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## Employment outcomes and policies in Sweden during recent decades

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# Employment outcomes and policies in Sweden during recent decades

Anders Forslund



# Employment outcomes and policies in Sweden during recent decades<sup>a</sup>

by

Anders Forslund<sup>b</sup>

June 12, 2019

## Abstract

The Swedish employment rate is high in an international comparison and has been rising during recent decades. This pattern is especially pronounced among the elderly and women and reflects labour supply behaviour in these groups. The policy survey in this report suggests that the main drivers of the high and rising Swedish employment rates can be found in policies for early retirement, old-age pensions and taxes and benefits.

Keywords: Employment, Labour supply, Labour demand, Employment policies

JEL-codes: H30, H40, H53, H55, I28, J20

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<sup>b</sup> IFAU and Uppsala University. The author thanks members of the Expert Group of the Norwegian Employment Commission and Martin Lundin for valuable comments. Any remaining mistakes are solely due to the author.

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## 1 Introduction

Employment is the result of complicated processes which involve decisions to invest in different skills, decisions to apply for jobs, decisions to invest in production technologies and decisions to hire persons with given sets of skills. Each of these components of the processes are time- and resource-consuming activities, and all of them are influenced by different policy measures and the design of several institutions (private or public).

In this report I provide a discussion of how employment in Sweden during recent decades has been influenced by different kinds of public policy.

As a foundation for the policy discussion, I first give a brief description of the key features of recent developments in employment-related outcomes in the Swedish labour market.

The discussion of policy on the labour-supply side focus on skill-upgrading policies and institutions, as well as on policies working through job-search incentives. I also cover policies working through labour demand and (although very briefly) policy measures affecting matching in the labour market.<sup>1</sup>

## 2 Swedish labour market outcomes during recent decades

The Swedish employment rate in 2017 was 81.8 per cent according to Eurostat statistics, almost ten percentage points above the EU average (72.2 per cent). Of the countries in the Eurostat data base, only Iceland (87.6 per cent) and Switzerland (82.1 per cent) had higher employment rates that year. The difference between Sweden and the EU average in employment rates can be decomposed into a difference in labour force participation rates and a factor reflecting differences in unemployment rates. Performing such a comparison immediately reveals that the higher Swedish employment rate almost exclusively reflects higher labour force participation. The difference in participation rates was 9.1 percentage points in 2017, whereas the difference in unemployment rates was 0.9 percentage points.<sup>2</sup> So, to get an understanding of the high Swedish employment rate, the descriptive evidence seems to suggest that we primarily should be interested in factors related to labour supply.

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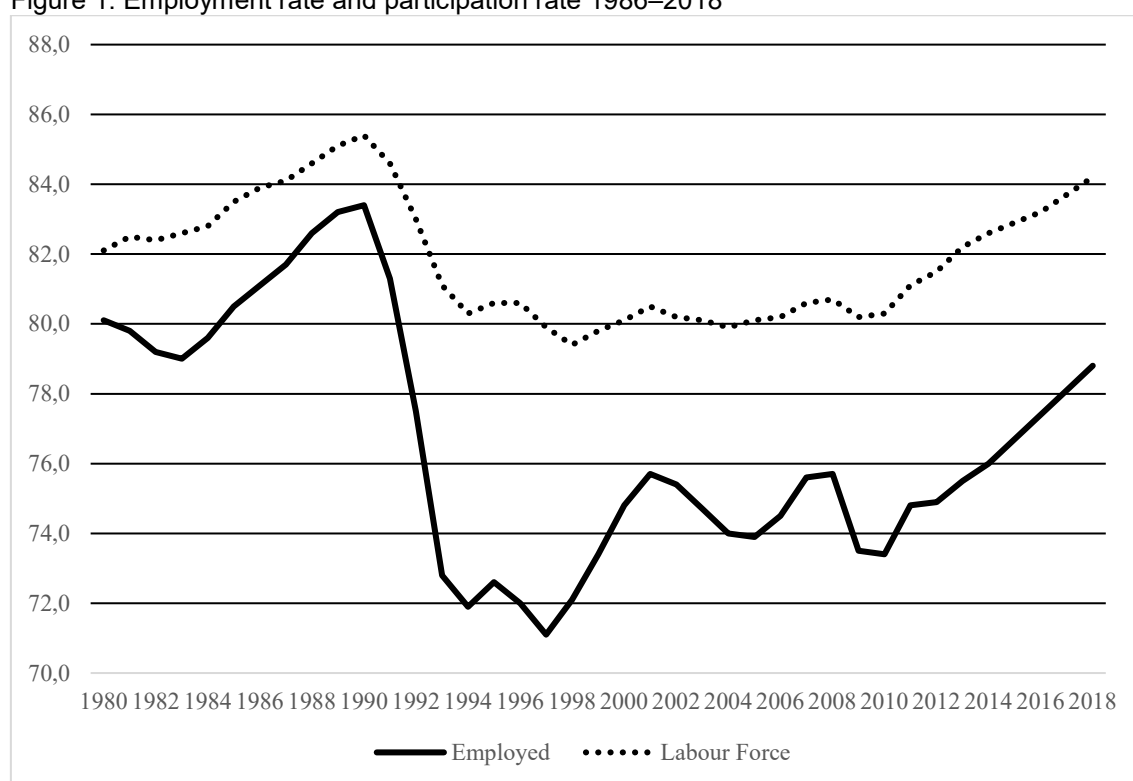
<sup>1</sup> To some extent the distinctions between supply, demand, and matching are fuzzy. It is not, for example, evident if labour market training programmes should be counted primarily as supply or matching measures.

<sup>2</sup> The employment rate equals the participation rate times (1 - the unemployment rate).

In Figure 1, the Swedish employment and participation rates for 16–64-year-olds from 1980 to 2018 are plotted. Although the employment and participation rates were higher in 2018 than they were for a long period before this year, they were even higher before the deep Swedish recession of the 1990s. But in the present context, the most interesting feature of Figure 1 is that the development since around 2005 has been favourable with increasing employment and participation rates, with only a brief setback during the international financial crisis in 2009 and 2010.

There is an interesting difference between the 1990s crisis and the international financial crisis 2007–2010 in the adjustment patterns. The recession in the 1990s involved significant and long-run decreases in both employment and participation. In contrast, the Swedish response to the international financial crisis was short lived, and the decrease in employment was accompanied by only a minor decrease in participation.

Figure 1: Employment rate and participation rate 1986–2018

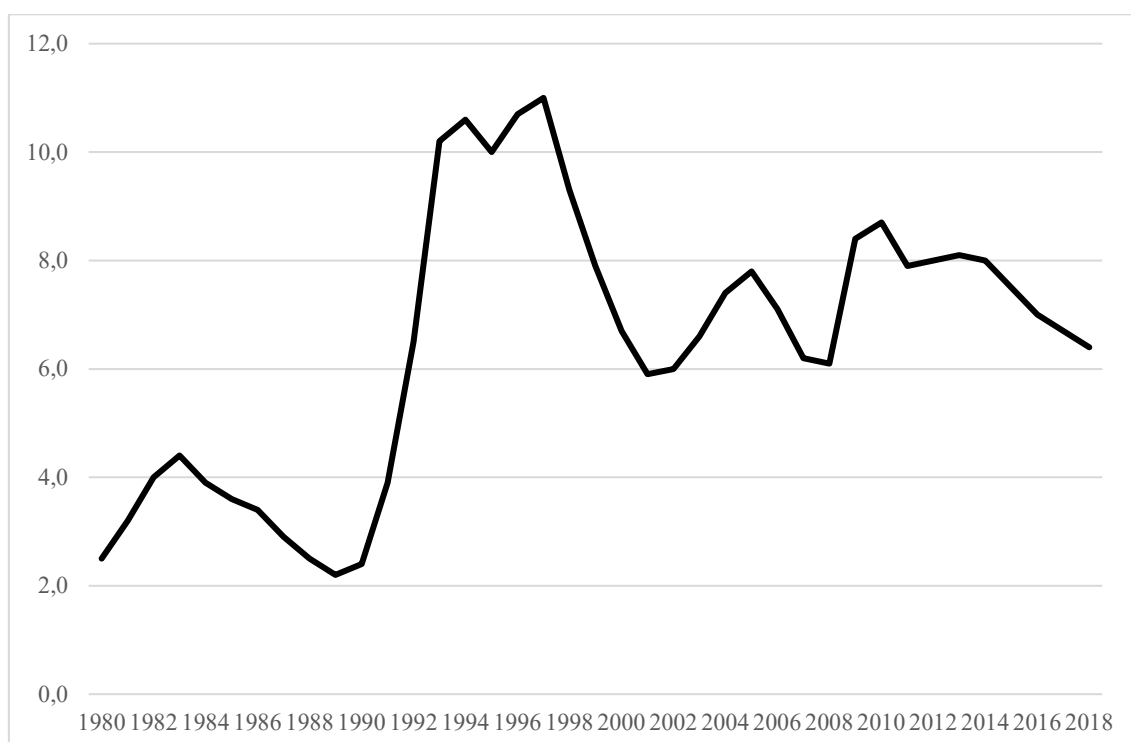


Note: Figures for population aged 16–64.

Source: Statistics Sweden, Labour force surveys.

The development of the unemployment rate (Figure 2) has not been equally favourable after the crisis of the 1990s, but unemployment in 2018 was almost back to where it was before the international financial crisis.

Figure 2 : Unemployment rate 1980–2018



*Note:* Figures for population aged 16–64.

*Source:* Statistics Sweden, Labour force surveys.

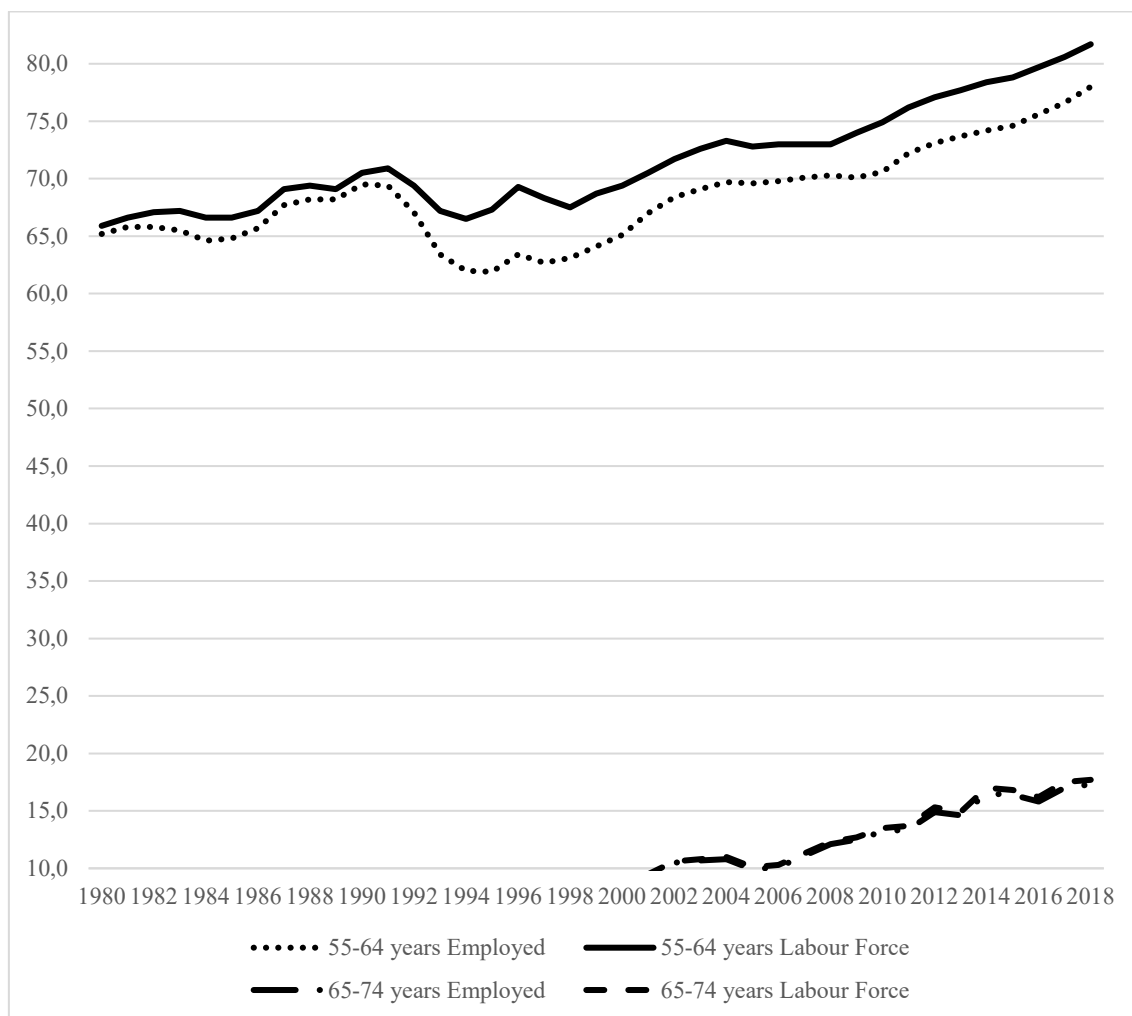
The recent steady rise in employment and participation rates hides differences across different strata in the Swedish population.

In Figure 3 we see the remarkable growth in employment and participation rates among the elderly (55+ years of age) during recent decades. Although employment and participation among the prime-aged has also increased recently, the increase is much smaller than among the old, as is evident from Figure 4, where employment and participation rates among persons between 25 and 54 years of age are displayed.<sup>3</sup>

<sup>3</sup> It is also striking how high the Swedish participation and employment rates among the elderly are in comparison with the EU average: in the first quarter of 2018, the Swedish participation and employment rates were 80.9 % and 77.2 % compared to 61.3 % and 57.8 % among persons aged 55–64 according to Eurostat figures.



