

# **Did Active Labour Market Policies Help Sweden Rebound from the Depression of the Early 1990s?**

Anders Forslund

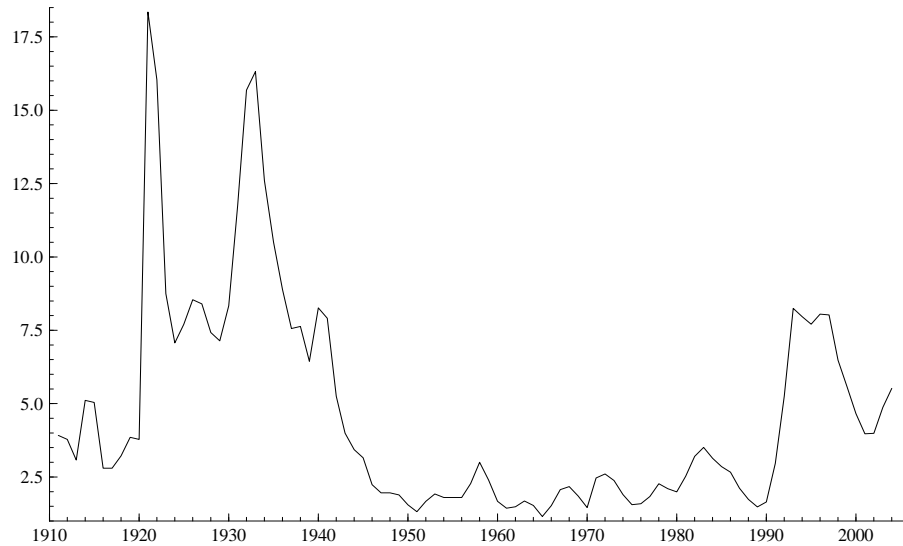
Alan Krueger

March 12, 2008

## **1 Introduction**

In the early 1990s the Swedish labour market was hit by the worst shock it experienced since the 1930s, with the unemployment rate rising to 10 percent. This development stands out in light of Sweden's performance in the post-war period. Between the mid 1940s and the crisis of the 1990s, the Swedish unemployment rate oscillated between one percent and just under four percent (Figure 1). Unemployment even remained low in the 1970s despite oil price shocks that led to persistently high unemployment elsewhere in Europe. A natural question is what, if anything, in Swedish institutions and policies explains why Sweden's unemployment rate did not follow the same pattern as in most western European countries? A factor often mentioned for this envious performance is Sweden's active labour market policies (cf e.g. Layard, Nickell and Jackman, 1991).

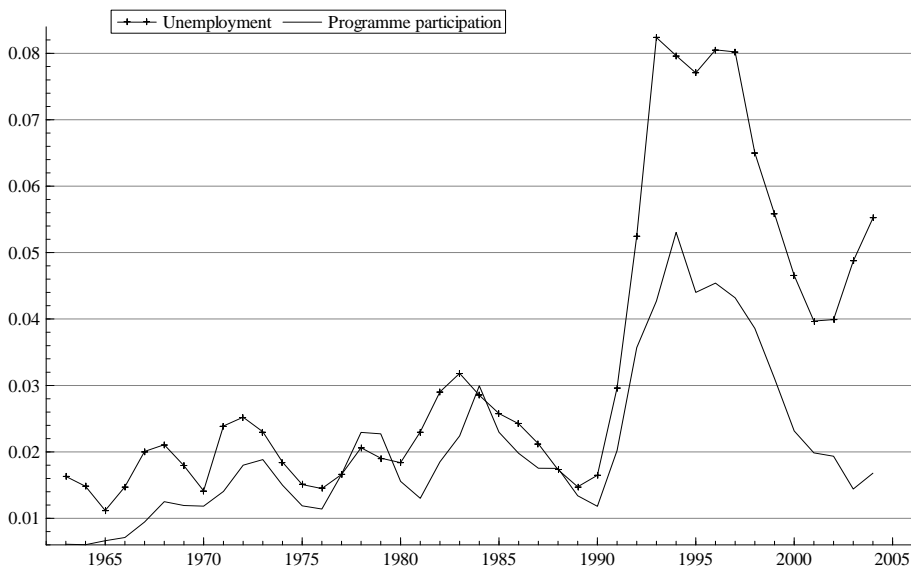
The U.S. also avoided the persistent high unemployment rates of the western European countries. Admittedly, the U.S. unemployment rate rose at about the same time as in Western Europe in the downturns of the 1970s and early 1980s. However, it also declined rapidly as the business cycle improved. The U.S. unemployment rate has also been lower than Sweden's during most years since the early 1990s. A common explanation of the more favourable development in the U.S. was its flexible labour market and modest social safety net, giving rise to high job search intensity, lower reservation wages, and consequently considerably shorter unemployment spells than in Europe.



**Figure 1: Swedish unemployment 1911 – 2004, share of the labour force (%)**

*Note: 1911 – 55: unemployed union members; 1955 – 61 unemployed registered at the public employment service; 1961 – 2004: Statistics Sweden, Labour force surveys.*

The steep increase in unemployment in Sweden did not in any obvious way reflect a reduced commitment to ALMPs (see Figure 2). Extensive ALMPs, however, could not prevent the Swedish unemployment rate from rising in the early 1990s. This was not, however, unexpected – the rapid increase in unemployment primarily reflected a rapid increase in the inflow into unemployment that could not reasonably be prevented by ALMPs.



**Figure 2: Unemployment and programme participation 1963-2004 (shares of labour force)**

In a previous paper (Forslund and Krueger, 1997) we questioned whether ALMPs actually could have been a main explanation of the earlier low levels of unemployment. We showed that the scientific support for the view that ALMPs had played a key role to keep Swedish unemployment low was fragile. We found that relief work crowded out regular jobs in some sectors (so that the net effect on unemployment was considerably smaller than the number of programme participants). We also found that the evidence from cross-country studies of the kind that Layard, Nickell and Jackman (1991) used to support the view that large-scale ALMPs lead to lower unemployment rates was not robust to the time period studied. Furthermore, it was hard to argue that the benefits of labour market training were large enough to offset the high costs. We also voiced concern that the generous social safety net and ALMPs in Sweden could lead to hysteresis. Indeed, to an outsider it was puzzling that Sweden was able to maintain such low unemployment as it did before 1991 with its generous benefits for the nonemployed. Presumably, social stigma discouraged excessive use of public programs. We feared that this stigma could erode as a result of widespread unemployment in which weakness in the overall economy rather than shortcomings in individual initiative could be blamed for unemployment leading to greater reliance on social benefits and ALMPs for years to come. At the same time, we did not find any obvious signs that the Swedish labour market suddenly worked less well and that this could explain the high unemployment rate of the early 1990s.

The fact that ALMPs were not sufficient to prevent the crisis of the early 1990s and that they probably not were important for the previous low unemployment rates does not imply that they were ineffective at combating the unemployment crisis of the 1990s.

Hence, in the following we investigate whether ALMPs facilitated the recovery from the high unemployment rates of the early 1990s. To remove all suspense, we conclude that ALMPs probably played a minimal role in reducing total

unemployment since the early 1990s. Although the programmes may have maintained high labour force attachment, unemployment was slow to decline compared with past shocks, and cycling through programmes and participation in Unemployment Insurance was common. The main function of ALMPs has been to cushion the blow of unemployment for those who become unemployed, not to speed reemployment or increase overall employment. While the former is clearly important and salutary, interest in finding a combination of policies to raise employment remains high. Indeed, Sweden's commitment to supporting the unemployed *and* reforming the mix of ALMPs when they do not seem to be as efficient as possible is admirable. The optimal formula, however, appears to be a work in progress.

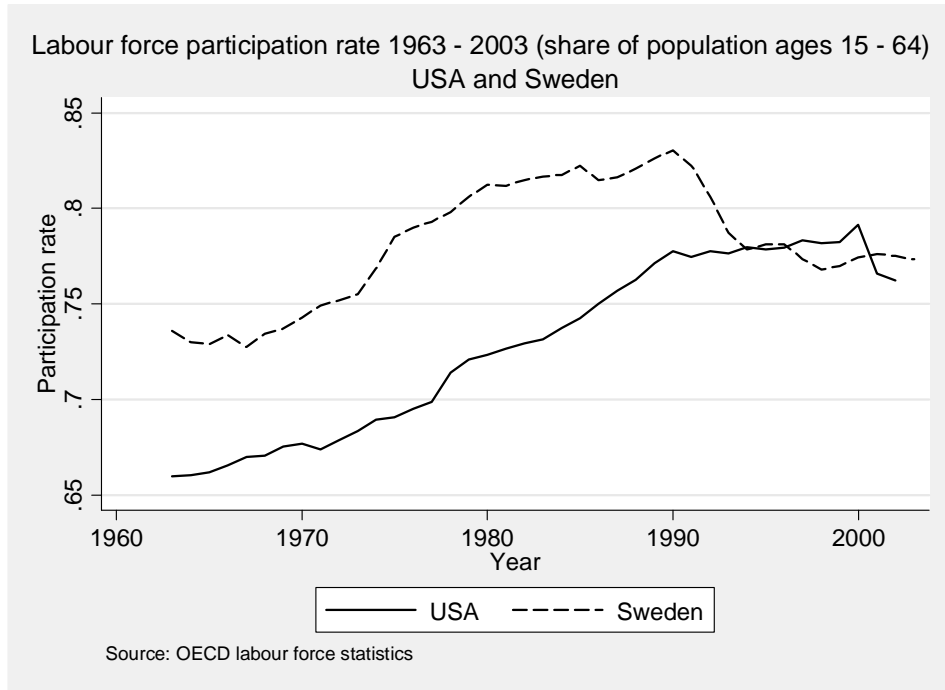
## **2 The Swedish labour market since the early 1990s**

In Figure 2 we saw that the Swedish unemployment rate increased very rapidly between 1990 and 1993, from 1.5% to just above 8%, or from just under 3 % to fully 13 % measured as “total” unemployment (the sum of open unemployment and programme participation). Subsequently, the unemployment rate remained high until the business cycle upturn of the late 1990s. The decrease in unemployment was rapid, but by the time the unemployment rate increased again in 2003, it had never dropped below approximately 4 %, twice the level of the level at typical business cycle peaks during the decades preceding the 1990s. This could indicate a change to the worse in the workings of the Swedish labour market since the 1980s.

