Att kombinera socialförsäkringar med incitament till arbete*

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* Vi tackar deltagare på konferensen om aktiv arbetsmarknadspolitik i Stockholm 2010, och särskilt vår kommentator Francis Kramarz, för värdefulla kommentarer. Texten är översatt från engelska av Stefan Eriksson

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Bilagan innehåller även en längre fördjupad text på engelska i vilken det finns referenser till internationell forskning.

1 Inledning

Det finns övertygande empiriska forskningsresultat från såväl Sverige som andra länder att generösa socialförsäkringssystem ökar bidragsberoende. Detta gäller de flesta socialförsäkringar, inklusive ersättningssystemen för arbetslösa och sjuka. Det ökade bidragsberoendet när ersättningen är generös (antingen i termer av nivå eller av längd) kan förklaras av problem med ”moral hazard”. I socialförsäkringar innebär moral hazard att individer förändrar sitt beteende när de vet att de är försäkrade mot de negativa konsekvenserna av exempelvis arbetslöshet eller sjukdom; incitamenten att undvika att gå in i eller att lämna ersättningssystemen minskar. Moral hazard kan skapa stora problem, men kan också ha vissa positiva effekter. Om de personer som får generösa ersättningar är mer selektiva när de väljer vilka jobberbjudanden de ska acceptera kan detta leda till en ökad matchningskvalitet. Att utforma socialförsäkringssystem när det finns problem med moral hazard är ofta mycket svårt.

Vår rapport fokuserar på politikåtgärder som syftar till att minska problemen med moral hazard i ersättningssystemen för arbetslösa och sjuka som inte bara innebär att ersättningen görs mindre generös. Vi redogör för hur olika åtgärder kan utformas och diskuterar hur effektiva de är på att förhindra bidragsberoende. Exempel på åtgärder vi tar upp är kontroll av de arbetslösas jobb-

sökande, sanktioner för bristande jobbsökande, bonusutbetalningar till dem som hittar jobb, aktiveringsåtgärder för arbetslösa (”workfare”), granskning av bidragsansökningar, rehabiliteringsåtgärder och försäkringsavgifter för arbetsgivare som är kopplade till omfattningen på sjukfrånvaron.

I rapporten förlitar vi oss ofta på resultat från Nederländerna. Detta beror inte bara på vår goda kännedom om situationen i Nederländerna, utan också på att Sverige och Nederländerna i många avseenden är ganska lika. Nederländerna har dessutom genomfört några institutionella reformer som kan bidra med värdefulla lärdomar för Sverige. I rapporten diskuterar vi framförallt resultat från studier som på ett övertygande sätt hanterar de metodologiska problem som uppstår i och med att deltagarna i åtgärderna kan skilja sig från icke-deltagarna (s.k. selektionsproblem). Vi eftersträvar också att upprätthålla en tydlig koppling mellan den teoretiska litteraturen och de empiriska studierna.

2 Åtgärder för att motverka problem med moral hazard för arbetslösa

I arbetslöshetsförsäkringssystemen handlar åtgärder för att förhindra moral hazard vanligen om att stimulera utflödet från systemen. Den mest direkta åtgärden är att stimulera arbetslösas jobbsökande. Detta kan ske genom att kontrollera hur de arbetslösa söker arbete och bestraffa dem som inte följer reglerna för hur jobbsökandet ska bedrivas. Kontroll av jobbsökande är en av de äldsta arbetsmarknadsåtgärderna. Åtgärden innebär att de arbetslösas faktiska jobbsökande kontrolleras, vilket vanligen sker i samband med rådgivning om hur jobbsökandet bör bedrivas. I ett antal länder har (randomiserade) experiment genomförts för att utvärdera effekterna av sådana insatser. Resultaten visar att effekterna är blandade. Hur kan vi förklara detta? Det visar sig att effekterna i hög grad beror på vilken målgrupp kontrollen har och vilka krav som ställs. Effekterna är störst om kraven på jobbsökande är höga, men höga krav visar sig också reducera den genomsnittliga kvaliteten på de jobb de sökande får. Kontrollen innebär nämligen att de arbetslösa ersätter sökande med informella sökmetoder (som inte kan kontrolleras) med sökande med formella metoder (som kontrolleras). Kontroll av jobbsökande är därför en ineffektiv metod för de arbetslösa som använder sig av mycket informellt

jobbsökande, vilket ofta är arbetslösa som har goda möjligheter att hitta ett arbete. Det betyder att kontroll av jobbsökande troligen är en mer effektiv metod för att stimulera arbetssökande om den riktas mot dem som står långt ifrån arbetsmarknaden, som till exempel långtidsarbetslösa.

Kontroll av jobbsökande sker vanligen vid regelbundna möten mellan arbetsförmedlare och de arbetslösa. Under dessa möten utvärderas de arbetslösas jobbsökande (kontroll) och de arbetslösa får råd om sitt framtida jobbsökande (rådgivning). Om arbetsförmedlaren upptäcker brister i hur arbeten söks bör detta givetvis bestraffas med en temporär nedsättning av arbetslöshetsersättningen. Förekomsten av sanktioner medför alltid en ökning av utflödet från ersättningssystemet, men kan också ha negativa effekter på kvaliteten på de jobb som de arbetslösa får. Användningen av sanktioner varierar mellan olika länder, men i Sverige utfärdas få sanktioner. I de flesta länder finns det en separat avdelning inom den ansvariga myndigheten som ansvarar för utfärdandet av sanktioner, medan det i Sverige är arbetsförmedlaren som anmäler brott mot reglerna för hur jobbsökandet ska bedrivas. Detta kan skapa problem då arbetsförmedlare ibland kan vara ovilliga att bidra till att sanktioner ges till de personer som de ska hjälpa.

Två andra åtgärder för att reducera moral hazard är bonusutbetalningar (”reemployment bonuses”) eller löneutfyllnad (”in-work cash transfers”) till dem som får ett arbete. Tanken bakom detta är att göra förvärvsarbete mer attraktivt, och att den arbetssökande därför ökar sina ansträngningar att hitta ett jobb. Om den arbetssökande blir mindre selektiv när det handlar om att acceptera jobberbjudanden, ökar sannolikheten att han eller hon får ett arbete. En nackdel med en sådan åtgärd är att den gör ersättningssystemet mer attraktivt och därmed kan ha oönskade effekter på inflödet. De empiriska beläggen för att bonusutbetalningar har effekter är blandade, men det finns inga indikationer på att effekterna skulle vara stora. En möjlig förklaring är att det är få som har erhållit ersättning i de länder som infört sådana program. Löneutfyllnad är en åtgärd som är mycket snarlik bonusutbetalningar. Tanken bakom löneutfyllnaden är att arbetslösa som får ett lågavlönat jobb under en tid får ett tillskott till sin lön. Detta har prövats i Kanada under 1990-talet, där socialbidragsmottagare som accepterade ett heltidsjobb kunde få ett tillskott till sin lön i upp till tre år. Åtgärden visade sig ha en positiv effekt till och med för

dem som levt på bidrag under lång tid, men effekterna var inte permanenta.

En annan åtgärd för att reducera moral hazard är sysselsättningsåtgärder, som aktiveringsinsatser (”workfare”) och subventionerad sysselsättning. Aktiveringsåtgärder innebär att bidragsmottagare är tvungna att acceptera jobb med en mycket låg produktivitet. Det senare kravet ställs för att förhindra att åtgärden tränger undan reguljära jobb på arbetsmarknaden. På grund av karaktären på de arbetsuppgifter deltagarna utför, syftar inte aktiveringsprogram till att öka deltagarnas humankapital eller färdigheter. Istället är syftet framförallt att begränsa deltagarnas fritid. Den bakomliggande tanken är att bidragsmottagare uppskattar fritid och att om man begränsar deras fritid minskar värdet av att vara arbetslös. Aktiveringsinsatser bör därför öka deltagarnas benägenhet att acceptera jobberbjudanden och samtidigt stimulera dem att intensifiera sitt sökande efter arbete. Risken är dock att insatserna inte bara begränsar deltagarnas fritid utan också den tid de kan ägna åt jobbsökande. Aktiveringsinsatser är vanligt förekommande i socialbidragssystem. Till exempel används de i stor omfattning i Nederländerna, Tyskland och USA. De empiriska resultaten om aktiveringsinsatsernas effekter är inte helt entydiga, men vissa studier tyder på att bidragstagare är mer benägna att lämna ersättningssystemen precis innan de måste delta i aktiveringsåtgärder. En annan typ av sysselsättningsåtgärd är subventionerad sysselsättning. Empiriska studier visar att subventionerad sysselsättning i den privata sektorn kan förbättra deltagarnas arbetsmarknadsutsikter, men att motsvarande åtgärder i den offentliga sektorn ofta har negativa effekter för deltagarna.