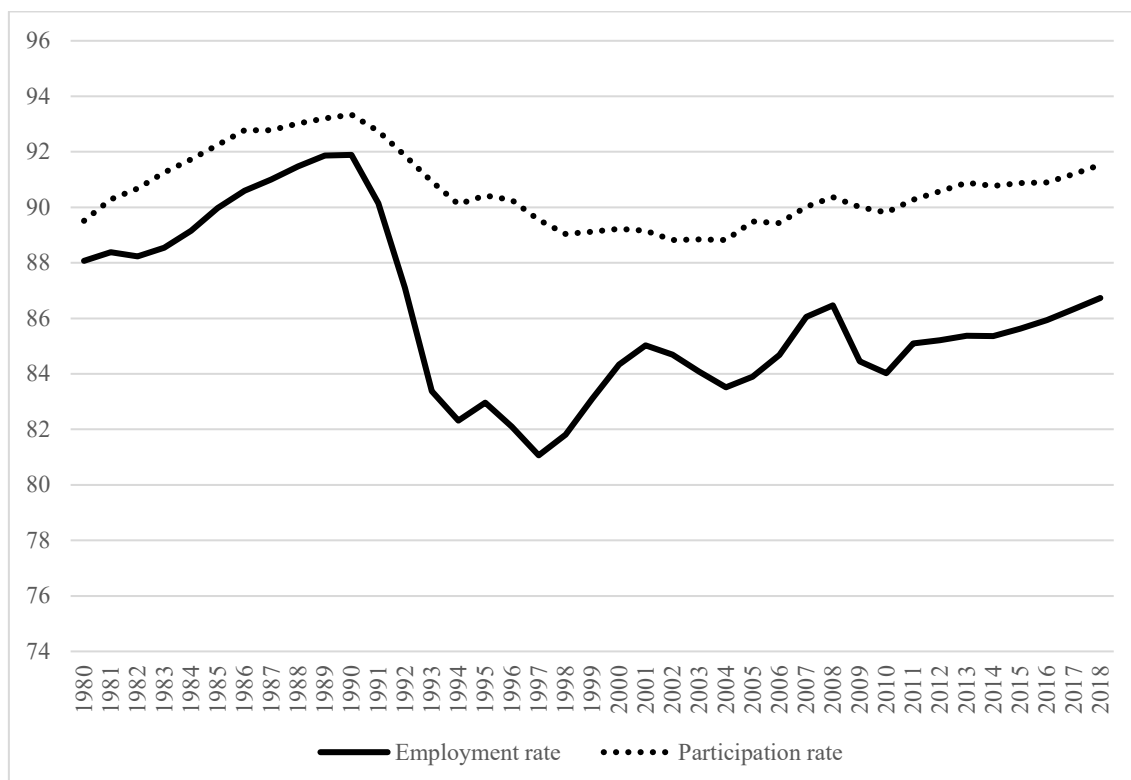
Figure 3 : Employment and participation rates in 55+ ages



Note: Numbers for ages 65 and over not available pre 2001.

Source: Statistics Sweden, Labour force surveys.

Figure 4: Employment and participation rates 1980–2018 in ages 25–54



Source: Statistics Sweden, Labour force surveys.

Outcomes for young persons are somewhat more complicated to describe in an informative way. High employment and labour force participation rates are not necessarily desirable – we expect most young persons to be in education or training. Unemployment rates are commonly used to describe how young persons do in the labour market. In terms of youth unemployment rates, Sweden is not doing particularly well – the Swedish youth unemployment rate in 2017 (17.8 per cent) was actually above the EU average (16.8 per cent) according to Eurostat numbers. However, youth unemployment rates are unfortunately not very informative when comparing the labour market prospects for young persons in different countries. Some unemployment differences do capture real differences in labour market prospects, but a potentially substantial share of the differences may instead capture institutional differences giving rise to pure book-keeping differences. Such institutional differences include the extent to which vocational training programmes at the high-school level are apprenticeship programmes (in which young persons are counted as employed if they are paid any wages) or not and whether or not

university students receive study grants during vacations (in which case they rarely apply for jobs).

For this and other reasons it has become more common to compare inactivity rates (shares of young persons who neither study or work, “NEETs”) among young persons. Comparing the Swedish NEET rate to the EU average gives a totally different picture than the comparison of unemployment rates: the Swedish NEET rate in 2017 was 6.1 per cent compared to the EU average at 10.9 per cent according to Eurostat figures.

In Figure 5 we see the NEET and unemployment rates among 15–24-year-olds. The level difference primarily reflects that the denominators are different – the denominator for the unemployment rate is the labour force, whereas the denominator for the NEET rate is the population. Unfortunately, the NEET series is only available for a short period, but both measures suggest a trend wise improvement in the labour market prospects for young persons since the international financial crisis.<sup>4</sup>

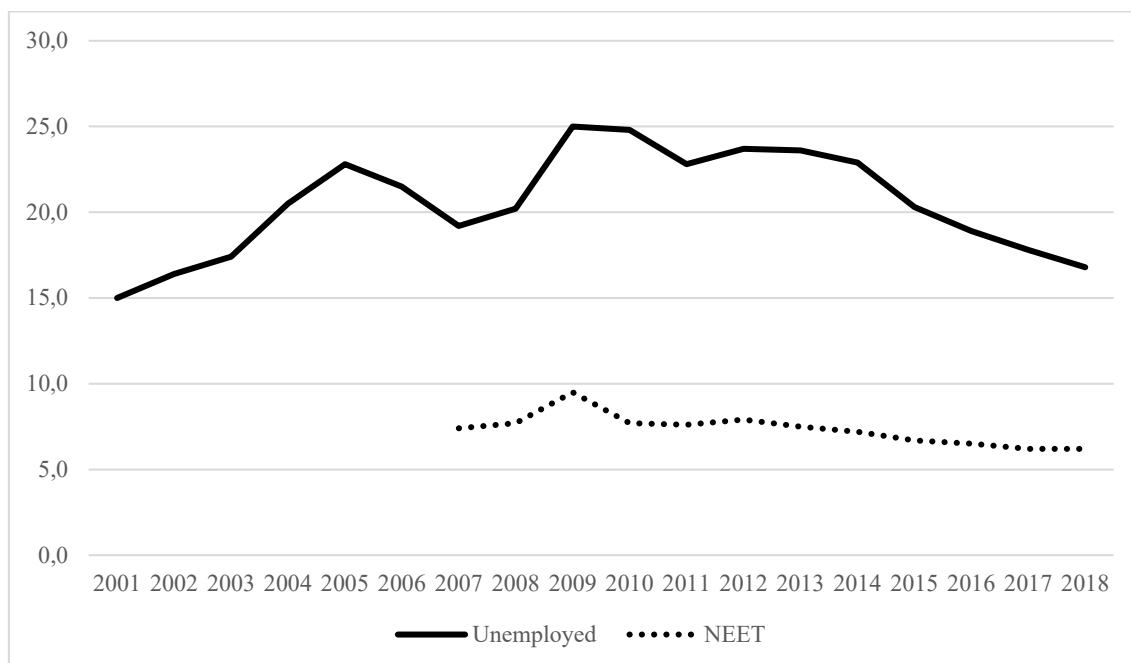
There are, however, groups of young persons for which labour market prospects are problematic, and for certain groups even increasingly so over time. An analysis of the labour-market entry of young persons in Engdahl & Forslund (2016) identifies three, partly overlapping groups of young persons with bad labour-market prospects: high-school dropouts, young persons with immigrant background and, especially, young disabled persons. It seems particularly problematic that the group of high-school dropouts is increasing and the group of young disabled both is increasing and doing worse over time.

Another possible problem is that young Swedes with tertiary education enter the labour market at above-average ages. This has for example been pointed out by the OECD (2008) and can be seen in the average age at which tertiary education graduates leave school – in the latest available OECD comparison (for 2015), Sweden had the highest average graduation age, reflecting both a high average entry age and a long duration of the studies.

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<sup>4</sup> Remember, however, that it is not entirely clear that the youth unemployment rate in any meaningful way measures the development of the labour markets prospects for young persons.

Figure 5: Unemployed and NEETs 15–24 years old

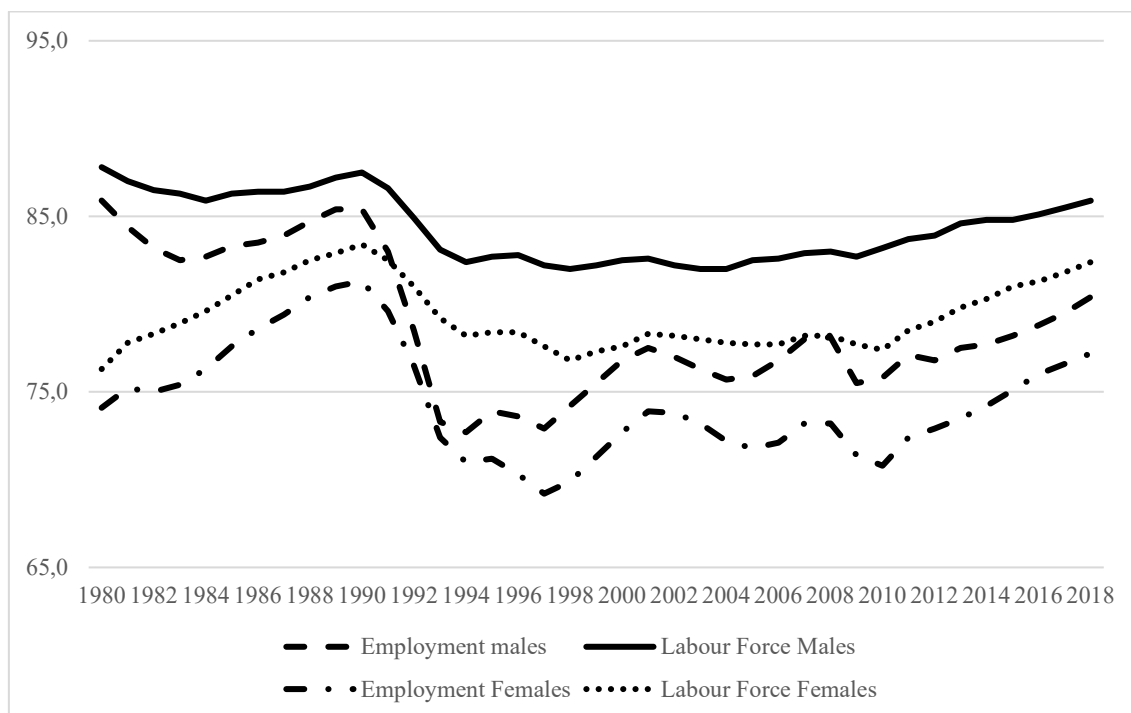


Source: Statistics Sweden, Labour force surveys.

In Figure 6 we look instead at the development of employment and labour force participation by males and females. The levels of employment and labour force participation are slightly higher among males, but the differences become smaller over time, reflecting the fact that both participation and employment rates have grown faster among females.

Compared to the EU average, the Swedish participation and employment rates are higher both among males and females, but the difference is much bigger among females, which is evident from the numbers in Table 1.

Figure 6: Employment and participation rates by males and females, 1980–2018



Note: Figures for population aged 16–64.

Source: Statistics Sweden, Labour force surveys.

Table 1: Employment and participation rates in ages 15–74 first quarter of 2018 in Sweden and EU 28

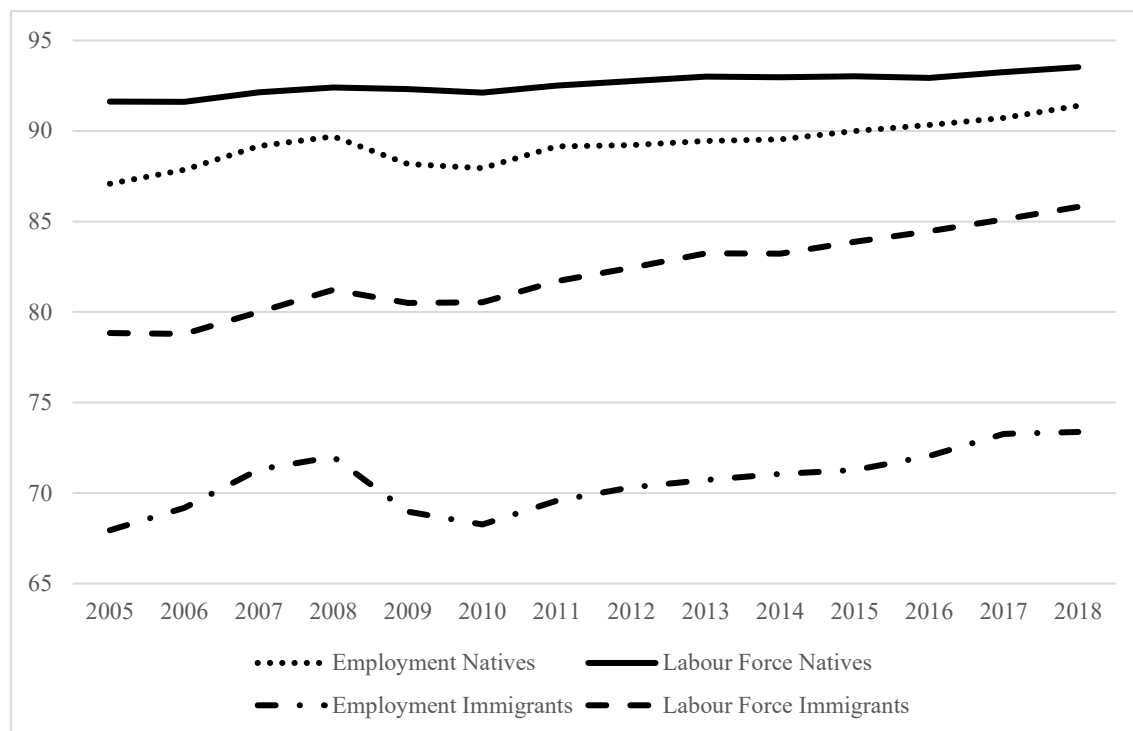
	Employment rate (%)		Participation rate (%)	
	Females	Males	Females	Males
Sweden	65.2	69.5	69.7	74.7
EU 28	54.4	65.1	58.9	70.2

Source: Eurostat.