As we have already pointed out, the rise in unemployment was accompanied by a rapid increase in participation in labour market programmes—in the mid 1990s, programme participation amounted to around 5 % of the labour force (Figure 2).

Although dramatic, the increase in unemployment and programme participation actually downplays the magnitude of the shock to the Swedish labour market. This is clear from Figure 3, Figure 4 and Figure 5 where the

evolution of labour force participation and employment in Sweden is compared with that in the U.S.

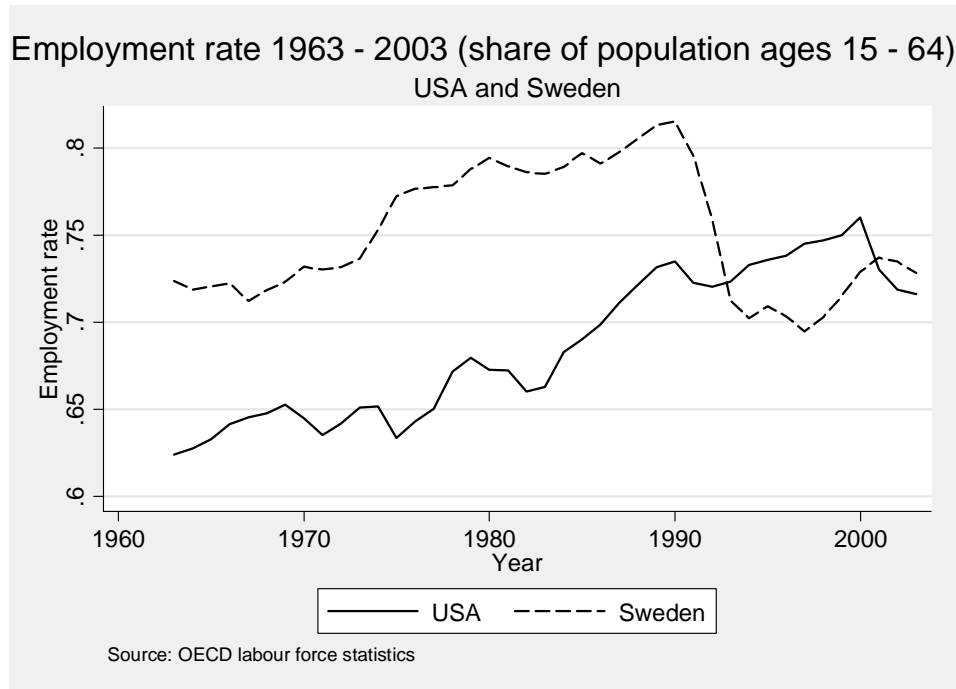


**Figure 3: Labour force participation in Sweden and the U.S. 1963—2003 (share of population in active ages)**



**Figure 4: Employment relative to labour force and labour force participation rate in Sweden 1976-2004**

Source: Statistics Sweden, Labour force surveys.



**Figure 5: Employment-to-population rate 1963—2003 in Sweden and the U.S. (share of active population)**

The steep increase in unemployment reflected both an increased inflow and a longer duration (Figure 6) of unemployment spells. Indeed, inflow and duration co-vary quite closely from the early 1990s and on.



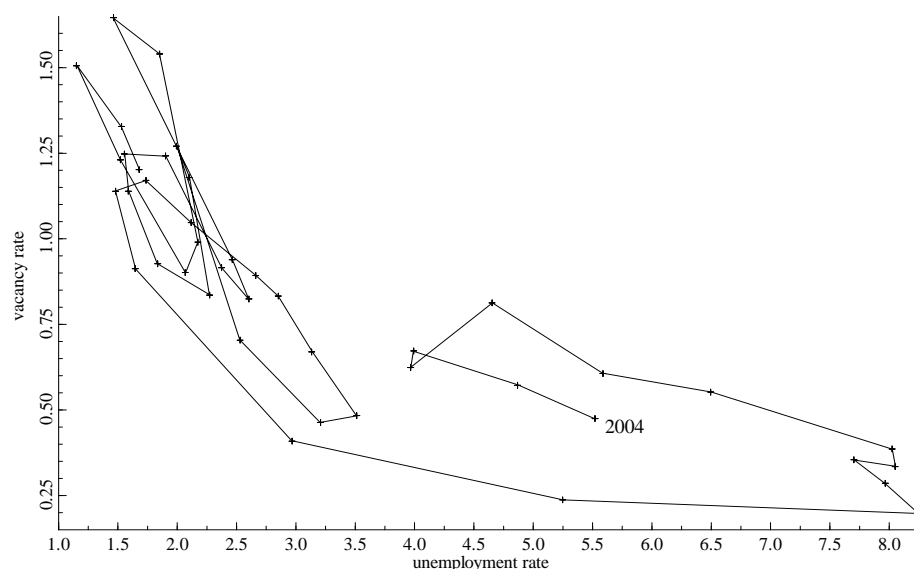
**Figure 6 Inflow to unemployment (right-hand scale) and the duration of unemployment (left-hand scale), 1972-2002, 16-64 years.**

*Note:* The inflow is given as weekly inflow as a share of the labour force (percent). The values are running three-year averages.

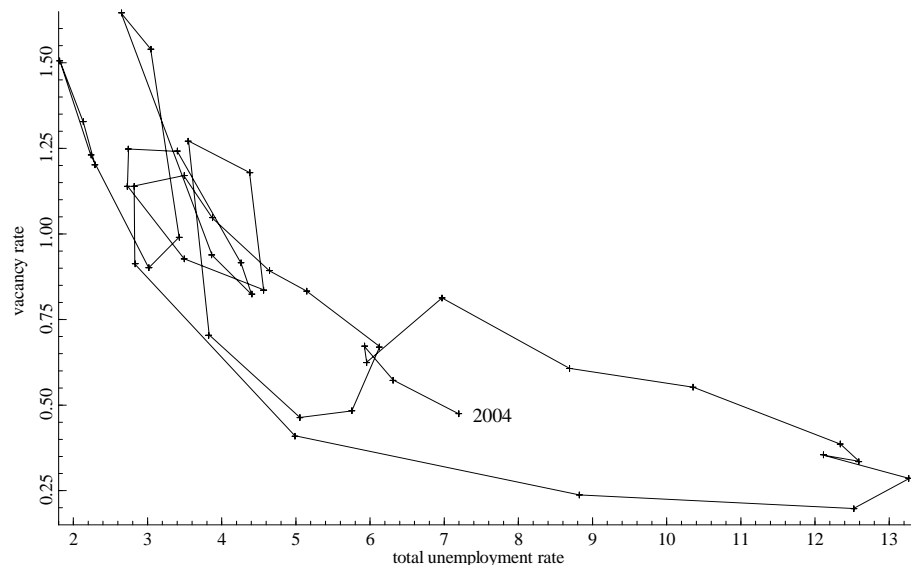
*Source:* Computations by Bertil Holmlund based on Labour Force Survey data.

The observation that unemployment rates have not fallen to the pre 1990s levels may indicate deterioration in the functioning of the Swedish labour market. A common way to diagnose such problems is to examine the Beveridge curve – relationship between vacancies and unemployment -- for outward shifts. In Forslund and Krueger (1997) we concluded that there were no signs of a significant outward shift of the Swedish Beveridge curve over the period 1981-91 – on the contrary, we detected a significant inward shift.

Looking at more recent data, there may possibly be an outward shift of the Beveridge curve, both in terms of open unemployment (Figure 7) and in terms of “total unemployment” (the sum of open unemployment and participation in labour market programmes, Figure 8). This impression is also supported by a more formal analysis. We estimated Beveridge curves using data for the period 1970–2004, and an included time trend was significant and positive, confirming the visual impression from the plots. In a book-keeping sense this shift probably reflects the increased inflow into unemployment displayed in Figure 6.



