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Source: *Journal of Economic Literature*, Vol. 35, No. 3, (Sep., 1997), pp. 1273-1319

Published by: American Economic Association

Stable URL: <http://www.jstor.org/stable/2729978>

Accessed: 18/06/2008 16:32

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The Swedish Experiment

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I am grateful for comments on earlier versions of the paper from Jonas Agell, Anders Björklund, Nils Elvander, Ulf Jakobsson, Magnus Henrekson, Per Molander, Mancur Olson, Mårten Palme, Mats Persson, Olof Petersson, Lars Svensson, and Peter Birch Sørensen, as well as from three anonymous referees. David Sundén, Lennart Grundberg, Patrik Karpaty, and Pavlos Petroulas have assisted with the statistics. Julie Sundquist has improved the language.

WHY SHOULD FOREIGN observers be interested in economic and social conditions in Sweden? The best answer is probably that institutions and policies in Sweden have been rather experimental, and that some of these experiments may also be relevant for other developed countries. Sweden may therefore be seen not only as a small country on the periphery of Europe, but also as a large (“full-scale”) economic and social laboratory.

During the first decades after World War II, Sweden was able to combine a relatively fast rate of GDP growth with full employment, considerable economic security, and a rather egalitarian distribution of income. This combination is a reason why foreign observers have often been so interested in economic and social institutions and policies in Sweden. Exactly how was this combination achieved? And why did economic and social performance in Sweden subsequently deteriorate—in terms of economic growth from about 1970, the distribution of income from the mid-1980s, and full employment and economic security from the early 1990s?

Was this deterioration merely a result

of unfortunate exogenous shocks and “unnecessary” policy mistakes? Or was it also a consequence of basic changes in the economic and social system in Sweden in the late 1960s and early 1970s, when government spending, taxes, and regulations started to expand quite dramatically? Could it be that some of the social achievements including full employment were not sustainable in the long run, at least not by the methods used in Sweden? It is quite clear that the institutions and policies built up in the 1960s and 1970s were highly vulnerable to domestic and international shocks, including policy mistakes that can never be wholly avoided. A more controversial view is that problematic economic, political, and social mechanisms had become embedded in the long-term dynamics of the system itself. I suggest in the paper that all these explanations have some merit.

The problems related to economic efficiency and growth induced institutional reforms in the 1980s and 1990s. The macroeconomic policy regime was also changed around 1990 to reduce the inflationary bias of the Swedish economy and hence to escape from the devaluation cycles that had been a charac-

teristic feature of the Swedish economy since the mid-1970s. But these reforms also triggered new economic and social difficulties, though some of them may be problems of transition from one system to another rather than new permanent features of Swedish society.

Before attempting a verdict on the economic and social experiments in Sweden after World War II, it is useful to specify some characteristic features of the institutional structure in the country (Section I). Against this background, four problem areas are highlighted: economic security and the distribution of income (Section II); economic growth (Section III); economic efficiency (Section IV); and macroeconomic instability and unemployment (Section V). The paper concludes by asking whether the Swedish experiment is gradually unwinding and, if so, why (Section VI).

I. *The Institutional Context*

A. *A Bird's-Eye View*¹

Two broad targets of economic and social policy seem to have been taken more seriously in Sweden after World War II than in most other developed countries: *economic security*, including full employment, and *egalitarianism*, including both a general compression of income differences and the mitigation of poverty. The emphasis on these targets, and their specific design, help explain some characteristic features of the

¹ Other broad expositions on the functioning and performance of the Swedish economy include Erik Lundberg (1985), Lindbeck (1975, 1990), Lindbeck et al. (1994), Johan Myhrman (1994), Anders Forslund (1995b), Richard Freeman, Birgitta Swedenborg, and Robert Topel, eds. (1997) and Henrekson, Lars Jonung, and Joakim Stymne (1996).

Statistics on Sweden in this paper are from Statistics Sweden (SCB) if other sources are not referred to explicitly. International comparisons are based on OECD statistics if not stated otherwise.

institutional setup in Sweden during much of the post World War II period—often referred to as a special “Swedish model” of economic and social organization.

This institutional setup can perhaps best be characterized as *a society dominated by large and centralized institutions*. Important elements are: (i) large public-sector spending and high taxes, reflecting ambitious welfare-state arrangements; (ii) a strongly interventionist stabilization policy, originally designed to “fine-tune” full employment, with so-called active labor market policy as an important tool; (iii) attempts by the government to influence aggregate saving, credit supply, and investment, as well as their allocation, by public-sector saving, capital market regulations, taxes, and subsidies; (iv) strong central government control of local governments; (v) centralized wage bargaining on a national level; and (vi) highly centralized decision making in the private sector, where a small group of large firms predominates on the production side, and holdings of financial assets, including shares, are highly concentrated to a few large institutions—three or four banks, half a dozen insurance companies, and a few investment corporations.² These centralist structures have, however, been combined with (vii) a pronounced free-trade regime.

It is important to realize that these interventionist policies and centralist organization of society is of rather recent origin. As late as 1960, public-sec-

² Anders Lundström et al. (1993) argue that the structure of firms in Sweden does not differ much as compared to other countries in Western Europe. However, scrutiny of all available statistics, as in Henrekson (1996a), supports the conventional view that large firms are relatively important in Sweden. But there is also a large number of *very* small firms, in many cases without employees (partly for tax reasons).

tor expenditures did not exceed the (weighted) average in European OECD countries, i.e., about 31 percent of GNP. Moreover, while the idea of full employment policies had been promoted by the Swedish government as early as the 1930s, it had little (hardly any) influence on the policies actually pursued until after World War II (Jonung 1979). Tight regulations of the labor market were not introduced until the early 1970s, and active labor-market policy was not pursued on a large scale until the late 1970s, though the *idea* of such a policy had already been developed in the 1950s, in particular by some labor-union economists. Government saving and credit supply did not become important until the mid-1960s, partly in connection with the build-up of the state pensions funds (the AP funds). Centralization *within* the public sector was not very noticeable until the forced merger of 2000 municipalities into about 280 between the mid-1950s and 1975. The municipalities have also been increasingly ordered to increase their supply of services in quantities and qualities determined by the central government. Moreover, even though wage bargaining had already become highly centralized by the 1950s, it was hardly used to squeeze wage differentials until the late 1960s, by way of so-called “solidarity wage policy.”³ The efforts to redistribute income via very high marginal tax rates increased gradually, culminating in the 1971 tax reform (Figure 6). Centralization within the private sector also emerged only gradu-

³ In a study by Harold Lydall (1968, Table 5.6) of the dispersion of earnings in the early 1960s, Sweden was placed in a middle group among developed countries, together with the United Kingdom, Denmark, West Germany, Canada, Belgium, and the United States. Indeed, as late as 1968 the experience-wage profile seems to have been steeper in Sweden than in the United States (Per-Anders Edin and Topel 1997).

ally after World War II, in fact often encouraged by government policies.

Thus, it was not until the mid-1960s and early 1970s that Sweden diverged from other western countries to the extent that it was appropriate to talk about a special Swedish model. Some of the ideological and institutional roots of the model may, however, be traced back to earlier decades.⁴ It is also quite clear that what is often regarded as a special Swedish model was not consciously planned according to some “great design.” Rather, it should be regarded as an *ex post* outcome of hundreds of separate decisions (Bo Stråth 1995). Behind many of these decisions, however, it is possible to detect a specific view of the world, such as a firm belief in the importance of returns to scale, the usefulness of centralized political intervention in the economic life of firms and families, and strong suspicion of markets, economic incentives, and private entrepreneurship not embodied in large firms.

Except for the system of wage bargaining, all those centralized features had been created or strongly accentuated by the late 1960s and early 1970s.

⁴ An example of such ideological roots may be attributed to some Swedish left-of-center intellectuals in the 1930s and their visions of rational central economic and social planning (“social engineering”). Alva and Gunnar Myrdal and the Social Democratic ideologist and finance minister Ernst Wigforss were at the core of this group. In his book *Sweden, the Middle Way* (1936), Marquis Childs described Sweden in the 1930s as a society “in the middle” between capitalism and socialism. However, his statement reflected the ideas and ambitions of this group of intellectuals rather than Swedish reality at the time.

Examples of institutional features of the Swedish model that may be traced back to the prewar period are agricultural price regulations, a nationwide system of labor-market exchange (Bo Rothstein 1991), and some modest subsidization of housing construction. Moreover, as in other developed countries, various welfare-state arrangements may be traced back to the 19th and early 20th century (Zetterberg and Ljungberg 1997).

It was, not unusual in the 1950s to talk about a specific Swedish model, but with hindsight this seems premature.

B. *Swedish Corporatism*

The relation between the representatives of capital and labor in Sweden is often described as highly cooperative, i.e., consensus oriented. This cooperation harks back to the centralist "Saltsjöbaden Agreement" in 1938 between the Swedish Confederation of Trade Unions (LO) and the Swedish Employers' Confederation (SAF). The agreement was basically designed to settle conflicts peacefully in order to avoid government intervention in the labor market. It is often argued that this cooperation has contributed to the relatively low level of strikes and lockouts in Sweden after World War II, in contrast to the situation before the war.

By itself, this cooperation can hardly be regarded as an expression of "corporatism"; the government has not been very involved in these processes, except mainly for some "moral persuasion" and sporadic (though not very successful) attempts to pursue a tax-based income policy. As in several other countries in Western Europe, however, there are clear-cut examples of corporatism, if by that term is meant formalized (administrative) cooperation between private organizations and the state. An illustration is that many interest-group organizations, partly as an inheritance from World War II, have been represented in various administrative and judicial government agencies, though this practice seems to have receded somewhat in the early 1990s.⁵

⁵ Important examples are the National Labor Market Board, the Labor Market Court, the Housing Court, and the Anti-Cartel Court. Farmers' organizations and producers' cooperatives in the food industry have been involved (since the 1930s)

Moreover, a wide variety of state-independent organizations, which had traditionally constituted an important element of civil society, gradually became financially dependent on the state and its administrative agencies after World War II. Examples are labor unions, tenants' organizations, cultural and educational organizations, political parties, and the mass media.

Labor unions have exerted a much stronger influence than other organizations on political and administrative decisions. They have also obtained considerable privileges from the state. In the early 1970s, unions succeeded in pushing through important labor market legislation in their favor when they could not get what they wanted through centralized bargaining with employers.⁶ An important explanation is their alliance with the politically dominating Social Democratic party, which has been in power most of the time since 1932, though usually as a minority government or in cooperation with the Peasant (today Center) party. The Social Democratic party has, in turn, been strongly dependent on union resources, financially and in terms of recruiting personnel.

in the administration of agricultural protectionism. In the 1970s the national tenants' organization (*Hyresgästföreningen*) was given exclusive rights to bargain with landlords about rents as an element of the rent-control system. However, the tradition whereby private organizations are represented in administrative government agencies had already begun in a modest form in the early 1900s.

⁶ Examples are legislation concerning job security and union influence on the organization of work. Unions also administer unemployment insurance, even though the system is basically tax financed; this helps explain the high degree of unionization in Sweden (80–85 percent). Until recently, union fees were deductible for tax purposes (like fees paid by firms to the employers' associations). Moreover, by legislation, firms are obliged to provide office space and pay salaries to union functionaries when they conduct firm-related union activities.

The unions' ambitions to gain power peaked in the second half of the 1970s, when they proposed the creation of union controlled, tax financed "wage-earner funds," designed to take over the bulk of the ownership of Swedish corporations on the stock market.⁷ In addition to their ambitions for power, the unions motivated their proposal as a way of preventing shareholders in high-productivity firms from growing rich as a result of solidarity wage policy, which was believed to hold down wages in such firms.

The proposal may, more generally, be seen as a unilateral cancellation of the implicit "cooperative contract" between labor and capital. It contributed, therefore, to a pronounced deterioration in the relations between LO and SAF in the late 1970s and early 1980s. After heated political controversies, and considerable hesitation on the part of the Social Democratic party, a watered-down version of the proposed wage-earner funds, tied to the general government pension system, was implemented in 1983. (The funds were dismantled by a non-socialist government in 1994.)

The deterioration in the relations between the unions and the employers' associations was accentuated by an ideological offensive when SAF shifted to a more free market oriented position in the early 1980s. The most prevalent expressions of this deterioration are intensified controversies between the unions and the employers' associations about the forms wage bargaining should take, the structure of relative wages and, more fundamentally, the proper role of

⁷The funds were supposed to be controlled jointly by union officials, representatives of the employers' associations, and politicians, i.e., a pronounced corporatist idea. But the funds were also intended as a tool of "industrial policy" according to values and plans formulated by the labor union movement (Landsorganisationen 1981).

the government in society; see, for instance, Elvander (1988).⁸

All this means that the common characterization of Sweden as a country of strong consensus among unions, employers' associations, and the government does not really seem to be an appropriate description of the dominant power relations in Sweden, particularly since the mid-1970s. It is more appropriate to say that Swedish society after World War II has been dominated by an alliance between the Social Democratic party and the labor unions, in particular, those belonging to LO, though tensions within this alliance have often risen to the surface.⁹

As we shall see in subsequent sections, these corporatist elements in Swedish society have strongly colored economic and social policies.

II. *Economic Security and the Distribution of Income*

A. *Welfare-State Arrangements*

The "cradle-to-grave" welfare state in Sweden matured in the late 1960s and on into the 1970s, with social insurance as the cornerstone. The most characteristic features of the Swedish social-insurance system are probably that (i) most benefits are "universal" in the sense that they cover the entire population, though many entitlements have to

⁸ Strikes and lockouts have, however, continued to be relatively rare by international standards, though they increased in the 1970s and 1980s.

⁹ The following characterization by Hugh Hecló and Henrik Madsen (1987, pp. 323–24) is quite appropriate: "LO and the Social Democratic Party are two huge, complex, partly overlapping bureaucracies, in effect engaged in a never-ending conversation and at times arguments as to what it means to be a Social Democrat. . . . They are in fact social bureaucracies penetrating into the life of communities in a way that is difficult for a foreigner to understand. Perhaps the closest analogy is to think of the labor movement as a church with denominations in some disagreement with one another."

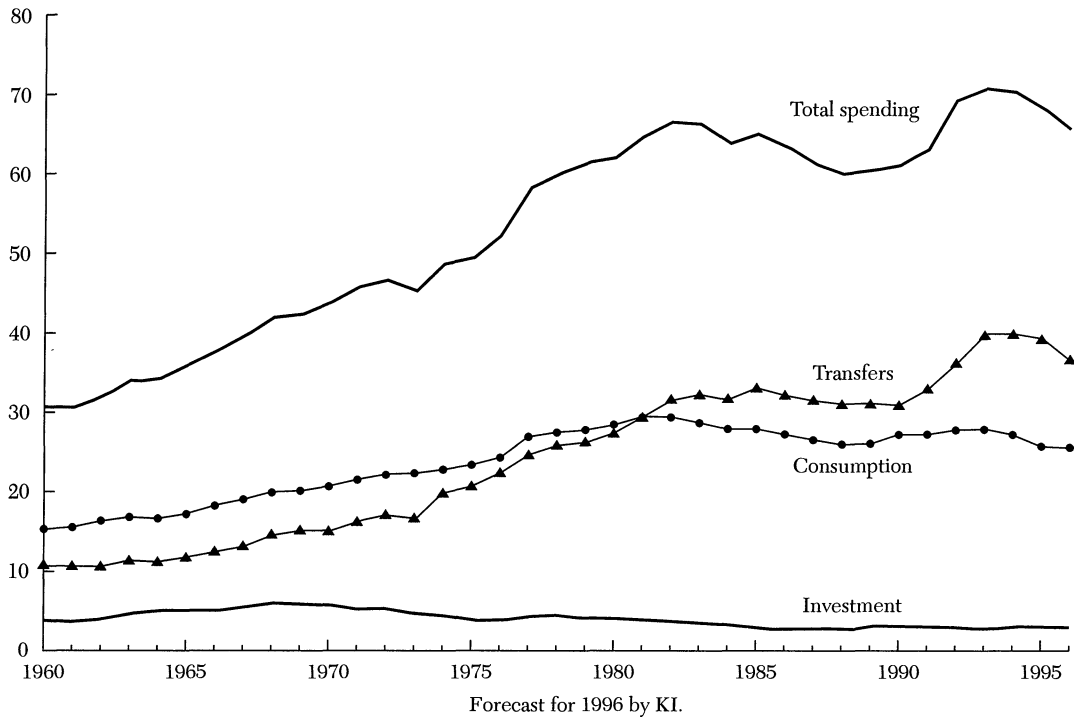


Figure 1. Public-Sector Expenditures, Sweden, 1960–1996, (percentage of GDP)

Sources: OECD Economic Outlook 57, 1995 and National Institute of Economic Research (KI).

be earned by way of previous or contemporaneous labor-force participation, so-called “workfare”; (ii) the system usually provides income replacement, rather than flat-rate benefits; and (iii) means tests are downplayed. Until recently, the benefit levels have been quite generous, with replacement rates of at least 90 percent (up to a ceiling), except in the pension system where they have been about 65 percent.