In Figure 7, the development of employment and participation rates among natives and immigrants in Sweden aged 25–54 are displayed. The gap in employment rates is just below 20 percentage points and somewhat shrinking after the international financial crisis, but the employment rates have developed in rather similar ways (slowly increasing) for both strata from 2005 and on. However, the fact that the immigrant share of the population has grown over time means that immigration has contributed negatively to the development of the aggregate employment rate in a purely book-keeping sense. Notice

also that the participation rate among immigrants, in contrast to the development among natives, is increasing rapidly over the period.<sup>5</sup>

Figure 7: Employment and participation rates by place of origin 2005–2017, ages 25–54



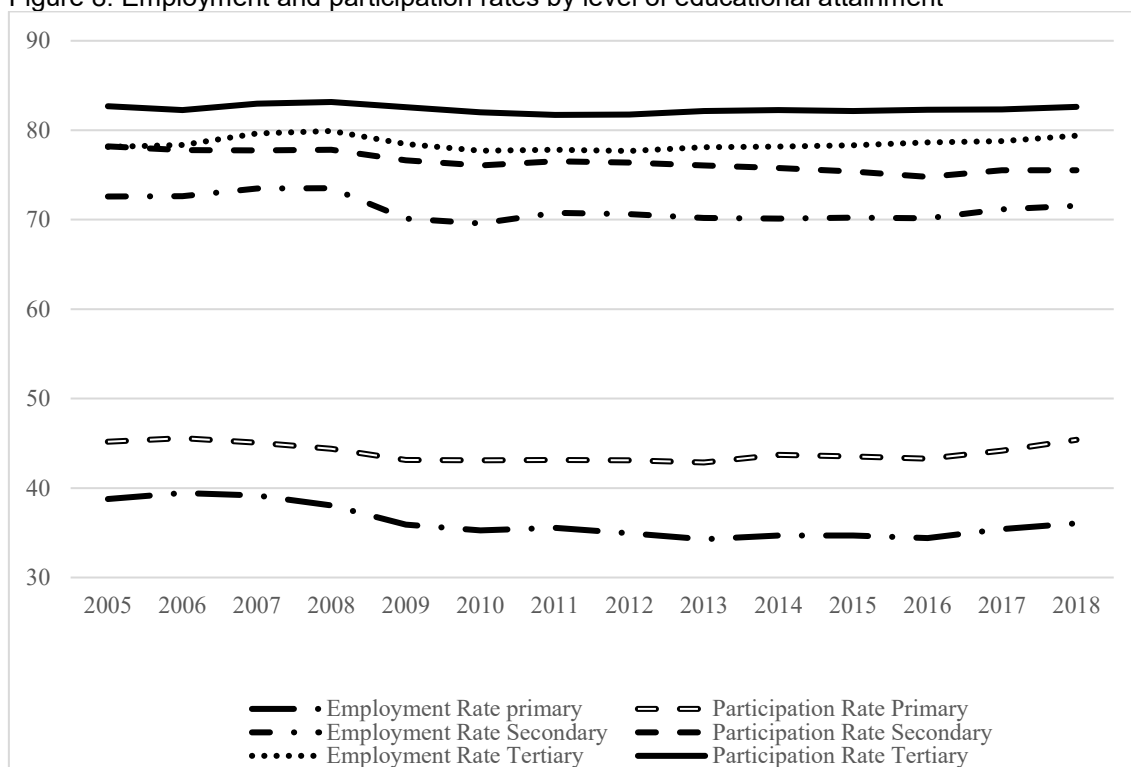
Source: Statistics Sweden, Labour force surveys.

In Figure 8 we see employment and participation rates by level of educational attainment. Hardly surprising, employment and participation rates are monotonically increasing in the level of educational attainment. Perhaps a little more surprising, we see that for all but individuals with post-secondary education, employment rates decrease over time. Hence, the aggregate increase in the employment rate in a mechanical sense is due to compositional change, where the level of educational attainment in the population in working age steadily has gone up.<sup>6</sup>

<sup>5</sup> I show the development of participation and employment in “prime ages” to take some account of the different age distributions of natives and immigrants.

<sup>6</sup> It is not too far-fetched to believe that the decrease in employment rates for those with lower educational attainment at least partly is a selection phenomenon – the selection of individuals into lower educational attainment has probably meant selection on less marketable qualifications as the group has decreased over time. This is consistent with a growing unemployment rate among those with less than secondary education.

Figure 8: Employment and participation rates by level of educational attainment



Note: Figures for population aged 15–74.

Source: Statistics Sweden, Labour force surveys.

### 3 Skills upgrading institutions and policies

In the Swedish labour market model, adjustments to changes in demand have traditionally been accomplished primarily through employment changes (layoffs in cases with decreasing demand) and not through wage changes. In such a system, it is important that there exist institutions and policies to facilitate the skills upgrading necessary for occupational mobility. It is not a coincidence that vocational labour market training for the unemployed was an important part of the policy programme, among other things aiming at rapid structural change to promote productivity growth, lunched by the central union of blue-collar workers in the late 1940s and early 1950s (Landsorganisationen, 1953) and that such training measures rapidly became the jewel in the crown in Swedish active labour market policies. Recent developments under the headings “technical change” and “globalisation” have probably further strengthened the need for skills upgrading for adults. Another factor also working to increase the need for adult training is the poor results in Swedish primary and secondary school, especially the fact that a significant proportion (between 15 and 20 per cent; see Ackum, 2018) of each recent

youth cohort ends up without eligibility for any upper-secondary national programme and, with a high probability, becomes high school dropouts. Finally, a significant share of the individuals in the recent large influx of immigrants have a poor school background, and hence, many of them are candidates for skills upgrading. Consequently, we can identify needs for adult education and training for a number of reasons.

So, is there supply to meet the needs for adult education and training? I start by presenting the types of institutions offering adult education and training programmes. Then I present some evidence of the take-up of programmes and courses. Finally, I present some evidence on the results of the inputs.

Another dimension of skills in a wide sense concerns health. I give a brief review of recent reforms in the Swedish system of rehabilitation and also present some evidence on the effects.

### **3.1 Upper secondary vocational programmes<sup>7</sup>**

Before turning to adult education and training, it is useful to give a brief review of vocational programmes in Swedish the upper secondary school. Vocational programmes in Sweden have a number of characteristics: *First*, programme dimension is in principle governed by student demand. One might conjecture that this plays a role for a *second* feature of the system – a small content of training in workplaces (and only a tiny fraction of each cohort in apprenticeship programmes). There is no guarantee that student demand for programmes (which is based on, at best, fragmented knowledge of the labour market outcomes associated with different programmes) is matched to employer interest in offering slots for in-workplace training. *Third*, a reform in the 1990s involving an increased academic content in the vocational programmes primarily led to increased dropping out (Hall, 2012). *Finally*, stricter eligibility requirements have gone hand in hand with a large and increasing fraction of each cohort leaving compulsory school not eligible for any national programme. Most of the ineligible would previously have entered national vocational programmes.

Summing up: Sweden has an upper-secondary vocational programme with a small content of in-workplace training, a fairly large academic content and a significant fraction

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<sup>7</sup> Much of the basic features of upper secondary vocational programmes are covered in SOU 2011:11.



of young persons who end up outside the system because they fail to meet eligibility criteria.

### **3.2 Adult education (Komvux and Sfi)<sup>8</sup>**

The *Komvux* adult education system is designed to offer education to adults at least 20 years old without finished primary or secondary school. Courses are also open for persons below age 20 who have finished upper secondary school, but only in subjects where they have not reached a “pass” grade. The system is run by the municipalities and offers courses free of charge for the participants.<sup>9</sup> Participation also provides eligibility to public study grants and loans.

Immigrants above age 16 can attend courses in Swedish for immigrants (*Sfi*), which are supposed to provide basic knowledge of the Swedish language and society. The courses are free of charge and can be combined with other activities such as work, practice or education.

### **3.3 Adult vocational training programmes (Yrkesvux)<sup>10</sup>**

Originally, *Komvux* included vocational training to a limited extent. However, at the time of the international financial crisis, in 2009, the government decided to give the municipalities the opportunity to apply for funding for vocational courses, originally called *Yrkesvux*. Priority should be given to students with low educational attainment or to unemployed. The courses offered are often similar to those offered in vocational labour market training provided by the Public Employment Service (PES), see Section 3.5. Municipalities and the PES often buy the courses from the same providers (Statskontoret, 2012).

### **3.4 Vocational introductory jobs (Yrkesintroduktionsanställningar)<sup>11</sup>**

A few years ago (early in 2014), a programme called Vocational introductory jobs (*Yrkesintroduktionsanställningar*) was launched. The programme combines work and vocational training (the training part at most 25 % of a full time). The programme is targeted, first, at youth 15–24 lacking experience of a vocation or unemployed at least 90

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<sup>8</sup> The rules for *Komvux* and *Sfi* can be found in *Förordning (2011:1108) om vuxenutbildning*.

<sup>9</sup> The municipalities receive central government money to organize the courses, which are typically bought from private providers.

<sup>10</sup> A brief description of adult vocational training programmes can be found in Skolverket (2018).

<sup>11</sup> Vocational introductory jobs are described and analysed in Statskontoret (2016).

days, second, at persons at least 25 years old and long-term unemployed or, third, at recently arrived immigrants. The government pays a wage subsidy (corresponding to the payroll tax) and also pays for the vocational training. The programme is based on collective agreements at the central (sectoral) level, specifying the type and amount of training, and this set-up is the result of three-part negotiations between the government and the social partners. The programme can be viewed as an embryo to apprenticeship programmes, but has so far reached (very) modest volumes; far below the guesstimates in official policy documents when the programme was launched (Riksrevisionen, 2018).

### **3.5 Vocational labour market training programmes (Arbetsmarknadsutbildning)<sup>12</sup>**

Vocational training programmes for the unemployed arranged by the Public Employment Service (PES) have a long history in Swedish active labour market policy. Unemployed job seekers are assigned to training programmes by case workers at the PES, but the courses have been procured from other providers since the 1980s. The courses are typically not longer than six months, but typically longer than a few weeks (the Danish system). The general idea is to identify skills that can be acquired in the relevant time span and that are in demand (bottlenecks; occupations in shortages). The participants receive economic support corresponding to the level of unemployment benefits.

### **3.6 Vocational college (post-secondary) programmes (Kvalificerad Yrkesutbildning and Yrkeshögskolan)<sup>13</sup>**

Vocational college programmes (*Kvalificerad Yrkesutbildning; KY*) started as a pilot in 1996 and became a regular programme in 2001. In 2009 KY and a few other vocational programmes became *Yrkeshögskolan (YH)*. The objective of the programme has, since the start, been to contribute to a general raise in competence in the labour force, but it has more specifically been an objective to prepare the labour force for structural change due to technical change. The *YH* programme is broadly targeted: individuals in the labour force needing further training, individuals who want to change occupation and new graduates from secondary education. A distinctive feature of the programmes is that the content is heavily influenced by the social partners: Employers participate in control

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<sup>12</sup> Vocational training programmes are described and analysed in, e.g., Liljeberg (2016).

<sup>13</sup> Vocational college (post-secondary) programmes are discussed in Lind & Westerberg (2015).

groups and supply slots for practice and the social partners are involved in the selection of courses and content.

Students seem to find work easily (compared to matched "traditional" college students), but no full-fledged evaluation is available.

### **3.7 Participation in adult education and training in Sweden**

Arbetsmarknadsekonomiska Rådet (2018) surveyed Swedish adult education and training from a number of angles. First, they cited survey evidence showing that adult education and training is more extensive in terms of participation in Sweden than in any other country covered by surveys undertaken by Eurostat. This survey-based measure includes both formal and informal education and training. The evidence shows that participation is high in all age groups covered by the study. Participation is higher in Sweden than in other countries both for natives and individuals born abroad, although participation among natives is around ten percentage points higher than among individuals born outside Sweden. The high participation rates in Sweden partly result from high participation in formal programmes, but Sweden really stands out when it comes to participation in informal training. An interesting pattern is that natives have much higher participation in informal training, especially in workplace training, whereas natives have a significantly lower participation rate than individuals born outside Sweden in formal training.

The numbers of participants in adult education (including vocational programmes) and Swedish for immigrants have been growing over the past ten years and are substantial – in 2017 there were 235 000 participants in adult education and 163 000 in *Sfi*.<sup>14</sup> These figures are substantially higher than the number of participants in vocational labour market training programmes – slightly above 10 000.<sup>15</sup> Participation in labour market training programmes has also been substantially lower in recent years than previously. Also, the vocational college programmes have more participants than labour market training programmes; in 2017 the number of admitted students was around 20 000 (Myndigheten för Yrkeshögskolan, 2018). The number of persons with vocational introductory jobs has never been large – in February 2019 there were 586 people on such contracts.<sup>16</sup>

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<sup>14</sup> Numbers are taken from skolverket.se.

<sup>15</sup> See Liljeberg (2016) for fairly recent numbers of participants. Unfortunately, the numbers published monthly by the Swedish PES are seriously misleading and typically include only roughly 50% of the participants.

<sup>16</sup> The number is taken from arbetsformedlingen.se.

### **3.8 Employment effects of the different programmes**

In this section I review the evidence of effects of the different types of Swedish adult training and education. Most of the available evidence pertains to labour market training, and there is no evidence on adult vocational training programmes and vocational introductory jobs, almost no evidence on vocational college programmes and some but not very much evidence on adult education, including Swedish for immigrants.<sup>17</sup>

#### **3.8.1 Adult education**

Some studies have found that adult education has had positive impacts on future earnings, but also that the effects have been of moderate sizes and appear only with a sufficiently long follow-up horizon.<sup>18</sup> It also seems that effects have been heterogeneous: persons with below-average prior incomes have experienced better than average impacts (Stenberg 2010, 2011). Among older (50+) participants the estimated effects have been positive for women only (Stenberg et al. 2012, 2014). A few studies have examined the knowledge lift policy initiative in different ways. The knowledge lift 1997–2002 was a central government policy initiative during which adult education was expanded substantially and more targeted at unemployed workers. Courses included covered both theoretical and vocational topics. Estimates of the effects for participants are somewhat mixed, but most studies suggest positive impacts, at least in the long run (Albrecht et al., 2005; Stenberg & Westerlund, 2008, 2014). Albrecht et al. (2009) studied general equilibrium effects of the policy initiative and found both positive treatment effects for the participants and negative (displacement) effects for low-skilled non-participants and positive wage effects for medium skilled non-participants. The estimated overall net effect was positive.

#### **3.8.2 Swedish for immigrants**

Swedish for immigrants (*Sfi*) has been a part of Swedish integration policies for a long time. However, research on the effects of *Sfi* is very limited. Historically, both participation rates (Kennerberg & Sibbmark, 2005) and completion rates (Statskontoret,

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<sup>17</sup> The evidence is surveyed in Arbetsmarknadsekonomiska Rådet (2018), Forslund & Vikström (2011) and Calmfors et al. (2004). Notice that much of the evidence concerns effects on future earnings, which only partly reflect employment opportunities and effects on employment.

<sup>18</sup> See for example Stenberg (2010, 2011) and Arbetsmarknadsekonomiska rådet (2018). Most studies of adult education look at the knowledge lift policy initiative. The most notable exception is Arbetsmarknadsekonomiska rådet (2018), in which adult education in 2004 is studied.

2009) have been fairly low. Evaluations by the National Audit Office (Riksrevisionen, 2008) and Kennerberg & Åslund (2010) give ambiguous conclusions, but possibly suggest positive effects of *Sfi* on labour-market outcomes for refugee immigrants.