3 Åtgärder för att förhindra moral hazard i sjukförsäkringssystemen

Sjukförsäkringssystem karaktäriseras av samma problem med moral hazard som arbetslöshetsförsäkringssystem, men det är svårare att stimulera utflödet i sådana system. Därför fokuserar de flesta existerande åtgärder istället på att reducera inflödet. Det finns stora skillnader mellan sjukförsäkringssystemen i olika länder. Medan arbetsgivare i exempelvis Nederländerna möter en betydande finansiell risk om deras anställda är (långvarigt) frånvarande från sina arbeten, står staten för den största delen av risken i Sverige.

Skillnaderna visar sig bland annat i längden på den tidsperiod som den sjukes arbetsgivare betalar sjuklönen. I Sverige är denna tidsperiod 14 dagar, medan motsvarande tidsperiod i Nederländerna är två år. En lång tidsperiod stimulerar arbetsgivarna att vidta preventiva åtgärder för att minska sjukfrånvaron och att satsa på rehabiliteringsåtgärder under sjukfrånvaron. Olika länder skiljer sig också åt vad gäller kraven på läkarintyg. I Sverige krävs ett läkarintyg efter sju dagars sjukfrånvaro och i Nederländerna efter sex veckors sjukfrånvaro. Empiriska studier visar att krav på läkarintyg minskar sjukfrånvaron. Speciellt stora effekter ses dagen innan ett läkarintyg krävs. Det kan dock finnas en motsättning mellan en doktors läkarroll och kontrollfunktion. Detta talar för att man bör separera dessa roller, som i Nederländerna där patientens egen läkare ansvarar för behandlingen medan andra läkare ansvarar för bedömningen av sjukfrånvaron.

Empiriska studier visar att finansiella incitament och ökat ansvar för arbetsgivare minskar den långvariga sjukfrånvaron betydligt. Finansiella incitament kan innebära en förlängning av den tid som arbetsgivarna betalar sjuklönen eller att arbetsgivarnas avgifter för sjukförsäkringen kopplas till antalet sjukfall (”experience rating”). Det senare alternativet innebär att den avgift som arbetsgivaren betalar för att försäkra sina anställda mot sjukdom kopplas till arbetsgivarens historik av sjukfrånvaro. För arbetsgivaren ökar avgiften om en anställd blir långtidssjukskriven, medan avgiften minskar om han anställer en person som varit långtidssjukskriven. En förlängning av den tidsperiod då arbetsgivaren betalar sjuklönen ger liknande finansiella incitament för arbetsgivaren, men har inte samma positiva effekt på utflödet. Empiriska studier visar dock att båda alternativen är effektiva för att motverka inflödet i långtidssjukskrivning.

Även ett ökat ansvar för arbetsgivaren att få tillbaka sjuka anställda i arbete verkar minska omfattningen av långvarig sjukfrånvaro. För att vara effektiva måste dock sådana åtgärder åtföljas av möjligheten att bestraffa de arbetsgivare som inte följer reglerna. I Nederländerna kan den tidsperiod som arbetsgivaren betalar den anställdes sjukersättning förlängas om arbetsgivaren inte satsar tillräckligt mycket på prevention och rehabilitering. Empiriska studier visar att noggrann granskning av om arbetsgivaren uppfyllt sitt ansvar i kombination med hot om en förlängning av den tid som arbetsgivaren svarar för sjukersättningen är en mycket effektiv metod för att minska långvarig sjukfrånvaro. Kostnaderna för en

sådan granskning visar sig dessutom vara obetydliga jämfört med minskningen i bidragsutbetalningar.

4 Interaktionseffekter

Det är sannolikt att olika socialförsäkringssystem påverkar varandra. Men de empiriska beläggen för ”spillovereffekter” mellan olika ersättningssystem är inte helt klara. Det finns vissa tecken på att sjukförsäkringssystemen innehåller en del dold arbetslöshet och att generösa ersättningar medför substitution mellan systemen. Den institutionella utformningen av försäkringarna kan således ha betydelse. Det existerar dock mindre belägg för att policyinterventioner inom ett visst ersättningssystem orsakar någon större substitution mellan olika ersättningssystem. I Sverige har man i empiriska studier funnit substitution mellan sjukförsäkrings- och arbetslöshetsförsäkringssystemen. De arbetslösa som kan få en högre ersättning från sjukförsäkringen tenderar att ansöka om sjukersättning. Detta skapar en viss dold arbetslöshet i sjukförsäkringssystemet och kan också vara en källa till moral hazard.

Slutligen är det viktigt att beakta allmänna jämviktseffekter. Allmänna jämviktseffekter uppstår när policyinterventioner riktad mot en viss grupp också påverkar utfallet för andra grupper. Ett exempel är när åtgärder som syftar till att uppmuntra vissa arbetslösas jobbsökande reducerar andra arbetssökandes möjligheter att få jobb eller medför att företagen öppnar fler vakanser. Allmänna jämviktseffekter kan således vara både positiva och negativa, och är troligen mer betydelsefulla vid stora policyinterventioner.

5 Slutsatser om politikåtgärder

I vår rapport har vi redovisat empiriska resultat som visar att det finns en stor risk för att allvarliga problem med moral hazard kan uppstå i arbetslöshets- och sjukförsäkringssystemen. Moral hazard innebär att generösa ersättningar ger ett ökat utnyttjande av ersättningssystemen. Vi har även diskuterat ett antal åtgärder som kan användas för att motverka effekterna av moral hazard. Empiriska studier visar att många av dessa åtgärder har varit framgångsrika. Sådana åtgärder kan således användas för att kombinera generösa socialförsäkringssystem med ett högt arbetskraftsdeltagande.

Medan många länder använder åtgärder som kontroll av jobbsökande och utfärdande av sanktioner för att stimulera arbetslösa att söka arbete, så förlitar sig Sverige mer på utbildningsinsatser och hjälp med jobbsökandet. För unga arbetslösa kan dock kontroll av jobbsökandet kombinerat med trovärdiga hot om sanktioner vara mer effektivt. För att införa ett sådant system i de svenska institutionerna, kan det vara lämpligt att skapa en separat enhet som har ansvar för att övervaka om de arbetslösa följer reglerna. I Sverige fokuserar kontrollen mest på om de arbetslösa accepterar jobberbjudanden. Detta verkar inte vara optimalt eftersom det inte motiverar arbetslösa att söka mer intensivt. Istället medför det att arbetslösa som söker många jobb, men får dåliga jobberbjudanden, bestraffas hårdare än de som inte söker några jobb alls. Därför är det bättre om kontrollen först inriktas på att se till att de arbetslösa söker arbete tillräckligt intensivt och först därefter kontrollerar om de accepterar lämpliga jobberbjudanden.

Den svenska arbetslöshetsförsäkringen skiljer sig från motsvarande system i många andra länder genom att medlemskapet är frivilligt. Medlemsantalet har av tradition varit högt, men har fallit på senare år. Detta kan ge upphov till problem med snedvriden selektion, dvs. att personer med en hög risk för arbetslöshet väljer att bli medlemmar, medan personer med en låg risk för arbetslöshet väljer att inte bli medlemmar. Detta kan resultera i stigande medlemsavgifter, vilket kan leda till ännu större fall i medlemskap. Det finns klara fördelar med att arbetslösa har rätt till arbetslöshetsersättning. Därför kan det, om minskningen i medlemskap fortsätter, vara lämpligt att införa en nationell obligatorisk arbetslöshetsförsäkring.

Sverige har även inlett en privatisering av marknaden för arbetsmarknadspolitiska program. Den exakta utformningen av denna marknad är mycket viktig; om man exempelvis avsätter en fast summa pengar för sådana åtgärder så skapar det inte incitament att bara satsa på de mest effektiva åtgärderna. Av detta följer att en analys av kostnad och nytta alltid bör föregå satsningar på arbetsmarknadspolitiska åtgärder för arbetslösa.

Sverige har för närvarande en hög sjukfrånvaro, vilket i stor utsträckning förklaras av en hög långtidssjukfrånvaro. Speciellt högt är inflödet av unga personer. Jämfört med andra länder innehåller det svenska sjukförsäkringssystemet få inslag av incitament och ansvar för arbetsgivarna. Erfarenheterna från andra länder visar att det är svårt att stimulera utflödet från långtidssjukfrånvaro och

att det därför är bättre att satsa på att minska inflödet. Finansiella incitament kan vara väldigt användbara för att reducera inflödet. Speciellt skulle Sverige kunna överväga att förlänga den tidsperiod som arbetsgivaren ansvarar för sjuklönen, koppla sjukförsäkringsavgifterna till antalet sjukfall för arbetsgivare med hög sjukfrånvaro eller införa sanktioner riktade mot arbetsgivare som inte vidtar tillräckliga åtgärder för att förhindra långtidssjukskrivingar.