Other types of transfers have also been quite generous by international standards—in particular various forms of family benefits. An example is one year of income compensation per child to a parent who stays home to take care of an infant; another is the provision of support to single parents. However, the most characteristic feature of the Swed-

ish welfare state is probably that social services, such as child care and old-age care, are provided mainly by the government (in fact, by municipalities and regional governments), rather than by the family or the private sector as in most other developed countries. An expression of this is that tax-financed consumption of “social” services, as usually defined, was about 20 percent of GNP in Sweden in the early 1990s as compared to about 10 percent in the total EU; see Stefan Fölster and Eva Lindström (1994).

Mainly as a result of generous welfare-state arrangements, total public-sector expenditures have fluctuated in the interval of 60–70 percent of GNP since the late 1970s. This should be compared to 45–50 percent for the

TABLE 1
TAX-FINANCED AND MARKET-FINANCED INDIVIDUALS IN SWEDEN

	1960	1990	1995
1. Public administration and services	461 000	1 493 000	1 346 000
2. Less: Sick leave, parenthood, etc.	-24 000	-204 000	-201 000
3. Old age pensioners	365 000	1 533 000	1 584 000
4. Early retirement	100 000	354 000	409 000
5. Sick leave	166 000	311 000	156 000
6. Leave for parenthood	9 000	162 000	163 000
7. Refugee applicants	1 000	29 000	9 000
8. Engaged in labor market programs	14 000	134 000	274 000
9. Unemployed	51 000	75 000	333 000
10. Total (1-9)	1 143 000	3 887 000	4 073 000
11. Employed in market sector*	3 154 000	2 974 000	2 620 000
12. Less: Sick leave, parenthood, etc.	-165 000	-405 000	-392 000
13. Total (11-12)	2 989 000	2 569 000	2 228 000
14. Ratio of tax-financed to market-financed individuals (10/13)	0.382	1.51	1.83

* includes self-employed

Sources: SCB and National Social Insurance Board (RFV)

Note: Double counting has been avoided, for instance in connection with sick leave or leave for child care.

(weighted) average of European OECD countries. Of these expenditures, transfers have usually accounted for 35–40 percentage points and public consumption for 27–30 percentage points; see Figure 1. If the benefits are measured *net* of income tax paid by the beneficiaries, total public-sector spending as a share of GDP in Sweden in the early 1990s was about ten percentage points lower than indicated by the gross figure. By such a net measure, total public-sector spending was about the same in Sweden as in Belgium, Denmark, and The Netherlands—the other leading countries in this respect.¹⁰

¹⁰ ESO (1994:133). It may be argued that such a net measure is relevant if we want to compare the extent to which the government in different countries directly contributes to the disposable income

Another way to illustrate the role of government spending in Sweden is to compare the *number* of citizens who are tax financed to those who are market financed. The former consists of people who either work in the public sector (except in public utilities or public-sector corporations) or basically live on various types of transfer payments. While the ratio between these two groups was 0.38 in 1960, it had reached 1.51 in 1990, and 1.83 in 1995; see Table 1. This is a very high figure interna-

of beneficiaries. It is then not clear, however, why other taxes (such as consumption taxes and in some cases payroll taxes) paid by the beneficiaries should not also be deducted. Gross figures are more relevant if we want to highlight what lies behind the marginal tax wedges in Sweden also for beneficiaries.

tionally.¹¹ The relevance of such calculations is that they indicate the fraction of the adult population, and approximately also of the electorate, whose income is almost completely determined by political expenditure decisions.¹²

When trying to explain the relatively large public sector spending in Sweden, it is again tempting to refer to the long-standing political dominance of the Social Democrats. But then it is necessary to argue that this domination has strongly influenced the positions of other political parties as well, as most decisions about public-sector spending have been taken with great unanimity. Moreover, total public-sector spending increased about as fast as previously, relative to GDP, during the center-right coalitions in 1976–1982 and 1991–1994, in the latter case as a result of the deep recession.

It is also reasonable to argue that the relatively early aging of the population in Sweden and the huge increase in female labor-force participation have heightened the political pressure for generous pensions, subsidized old-age care, and child care outside the family.¹³ The strong influence on government policies exerted by organized interest groups, reflecting the corporatist structure of society, is another conceivable explanation for the huge expansion of public-sector spending. A third hypothesis is that the dramatic expansion of public-sector employment is partly a consequence of the government serving as “an employer of last resort.”

¹¹ Denmark (with 1.72) and Belgium (1.42) seem to have had the highest figures after Sweden in the early 1990s (calculations by Jan Herin; OECD statistics). Even if old-age pensioners are excluded from the Swedish figures, the ratio was as high as 1.22 in 1995.

¹² Some of the benefits are, of course, financed by payroll taxes, which include elements of compulsory insurance fees; the actuarial connection between fees and benefits is often rather limited, however.

We may also speculate that both the rapid expansion of public-sector spending and the increased progressivity of the tax system in the 1970s had something to do with the international radicalization of political opinions at that time. It remains, then, to be explained why these ideological developments had a greater impact in Sweden than in other countries. One conceivable—though also rather speculative—explanation is that the new Swedish constitution dating from 1970 allowed new political winds to influence policies faster than before. Among the changes were that the first chamber in parliament (with an eight-year election period) was abolished, the election period for the remaining chamber was shortened to three years, and a shift to strictly proportional elections made it more difficult to obtain a parliamentary majority.¹⁴ Cross-country studies also suggest that the budget process had been more lax in Sweden than in most other developed countries (Per Molander 1992)—before the budget reform in the mid-1990s.

But perhaps the best explanation for the dramatic expansion of public-sector spending is simply that competing political parties believed it popular among the electorate and various interest groups, while negative effects on the national economy were not yet apparent. It is, therefore, tempting to talk about an over extension, or “overshooting,” of the welfare state.

¹³ In 1990, the age group 65 and over was about 28 percent of the population in the age groups 15–64, as compared to 19 percent in total OECD and 21 percent in OECD Europe (OECD data base). Female labor force participation in the age groups 25–64 increased from about 60 percent in 1970 to 80 percent in 1980 (though it fell to about 70 percent in the early 1990s).

¹⁴ So far, there are hardly any generally accepted research results about the relation between the political constitution and the size, or rate of change, of government spending.

B. *Distributional and Social Achievements*

The household distribution of annual disposable income is relatively, though not uniquely even in Sweden. It gradually evened out during the post-World War II period until the early 1980s. The Gini coefficient fell from about 0.28 in the mid-1960s to about 0.20 in the early 1980s (for heads of households aged 25–64) if the household is defined in terms of consumer units.¹⁵ The incidence of poverty is also relatively low.¹⁶ Moreover, the low incidence of child poverty, most likely, contributes to “equality of opportunity” (Björklund and Markus Jäntti 1993). Most individuals belonging to the lowest income groups (less than 50 percent of median income) in one year have after half a decade moved to median income or above (Uddenhammer 1997).

An indicator—albeit rather imperfect—that welfare-state arrangements and related taxes have contributed to the compressed distribution of disposable income is that this distribution is much more compressed than the distribution of factor income.¹⁷ Moreover,

¹⁵ Anthony B. Atkinson, Lee Rainwater, and Smeeding (1995); Björklund, Palme, and Ingemar Svensson (1995); Smeeding and Gottschalk (1995). The only developed countries with about an equally compressed distribution in the 1980s seem to have been Belgium, Denmark, Finland, Luxembourg, and Norway.

¹⁶ Atkinson, Rainwater, and Smeeding (1995); Deborah Mitchell (1991). Measures of poverty based on income data are hazardous to interpret, however, because of the heterogeneity of low-income groups.

¹⁷ The Gini coefficient of the distribution of yearly disposable income is about two-thirds of the corresponding coefficient of the distribution of factor income—0.2 as compared to about 0.33 for households with at least one economically active member (HINK statistics from the SCB’s annual income survey, and Lindbeck 1983). Similar observations hold for lifetime income: this distribution is also much more compressed after taxes and benefits than before; see Björklund, Palme, and I. Svensson (1995). There is also a large difference

households (including retired people) with disposable income below a conventionally defined poverty line, such as 40 or 50 percent of median income, account for only about a fifth of the corresponding number calculated on the basis of income before social transfers (Luxemburg Income Study).¹⁸ Another indicator of the importance of welfare-state redistributions is that the factor-income distribution did not widen during the period when the tax and benefit systems were made more progressive, i.e., in the 1960s and 1970s. Indeed, the factor-income distribution also became more compressed.¹⁹ A common judgment among researchers in this field is that the equalization of factor income was a result of *both* market forces, particularly an increase in the supply of well-educated labor, *and* the solidarity wage policy pursued by Swedish unions. Solidarity wage policy was able to achieve this partly because it was pursued under a system of centralized wage bargaining, although perhaps the system should instead be characterized as

between the before-tax and after-tax distributions of “synthetic lifetime income” derived from cross sections of cohorts with different professions during a given year (Lindbeck 1983).

¹⁸ In the mid-1980s, while the so-called “poverty gap” was only 0.8 percent of GNP in the case of disposable income, it was 3.0 for factor income (Mitchell 1991, p. 57). The poverty gap is then defined as the aggregate amount of income that would have to be redistributed to households below a certain poverty line, in this case 40 percent of median income, in order to bring their income up to this line.

¹⁹ The Gini coefficient for the distribution of pre-tax hourly earnings was cut in half for wages of blue-collar workers between 1964 and 1984, and it was reduced by one-fourth among white-collar workers (Långtidsutredningen, SOU 1995:4). A rather even distribution of hours of work among individuals has also contributed to keeping down the dispersion of wage income (Björklund and Freeman 1997). In fact, the *absolute* level of before-tax real wage income for individuals in several academic professions fell by between 13 percent (for male teachers) and 36 percent (for male physicians) from 1970 to 1990.

multilevel bargaining—with sequential bargaining on the central, industry and firm levels. It seems that the intentions of union representatives engaged in central bargaining to reduce wage differentials remained more or less unthwarted by subsequent bargaining at lower levels.

In the 1960s, solidarity wage policy was largely designed to reduce wage differences between workers with similar training and skills in different production sectors. The *explicit* slogan was “equal pay for equal work.” Subsequently, and particularly during the 1970s, the ambition was changed to reducing wage differentials in all dimensions; the *implicit* slogan, slightly caricatured, then became “equal pay for all work.” In other words, ambitions switched from “equity” to “equality.”²⁰

The male-female wage differential has also narrowed considerably over time. In 1968 women seem to have earned about 23 percent less than men of comparable age and education. By mid-1980 the gap had narrowed to 11 percent, where it has stayed since then (Edin and Topel 1997). The remaining gap is related to differences in occupations and work establishments for men and women rather than to wage differences within occupations and establishments (Trond Petersen and Eva Meyerson 1996).

There is also rather general agreement among researchers that similar forces, though with opposite signs, have been responsible for *widening* the distribution of factor incomes after the early 1980s. For instance, there was a

²⁰ While inter-sector wage differences were reduced during the first period, intra-sector wage differentials were squeezed during the second period (Douglas A. Hibbs, Jr. and Håkan Locking 1995). This provides some additional support for the hypothesis that solidarity wage policy has indeed contributed to the observed compression of the distribution of wages.

slowdown in the expansion of the supply of educated labor. Moreover, less centralized wage bargaining after 1983 seems to have meant less emphasis on solidarity wage policy (Edin and Bertil Holmlund 1995). In fact, wage bargaining since 1983 has usually taken place on the two lower, i.e., industry and firms, levels.²¹ The further increase in the dispersion of factor income in the early 1990s was also caused by the rise in unemployment at this time. As a result of these developments, the dispersion of disposable income also increased; the Gini coefficient (for household income per consumer unit) increased by 3–5 points between 1980 and 1993, though less so among people in the age group 25–55.²² There has also been a rise in the fraction of households below the poverty line as of the early 1980s, if poverty is defined in terms of *relative* incomes.²³ Since the early 1990s poverty has also increased to some extent in *absolute* terms (constant purchasing power).

Welfare-state arrangements have, of course, much broader social consequences than improving economic security and influencing the distribution of income. For instance, crime-infested slums, as exist in many U.S. and U.K. cities, can hardly be found in Sweden, probably even less so than in other countries on the European continent. It

²¹ The shift toward more industry-level bargaining was partly the result of employers' dissatisfaction with the far-reaching wage compression which occurred during the period of centralized bargaining; some previous high-wage workers were also dissatisfied. Employers also believed that centralized bargaining had given unions excessively strong powers that were used to extract political concessions from the government.

²² Atkinson, Rainwater, and Smeeding (1995); SCB's HINK statistics, adjusted for linkages in the statistical series.

²³ While 2.7 percent of households had a disposable income below 50 percent of median income in 1978, the figure had risen to 5.7 percent in 1993 (Björn Gustafsson 1996).

is tempting to hypothesize that the elaborate welfare-state arrangements in Sweden have contributed to this difference, even though only a very small fraction of total government spending programs (6 percent according to Agneta Kruse 1995) are specifically directed toward people with very low income. It seems to be generally agreed, however, that the physical and social environment began to deteriorate in some Swedish suburbs in the 1980s and 1990s, especially where there are large concentrations of municipal housing and recent immigrants (many of whom are refugees).²⁴ Moreover, elaborate welfare-state arrangements have not been able to prevent a large (recorded) increase in many types of crimes—in particular property crimes—although from quite low initial levels by international standards (Jan Ahlberg, ed. 1994).

Welfare-state arrangements are also likely to have profound consequences for economic growth, economic efficiency, and macroeconomic stability. These issues will be discussed in subsequent sections.

III. *Economic Growth*

A. *Performance*

From the start of the industrialization process in Sweden around 1870 up until about 1950, productivity growth was among the fastest in the world, perhaps *the* fastest (Angus Maddison 1982). Productivity growth was also rather rapid during the Golden Age of the world economy in the period 1950–1970; GDP per man-hour increased by 4.20 percent per year in Sweden during this period as compared to 4.46 percent for the total OECD (Maddison 1982, p. 212).

²⁴ There is still very little systematic documentation of these developments. For some information, see SIFO (1997) and SOU (1997:4).

The difference between Sweden and the OECD during the period 1950–1970 disappears (in fact, it even changes sign) if we exclude West Germany and Japan, as having been reconstructed after the damage during World War II.

Attempts to explain the relatively fast economic growth in Sweden during the century-long period 1870–1970 have usually emphasized the economic openness of the country, favorable development of terms of trade, freedom of entrepreneurship, stable rules of the game, large infrastructure investment, large and widespread investment in human capital (practically the entire population was already literate in the late 19th century), relative social peace, and a vital civil society (Lindbeck 1975, pp. 1–10; Myhrman 1994). This suggests that a liberal, pluralistic, and outwardly oriented country, in which the government concentrates on the physical and institutional infrastructure and investment in human capital, is quite compatible with relatively fast productivity growth. Luck, such as staying out of two World Wars, probably also helped.

Thus, Sweden had become a relatively rich society *before* the emergence of a special “Swedish model.” It is also worth noting, however, that the *early* build-up of welfare-state arrangements in the 1950s and 1960s, and the related rise in the share of public-sector spending from 30 to 45 percent of GNP, turned out to be quite compatible with a relatively fast rate of productivity growth during that period.

