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An Evaluation of German Active Labor Market Policies and its Entrepreneurship Promotion

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Abstract

This paper reviews the results of studies that investigate the most important active labour market policy (ALMP) measures in Germany. A particular focus is on programs devoted to foster entrepreneurship which can make important contributions to a country's growth and social welfare. The available evidence suggests that most ALMP measures increase labour market prospects of the participants. Evaluations of the entrepreneurship promotion activities show high success rates as well as high cost efficiency. The bulk share of participants of entrepreneurship measures is still self-employed after several years and nearly one third of these businesses had at least one employee. We mention problems regarding the evaluation of previous programs and highlight future challenges of German ALMP.

Keywords: Active labour market policy, evaluations, effectiveness, entrepreneurship

JEL classification: J08, J64, J68, L26

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List of Abbreviations

ALMP	Active labor market policy
BA	Bridging allowance
GDP	Gross Domestic Product
NSUS	New start-up subsidy
OECD	Organization for Economic Cooperation and Development
SC	Social Code (“Sozialgesetzbuch”)
SUS	Start-up subsidy
UB I	Unemployment benefit I
UB II	Unemployment benefit II

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Executive Summary

1. The aims of this study are:
   - To review and discuss the measures of the German active labour market policy (ALMP) with a special focus on programs that aim to improve self-employment (section 3 and 5).
   - To report and compare the results of the available studies that investigate and evaluate the most important German ALMP measures at the micro and macro level (section 5 and 6).
   - To highlight future challenges of the German ALMP (section 7).
2. Entrepreneurship can make important contributions to a country's growth and social welfare. Entrepreneurial activities not only refer to the exploration of new opportunities, but also to individuals who become self-employed out of necessity (necessity entrepreneurs) and contribute to a country's economy by creating economic value, decreasing the unemployment level, and by generating new jobs.
3. The empirical evaluations show that most ALMP measures increase labour market prospects. It has also been shown, however, that a few measures lead to a decrease in the probability of an individual becoming integrated into the labour market.
4. Micro level evaluations show that ALMP measures generate positive effects only for specific groups of unemployed individuals, specifically, elderly unemployed individuals or unemployed worker with placement obstacles. Certain inappropriate measures actually lower labour market prospects. Therefore, there is a need to improve the targeting of the instruments.

Table 11: Micro level analyses – Bridging allowance and start-up subsidy

Author(s)	*Observation period*	*Main results*
Baumgartner and Caliendo (2008)	- Third quarter of 2003 - 28 months	- Both measures exhibit high survival rates and show positive lock-in effects, since being self-employed reduces incentives to search for free vacancies in dependent employment. Participation decreases the probability of unemployment after 28 months by 27% (BA participants) and by 28.2% (SUS participants), respectively. - SUS male (female) participants spend 12.2 (9.7) months less unemployed than non-participants. The effect for BA participants is slightly lower. Hence, BA male (female) participants are unemployed on average 8.6 (9.1) months less throughout the year than non-participants. - SUS male (female) participants earn on average 600 (290) Euros per month more and BA male participants earn about 770 Euros per month more than non-participants.
Caliendo and Kritikos (2009)	- Years 2005 and 2006 - 5 Years	- BA and SUS are both highly efficient measures. 70% (BA) and 60% (SUS) of the participants remain self-employed after 5 years. - 20% of BA and SUS participants have a regular job after 5 years. - 23% of subsidized start-ups create on average between 2.8 to 4.2 additional jobs after 2.5 years. - The ALMP measure BA is monetarily efficient, whereas the SUS is not. However, compared to other ALMP measures, SUS is still affordable.
Caliendo and Kritikos (2010)	- Year 2003 - 2.5 years	- Relatively high survival rates of founders for both ALMP measures (around 70%). - BA participants are higher qualified than SUS participants. - Men and BA participants in general invest more into their own business as compared to women and SUS participants. 50% of the SUS participants, and 35% of the BA participants, have no start-up capital. - Between 8 and 17% of the participants (differences between program and gender) found a regular job, and only 8 to 15% were unemployed again after 2.5 years. - About 30-40% of the BA participants create on average three full-time equivalent jobs after five years and 20% of the SUS participants create 1.5 full-time equivalent jobs.

Notes: see Table 4.

Although the two programs attract different groups of unemployed individuals, some general similarities are shared. Overall, around 50 percent of the observed participants had general or specialized secondary schooling. Most business founders are between 30 and 40 years old. Further, 72 percent of BA and SUS participants are male. Personal income increased for all program participants. Recipients of the BA, however, are more likely to expand their business faster, have a higher income and create more jobs than SUS participants. The most attractive business sector for male participants in both BA and SUS is the construction sector (around 12 percent) followed by crafts. Female participants prefer “other services” (around 60 percent) (Caliendo and Kritikos 2010). A majority of female participants establish small businesses without employees and prefer the SUS program (see Table 11). A possible explanation is that women tend to be more risk averse and consequently prefer the extended financial support provided by SUS. This eases the stress of survival during the initial periods of self-employment and makes SUS more attractive for risk averse unemployed individuals (Caliendo and Kritkos 2010; Heyer et al. 2012). The number of female participants grew substantially after SUS was introduced.