1 Introduction

In most continental European countries both unemployment insurance (UI) and sickness and disability insurance (SI/DI) benefits are high and the entitlement periods are relatively long. The general motivation for governments to provide UI and SI/DI benefits is that workers have a desire to insure themselves against the risk of losing income due to unemployment, sickness or disability, but that potential adverse selection (only high risk individuals will insure themselves) and correlated risks prevent the market from providing UI and SI/DI. Mandatory insurances provided by the government overcome these obstacles.

A problem with providing benefits to the unemployed and disabled is that it causes moral hazard problems. An example of moral hazard in the labor market is when unemployed workers provide too little job search effort and become too choosy in which job to accept, resulting in unemployed spells that are too long. Many countries have, therefore, introduced additional (active labor market) policies to reduce potential moral hazard problems.

In this paper, we mainly focus on policies intended to reduce moral hazard. We provide details on the implementation of the different policies and discuss their effectiveness in reducing benefit dependency. Although the focus is mainly on policy, we cannot ignore the institutions. The organization of the UI and SI/DI schemes determines how important moral hazard will be. It should be stressed that workers becoming choosier in response to UI benefits is not always bad. Benefits can act as search subsidy, i.e. individuals can financially survive without work and are thus not forced to immediately start working in the first available job, which might be ill suited for them. Therefore, in a system with generous benefits the quality of matches between workers and jobs is typically better, which might improve the overall productivity of the economy.

Both theoretically and empirically, there are still a number of unsolved issues in developing efficient policy interventions under moral hazard. Empirical problems are mainly due to the complications in evaluating policy interventions, which are often the result of non-random assignment to particular interventions. If individuals exposed to an intervention are not similar to those not exposed to the intervention, a simple comparison of the outcomes of participants and nonparticipants gives a biased and inconsistent estimate of the effectiveness of the policy intervention. In this paper, we mainly consider research which convincingly deal with selective participation. Theoretical complications are mainly due to technical difficulties in specifying and solving complicated dynamic models with moral hazard.

We focus on policy interventions which aim at reducing moral hazard in the labor market which go beyond reducing benefits. Examples of such policies are screening benefit applications, job search monitoring, sanctions and reemployment bonuses. This paper should thus complement earlier surveys.[1] We also consider sickness and disability programs. Although not exclusively, we often rely on empirical evidence from the Netherlands. This is not only because of our familiarity with the Dutch situation, but also because of similarities between Sweden and the Netherlands. Both countries have relatively large expenditures on active labor market programs, and have as a main problem a relatively large degree of long-term sickness absenteeism and dependency on DI. The Netherlands experienced some institutional reforms in the past decade, which provide value insight for other countries such as Sweden. Furthermore, we provide a strong link between the theoretical literature and empirical studies. This allows us to check both the validity of the theoretical predictions and report the effects of the policies in question.

Finally, we try to obtain insight in how different programs interact and briefly consider the large scale use of policy interventions. There is some evidence that changing entitlement rules of, for example, DI affect the size of the UI and other welfare programs. In order to get an idea of the welfare effects of policy interventions, it is important to acknowledge that besides the positive effects of making it easier for firms to fill their vacancies if individuals search more intensively, there might also be negative spillover

[1] E.g. Fredriksson and Holmlund (2006) and Kluve et al. (2007).

effects. These are due to unemployed workers competing for the same job. We discuss some recent models that take those effects in consideration.

The remainder of this paper is organized as follows. In Section 2 we provide a discussion of moral hazard in benefit schemes and mention some general policies to reduce moral hazard problems. We focus on unemployment benefit schemes and policies targeted at unemployed workers in Section 3. In Section 4 we consider sickness and disability benefits schemes. Next, in Section 5 we consider general equilibrium issues, which have not been discussed in the previous sections. Finally, Section 6 concludes and gives some policy advice for Sweden.

2 Moral hazard in benefits schemes: models and policy

Most countries provide unemployment insurance (UI) because workers have a desire to insure themselves against income risk. This insurance is typically not provided by market parties because of systematic risks (after a sufficiently bad macro shock many workers lose their jobs and the insurance companies would run the risk of going bankrupt). A second reason why the market does not provide this insurance is that workers often have more information about their unemployment risk than firms, and therefore high risk workers are more likely to buy insurance (this is called adverse selection). Another general problem of insuring workers against income risks (whether it is by the state or by the market) is that this induces behavioral responses (moral hazard). Those responses can be desirable, i.e. if workers are strongly risk averse UI benefits may stimulate workers to accept jobs in risky sectors, but they can also be undesirable if unemployed workers do not provide enough effort to find new jobs. The market response to this is to not offer full insurance. In this section, we argue that monitoring unemployed workers can make all workers better off because it allows for more insurance and at the same time stimulates workers to provide more effort.

There exists evidence that countries with generous benefits often have lower reemployment rates. For example, European labor markets, which have high benefits and long entitlement periods, are characterized by long average durations of unemployment.[2] This is not just an association, but there is a convincing empirical literature, which shows the causal effect of the generosity of a benefits program on the duration individuals remain dependent on bene-

[2] This is extensively discussed in Ljungqvist and Sargent (1998) and Bean (1994).

fits.[3] There exists strong evidence that moral hazard problems are more pronounced in more generous benefits schemes. This finding is not specific to UI, and in Section 4.1 we provide empirical evidence of moral hazard in SI/DI benefit programs. Moral hazard problems have been acknowledged by policymakers in the past two decades, and therefore they have become interested in instruments to stimulate reemployment. In most Northern European countries (e.g. Sweden, Denmark, the Netherlands), expenditures on active labor market programs are high.

Before focusing on policies that aim at reducing moral hazard, a first necessary step is to discuss some considerations about setting up a benefits program. Policy makers must typically decide about the initial level of benefits, the entitlement period and the slope at which benefits reduce over time. In order to determine the optimal level of benefits, they must trade off moral hazard incentive effects (i.e. lower search effort, more choosy workers) with the desire to support unemployed and disabled workers. Of course, moral hazard differs between benefit and insurance types. For example, if the degree of disablement is perfectly observable, it is clear that moral hazard is less of an issue than if the insurance administration only has an imperfect measure of the seriousness of the impairments. Another important factor for the trade-off between incentive effects and benefits support is the extent to which workers can save and borrow against future income. If workers have easy access to liquidity either from savings or from loans, optimal benefit levels can be low (particularly for UI).

Recent work emphasizes the importance of separating available liquidity from the insurance aspect. Liquidity is important for consumption smoothing while UI benefits insure workers against long spells of unemployment and clearly those are different issues. Therefore, if workers are identical, risk averse and the environment is stable over time, benefit levels should not be reduced over time (as is the conventional wisdom) because those with the longest unemployment spells are the ones who lose most income. An intuition for this result is that when the trade-off between moral hazard and insurance does not change over time, the associated benefit level should neither change. Of course, if human capital

[3] Lalive (2008) shows that if the entitlement period for UI benefits is extended, then the exit rate to work gets lower. Carling et al. (2001) find for Sweden that a higher level of benefits also reduces the exit rate to work. See also the references mentioned in these papers for further empirical evidence.

depreciates over time or if workers vary in terms of their value of leisure, the insurance-incentive trade-off will change over time for the average worker and it becomes desirable that benefits change as well.

An important limitation of the theoretical literature on dynamic moral hazard problems is that it is often partial in nature (only the behavior of unemployed job seekers is considered). Recently some progress has been made with equilibrium models (taking also firm behavior into account) which focus on the trade-off between high taxes, less jobs and full insurance on the one hand, and low taxes, many jobs and incomplete insurance on the other hand. This literature concludes that UI benefits should be equal to the wage at the moment a worker is fired (for consumption smoothing reasons) and then fall over time (else the worker will not accept jobs). However, these models ignore savings by workers. It is, therefore, not clear to what extent the negative slope is implied by this restriction or by this equilibrium extension.