As in some other countries with relatively high per capita GDP in 1970, such as the United States and Switzerland, labor productivity growth has been less impressive after that time. GDP per employed increased by 1.45 percent per year in Sweden during the period 1970–1996 as compared to 1.73

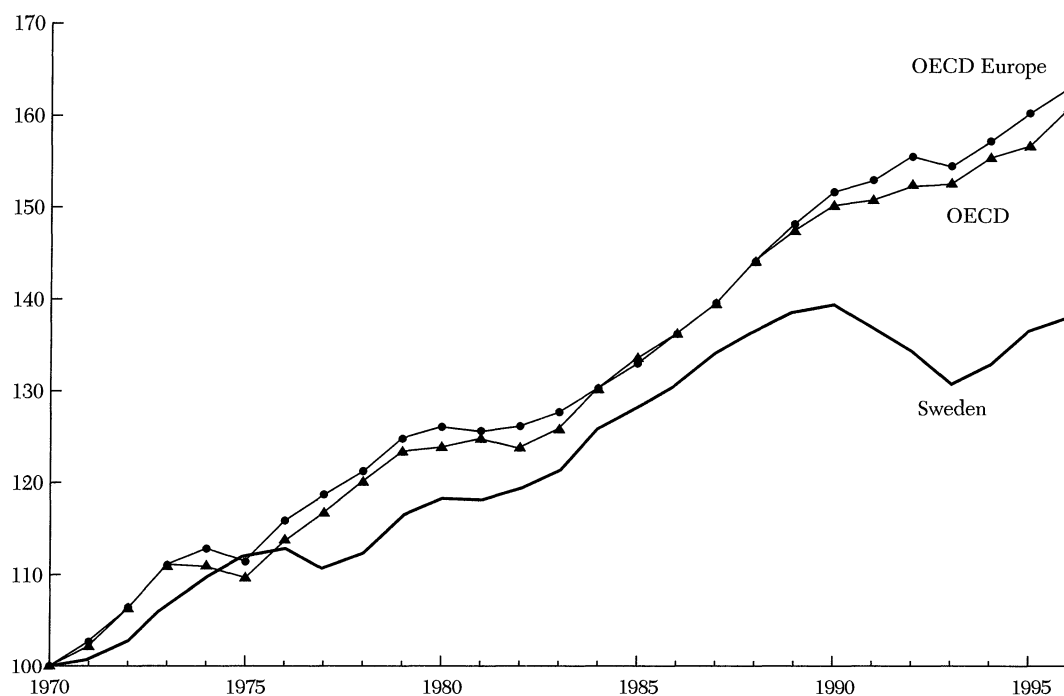


Figure 2. GDP per Capita, 1970–1995 (index 100=1970)

Sources: OECD National Accounts, vol. 1, 1995; OECD Main Economic Indicators, 1996:2.

for the total OECD and 2.02 percent for European OECD.²⁵ The difference is larger if labor productivity growth is measured in terms of GDP per capita.²⁶ Thus, while GNP per capita increased by about 60 percent between 1970 and 1995 in OECD, the corresponding increase was 37 percent in Sweden (Figure 2).

As a result of these developments, Sweden's position on the ranking list of levels of per capita GNP among OECD countries has fallen considerably since about 1970. For PPP-based calculations, Sweden occupied fourth position

among 25 OECD countries in 1970, with per capita GNP 15 percent above the OECD average (six percent above excluding Mexico and Turkey); see Table 2. By 1990 Sweden had fallen to ninth position, 6 percent above the OECD average (5 percent below excluding Mexico and Turkey). By 1995, two years after the bottom of a deep recession, Sweden had dropped to sixteenth position, 5 percent below the OECD average (16 percent below excluding Mexico and Turkey).

I have emphasized the growth performance from about 1970 (rather than, for instance, from 1950). The reason is, of course, that it is only from about this time that institutions and policies in Sweden have differed substantially from those in other OECD countries. As seen from Figure 2, depicting the entire

²⁵ Available statistics for GDP per man hour for the (shorter) period 1973–1987 give about the same picture (Maddison 1991).

²⁶ These figures are 1.14 for Sweden, 1.98 for total OECD and 1.84 for European OECD (OECD National Accounts, Main aggregates, vol. 1, 1995; and Labor Force Statistics, 1995.)

TABLE 2
GDP PER CAPITA, PERCENT OF OECD AVERAGE, CURRENT PPP

1970		1990		1995				
Rank	Index	Rank	Index	Rank	Index			
1	Switzerland	154	1	Luxembourg	143	1	Luxembourg	159
2	United States	148	2	United States	137	2	United States	138
3	Luxembourg	131	3	Switzerland	133	3	Switzerland	127
4	Sweden	115(106*)	4	Canada	114	4	Norway	121
5	Canada	108	5	Japan	110	5	Denmark	112
6	Denmark	106	6	Norway	109	6	Japan	110
6	France	106	7	France	108	7	Canada	109
8	Australia	104	7	Iceland	108	7	Austria	109
8	Netherlands	104	9	Sweden	106(95*)	9	Belgium	108
10	New Zealand	101	10	Austria	104	10	Germany	106
11	United Kingdom	98	11	Denmark	103	11	Iceland	104
12	Belgium	95	12	Belgium	102	11	France	104
12	Germany	95	12	Italy	102	13	Italy	102
14	Austria	91	14	Finland	101	14	Netherlands	101
15	Italy	89	15	Germany	100	15	Australia	99
15	Norway	89	15	Netherlands	100	16	Sweden	95(84*)
17	Finland	86	15	Australia	100	16	United Kingdom	95
18	Japan	85	18	United Kingdom	99	18	Finland	89
19	Iceland	83	19	New Zealand	84	19	New Zealand	87
20	Spain	67	20	Spain	74	20	Ireland	85
21	Ireland	56	21	Ireland	70	21	Spain	74
22	Greece	53	22	Portugal	59	22	Portugal	67
23	Portugal	47	23	Greece	57	23	Greece	61
24	Mexico	37	24	Mexico	32	24	Mexico	35
25	Turkey	28	25	Turkey	29	25	Turkey	29

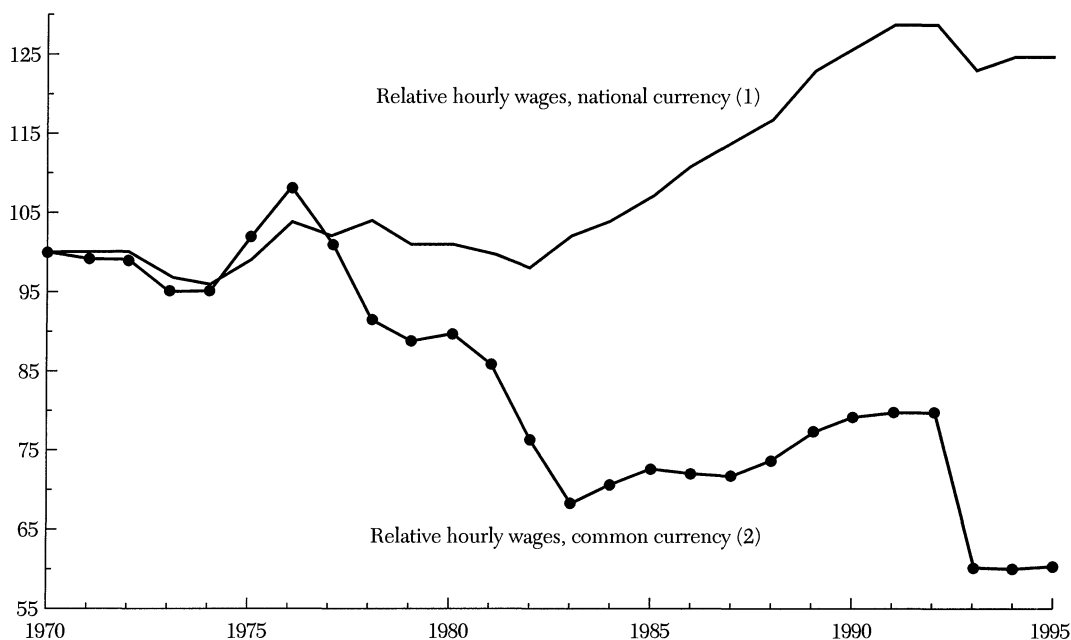
Sources: OECD National Accounts, vol. 1, 1996; Main Economic Indicators, 1996:2.

* If Mexico and Turkey are excluded.

growth path for GDP per capita from 1970, the Swedish “growth lag” shows up, in particular, in two recession periods: 1976–1978 and 1991–1993. This observation cannot, however, explain the relatively poor long term growth performance in Sweden, as other countries have also experienced negative short term macroeconomic shocks, though often with different timing than Sweden. Attempts to measure the timing and size of the growth lag is compli-

cated by the cyclical component of the GDP path. For instance, while time series ending in 1995, just after an exceptionally deep recession in Sweden, underestimate Sweden’s relative growth trend after 1970, statistics ending in the overheated (indeed unsustainable) boom of 1987–1990 overestimate it.²⁷

²⁷ Dowrick (1996) argues that “at least up until 1990 there is nothing in the Swedish growth performance which suggests substantial underperformance.” He seems to refer to the period 1950–



1. Index of nominal wages in each nation's currency relative to index for Sweden.
2. All countries' wages are expressed in Swedish kronor.

Figure 3a. Relative Wage Costs, Sweden, 1970–1995, index 100=1970, Manufacturing

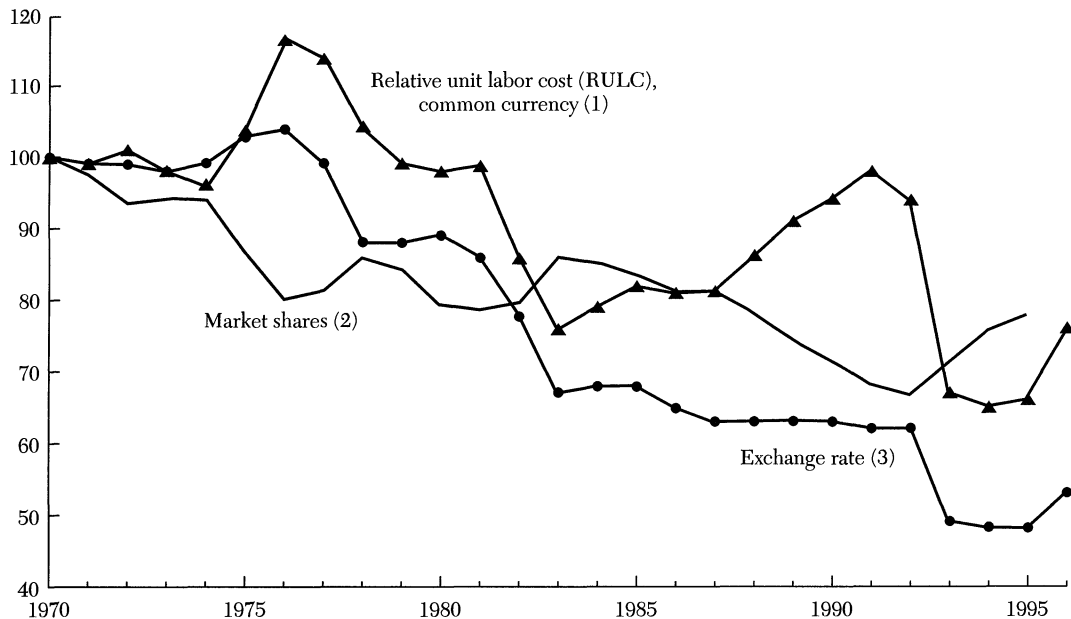
Sources: SCB and National Institute of Economic Research (KI).

Note: Countries are weighted by size of export competition with Sweden in various OECD countries. The weight for country j is $\sum_{k=1}^N w_k \cdot m_{jk}$, where w_k = Sweden's export to country k as a share of Sweden's total export to N developed countries. m_{jk} = country j 's share of country k 's import from the other N countries. Thus, not only the size of Swedish export to a specific country is considered, but also the size of exports to that country from other developed countries.

The sluggish aggregate productivity growth in Sweden after about 1970 is to some extent the result of the large size of the public-sector, with slow productivity growth. Indeed, available—though highly uncertain—calculations suggest that labor productivity growth in the public sector was, in fact, *nega-*

tive during the period 1970–1992 (ESO 1994:124; Richard Murray 1996). Nevertheless, labor productivity growth in the public sector is schematically set at zero in the Swedish national accounts. Thus, it would seem that the statistical conventions concerning public-sector production in the Swedish national accounts have biased the calculations of GDP growth *upwards* during the 1970s and 1980s, rather than downwards as is often asserted. The substantial shift of service production from households to the public sector (where such production is statistically recorded) has also biased calculations of GDP growth in Sweden upwards as compared to other countries.

1990, rather than to the period after 1970 which is in focus in this paper (as well as in the Swedish discussion). Moreover, he overlooks the fact that the capacity utilization of labor in the period 1987–1990 (with an unemployment rate of 1.6 percent on average according to national statistics) was clearly unsustainable. In a number of papers Walter Korpi (1996), a Swedish sociologist, has taken the same position, in contrast to the generally accepted view among Swedish economists; for a rebuttal to Korpi, see Henrekson (1996b).



Forecast for 1996 by KI.

1. Measured in Swedish kronor.

2. Share of Swedish export volumes in import volumes of other OECD countries.

3. See note in figure 3a.

Figure 3b. RULC, Exchange Rate and Market Shares, Sweden, 1970–1996, index 100=1970, Manufacturing
Sources: SCB and National Institute of Economic Research (KI).

The fact that much of the production of household services takes place in the public rather than the business sector in Sweden also biases the figures for productivity growth in the latter sector upwards as compared to other countries. Recorded labor productivity growth (per hour) in the business sector during the period 1973–1990 was nevertheless 0.2 of a percentage point slower per year than the OECD average and 0.8 of a percentage point slower than European OECD, with a somewhat greater difference in the 1970s than in the 1980s.²⁸ The lag of productivity growth relative to the OECD is more pronounced in the manufacturing sector: 0.6 of a percentage point per year during the period 1971–1990, again with a

greater difference in the 1970s than in the 1980s.

Estimates of *total factor productivity* growth are much more hazardous. Available studies indicate, however, that this was also relatively slow in the business sector in Sweden between 1973 and 1990, in particular as compared to Western Europe; see footnote 28.

Sweden's lagging productivity performance is also reflected in statistics on relative hourly wage costs. When measured in common currency, these seem to have fallen gradually though not monotonically from 1970 (or perhaps rather from 1976) to the mid-1990s. According to Figure 3a, the fall is about 40 percent relative to the country's trading partners among developed countries. More surprisingly, there has

²⁸ Footnote in appendix.

also been a gradual fall in relative unit labor costs (RULC), indeed, by about 25 percent; see Figure 3b. In other words, the (effective) depreciation of the Swedish krona since 1970, by altogether about 50 percent, has been stronger than can be explained by the faster wage inflation and the slower rate of productivity growth than in other developed countries.

Productivity growth recovered substantially in both the business sector and manufacturing during the severe macroeconomic crisis in the first half of the 1990s; see footnote 28. One reason is the closing down of low-productivity activities, another the reduction in overstaffing when absence from work declined (including absence for sick leave, maternity leave, and study leave). Both mechanisms were reflected in a fall in employment in the private sector by 12 percent during the deep business downturn in 1990–1993. One reason for the continued pickup in productivity growth during the period 1993–1995 is the rise in capacity utilization of then existing plants. It is too early to say whether this rise in productivity growth during the first half of the 1990s also reflects a new long term trend.

B. *Proximate Sources of Productivity Growth*

It is a commonplace that the slowdown of productivity growth in all developed countries since the early 1970s to some extent may be a statistical artifact. However, this does not explain why Sweden lags behind other countries. Technological “catch-up” (by other countries) is likely to be part of the explanation for the relatively slow rate of productivity growth in Sweden. After all, the operation of catch-up mechanisms is a common result in the empirical literature on cross-country re-

gressions of economic growth.²⁹ For instance, catch-up mechanisms help explain why some countries, such as the United States and Switzerland, have lost part of their lead over other developed countries. But such mechanisms cannot explain why Sweden was *overtaken* by 12 other OECD countries between 1970 and 1995, and wound up with a level of per capita GNP considerably below the OECD average, particularly, when the developing countries Mexico and Turkey are excluded. It is one thing to lessen your lead in a race, quite another to *fall behind* as Sweden has done.

Demographic factors, in particular the rapid increase in the number of citizens above pension age (65 years), have certainly contributed to the relatively slow rate of per capita growth in Sweden. The reduced rate of physical (material) capital accumulation, from originally rather high levels, also explains part of the slowdown. Indeed, the aggregate investment share fell from a level of about 2.5 percentage points above the OECD average in the 1960s to about 2 percentage points below in the 1980s (OECD National Accounts).³⁰ Aggregate saving has moved approximately in parallel with aggregate investment.