**Figure 7: The Swedish Beveridge curve 1963-2004**



**Figure 8: The Swedish Beveridge curve 1963-2004 in terms of “total unemployment”**

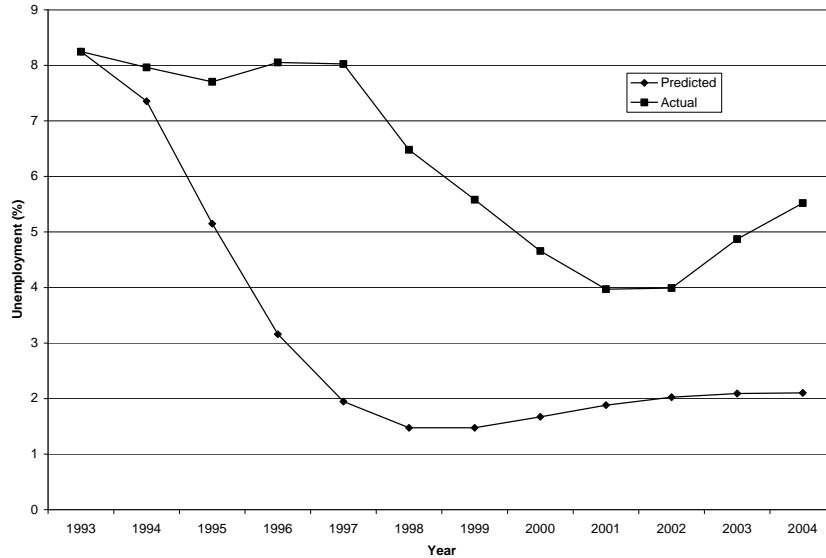
Another way to check for changes in the functioning of the Swedish labour market is to see if the evolution of unemployment in the 1990s can be satisfactorily described by a model estimated on data ending before the crisis. To explore this idea, we have estimated an autoregressive model for unemployment.

In Figure 9 we plot the actual unemployment rate 1993–2004 along with dynamic forecasts from this simple model estimated on unemployment data for the period 1945–1990.<sup>1</sup> The model systematically under-predicts the actual rate of unemployment and, most notably, it predicts the unemployment rate to fall four years earlier than it actually does. According to this evidence, it seems that something happened with consequences for the persistence of unemployment in the 1990s. This would seem to bear out our concern that ALMPs were unlikely to prevent persistently high unemployment from taking root and that generous safety net programs could lead to hysteresis if the stigma associated with program participation was eroded.

---

<sup>1</sup> This estimation period is chosen because unemployment seems to have followed a reasonably stable process over this period, see Figure 1.



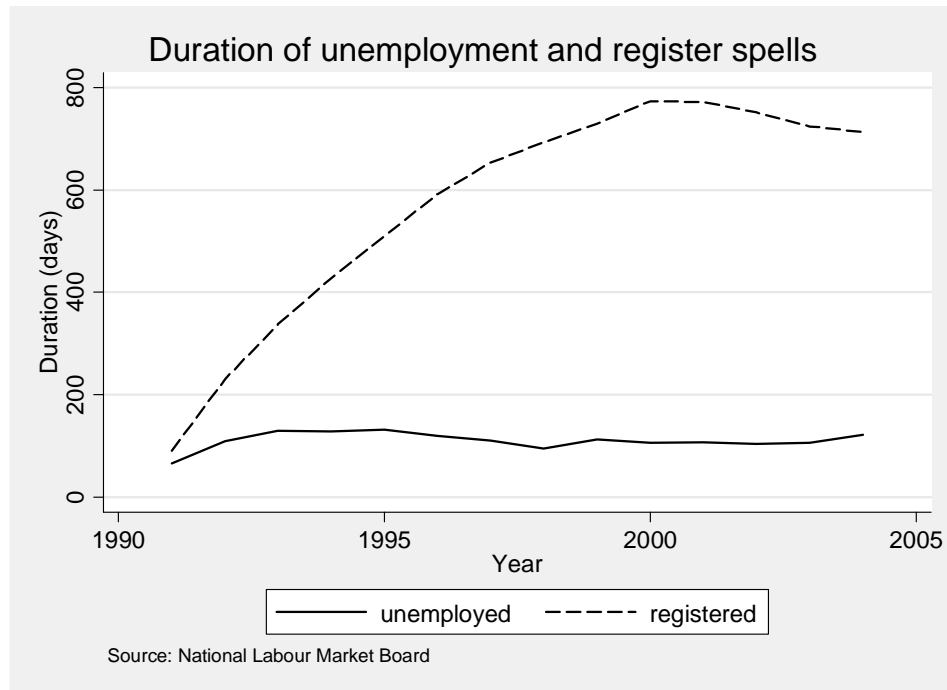


**Figure 9: Actual and predicted unemployment and impulse-response function for the period 1993 - 2004**

There is an extensive research literature on possible explanations as to why high unemployment rates may become persistent. One such factor, often discussed in connection with the Western European unemployment problem, is that the average length of unemployment spells tended to increase hand in hand with the higher unemployment rates. If unemployment has a causal negative effect on the probability that the unemployed find a job, and if this effect tends to increase with the duration of unemployment spells, then this mechanism is one way to explain why high unemployment may become persistent. This situation could be exacerbated if high unemployment causes people to take more advantage of the panoply of safety net programs.

The increase in duration of the survey-based measure of Swedish unemployment shown in Figure 6 is not that dramatic – duration grew from some 15 weeks to about 25 weeks in the mid 1990s and then fell again. However, there is reason to believe that this measure understates the extent of the problem, because many spells of open unemployment ended in a labour market programme. Hence, in Figure 10 we use information from the registers at the National Labour Market Board to compute the average duration of

ongoing spells of both open unemployment and in the registers consisting of continuous spells of open unemployment and programme participation.



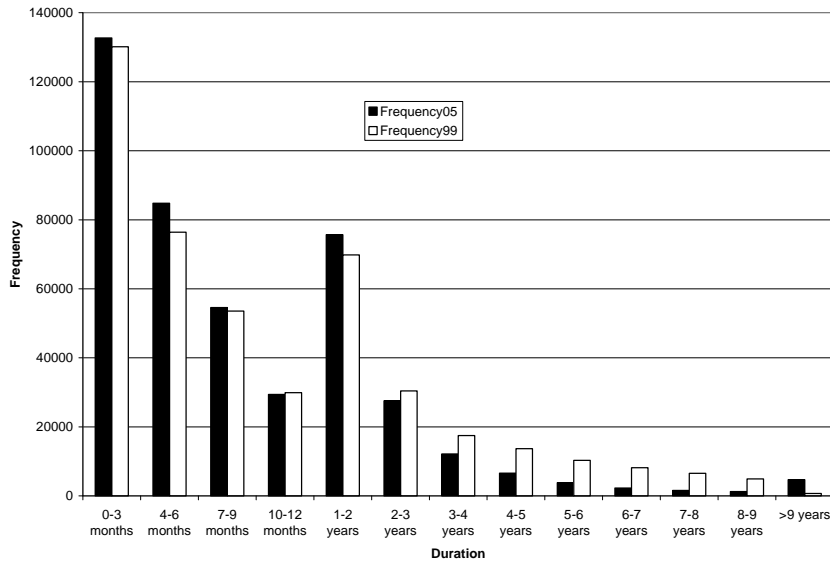
**Figure 10: Duration of ongoing unemployment and register spells at the Public employment service, averages**

Using the information in Figure 10, the development is much more ominous: the average length of spells increased more or less continuously from around 400 days in 1994 to around 700 days (100 weeks)<sup>2</sup> in 2000.<sup>2</sup> At the same time the average duration of spells of open unemployment was only about 100 days (15–16 weeks, see Figure 6).

Hence, the long continuous spells of open unemployment and programme participation, on average, entail significant variation. Because the average spells of open unemployment are much shorter, a large number of unemployment spells end after only a few weeks. At the same time, there must be a number of spells that are significantly longer than the average. This is shown in Figure 11, which shows the distribution of spells of different lengths

<sup>2</sup> To some extent this increase is an artefact reflecting the fact that the registers only date back to August, 1991. However, the level in the late 1990s is probably well measured.

in the stocks of registered at the Public Employment Service on December 31, 1999 and February 28, 2005.



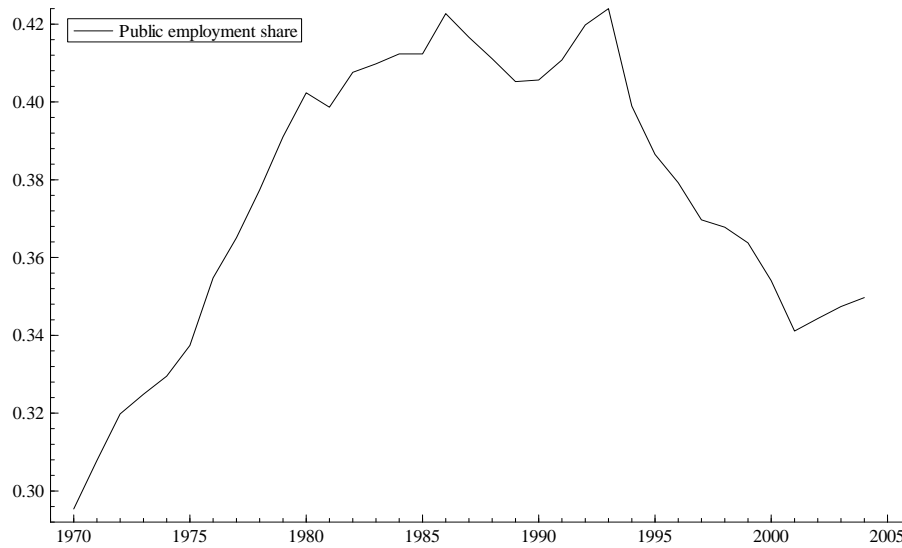
**Figure 11: Distribution of durations of ongoing spells in the registers of the National Labour Market Board February 28, 2005 and December 31, 1999**

At both dates, a vast majority had relatively short spells: between 60 and 70 percent of the spells had durations no longer than a year. But we also see that a significant proportion (just above 14 % or about 62.000 persons in 1999 and just above 7 % or about 32.000 persons in 2005) had been registered for at least three years. Comparing the two years, we see that spells were generally shorter in 2005, but the difference was not striking. We have also computed the average number of programmes per person, conditional on participation in at least one programme. This average was between 2.5 and 3 at both points in time, and around 10 percent had at least 6 programme spells.