### **3.8.3 Vocational labour market training programmes**

Vocational labour market training programmes have a long history as a part of Swedish ALMPs. A substantial number of studies have estimated (un)employment effects of vocational labour market training programmes. All but the most recent studies are surveyed in Calmfors et al. (2004) and Forslund & Vikström (2011). Arbetsmarknadsekonomiska Rådet (2018) also provides a selective survey. There is a striking variation over time in the estimated effects: The estimated effects for participants in the 1980s were large and positive, most estimates for the 1990s were at best non-negative, estimates from the early 2000s again strongly positive and,<sup>19</sup> finally, estimates for recent years positive, but close to zero.<sup>20</sup> So, even if estimates from time to time suggest strongly positive effects, the estimates are not consistently indicating good effects. Given that the programme is very expensive, this means that it at best probably has survived a cost-benefit analysis only during limited periods of time.<sup>21</sup> However, recent results in Vikström & van den Berg (2017) suggest that using a longer follow-up horizon and up-to-date methods training programmes exhibited positive treatment effects also for the 1990s. This may indicate that training programmes also would survive a cost-benefit analysis with a sufficiently long follow-up horizon, at least during periods with higher estimated returns.

### **3.8.4 Some reflections on what evaluations of adult education programmes have taught us**

A first important observation in this brief survey of evidence on adult education is that there are many aspects of adult education, the effects of which are largely unknown. But another important problem concerns the external validity of the studies. Most of the

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<sup>19</sup> For example, the estimates in de Luna et al. (2008) suggested that participation decreased the expected time from unemployment to work by almost 25 % for participants 2002–04.

<sup>20</sup> A number of explanations to this development over time of estimated effects focus on a number of possible factors: institutional reforms (primarily whether participation in training programmes gave renewed eligibility for UI benefits or not), programme volumes and changes in volumes, auxiliary targets (especially the so-called 70%-target, according to which at least 70% of the participants should have a job within three months after programme completion), business cycle factors. Some of these factors are discussed in Calmfors et al (2004) and Forslund & Vikström (2011).

<sup>21</sup> This is suggested by the analysis in Forslund et al. (2013), where the results indicate that although vocational labour market training programmes outperformed practice programmes, they were too expensive to bear the extra costs in that comparison.

studies of the effects of (general) adult education examine a strong expansion targeted at unemployed workers in a deep recession. Is this evidence valid for other groups in other faces of the business cycle? The results in Arbetsmarknadsekonomiska rådet (2018) suggest that they might be. The evidence on the effects of vocational labour market training programmes, however, suggests that effects do vary a lot for this programme. There is no strong reason to believe conditions to be radically different for other programmes. Hence, I think a sceptical attitude to the evidence is indeed warranted. We just don't know very much about the effects, in the labour market or elsewhere, of adult education measures (with the possible exception of vocational labour market training programmes<sup>22</sup>).

### **3.9 Measures of skills among adults and adult education**

An alternative route to gain knowledge of the effects of adult education is to look for direct measures of skills among the adult population. There is no abundance of such measures, but the OECD has conducted three interesting studies of skills in the adult population in selected member countries, two of which Sweden participated in: the IALS (International Adult Literacy Survey; 1994–98) and the PIAAC (Programme for International Assessment of Adult Competencies; 2012–16) studies. In the IALS we see that Swedish adults perform really well<sup>23</sup> and that this is most pronounced in a comparison of older persons (ages 26–64). Young Swedes (ages 20–25) also do well, but relatively not as well as the older ones. We also see that Swedes with less than secondary education do very well. Of course, it is by no means clear that these findings reflect adult education. Also, in the PIAAC study Sweden ranks high, but no longer as number one (possibly with the exception of the measure of problem-solving skills using ICT, where international comparability is more limited). An analysis in Arbetsmarknadsekonomiska rådet (2018) shows that there is a strong correlation between participation in adult education, in particular work-related adult training, and measured skills in PIAAC in a number of countries. Sweden is no exception. However, an attempt to check whether this also reflects a causal relation fails to produce significant results.<sup>24</sup>

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<sup>22</sup> Notice, however, that the recent drop in estimated effects of the vocational labour market retraining programme has been notoriously difficult to explain, see Liljeberg (2016).

<sup>23</sup> Sweden ranks as number one in all measured dimensions.

<sup>24</sup> Although point estimates are large.

Hence, neither the use of direct measures of skills gives rise to conclusive evidence on the effects of adult education and training.

### **3.10 Rehabilitation**

#### **3.10.1 The rehabilitation chain**

The Swedish sick-leave process was fairly unstructured for a long time. A reform package issued in 2008 was intended to change that. The reform launched as a so-called *rehabilitation chain*, the main content of which was that those on sick leave for extended periods should undergo a process with actions taking place no later than at a number of fixed dates. During the first 90 days of a sickness spell, a person's work capacity should be tested against his/her ordinary job. Between days 90 and 180, work capacity should be tested against any job at the employer. Between days 180 and 365, work capacity should be tested against any normal job in the regular labour market unless a number of conditions would say otherwise (one such condition was that the person could be expected to be able to return to the old job before day 366). After day 365 work capacity should be tested against the whole labour market unconditionally.

Hägglund (2012) and Hägglund & Österlund (2015) studied the rehabilitation chain and found that the time limits contributed to a more rapid return to work, but no long-term effects on labour supply.

#### **3.10.2 Work-life oriented rehabilitation**

During the whole rehabilitation chain, the Social Insurance Agency (SIA) has an overall responsibility for work-life oriented rehabilitation, but the process also involves employers, occupational health care and the PES<sup>25</sup>. In individual cases, the responsibility of the SIA is to investigate the conditions for rehabilitation and decide on the eligibility for sickness benefits. This is done through contacts with the parties involved and possibly meetings, the aim of which is to coordinate measures and rehabilitation for a rapid return to work. The employer is responsible to ensure that what is needed for an efficient rehabilitation is done, but only for such rehabilitation that aims at return to work. Sanctions may be imposed on employers failing to meet the obligations, but such sanctions are seldom imposed (Johansson et al., 2010). In addition, the employer pays

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<sup>25</sup> Work-life oriented rehabilitation is discussed in detail in Johansson et al. (2010).

only 14 days of sick-pay. Hence, there are no strong economic incentives for the employer to be active in the rehabilitation process.

The rehabilitation chain was complemented by a *rehabilitation guarantee* in 2008. The guarantee was the result of an agreement between the government and Sweden's municipalities and county councils (SKL). Within the guarantee two treatments, cognitive behavioral therapy (CBT) for individuals with mild or moderate mental illness and multi-disciplinary treatment (MDT) for individuals with pain in back and shoulders, were offered. The treatments should be offered following an examination and diagnosis undertaken in the health-care system.

An evaluation (Hägglund et al., 2014) found that CBT decreased sickness absence for persons who were not on sick leave when treatment started but had no effect for individuals on sick leave when the treatment started, while MDT increased sickness absence significantly.

Engström et al. (2017) used an RCT to study the impact of early interventions in sickness absence spells. The aim of the interventions was to screen and, if necessary, to rehabilitate sickness absentees. The main finding was that the early interventions, perhaps contrary to expectations, increased the inflow into disability benefits by around 20 percent.

The main conclusion in a survey of earlier studies of the effects of rehabilitation in Johansson et al. (2010) was that there is very limited support for work-life oriented rehabilitation as a way to reduce sickness absence. Hence, there is little to suggest that initiatives in sickness insurance and rehabilitation have played a major role for the development of the Swedish employment rate.

### **3.11 Policies for immigrant integration**

In December 2010, the responsibility of integration policies was moved from the municipalities to the PES. Since then, the cornerstone of policies for immigrant integration is a two-year *introduction programme* at the PES. This relocation of responsibility was evaluated by Andersson Joona et al. (2016), finding a positive impact on employment and earnings. One should, however, be careful when drawing conclusions about the labour market effects of this rather comprehensive reform.

As part of the introduction programme, *introduction guides* were introduced in December 2010. In the programme optional activities could be offered newly arrived



immigrants in the introduction programme. The guide was supposed to give the immigrants support to facilitate integration. The system does not seem to have worked well (Riksrevisionen, 2014; Sibbmark et al., 2016) and was abandoned.

The large recent inflow of asylum seekers has also triggered a number of new policies. One such policy is so called *fast tracks* to employment for newly arrived immigrants. These fast tracks aim at transferring refugees with relevant skills and experiences to occupations where employers face difficulties in finding the right competence. Information on the actual content of the different fast tracks is scarce, and as yet very few refugees have actually entered them. What seems to be clear is that *validation* should be an important component, and it is also clearly stated that the procedures should be specific to each track and that the social partners (employers and unions) should play an active role. However, as yet there are no evaluations of the fast tracks available. The same, unfortunately, holds for validation of informal skills.

### **3.12 Skills upgrading institutions and policies – a brief summing up**

Are skills upgrading institutions and policies likely to be main drivers of the high Swedish employment rates? Probably not. There is no empirical evidence available to suggest that skills upgrading has played any major role for labour market outcomes. Partly this statement reflects the fact that we simply do not know that much, but also that the relevant empirical evidence does not suggest any consistent and major impacts of the measures that have been evaluated.

Looking at the “stylised facts” of Swedish labour market outcomes I presented in Section 2, we saw that Sweden stands out primarily in terms of high labour supply and not in terms of low unemployment rates. Even though skills upgrading may have an impact both on labour supply and unemployment, it is arguably the case that we should expect skills upgrading to impact more on unemployment than on labour supply (at least in a quantitative sense).<sup>26</sup> Hence, in this perspective, the available empirical evidence on the modest effects of skills upgrading policies is consistent with the fact that Sweden does not stand out in terms of low unemployment rates. This is, of course, not to deny that skills upgrading may have other important impacts, e.g., on productivity growth.

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<sup>26</sup> With the possible exception of rehabilitation measures.

## 4 Job-search incentives

Job search (or labour supply) is potentially affected by a large number of institutions. In principle, everything that has an impact on either costs or benefits associated with job search will affect job-search behaviour. Generally, we would expect that factors that make work more and non-work less beneficial to increase job-search efforts (and, hence, employment). We also expect that factors giving rise to increased search efficiency or lower search costs normally would give rise to higher employment. However, these measures will be discussed briefly in a later section on matching.

Then, a number of factors are obvious candidates for the role of “influencers” of employment: income taxes, unemployment benefits, social assistance benefits, pensions, early retirement schemes, child care, parental leave systems, public institutions providing care for the elderly and job-search assistance including information systems. In this section I will survey reforms affecting these factors (except job-search related measures) and empirical evidence on effects of a few of the reforms.

### 4.1 Income taxes

It is well known that Swedish taxes have been high. The labour-supply incentives of taxes reflect both marginal and average tax rates. This means that a given amount of taxes collected will affect labour supply differently depending on the design of the tax system.

The Swedish income tax system is divided in two parts; a proportional tax imposed by local governments and a slightly nonlinear national (state) income tax. The local tax rates differ, with an average rate (the average of the sum of the county, municipal and church tax rates) around 30 per cent. However, recent tax reforms have in effect equalised local taxes paid (as opposed to local taxes received by municipalities) through state transfers, see below for more details on these reforms.<sup>27</sup>

Income taxation has undergone many reforms during the last four decades. A major reform was implemented in 1971, when in effect household taxation was replaced by individual taxation. As income taxes were progressive, this reform implied lower marginal tax rates for married women.<sup>28</sup> In the early 1980s, the national income tax was highly progressive with many tax brackets. Summing local and state taxes, an average

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<sup>27</sup> See Edmark et al. (2016) for a description of the Swedish income tax system. Naturally, the most recent reforms are not found there, but the broad picture has not been changed by recent reforms.

<sup>28</sup> Men typically were primary bread-winners in Swedish households in 1971.

earner may have faced a marginal income tax rate of around 50 per cent, and the top rate exceeded 80 per cent. In 1983–85 marginal income tax rates for average and high-income earners were reduced as was the number of tax brackets. In 1991, another major tax reform was implemented, resulting in a much simpler system with two tax brackets; a zero state income tax rate for taxable incomes below a threshold and 20 per cent for higher incomes. In 1995, however, an additional tax bracket was introduced, meaning that the top rate for the state income tax since then has been 25 per cent. The next substantial reform initiatives took place during the Reinfeldt governments in five steps between 2007 and 2011. The reform initiatives can be described as an implementation of an earned income tax credit (EITC) equal for all individuals below age 65, regardless of marital status or number of children in the household. Also, the taxpayer does not need to apply for the tax credit. Finally, there was no phase-out region.<sup>29</sup>

The main stated objective was to stimulate labour supply, especially at the extensive margin. Comparing marginal and average tax rates before and after the reforms, one can distinguish a number of features of the reforms. First, it is clear that the policy implied substantially lower average tax rates at the bottom of the income distribution. Second, at higher income, especially at incomes above the point where the EITC is fully phased in, the gap between the average tax rate with and without EITC becomes very small. Third, marginal tax rates at low income levels were substantially reduced and rates at most medium income levels were lowered, whereas marginal tax rates at high income levels remained unchanged (Edmark et al., 2016).

Most empirical evidence suggests that income taxes have had rather modest labour supply effects, at least on the intensive margin.<sup>30</sup> From an employment-*rate* perspective, however, the interesting margin is the extensive one. Selin (2014) estimated large participation effects of the 1971 change from household to individual income taxes: according to the results, the employment rate among married women would have been ten percentage points lower in 1975 under the old income tax system. The recent EITC reforms have been hard to evaluate with convincing identification strategies; the only serious attempt to estimate the causal effects of the EITC on employment concluded that

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<sup>29</sup> There was also an EITC targeted at individuals above age 65. I come back to this when I discuss measures targeted at increasing employment among the elderly.

<sup>30</sup> Empirical evidence is surveyed in Aronsson & Walker (1997, 2010). It should be mentioned that Ljunge & Ragan (2004) estimated relatively large effects, but on the tax base rather than on labour supply measured in hours.

the variation available to identify effects was insufficient to produce reliable estimates (Edmark et al., 2016). On an assignment from the Swedish parliament, the Swedish Ministry of Finance performed a careful evaluation of the EITC where many kinds of evidence were used to reach an overall conclusion about the (un)employment effects of the reform initiatives (Proposition 2011/12:100, Bilaga 5). The main conclusion was that the reform package had contributed significantly to lower unemployment and, especially, to higher employment (between 70 000 and 140 000 extra jobs in the long run).<sup>31</sup>

In 2016, the EITC was reformed. Since then, the tax credit is phased out at high income levels. As yet, there is no evaluation available of the labour-supply consequences of the implied higher marginal tax rates.

## **4.2 Unemployment insurance<sup>32</sup>**

A generous unemployment insurance (UI) with a low level of monitoring weakens job-search incentives. This can be expected to lead to a lower job-finding rate at given wages, higher wages and, hence, a lower employment rate in equilibrium.<sup>33</sup> Hence, reforms affecting the generosity of UI or the level of monitoring can be expected to have an impact on employment.

