixed effect for that country.

fail to consult physicians as often and they indulge more in such unhealthy habits as smoking and alcohol.<sup>48</sup> This self-care factor has commanded attention among bothered observers of British health history. Why should an increasingly egalitarian health system encounter such persistent social gaps in life expectancy, with both the lowest occupational groups and their children dying sooner?<sup>49</sup> Part of the answer has to lie in those differences in pursuing one's own health. Yet the same studies make it clear that a large part of the difference lies in the inequality of access to health service. The systematic results in Table 10.4 have already agreed: By holding occupation and bad health habits as constant as possible, that OECD study still found a significant health difference by type of delivery system.

We also know that health care supply, rather than personal health care demand, dominated mortality differences across the twentieth century from studies of regional inequality in health care services and in mortality outcomes in the United States and Britain. The United States' supplies of physicians and of nurses, like its mortality rates, have been more unequal across regions than Britain's since 1890. Differences in personal habits of the poor could not have played as great a role as these clear differences in health care delivery to different parts of the same country. That the supply of physicians and nurses did matter is also suggested by the downtrend in those regional inequalities of both the supply of doctors and nurses and the mortality outcomes between 1890 and 1970.<sup>50</sup>

The more general point behind such historical experiences seems clear enough. Whatever role might have been played by poor families taking less care of themselves, their behavior was not an exogenous force that differed widely over time and space. Rather their lower use of health care, like their earlier deaths, must have been due to the only relevant traits that poor families shared over so many decades, regions, countries, and cultures – their poverty itself and the related denial of low-cost health care. Income inequality, combined with private and decentralized health care, has shortened life outside the welfare states.

Thus public health care contributes to longer average life expectancy. The fact that public health spending, which has been counted here in social transfers, lengthens people's lives does not directly add to GDP per person. Yet the odds are that such spending does help raise productivity per person, especially if it is spent on basic and preventive care for the young and the poor.<sup>51</sup> Reducing sickness and morbidity enhances later productivity. By contrast, the extra expenditures on high-budget items to extend the lives of the rich and elderly do not raise GDP per capita. This combination of the favorable average productivity effect of health investments and the greater productivity enhancement from basic and preventative care than from high-budget repairs seems to help explain how a large part of social transfers – here, the public health budget – has been pro-growth.

#### WHY THESE KEYS?

So far, we have found that the net GDP cost of high tax-financed social spending is near zero, and we have found some reasons why.

If in one dimension after another, the high-budget welfare states seem to have designed their budgetary policies so as to preserve economic growth and not soak the rich too heavily, how does it work out that way? How could the notoriously messy process of political democracy yield such a design? It is hard to believe that it was smoothly planned.

Subsequent chapters suggest answers. First, Chapter 11 takes a closer look at how it worked in one country. Then Chapter 12 suggests a political economy of rich democracies that offers systematic reasons why high social budgets should have been virtually free of any net cost in terms of GDP growth. Chapter 18 and Appendix E in Volume 2 deliver the underlying statistical evidence.