In our previous paper we investigated whether the stability of the Beveridge curve (atypical for most European countries) and the low Swedish unemployment rates prior to the 1990s could be attributed to an expansion of public employment, but did not find strong support for this hypothesis.

However, it is interesting to note that the share of public employment has developed quite differently in the 1990s compared with the previous decades.

This is evident from Figure 12, which shows the evolution of the public employment share for the period 1970–2004. If the increasing share contributed to lower unemployment in previous decades<sup>3</sup>, then the sharp decline in the 1990s may have contributed to the relatively high unemployment rate later.

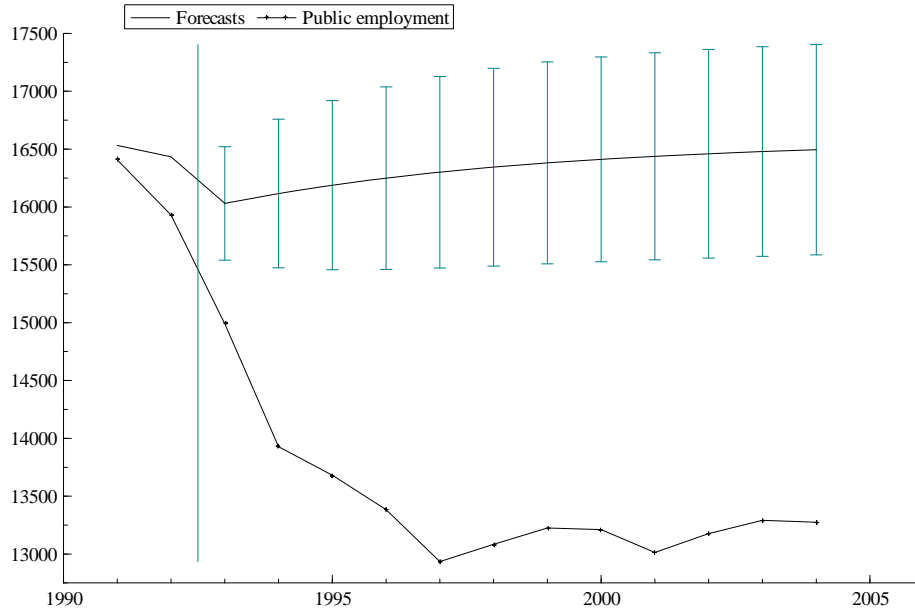


**Figure 12: The share of public employment 1970 – 2004**

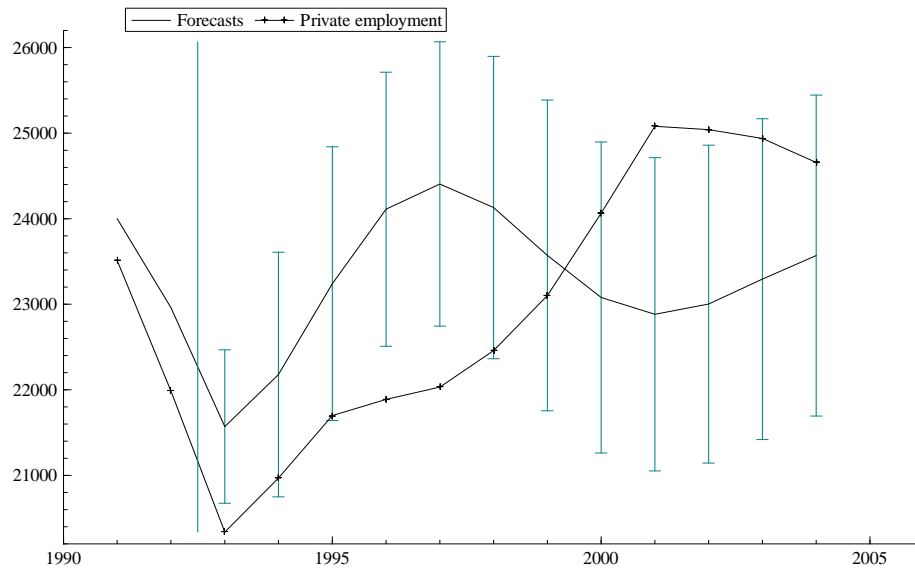
We have estimated autoregressive models for private and public sector employment. The estimation samples cover the years 1970–1992. Using these autoregressions to forecast employment 1993–2004 gives rise to the results plotted in Figure 13 and Figure 14. Although these should not be given any causal interpretation, it is evident that private sector employment evolved in a way that is fairly well described by the model estimated on data for the 70s and 80s, whereas the path of public sector employment is radically different in the 90s – the model over-predicts public sector employment significantly every single year from 1993 and on. It is also notable that there has been no recovery in public employment since the mid 1990s. The difference to previous decades in this respect is striking.

---

<sup>3</sup>We are a bit reluctant to push this point, however, given that we found no strong support for this hypothesis in our previous paper.



**Figure 13: Public sector employment and dynamic forecast from AR model**



**Figure 14: Private sector employment and dynamic forecast from AR model**

## 2.1 Regional adjustments

The evidence presented in Forslund and Krueger (1997) suggested that Swedish regional employment dynamics resembled those in other European countries, whereas the pattern of regional unemployment dynamics was more similar to that in the U.S.

Fredriksson (1999) estimated regional VARs to analyse the dynamic adjustment to regional employment shocks. His main results were that a region-specific negative employment shock in the long-run lowers employment in that region. The reduction was smaller than what is found for a typical U.S. state. In this respect it was found that Sweden resembled the rest of Europe. Looking instead at the short-run dynamics, most of the adjustment is brought about by migration and very little by unemployment, wages or labour market programmes. In this respect Sweden was found to be rather similar to the US. The results do not suggest that ALMPs played any major role for mobility.

A number of studies have estimated the effects of labour market policies on geographical mobility more directly. There is a small number of studies of various mobility-enhancing programmes (Storrie and Nättorp, 1997; Harkman, 1988; Westerlund, 1998). These studies suggest that the mobility-enhancing measures have had minor or no effects on mobility between counties or local labour markets. A larger number of studies have estimated the effects of placement in different programmes on mobility (McCormick and Skedinger, 1991; Nilsson, 1995; Westerlund, 1997; Edin, Heiborn and Nilsson, 1998; Westerlund, 1998; Widerstedt, 1998; Fredriksson and Johansson, 2003, Lindgren and Westerlund, 2003). Most studies suggest that programmes “lock in” participants and that, hence, increasing programme participation decreases mobility. An interesting insight into possible mechanisms is provided by the analysis in Fredriksson and Johansson (2003), where it is shown that the negative programme effect on mobility reflects a decreased job-finding rate among participants. Given the lower job finding rate, the propensity to move by programme participants is not significantly different from the propensity to move among non-participants.

### **3 Swedish ALMPs since the early 1990s**

#### **3.1 The programme menu – new and old medicine**

The labour market programmes can be subdivided into three main categories: training, subsidised employment and practice. During the 1990s many new programmes were launched, and the description below is not exhaustive.

For a long time, *labour market training* was equivalent to vocational training, but over time it also came to involve more prep courses. More recently it has also involved *computer activity centres* as well as an *IT training programme* organised jointly with the Confederation of Swedish Industries. Between the late 1980s and the early 2000s, participation in training programmes enabled participants to renew UI benefit eligibility. This system was abolished for all labour market programmes in 2000 in connection with a reform in the UI system and the introduction of the activity guarantee (see below).

Subsidised employment has taken many forms, with the provision of relief jobs a prominent historical approach. In the 1990s, however, relief jobs were used to a small extent (and abolished in 1998). They were largely replaced by so called *work experience schemes*, where participants were supposed to be placed in jobs that “would otherwise not have occurred” in order to avoid crowding-out effects. In 1998 *employment subsidies*, which entail wage subsidies to employers for hiring unemployed (mainly long-term unemployed) workers replaced recruitment subsidies, introduced in 1981. In most respects employment subsidies are similar to the previous programme, the main difference being that the new programme is more heavily targeted at the long-term unemployed.

*Work practice programmes* are supposed to involve both work and training. Normally the participant is paid an amount corresponding to her level of UI compensation. A number of *programmes targeted toward youth* belong to this category (youth teams, schooling-in slots, youth practice, municipality youth programmes, youth guarantee). There were also practice programmes targeted at other groups – immigrants and unemployed school graduates. Many of the practice programmes were replaced by a more general work placement programme in 1995.