Another important issue is the financing of the benefits of workers who become unemployment. If this is studied in a static framework, the conclusion is that this should be financed through firing taxes because firms do not internalize society's cost of financing UI benefits. However, in a static model, the job creation problem is absent. In a dynamic model layoff taxes are necessary but firms should also receive job creation subsidies to offset the negative employment effects of those taxes.[4] The considerations above have stimulated the discussion about introducing mandatory saving accounts for workers (as is the case in Singapore) to pay part of the UI or DI benefits. If an individual is short of funds, she can borrow from the government. However, such a system might lead to excessive savings. To sum up, if firing a worker implies a negative externality on society and should be taxed, then for the same reasons hiring should be subsidized. If the administrative costs of those taxes and subsidies are high, it is better to skip both.
Also, the theoretical literature evaluating policy interventions and benefits jointly is still in a very early stage. Models are in most cases partial, while policy interventions might also have general equilibrium effects. We return to these general equilibrium effects in Section 5. If we define optimal policies as policies that maximize the welfare of an unemployed worker, then it depends on the

[4] See for example the matching models in the vein of Mortensen and Pissarides (1994).

benefits received and future income discounted by the rate at which a worker enters employment. When using a mixture of policies, it is crucial that they interact well.[5] For example, a system of sanctions to reduce moral hazard can make all workers better off if it reduces the unemployment duration, increases UI benefits and/or reduces taxes.

Let us consider the following policy instruments: (i) UI benefits conditional on active job search, (ii) monitoring and job search assistance, (iii) low welfare benefits, and (iv) workfare. The differences between the instruments are the effort levels required from the unemployed worker and the costs for the government. If workers lose human capital while unemployed, optimal policies involve switches. For example, if a country chooses high UI benefits, it is optimal to provide monitoring and job search assistance after a few weeks if the worker has not accepted a job yet, and next only provide welfare benefits if the worker still has not found a job. Alternatively, if initial UI benefits are low, it is optimal to offer workfare after a few weeks if the worker has not found a job yet. The conclusion from this discussion is that it is important not only to look at the instruments in isolation but instead take the interaction into account.

[5] See Pavoni et al. (2009).

3 Evidence on policy interventions reducing moral hazard for unemployed workers

In this section, we discuss existing policies to reduce moral hazard for unemployed workers. In most European countries, active labor market policies have been developed since the early 1990s. Many of the early programs were job search assistance and monitoring programs. During the mid 1990s many countries also started investing in training and schooling programs for unemployed workers and subsidized employment programs were introduced. An extensive literature survey indicate that the institutional environment does not seem to be very important for the effectiveness of policy interventions.[6] Below, we provide more insight in those policies, which aim at reducing moral hazard. Studies indicate that such programs are more effective in increasing the exit rate to work than policies trying to improve human capital.[7] We mainly ignore the latter type of policies.

3.1 Job search monitoring and sanctions

3.1.1 Theoretical discussion

As discussed in Section 2, moral hazard implies that unemployed workers devote less effort to job search in the presence of generous benefits. The most straightforward method to reduce moral hazard is thus to require benefit recipients to devote a substantial amount of effort to job search. To make sure that benefit recipients comply with the job search requirements, the benefit agency should have

[6] Kluve (2010) surveys about 100 evaluation studies of active labor market programs in Europe.
[7] See also Card et al. (2009).

the possibility of punishing benefit recipients for noncompliance. This is usually done with sanctions, which temporarily reduce the benefits level. Below we consider job search monitoring and sanctions.

Imposing job search requirements and strict monitoring of the worker's effort usually implies that the worker should increase her level of job search effort. The worker cannot behave as she would have preferred, and she dislikes being on the benefits program more than without the strict monitoring of the job search requirements. To leave the benefits program, the worker is thus willing to accept also less well suited jobs. So strict monitoring of search requirements make the worker search harder and accept more jobs, implying that the exit rate to work increases. A worker might suffer from having to accept a less suited job.[8] This might cause that individuals more often return to unemployment again. However, often on-the-job search is more efficient than job search while being unemployed and it reduces the risk of skill loss. Finding a first less suited job quickly might thus be a stepping-stone towards better suited jobs.

The key assumption for a positive effect of job search monitoring on reemployment, is that the benefits agency is capable of monitoring relevant job search effort. If the benefit administration can only imperfectly monitor job search effort, this substantially reduces the effectiveness of job search monitoring. Benefit recipients will substitute effort from informal search channels (which cannot be monitored) to formal search channels (which are monitored).[9] Job search monitoring is, therefore, ineffective for benefit recipients who would devote much effort to informal search and those are typically unemployed workers with relatively good labor market prospects. The implication is that monitoring might be more effective in stimulating reemployment of more disadvantaged unemployed workers, such as the long-term unemployed and individuals with a relatively large distance to the labor market.

It is obvious that job search monitoring is ineffective without the threat of imposing sanctions. Such punitive benefit reductions can have two effects. First, an *ex-ante effect* implying that if the unemployed worker knows that if she does not comply with the rules of the benefit agency, there is a risk of getting a sanction.

[8] Arni et al. (2009) discuss this issue.
[9] Van den Berg and Van der Klaauw (2006) provide empirical evidence on this substitution effect.

Therefore, many unemployed workers will increase their level of job search effort to reduce the risk of getting a sanction. However, there are still unemployed workers who prefer a low job search effort and being at risk of getting a sanction, over a high level of job search effort and a reduced sanction risk. The level of sanctions should increase rapidly when increasing the minimum required job search effort.[10] If a sanction is imposed on unemployed workers, they not only temporarily face a reduced benefits level, but often also enter a regime of more intensive monitoring. The *ex-post* effect of actually imposing a sanction is caused by unemployed workers increasing their job search effort and reducing their reservation wages. The reemployment rate increases, and this effect is permanent if the more intensive monitoring is important.

To summarize the discussion above, job search monitoring and sanctions increase the level of job search effort. It is often argued that employers will open more vacancies if unemployed workers are searching for work more intensively and are willing to accept more job offers.[11] However, it might be that the additionally created jobs, on average, have a lower quality. One should thus be careful not to increase the job search requirements too much. Thus determining the optimal levels of job search requirements, monitoring and punishments for noncompliance are empirical questions.

3.1.2 Practical implementation of job search monitoring and sanctions

The theoretical discussion above considers sanctions given for lack of job search effort. However, in many OECD countries sanctions are also given for other reasons. This can be unnecessary job loss, unwillingness to participate in active labor market programs, fraud or not providing information, and not accepting suitable job offers. In the Netherlands, sanctions are imposed by a separate department within the UI administration or welfare agency responsible for enforcement. The department starts an investigation and a possible sanction procedure after noncompliance has been reported. Such a report can come from the caseworker of the benefit agency who is responsible for monitoring the behavior of the benefit recipient. However, other organizations can also report noncom-

[10] See Abbring et al. (2005) for a discussion on the potential effects of sanctions.
[11] See Boone et al. (2007) for a more extensive discussion.

pliance to the rules, for example, the public employment office, agencies providing active labor market policies or employers (for example, after refusal of a job offer or unnecessary job loss). In Switzerland the sanction policy is not much different from the Netherlands, with the exception that a sanction is preceded by a warning and thus only the second violation of the rules results in a benefit reduction. In the Netherlands, warnings are only used for minor noncompliance or in case of mitigating circumstances, and are only given once. Furthermore, in Switzerland the sanctions are imposed at a decentralized level, i.e. local offices have discretionary power. In Denmark, it is always the public employment office who reports noncompliance to the UI fund imposing the sanctions.

In the Netherlands, sanctions usually range from a 5 % to 20 % benefit reduction during between 4 and 16 weeks. According to the guidelines, providing information about, for example, sickness late should be punished with a 5 % reduction during 4 weeks and insufficient job search or refusing suitable job offers are punished with a 20 % reduction during 16 weeks. However, there is some discretionary power. In case of mitigating circumstances the reduction may be reduced to half the indicated reduction. Furthermore, in cases of serious fraud, the benefits may be terminated immediately. It is often argued that sanctions are accompanied with a stricter regime of job search monitoring. In Denmark also the possibility to impose short punishments (2–3 days benefit exclusion) exists and constitutes the vast majority of all sanctions imposed.

In the Netherlands, sanctions are imposed during about 10 % of the (starting) welfare spells, and 1.5 % of the recipients receive warnings. In the UI, the sanction rate is slightly higher; during about 12 % of the spells at least one sanction is imposed. It should be stressed that UI benefits spells are, on average, much shorter than welfare benefits spells so the monthly risk of getting a sanction is higher for a UI benefit recipient than for a welfare benefit recipient. The sanction risk in Denmark seems to be much lower, although it should be noted that the system has been made stricter in the last decade, which has increased the incidence rate of sanctions.