The bulk of the fall in investment occurred, however, outside the business sector, i.e., in housing construction and the public sector. This suggests that the

²⁹ For a survey of this literature, see, for instance, Ross Levine and David Renelt (1992). The catch-up hypothesis is also consistent with Table 2 in the present paper, as the dispersion among countries in this table has fallen between 1970 and 1995. In a *univariate* catch-up regression for OECD countries during the period 1973–1992, Dowrick (1996) concludes that Swedish aggregate growth performance (GDP per capita) lags by 0.3 percentage points per year compared with predicted performance (i.e., when the figures are adjusted for the catch-up factor).

³⁰ Footnote in appendix.

slowdown of labor productivity growth in the business sector is not mainly caused by reduced accumulation of capital; formal growth accounting seems to confirm this interpretation.³¹ It is also worth noting that investments in buildings fell relative to machines in the business sector. This suggests that Swedish firms were more anxious to “rationalize,” in the sense of substituting capital for labor, than to expand their production capacity.³² A reflection of this phenomenon is that aggregate industrial production in Sweden lagged by 27 percent relative to the OECD average between 1970 and 1990, though the lag had shrunk to 23 percent by 1995 (in connection with the brisk pickup in industrial production after the fall in value of the Swedish krona in November 1992).

In spite of a huge reduction in relative unit labor costs, Sweden has experienced a gradual decline in its market share in other OECD countries (Figure 3b and Lars Jagrén and Jakobsson 1993). It is not obvious how this should be interpreted. A modest part of the explanation is the increase in exports of new industrial countries. Another explanation could be that labor and capital have been stuck in sectors with falling terms of trade on world markets, and that wages in Sweden have been forced to adjust downwards accordingly.³³ This interpretation is consistent with Ragnar Bentzel’s growth-accounting calculations, according to which reallocation of resources contributed to only 0.3 of a percentage point of annual production

growth in the period 1970–1993 as compared to 0.9 in the period 1950–1970.³⁴ Another explanation might be that the improvement over time in the *quality* of products from Swedish plants has not been as fast as the quality improvements abroad, and that this has forced Swedish firms to lower their relative export prices, and hence also wages (in common currency) as compared to other countries.³⁵

It is also important to note that Swedish multinational firms, as organizations, have not experienced losses of market shares; in fact, their market shares have increased (Thomas Andersson, Torbjörn Fredriksson, and Roger Svensson 1996). This suggests that Sweden’s production problems are not embedded in Swedish *firms*, as organizations, but rather in the plants in Sweden, or in their economic and social environment.

³⁴ Another indicator that the reallocation of resources among sectors was slow during the 1970s and 1980s is that Swedish exports (in terms of value added) in the early 1990s were still heavily concentrated to about the same sectors as many decades ago: forest products (50 percent of *net* exports) and iron and steel (8 percent); NUTEK (1994). See also footnote 31.

³⁵ Sweden, like the United States, was probably a leader in product quality during the first decades after World War II. It is likely that technological catch-up by other countries has reduced this leadership. This interpretation is consistent with findings which assert that relatively little production in Sweden, at least until the late 1980s, has been reallocated to high-tech products as usually defined, although such measurements are open to controversy (Lennart Ohlsson and Lars Vinell 1987; Pär Hansson and Lars Lundberg 1995).

An acceleration in the shift toward high-tech sectors seems to have taken place in the 1990s. An observation that squares with the hypothesis of a relative fall in product quality is that R&D spending, and also the number of patents, are relatively high in Sweden. It is important to note, however, that R&D units in Sweden serve not only plants in Sweden but also foreign plants of Swedish multinational firms. While Swedish multinationals produced 44 percent of their output (value added) at home in 1990, the corresponding figure for R&D was 83 percent (Gunnar Fors and Roger Svensson 1994).

³¹Footnote in appendix.

³² According to Bentzel’s growth accounting (footnote 31), the ratio of machine capital to total capital in the business sector increased from 0.17 in 1950 to 0.25 in the late 1970s and to 0.27 in the early 1990s.

³³ The aggregate terms of trade for Sweden fell by altogether about 25 percent from 1960 to 1992 (World Bank, p. 478, 1976 and p. 630, 1994).

Investment in *human capital* was also relatively strong in Sweden in the 1960s and 1970s. Indeed, international studies suggest that the scholastic competence among the population as a whole is quite high (Åsa Sohlman 1996, pp. 65–79). But Sweden started to lag other developed countries in terms of higher education in the 1980s (Sohlman 1996; Hansson and L. Lundberg 1995; Leamer and Lundborg 1997; and OECD 1993). Though the number of students in both short university education (less than three years) and adult education has kept up rather well, the number of students with university education of “normal” length (at least three years) fell during the 1980s, both absolutely and relative to other countries. While 14–16 percent of individuals born in the late 1940s and early 1950s have completed a university education (at least three years), the corresponding figure is only 8–10 percent for individuals born in the mid-1960s (NUTEK 1994, pp. 148–52). In particular, the number of people with university training in engineering and natural science is relatively small in Sweden in these age groups (OECD 1995).³⁶

It is more difficult to judge the *efficiency* and *quality* of education in Sweden. Government spending per child in the school system (below university level) is relatively generous, which in itself may be tempting to interpret as reflecting high quality. But both the number of days per year that students spend in the classroom and the number of hours they spend on homework have been relatively low in Sweden for a long while. In the mid-1980s homework ac-

counted for only 2.3 hours per week, of which 0.6 hours in mathematics (OECD 1995; Ingemar Fägerlind 1991 and 1993). This is important as the number of hours students spend this way is a basic component of investment in human capital (R. Pashcal, T. Weinstein, and H. J. Walberg 1984). Overall, the achievements of students in recent decades seem to have been about average in Sweden among developed countries (Fägerlind 1993).³⁷ It is also striking that government spending per student is relatively low at the university level.³⁸ The number of Ph.D.’s is also relatively small both in Sweden as a whole and in the private sector.

C. *Physical Capital Incentives*

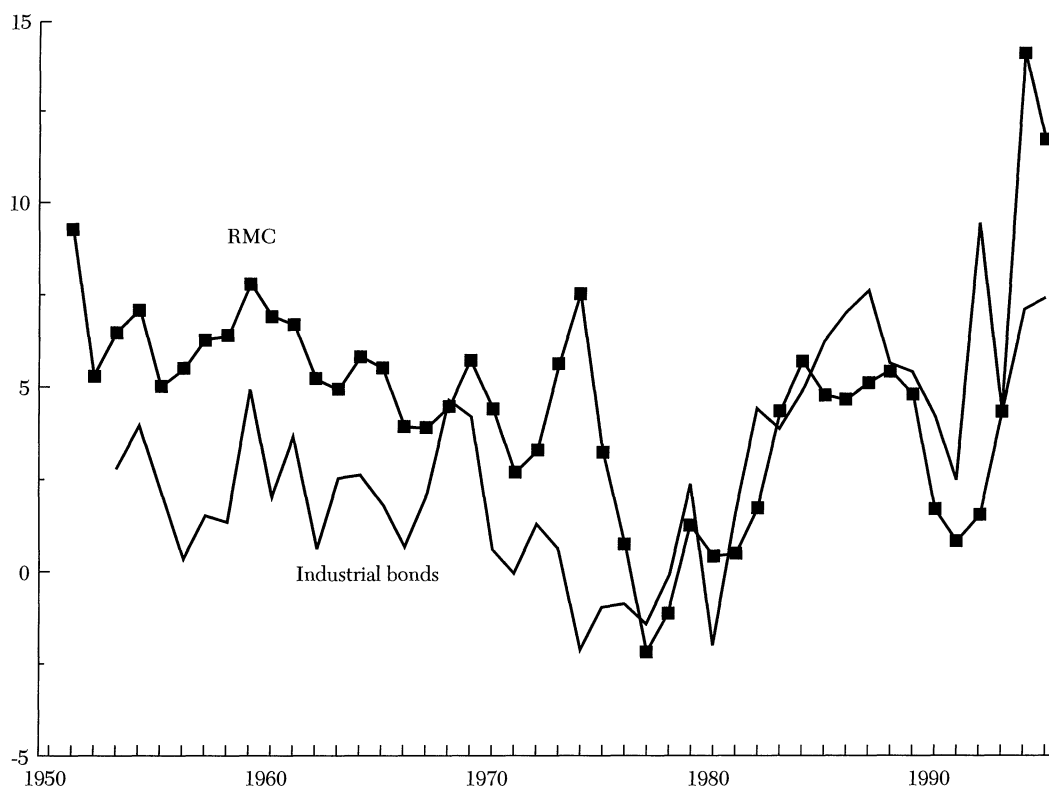
Let us now turn to the incentives to invest in physical and human capital. Figure 4 reports an attempt to measure the real return on physical capital (buildings, machines, and inventories) in manufacturing (statistics provided by Jan Södersten).³⁹ The return seems to have fallen considerably from a peak in the early 1950s, though with sharp short term fluctuations in connection with changes in the terms-of-trade and wage-devaluation cycles; the rise after the fall in the Swedish krona in late 1992 is particularly pronounced. Available—albeit hazardous—studies also indicate that the return in recent decades has been lower in Sweden than in most other OECD countries (NUTEK 1994).

³⁷ One explanation for the high expenditures per child is large spending on non-scholastic tasks and the resources devoted to classes in the “home language” of immigrants.

³⁸ According to Forslund (1995b, p. 20), spending per student at the university level was USD 7,120 in Sweden in 1992, as compared to 10,030 for the OECD as a whole. Such spending as a share of GNP was 1.0 percent in Sweden as compared to 1.7 for the OECD.

³⁹ For a description of the methods of calculation, see Villy Bergström and Jan Södersten (1979).

³⁶ Leamer and Lundborg (1997) assert that as a result of these developments, Sweden has ended up in a position just above the average of developed countries also in terms of human capital per capita.



RMC = (Gross surplus-economic depreciation) / (Value of machines, buildings, inventories)

Figure 4. The "Rate of Return Gap",
Swedish Manufacturing Sector, 1951–1995, percent

Source: Calculations by Jan Södersten.

Note: RMC = Return on Material Capital in manufacturing.

Calculations in terms of Tobin's q give similar results, though such calculations are also hazardous.⁴⁰ Aggregate figures conceal, of course, a wide dispersion among sectors and firms.

The falling rate of return on physical capital was no accident, but at least partly the result of deliberate policies. Both the government and the labor

unions wanted to squeeze profits between rising wage costs and a fixed exchange rate, in conformity with the so-called "Rehn-Meidner model" (named after two leading labor union economists, Gösta Rehn and Rudolf Meidner). In addition, solidarity wage policy was designed to make the profit squeeze particularly strong for low-profitability firms. The negative effects on aggregate employment and investment could, it was argued, be effectively counteracted by mobility-enhancing labor market policies and selective investment subsidies. The net result

⁴⁰ A number of studies indicate that Tobin's q has been below unity most of the time, and that it has been lower than in other countries, except immediately after the big Swedish devaluations in the early 1980s, and probably also in the early 1990s (Johan Örtengren et al. 1988, pp. 95–96).

was asserted to be a faster rate of reallocation of resources and speedier productivity growth (Landsorganisationen 1951). Thus, the favorable attitudes of unions in Sweden toward reallocation of resources and productivity growth were based on a specific idea of how these developments should come about. This growth strategy—characterized by low profits, small wage differentials, and selective government interventions in capital and labor markets—is an important example of the influence of the labor union movement on government policies in Sweden. Indeed, the *combination* of solidarity union wage policy and interventionist government policies in labor and capital markets has been a characteristic feature of the Swedish model for a long time. This combination was considered favorable for both equality and efficiency.

The reallocation of resources during the 1970s and 1980s was broadly consistent with the predictions of the Rehn-Meidner model; resources moved from low to high productivity firms in the private sector (Edin and Topel 1997). However, on a net basis labor moved rather to the public sector; see Figure 5. It is also worth noticing that the welfare implications differ when labor is pushed out of low-productivity sectors rather than pulled out of these sectors by higher wages elsewhere. The “push method” of reallocating labor does not allow workers to choose between income and social environment (including workplace and friends) in the same way as “pull mechanisms.” It turned out, however, that the “high-wage strategy” followed by unions could not prevent a gradual fall in wages in Sweden relative to other countries, as illustrated in Figure 3a.

It also turned out to be possible to maintain rather high aggregate investment in the private sector for a consid-

erable time. The level was kept up in manufacturing until the mid-1970s and in the business sector until the mid or late 1980s; see footnote 30. One explanation is that interest rates were kept down by capital market regulations and, in the case of ex post real interest rates, also by rapid inflation that was not fully reflected in nominal interest rates. A rough attempt to indicate the path of real interest rates is presented in Figure 4, which depicts the interest rates on industrial bonds adjusted for changes in the CPI.⁴¹ Another explanation as to why real investment was kept up for such a long time is selective investment subsidies to industries with specific profitability problems (such as steel and shipbuilding) which delayed, but did not stop, contraction and rationalization of these sectors. A third explanation is favorable tax treatment of firms that invest heavily; this was brought about, in particular, by accelerated depreciation.⁴² Moreover, foreign-exchange controls largely prevented Swedish firms from shifting their investment activities abroad.

Nevertheless, domestic financial capital flows gradually moved away from Sweden’s tightly controlled capital market institutions, such as banks and insurance companies. This development was also activated by expansion of the market for government securities in connection with growing government budget deficits. Moreover, domestic capital market controls were removed

⁴¹ A rather similar picture of the general trend is provided by a “nominalistic” calculation of rates of return on physical capital assets and market interest rates using official statistics from SCB for the former. These figures are difficult to interpret, however, as different vintages of capital goods are, in this case, valued at historical costs rather than at replacement costs.

⁴² In fact, for firms that invested heavily, the profit tax often functioned as an investment subsidy in the 1970s and 1980s (Agell, Peter Englund, and Södersten 1995, p. 118).

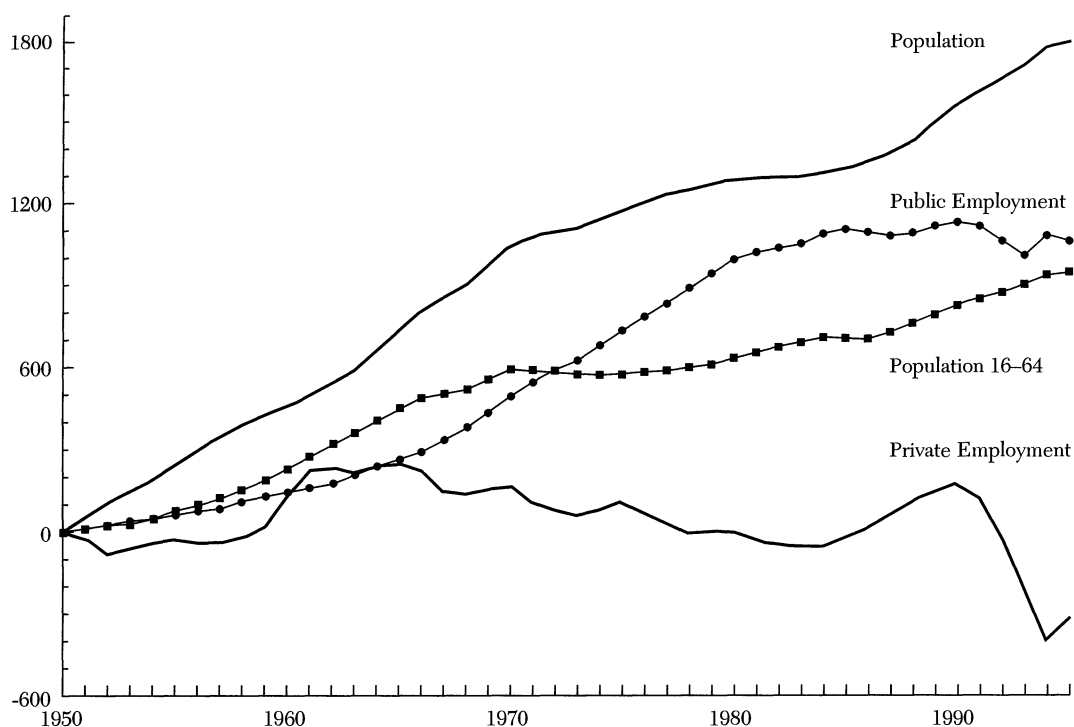


Figure 5. Population and Employment, 1950–1995
(cumulative change in thousands)

Source: SCB National Accounts and calculations by T. Lindh and G. Gunnarsson, University of Uppsala.

in the mid-1980s. The control of international capital movements also became less effective due to the expansion of trade and the internationalization of production firms. And at the end of the 1980s, exchange controls were also abolished. All this made it increasingly difficult to keep interest rates below foreign levels and prevent a fall in domestic real investment.