In 2006, both entrepreneurship measure (BA and SUS) were replaced by the new start-up subsidy (NSUS). The NSUS is an effective tool in helping unemployed individuals reintegrate into the labour market. However, only a few studies exist that evaluate this ALMP measure, and little is known about its long-run effectiveness (see Table 12). The initial results indicate that NSUS is highly successful and able to sustainably integrate unemployed persons into the labour market. The survival rates of the funded businesses are higher than the former measures (around 80 percent). This is a good indicator of the effectiveness and the importance of the start-up promotion program. However, a longer average funding period leads to an overall decrease of the cost effectiveness of NSUS (Caliendo and Kritikos 2009; Caliendo et al. 2012; Caliendo, Künn and Weißenberger 2016).

Table 12: Micro level analyses – New start-up subsidy

Author(s)	*Observation period*	*Main results*
Caliendo and Kritikos (2009)	- 2007 - 12 months	- Participants have a higher probability to remain self-employed or to be in a salaried job than non-participating unemployed individuals. - Target group of participants is nearly equal to BA participants. - 60 % of the participants were short-term unemployed persons. - Risk averse unemployed persons with lower qualifications have a lower probability to take part in the new program. Compared to the former measures, the average qualification increases due to the kind of selection bias.
Caliendo et al. (2012)	- Year 2009 - 6, 19 months	- The majority of the evaluated start-ups are solo entrepreneurs. - 75 to 84% of participants remain self-employed or switch into a regular salaried job. - Female participants mostly become self-employed for necessity reasons. - A considerable share of participants use the firms as a supplementary income. - On average, each firm creates between 1.6 and 1.8 full-time jobs after 19 months. - Male participants create slightly more jobs than female participants. - Only 19% of the participants would have founded a firm without any funding (deadweight effect is quite low). - Start-up funding is highly important for firm survival during the first six months.
Caliendo et al. (2015)	- Year 2009 - 19 months	- 80.7 % of subsidized business founders remain self-employed as compared to 72.6 % in the case of business founders out of regular employment. - Subsidies during the founding period compensate for initial disadvantages arising from unemployment such as special problems of obtaining financial resources (discrimination on the credit market). - Non-subsidized business founders have higher earnings than subsidized business founders. - Only 36.1% of previously subsidized business owners employ on average three full-time equivalent workers, compared to 56.5 % of regular business founders who employ on average 6 full-time equivalent workers.

Table 12: Micro level analyses – New start-up subsidy (*continued*)

Author(s)	*Observation period*	*Main results*
Caliendo, Künn, and Weißenberger (2016)	- Year 2009 - 20 to 40 months	- 77 (69) % of men (women) are still self-employed after two years - The new ALMP measure is less attractive for women because they earn less and have stronger family commitments compared to men. - Attendance has a positive impact on individual income. - After 40 months, 40 (30-35) % of the male (female) participants create on average 3.6 (2.4) full-time equivalent jobs.

Notes: see Table 4.

After a significant increase in the number of participants from 2006 to 2011 (see Figure 3), the content and participation requirements of NSUS changed in an effort to address deadweight effects and save financial resources (Bundesrat 168/15). Consequently there has been a significant decline in the number of participants. The new participation requirements classify UB II receivers as having a discretionary claim. Thus, the final decision on whether or not a person qualifies for participation in the program depends on the evaluation of the local unemployment agency. The decision is based on several criteria including a positively evaluated business plan and participation in preparatory courses (see section 3.4 and Table 2). In addition, the measure's duration was shortened (from 9 to six months).

The shortened duration and stricter restrictions of NSUS not only led to a significant decline in the number of participants, it changed the participant profile. NSUS is less attractive for risk averse unemployed individuals, and initial evaluations indicate that the average age and qualification level of participants has increased (Caliendo and Kritikos 2009). The higher average qualification level of the NSUS participants is a sort of positive selection and might explain why the survival rate is higher for NSUS compared to the two former programs (Caliendo et al. 2012; Caliendo, Künn and Weißenberger 2016). NSUS participants have similar characteristics when compared to participants of the BA. However, the general purpose of entrepreneurship subsi-

dies is to decrease the barriers of starting a firm for a wide range of unemployed individuals. Since the new measure attracts only a select group of unemployed people, it does not achieve this goal. Hence, NSUS should be adjusted to increase its attractiveness for a broader range of unemployed persons, like former SUS participants.