The Swedish experience is different. In Sweden monitoring mainly focuses on whether benefit recipients refuse suitable job offers. This does not seem to be optimal because it might discourage unemployed workers from searching harder. In the extreme

case, a benefit recipient not making any job applications will not get any job offers and can thus not be punished for not accepting job offers. Thus benefit recipients who apply to many jobs, but who receive relatively bad offers, will be punished more severely than those who do not apply at all. Therefore, caseworkers should first make sure that benefit recipients apply for jobs sufficiently, and next enforce that benefit recipients accept suitable job offers. The sanction rate in Sweden is much lower than in other European countries, and in contrast to most other countries the sanction rate has not increased in the past decade.[12] An important reason for the low sanction rate is that in Sweden monitoring are performed by caseworkers rather than by a separate department within the benefit agency. Caseworkers might be much more reluctant to impose sanctions, since they also meet regularly with the benefit recipients to assist in job search.

3.1.3 Empirical evidence on job search monitoring

In many countries, job search monitoring is one of the oldest active labor market policies. It involves checking the actual search behavior and it is often provided jointly with advising unemployed workers in their search for work. In various countries there have been randomized experiments to evaluate the effectiveness of such policies.[13] Mixed results are found for the effectiveness of job search monitoring. How can we explain this? The effectiveness of job search monitoring depends strongly on the target population. We discuss this in more detail below.

Job search monitoring usually consists of regular meetings between the caseworker of the benefits administration (or public employment office) and the unemployed workers. During these meetings recent job search effort is evaluated (monitoring) and the unemployed workers are advised in their future job search (counseling). Obviously, if the caseworker detects a lack of job search effort, the unemployed worker should be punished with a temporary reduction of the UI benefits.

In the Netherlands, there have been two experimental studies of the effectiveness of job search monitoring for UI benefits recipi-

[12] See Van den Berg and Vikström (2009) for a recent discussion on Sweden.
[13] See, for example, Gorter and Kalb (1996) and Van den Berg and Van der Klaauw (2006) for the Netherlands, Ashenfelter et al. (2005) and Johnson and Klepinger (1994) for the US, and Dolton and O'Neill (1996) for the UK.

ents. The target population in Gorter and Kalb (1996) contains on average more disadvantaged recipients and also macroeconomic conditions were worse in 1989/1990 compared with 1998/1999. Furthermore, they study an increase of the usual level of monitoring, while Van den Berg and Van der Klaauw (2006) study a decrease of the usual level of monitoring. Gorter and Kalb (1996) find that the effect of counseling and monitoring on the job finding hazard is modest and insignificant for individuals who previously had a permanent contract, and significantly negative for individuals who previously had a temporary contract. They explain this big difference by stating that the aim of counseling and monitoring is to provide unemployed workers with a permanent contract, which might be difficult to obtain for individuals who were previously temporary employed. Furthermore, they find that counseling and monitoring significantly increases the job application rate. Van den Berg and Van der Klaauw (2006) find a very small and insignificantly positive effect of counseling and monitoring on the probability of finding work. Since counseling and monitoring are relatively inexpensive, the benefits, in terms of unpaid UI benefits, are approximately the same as the costs of providing counseling and monitoring.

For the US, Ashenfelter et al. (2005) analyze the effects of a system of more intensive monitoring on labor market outcomes. Three of the four experiments give rise to positive effects on the exit rate to work. But the effects are all insignificant and quantitatively very small. Johnson and Klepinger (1994) find, however, that much stricter job search requirements reduce the time recipients collect UI benefits in the US. Specifically, the requirement of making at least three employer contacts per week reduces the mean duration of unemployment for the treatment group by around three weeks compared with the mean duration in the absence of job search requirements. This requirement is much higher than in the Netherlands (one employer contact per week) and in the programs studied by Ashenfelter et al. (2005).

For the UK, Dolton and O'Neill (1996) consider job search assistance in combination with increased monitoring. Their target population consists of individuals who have been unemployed for six months in the UK in the early 1990s. This implies that it concerns a group of relatively disadvantaged individuals. They find a positive effect on the exit rate to work. Also Manning (2009) finds for the UK positive effects on outflow of tightened search

requirements, but he shows that the increased outflow is not necessarily to work.[14] Another study for the UK finds that during periods without any monitoring reemployment rates are lower.[15]

Meyer (1995) provides a survey of US social experiments concerning job search assistance programs. It turns out that the effect on the exit rate to work increases in the intensity of the assistance. The decrease in the duration of UI dependence ranges from around half a week to more than three weeks. Finally, for Hungary, Micklewright and Nagy (2005) find that stricter monitoring only increases the reemployment of women above 30 years old. This is a group that typically does not devote much effort to job search. A feature of the monitoring in Hungary is that the caseworker also acts as a matching agent who offers suitable vacancies to unemployed workers.

We can conclude that the evidence on the effectiveness of counseling and monitoring is mixed and depends on the state of the business cycle and the design of the programs. Empirical studies often show that it is less effective to monitor unemployed workers with a small distance to the labor market. Monitoring more disadvantaged unemployed workers seems to increase reemployment. The key prediction is thus that monitoring is more efficient in stimulating reemployment of the long-term unemployed and other disadvantaged groups, and has larger effects during recessions. Furthermore, the intensity of the policy is important. Stricter requirements have larger effects, but this may also reduce the quality of the post-unemployment jobs.[16]

3.1.4 Empirical evidence on sanctions

Sanctions exist in many countries.[17] Sanctions are not only given for insufficient job search effort, but can also be the result of other failures to comply with the rules of the benefit agency (e.g. when benefit recipients refuse to participate in a training program). Sanctions are often imposed as temporary reductions in the benefits level. Whereas imposing punitive benefits reductions have been

[14] Manning (2009) studies the program called Job seeker's allowance for welfare recipients.
[15] See McVicar (2008).
[16] See Van den Berg and Van der Klaauw (2010).
[17] See Grubb (1999).

found to have large effects on reemployment rates there is some recent evidence that sanctioned workers suffer in the long-run.[18]

The first studies on the effectiveness of benefits sanctions are from the Netherlands and describe the 1990s.[19] The results show that a sanction increases the transition rate from UI to work of women by about 90 % and about 50 % for men. Imposing a sanction on the transition rate from welfare to work raises the exit rate to work with about 140 %. For illustration, the probability that a young man (25 years old) find work within two years after inflow into welfare is 0.66. A sanction after six months increases this probability to 0.93. For an older man (50 years old) a sanction increases the reemployment probability from 0.29 to 0.54.

For Switzerland a smaller effect of actually imposing sanctions has been found than in both Dutch studies.[20] As mentioned before, there are two important differences between the Swiss and the Dutch policy regime on sanctions. First, in Switzerland there exists a system of warning unemployed workers prior to imposing a sanction. Roughly one third of the warnings are followed by a sanction. The effect of a warning is as large as the effect of actually imposing a sanction. Second, Switzerland has a stricter sanction regime than the Netherlands. Whereas in the Netherlands, the annual sanction rate during a spell of unemployment is below 5 %, in Switzerland, this can be as high as 12 %. In the Netherlands, reemployment rates of sanctioned individuals are often very low and there is much room for increases. In Switzerland, also individuals who already have higher reemployment rates get punished and therefore there is less room for increases in reemployment rates for sanctioned workers. Finally, for Denmark it is found that sanctions increase the reemployment rate by about 50 %.[21]

There are two recent studies on the long-term effects of sanctions.[22] These studies show for Switzerland and Sweden that imposing a sanction reduces the quality of the post-unemployment job (e.g. lower wage, shorter employment duration, fewer hours of work and lower occupational level). The main conclusion from the empirical studies is thus that sanctions do increase the exit rate to

[18] See Abbring et al. (2005), Lalive et al. (2005), Svarer (2007) and Van den Berg et al. (2004) for studies on short-run effects, and Arni et al. (2009) and Van den Berg and Vikström (2009) for studies on long-run effects. All studies use the same non-experimental approach.
[19] Abbring et al. (2005) focus on UI recipients and Van den Berg et al. (2004) study welfare recipients.
[20] See Lalive et al. (2005).
[21] See Svarer (2007).
[22] Arni et al. (2009) and Van den Berg and Vikström (2009).

work. However, this comes at the cost of having worse long-term labor market outcomes.

3.1.5 Reemployment bonuses

Reemployment bonuses usually involve the payment of a lump-sum amount to an unemployment worker who finds work. The idea is that this makes work more attractive and therefore stimulates unemployed workers to devote more effort to job search. Because unemployed workers are also less selective on which job to accept, the reemployment rate increases.