The profit squeeze in the tradables sector also seems to have become stronger than the authorities had intended. This was indicated by government warnings that rapidly rising wages in Sweden posed a threat to full employment. Other indications were frequent discretionary devaluations and a floating krona after November 1992, all

designed to restore profits, production, investment, and employment in the tradables sector; see Figure 3b for information on the path of the effective exchange rate.

Some of the effects of these policies and developments on the *allocation* of investment were clearly intentional, such as favoring housing construction and investment in a number of large export firms. But the combination of fast inflation and huge asymmetries in the taxation of different types of assets clearly had *unintentional* effects as well. In particular, capital costs have varied strongly and arbitrarily among types of investment, types of financing and, therefore, also among production sectors and firms (Charles E. McLure, Jr.

and Erik Norrman 1997; Agell, Englund, and Södersten 1995).

A special ambition of Swedish economic policy toward private firms has been to partition off the returns of firms from the earnings of their owners. The idea has been to prevent the accumulation of wealth within firms from making the owners richer. (The argument is clearly similar to one of the arguments behind the union proposals for "wage-earner funds.") The technique has entailed keeping taxes low on retained profits but high on the income and wealth of the owners. Such a tax system may not harm large corporations very much if they have access to international capital markets, although a conserving effect on the allocation of resources is unavoidable. The consequences are more problematic for small firms; in this case it is impossible to tax the owners heavily without also hurting their firms. In the 1980s, marginal *nominal* capital tax rates on the owners of such firms (profit tax plus taxes on dividends and capital gains) were often in the interval of 65–70 percent for those firms which could not take advantage of tax incentives for investment (calculations by Gunnar Du Rietz for this paper). Indeed, owner's returns often became negative in *real terms*. To this should in many cases be added wealth and inheritance taxes.

A low *household saving rate*, as measured by the national accounts, has been another characteristic feature of the Swedish economy since the 1960s. Indeed, the net household saving rate fell gradually from 6–7 percent (of disposable income) in the 1950s to a bottom notation of *minus* 5 percent in 1988 and 1989 (prior to an abrupt increase in the early 1990s). There is no general agreement today about the extent to which this negative trend can be explained by the aging of the population, the slow-

down in income growth of households, low (often negative) real after-tax interest rates, or the removal of important motives for individual life-cycle and precautionary saving due to increasingly generous welfare-state arrangements.

In the aggregate, low private saving and credit supply were compensated by large public-sector saving and credit supply for a long while. Net public-sector saving in the 1960s and 1970s often amounted to about half of net national saving, and public-sector credit supply to about half of total credit flows in the organized credit market. This, however, is not a solid foundation for a sustainable private enterprise system, which requires domestic private, including household, accumulation of wealth. The tax system has also been unfavorable to direct shareholdings by households, which have fallen dramatically.⁴³

These features of institutions and policies in Sweden—high taxation of the owners of firms, selective subsidies to large firms, capital-market regulations, low household saving, and the discrimination of shareholdings by households—probably go a long way in explaining the weak entry and growth of small- and medium-sized firms. For instance, while the entry of new firms in manufacturing constituted about four percent of the stock of firms during the period 1920–1946, the figure fell to less than two percent in the 1960s and 1970s, and to about one percent in the 1980s (Pontus Braunerhjelm 1993)

⁴³ The tax system has favored not only debt financing but also shareholding by various institutions, such as insurance companies and charitable foundations. The fraction of total shares held *directly* by households fell from 85 percent in 1950 to 15 percent in the late 1980s and early 1990s, in spite of a large increase in the *number* of households that own shares via various funds. If mutual funds owned by households are recorded in the household sector, the figure (in the mid-1990s) is 25 percent (information from the National Association of Shareholders).

though a modest increase occurred in 1994. It is also tempting to hypothesize that in contrast to large firms, small- and medium-sized firms find it more difficult to bargain with government authorities about selective subsidies.⁴⁴

D. *Human Capital Incentives*

The return on human capital also fell during the 1970s. In the case of university studies, the (after-tax) return seems to have fallen from about 12 percent in the 1960s to about 1–3 percent in the early 1980s, using “static” calculations (Edin, Peter Fredriksson, and Holmlund 1993).⁴⁵ This is likely to be an important explanation for the slowdown in the 1980s in the enrolment of students to higher education (in particular, at least three years of university studies).⁴⁶

The drastic squeeze of after-tax wage differentials among different skill categories of employees during the 1970s also reduced the economic incentives to acquire skills, which presumably had negative consequences for labor productivity growth. Moreover, piece rates, which were used to a large extent in Sweden in the 1950s and 1960s, became

⁴⁴ Total subsidies to production were about SEK 50 billion per year in the 1980s. Only about SEK 311 million of this amount may be classified as *direct* support to small firms, though some general subsidies, in particular to agriculture and housing construction, also favor small and medium-sized firms in those sectors (Catharina Barkman and Fölster 1995, p. 118).

⁴⁵ The calculated return is, of course, higher if it is assumed that the real wage rate will grow in the future, which is not assumed in the “static” calculations above. The figures are raised further if subsidized loans and stipends are included in the calculations (Edin, Fredriksson, and Holmlund 1993). Such subsidies, however, function as support to devoting time to studies in general, and not only to the acquisition of human capital with economic return in the marketplace.

⁴⁶ Empirical studies indicate that enrollment has varied quite closely, after some time lag, with the wage premia to university education (Edin and Holmlund 1995).

less prevalent in the 1970s.⁴⁷ There are no empirical studies to show us whether this change in the incentive element of wage contracts helps explain the slowdown in productivity growth.

The after-tax return on higher education recovered, however, in the mid-1980s and early 1990s to about 5 percent (with the same “static” calculations as above), as the result of increased wage dispersion and less progressive taxes on labor income. This rise in the return is, most likely, part of the explanation for the increased enrolment in university studies in the first half of the 1990s. Other explanations are a rise in unemployment for students leaving high school and an expansion in the capacity of the university system, in particular outside the traditional universities. Moreover, the wider dispersion of after-tax wages among workers since the early 1980s should have restored some of the incentives to acquire skills.⁴⁸

III. *Economic Efficiency*

Let us shift from economic growth to economic efficiency at a given point in time. I concentrate on two aspects: the role of the market structure of firms (including the degree of competition) and the consequences of various welfare-state arrangements.

A. *Market Structure*

During much of the post World War II period, economic efficiency has been relatively high in Sweden as compared to most other developed countries. De-

⁴⁷ While piece rates were used about 65 percent of the time among workers in manufacturing in the early 1960s, the corresponding figure had fallen to about 45 percent by the early 1980s, and stayed at about that level (calculations for the author by Stefan Olby; statistics from SAF).

⁴⁸ While the ratio between the wage rate of the 9th and the 1st decile fell from 1.58 in 1970 to 1.33 in 1980, it had increased again to 1.43 by 1995 (Edin and Topel 1997).

iciencies in the market structure of firms in Sweden are, however, often asserted to have constrained economic efficiency in recent decades. An important element is weak competitive pressure, particularly, in the non-tradables sector (constituting about three quarters of the national economy). Reference may be made not only to the dominant role of a small number of large firms but also to the cartellization of large sectors of the national economy; anti-cartel policies have been very lax in Sweden. Indeed, in various sectors with weak competition there are indications that economic efficiency is rather low as compared to some other developed countries (Lindbeck et al. 1994; McKinsey 1995; Henrekson 1996a; Fölster and Sam Peltzman 1997). After joining the EU (in 1995) Sweden will, however, be forced to adhere to stiffer anti-cartel rules.

In several regulated sectors, tight cooperation has also emerged between politicians, the regulators and the regulated firms, with obvious risks of "regulatory capture." It is in such sectors that so-called "iron triangles" of tightly knit power groups of representatives from both the private and the public sector are often said to have arisen, with potentially severe barriers to entry as a result. Examples often mentioned include agriculture, the food industry, the retail sector, housing, the construction sector, energy, the financial sector, and insurance. Here, then, is an additional expression of corporatist elements in Sweden, and possibly also another explanation for the domination of large firms.

Moreover, a basic idea in Swedish economic policy during the 1970s and 1980s was to replace spontaneous market mechanisms with political and administrative decision making, including selective taxes and subsidies, and in

some sectors direct controls of prices (in particular, in agriculture, housing, and until the mid-1980s, capital markets). Thus, a reduced role for economic incentives and markets was supposed to be compensated for by selective government financial support and interventions. The experience of these policies illustrates the well-known observation that new policy actions are often undertaken simply to counteract undesired, and often also unpredicted side effects of previous policy actions: "intervention breeds intervention." For instance, attempts to keep down interest rates induced the government to regulate the portfolios of financial institutions, in particular forcing them to lend to housing construction and large export firms, as well as to the government itself. The general profit squeeze of production firms induced politicians to implement selective subsidies, "active" labor-market policies and permanent public-sector employment. The conserving effects on the production structure in agriculture due to protectionism were counteracted by "administrative" consolidation and rationalization of farms, conducted by special government agricultural agencies (*jordbruksnämnder*). Because agricultural protection was implemented by tariffs on processed products rather than targeted at the farm level, regulations had to be imposed in the domestic food industry, which was cartellized to a considerable extent with the help of the government and the farmers' cooperatives. Moreover, competition has been restricted in retailing by the land-use planning monopoly of Swedish municipalities, which have been used to protect both existing stores and municipal shopping centers against new competitors. Rent control made it necessary to subsidize or socialize housing construction to prevent it from collapsing; but as

a result incentives to keep down building costs were largely removed. And so on.

B. *The Role of the Welfare State*

It is a commonplace that the welfare state comprises both efficiency-enhancing and efficiency-reducing effects. The most obvious example of the former is perhaps that compulsory social insurance helps overcome well-known imperfections in private capital and insurance markets. Another example is that subsidies to investment in human capital (education, prenatal care, child care, health care, etc.) counteract tendencies to underinvest which otherwise pose a threat in this sphere. The theory of endogenous growth asserts, of course, that not only economic efficiency but also long-term productivity growth is favorably influenced by investment in human capital.

It is often also hypothesized that a less dispersed distribution of income mitigates social conflict and that a tight safety net makes citizens more favorably inclined toward continuing reallocations of resources. Both features are said to enhance economic efficiency, and probably also long-term economic growth. These hypotheses sound reasonable; there might even be empirical support for them. But they require qualifications. This is also illustrated by the Swedish experience. In the case of social conflicts, the consequences of a compressed distribution of income and wealth must depend on *how* such compression has come about. For instance, it is likely to be more advantageous for economic efficiency and growth if compression results from more widely dispersed initial holdings of human and non-human capital than if it is brought about by permanently high marginal tax rates and price regulations, not to mention the nationalizations of assets.

We may also speculate that the relation between income equality and social conflicts is not monotone, at least not when brought about by taxes and welfare-state benefits. One reason is that such policies necessarily result in *politicization* of the distribution of income. Many individuals are then likely to start regarding the distribution of income as “arbitrarily” determined in the political process, rather than as fulfilling important functions for the allocation of resources and economic efficiency. As a result, distributional conflicts may in fact, after a point, be accentuated by reduced income differentials. Indeed, it is not obvious that distributional conflicts have diminished in Sweden after the radical equalization of income in the late 1960s and early 1970s via solidarity wage policy, taxes, and transfer payments. Moreover, the tolerance for reallocations of resources has certainly not been strong enough in Sweden to prevent political protests against large geographical movements of labor. In the late 1970s, such protests actually forced politicians to increase various kinds of regional subsidies in order to reduce the exit of labor from stagnating regions, and hence to slow down the geographical reallocation of resources.

When explaining the negative efficiency (and growth) effects of welfare-state policies, the most obvious suspects are, of course, wide tax and benefit wedges. In the 1980s, most income earners in Sweden were exposed to marginal tax wedges of 70–80 percent (including all types of tax and benefit wedges).⁴⁹ The development of these tax wedges over time is illustrated in Figure 6, which shows the “marginal income after tax” (one minus the marginal

⁴⁹ Part of the payroll tax is not a proper tax, as individual benefits are to some extent tied to previous payroll tax payments. The figures in the text encompass this fact.



Figure 6. Marginal Take-Home Pay Rate (one minus total marginal tax rate, in percent) Sweden, 1952–1997
Source: Du Rietz (1994) and new calculations by Du Rietz.

Note: The marginal tax rates are evaluated at mean earnings each year.

tax wedge) for two groups of wage earners.

Empirical studies of the costs to the Swedish economy due to the tax wedges for households have usually been cast in terms of “the marginal costs of public funds.” In the case of average income earners, the estimates in most studies for the late 1980s vary from about SEK 1.15 to 2.75 per krona in tax revenues.⁵⁰ In addition to the various analytical difficulties inherent in such studies, an important limitation is that most of them have been confined to the effects on only one or a few types of economic de-

isions. Thus, they do not capture the *pervasiveness* of the effects. I refer, of course, to the many margins of decisions that are influenced—leisure, household work, barter of goods and services, the intensity and quality of work, investment in human capital, choice of job, the geographical (including international) mobility of labor, the size and allocation of saving and investment in physical and human capital, tax avoidance, tax evasion, other types of economic crime, etc.⁵¹ Unfortunately, there is not much systematic quantitative knowledge about any of these be-

⁵⁰ For surveys, see Agell, Englund, and Södersten (1995, ch. 8); and Thomas Aronsson and James R. Walker (1997). Most of these studies have assumed that the (compensated) elasticity of labor supply is as low as 0.1 for the average employee.

⁵¹ Most estimates of the “underground” economy (i.e., the non-tax market sector) are in the interval of 4 to 8 percent of GNP. All such studies, of course, are extremely hazardous. For a survey, see Åke Tengblad (1994).

havior adjustments, except possibly in the case of hours of work.

With respect to disincentive effects in the context of benefit systems, it has not been possible to avoid poverty traps, for instance for single mothers. Problems of moral hazard and cheating with benefits seem to be particularly relevant in the case of sick benefits, work-injury benefits, economic support to single parents, selective housing subsidies, social assistance, and subsidized early retirement. For instance, in the late 1980s, when the replacement ratio in the *sick-benefit* system in Sweden was 90–100 percent, people stayed away from work for alleged sickness on an average of 26 days per year as compared to 14 days in 1955. (See Henrekson, Kari Lantto, and Mats Persson 1992; and Per Johansson and Palme 1996.) As a result, employers were often forced not only to engage in considerable overstaffing but also to reorganize their work teams depending on who showed up for work.

There has also been a gradual increase in the number of households receiving *social assistance* (“welfare” in U.S. terminology). While about 4 percent of the population received such benefits in any given year over the period 1950–1965, the figure had risen to about 10 percent in 1996 (Socialstyrelsen 1994:24). The composition of the recipients of social assistance has also changed. The elderly and the sick have been replaced by people of working age, often quite young individuals. In fact, social assistance and other means-tested benefits have tended to become a rather “normal” feature at some phase in the life span of Swedish citizens.⁵²

⁵² According to a study from 1990, some 14–30 percent of the population in a number of cities in Southern Sweden had received social assistance at least once during the past decade (Tapio Salonen 1993, pp. 95–103). For 24 year olds, the corre-

The growing number of people who depend on social assistance in the 1990s is also connected with higher unemployment and reduced benefit levels in general transfer systems (Salonen 1996).

The number of individuals with subsidized *early retirement* (originally designed for disabled persons) reached 8 percent of the labor force in the 1980s, i.e., long before unemployment had accelerated much. Still, labor force participation in the age group 55–64 has not fallen as much in Sweden as in several other countries in Western Europe. It was 70 percent for males and 63 percent for females in 1995, as compared to 57 and 30 percent, respectively, in OECD Europe.