*Resource jobs* were introduced in 1997. The programme was a subsidy to employers for temporarily hiring unemployed workers. Participants were

supposed both to work and undergo training. The wage rate was capped at 90 percent of the participant's previous income.

*Trainee replacement schemes*, used between 1991 and 1997, involved subsidising employers who paid training for an employee and hired a replacement from the PES. Hence, this programme was a mixture of training and subsidised employment.

In August, 2000, a new type of programme, the *Activity Guarantee*, was inaugurated. The activity guarantee was (and is) targeted at persons who are at risk of becoming long-term registered at the PES or those with expiring UI benefit eligibility. Participation is supposed to be full time, and the participants receive the equivalent of UI benefits. The activity guarantee is a framework within which the participant is supposed to search for a job, participate in a regular labour market programme or be engaged in some training programme. There are only three ways to leave the guarantee: by finding a regular job lasting for at least six months, by participating in regular education or by leaving the labour force.

The inauguration of the activity guarantee was synchronised with changes in the rules in the UI system, taking place in February 2001. The main changes introduced were, first, that participation in labour market programmes no longer qualifies for renewed UI benefit eligibility – the only way to renew eligibility is through an ordinary job. Second, if an unemployed worker has not found a job within the 14 months of UI benefits, the case worker at the PES office decides whether the individual is to be transferred to the activity guarantee or, if the case worker assesses that the unemployed individual has a good chance of finding a job, she gets another period (14 months) of UI benefits. If the unemployed has not found a job after a second period of UI benefits, she should be transferred to the activity guarantee or lose all income support (apart from, possibly, means tested social assistance).

Looking at the changes in ALMPs and UI from a bird's eye's view, one can distinguish an increased focus on job search – a main feature of the activity



guarantee is supposed to be full-time job search. One can also detect an increased focus on the long-term unemployed – several forms of the employment subsidies that have been in use since 1998 have been explicitly targeted at the long-term unemployed.

### 3.2 A quantitative description

In Figure 15 we show the evolution of the different types of labour market programmes since the early 1960s. Both training programmes and subsidised employment trended up until the mid 1990s. Training programmes had more participants than subsidised employment during most of this period. Practice programmes were of a rather limited importance throughout the 1980s. A number of observations can be made concerning the 1990s. First, the “measure of first resort” to meet the rise in unemployment was training programmes, which were expanded rapidly during 1991. This is a contrast to previous decades, when relief jobs were used as the primary counter-cyclical measure. Second, after some time, participation in subsidised employment programmes reached very high levels at the same time that practice programmes were expanded and training programmes decreased in volume. When the labour market improved in the late 1990s, participation in all kinds of programmes declined, and in the early 2000s, the three types of programmes were approximately of equal size.



**Figure 15: Different ALMPs 1963-2004 (shares of labour force)**

### **3.3 Interactions between UI and ALMPs**

A generous<sup>4</sup> unemployment insurance (UI) creates incentives which are likely to cause long unemployment spells. A number of reforms in the Swedish UI system have facilitated an analysis of the effects of changes in the level of compensation on the flow from (insured) unemployment to employment.

Carling, Holmlund and Vejsiu (2001) studied a change in the replacement rate from 80 % to 75 % that was introduced on January 1, 1996. This reform only affected a sub-sample of the unemployed. The authors estimated the effect of the reform by comparing job-finding rates before and after the reform of those affected and unaffected. The estimates suggest that the cut in the replacement rate resulted in an increase in the job-finding rate by about 10 %.

Benmarker, Carling and Holmlund (2007) investigated the effects of several changes in the unemployment insurance system introduced in 2001 and 2002. In 2001, a two-tiered benefit system was introduced. The new system entails a higher compensation during the first 20 weeks of an unemployment spell. In 2002, benefits were raised both for spells exceeding 20 weeks and for the first 20 weeks of spells. The changes applied, as was the case in the 1996 reform, only to sub-samples of the unemployed. Once again, this was used to identify effects on job-finding rates. Somewhat surprisingly, there is a striking difference between the results for males and females. The female job-finding rate was increased whereas the male job-finding rate (in accordance with theoretical expectations) was reduced. There was no significant effect on the aggregate job-finding rate. The authors speculate that the difference between males and females were due to a reform in child-care that took place simultaneously. The expected effect of this reform was to increase female labour supply.

---

<sup>4</sup> In terms of compensation levels and duration as well as in terms of the level of control that the unemployed receiving benefits actually is actively looking for a job. We described the basics of the Swedish system in Forslund and Krueger (1997).

A peculiarity of Swedish labour market policies in the 1990s was the opportunity to renew UI benefit eligibility through participation in labour market programmes.<sup>5</sup> Given the generous Swedish UI system for unemployed members, this feature is likely to have affected both the efficacy of programme participation and the work disincentives associated with the combined system of UI and labour market programmes by lengthening benefit receipt. There is, indeed, accumulating evidence suggesting that the system led to cycling between unemployment and programme participation and that this adversely affected the results of programme participation.<sup>6</sup>

First, Ackum Agell, Björklund and Harkman (1995) showed that long spells in the registers of the National Labour Market Board (including both UI and programme periods) were common in the early 1990s. Carling, Edin, Harkman and Holmlund (1996) showed that UI compensated unemployment spells close to benefit exhaustion were significantly more likely to lead to programme participation than were uncompensated unemployment spells. Sianesi (2001) found that programme participation increased the probability of future benefit-compensated unemployment as well as subsequent programme participation. These effects were both of a non-trivial size and long-lasting. Finally, Hägglund (2000) found that both employment durations and the length of programme spells were affected by changes in UI eligibility criteria.

Second, Sianesi (2001) found that the treatment effect (in terms of a number of different outcomes) of programmes was among the worst for those individuals joining the programmes around the time of UI benefit exhaustion, although it is hard to rule out that unobserved personal factors that lead to program participation late in the spell of unemployment rather than the opportunity to participate itself caused this result absent a randomized experiment. In either interpretation, this result is consistent with the finding in Regnér (1997) and

---

<sup>5</sup> Provided that the programme lasted long enough, participation in any programme counted as “employment and, hence, gave renewed benefit eligibility. Before 1986, only participation in “job-like” programmes, such as relief jobs, qualified.

<sup>6</sup> In Forslund and Krueger (1997) we presented some evidence consistent with these results, but we concluded that there was no direct conclusive evidence.

Harkman (2002) that unemployed job seekers often entered programmes just to renew UI benefit eligibility.

Hence, the evidence suggests that the system promoted cycling between periods of (UI compensated) unemployment and programme participation and, hence, longer periods of non-employment. In countries that prohibit long-term cycling between open unemployment and labour market programmes it is typically found that shorter durations of compensated unemployment spells are associated with shorter unemployment spells.<sup>7</sup>

The possibility to renew benefit eligibility was removed in August, 2000, when the *Activity guarantee*<sup>8</sup> was introduced. Apart from other possible effects of the activity guarantee, this reform should be expected to improve the results of the active labour market programmes.

### **3.4 Research results on Swedish ALMPs – a survey**

Evaluations of ALMPs may be divided into micro and macro studies. The micro studies establish programme effects for participants, whereas macro studies consider general equilibrium effects of the programmes, i.e., also consequences for non-participants. Typical micro studies estimate effects of programme participation on subsequent income or employment; the macro studies cover more diverse topics such as displacement effects, effects on matching efficiency or effects on unemployment or wages.

Micro evaluations depend on good data. In the US, the modest amount of resources allocated to ALMPs has been accompanied by a fairly large amount of experimental evaluations. In Sweden, there has still only been one small experiment carried out for evaluation purposes (in 1974). Instead, Swedish evaluations have to rely on register data. This effort has been aided by the fact

---

<sup>7</sup> Moffitt (1985), Meyer (1990) and Katz & Meyer (1990) for USA; Ham & Rea (1987) for Canada; Dormont et al. (2001) for France and Ahn & Garcia-Perez (1999) and Jenkins & Garcia-Serrano (2000) for Spain.

<sup>8</sup> See Section 3.1 for a description of the activity guarantee.

that the supply of register data has grown remarkably since the early 1990s, when the National Labour Market Board initiated an event data base with information on all job applicants registering as job seekers at the Public Employment Service. Subsequently, these data have been matched with other register data from Statistics Sweden, giving rise to extremely rich observational data bases for evaluation purposes. In the wake of the better data supply and the large programme volumes in the 1990s, the number of high-quality evaluations of Swedish ALMPs has grown significantly since our previous paper. The number of macro evaluations, in contrast, has only grown marginally. We continue to think it is unfortunate that Sweden has still not initiated randomized controlled evaluations of its labour market programmes. Absent controlled studies, it is impossible to know if the programmes or some other factors that are correlated with programme participation are responsible for the measured success or failure of the programmes in observational studies.

We begin by reviewing micro evidence for different programmes. Then we take a closer look at some selected macro topics.

### **3.4.1 Training programmes**

In Forslund and Krueger (1997) we concluded that based on the available evidence, we could neither rule out that the returns to labour market training were zero nor that they exceeded 3 %, which were roughly the returns needed to make the investment worthwhile. Since then, a number of new evaluations of training programmes have been published, and some patterns have emerged that may be used to refine the previous conclusions.<sup>9</sup>

The main impression conveyed by the studies is that there was a difference in the effects of training comparing the 1980s and the 1990s, where the estimated effects generally looked more favourable in the 1980s. Indeed, most studies pertaining to (especially) the early 1980s point to non-trivial positive effects whereas studies pertaining to the 1990s at best indicate insignificant results.<sup>10</sup>

---

<sup>9</sup> Most studies are reviewed in some detail in Calmfors, Forslund and Hemström (2004).