During the 1980s there have been a number of experiments conducted in the US on reemployment bonus schemes. The first experiment was in Illinois (during 1984/1985), and it promised new applicants for UI benefits a cash bonus of $500 for finding work (at least 30 weekly hours) within 11 weeks and keeping the job for at least four months. The results show that the unemployment duration was reduced with approximately one week.[23] Next, in the New Jersey experiment (in 1987) the bonus amount declined during unemployment to zero after 11 weeks.[24] The effect of a bonus on the job finding rate was significantly positive early in the offer period, when the bonus was largest. A comparison between the Illinois and New Jersey experiments shows that the declining bonus offer in New Jersey affected "short-term unemployed" relatively more while the constant bonus offer in Illinois had a substantial impact on "long-term unemployed".[25] The 1988 and 1989 experiments in Pennsylvania and Washington study a number of different amounts and qualification periods and show that more generous bonus offers generated larger impacts than did less generous offers but the overall effects are relatively modest.[26] A permanent bonus program might, however, encourage unemployed workers to file for UI.

The target population in the US reemployment bonus experiments is new applicants for UI benefits. A more recent study for the Netherlands considers long-term welfare recipients.[27] Not only the target population differs, but also the institutional setup. To

[23] See Woodbury and Spiegelman (1987).
[24] See Anderson (1992).
[25] See Decker (1994).
[26] See Decker and O'Leary (1995).
[27] See Van der Klaauw and Van Ours (2010).

avoid having an effect on the inflow, only individuals on welfare for at least 12 months are entitled to receiving a bonus. However, welfare recipients close to collecting benefits for 12 months may anticipate this and reduce job search just before becoming eligible, which might cause a disincentive effect. There is, however, no empirical evidence of any substantial effects of the reemployment bonuses. A possible explanation is that the take-up of the bonuses is low (slightly less than 40 %). A low take-up is not uncommon, in the Illinois reemployment bonus experiment the take-up rate was 54 %.

Reemployment bonus schemes are very much related to in-work cash transfers. The idea of in-work cash transfers is that while being employed, low-income workers receive a temporary cash supplement to their income. An example is the Canadian Self Sufficiency Project, which was introduced in the early 1990s. This subsidy scheme applied to welfare recipients who accepted a full-time job and the payments could last up till three years. Even for long-term welfare recipients the subsidies had a positive effect on employment, but the effects were not permanent.[28]

3.2 Employment programs

There are also other possibilities to reduce the level of moral hazard. First, there are workfare programs, which require benefits recipients to work in jobs with a very low productivity. The latter is to avoid that workfare jobs crowd out regular jobs from the labor market. Because of the type of tasks participants perform, workfare programs are not intended to increase the human capital or skills of benefits recipients. Instead the goal of the programs is mainly to reduce their leisure. The underlying idea is that benefits recipients appreciate leisure, and that restricting their leisure reduces the value of being unemployed. Workfare programs should thus make benefit recipients more prone to accept job offers, and at the same time stimulate them to intensify job search. The risk of workfare programs is that they not only restrict the leisure of the benefit recipients, but also restrict the time they can devote to job search.

It should be noted that workfare programs are widely implemented, mainly in welfare benefits systems. For example, the

[28] See Card and Hyslop (2005).

Netherlands, Germany and the US have extensive workfare programs. The empirical evidence on the effectiveness of workfare programs is, however, very limited.[29] Benefits recipients are more likely to leave the benefits system just before the moment of entering a program.

The main difference between workfare programs and subsidized employment programs or wage subsidies is that such programs aim at increasing human capital by providing work experience in regular jobs. Usually a distinction is made between wage subsidy programs in the private sector and employment programs in the public sector. The goal of wage subsidies in the private sector is to encourage employers to hire additional workers or to maintain jobs that would otherwise be destroyed. Often such programs are targeted at disadvantaged workers, such as long-term unemployed or very low-skilled workers.[30] The empirical evidence shows that subsidized employment programs can be effective in improving the participants' labor market outcomes. However, in the public sector such programs are most often detrimental for the employment probabilities of the participants. The main reason is that the type of jobs created for such programs are often non-regular jobs with no close counterpart in the labor market. Therefore, participants do not obtain any relevant work experience or additional human capital.

[29] Fredriksson and Holmlund (2006) provide an overview of workfare programs, but they mainly point towards substantial threat.
[30] Kluve (2010) summarizes the empirical evidence of such programs.

4 Sickness and disability insurance

The paper so far has mainly considered unemployed workers receiving either UI or welfare benefits. However, in many countries, such as the Scandinavian countries and the Netherlands, sickness and disability benefit schemes are more substantial (both in terms of recipients as well as expenditures). SI and DI programs also suffer from serious moral hazard problems.[31] Whereas policy interventions for unemployment benefits schemes are mainly targeted at stimulating the outflow, it is widely believed that this is not very effective for disability programs. Increasing the exit rate from disability to employment is often assumed to be difficult. Therefore, most policies targeted at sickness and disability programs aim at reducing the inflow. The empirical evidence for policies targeted at sickness and disability programs is much more limited than for unemployment programs.

Below we first discuss the presence of moral hazard in SI and DI programs. In particular, we consider empirical studies on the effect of the generosity of benefits on the number of recipients of the programs. Next, we provide a theoretical discussion on the effectiveness of existing policies in the presence of moral hazard and we give a summary of the empirical evidence. Since most of the existing policies mainly focus on controlling the inflow, in our theoretical considerations we focus on what determines the inflow into SI and DI programs.[32]

Obviously, SI and DI programs differ substantially between countries. In Sweden from the start of work absenteeism the distinction is made between sickness insurance for individuals who are temporary unable to work and disability insurance for permanently disabled workers. Sickness insurance has a waiting period of two

[31] See Bound and Burkhauser (1999) for a survey.
[32] This discussion extends the theoretical framework discussed in De Jong et al. (2010). This model deals with Dutch institutions, but easily fits within the institutions of many other countries.

weeks during which the employer pays benefits (no benefit is paid during the first day of sickness). After this waiting period the Social Insurance Administration continues paying the benefits. Diability insurance does not have a waiting period and benefits are from the start paid by the Social Insurance Administration.

In contrast, in the Netherlands the distinction between temporary and permanent disabilities is not made from the start of the sickness, and the two systems are integrated. During some waiting period of sickness all workers receive sick pay, which is a substantial fraction of the worker's wage. This sick pay is supplied by the employer and the labor contract is only terminated after the waiting period, when a worker enters disability insurance. Currently, the waiting period is two years. The Dutch waiting period is rather long, but most employers insure themselves at the commercial insurance market. For illustration in Germany the waiting period is six weeks, while in Norway it is 16 days.

In Sweden a doctor's certificate is required after seven days of sickness. In Germany this is already the case after three days. In the Netherlands, only after six weeks a doctor from an occupational health service assesses the sickness of the worker and makes a plan for treatment. However, most employers insure themselves for sick pay at commercial insurers, who also provide doctor's visits and early interventions (depending on the contract type).

4.1 Generosity of benefits

Moral hazard problems in SI and DI benefits schemes are likely to be similar to the problems in UI benefits schemes. The theoretical prediction would be that a generous compensation would not induce workers to prevent becoming sick, and would not stimulate sick workers to return to work quickly. The benefits level would thus affect both the incidence and duration of sickness absenteeism. However, the size of moral hazard may be very different between UI, and SI/DI, which might also explain why policies aiming at unemployment programs and sickness and disability programs differ.

The causal effect of the level of benefits on the incidence and duration of sickness absenteeism is informative about the presence of moral hazard in SI and DI benefits schemes. There are a number of relatively recent studies, which exploit reforms in benefits

schemes to estimate the causal effects of benefits on sickness absenteeism. A Swedish reform in 1991 reduced the level of compensation for sick workers from 90 % of the wage to a level of 65 % during the first three days, and 80 % from day four until day 90. This substantially reduced the incidence of sickness absenteeism.[33]

That higher benefits cause more sickness absenteeism is not specific to Sweden. A German reform involved reducing the generosity of sickness benefits.[34] In particular, from October 1996 onwards, mandatory employer compensation during the first six weeks of sickness absenteeism was reduced from 100 % to 80 %. The reform caused a 7.5 % increase in the fraction of employers without any sickness absenteeism. Furthermore, short-term sickness absenteeism was reduced by about 5 %. It should be noted that the reform was the government's response to the belief that the German sick pay system suffered from substantial moral hazard.

A similar effect was found for the US where a reform was studied in which the maximum benefit level for sickness absenteeism was increased.[35] This only affected high-income workers, who could receive up till 50 % extra benefits after the reform. This caused substantially more time-out-of-work among high-income individuals. The empirical evidence thus points towards the presence of moral hazard in SI and DI benefits schemes.