The most obvious example of outright *benefit cheating* is perhaps that people work (possibly in the black market) while receiving benefits reserved for those who are not able to work, such as unemployment compensation, sick pay, or early retirement pensions. Other examples are that individuals deliberately exaggerate their physical inability to work or misreport their marital status and domicile. For obvious reasons, our knowledge of the quantitative importance of such benefit cheating is very limited.⁵³

It may also be hypothesized that several types of disincentive effects are delayed because economic behavior is, most likely, constrained by social norms against living on benefits and cheating with benefits and taxes. It will

sponding fraction was 20–38 percent. Among individuals born in 1965, two-thirds had at age 27 received some means-tested benefit at least once (Uddhammer 1997, ch. 4).

⁵³ A preliminary and highly incomplete study by the National Audit Bureau (Riksrevisionsverket 1995) has identified such cheating as amounting to SEK 5–7 billion, which corresponds to some 6–9 percent of the payments in the relevant benefit systems.

probably take time before such norms adjust to a new system of economic incentives (Lindbeck 1994; Lindbeck, Sten Nyberg, and Jörgen W. Weibull 1996).

The division of labor among the family, the market, and the government is, of course, affected by various welfare-state arrangements and related taxes. High marginal tax rates create substitution effects in favor of not only leisure but also household production of services, at the expense of purchasing such services in the market. For a supplier of household services in the market to earn, say, an extra USD 100 after tax, the buyer of a service in Sweden has to earn four to nine times this amount before tax (depending on the buyer's and seller's marginal tax rates). This is due to the joint effects of all marginal tax wedges (income tax and payroll tax for both, and sales tax for the supplier). This contributes to strengthening the substitution effect against labor supply in the open market, as well as to reducing the market demand for household services.

The negative substitution effects on labor supply are counteracted, however, by other features of the tax and welfare-state systems. After a tax reform in the early 1970s, income taxes have been assessed individually rather than on family income; the marginal tax rate of the "second" income earner, who is usually female, was then reduced considerably. Labor supply, in reality mostly that of females (including single mothers), has been further stimulated as the result of heavily subsidized child care and old-age care outside the household. Labor-force participation is also encouraged by tying many benefits to work. For instance, while benefits in connection with maternity leave and retirement are tied to previous work, unemployment benefits and social assistance are tied to

the willingness to search for and accept offered jobs. Female labor supply has also been induced by the high *average* tax rates of many households, which make it difficult to finance a family on one income (reflecting a positive income, or perhaps rather a liquidity effect, on labor supply).

All this helps explain the relatively high female employment rates in Sweden, although usually on a part-time basis; even most single mothers (indeed 70–80 percent) participate in the labor market. This has, in fact, been a direct *purpose* of government policies under the banner "equity between genders." The huge increase in the demand for labor by the public-service sector since the early 1970s is often claimed to have contributed to this development.⁵⁴

These developments illustrate the well-known point that the consequences of welfare-state and tax arrangements depend not only on the level of total welfare-state spending, and hence on the overall generosity of the benefits, but also on the "fine structure" of these arrangements.⁵⁵

A combined result of the tax and benefit systems in Sweden is that "the care of things," such as maintenance of property and durable consumer goods, has shifted from the market to the household sector (because of wide marginal tax wedges), while "the care of individuals" has shifted from the family to the government sector (because of high subsidies to public-sector services, e.g., for children and the elderly). Whereas

⁵⁴ The employment rate for females is marginally higher in Sweden than in the United States—about 75 percent as compared to 71 percent in 1995 for the age group 25–64. Adjusted for hours of work, however, it is marginally higher in the United States (Christina Jonung and Inga Persson 1993).

⁵⁵ This point has been stressed by, for instance, Freeman (1994) and Atkinson (1995).

production firms were socialized in socialist countries, the Swedish welfare state has instead, to a broad extent, socialized the provision of personal services to individuals and families (Lindbeck 1988). As pointed out by Sherwin Rosen (1997), one result is that *total* consumption of services—produced by either households or the public sector—expands at the expense of the consumption of material goods.

Public services are probably of relatively high quality in Sweden. There is also a rather even distribution of such services. Child care is an example. The public service sector has, however, not been spared the usual difficulties of achieving economic efficiency and adjustments to consumer preferences in the absence of markets and competition for its services. The earlier mentioned negative productivity trend in this sector in the 1970s and 1980s illustrates these difficulties. There is also an obvious risk of an insider-outsider problem when services are rationed. For instance, personnel and parents in child-care units have a joint interest in keeping down the number of children in a given service unit, even if the quality of the services would not change much if more children were admitted; see Hans Bjurek et al. (1996). In spite of the socialization of household services, about a fifth of all individuals seem to be heavily involved in the care of sick, handicapped, and old individuals outside official institutions—i.e., in the context of the “civil society” (Busch-Zetterberg 1996).

Concern among economists and politicians about serious disincentive effects of taxes and welfare-state arrangements probably stems more from fragmented evidence like those mentioned above than from systematic econometric studies. For instance, Gunnar Myrdal’s (1978) impressionistic as-

sertion that Sweden had become “a nation of cheaters” has been one of the most quoted formulations in the political discussion in Sweden in the last two decades. The *tax and benefit reforms* in 1983 and, more fundamentally, in the early 1990s have gone some way in reducing the magnitude of various disincentive problems. In particular, the essence of the 1991 tax reform was to replace the highly progressive income-tax schedule with two tax brackets: 26–33 percent for the majority of taxpayers (exposed only to local government taxes) and 51 percent taxpayers at the upper end of the income distribution, who also pay a 20 percent income tax to the central government. As a result of tax changes between 1983 and 1995, the total (explicit and implicit) marginal tax wedges were reduced by about 15 percentage points for most income earners. The top rates typically fell from 85 to 70 percent, and from 75 to 60 percent for most other full-time income earners; see Figure 6. (The rates started, however, to rise again after a few years.)

The replacement rates in most social security systems were reduced from 90 or 100 percent to 80 percent (and temporarily to 75 percent) in the early 1990s. Moreover, employers were forced to take over the payment and administration of sick benefits during the first two weeks (and subsequently four weeks) of sick leave; one waiting day was also introduced. There was a remarkable decline in the number of sick days in connection with these reforms. Between 1989 and 1995 average absence for (asserted) sickness seems to have dropped from 24 to about 11 days per year (statistics from Riksförsäkringsverket). The rise in unemployment in the early 1990s, however, is also likely to have contributed to this development.

IV. Macroeconomic Instability and Unemployment

A. Macroeconomic Policy Regimes

It is useful to distinguish between three different regimes of macroeconomic policy after World War II.

(i) The period 1950–1975 was the heyday of Keynesian demand management. A major ambition was to smooth the path of private investment by means of taxes, subsidies, and regulations, and to stabilize housing construction and infrastructure investment by administrative controls. During the first part of this period, macroeconomic policy actions in the product market were, indeed, often countercyclical and macroeconomic instability was smaller than in most other OECD countries (Lindbeck 1975, pp. 88–93; Andrea Boltho 1989). But the countercyclical pattern tended to deteriorate from the mid-1960s, in some cases due to a dominating concern for party politics. It was this experience that first called my attention to the possibility of a “political business cycle” grafted onto the conventional, market-induced business cycle.

Inflation during this period was supposed to be kept in check by a fixed exchange rate in the context of the Bretton Woods system. The parties in wage bargaining were assumed to guarantee that wages would not increase faster than the “room” for wage increases. This “room” was then defined as the sum of the increase in labor productivity in the tradables sector and the rate of price increase on world markets. The whole idea, often called the “Scandinavian model of inflation,” was sometimes interpreted as a descriptive (positive) theory, but more often as a norm of wage policy. Thus, the responsibility for making the fixed exchange regime compatible with a high level of employment in the tradables sector was, in fact,

delegated to labor market organizations in the context of centralized wage bargaining. This is another important example of corporatist elements in Swedish economic policy. The wage norm of the Scandinavian model of inflation was clearly in conflict with the earlier mentioned idea that profits should be squeezed between a fixed exchange rate and rising wage costs. The conflict was “solved” by a compromise: the wage trend exceeded the Scandinavian wage norm somewhat, in fact by about half a percentage point per year.

Adherence to the Scandinavian model of inflation broke down in the mid-1970s. After the first oil crisis, attempts by the Social Democratic government to “bridge” the international recession by fiscal expansion, including large subsidies to inventory investment, ended in a wage-cost explosion. The wage-cost per hour increased by altogether about 65 percent during the three-year period 1974–1976, resulting in an overvalued krona and sluggish production and investment in the tradables sector.⁵⁶ These problems were accentuated by overcapacity on international markets in traditional (“basic”) industries of great importance in Sweden, such as mining, steel, and shipbuilding (Lennart Schön 1994).

(ii) The crisis in the tradables sector in the mid-1970s was met by devaluations on the part of the new center-right government in 1976 and 1977, by altogether about 12 percent (effective exchange rate). This marked the end of a 25 year period of *fixed and constant* exchange rates, even though the authorities have afterwards tried (rather unsuccessfully) various types of fixed exchange rate arrangements. The new macroeconomic policy regime was characterized by recurrent discretionary de-

⁵⁶ Footnote in appendix.

valuations (also in 1981 and 1982). Wage-devaluation cycles during this period made variations between overvalued and undervalued exchange rates an important feature of domestic macroeconomic instability. Another unavoidable consequence of the devaluation policy was a rather steep inflation trend. The CPI increased by about 8 percent per year in Sweden during the 1980s as compared to 6 percent in the OECD area as a whole (excluding Turkey). However, open unemployment continued to fluctuate within a narrow band, 1.5–3.5 percent (national statistics), at the same time as it increased mercilessly in most other developed countries.

A new inflationary element emerged in the 1980s: the “explosion” of asset prices, including the prices of real estate and shares.⁵⁷ One factor behind this development was the deregulation of domestic capital markets around 1985, which was followed by an expansion of bank credit by about 20 percent per year in an economy that was already stimulated by the large devaluations in 1981 and 1982 (by 10 and 15 percent, respectively). The asset-price boom was enhanced by the fact that nominal interest rates were fully deductible against high marginal income-tax rates, which contributed to making real after-tax interest rates quite low, often in fact negative, for households.⁵⁸ Moreover, the government waited until 1989 before fully deregulating the market for foreign exchange. So an increased do-

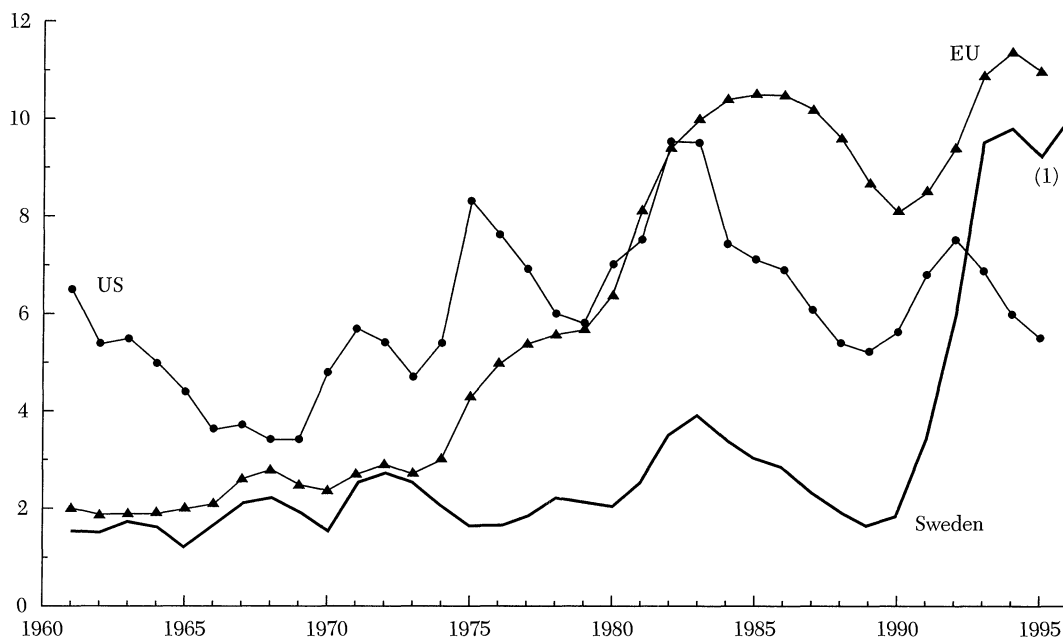
mestic demand for assets, including real estate, was to a considerable extent “bottled up” in the Swedish economy. The boom in real estate prices was accompanied by a strong building boom for office space and housing, particularly in the latter part of the 1980s. As there was also a boom in consumption expenditures over the period 1984–1988, it is hardly surprising that the end result was an “overheated” economy. This was reflected in both a fall in the aggregate unemployment rate (to 1.3 percent in 1989 according to national statistics), and wage-cost inflation of about 9 percent per year during the period 1984–1991.

(iii) A third macroeconomic policy regime emerged in the early 1990s. Its main characteristic was a greater emphasis on price stability, as a reaction against the rapid inflation in the 1970s and 1980s. The new policy stance was officially announced by the Social Democratic government in its January 1991 budget proposal, where low inflation was established as the overriding (*övergripande*) target of macroeconomic policy. The new policy strategy in Sweden was no doubt inspired by similar ambitions in other countries. But it may also be seen as an attempt to return to “the Scandinavian model of inflation” of the 1960s and early 1970s with a fixed exchange rate as an intermediary target of monetary policy. To increase the credibility of the new policy stance—often characterized as a “norm-based policy”—the krona was tied to the ecu in May 1991. By then, however, a rapid wage-cost increases had already, once again, made the krona overvalued; see Figures 3a and 3b.⁵⁹

⁵⁷ The prices of office buildings seem to have increased by a factor of at least four between 1980 and 1990 and the prices of apartment houses by a factor of about five, while consumer goods prices increased by a factor of about two. Share prices increased by a factor of ten during the same period (SNS 1993, ch. 5).

⁵⁸ Real *after-tax* (long-term) interest rates for households hovered around *minus* 5–6 percent during the 1970s and the first half of the 1980s and about *minus* 2 percent during the second half of the 1980s (Agell and Lennart Berg 1996).

⁵⁹ The idea of such a norm-based macroeconomic policy strategy was advocated, in particular, by some economists associated with the Center for Business and Policy Studies (SNS) in Stockholm.



(1) The Swedish figures for the period 1993–1996 are about 1.5 percentage points lower in Swedish national statistics.

Figure 7. Open Unemployment Rate, 1961–1996,
(percent of labor force OECD standardized figures)

Sources: OECD Labor Force Statistics 1986; OECD Economic Outlook 5; SCB.

The new policy strategy succeeded in the sense that inflation was brought down to about 3 percent within one or two years, partly as a result of higher unemployment and reduced payroll taxes, but partly also through the assistance of a government-appointed stabilization commission. The “Rehnberg Commission,” as it was called, convinced the organizations in the labor market to accept low wage increases during the three-year period 1992–1994. The policy strategy of “no more devaluations” failed, however. It turned out to be impossible to borrow credibility for the Swedish krona from the DM-zone. Expectations of a future devaluation of the Swedish krona during the second half of the 1980s continued, and were accentuated, into the early 1990s, often reflected in interest rate differentials between Swedish and Ger-

man bonds of 2–4 percentage points. Not even a spectacular increase in interest rates to 500 percent for loans in the Central Bank in the fall of 1992 could save the krona, which was allowed to float, or rather “sink,” in November 1992 (Figure 3b).

By far the most spectacular macroeconomic development in Sweden in the early 1990s, however, was the emergence of the deepest recession since the 1930s. The accumulated fall in GNP was 4 percent during the three-year period 1991–1993, and manufacturing output declined by altogether 15 percent from the top to the bottom quarter. Total employment fell by about 11 percent between 1990 and 1993. Open unemployment increased to 8 percent by 1994 (9.5 according to OECD standardized statistics; see Figure 7) and total unemployment to 13 percent

(open unemployment *plus* people in various labor market programs).⁶⁰

The most obvious “proximate” explanation for the depth of the recession in the early 1990s is that no attempts were made this time to accommodate cost and demand shocks, for instance, by devaluation or domestic demand expansion for products or labor. There was also an unusual *coincidence* of negative supply and demand shocks. Important examples are the international recession, the rise in real interest rates on world markets and even more in Sweden, the drastic fall in previously inflated asset prices,⁶¹ and the collapse (by about 75 percent) of building activity in the real estate sector, which was accentuated by the reduction in capital-income tax rates against which interest costs can be deducted. Meanwhile, the financial system underwent a severe solvency crisis, which compelled the government to issue depositor and creditor guarantees in all major financial institutions. The government also had to bail out three banks by an amount equivalent to about 4 percent of one year’s GNP. (About 90 percent of this bailout went to one bank, Nordbanken, in which the government was a majority owner.)