The Swedish UI is somewhat special. The rules for UI are regulated by law and the UI system is predominantly tax financed. At the same time the insurance is run by a number of independent organisations, UI funds, most of which have (or have had) close ties to trade unions. Membership, which is necessary for income related unemployment benefits, is voluntary. Until recently, membership was close to 90 % of the labour force, but membership declined rapidly by approximately ten percentage points after reforms about ten years ago which led to substantially higher membership fees.

Eligibility for income-related benefits requires membership in a UI fund for at least 12 months and in addition a work-history requirement stipulating some minimum amount of work prior to the unemployment spell. The unemployed must also be job ready, actively looking for a job and prepared to accept a suitable job offer. Job-search behaviour is

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<sup>31</sup> The assessment that employment was affected more than unemployment by the reforms reflected a judgement that some of the increased labour supply induced by the reforms pertained to groups with below average job-finding rates.

<sup>32</sup> Many of the traits of Swedish UI are described in Landais et al. (2018).

<sup>33</sup> This conclusion would, for example, follow from a standard Pissarides-Mortensen equilibrium search and matching model.

monitored by case workers at the public employment service (PES) and violations of the rules may lead to sanctions.

Unemployed who are not members of a UI fund, but meet the same work and job search requirements, are entitled to a fixed daily benefit, which is substantially lower than the maximum income-related benefit.

Benefit eligibility lasts for 300 benefit days (420 calendar days; benefits are paid five days a week). The maximum replacement rate is 80 % during the first 200 benefit days and then 70 % until day 300 of the unemployment spell. After this period, the unemployed gets 65 % of previous income conditional on entering an activation programme. The system is, however, much less generous for most unemployed, because there is a cap on the daily benefit which is at a fairly low level. On the other hand, a number of supplementary insurance programmes have been established through collective agreements between trade unions and employers' organisations.

Since the 1990s, there have been two major and a few minor reforms in Swedish UI. In 2001, the possibility to renew UI benefit eligibility by participating in an active labour market programme was removed, a new set of rules for sanctions was introduced and the maximum daily amount was increased during the first 100 days of an ongoing unemployment spell. A complement to UI was also introduced in the form of income support after UI benefit expiration conditional on participation in an activation programme (with possibly unlimited duration). The major difference to previous rules probably was that it became impossible to cycle between labour market programmes and unemployment benefits. It is not obvious whether this meant that UI became more or less generous.

In 2007, a large reform package included a maximum replacement with a falling profile over an ongoing unemployment spell (80 % during the first 200 days, then 70 % for 100 days and then 65 % in the activation programme after benefit expiration), removal of the higher maximum daily amount during the 100 first days of an unemployment spell, removal of a possibility to get prolonged benefits if deemed "motivated from a labour market policy perspective", tougher rules to meet the work condition for benefit eligibility, removal of the so called student condition for UI eligibility,<sup>34</sup> and a dramatic

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<sup>34</sup> The student condition meant that students could qualify for a low fixed-sum benefit after graduation and a waiting period. This reform meant that virtually all young labour market entrants had (and still have) no UI benefit eligibility.

increase in membership fees (on average around 400 %) in the UI funds in combination with variation across funds in the fees driven by variations in the unemployment rate across the UI funds (in principle, the higher the unemployment rate, the higher the membership fee).<sup>35</sup> Finally, in contrast to before, the “benefit clock” went on ticking also when an unemployed participated in a labour market programme. All in all, these reforms implied a much less generous system in almost all dimensions.

However, a possibly equally important change in the generosity of the system came about through a long period of non-reforms: the maximum daily benefit amount is changed only through discretionary decisions, and the nominal cap level was actually kept fixed from 2002 until 2014. With rising nominal wages, this meant that the replacement rate for a large fraction of the unemployed actually fell monotonically over a long period. The cap was adjusted once by the present government, but it is still the case that most previously full-time employed can expect to face UI replacement rates that are very much lower than the 80 or 70 percent of previous income that are specified by the rules of the system.<sup>36</sup>

There are no evaluations of the 2007 reforms available, and the only trial at evaluating the 2001 reforms was plagued by a simultaneous reform affecting the price of publicly provided child care. There is, however, an abundance of studies indicating that the generosity of UI actually impacts on (un)employment.<sup>37</sup> An ambitious attempt at assessing the effects of the 2007 reforms and the constant nominal cap on UI benefits using parameter estimates from numerous studies in an equilibrium model framework was done by Finansdepartementet (2011). The results of this exercise indicated that the reforms increased the long-run participation rate by about 0.35 percentage points, increased the employment rate by about 1.75 percentage points and lowered the unemployment rate by about 1.65 percentage points. Although such numbers of course

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<sup>35</sup> This reform was abolished in January 2014.

<sup>36</sup> However, several trade unions offer opportunities to top-up the daily amount to the binding maximum replacement rate. This is in one way or the other financed internally by the members of the UI fund and not by the universe of tax payers. Hence, the effects should be expected to differ from the effects of tax-financed UI benefits.

<sup>37</sup> Such studies include both studies using micro data to estimate effects on individual transitions from unemployment to employment and macro studies estimating effects on wages and employment either in a single country or using cross sections or panels of countries. See for example the references in Finansdepartementet (2011).

not should be considered as final truths, they indicate that the reforms probably had effects of a non-trivial size.<sup>38</sup>

### **4.3 Benefits for programme participants and newly arrived immigrants<sup>39</sup>**

Programme participants and newly arrived immigrants do not get unemployment benefits. Instead they get ear-marked benefits geared at each of the two target groups.

Programme participants who are entitled to UI benefits get benefits (*activity benefits, aktivitetsstöd*) that in principle are similar to what they would get from UI. Those above age 25 who are not eligible for UI get a low fixed daily amount (presently SEK 223). Younger programme participants (who usually are not eligible for UI) typically get a lower daily benefit (*development benefits, utvecklingsersättning*, presently SEK 158 for those with completed upper secondary school, otherwise SEK 57). Until recently, a difference between UI and the benefits for programme participants was that the latter were not subject to the same kinds of sanctions as persons on UI benefits. This was changed in a recent reform, so now recipients of benefits for programme participants are subject to similar rules as UI benefit recipients. This means that sanctions can be imposed if programme participants do not follow the action plans agreed upon together with the PES case worker.

Newly arrived immigrants in the two-year introductory programme for immigrants get ear-marked benefits while in the programme (*introduction benefits, etableringsersättning*). Also, in this system a recent reform has harmonised the rules with the rules for UI, so that benefit recipients can be subject to sanctions if they do not follow their action plans made up together with PES case workers. A potentially important characteristic of the benefits for immigrants are that they are not reduced by labour earnings.

Probably neither the benefits for programme participants nor the benefits for newly arrived immigrants are high enough to hamper job search significantly.<sup>40</sup>

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<sup>38</sup> Note that most parameters used to compute the reform effects were estimated under much more generous UI systems than during recent years. To the extent that effects of UI are nonlinear in the generosity of the system, the external validity of the parameter estimates may not be perfect to derive the reform effects.

<sup>39</sup> See Inspektionen för arbetslöshetsförsäkringen (2019).

<sup>40</sup> The analysis in Löfbom (2018) points in that direction for newly arrived immigrants in the introductory programme.

#### 4.4 Social assistance benefits<sup>41</sup>

Social assistance in Sweden is first and foremost designed to be the safety net of last resort. It is the only Swedish social benefit that is means tested, and the system is run by the municipalities.

Although the system has primarily been designed as a safety net of last resort, a substantial fraction of the assistance recipients basically need support because they have not been able to find a job – they are unemployed with no UI benefit eligibility or eligibility only for the low daily amount one gets without being a member of a UI fund. To some extent this reflects that eligibility criteria in the UI system have become tougher, but to some extent it probably also reflects that an over time larger fraction of the inflow of job seekers has no work history in the Swedish labour market because they are newly arrived immigrants.

The social assistance system is means tested. In principle, this means that the economic incentives to take part-time or low-paid jobs are weak. To counter this, a relatively recent reform (*Jobbstimulansen*, July 2013) was implemented. The reform means that 25 percent of labour income will not be considered when checking assistance eligibility for households that have been on benefits during six consecutive months.

A substantial fraction of the assistance recipients are unemployed, assistance is paid by the municipalities and it has become allowed for the municipalities to condition assistance receipt on active job search. This combination is probably the most important explanation behind a rapid growth in local labour market policies, primarily targeted at assistance recipients and provided and financed by the municipalities. The rise of local labour market policies has led to a situation with two parallel set of institutions (central and local government) providing similar types of measures for similar types of participants. There is a definite risk that some of the measures are used primarily due to shift the financing from one actor to the other and that measures are less than optimally coordinated.<sup>42</sup>

Unfortunately, very little is known about the effects of different policy initiatives related to social assistance. The same is true for local labour market policy. The first

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<sup>41</sup> Social assistance and the role of the municipalities in Swedish labour market policy are discussed in Panican & Ulmestig (2017).

<sup>42</sup> Under the present government, there have been government initiatives to coordinate measures for youth and newly arrived immigrants.



description of local labour market policy measures based on registry-based micro data was Forslund et al. (2019). Needless to say, this means that there are very few estimates of policy effects.<sup>43</sup>

#### **4.5 Sickness insurance<sup>44</sup>**

Sickness insurance in Sweden involves a waiting period (one day), a period of sick pay from the employer (until day 14 of a sickness spell) and then sickness benefits paid by the National Insurance Agency.

The design of the sickness benefit system does not have its direct impact on employment—the direct effect of sickness insurance is on work absence, not on whether people are employed or not. This is not to deny that sickness insurance may influence employment indirectly. One such channel is through eligibility: to the extent that the level of sickness benefits are conditional on previous labour income (which is the case in Sweden), it may be argued that a generous sickness insurance provides incentives to work. Recent reforms in the Swedish system in this dimension are rather moderate and cannot be expected to have had any major impact on employment.

Another possible link from sickness insurance to employment may arise if long sickness insurance spells are gateways to early retirement. Swedish sickness benefits used to be of indefinite maximum duration until the reform which introduced the rehabilitation chain (Section 3.10.1), when the maximum duration of the sickness benefit period was limited to 364 days.<sup>45</sup> This time limit was removed in 2016 (Försäkringskassan, 2018). Riksrevisionen (2016) analysed the effects of being denied prolongation of sickness benefits and found that exit into early retirement was 40 % lower for those who had been denied than those who got prolonged benefits in a population of long-term sickness benefit recipients. The analysis does not find any significant effects of denial on health-related outcomes. Hence, the evidence suggests that time limit in the sickness insurance may have contributed to higher employment.

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<sup>43</sup> The few studies that exist typically are either fairly old (e.g., Forslund & Skans, 2006), refer to single municipalities (e.g., Persson & Vikman, 2014) or both (e.g., Bergström & Milton, 1998). The validity of these and other available studies for present conditions may be limited. The evidence is surveyed in more detail in Lundin (2008, 2018), Thorén (2012), Panican & Ulmestig (2017) and Mörk (2011).

<sup>44</sup> The basics of Swedish sickness and disability insurance are given in Johansson et al. (2016).

<sup>45</sup> After the 364 days it was possible to apply for sickness benefits at a slightly lower level (75 % replacement rate instead of 80 %) for at most 550 days. In case of “very serious disease”, there was a possibility to get 80 % replacement rate for an indefinitely long period (Försäkringskassan, 2018).

## 4.6 Pensions<sup>46</sup>

Pension systems may affect labour-supply decisions in many ways. If leisure is a normal good, a more generous pension system will have a negative effect on labour supply. An important dimension of pension systems is how pensions are affected by another year of work. The higher the effect of extra work on pensions, the stronger the economic incentives to go on working instead of retiring. Another important feature is the statutory retirement age. There is often a strong clustering of retirement around the statutory retirement age that cannot be understood unless this parameter of the pension system is considered.

The Swedish pension system was reformed in the 1990s. In both the new and the old systems pensions were/are based predominantly on rules rather than on contributions.<sup>47</sup> Under the old system, pensions were based on an individual's 15 best years, whereas pensions under the new system are based on the entire employment history of an individual. An additional year of work may have a stronger impact on pensions in the new system for this reason. The difference is, however, not very big according to computations in Laun & Palme (2017) or Palme & Svensson (1999). The old system was probably somewhat more generous, but the difference is hard to quantify and probably not very large (Johansson et al., 2018). In the reformed system labour protection rules apply up to age 67 rather than 65 as was the case in the old system. A further difference between the two systems is that pension wealth in the new system is linked to when a person stops to pay contributions to the system, whereas in the old system pension wealth was linked to when the person started to claim benefits. Hence, in the old system it could make sense retiring from the labour market before actually claiming pension. Laun & Palme (2017) show that the gap time between leaving the labour market and claiming pension benefits has decreased after the reform. The Swedish pension system does not entail a statutory retirement age. Instead, there is an interval between age 61 (the lowest pension claiming age) and 67 (when employment protection legislation no longer protects from lay-offs). However, there is a pronounced spike in exits to retirement at age 65. In

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<sup>46</sup> The Swedish old-age pension system is described in Ministry of health and social affairs (2016).

<sup>47</sup> However, a fraction of pensions under the new system are directly linked to contributions to the system: The payroll tax ear-marked for old-age pension is set to 18.5 percent of annual wage sum in the new system. Of these, 16 percentage points are devoted to a pay-as-you-go system and 2.5 percentage points are devoted to a fully funded scheme.

the present system, this spike can probably only be understood in terms of some social norm, possibly related to earlier pension systems.