<sup>10</sup> The studies either estimate effects on subsequent income or on the hazard to work.

There is no hard evidence available to account for these differences, but there are many possible explanations. First, for training to be effective there should be easily identified bottlenecks to train for. This is less likely in a deep recession (like in the 1990s) than in a more “normal” labour market (like in the 1980s). Second, the number of participants was much larger in the 1990s than in the 1980s, and the growth rate in the number of participants in the early 1990s was remarkable (the number of participants was doubled during the second half of 1991). Such high volumes and growth rates may have had detrimental effects on quality. Third, in the early 1990s, as opposed to in the early 1980s, participation in a (sufficiently long) training programme could be used to renew UI benefit eligibility. To the extent that a fraction of the participants were motivated by a desire to renew benefit eligibility rather than to acquire useful skills, this is another possible explanation to the difference in estimated effects.

In 1997, a new program was introduced, the so called Adult education initiative (AEI). The program was targeted at unemployed workers with low levels of education, who were given the opportunity to take part in regular adult education while receiving the equivalent of unemployment benefits. It was a major program: between 1997 and 2000, more than 10 % of the labor force participated. A number of studies (Albrecht, van den Berg and Vroman, 2004; Axelsson and Westerlund, 2004, 2005; Ekström, 2003; Stenberg, 2003, 2005; Stenberg and Westerlund, 2004) have estimated various types of effects of the program. The evidence on effects for the treated is mixed and depends both on the outcome measures and the methodology applied. Albrecht et al. (2004) calibrated a general equilibrium search model, and found positive effects for the treated, but negative effects for non-treated low-skilled workers.

### **3.4.2 Time Use of the Unemployed**

To further examine how ALMPs affect the experience of unemployment in Sweden and the U.S., we used Swedish time-use data for 2000-01 and the American Time Use Survey (ATUS) for 2003-2005 to examine how the unemployed spend their time in the two countries. Ideally, we would prefer to examine years that are at more comparable points of the business cycle, but

these are the data we have available at this time. There is also a question as to how comparable the data are. The Swedish data are based on tabulations from the Harmonized European Time Use Surveys, which only summarize results in categories. Job search activities for Sweden are represented in the category “activities related to employment”, which includes some activities in addition to job search.

The ATUS has an activity category for job search and related activities. Unemployed American workers spend 0.55 hours per day on weekdays and 0.4 hours per day on weekends engaged in searching for a job or in related activities. The corresponding figures for Swedish workers are much lower: just 6 minutes per day on weekdays and 1 minute on weekends. Thus, the Swedish unemployed devote very little time to job search compared with the Americans. In addition, a smaller proportion of unemployed Swedes than Americans engage in job search on any given day.

The Swedish unemployed spend about 45 minutes per day involved in education, homework or training, while the American unemployed report spending about 20 minutes so involved. So the difference in job search time is essentially offset by time engaged in education and training. While these results should be taken with a grain of salt given the difficulties inherent in international comparisons of time use -- and other factors matter for job search intensity, such as the extent of variability in wages across comparable jobs -- one plausible implication of this pattern is that Swedish ALMPs and unemployment compensation may have discouraged search effort compared with American job seekers.

The outward shift of the Beveridge curve in Sweden suggests that the unemployed have become less likely to fill available vacancies. This shift is consistent with reduced job search activity by the unemployed in Sweden, although we do not have time-series data on job search time. In any event, this comparison indicates that time-use data can provide useful insights into the behaviour of the unemployed.

### **3.4.3 Other micro evaluation results**

A number of recent evaluation studies have either compared the effects of participation in different programmes or compared programme participation to continued job search of the openly unemployed.<sup>11</sup>

A simple generalisation of the results boils down to, *first*, that the more a programme resembles an ordinary job, the more efficient it is in bringing the participant to work. This suggests that the most effective programmes involve subsidising employers to hire unemployed workers. It also implies that many of the “low-budget” programmes used during the 1990s have proved to be the least effective in bringing unemployed person back to work. *Second*, only employment subsidies (and, perhaps, subsidised self-employment for unemployed workers) have proved to be more effective than job search assistance. Hence, most programmes, including training programmes, are dominated by job search assistance according to the available evidence.

The second result may, at first glance, seem counter-intuitive. However, to the extent that it does, this may derive from the fact that time spent on job search may be at least as well spent as time in a programme, where survey studies show that search activity goes down significantly. Against this background the recently increased policy focus on job search seems warranted.

### **3.4.4 Direct displacement effects**

Direct displacement takes place if employers substitute programme participants for ordinary employment. In Forslund & Krueger (1997) we estimated displacement effects of relief jobs, and found displacement to be high in building and construction but not significantly different from zero in health and welfare. Since then, much new evidence has accumulated. This evidence is surveyed in Calmfors, Forslund and Hemström (2004), on which we base the following brief summary of results.

---

<sup>11</sup> See Calmfors, Forslund and Hemström (2004) for a survey.



In a fairly large number of surveys, employers, programme participants and employment officers have been asked whether they believe that the tasks performed by programme participant(s) would have been performed also in the absence of the programme. The results in the survey studies, almost without exception, suggest that all programmes are associated with substantial displacement effects, but rarely above 50 percent. Another main result in these studies is that displacement effects are larger the closer the programme resembles an ordinary job. These findings must be taken with a grain of salt, however, as the public's opinion of the presence or absence of displacement opportunities is not proof that displacement actually takes place.

There are also several econometric studies of displacement, however. In most cases these studies do not look at displacement effects for single programmes. The results indicate larger displacement effects than those found in the survey studies – typically displacement effects well above 50 % are found in the econometric studies, whereas the estimated effects in the survey studies only in a few cases exceed 50 %.

#### **3.4.5 Why do employment subsidies work?**

The purpose of employment subsidies is to facilitate the transition to regular jobs for the long-term unemployed. The job-finding rate among the long-term unemployed is significantly lower than among persons with shorter unemployment spells. This may have several explanations. One possibility is that employers perceive the long-term unemployed to be less productive than other persons with the same observed characteristics. The employment subsidy can then be considered a subsidy to employers for the risk they are taking. If the long-term unemployed person in fact has lower productivity, this may in turn either be due to permanently lower productivity among the long-term unemployed (selection) or that unemployment in itself has a negative effect on a person's ability to perform work tasks. If the latter is the case, the employment subsidy, i.e., a temporary wage subsidy, is a reasonable policy measure – during the subsidised period the employed can regain the working capacity lost during the unemployment spell. If, on the other hand, the

productivity is permanently lower, a temporary wage subsidy is unlikely to permanently solve the problem.

We do not know with certainty whether employment subsidies primarily compensate employers for the risk taken when employing a long-term unemployed or provide compensation for the cost of on-the-job skills upgrading. Also, some employees undoubtedly would have been hired absent the subsidy, just as some people who use coupons to buy milk would have bought milk anyway. However, it is clear from the estimates in Forslund, Johansson & Lindqvist (2004) that a considerable part of the positive effect of employment subsidies derives from a large flow to work at the point in time the subsidy expires. This indicates that a substantial fraction of the positive estimated treatment effect arises because subsidised employment turns into regular jobs. This pattern would not be expected if the subsidies to a large extent were given to employers who hire unemployed persons with permanently low productivity. To the extent that a non-trivial share of the long-term unemployed has permanently low productivity, the problem cannot be solved without permanent adjustments of wage costs for low-productivity workers. Such adjustments can come about in a number of ways, such as wage adjustments or various permanent subsidies through the tax system.

#### **3.4.6 Other macro evaluation results**

ALMPs may affect the wage-setting process. To the extent that ALMPs are perceived as a better alternative than open unemployment, large-scale ALMPs may weaken the incentives for wage restraint created by open unemployment. If, on the other hand, ALMPs contribute to job seekers that are more “competitive”, this creates incentives for wage restraint – if a union pushes for high wages, leading to members losing their jobs, the laid off union members will face a tougher competition for the existing jobs. Hence, a priori the sign of the net effect on wages is ambiguous.<sup>12</sup> A fairly large number of empirical studies have estimated the effect on wages of ALMPs.<sup>13</sup> Most studies have

---

<sup>12</sup> A formal analysis of this is presented in Calmfors and Lang (1995) and Forslund and Kolm, (2004).

<sup>13</sup> These studies are surveyed in Calmfors, Forslund and Hemström (2004).

found that ALMPs increase the pressure for higher wages or have no effect at all. The uncertainty about the results is, however, considerable.

A few studies have estimated Swedish Beveridge curves (Jackman et al, 1990; Calmfors, 1993) or matching functions (Edin and Holmlund, 1991; Hallgren, 1996; Forslund and Johansson, 2007) to determine the effects of ALMPs on matching efficiency without finding evidence suggesting that ALMPs have actually improved matching.