Several of these negative shocks to the Swedish economy in the early 1990s were clearly “legacies” from developments and policies in the 1980s, obvious examples being steep wage inflation and an increasingly overvalued exchange rate, the fall in “blown-up” asset prices and the collapse of the overheated building boom.

⁶⁰ Footnote in appendix.

⁶¹ In the period 1990–1993, the prices of office buildings fell by about 50 percent, and the prices of apartment buildings and owner-occupied houses by about 30 percent. According to Agell, Englund, and Södersten (1995) about half of the latter fall was attributable to nothing other than a capitalization of the less favorable tax rules from 1991.

Later on during the recession, the financial saving rate of households increased from minus 2 in 1990 to plus 10 percent of household disposable income (in 1994), which corresponds to a fall in aggregate demand by 6 percent of GNP.⁶² As financial saving also increased in the business sector, *total* private financial saving rose by as much as 19 percent of GNP. Because the current account of the balance of payments did not change much, the financial position of the public sector shifted, as a mirror image (by the national account identity), from plus 4 to minus 13 percent of GNP. This illustrates the high sensitivity of the budget deficit to variations in capacity utilization of the national economy.

After the fall in the floating krona by about 20 percent (effective exchange rate) at the end of 1992, the idea of a fixed exchange rate as an intermediate target of monetary policy was replaced in January 1993 by an explicit inflation target for the Central Bank along the lines of New Zealand, Canada, and the U.K.: a two percent rise in the CPI per year (plus/minus one percent).

The macroeconomy recovered gradually from the deep recession following the fall of the krona, as it did after the big devaluations in the early 1980s; see Figure 2.⁶³ The persistent nature of aggregate output shocks in Sweden in the past, however, casts some doubt on the extent to which this output loss can be recaptured in the near future, as long as attempts are not made to overhaul basic

⁶² If household saving is measured as the change in real wealth, rather than as the difference between current income and the purchase of consumer goods (as in the national accounts), the saving rate in fact *increased* in the second half of the 1980s and *fell* in the early 1990s, while the saving rate in the national accounts moved in the opposite direction (Englund 1995).

⁶³ GDP increased by about 2.8 percent per year during the three-year period 1994–1996.

structural features of the Swedish economic system.⁶⁴ During the recovery, however the high sensitivity of industrial production to the real exchange rate was illustrated once again. It increased by as much as 7 percent per year in the four-year period 1993–1996; by 1996 the pre-recession level (1990) was exceeded by 17 percent (yearly figures).

As during the economic recovery in the second half of the 1980s, the government budget deficit fell as dramatically as it had previously increased—this time from 12 to 4 percent of GNP between 1993 and 1996. About two thirds of this reduction (by 8 percent of GNP) was a result of discretionary tax increases and spending cuts (divided about equally), while the rest was a consequence of the automatic budget response, sales of assets, and some elements of “creative bookkeeping.” The debt ratio stabilized at about 80 percent of GDP in 1997 (the net debt ratio of the consolidated public sector at 30 percent).

B. *Lessons from the Macroeconomic Experience*

Six lessons stand out from the macroeconomic experience in Sweden during recent decades.

(i) While “fine-tuning” is a hazardous operation in the product market, it has succeeded better in the labor market in the sense that various labor-market programs have often moved countercyclically. Both types of policies are, of course, vulnerable to the classical problem of an accommodating policy stance: sooner or later private agents may start anticipating accommodating policy actions, which means that they may not hesitate to push up wages and prices.

⁶⁴ A VAR study by Thomas Uhrl (1996) suggests that domestic shocks in Sweden have usually had permanent rather than temporary effects on aggregate output.

(ii) The importance of proper sequencing and timing of major policy reforms has also been highlighted. Perhaps the most obvious example of unfortunate sequencing in Sweden is that deregulation of domestic capital markets was implemented prior to both a radical tax reform (including reduced tax rates on capital income) and the removal of exchange controls. An important example of unfortunate timing (indeed, largely “bad luck”) was the sharp rise in after-tax real interest rates in 1992, i.e., exactly when building activity collapsed also for other reasons.⁶⁵ Another example is that the reforms of sick-pay in surance reduced absence from work exactly when full employment broke down.

(iii) A lesson from the 1920s had to be relearned in the 1980s and 1990s. Boom and bust of credit flows easily result in large fluctuations in asset prices and in serious solvency and liquidity problems for financial institutions. These phenomena may contribute to macroeconomic instability resembling Hayek-type business cycles. This suggests some care when deregulating capital markets.

(iv) A fourth lesson pertains to potential instability in the financial saving rate of households. In the case of Sweden, the most obvious explanations are perhaps the need for stock adjustments of households’ portfolios in connection with the deregulation of capital markets, sharp fluctuations in asset prices,

⁶⁵ The short-term macroeconomic effects of the 1991 tax reform as a whole are difficult to assess, as the after-tax return on both investment and saving, and hence also the after-tax capital costs, were raised. Moreover, household disposable income was boosted as the tax reform was under-financed. A study by Agell, Englund, and Södersten (1995, ch. 6) argues that the net effect was contractionary, mainly via the negative effects on the capital value of housing property and hence also on housebuilding.

and huge swings in after-tax real interest rates. Increased uncertainty about jobs in the early 1990s may also have contributed to the rise in the household saving rate.⁶⁶

(v) A related lesson concerns the automatic fiscal stabilizer. In countries with generous welfare-state arrangements, including Sweden, the budget deficit tends to “explode” in deep recessions.⁶⁷ Several observers have recently questioned the traditional Keynesian view that this will always contribute to macroeconomic stability. Reference is then made not only to the hypothesis of “Ricardian equivalence” according to which private saving would increase by as much as government saving has decreased. A recent more radical “revisionist” view is that galloping government debt may, in fact, have *restrictive* effects on the national economy. One reason would be increased uncertainty among private agents concerning the ability of the government to live up to its financial commitments. More specifically, households are assumed to become uncertain about already promised social security entitlements, which is likely to raise their precautionary saving, in particular perhaps via reduced purchases of durable consumer goods. (Uncertainty about future taxes, however, may have the opposite effect.) And lenders are asserted to become uncertain about the ability of the government to meet its debt commitments

without increased inflation, with large increases in nominal and probably also real interest rates as a result (ex ante as well as ex post). According to this revisionist view, there is a risk that the traditional fiscal stabilizer could, in fact, turn into a destabilizer in exceptionally deep recessions in countries where the budget deficit is highly sensitive to fluctuations in output and employment. Recent experience, in Sweden as well as in other countries, also illustrates that galloping government debt may make the authorities hesitate, even in deep recessions, to take *discretionary* expansionary fiscal policy measures.

(vi) Finally, a fixed exchange rate did not turn out to be a powerful method for keeping inflation in check in Sweden. The macroeconomic policy actually pursued was not consistent with the chosen exchange rate regime. As a consequence, private agents often had reasons to expect new devaluations, which also came about subsequently. The devaluation cycle in Sweden has also been closely connected with the violent swings in the budget deficits: the budget deficits has increased dramatically in periods of an overvalued exchange rate, when capacity utilization has been falling, while the budget deficit has gone down equally rapidly when the exchange rate has been undervalued. Moreover, the internationalization of financial markets drastically reduced the time available to adjust domestic costs downwards when the exchange rate had become overvalued. It remains to be seen if a combination of a floating exchange rate and an explicit inflation target will have better success. The experience during the period 1993–1996 is encouraging, as inflation fell to one percent and the interest-rate gap relative to Germany (for 10 year bonds) went down to about one percentage point. However, it is too early to tell

⁶⁶ There is no consensus about the relative importance of these various factors.

⁶⁷ In the two recessions in 1981–1982 and 1991–1993, each percentage point of the fall in GNP, as compared to the trend, was connected with about a 1.3 percentage point increase in the budget deficit as a share of GNP. (Approximately 0.7 out of 1.3 seems to be due to the conventional “automatic stabilizer.”) In the first recession the budget deficit increased by 8 percent of GNP, in the second by 16 percent of GNP. Part of this result was due to changes in the composition of GNP and discretionary policy decisions, such as increased government spending to reduce open unemployment.

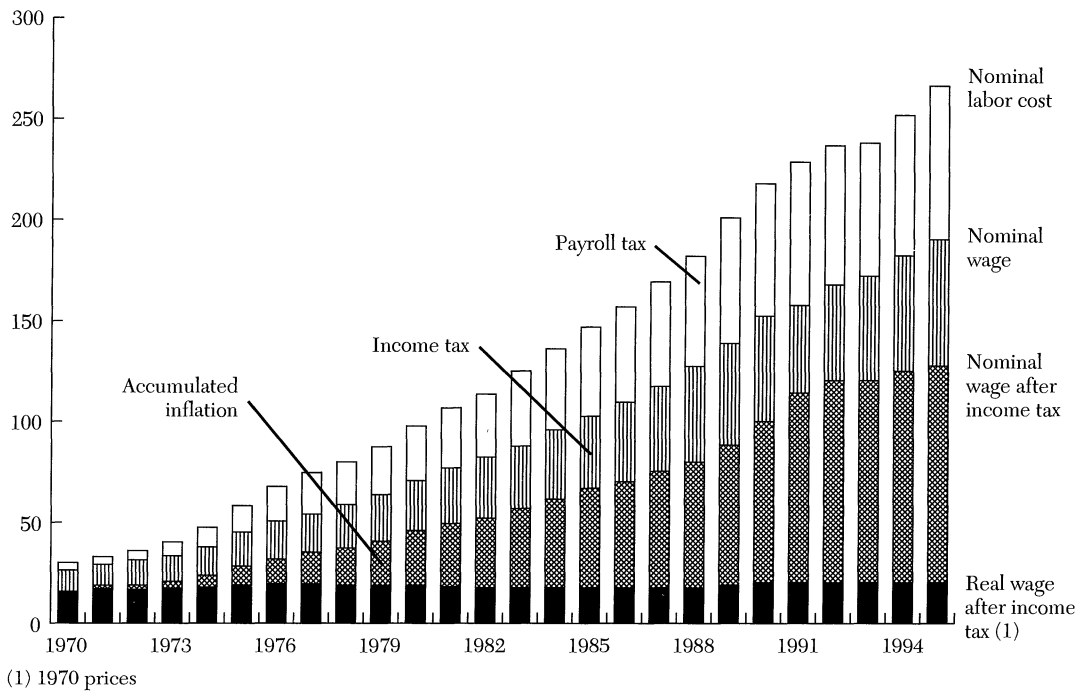


Figure 8. Labor Cost per Hour for Industrial Workers, Sweden, 1970–1995, (thousands of SEK)

Source: SCB

how this type of policy will function in a longer-term perspective, in particular with lower unemployment. Moreover, the experiment would, of course, be discontinued if Sweden were to join the Exchange Rate Mechanisms (ERM) of the European Union, or the European Monetary Union (EMU).

C. The Employment Experience

Two particularly important questions are raised by the Swedish employment experience. How was it possible to keep the unemployment rate low for such a long time, and why did full employment break down in the early 1990s?

Schematically speaking, five attempts seem to have been made in the literature to explain low unemployment in the 1970s and 1980s: (i) that “responsible” centralized wage bargaining kept

real product wages down; (ii) that strict “work requirements” in the unemployment benefit system encouraged job search; (iii) that “active” labor market policy improved the functioning of the labor market; (iv) that real product wages were cut by devaluations from time to time; and (v) that a rapid increase in permanent public-sector employment kept up aggregate labor demand, in particular for females.

(i) Real product wages were no doubt reduced on several occasions when unemployment tended to rise. This has often been interpreted as downward “real wage flexibility” thanks to *centralized wage bargaining*. However, it was not through nominal wage moderation, but via a series of devaluations, that real product wages fell in these situations. If the parties engaged in central wage bar-

gaining were so “responsible,” why did they agree to nominal wage increases by altogether 600 percent (800 percent including payroll taxes) between 1970 and 1993? There was hardly any leeway at all for higher real after-tax wages, in the sense that the latter remained virtually unchanged over the entire period (Figure 8). Indeed, raising nominal wage costs by 600 to 800 percent seems to be a rather clumsy way of bringing about constant real after-tax wages. Thus, central wage bargaining in Sweden can at most be credited with ensuring that the unions did not ask for immediate full compensation for the real wage reductions after each major decline in the value of the krona. Thus, the famous “real wage restraint” of Swedish central bargaining appears to have materialized only at very specific occasions of acute crisis immediately after devaluations of the Swedish krona.

Centralized bargaining had also become increasingly difficult to coordinate as other peak-level organizations than LO and SAF gradually gained importance in the late 1960s, in particular organizations of white-collar employees and employees in the public sector (the latter with full bargaining rights from 1966). As a result, the previous wage leadership of LO and SAF was gradually transformed into multi-polar centralism, with recurring conflicts among different unions. While LO membership was about 3.5 times that of all other unions combined in 1955, the corresponding figure had fallen to 1.7 in 1975 and 1.3 in 1995.

(ii) Assertions that the construction of the *unemployment benefit system* in Sweden has kept the unemployment rate down find some support in cross-country regressions, according to which fixed duration of benefits and strict work requirements are conducive to low unemployment (Richard Layard, Stephen Nickell, and Richard Jackman

1991). However, such arrangements have turned out to be politically difficult to maintain during periods of high unemployment. Since the early 1990s, unemployed individuals in Sweden have been allowed to qualify for new periods of unemployment benefits by participating in various labor-market programs, so that the benefit period has, in fact, become unlimited. Work requirements are also difficult to enforce when there are very few vacancies in the labor market (Lars Ljungqvist and Thomas Sargent 1997).

(iii) *Active labor-market policy*—direct job creation, training programs, and mobility-enhancing measures—is a specific Swedish contribution to economic policy. There is no question that direct job creation in the form of public works and employment subsidies can generate jobs. The difficult question is how large and fast the crowding-out effects are on ordinary jobs—directly via substitutions on the production and labor-input side, as well as indirectly via higher taxes that reduce demand for private goods, upward pressure on real product wages, etc. Empirical studies in Sweden indicate that crowding-out is considerable, 50–80 percent, in the case of direct job-creating activities by the government, in particular in the case of construction; this experience parallels experiences in other countries (Forslund 1996). However, it has not been possible to detect any direct crowding-out of private employment when the government has increased employment in the social service sector (Forslund and Alan B. Krueger 1997; and Lars Calmfors 1993). An obvious explanation here is that private production has hardly been able to develop, to begin with, in this sector because of government-imposed discrimination of private provision of such services. Thus, we may say that even the *emergence* of pri-

vate production and employment was crowded out long ago in this sector. When married women are stimulated to enter the private labor market, this should, however, raise their demand for private goods and services.

Mobility-enhancing policies and training programs are, no doubt, promising ways of improving the functioning of the labor market. They have, however, some obvious limitations. For instance, no more than 17 percent of those who get jobs in Sweden over any given period of time seem to do so with assistance from the official nationwide (near-monopoly) labor-market exchange.⁶⁸ Moreover, labor-mobility policies and training programs cannot be successful without a considerable number of job vacancies; after all, these policies are supposed to help people “swim faster” from the unemployment islands to vacancy islands. This means that such policies are not likely to be very successful in deep recessions.

A striking illustration of the limitations of active labor market policy is the Swedish experience in the early 1990s. About 5 percent of the labor force engaged in different programs, organized by the Labor Market Board, could not stop a dramatic rise in open unemployment (Figure 7), and a large increase in long-term non-employment. Cost-benefit studies also indicate that the economic returns of retraining programs conducted by the National Labor Market Board are quite modest; cf. Forslund and Krueger (1997) and Calmfors (1993) for surveys.⁶⁹ One reason may be

the large volume of these programs in Sweden. Another may be that workers sometimes have chosen such program simply to qualify for a new period of unemployment benefits (before changes in the rules from 1996). It is also tempting to speculate that the focus on active labor market policy, and on the open unemployment rate, has distracted the political discussion away from measures designed to improve the overall performance of the private sector, including expansion of private employment.