So, how much of the observed rise in labour force participation among the elderly can be attributed to the pension reform? The analysis in Laun & Palme (2017) and Johansson et al. (2018) suggests that it is especially important to distinguish between claiming pension benefits and retiring from the labour market. Under the new system, it basically makes no economic sense to start claiming pension benefits at age 65 and retiring from work at, say, 62. So, although the effect on pension claiming probably has been limited, the effect on retiring from work may be larger (Johansson et al., 2018). However, the pension reform is, according to the analysis in Laun & Palme (2017) and Johansson et al. (2018), not likely to have been the main driver behind the observed increase in labour force participation among the elderly. Their analysis rather points to changes in early retirement rules as the major factor behind the recent surge in labour force participation among the elderly.<sup>48</sup>

#### **4.7 Early retirement<sup>49</sup>**

Early retirement was for a long time a common way to bridge the time span between the working life and old-age pensions. This is clear from Figure 9 and Figure 10, where the shares in early retirement are plotted for males and females aged 55 plus. In the 1990s, when the share peaked, more than 30 % of both men and women age 60–64 and around 20 % of those age 55–69 were in early retirement. For males there was a rapid decline beginning in the mid-1990s, whereas the decline started about ten years later for females. The inflow rates into early retirement have during recent years reached historically low levels (Johansson et al., 2018). For males, non-participation in the labour force has for a long time been almost equivalent to early retirement for ages 55–59, while the same is true for women since the 1990s; for those between 60 and 64 years old, early retirement is a dominant fraction of non-employment, and population shares in the two states develop very similarly over time. Hence, it is tempting to conclude that non-participation (and by implication employment) among the elderly largely reflects early retirement

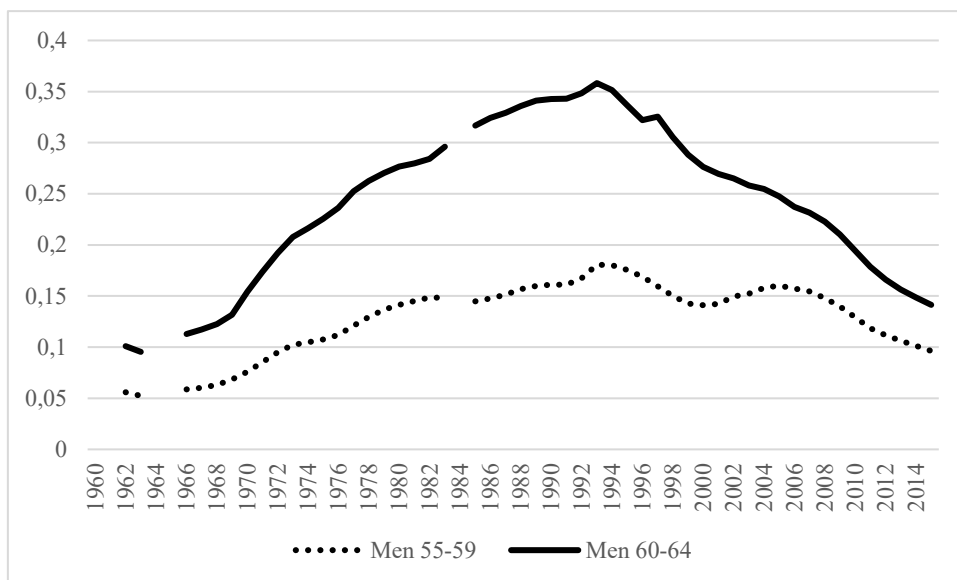
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<sup>48</sup> Abstracting, of course, from improvements in health and longevity. Also, early retirement rules are important for behaviour at ages below ages at which pensions become available and, hence, not for any increases in labour force participation above, say, age 65.

<sup>49</sup> Early retirement institutions and institutional change are briefly discussed in Laun & Palme (2017).

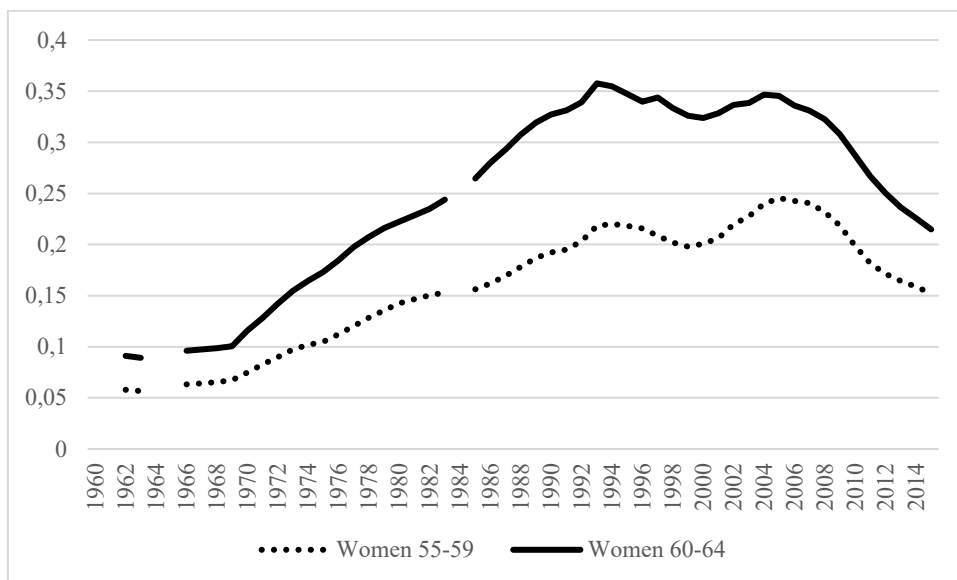
behaviour, which in turn almost certainly is influenced by the rules of the system and how they are implemented.

Figure 9: Share of population in age groups 55–59 and 60–64 in early retirement, men



Source: Johansson et al. (2018), Fig 4.1.

Figure 10: Share of population in age groups 55–59 and 60–64 in early retirement, women



Source: Johansson et al. (2018), Fig 4.1.

From the mid-1970s it was possible to get early retirement not only for medical reasons, but also for labour market reasons and less strict requirements applied to older

persons (basically persons older than 60). These rules were abandoned in two steps in the 1990s. First, early retirement for labour market reasons was abandoned in 1991, and, second, the special rules for older persons were abandoned in 1997, so that early retirement from then on can be granted only for medical reasons.<sup>50</sup> The analysis in Johansson et al. (2018) suggests that these changes in the rules for early retirement indeed mattered for the take-up.

However, there are strong indications that also institutional reforms and the implementation of the rules have played a role for the lower incidence of early retirement. One major change was that the Social insurance agency (*Försäkringskassan*) was reorganised and made a single government agency in 2005 instead of a number of regional ones. The explicit motivation for this was to accomplish equal treatment of equal insurance cases irrespective of region of residence. This reform was accompanied by extensive training of the case workers. The analysis in Johansson et al. (2014) suggested that the institutional reforms did contribute to a stricter implementation of the rules in the system, and that this contributed to fewer early retirees after 2005. The conditions for receiving early retirement benefits (*sjukersättning*) became stricter in 2008. Since then, eligibility requires a permanent incapacity to work (Försäkringskassan, 2018). This is also likely to have contributed to the reduced inflow into the system.

To sum up: the evidence that I have presented suggests that stricter rules and implementation of the system for early retirement have been the main policy drivers of the increase in in Swedish labour force participation among the elderly since the mid-1990s.

#### **4.8 Child care**

Sweden has a long tradition of publicly provided child care. Access to child care is an important condition for parents to be able to combine parenthood with work. No doubt, given historical patterns and norms, the rapid expansion of publicly provided child care in Sweden since the mid-1960s is likely to be an important explanation of the high Swedish female labour force participation rates. Most reforms were introduced gradually and over a long time and are, hence, hard to evaluate. There was, however, a significant reform undertaken 2001–03. This reform introduced a cap on the price parents have to

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<sup>50</sup> There is still a limited possibility to get early retirement for a combination of medical and labour market reasons.

pay for child care, and lead to considerable price reductions.<sup>51</sup> The reform effect on female labour supply was studied by Lundin et al. (2008). The main finding was that the (precisely estimated) effects were not significantly different from zero. This should not be taken to indicate that child care provision is unimportant for labour supply. The most reasonable conclusion is that increasing child care subsidies is less important for labour supply when the use of child care is already extensive.

#### **4.9 Parental leave<sup>52</sup>**

Another important way to enable parents to combine parenthood with work is to provide opportunities for parents to stay home with kids without too much economic loss and without risking losing the job. This is granted by the Swedish parental leave system. This system has become increasingly generous over time and has also over time developed so that an increasing (but still not large) share of the time home cannot be transferred to the parent (predominantly the mother) taking most time off work.<sup>53</sup>

Perhaps the most interesting feature of the system from a labour supply point of view is that the level of compensation is tied to previous earnings. This entitlement feature makes it favourable to have a work history prior to the parental leave. This feature may have had a positive impact on female labour supply. I am not, however, aware of any empirical evidence for this effect.

Summing up, it is a reasonable conjecture that the parental leave system has contributed to the high Swedish female labour force participation. However, there is not so much solid empirical evidence to back this conjecture up.

#### **4.10 Care for the elderly**

Another set of institutions with potentially important impacts on labour supply concerns how care for the elderly is organised. Looking at cross sections of countries, there is a positive correlation between the density of professional staff employed in elderly care and female labour force participation in ages 55–64 (Szebehely & Ulmanen, 2009). Of course, this does not necessarily mean that there is a causal relationship between access

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<sup>51</sup> The size of the reductions depends on a number of factors, such as municipality of residence and family type. This variation enabled the evaluation of the reform.

<sup>52</sup> The Swedish parental leave system is described in Duvander & Johansson (2015).

<sup>53</sup> This development has been motivated both by referring to what is best for kids and something that can contribute to smash the glass ceiling for women in the Swedish labour market, where career opportunities and wages are biased against women.

to elderly care and labour force participation. However, evidence in Szebehely & Ulmanen (2009), using labour force survey data, suggests that actually the relationship actually is causal.

Sweden has a fairly long history of public institutions offering care for the elderly. Data shown in Johansson et al. (2018) suggest that there was a substantial build-up between the mid 1950s and mid 1970s, when the volume of publicly provided care exceeded private provision almost by a factor three. However, data shown in Johansson et al. (2018) also suggest that, if anything, volumes have gone down in recent decades. Hence, reforms in care for the elderly cannot explain the recent development of employment.

#### **4.11 Job-search incentives – a brief summing up**

The studies on different factors working through job-search incentives in a broad sense reviewed in this section strongly suggest that such factors have been important for the development of the Swedish employment rate. The strictly scientific evidence is perhaps strongest for the impact of the rules for early retirement and, to some extent, for income taxes, old-age pensions and unemployment insurance, but also very suggestive when it comes to publicly provided child care and parental leave.

One reflection arising from the empirical evidence is that results (or lack of them) to some extent may reflect non-linearities in the response to policy changes. I have already commented on the lack of response to the introduction of a cap on the fees in publicly provided child care: reforms in an already generous system may have much smaller impacts than the introduction of a system. A similar line of reasoning could suggest that making different social benefit systems less generous may have a larger impact if the systems are generous than if it is already the case that there is a large wedge between income from work and benefits (which is presently the case in most Swedish benefit systems).<sup>54</sup>

## **5 Demand-side policies**

Government policies may have an impact on employment by affecting labour demand. It is often argued that demand-side measures have only temporary effects and, hence, cannot

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<sup>54</sup> This line of reasoning is also pursued in Skans et al. (2017).

explain long-run outcomes. In my opinion this view is flawed. First, to the extent that aggregates such as (un)employment are persistent (or, in the limit, totally persistent so that we have hysteresis), short run impacts may last sufficiently long to be of long-run interest. And most empirical evidence suggests that (un)employment actually exhibits a large degree of persistence. Second, demand-side measures may be targeted at specific segments of the labour market and affect relative prices, which should have long-run consequences.

Governments can try to influence labour demand (and employment) either by demanding labour itself, or by subsidising other employers to hire labour by making labour or some specific type of labour cheaper.<sup>55</sup> Finally, the government could influence labour demand by employment protection legislation (EPL) and rules applying to temporary employment contracts.

## **5.1 The public sector as an employer**

The Swedish public sector, especially the municipalities, is a large employer. However, the structural growth of Swedish public-sector employment took place roughly between the mid-1960s and the mid-1980s, and even during this period there is no solid evidence that this played a major role for anything but the structural growth of Swedish female employment.<sup>56</sup> The Swedish public sector has also offered some temporary public employment as a part of active labour market policies (ALMPs). But in quantitative terms this contribution has been very modest during the last 20 years. So, there is not much evidence suggesting that the Swedish public sector as an employer has played any major role for the recent beneficial Swedish employment development.<sup>57</sup>

## **5.2 Policies to reduce labour costs**

### **5.2.1 Broadly targeted measures**

A number of policy initiatives have been undertaken to reduce labour costs and stimulate hirings. Two of these have been targeted payroll tax reductions: payroll taxes have been

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<sup>55</sup> The government could also force employers through legislation such as affirmative action and direct involvement in wage setting, i.e., through minimum wages. The Swedish labour market model, officially adhered by most actors, leaves decisions in the labour market to employers, employees and their organisations.

<sup>56</sup> Forslund & Krueger (1997), for example, found no evidence supporting the view that public employment played a major role for the low Swedish unemployment rate during the period between 1960 and 1990.

<sup>57</sup> There is, however, some evidence that the cut-backs in public spending in the 1990s led to persistent downward pressure on public employment (Forslund & Krueger, 2010). This may have delayed the recovery from the economic crisis of the early 1990s.



reduced for firms in some rural (mainly northern) parts of Sweden and payroll taxes for youth were lower than for other groups between 2007 and 2015. Available empirical research results suggest that the regional payroll tax reductions had no significant employment effect at all (Bennmarker et al., 2009), and that reduced payroll taxes had a small positive effect on youth employment (Egebark & Kaunitz, 2013; Saez et al., 2017). Nothing in the sizes of the estimated effects of payroll tax reductions suggest that they played any significant role for Swedish employment.

A reduction in the VAT on restaurant services was also motivated by an ambition to increase labour demand in the sector. An evaluation of this reform (and a similar reform in Finland) shows that there were no price responses in the long run (Harju et al., 2018). This makes it highly unlikely that the initiative had any significant employment impacts.

Two other (broadly) targeted tax reductions have been implemented for construction/repair services in homes (*ROT-avdrag*) and for services like cleaning (*RUT-avdrag*) that are close substitutes for household production. None of these initiatives have been thoroughly evaluated, but there is descriptive evidence to suggest that both initiatives have contributed to make some black-market work white (Skatteverket, 2011); less is known about the total employment impact. A positive indication is that the tax reduction for cleaning and similar services seems to have gone hand in hand with the creation of a new industry, and that many immigrants have found employment in this industry.

### **5.2.2 Narrowly targeted measures<sup>58</sup>**

More narrowly targeted employment subsidies have been part of Swedish ALMPs since the 1980s. The target groups have typically involved unemployed workers who either are long-term unemployed or belong to groups with above-average risk of becoming long-term unemployed (newly arrived immigrants, persons with disabilities).

Subsidised jobs targeted at disabled persons are not primarily designed to prepare the participants for the regular labour market – the primary objective is to provide meaningful tasks and income for the participants. The subsidised jobs for the disabled are either subsidies for employers hiring from the target group or persons employed in a subsidised

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<sup>58</sup> Swedish subsidised employment is discussed in Forslund (2018).

publicly owned company, *Samhall*, employing only disabled persons. In September, 2018, the total number of subsidised jobs for the disabled was just below 74 000.