One important objective of ALMPs in the 1990s was to promote labour force participation: even if programmes did not have immediate effects on the transition from unemployment to work, it was claimed that they could prevent marginalisation and, eventually, early retirement. There is a small number of studies dealing with the effects of ALMPs on labour force participation (Wadensjö, 1993; Johansson and Markowski, 1995; Johansson, 2001; Dahlberg and Forslund, 2005). All of them find significant positive effects. One should, however, be careful when interpreting these results. If programme participation, at least to some extent, was used to renew UI benefit eligibility, it is not clear to what extent the increased labour force participation reflected an increase in effective labour supply.

### **3.4.7 International cross-country evidence on ALMPs**

In Forslund and Krueger (1997) we claimed that much of the favourable impression of ALMPs was due to cross-country studies. In that paper we showed that to some extent these results were fragile. Calmfors, Forslund and Hemström (2004) have surveyed this growing literature. They find that it seems to be a fairly robust result that ALMPs have contributed to lower rates of open unemployment. However, if this result should reflect that ALMPs improve the working of labour markets, one would expect that ambitious ALMPs would contribute also to lower rates of “total unemployment” (the sum of open unemployment and programme participation). This is, however, less clear: some studies find that expanding ALMPs are associated with lower rates of total unemployment, others find the opposite and some studies find no significant effects at all. The implication of these two results is that ALMPs

contribute to lower unemployment rates, whereas the effect on employment is unclear. Hence, the picture conveyed by the cross-country studies is rather similar to what we see in the studies of Swedish ALMPs. There are also results in the cross-country studies that are consistent with a positive effect of ALMPs on labour force participation, just as was the case for Sweden.

#### **4 Recent changes in Swedish ALMPs**

The new right/centre Swedish government replaced the Social Democrats after the 2006 general elections and rapidly introduced a number of changes in labour market policies. As of this writing, the new policies have been in place less than a year, so there are no evaluations available. We can, however, draw on evidence on similar programmes and theoretical considerations to discuss expected effects.

The most fundamental changes have been introduced in the unemployment insurance program. First, replacement rates are lowered from 80% to 70 % after the first 200 days of unemployment. Second, the cap on the daily benefit, which was higher during the 100 first days is now constant over the entire unemployment spell. Third, the possibility of receiving more than one period (14 months) of UI benefits has been removed. Relatedly, compensation during time spent in labour market programmes is no longer paid by the UI program. Previously, the UI clock stopped ticking during spells of programme participation. This is no longer the case, meaning that periods paid either by UI or as compensation while in programmes now have a maximum length of 14 months without exceptions. Previous theoretical and empirical research would strongly indicate that all of these changes should contribute to more rapid transitions from unemployment to work.

A fourth change involves membership fees for UI insurance fund members, which were previously independent of the level of unemployment among the members. The new government has introduced some elements of experience rating into the system by making membership fees dependent on the unemployment rate of each fund. However, the degree of experience rating is

weak, so the expected effects should be small.<sup>14</sup> Government subsidisation has also decreased, resulting in generally higher membership fees. This feature of the reforms seems to have given rise to a rather rapid decrease in UI fund membership.

Another reform that is closely related to the UI reforms is that the previous activity guarantee has been replaced by a *job and development guarantee*. This reform entails several changes vis-à-vis the former activity guarantee. First, the replacement rate in the new guarantee is reduced to 65%; in the activity guarantee, it was the same as the (constant) UI replacement rate. Second, after eligibility for UI benefits expires after 14 months of unemployment, entry into the job and development guarantee is mandatory. In comparison to the old system, this means that entry into the new programme will, on average, take place earlier in an unemployment spell. Additional, mostly minor changes, were also introduced. The lower replacement rate in the job and development guarantee is likely to speed up the transition to work compared with the old activity guarantee; the effects of the other changes are harder to predict.

The former employment subsidy programmes have been replaced by the “New-start jobs” programme. This programme gives employers a tax subsidy -- the employer does not have to pay any of the 33.42% payroll tax -- for hiring an eligible worker. Workers become eligible by having a continuous period (at least 12 months long) of unemployment, sickness absence or social assistance receipt combined with non-employment. The subsidy is in effect for a period equalling the duration of time in which the employee was not employed prior to starting on the subsidized job.<sup>15</sup> The main innovation in this reform is that workers can acquire eligibility not only through a spell of unemployment, but also through other spells outside the labour force. So, instead of targeting just the long-term unemployed, the new-start jobs programme targets those who are long-term non-employed more generally. It is hard to assess the importance of this reform, as well as of other differences between the old and the new

---

<sup>14</sup> In the Swedish system, the expected effects of experience rating would primarily be effects on wage setting, see for example Holmlund and Lundborg (1988). See Card and Levine (1994) for evidence of the effect of experience rating on unemployment in the United States.

<sup>15</sup> There are exceptions for young people, old people, and immigrants.

programmes, although Katz (1996) provides some evidence that targeted jobs tax subsidies have increased employment in the U.S. in the past.

A few changes specifically in youth programmes have also been implemented. First, payroll taxes are halved for all young workers (below age 25). As a vast majority of youth qualifying for this benefit probably would have been employed anyway, this reform is likely to result in non-trivial tax transfers, causing deadweight costs due to lost tax revenue that will have to be made up elsewhere. Second, the responsibility for providing the programmes has been removed from the municipalities; youth programmes, like other programmes, are now administered by the National Labour Market Board. This new programme is called the Job Guarantee for Youth. The available evidence suggests that transferring the responsibility away from the municipalities may have beneficial effects (Forslund & Nordström Skans, 2006). Third, according to the new policy guidelines, job search activities will be the main component of the first phase of the programme. Evidence from the UK New Deal for Young People gives some support for this focus (see Blundell, et al., 2000).

Some reforms outside of labour market programmes are also likely to affect the labour market. For example, the new government instituted tax reforms that are clearly designed to affect labour supply. We leave these issues for another chapter as our focus is primarily on labour market programmes.

## **5 Concluding discussion**

There are indications that the *modus operandi* of the Swedish labour market changed during the 1990s. Most importantly, we have documented that unemployment followed a different, less favorable pattern after the crisis of the 1990s than during the previous four decades. This could reflect the fact that some of those who lost their jobs in the early 1990s remained jobless during very long periods and in that process became less employable. This, in turn, could reflect the possibilities to renew UI benefit eligibility through participation in labour market programmes. Labour market policies, in this respect, simply enabled people to be jobless for a longer period of time. The

possibility to renew UI benefit eligibility also seems to have had a negative influence on the treatment effect of labour market programmes.

Available evaluations of labour market programmes in the 1990s indicate that the only programme that led to a job more rapidly than job search in open unemployment was employment subsidies (before 1998 recruitment subsidies). At the same time, such programmes are probably associated with displacement effects, so the net effect on open unemployment may be small.

Altogether, these results suggest that the labour market policies of the 1990s were not well adapted to combat the unemployment that arose in the first years of the 1990s.

Was there an alternative? From an American perspective it would, perhaps, seem natural to lower the levels of the social safety nets and in this way make the unemployed persons seek, find and accept new job offers more rapidly. Safety nets at the U.S. level are, however, not a realistic alternative in Sweden. For example, according to OECD (2004), the level of compensation for an unemployed person was considerably lower in the U.S. than in Sweden (30 % of previous income in the U.S. compared to 77 % in Sweden) counted over a long period (5 years) of unemployment. An explanation of the big difference is that UI benefits normally are limited to 6 months in the U.S. Thereafter, only time-limited means-tested support and Disability Insurance are available in the U.S.

The finding that programme participation generally was outperformed by job search, however, points to another alternative. If the social safety nets are kept at a high level, job search and job acceptance incentives must be provided in other ways. One such way is job search assistance and counselling. In the international evaluation literature there is evidence that job search assistance is one of the few examples of successful measures.<sup>16</sup> While it is unclear why job search assistance is such a cost-effective strategy, one possibility is that such

---

<sup>16</sup> See, for example, the survey in Martin & Grubb (2001).

programs provide the unemployed with a more reasonable expectation for the type of jobs that they might be able to obtain (which has the economic effect of lowering reservation wages). The effectiveness of job search assistance may partly relate to our finding from time-use data that unemployed Swedes devote comparatively little time to job search.

In many circumstances a distinction is made between “active” labour market policies (= labour market programmes) and “passive” labour market policies (= UI benefits). This distinction seems to be based on a notion that UI benefits are paid as a compensation for not working. This is a misleading distinction for Sweden. In all existing UI benefit systems there is a set of rules that are designed to ascertain that the unemployed is available for work and active searches for a job in different ways. In Sweden, the public employment service (PES) is the spider in this web. The PES is supposed to provide both counselling and monitoring to make sure that unemployed persons with UI benefits are available for work according to the rules of UI. The activities of the PES should in this perspective be viewed as a (potentially) efficient labour market programme. An alternative to the labour market policies pursued in the 1990s would therefore have been to allocate more resources to job counselling and monitoring and less to other programmes.

From a perspective based on the experiences from the 1990s, the reforms in labour market policies in the early 2000s seem to be steps in the right direction. The activity guarantee involves an increased focus on measures to stimulate job search and the new rules in UI have removed the problem of cycling between programmes and open unemployment of the 1990s. The demise of relief jobs and increased emphasis on employment subsidies is another development that is likely to lead to more efficient job creation. Of course this does not mean that Swedes live in the best of all possible worlds. Unemployment is still high and many problems of (potential) low-wage earners remain to be solved. In addition, the 1990s have left a legacy of long-term unemployed who have only had sporadic contacts with the regular labour market. As our discussion of wage subsidies suggests, traditional labour market policies can probably not solve all these problems. Yet Sweden’s commitment



to improving labour market conditions and its policymakers' willingness to experiment with different and innovative approaches when past approaches proved less effective than desired are positive signs.