4.2 Potential effects of policy instruments

In this section, we provide a discussion of the potential effects of policy instruments in sickness and disability programs. We focus on insurance programs, either SI or DI, with some waiting period during which the employer is responsible for sick pay. So the discussion should fit most of the European benefit schemes. We keep the discussion relatively general such that it does not apply only to one specific institutional setting. Such an approach is most useful when considering the empirical evidence which deals with different countries.

[33] See Johansson and Palme (2002, 2005). Also Henrekson and Persson (2004) show that in Sweden sickness absenteeism is higher if benefits are more generous.
[34] See Ziebarth and Karlsson (2009).
[35] See Meyer et al. (1995).

When a worker cannot work due to an illness or impairment, the worker's productivity is lost. The legitimacy of the absence is often checked by independent physicians, who can be the GP or a doctor from an occupational health service. It might be clear that a doctor's assessment very early in the sickness spell reduces illegitimate sickness absenteeism. However, this also places a heavy burden on physicians, who must assess a lot of workers returning to their jobs after a short period of sickness.

In most continental European countries sick workers are entitled to receive sick pay, for which the level depends on the worker's wage. Sick pay is often provided by the employer. After some period, the employer stops paying sick pay and the worker enters a DI scheme. We refer to the period of sick pay as the waiting period (before becoming eligible for DI). There are some obvious effects of the length of the waiting period. If the waiting period is long, the financial risks for the employer are larger. A long waiting period will thus discourage employers to use DI as channel to lay off workers. Employers might insure against the risk of sick pay. Commercial insurance companies will (most likely) use experience rating to determine premiums (i.e. the premium level depends on the firm's history of sickness absenteeism). This will, of course, also provide incentives to reduce sickness absenteeism within the firm. Also governments might use experience rating when determining the premiums for DI. Obviously, more premium diversification for DI has the same effect to the employer as extending the length of the waiting period. Employers with high inflow rates have higher costs.

The empirical evidence discussed in the previous section showed that less generous benefits schemes reduce sickness absenteeism. Employers also have an incentive to avoid that workers become sick. Sick workers are not productive for the firm, while employers are responsible for sick pay. However, in some cases, it is more attractive to lay off a worker using DI. Often DI benefits are more generous than UI benefits, individuals have fewer (job search) requirements, and entry requirements are often less strict. Therefore, in the past, employers have used DI as lay-off channel, for example as an alternative to early retirement. This indicates that there is substitution between the inflow into different social insurance programs.[36]

[36] The substitution between DI and UI is studied by Larsson (2006) and Riphahn (1997) for Sweden and Germany, respectively.

During the waiting period of sickness absenteeism, employers are obliged to organize reintegration activities and workplace accommodations. The goal of these activities is that the individual returns either to her old job or to an alternative job. In the Dutch case the DI agency screens if the employer has provided sufficient reintegration activities. This screening is done when the sick worker applies for DI benefits towards the end of the waiting period. If according to the DI administration the employer did not offer the minimum requirements, the DI administration can impose a sanction on the employer. The probability of getting a sanction, and the size of the sanction, increases with the extent of noncompliance.

Reintegration efforts are, of course, costly to employers. Employers choose their reintegration activities such that marginal costs equal marginal returns. The returns to reintegration activities are not only reduced threats of getting a sanction, but if reintegration activities are effective, also a higher probability of earlier work resumption and hence reduced sick pay. If optimal reintegration effort already exceeds the minimum requirements imposed by the DI administration, the employer's behavior will not change. However, if optimal effort is below the minimum requirements, imposing minimum requirements increases reintegration activities. If such activities are effective, it increases work resumptions rates during sickness absenteeism and DI application rates decrease. This is a *direct effect* of a screening policy of DI applications.

Imposing minimum reintegration requirements and screening also has an *indirect effect*. It reduces the attractiveness of the DI program to potential applicants and triggers a mechanism of self-selection or self-screening. The decision to start a DI application process involves a comparison of expected utilities of alternatives, such as unemployment, early retirement and continuing work. Screening reintegration requirements increases the costs of applying for a DI benefit. Self-screening means that potential applicants who think that their DI application does not meet the eligibility requirements choose not to apply for the program. Obviously, indirect effects due to self-screening can also arise because of other policy instruments which reduce the attractiveness of a sickness and disability program.

4.3 Legitimacy of Sickness Absenteeism

In most countries the legitimacy of sickness absenteeism is checked by an independent physician. This can either be a GP or a doctor from an occupational health service contracted by the employer. Of course, the timing of the doctor's assessment might be important. Checking early in the sickness spell is costly because it involves many sick workers, while checking late might increase moral hazard problems. The empirical evidence on this topic is mainly from the Scandinavian countries.

In 1988, a social experiment was conducted in Sweden.[37] The first formal legitimacy check of sickness absenteeism was postponed from eight days to 15 days. The experiment involved true randomization. No effects were found on the incidence of sickness absenteeism, but substantial effects on duration, i.e. the average duration of a sickness spell increased about 6.6 %. In particular, just before requiring the doctor's certificate, recovery rates increased. The complete increase in additional sickness absenteeism took place within the first 15 days. After both groups had visited the doctor, there was no difference between both groups anymore. Moreover, from a cost-benefit perspective, the experiment was not very favorable, the costs of the additional sick pay exceeded the benefits of having to provide fewer doctor's certificates.

Also Norwegian evidence shows that doctors can play an important role in reducing sick pay.[38] A Norwegian reform in 2004 involved that physicians should promote "remaining active" as treatment. This implies that workers should remain doing their job unless their medical status makes this impossible. Physicians should thus encourage (part-time) work rather than sick leave. The main empirical result is that this reform caused a very substantial reduction of 23 % in sick leave. It should be noted that in Norway certification by a physician is already required after three days of sickness.

In Norway primary care physicians are responsible for assessing the legitimacy of sickness absenteeism. There may be a tension between their healing duties and the gatekeeper role. Both short and long sick leaves may be granted at the request of the individuals, since primary care physicians may give more priority to healing than to gatekeeping. This points towards separating these tasks, as

[37] See Hesselius et al. (2005).
[38] See Markussen (2010).

is, for example, the case in the Netherlands where the GP is responsible for healing while doctors from occupational health services are responsible for managing sickness absenteeism.

4.4 Experience rating of insurance premiums

In the Netherlands, experience rating has been gradually introduced since 1998. Experience rating implies that if an employee is awarded a disability benefit, the firm faces a higher premium to the DI fund, and vice versa if a firm employs a disability beneficiary the level of premiums to the DI fund is reduced. This has been analyzed on a unique longitudinal data set consisting of the Dutch DI administration records.[39] The data cover about 370,000 firms, employing roughly six million insured workers. These firms were followed over a three year period, from 2000 till 2002. The overall picture that emerges from the empirical analysis is that the impact of experience rating on the DI inflow has been substantial. After one year the inflow into DI had already decreased with 15%, mainly because employers increased their preventive activities in reaction to an increase in their premium rates ('ex post incentives'). As far as we are aware this is the only paper considering experience rating of DI premiums.

4.5 Extending the waiting period of sickness absenteeism

A longer waiting period could also be considered as a type of experience rating. There are, as far as we know, no empirical evaluation studies of the effect of extending the waiting period. In the Netherlands, the waiting period was extended from one year to two years in 2005. This meant that there was no inflow into DI in 2005. Between 2004 and 2006 the inflow into the Dutch DI dropped with 50 %. However, it is difficult to isolate the effect from extending the waiting period from business cycle effects and other institutional changes. The extension of the waiting period was accompanied other changes. In particular, the entry requirements for the new scheme were stricter than for the old scheme. Of course, this also has an effect on the inflow.

[39] See Koning (2004).

4.6 Empirical evidence on screening

In the Netherlands a so-called gatekeeper protocol was introduced in April 2002. This protocol included screening of DI applications. The screening focused on reintegration activities provided by employers during the period of sickness absenteeism. This shifted responsibilities for reintegration activities from the DI administration to the employers. Between 2002 and 2004 the inflow into DI was reduced by 40 %. About half of this reduction can be attributed to the introduction of the gatekeeper protocol.[40] Three other factors which helped reduce the inflow were: (i) In 2003 the experience rating in DI premiums paid by the employers became fully 'biting', (ii) between 2002 and 2004 the Dutch economy experienced a downturn, which reduced sickness absenteeism, and (iii) the generosity of the DI program was reduced.