The other subsidised jobs, however, are explicitly designed to help the participants to (re-)enter the regular labour market. Available evaluations suggest that getting a subsidised job speeds up the transition to a regular job, but also that direct displacement effects are non-trivial.<sup>59</sup> Recently, the number of persons in different subsidised jobs has been substantial.<sup>60</sup> Could subsidised jobs explain some of the favourable employment development? The answer to this question depends crucially on the extent to which the subsidies have been targeted at marginalised persons with low reemployment probabilities without the subsidies. The reason is that direct displacement means that the medium-run net employment impact is likely to be limited. If, however, the subsidies are targeted at those with low re-employment probabilities, the pool of job seekers will on average consist of persons with higher re-employment probabilities, which will lead to shorter average vacancy durations and an incentive for employers to post more vacancies. This will, *ceteris paribus*, result in higher employment in long-run equilibrium. It is an open question exactly how the different subsidy schemes have been targeted, and empirically, very little is known about the strength of the vacancy-posting mechanism.<sup>61</sup>

### **5.2.3 A brief summing up**

A possible summary could be phrased in the following way: broadly targeted subsidies have small net effects and are unlikely to have contributed to high employment rates. Narrowly targeted subsidies could seem more promising candidates, but the empirical foundation of this view is at best shaky.

## **5.3 Policies to reduce employer uncertainty**

One factor that may hamper labour demand for certain groups is employer uncertainty about the productivity of potential employees. Such uncertainty may apply to all job seekers, but are probably most important for labour market entrants, such as young

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<sup>59</sup> See Calmfors et al. (2004) and Forslund & Vikström (2011) for two surveys of the Swedish empirical literature and Sjögren & Vikström (2014) for a more recent evaluation. See also Card et al. (2010, 2017) for surveys of the international literature.

<sup>60</sup> The number of subsidised jobs for long-term unemployed and immigrants was 63 000 and the total number, including jobs targeted at disabled, was 137 000 in September, 2018.

<sup>61</sup> There is an alternative line of reasoning with more empirical support: to the extent that a subsidised job goes to someone who would otherwise drop out of the labour force, it represents an increased labour supply. It is a quite strong empirical regularity that employment and labour supply covary strongly, see for example the discussion in Långtidsdutredningen (2011).

persons and newly arrived immigrants, or long-term unemployed workers. A number of policy measures have been used (or proposed) to reduce this kind of uncertainty. In this section I briefly discuss some of these measures.

### **5.3.1 Work practice for unemployed**

Work practice (*arbetspraktik*) is a programme at the PES, where the participants try working to acquire vocational orientation, practice, professional experience or to keep or improve competence in a profession. Of course, practice may also improve the labour-market network of the job seeker. The employer pays no wage costs, but is assumed to provide tutoring. The participant receives activity benefits. The monthly average number of participants has in recent years been rather limited, usually significantly less than 10 000 participants (well below 0.5 per cent of the registered unemployed job seekers at the PES).

Forslund et al. (2013) evaluated work practice and found small but statistically significant positive effects in terms of a number of labour-market related outcomes for the participants. Their results also suggested that the programme impacts were relatively more favourable for participants with better labour market attachment. Advertising your qualifications works best if the qualifications are reasonably satisfactory.

### **5.3.2 Reduced case-worker case load**

Typically, in Sweden as well as in other countries, informal contacts and networks are associated with higher job-finding rates (see e.g. Dustmann et al. 2016; Kramarz and Skans 2014). For that reason, persons with low-quality networks tend to find jobs at a lower rate than persons with adequate networks, so persons with low-quality networks tend to be over represented among the long-term unemployed. Newly arrived immigrants almost by definition lack high-quality networks in the Swedish labour market.

This suggests that there is a policy margin: policy can address the lack of networks by letting case workers act/create networks for people with poor networks. There is evidence that such policy measures (often combined with subsidised jobs) have had positive effects for long-term unemployed or immigrants in the Swedish labour market and under reasonable assumptions gave a positive net result in cost-benefit analyses (Joonas and Nekby 2012; Åslund and Johansson 2011; Liljeberg and Lundin 2010). These evaluations pertain to situations where the case-load of the PES case workers was heavily reduced so

that the case workers only had a small number of clients, and hence had the time to build the necessary networks with employers. It is not obvious that these measures could be rolled out full scale with equally favourable results, but given the high costs of long-term unemployment or non-employment among immigrants, it is likely that the measures could be scaled up significantly and still survive a cost-benefit analysis.

### **5.3.3 Validation**

Employer uncertainty about productivity is especially likely to be large for newly arrived immigrants and could cause statistical discrimination in the labour market against this group. Hence, a policy that provides employers with better information about the individual's productivity should facilitate the labour market integration of newly arrived immigrants. A policy candidate would be validation of formal, but primarily informal skills of newly arrived immigrants. Such validation would both reduce employer uncertainty and identify possible needs of skills upgrading to improve employability. Recently, there has been an initiative at the PES to do more validation, but as yet little seems to have been done, and most validation has probably taken place at initiatives taken by social partners at the industry level. There is no empirical evidence on the labour market effects of validation available.

## **5.4 Employment protection legislation and the use of temporary contracts<sup>62</sup>**

Employment protection legislation (EPL) can be expected to impact on both hiring and firing behaviour of forward-looking employers. In general, the net (un)employment effects of EPL can be expected to be ambiguous, and most empirical evidence suggests that the strictness of EPL is not a major explanation of country differences in average (un)employment rates. However, the strictness of EPL can be expected to affect the composition of unemployment: lower hiring and firing rates can be expected to generate higher long-term unemployment rates and can also be expected to impede the labour market entrance for youth and newly arrived immigrants. Also, such predictions are borne out by empirical evidence.

The Swedish EPL is hard to characterise. On the one hand, there are fairly strict rules applying to permanent contracts, on the other hand the rules for temporary contracts,

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<sup>62</sup> Skedinger (2011) provides a discussion of Swedish EPL and its consequences.

including the use of temp agencies, are very liberal. In OECD rankings, Sweden usually ends up somewhere in the middle of the “overall strictness” ranking, but according to the OECD, the most prominent feature of the Swedish EPL is the big difference between the rules for permanent and temporary contracts. I think that this view may be exaggerated, mainly because the strictness of the rules for permanent contracts is not totally obvious. The default rule for firing is last in – first out (LIFO). However, this default can be overruled by collective agreements. Furthermore, redundancy is always a just cause for downsizing employment, and it is always up to the employer to decide whether there is redundancy in any given situation. So, employers are free to determine the level of employment but must negotiate with the local trade union if they want to apply something else than LIFO.

To the extent that there is a discontinuity in the rules between permanent and temporary contracts, this could lead to an excessive use of sequences of temp contracts. An important question regarding temp jobs, hence, is whether they can be described as stepping stones or as dead ends. Evidence presented in Arbetsmarknadsekonomiska rådet (2018) suggests that temp jobs primarily are stepping stones, especially for newly arrived immigrants.

Overall, the analysis of and evidence on EPL does not suggest that the design of EPL is a major explanation of (un)employment in Sweden.

## **5.5 Demand-side policies – a brief summary**

The evidence presented here indicates that demand-side policies are unlikely as main causes of the favourable development of Swedish employment rates during recent decades. There is very little to suggest that the public sector as employer has played any significant role. Neither is there strong evidence that broadly targeted tax cuts to achieve lower wage costs have had any strong employment impacts. More narrowly targeted measures may have had a positive impact, but it is highly unlikely that the effect net of displacement has been large enough to make a major difference for aggregate employment rates.

A number of policies designed to reduce employer uncertainty may have had a positive impact, but once again it is not likely to be quantitatively important. The same goes for the impact of employment protection legislation.

## **6 Measures to improve matching**

In a search-matching model framework, anything that reduces search frictions and improves matching will give rise to higher equilibrium employment. Hence, any policy which has an effect on such margins will contribute to higher employment. Naturally, policies affecting the skill composition of job seekers will influence matching, as will policies affecting geographical mobility. I have already surveyed some evidence on vocational labour market training programmes. Such programmes potentially impact on both occupational and geographical mobility. There is no evidence on the effect of training programmes on occupational mobility, and almost nothing on the impact on geographical mobility. The little evidence there is on programmes designed to increase geographical mobility does not suggest any significant effects (Westerlund, 1998). However, in this section I will briefly cover job-search assistance and monitoring, which may also be expected to have an impact on matching.

### **6.1 Job-search assistance and monitoring – search efficiency, intensity and search costs**

To the extent that job search intensity or efficiency is increased or that search costs are lowered by job search assistance, monitoring, and sanctions, we would expect that such measures would contribute to higher employment. Unfortunately, there is not a lot of evidence available to indicate anything about causal links from policy to behaviour in these dimensions. It is also hard to find any hard evidence on the extent and content of job search assistance and monitoring. There is, however, a lot of evidence, in a number of cases based on Randomised Controlled Trials (RCTs), where intensified job search assistance and/or monitoring have been randomly allocated to unemployed job seekers, that job search assistance speeds up the transition to work. The experimental evidence includes Gorter and Kalb (1996), Dolton and O'Neill (1996, 2002), van den Berg and van der Klauuw (2006), Hägglund (2011, 2014), Graversen and van Ours (2008a, 2008b), Crépon et al. (2013), Arni (2015), McConnell et al. (2016), and Maibom et al. (2017). However, there is also evidence that a substantial fraction of the treatment effect of intensified job search assistance comes at the expense of those not receiving the treatment; see e.g. Crépon et al. (2013) and Gautier et al. (2017).<sup>63</sup>

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<sup>63</sup> Only Hägglund (2011, 2014) are studies based on experiments in Sweden.

One relatively recent set of reforms in the realm of job search assistance and monitoring is that private provision of services of different kinds has been introduced. An explicit objective has been to improve the services provided to speed up the transition to work. A small number of evaluations have compared privately and publicly provided services, and the results do not suggest that either of the two types of provider systematically dominates the other in terms of performance (Crépon, 2018).

Another margin where there has been a number of reforms is sanctions. The rules for sanctions for those who do not follow the rules for UI have undergone changes in 2001 and 2014. The main thrust of the reforms is that sanctions have become milder, and the motivation is that this will make them more likely to be used by case workers. There is some Swedish evidence that sanctions give rise to a more rapid transition to work for those sanctioned (van den Berg & Vikström, 2014), but no evidence on the effects of the most recent reforms. The evidence in van den Berg & Vikström (2014) furthermore suggests that the reform impact on the number of sanctions was very limited. Hence, there is no much to suggest that UI sanctions have been an important cause of Swedish employment growth.

The Swedish PES has set up a large data base for use by employers searching for employees and vice versa. The rapid growth in access and competence to use IT should have made information easier to access and cheaper on both sides of the labour market, and hence contributed to better matching. A memento might be that the legal obligation to post vacancies at the PES was abandoned in 2007. However, there is as yet no research available on the consequences of this reform.

## **7 Concluding remarks**

The descriptive analysis presented in this report strongly suggests that labour supply, and especially female labour supply and labour supply among the elderly are margins where the Swedish development may serve as a “role model”. Hence, a primary focus of the report has been to identify policies which are likely to have contributed to the observed relevant high Swedish labour force participation rates (although the presentation also covers other angles, where it is consistently found that policies in such areas are unlikely to account for the “stylised facts” of interest).

The analysis clearly suggests that the high labour-force participation and employment rates among the elderly probably were influenced by the pension reform of the 1990s (especially at ages above 65), and certainly by changes in the rules for early retirement, where the system became much more restrictive with a clear impact on the labour-market behaviour of persons in ages 55–64.

The high female labour force participation and employment rates probably reflect a series of reforms, beginning as early as in the mid 1960s (expansion of publicly provided child care), early 1970s (separate income taxation of spouses) and mid 1970s (gradually more generous paid parental leave system). However, these reforms (and other possible factors) had already in the late 1980s created very small differences in participation and employment rates between males and females, and are not likely to have had any major impact since then. Also, except for the tax reform, there is no solid empirical evidence on the effects of child care and parental leave on female labour force participation.

It is likely that a number of reforms initiated by the centre-right Swedish governments between 2006 and 2014 (income taxes, payroll taxes and UI benefits) contributed to higher participation and employment rates. Once again, however, there is no solid basis in empirical research for this view.

Finally, an observation is that I have not come across any obvious policy obstacles to high employment during the journey through policies with an employment impact. Certainly, I have not systematically looked for such obstacles, and certainly there are examples of sub-optimal system designs (such as benefits to the unemployed, which I have discussed, and housing market policies, which I have not discussed). So perhaps a last lesson is that it is good from an employment point of view to avoid obvious and big policy mistakes.



## References

- Ackum, S (2018), Utmaningar för vuxenutbildningen, in Bergström A & L Calmfors (eds), *Framtidens arbetsförmedling*, Stockholm: Fores.
- Albrecht J, G J van den Berg & S Vroman (2005), The Knowledge Lift: The Swedish Adult Education Program that Aimed to Eliminate Low Skill Levels, IZA Discussion Paper No. 1503, Bonn.
- Albrecht J, G J van den Berg & S Vroman (2009), The Aggregate Labor Market Effects of the Swedish Knowledge Lift Programme, *Review of Economic Dynamics* 12.
- Andersson Joonas P, A Lanninger & M Sundström (2016), Reforming the Integration of Refugees: The Swedish Experience. IZA discussion paper 10307.
- Arbetsmarknadsekonomiska rådet (2018), Olika vägar till jobb, Rapport från Arbetsmarknadsekonomiska rådet.
- Arni P (2015), Opening the Blackbox: How Does Labor Market Policy Affect the Job Seekers Behavior? A Field Experiment, mimeo, University of Lausanne 2015.
- Aronsson T & J R Walker, 1997, The Effects of Sweden's Welfare State on Labor Supply Incentives, in Freeman, R, B Swedenborg & R Topel (eds), *The Welfare State in Transition: Reforming the Swedish Model*, National Bureau of Economic Research.
- Aronsson T & J R Walker, 2010, Labor Supply, Tax Base and Public Policy in Sweden, in Freeman, R, B Swedenborg & R Topel (eds.), *Reforming the Welfare State: Recovery and Beyond in Sweden*, University of Chicago Press.
- Åslund O & P Johansson (2011), Virtues of SIN – Can Intensified Public Efforts Help Disadvantaged Immigrants? *Evaluation review* 35.
- Bennmarker H, E Mellander & B Öckert (2009), Do regional payroll tax reductions boost employment?, *Labour Economics* 16.
- Calmfors L, A Forslund & M Hemström (2004), The effects of active labor-market policies in Sweden: What is the evidence?, in J Agell, M Keen & J Weichenrieder (eds), *Labor Market Institutions and Public Regulation*, MIT Press.
- Card D, J Kluge & A Weber (2010), Active Labour Market Policy Evaluations: A Meta-analysis, *Economic Journal* 120.