### References:

- Ackum Agell, S, A Björklund and A Harkman (1995), Unemployment insurance, labour market programmes and repeated unemployment in Sweden, *Swedish Economic Policy Review* 2, 101-128.
- Ahn, N and J I Garcia-Perez (1999), Unemployment Duration and Workers' Wage Aspirations in Spain, mimeo, Universitat Pompeu Fabra.
- Albrecht J, G J van den Berg and S Vroman (2004), The knowledge lift: The Swedish adult education program that aimed to eliminate low worker skill levels, [Working paper 2004:17](#), IFAU
- Axelsson, R and O Westerlund (2004), Kunskapslyftets privatekonomiska effekter – Nybörjare höstterminen 1997, *Umeå economic studies* No 630, Department of Economics, Umeå University.
- Axelsson, R and O Westerlund (2005), Kunskapslyftets effekter på årsarbetsinkomster, *Umeå economic studies* No 647, Department of Economics, Umeå University.
- Benmarker H, K Carling & B Holmlund (2007) Do benefit hikes damage job finding? Evidence from Swedish unemployment insurance reforms, *Labour: Review of Labour Economics and Industrial Relations*, vol. 21 nr 1, 85-120
- Blundell, R, A Duncan, J McCrae, and C Meghir. "[The labour market impact of the working families tax credit](#)," *Fiscal Studies*, Institute for Fiscal Studies, vol. 21(1), pages 75-103
- Calmfors L (1993), Lessons from the macroeconomic experience of Sweden, *European Journal of Political Economy* 9, 25 – 72.
- Calmfors, L, A Forslund and M Hemström (2004), "The effects of active labor-market policies in Sweden: What is the evidence?," in J Agell, M Keen and A Weichenrieder (eds), *Labor market institutions and public regulation* (MIT Press).
- Card, D and P B Levine. "Unemployment Insurance Taxes and the Cyclical and Seasonal Properties of Unemployment," *Journal of Public Economics*, Vol. 53, No. 1, January 1994, 1-29.

- Carling, K, P-A Edin, A Harkman and B Holmlund (1996), “Unemployment duration, unemployment benefits, and labor market programs in Sweden”, *Journal of Public Economics* 59, 313-334.
- Carling, K, B Holmlund and A Vejsiu (2001), [Do benefit cuts boost job-findings? Swedish evidence from the 1990s](#), *Economic Journal* 111, nr 474, 766-790
- Carling, K and K Richardson (2004), The relative efficiency of labor market programs: Swedish experience from the 1990's, *Labour Economics* 11, p. 335-354
- Dahlberg, M and A Forslund (2005), Direct displacement effects of labour market programmes, *Scandinavian Journal of Economics* 107, p. 475-494.
- Dormont, B, D Fougere and A Prieto (2001), “L’effet de l’allocation unique dégressive sur la reprise déemploi, manuscript”, THEMA, Université Paris X-Nanterre.
- Edin P-A and B Holmlund (1991), Unemployment, vacancies and labour market programmes: Swedish evidence, in: F P Schioppa (ed.), *Mismatch and labour mobility* (Cambridge University Press).
- Ekström, E (2003), Essays on inequality and education, PhD Thesis, Department of Economics, Uppsala University.
- Forslund, A, D Fröberg and L. Lindqvist (2004), The Swedish activity guarantee, OECD Social, Employment and Migration Working Papers No 16.
- Forslund, A and K Johansson (2007), [Random and stock-flow models of labour market matching - Swedish evidence](#), Working Paper 2007:11, IFAU, Uppsala.
- Forslund, A, P Johansson and L Lindqvist (2004), “Employment subsidies - A fast lane from unemployment to work?” Working Paper 2004:18, IFAU, Uppsala.
- Forslund, A and A Krueger (1997), “An evaluation of the active Swedish labor market policy: New and received wisdom”, in: R Freeman, R Topel and B Swedenborg (eds), *The welfare state in transition* (Chicago University Press).
- Forslund, A and O Nordström Skans (2006), [Swedish youth labour market policies revisited](#), *Vierteljahrshefte zur Wirtschaftsforschung* 75, nr 3, 168-185
- Fredriksson P (1999), The dynamics of regional labor markets and active labor market policy: Swedish evidence, *Oxford Economic Papers* 51, 623 – 648.
- Fredriksson, P and P Johansson (2003), [Employment, mobility, and active labor market programs](#), Working Paper 2003:3, IFAU, Uppsala.

- Hallgren, A (1996), Job matching and labour market programmes in Sweden, mimeo, Department of Economics, Uppsala University.
- Ham, J and S Rea (1987), Unemployment Insurance and Male Unemployment Duration in Canada, *Journal of Labor Economics* 5, p. 325-353.
- Harkman, A (2002), Vilka motiv styr deltagandet i arbetsmarknadspolitiska program? Rapport 2002:9, IFAU, Uppsala.
- Holmlund, B and P Lundborg (1988), Unemployment Insurance and Union Wage Setting, *The Scandinavian Journal of Economics*, Vol. 90, No. 2, June 1988, 161-172.
- Hägglund, P (2000), Effects of changes in the unemployment insurance eligibility requirements on job duration - Swedish evidence, Working Paper 2000:4, IFAU, Uppsala.
- Jackman R, C Pissarides and S Savouri (1990), Labour market policies and unemployment in the OECD, *Economic Policy* 5, 449 – 490.
- Jenkins, S and C Garcia-Serrano (2000), Re-employment Probabilities for Spanish Men: What Role does the Unemployment Benefit System Play?, mimeo, Institute for Social and Economic Research, University of Essex.
- Johansson, K (2001), Do labor market programs affect labor force participation, *Swedish Economic Policy Review* 8, 215–234.
- Johansson, K and A Markowski (1995), Påverkar arbetsmarknadspolitik arbetskraftsdeltagandet? – en empirisk studie, *Konjunkturläget maj 1995*, Specialstudier, Konjunkturinstitutet, Stockholm.
- Katz, L F (1996), Wage Subsidies for the Disadvantaged, NBER Working Paper No. W5679.
- Katz, L and B Meyer (1990), The Impact of the Potential Duration of Unemployment Benefits on the Duration of Unemployment, *Journal of Public Economics* 41, p. 45-72.
- Layard, R, S Nickell and R Jackman (1991), *Unemployment: macroeconomic performance and the labour market* (Oxford University Press).
- Lindgren, U and, O Westerlund (2003), [Labour market programmes and geographical mobility: migration and commuting among programme participants and openly unemployed](#), Working Paper 2003:6, IFAU, Uppsala.
- Martin, J and D Grubb (2001), What works and for whom: A review of OECD countries' experiences with active labour market policies, *Swedish Economic Policy Review* 8, p. 9-56.

- McCormick B and P Skedinger (1991), Why do regional unemployment differentials persist?, in: P. Skedinger, Essays on wage formation, employment, and unemployment, Doctoral Thesis, Department of Economics, Uppsala University.
- Meyer, B (1990), Unemployment Insurance and Unemployment Spells, *Econometrica* 58, p. 757-782.
- Moffitt, R (1985), Unemployment Insurance and the Distribution of Unemployment Spells, *Journal of Econometrics* 28, p. 85-101.
- Nilsson C (1995), Den interregionala omflyttningen i Sverige – konsekvenser av arbetsmarknadsläge, arbetsmarknadspolitik och regionala levnadsomkostnader, EFA-rapport No. 33.
- OECD (2004), Benefits and Wages: OECD Indicators 2004.
- Regné, H (1997), Training at the job and training for a new job: two Swedish studies, PhD Thesis, SOFI, Stockholm University.
- Sianesi, B (2001), The Swedish active labour market programmes in the 1990s: Overall effectiveness and differential performance, *Swedish Economic Policy Review* 8, p. 133–169.
- Sianesi, B (2004), An Evaluation of the Swedish System of Active Labor Market Programs in the 1990s, *The Review of Economics and Statistics* 86, p. 133-155
- Stenberg, A (2003), An evaluation of the Adult education initiative relative labour market training, *Umeå economic studies* No 609, Department of Economics, Umeå University (PhD Thesis).
- Stenberg, A (2005), Comprehensive education for the unemployed – Evaluating the effects on unemployment of the Adult education initiative in Sweden, *Labour* 19, 123-146.
- Stenberg, A and O Westerlund (2004), Does comprehensive education work for the long-term unemployed?, *Umeå economic studies* No 641, Department of Economics, Umeå University.
- Wadensjö, E (1993), Arbetsmarknadspolitikens effekter på löner och priser, in *SOU 1993:43, Politik mot arbetslöshet*.
- Westerlund O (1997), Employment opportunities, wages and interregional migration in Sweden 1970 – 89, *Journal of Regional Science* 37, 55 – 73.
- Widerstedt B (1998), Moving or staying? Job mobility as a sorting process, Doctoral Thesis, Department of Economics, Umeå University.