At the moment of the introduction of the gatekeeper protocol an experiment was conducted to investigate the importance of the degree of screening of DI applications. In particular, in two Dutch regions a stricter screening regime for DI applications was implemented. The case workers in these two regions spent on average 9.4 % additional time on each DI application. To control for existing differences between regions, difference-in-differences estimation is used. The outcomes of stricter screening cannot be a reason for a denial of a DI application. It can only lead to a sanction to the employer or the worker. A sanction to the employer implies that the waiting period of sickness absenteeism before entering DI is extended with a few months. During this period, the employer has to continue paying the salary of the sick worker. If the sanction is given to the worker, the worker receives only reduced benefits during the first few months of DI.

The empirical results show that this regime of stricter screening reduces the number of DI applications.[41] In particular, due to the stricter screening significantly less workers report to be sick. If stricter screening would be applied nationwide, the number of sickness absenteeism reports would be reduced by 5.2 %, and DI applications by 4.8 %. A cost-benefit analysis shows that the costs of additional screening are negligible compared to the reduction in DI benefit payments due to the lower inflow into disability insurance. In particular, the DI administration can save over 60 million

[40] See De Jong (2009).
[41] See De Jong et al. (2010).

euro annually by implementing stricter screening. It should be noted that the reduction in DI applications did not increase the inflow into UI.

The stricter screening thus also reduced sickness absenteeism, which seems mainly the result of increased self-screening of potential DI applicants. There is a substantial literature about self-selection and disincentive effects from the US.[42] This literature shows that increased denial rates for applications induce a mechanism of self-selection of potential applicants.

[42] E.g. Autor and Duggan (2003), Gruber (2000), Gruber and Kubik (1997) and Parsons (1991).

5 Interaction effects

5.1 Interaction between benefit programs

It is likely that benefit programs interact with each other. As already mentioned in Section 4.2, changing the entitlement rules for SI/DI might affect the inflow into UI. If an employer decides to lay-off a worker, the employer and worker may choose the benefits program which is most generous and easily accessible. Therefore, SI/DI programs may contain some hidden unemployment[43] Once it becomes more difficult to enter SI/DI, the employer and worker can decide to apply for UI rather than SI/DI.

There are very few empirical studies on the interaction between benefits programs. For the Netherlands the stricter screening of DI applications, which reduced both DI applications and long-term sickness absenteeism, did not increase the inflow into UI. This suggests that at that margin there is no spillover between DI and UI. There is, however, also Dutch evidence that 3 % of all dismissals take place through DI.[44] This implies that about 25 % of all DI enrolment consists of hidden unemployment. No evidence is reported for reverse substitution, i.e. disabled workers entering UI.

For Sweden empirical evidence suggests that there exists a strong substitution between SI/DI and UI.[45] In Sweden, unemployed workers who could receive sickness benefits at a higher level than UI benefits tend to apply for sickness benefits. This thus generates some hidden unemployment in SI/DI and may also be a source of moral hazard (behavioral changes) in SI/DI programs. For Germany no strong evidence in favor of substitution between disability pensions and unemployment for older workers is found.[46] The two pathways out of the labor market show similarities, but

[43] See Autor and Duggan (2003) for evidence for the US.
[44] See Koning and Van Vuuren (2007).
[45] See Hall and Hartman (2009) and Larsson (2006).
[46] See Riphahn (1997).

some indicators such as individual health and aggregate unemployment have clearly different effects on both pathways. For the US, the evidence suggests that the disability program contains hidden unemployment.

5.2 Macro effects and spillover effects

As we discussed in Section 3, most policies for unemployed workers aim at increasing the search effort either by using ”carrot” type instruments (i.e. counseling, reemployment wage bonuses) or “stick” type instruments (i.e. sanctions). So far, we have ignored possible influences from the treatment group to the control group (negative) and to the employers (positive). If, for example, a particular policy helps the treated workers to find jobs but this happens at the expense of the not-treated workers, the treatment is not desirable but this would be missed if we only look at partial treatment effects. In this section we ask how macro (general equilibrium) effects may change our conclusions. This requires stronger assumptions but conditional on those assumptions it allows for a cost-benefit analysis at the aggregate level.

Workers can only apply to a limited number of vacancies and therefore they cannot be too choosy. However, when accepting an imperfect match, it might be that the job may fit better to another worker and the worker is no longer available for jobs that fit better. UI benefits can prevent workers from taking bad jobs and make them choosier. The policies to reduce moral hazard that we discussed before in Section 2 can have potentially harmful effects since they make workers less rather than more choosy. Of course, the more efficient on-the-job search is, the less costly it is if workers accept bad job offers.

The literature on optimal participation and search intensity is also relevant. Long spells of unemployment may cause skill loss, demotivate or stigmatize workers resulting in workers leaving the labor force. In a recent Dutch study the socially optimal job search effort is derived. The study indicates that too few workers participate in the labor market, but that some unemployed workers actually search too much. This is due to coordination frictions (each additional application creates congestion for the other unemployed workers) and workers do not only search hard to find a job but

also to find the highest possible wage. Again, UI benefits (conditional on search) are desirable to stimulate participation.

Finally, introducing sanctions for benefit recipients has a downward effect on wages because it makes the non-employment state less attractive. This in turn, makes it more attractive to open vacancies and has additional positive employment effects.

6 Conclusions

In this report, we have provided empirical evidence that social insurance programs for unemployment, sickness and disability, are likely to suffer from serious moral hazard problems. Moral hazard implies that generous benefits increase the take-up of such benefits. The benefits systems in Sweden are quite generous. In particular, entitlement periods of UI benefits are long. The replacement rates are relatively high, but capped at a relatively low daily maximum. So replacement rates are high for low-income people and low for high-income people.

We have also discussed a series of policies which can potentially offset the implications of the moral hazard problems both for unemployment benefits and sickness and disability benefits. Empirical results show that many of these policies are quite successful. This implies that such policies can be used to combine a relatively generous social insurance system with high labor force participation.

Before discussing which policies might be incorporated in the Swedish institutions, it is useful to first briefly look at the Swedish labor market outcomes. From our own work and the literature on policy interventions, we know that heterogeneity is extremely important. The first step is therefore to identify in which groups, labor force participation is relatively low in Sweden. Sweden has high labor force participation rates, particularly among older workers and women. The latter might be explained by the tax system and the generous child care subsidies. Swedish income taxes are high but individual rather than household based which seems important in stimulating labor force participation.

Youth unemployment rates are fairly high is Sweden. Whereas many countries use policies such as strict monitoring and imposing sanctions to stimulate reemployment, Sweden relies more on providing training programs and job search assistance. For young

workers, strict monitoring with a serious threat of getting a sanction for insufficient job search effort might be more effective. To incorporate such policies in the Swedish institutions, it would be useful to have within the unemployment insurance administrations separate departments which are responsible for punishing unemployed workers for noncompliance to the guidelines. In Sweden, monitoring mainly focuses on whether benefit recipients refuse suitable job offers. This does not seem to be optimal because it might discourage unemployed workers from searching harder. Thus benefit recipients who apply to many jobs, but who receive relatively bad offers, will be punished more severely than those who do not apply at all. Therefore, caseworkers should first make sure that benefit recipients apply for jobs sufficiently, and next enforce that benefit recipients accept suitable job offers.

In Sweden entitlement to unemployment insurance benefits is conditional on membership in an unemployment insurance fund. Membership rates have traditionally been high, but are declining. This may cause adverse selection problems, i.e. workers with high unemployment risks become members, while workers with low unemployment risks will not become members. This may result in increasing premiums, which may cause even further declines in membership rates. There are clear benefits of having unemployment insurance. Therefore, if the decline in membership rates continues, it might be useful to change the system to a nationwide mandatory unemployment insurance system. Like in the Netherlands, Sweden has started privatizing the market for active labor market programs. The details of such a market are very important, for example, reserving a fixed budget for active labor market policies does not create incentives to invest only in the most effective programs. So, the cost-benefit element should always be taken into account when deciding about providing active labor market programs to unemployed workers.

Sweden currently has a very high rate of sickness absenteeism, which is largely explained by very high long-term sickness absenteeism. In particular, the inflow of young workers is high. Compared with other countries, the Swedish sickness insurance and disability insurance system does not contain many incentives and employer responsibility is rather low. The international evidence shows that stimulating the outflow from disability insurance programs is difficult, therefore, one should focus on the inflow. Financial incentives are very useful in reducing the inflow. In particular,

one may consider extending the waiting period or the period the employer is responsible for sick pay, experience rating for employers with large sickness absenteeism and sanctions for employers who do not prevent inflow into disability insurance sufficiently.

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