Overall, start-up subsidies matter. The BA and SUS can be regarded as successful ALMP measures due to their high effectiveness and efficiency. NSUS, which started in 2006, exhibits similar positive effects, but long-term evaluations are still lacking. Although a direct comparison between start-up subsidy programs and other types of ALMP measures is not possible,[6] start-up subsidies appear to be the most promising type of program. No other ALMP measure increases the labour market prospects of participants to the same extent. The survival rates of these subsidized start-ups are extremely high and exceed, in some cases, the survival rates of non-subsidized new businesses. This might be explained by the monthly payments granted by the program. It may also be, however, that formerly unemployed business founders have only minor opportunities to switch into a salaried job and, therefore, prefer to stay self-employed instead of being unemployed (Poschke 2012). Further, only start-up promotion measures are able to decrease the level of unemployment and foster the creation of additional jobs after a certain time (double dividend).

6. Macro level analyses: What is the active labour market policies' aggregated impact on the economy?

Over the last decades, the expenditures on ALMP measures in Germany exhibit an above-average increase compared to other European and OECD countries (Bohlinger 2007; Caliendo and Hogenacker 2012). This trend has led to an increased need for macro level evaluations of their effectiveness. A

[6] Since participants in an entrepreneurship program have to found a firm, they are therefore employed. In other ALMP programs, unemployed are hopefully employed when the program expires.

macro perspective is needed because ALMP measures might exhibit positive results at the micro level, but only at the costs of the non-participants (Layard, Nickell and Jackman et al. 1991; Hujer, Caliendo and Zeiss 2004; Bohlinger 2007). As already mentioned in section 4, macro level analyses focus on the net gain of ALMP measures by taking non-participants into account, including any spillover effects (Hujer, Caliendo and Zeiss 2004).

Any macro level evaluation, however, is confronted with a number of critical challenges. The first challenge is a lack of reliable data (Hujer, Caliendo and Zeiss 2004). Data limitations restrict the researcher's ability to estimate the direct effect of ALMP measures on the matching process, employment, and the wage rate. Another challenge confounding accurate evaluations at the macro level are political reforms that lead to changes in a measure's magnitude and content (e.g. its claim and duration), such as the Hartz reforms. The impact of these adjusted measures can only be analysed after a certain period of time, and thus, an evaluation of these political changes can only be done ex post (Bohlinger 2007).These critical obstacles have led to a paucity of aggregate evaluations (Hujer, Caliendo and Zeiss 2004; Hujer et al. 2005; Heyer et al. 2012).[7]

Most of the following macro level studies followed Calmfors and Skedinger's (1995) strategy of analysing the effect of ALMP measures on both the unemployment level and the job seeker rate (which also includes non-participants into the labour market). Public job creation I was frequently evaluated at the macro level (see Table 13). The results and findings range from negative to positive effects in the short and the long-run depending on the observed cohort of unemployed individuals. Following the most recent evaluation studies, public job creation I has only a slight positive effect in the long-run (Fertig et al. 2006a, b; Hujer et al. 2005). Hujer, Caliendo and Thomsen (2004) argue that the measure's weak effect can be explained by lock-in

[7] At the aggregated level, ALMP measures are not distinguished according to their sub-measures.

Table 13: Macro level analyses – Public job creation I

Author(s)	*Observation period*	*Main results*
Büttner and Prey (1998)	- Years 1986 to 1993 - 74 planning regions in West Germany	Public job creation I leads to a decrease of structural unemployment.
Schmidt, Speckesser and Hilber (2000)	- Years 1994 to 1997 - 142 local labour districts	The measure reduces long-term unemployment, but only in the short-term.
Hagen and Steiner (2001)	- Years 1990 to 1999 - West and East Germany	Public job creation I leads to a significant increase of the unemployment rate.
Hujer, Caliendo and Thomsen (2004)	- Feb 2000 – Dec 2002 - West and East Germany	- Strong lock-in effects during participation. - Public job creation I has no effect on the labour market prospects of participants. - The program should be substantially revised: shorter duration, stricter concentration on specific target groups, and more qualification elements to increase participant's skill level.
Hujer, Caliendo and Zeiss (2004)	- Years 1999 to 2001 - 175 German labour office districts	- In West Germany, public job creation I is only able to improve the situation on the labour market in the short-run. - In East Germany, public job creation I does not effect on the job seeker rate.
Hujer et al. (2005)	- Years 1999 to 2001 - 175 labour office districts	- In West Germany, public job creation I shows a negative effect on the job seeker rate in the short but not in the long-run. - In East Germany, public job creation I decreases unemployment in the short and the long-run, but the effect is not statistically significant.
Fertig, Kluve and Schmidt (2006)	- Years 2000 to 2004 - 91 regional labour market districts	Public job creation I decreases long-term unemployment only slightly.
Hujer, Rodriguez and Wolff (2009)	- Years 2003 to 2005 - 141 local employment districts	Public job creation I has no significant effect on the reduction of unemployment.