(iv) While *devaluations* have boosted employment in the tradables sector on several occasions, why would such a “monetary” action have *prolonged* real effects in the labor market? A reasonable answer is that nominal wages usually do not catch up very fast after devaluations. One explanation for such delays is that devaluations often occur in situations when the real product wage is in disequilibrium, in the sense that serious unemployment exists or threatens in the tradables sector. Under such circumstances, insiders and labor union leaders in the tradables sector may occasionally accept lower real (product and consumption) wages via higher output prices (in domestic currency) in order to reduce the employment risks. In this way, a devaluation may speed up the transition to a sustainable (“equilibrium”) employment level. This experience is quite consistent with Keynes’ celebrated assertion that workers and their unions are often willing to accept real wage reduction via inflation, though not by nominal wage cuts (or even cuts in the rates of nomi-

⁶⁸ The figure rises to 23 percent if re-employment by previous employers is excluded from the statistics (Statistics from National Labor Market Board 1996).

⁶⁹ In early 1994, 46 percent of all registered job searchers (including people in retraining programs) had been out of work for at least one year (NUTEK 1994, pp. 47–49). Various empirical studies suggest that the

labor income obtained is not (much) greater for those who have participated in official retraining programs than for those who have not (Björklund 1993). Serious attempts have been made to correct for selection bias in these studies, though we cannot be sure that this has succeeded fully.

nal wage increases). A series of devaluations may, therefore, repeatedly rescue the economy from winding up in serious unemployment situations.

(v) It is often also argued that the low unemployment rate in Sweden during the 1970s and 1980s was a result of the expansion of permanent *public-sector employment* by about 600,000 people (15 percent of the labor force) from 1970 to 1985 (Figure 5). Why was private employment then not crowded out by about the same amount? As in the case of increased *temporary* public-sector employment via active labor market policy, the answer is probably that crowding-out takes time.

A related question is why the huge rise in the *relative wages* of unskilled workers in Sweden from the early 1960s to the early 1980s did not raise unemployment drastically for this category of employees. One answer may be that the shortage of skilled labor, in an economy characterized by "overfull" employment, induced a substitution of unskilled for skilled labor (Topel and Edin 1997). Moreover, the huge increase in public-sector employment kept up the demand for low and medium-skilled women. This must have indirectly increased the job opportunities for low-skilled men, at least temporarily, because they did not have to compete with so many low-skilled females in the private sector.

These explanations of the successful employment performance in Sweden in the 1970s and 1980s find support in the earlier mentioned fact that full employment broke down exactly when the authorities decided *not* to accommodate negative macroeconomic shocks by new rounds of either discretionary devaluations or increased public-sector employment. Indeed, the latter was reduced by about ten percent in the early 1990s. It is also interesting to note that

the rise in unemployment in the early 1990s was several (2–5) percentage points higher than would be expected on the basis of Okun-type estimates of the relation between changes in output, relative to the growth trend, and the unemployment rate (Gylfason, ed. 1997). The reduced overstaffing of firms when absence from work fell drastically in the early 1990s is certainly one explanation.

An important question of political economy then is *why* the previous accommodation policy was abandoned. One obvious answer is that politicians had become anxious to bring down the inflationary trend, presumably due to growing awareness of economic distortions and arbitrary redistributions of wealth by inflation in the 1970s and 1980s. The shift in policy may also have been a response to anti-inflationary policies abroad. Moreover, it became clear that public-sector employment cannot increase forever, as a share of total employment, without undesired consequences for the allocations of resources and economic incentives. We may also speculate that wage-devaluation cycles were regarded as contributing to excessive instability in the rate of return and investment in the tradables sector.

The fact that politicians finally decided that devaluations and further expansion of public-sector employment were not acceptable methods of keeping the unemployment rate down means that the previous success of full employment was not sustainable in the long run. In this sense, a rise in unemployment had simply been postponed, though the dramatic rise in the early 1990s was also, as we have seen, related to the coincidence of a large number of negative macroeconomic shocks. It also turned out that the problem of unemployment persistence is probably no

less serious in Sweden than in other European countries.⁷⁰

V. *Is the Swedish Model Unwinding?*

Let me summarize. Relatively fast productivity growth during the century-long period 1870–1970 gave Swedes a higher income standard than that of citizens in most other industrial countries. Increasingly ambitious welfare-state arrangements and full employment after World War II also provided exceptionally high economic security, generous provision of public-sector services, and a relatively even distribution of income. It therefore seems natural that, especially during the early postwar decades, Sweden was generally regarded as having been able to combine economic equality, generous welfare-state benefits, and full employment with high economic efficiency and rather fast productivity growth. But slower economic growth from about 1970, a collapse of full employment in the early 1990s, a recent widening of income differentials, and retreats of various welfare-state benefits have made the picture of the “Swedish model” less idyllic.

These problems may be regarded as a result of *both* exogenous changes in the environment of the Swedish model *and* endogenous dynamics of the model itself. Obvious examples of the former are the aging of the population, technological development, and internationalization of the economic system—changes that have influenced all developed countries. Examples of endogenous dynamics are various types of

disincentive effects, problems of moral hazard and cheating with taxes and benefits, deficiencies in competition in markets for products and services, as well as inflexible relative wages.

The most important “endogenous dynamic” is very likely the ever higher ambitions of politicians to expand various government programs, and the gradually rising ambitions of union officials to compress the distribution of wages as well as to expand the powers of unions. Kurt Levin’s well known psychological theory of a “rising aspiration level” is perhaps a useful analytical paradigm.

It is rather meaningless to ask whether the poor macroeconomic performance in the early 1990s was a result of macroeconomic shocks *or* structural weaknesses in the Swedish economy. It was a combination of both. The macroeconomic shocks cannot be denied, but the way the Swedish economy reacted to these shocks depended, of course, on structural features of the Swedish economic system. Moreover, both the apparent inflationary bias in wage formation and various mechanisms of unemployment persistence certainly reflect structural features. Both are probably related to the strength of insiders in the Swedish labor market. The high sensitivity of the budget deficit to variations in GDP growth and capacity utilization is another structural feature of great importance for macroeconomic performance in Sweden. Industrial production is also exceptionally sensitive to the real exchange rate. One reason might be the important role in the Swedish economy of multinational firms, which can shift production easily between plants in different countries. Another reason might be the industrial structure in Sweden: a large fraction of exports are bulk products for which Swedish firms are price takers.

⁷⁰ Persistence mechanisms also make statistically measured “equilibrium unemployment rates” dubious, as such statistics tend to “shadow” the actual unemployment rate. One study concludes that the equilibrium unemployment rate increased from about 3 to between 4 and 7 percent from the 1970s to the early 1990s (Forslund 1995a).

The collapse of full employment in the early 1990s also changed the economic and social environment of the Swedish model. For instance, active labor market policy—which requires lots of vacancies—became less effective. The welfare state was also undermined financially. Meanwhile, the “workfare strategy” of the social insurance systems became more problematic. Two classes of beneficiaries now tend to emerge, with drastically different benefit levels: those with and those without sufficient previous work experience to get generous benefits. This has accentuated the “insider-outsider” character of Swedish society. In addition to insiders and outsiders in the labor and housing markets, and perhaps also in the provision of some public-sector services, there are now also insiders and outsiders among those living on various benefit systems.

The main importance of the Swedish experience is perhaps not that the economic performance of the country has deteriorated in recent decades relative to other countries (which it has in many respects). It may rather be that developments in Sweden illustrate and, indeed, highlight trends and problems shared jointly by many countries in Western Europe. Therefore, recent attempts to reform institutions and policies in Sweden are also of rather general interest. The reforms were initiated by a Social Democratic government: deregulation of domestic capital markets and international capital movements in the 1980s, tax reforms in the mid-1980s and early 1990s, and a shift to an “anti-inflationary” macroeconomic policy regime in early 1991. On these matters, Sweden followed, of course, an international trend. But domestic policy failures certainly also helped induce changes in the policy strategy. Advice from Swedish economists, and other participants in the economic-policy de-

bate, probably also had an influence on the policy shift.

The center-right government in 1991–1994 proceeded with the reforms, in particular by reducing the generosity of various benefit systems and by improving conditions for small- and medium-sized firms. Important examples of the latter are the removal of double taxation of profits, a reduction in wealth taxes and some modest deregulation of the labor market. They also abolished the wage-earners funds. Most of these reforms were sustained by the Social Democrats when they came back into power in 1994. Some reforms were even accentuated, such as further (though temporary) reduction in the replacement rates in various social security systems, and further decisions to consolidate the government’s financial position, as well as additional tightening of the institutional framework of the budget process itself. But other reforms were rolled back, such as a return to the double taxation of profits and higher wealth taxes, as well as restoration of the previously strict job-security legislation. (Some retreats from these retreats seem to be in the cards, however.) Taxes and fees also increased again, from 50 to nearly 54 percent of GDP between 1994 and 1997, as a result of a combination of higher tax rates and an expanded tax base in the context of a still somewhat progressive tax system.

To the extent that the relatively poor economic performance in Sweden since about 1970 is due to factors such as distorted economic incentives, regulated markets, and weak competition, recent reforms are likely to improve the performance in the future. Important reservations, however, are that tax wedges are still quite wide and that few reforms have (so far) been implemented in the labor market. It also turned out to be difficult to prevent serious *problems of*

transition in the connection to these reforms. Not only did the reforms contribute to temporary macroeconomic instability. Cuts in welfare-state benefits also created economic hardship, in particular among households that had chosen not to accumulate much reserves themselves. People suddenly found that they had planned their lives, including their saving and insurance policies, on false expectations about future benefits. Moreover, the strongly discriminated private sector for household services is not in good shape to take over the production of such services when public sector cutbacks start to take effect.

It is also noteworthy that several government institutions and policies in Sweden function as an *integrated* system, with strongly complementary features.⁷¹ Different elements of the system have supported each other, or at least counteracted various undesired side effects of other elements. Changes in one part of the system often have quite complex, and indeed unpredictable effects. Sometimes, there are hardly any effects at all, for instance when other elements of the system effectively constrain the behavior of individuals. An example is that policy actions which stimulate the unemployed to search more do not boost employment much unless the costs of hiring workers are reduced and relative wages become more flexible. In other cases, an isolated policy change may instead have unexpectedly dramatic effects. When a binding constraint on individual behavior is suddenly removed, then the effects on individual behavior of other elements of the system may come into full force. An example is when capital

market regulations were removed in the 1980s without a sufficient reduction in marginal income tax rates, against which individuals were allowed to deduct interest payments.

We have also seen that the Swedish model has been in a state of great flux during the last decade. This has accentuated the "instability of rules" that has evolved as a characteristic feature of Swedish economic and social policies in recent decades.⁷² The general trend, however, implies that Sweden has become a more "normal" West European country again—as it was prior to the radical experiments starting in the mid-1960s and early 1970s. Membership in the EU as of 1995 is likely to accentuate this development. If recent developments of the Swedish economic and social system continue, the "Swedish model," as defined in this paper, will turn out to have been a brief historical episode—an interlude lasting no more than about three decades, from the mid-1960s to the early 1990s.

Yet history never ends. It is impossible to say, with any confidence, how Sweden's membership in the EU, and possibly also EMU, will affect institutions and policies in Sweden in the future, partly because we do not know what will happen in the EU itself. Moreover, we really know very little about the extent to which recent tendencies toward reforms and retreats of important features of the Swedish model are permanent or temporary. In other words, we do not know if Sweden will turn out to be a pioneer, not only in building up an elaborate welfare state but also in reforming and rewinding

⁷¹ This point has been made by both advocates of the system (Anna Hedborg and Meidner 1984) and various observers (Freeman 1995; Lindbeck et al. 1994; Jakobsson 1996).

⁷² Not only taxes and regulations but also benefit systems have been highly unstable in recent years. For instance, during the period 1991–1996, there have been close to 300 changes in the rules of the social insurance system and 50 changes in the labor market rules (Riksförsäkringsverket 1996).

it. It may be that the values, ideologies, power relations, and mechanisms which originally converged to create the model could make the former policy, or a new variant of it, rebound in the future. Several interest groups, including labor unions, have pledged a return to previous institutions, rules, and policies. Obvious suggestions include restoring previous benefit levels in the social insurance systems and more tax hikes, in particular for upper-income households. Proposals to increase the collective ownership of firms continue to emerge from time to time—as evidenced by recent suggestions that the government-operated pension funds should invest heavily in the stock market. Furthermore, about 65 percent of the electorate receive (nearly) all their income from the public sector—either as employees of government agencies (excluding government corporations and public utilities) or by living off transfer payments (Table 1). Is this “a point of no return”?

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APPENDIX

²⁸ OECD (Economic Outlook, June 1996, Annex Table 59, and calculations by the OECD secretariat for this paper) reports the following statistics:

	Labor productivity growth			Total factor productivity growth		
	1973–79	1979–90	1990–95	1973–79	1979–90	1990–95
Sweden	1.4	1.5	3.4	0.0	0.8	1.9
OECD	1.7	1.7	0.9	0.8	1.0	0.3
West. Europe	2.7	2.1	1.2	1.4	1.3	0.5

Labor productivity growth (output per hour) in manufacturing (Konjunkturinstitutet):

	1971–79	1979–90	1990–96
Sweden	3.62	2.95	3.66
11 OECD countries	4.69	3.23	3.06

The eleven countries are Canada, USA, Japan, Belgium, France, Italy, the Netherlands, U.K., Germany, Denmark, and Norway.

³⁰ The GDP shares of total investment and saving have developed as follows:

	1970–74	1975–79	1980–84	1985–89	1990–95
Investment	21.7	20.3	18.9	19.9	16.7
of which: business sector	12.7	12.8	11.2	12.8	10.0
manufacturing	4.0	3.3	3.0	2.4	2.4
Saving	23.6	19.5	16.3	18.4	14.8

As a result of these developments, Sweden has, according to Edward Leamer and Per Lundborg (1997), moved from a top ranking to a position just above the average among developed OECD countries in terms of physical capital per capita.

³¹ Growth accounting, according to statistics provided by Ragnar Bentzel for this paper, suggests that slower capital accumulation explains about 10 percent of the slowdown in labor productivity growth in the *business sector* between the period 1950–1970 and the period 1970–1993. Bentzel's calculations (with the coefficient for the contribution of capital set at 0.25) may be summarized as follows:

	Production growth	Contribution of labor	Contribution of capital	Contribution of reallocations	Unexplained residual
1950–1970	3.88	-0.40	1.23	1.00	2.05
1970–1993	1.10	-1.15	1.01	0.23	1.01

⁵⁶ The percentage change in labor costs (per hour), including payroll taxes, from the preceding year has been:

1970	-71	-72	-73	-74	-75	-76	-77	-78	-79	-80	-81	-82
10.2	13.6	10.2	11.5	17.0	22.2	16.9	12.1	9.2	8.7	11.8	9.6	6.1
1983	-84	-85	-86	-87	-88	-89	-90	-91	-92	-93	-94	-95
9.0	10.0	7.7	7.8	7.8	8.0	11.2	9.1	8.0	2.4	-2.1	3.3	5.0

Source: SAF (1996).

⁶⁰ The path of open unemployment (according to national statistics) has been:

1970	-71	-72	-73	-74	-75	-76	-77	-78	-79	-80	-81	-82	-83
1.5	2.5	2.7	2.5	2.0	1.6	1.6	1.6	2.3	2.1	2.0	2.5	3.3	3.5
1984	-85	-86	-87	-88	-89	-90	-91	-92	-93	-94	-95	-96	
3.1	2.6	2.7	1.9	1.6	1.3	1.6	2.7	4.8	8.2	8.0	7.7	8.0	

The corresponding path of "total unemployment" (including people sponsored by the Labor Market Board) was:

1970	-71	-72	-73	-74	-75	-76	-77	-78	-79	-80	-81	-82	-83
2.7	4.0	4.6	4.5	3.6	2.9	3.2	3.7	4.6	4.4	3.6	3.8	5.2	5.7
1984	-85	-86	-87	-88	-89	-90	-91	-92	-93	-94	-95	-96	
6.1	5.1	4.7	3.6	3.3	2.6	2.6	4.5	7.5	12.1	12.8	11.2	12.0	