- Card D, J Kluge & A Weber (2017), What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations, *Journal of the European Economic Association*, jvx028, <https://doi.org/10.1093/jeea/jvx028>
- Crépon B (2018), Private providers of labor market services: a review of the evidence, in Bergström, A & L Calmfors (eds.), *Framtidens arbetsförmedling*, Fores, Stockholm.
- Crépon B, E Duflo, M Gurgand, R Rathelot & P Zamora (2013), Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment, *The Quarterly Journal of Economics* 128.
- De Luna X, A Forslund & L Liljeberg (2008), Effekter av yrkesinriktad arbetsmarknadsutbildning för deltagare under perioden 2002–04, Rapport 2008:1, IFAU.
- Dolton, P & D O'Neill (1996), Unemployment Duration and the Restart Effect: Some Experimental Evidence, *The Economic Journal* 106.
- Dolton, P & D O'Neill (1996), The Long-Run Effects of Unemployment Monitoring and Work-Search Programs: Experimental Evidence from the United Kingdom, *Journal of Labor Economics* 20.
- Dustmann, C, A. U Glitz, H Schönberg & Brücker (2016), Referral-based job search networks. *The Review of Economic Studies* 83.
- Duvander, A-Z & M Johansson (2015), Reforms in the Swedish parental leave system and their effects on gender equality, Working Paper 2015:2, ISF.
- Edmark K, C-Y Liang, E Mörk & H Selin (2016), The Swedish Earned Income Tax Credit: Did It Increase Employment? *FinanzArchiv: Public Finance Analysis* 2.
- Egebark J & N Kaunitz (2013), Do payroll tax cuts raise youth employment?, Working paper 2013:27, IFAU, Uppsala.
- Engdahl M & A Forslund (2016), En förlorad generation? Om ungas etablering på arbetsmarknaden, Rapport 2016:1, IFAU, Uppsala.
- Engström P, P Hägglund & P Johansson (2017), Early interventions and disability insurance: experience from a field experiment, *The Economic Journal* 127.

- Finansdepartementet (2011), Hur ska utvecklingen av arbetsmarknadens funktionssätt bedömas?, Rapport från ekonomiska avdelningen på Finansdepartementet.
- Forslund, A (2018), Subventionerade anställningar – avvägningar och empirisk evidens, Rapport 2018:14, IFAU.
- Forslund A & A Krueger (1997), An evaluation of the Swedish active labor market policy: new and received wisdom, in Freeman R, B Swedenborg & R Topel (eds), *The Welfare State in Transition*, University of Chicago Press.
- Forslund A & A Krueger (2010), Did active labor market policies help Sweden rebound from the depression of the early 1990s?”, in Freeman, R, B Swedenborg & R Topel (eds.), *Reforming the welfare state. Recovery and beyond in Sweden*, Chicago University Press.
- Forslund A, L Liljeberg & L von Trott zu Solz (2013), Job practice: an evaluation and a comparison with vocational labour market training programmes, Working paper 2013:6, IFAU.
- Forslund A, W Pello-Esso, R Ulmestig, U Vikman, I Waernbaum, A Westerberg and J Zetterqvist (2019), Kommunal arbetsmarknadspolitik. Vad och för vem?, Rapport 2019:05, IFAU, Uppsala.
- Forslund A & O N Skans (2006), (Hur) hjälps ungdomar av arbetsmarknadspolitiska program för unga?, Rapport 2006:5; IFAU, Uppsala.
- Forslund A & J Vikström (2011), Arbetsmarknadspolitikens effekter på sysselsättning och arbetslöshet – en översikt, Rapport 2011:7, IFAU, Uppsala.
- Försäkringskassan (2018), Förändringar inom socialförsäkrings- och bidragsområdena 1968-01-01–2018-09-01, Försäkringskassan, Stockholm.
- Gautier P, P Muller, B van der Klauuw, M Rosholm & M Svarer (2017), Estimating Equilibrium Effects of Job Search Assistance, mimeo, VU University of Amsterdam.
- Gorter C & G R J Kalb (1996), Estimating the Effect of Counseling and Monitoring the Unemployed Using a Job Search Model, *The Journal of Human Resources* 31.
- Graversen B K & J C van Ours (2008a), Activating unemployed workers works; Experimental evidence from Denmark, *Economics Letters* 100.

- Graversen B K & J C van Ours (2008b), How to help Unemployed find jobs quickly: Experimental evidence from a mandatory activation program, *Journal of Public Economics* 92.
- Hall C (2012), The Effects of Reducing Tracking in Upper Secondary School. Evidence from a Large-Scale Pilot Scheme, *J. Human Resources* 47.
- Harju J, T Kosonen & O N Skans (2018), Firm types, price-setting strategies, and consumption-tax incidence?, Working paper 2018:4, IFAU, Uppsala.
- Hägglund P (2011), Are there pre-programme effects of active placement efforts? Evidence from a social experiment, *Economics Letters* 112.
- Hägglund P (2012), Do time limits in the sickness insurance system increase return to work?, *Empirical Economics* 45.
- Hägglund P (2014), Experimental Evidence From Active Placement Efforts Among Unemployed in Sweden, *Evaluation Review* 38.
- Hägglund P, P Johansson & L Laun (2014), Insatserna inom rehabiliteringsgarantin och deras effekter på hälsa och sjukfrånvaro, Rapport 2014:12, IFAU, Uppsala.
- Hägglund P & N Österlund (2015), Tidsgränserna i sjukförsäkringen, Rapport 2015:5, ISF, Stockholm.
- Inspektionen för arbetslöshetsförsäkringen (2019), Tre ersättningsystem, [https://www.iaf.se/Tre\\_ersattningssystem/](https://www.iaf.se/Tre_ersattningssystem/)
- Johansson L, G Sundström & B Malmberg (2018), Ett halvt århundrade svensk äldreomsorg – var står stat och familj?, *Tidskrift för omsorgsforskning* 01.
- Johansson P, E Aydin, S Bergendorff, N Granqvist, M Josephson & I Sohlberg (2010), Arbetslivsinriktad rehabilitering, Underlagsrapport till den parlamentariska socialförsäkringsutredningen (S 2010:04).
- Johansson P, L Laun & T Laun (2014), Screening stringency in the disability insurance program, *The B.E. Journal of Economic Analysis & Policy* 14.
- Johansson, P, L Laun & M Palme (2014), Pathways to Retirement and the Role of Financial Incentives in Sweden, in D A Wise (ed), *Social Security Programs and*

*Retirement Around the World: Disability Insurance Programs and Retirement*, University of Chicago Press.

Johansson P, L Laun, M Palme & H O Stensöta (2018), Drivkrafter och möjligheter till ett förlängt arbetsliv, SNS, Stockholm.

Joonas, P A & L Nekby (2012), Intensive Coaching of New Immigrants: An Evaluation Based on Random Program Assignment. *The Scandinavian Journal of Economics* 114.

Kennerberg L & K Sibbmark (2005), Vilka deltar i svenska för invandrare. Rapport 2005:13, IFAU, Uppsala.

Kennerberg L & O Åslund (2010). Sfi och arbetsmarknaden. Rapport 2010:10, IFAU, Uppsala.

Kramarz, F & O N Skans (2014). When strong ties are strong: Networks and youth labour market entry. *The Review of Economic Studies* 81.

Landais, C, A Nekoei, P Nilsson, D Seim & J Spinnewijn (2018), Risk-based Selection in Unemployment Insurance: Evidence and Implications, Mimeo, IIES, Stockholm University.

Landsorganisationen i Sverige. Organisationskommittén (1953), *Fackföreningsrörelsen och den fulla sysselsättningen*, [New ed.] Stockholm.

Laun L & M Palme (2017), The recent rise of labour force participation of older workers in Sweden, Working paper 2017:17, IFAU, Uppsala.

Liljeberg L (2016), Effekter för olika deltagargrupper inom arbetsmarknadsutbildningen, Rapport 2016:20, IFAU, Uppsala.

Liljeberg L & M Lundin (2010), Jobbnätet ger jobb: effekter av intensifierade arbetsförmedlingsinsatser för att bryta långtidsarbetslöshet, Rapport 2010:2, IFAU, Uppsala.

Lind, P & A Westerberg (2015), Yrkehögskolan – vilka söker, vem tar examen och hur går det sedan?, Rapport 2015:12, IFAU, Uppsala.

Ljunge M och K Ragan 2004, Who Responded to the Tax Reform of the Century? Working Paper, University of Chicago.

- Lundin D, E Mörk & B Öckert (2008), Do reduced child care prices make parents work more?, *Labour Economics* 15.
- Lundin, M. (2008), Kommunerna och arbetsmarknadspolitiken, Rapport 2008:13, IFAU, Uppsala.
- Lundin, M. (2018), Arbetsmarknadspolitik för arbetslösa mottagare av försörjningsstöd, Rapport 2018:12, IFAU, Uppsala.
- Löfbom E (2018), Lönar sig arbete 2.0? En ESO-rapport med fokus på nyanlända, ESO-rapport 2018:2, ESO, Stockholm.
- Maibom J, M Rosholm & M Svarer (2017), Experimental Evidence on the Effects of Early Meetings and Activation, *The Scandinavian Journal of Economics* 119.
- McConnell S, K Fortson, D Rotz, P Schochet, P Burkander, L Rosenberg, A Mastri, & R D'Amico (2016), Providing Public Workforce Services to Job Seekers: 15-Month Impact Findings on the WIA Adult and Dislocated Worker Programs," Report May 2016, Mathematica Policy Research.
- Milton P & R Bergström (1998), Uppsalamodellen och socialbidragstagarna. En effektutvärdering, Socialstyrelsen, Stockholm.
- Ministry of health and social affairs (2016), The Swedish old-age pension system. How the income pension, premium pension and guarantee pension work.
- Myndigheten för Yrkehögskolan (2018), Statistisk årsrapport för 2018.
- Mörk, E. (2011), Från försörjningsstöd till arbete – Hur kan vägen underlättas?, i SOU 2011:2, Välfärdsstaten i arbete – Inkomstrygghet och omfördelning med incitament till arbete, Bilaga 11 till Långtidsutredningen 2011, Fritzes, Stockholm.
- Palme M & I Svensson (1999), Social Security, Occupational Pensions, and Retirement in Sweden, in Gruber J & D Wise (eds.), *Social Security and Retirement around the World*, Chicago University Press: Chicago.
- Panican, A and R Ulmestig (2017), Lokal Arbetsmarknadspolitik: vem gör vad, hur och för vem? Växjö: Linnaeus University.
- Persson A & U Vikman (2014), Dynamic effects of mandatory activation of welfare participants, *Research in Labor Economics* 39.

- Proposition 2011/12:100, Bilaga 5, Utvärdering av jobbskatteavdraget.
- Riksrevisionen (2008), Svenskundervisning för invandrare (Sfi) – En verksamhet med okända effekter. Rapport 2008:13, Riksrevisionen, Stockholm.
- Riksrevisionen (2014), Etableringslotsar – fungerar länken mellan individen och arbetsmarknaden?, Rapport 2014:14, Riksrevisionen, Stockholm.
- Riksrevisionen (2016), Är sjukskrivning bra för hälsan?, Rapport 2016:31, Riksrevisionen, Stockholm.
- Riksrevisionen (2018), Deltagarantal i nya arbets- marknadspolitiska insatser – önsketänkande framför träffsäkra volymbedömningar, Rapport 2018:10, Riksrevisionen, Stockholm.
- Saez E, B Schoefer & D Seim (2017), Payroll Taxes, Firm Behavior, and Rent Sharing: Evidence from a Young Workers' Tax Cut in Sweden, NBER Working Paper 23976
- Selin H (2014), The Rise in Female Employment and the Role of Tax Incentives. An Empirical Analysis of the Swedish Individual Tax Reform of 1971, *International Tax and Public Finance* 21.
- Sibbmark K, M Söderström & O Åslund (2016), Marknadsmekanismer i teori och praktik – erfarenheter från etableringslotsarna, Rapport 2016:19, IFAU.
- Sjögren A & J Vikström (2014), How long and how much? Learning about the design of wage subsidies from policy discontinuities, *Labour Economics* 34.
- Skans O N, S Eriksson & L Hensvik (2017), Konjunkturrådets rapport 2017, Åtgärder för en inkluderande arbetsmarknad, SNS, Stockholm.
- Skatteverket (2011), Om RUT och ROT och VITT och SVART, Rapport 2011:1, Skatteverket, Stockholm.
- Skedinger, P (2011), Employment Consequences of Employment Protection Legislation, *Nordic Economic Policy Review* 1, 45-83.
- Skolverket (2018), Regionalt yrkesvux. Uppföljning 2017, mimeo, Skolverket, Stockholm.
- SOU 2011:11, *Långtidsutredningen 2011*, Finansdepartementet, Stockholm.

- Statskontoret (2009) Sfi – resultat, genomförande och lärarkompetens. En utvärdering av svenska för invandrare, Rapport 2009:2, Statskontoret, Stockholm.
- Statskontoret (2012), Kostnader för arbetsmarknadsutbildning och yrkesvux– en jämförelse, Rapport 2012:28, Statskontoret, Stockholm.
- Statskontoret (2016), Utvärdering av stöd för yrkesintroduktions- anställningar. Slutrapport. Statskontoret, Stockholm.
- Stenberg A (2010), The Impact on Annual Earnings of Adult Upper Secondary Education in Sweden, *International Journal of Lifetime Education* 29.
- Stenberg A (2011), Using Longitudinal Data to Evaluate Publicly Provided Formal Education for Low Skilled, *Economics of Education Review* 30.
- Stenberg A, de Luna, X & O Westerlund (2012), Can Adult Education Delay Retirement from the Labour Market?, *Journal of Population Economics* 25.
- Stenberg A, X de Luna, och O Westerlund (2014), Does Formal Education for Older Workers Increase Earnings? – Evidence Based on Rich Data and Long-term Follow-up, *Labour* 28.
- Stenberg A & O Westerlund (2008), Does Comprehensive Education Work for the Long-term Unemployed?, *Labour Economics* 15.
- Stenberg A & O Westerlund (2014), The Long-term Earnings Consequences of General vs. Specific Training of the Unemployed, Working Paper 2014:3, IFAU.
- Thorén, K H (2012), Kommunal arbetsmarknadspolitik – en kunskapsöversikt över åtgärder för arbetslösa socialbidragstagare, Rapporter från riksdagen 2011/12:RFR 14, Arbetsmarknadsutskottet, Riksdagstryckeriet, Stockholm.
- van den Berg G J & J Vikström (2014), Monitoring job offer decisions, punishments, exit to work, and job quality, *The Scandinavian Journal of Economics* 116.
- Westerlund O (1998), Internal Gross Migration in Sweden – the Effects of Mobility Grants and Regional Labour Market Conditions, *Labour* 12.
- Vikström J & G J van den Berg (2017), Långsiktiga effekter av arbetsmarknadsutbildning, Rapport 2017:17, IFAU, Uppsala.