Notes: see Table 4.

effects that lead to a decreasing employability. Shorter program duration, more skill-enhancing elements, and a stricter concentration on specific target groups, like young unemployed persons, could lead to an improvement of the outcome. Since most evaluation studies found insignificant impacts on the unemployment level, it is not surprising that the program was not continued after 2012 (Wunsch and Lechner 2008).

Table 14: Macro level analyses – Vocational training programs

Author(s)	*Observation period*	*Main results*
Büttner and Prey (1998)	- Years 1986 to 1993 - 74 planning regions in West Germany	Vocational training programs have no effect on labour market efficiency.
Schmidt, Speckesser and Hilber (2000)	- Years 1994 to 1997 - 142 local labour districts	Vocational training programs reduce structural unemployment in the long-run.
Hagen and Steiner (2001)	- Years 1990 to 1999 - West and East Germany	Vocational training programs increase the unemployment rate significantly.
Hujer, Caliendo and Zeiss (2004)	- Years 1999 to 2001 - 175 labour office districts	- In West Germany, vocational training decreases the unemployment rate. This effect becomes stronger over time. - In East Germany, vocational training has an only minor effect on the unemployment level.
Hujer et al. (2005)	- Years 1999 to 2001 - 175 labour office districts	- In West Germany, vocational training has a permanent negative effect on the job seeker rate. - In East Germany, the effect of vocational training programs on the job seeker rate is positive but insignificant.
Hujer, Rodriguez and Wolf (2009)	- Years 2003 to 2005 - 141 local employment districts	Vocational training programs have no significant effect on the unemployment level.
Lechner and Wunsch (2009)	- Years 1986 to 1995	Measure is able to decrease the unemployment rate over time.

Note: see Table 4.

The results of the macro evaluation on vocational training programs are inconclusive (see Table 14). While some evaluation studies exhibit that vocational training programs are able to decrease structural unemployment (see, e.g., Schmidt, Speckesser and Hilber 2000; Lechner and Wunsch 2009), other evaluation studies show that this measures has no effect or might even increase the unemployment rate (see e.g. Büttner and Prey 1998; Hagen and Steiner 2001; Hujer, Rodriguez and Wolf 2009). No clear results regarding differences in East and West Germany were found either. Furthermore, the results are rather sensitive to the method used (Hujer, Caliendo and Zeiss 2004; Hujer et al. 2005).

Table 15: Macro level analyses – Structural adjustment program

Author(s)	*Observation period*	*Main results*
Hagen and Steiner (2001)	- Years 1990 to 1999 - West and East Germany	Structural adjustment schemes contribute to a decrease of the unemployment rate in East Germany.
Hujer, Caliendo and Zeiss (2004)	- Years 1999 to 2001	In East Germany, structural adjustment schemes lead to a decreasing unemployment level.
Hujer et al. (2005)	- Years 1999 to 2001 - 175 labour office districts	In East Germany, structural adjustment schemes show a significantly negative impact on the job seeker rate in the long-run.

Notes: see Table 4.

Structural adjustment schemes are mostly used in East Germany. The evaluation studies summarized in Table 15 show that the measure has a decreasing effect on the unemployment rate in East Germany in the long-run. Due to the low number of West German participants, no evaluations for the measure's impact on the unemployment level in West Germany exist (Hagen and Steiner 2001, Hujer, Caliendo and Zeiss 2004; Hujer et al. 2005).

The macro level evaluations of short-term measures are inconclusive. The findings of Hujer and Zeiss (2006) are positive, whereas Hujer, Rodriguez, and Wolf (2009) found no effect of these measures.

The impact of the Hartz reforms on the German ALMP was evaluated by Fertig, Kluve, and Schmidt (2006) and Fahr and Sunde (2009). The studies investigate the impact of the Hartz reforms on the efficiency of the matching process. These results are also highly inconclusive. The study by Fertig, Kluve, and Schmidt (2006) shows that the Hartz reforms led to a decreasing efficiency of some sub-instruments of ALMP like short-term measures, whereas the results of Fahr and Sunde (2009) indicate that the reforms accelerated the matching process. The differences might be explained by the shorter period of time taken into consideration by the assessment of Fahr and Sunde (2009). Fahr and Sunde (2009) investigated the political reforms of 2003 and 2004 (Hartz reforms III and IV), while Fertig, Kluve and Schmidt (2006) investigated the impact of the political reforms from 2000 to 2004 (Hartz reforms I to IV). Fahr and Sunde (2009) justify their focus on a shorter time period by pointing to the fundamental change in the Federal Employment Agency's dataset with regard to computing the outflow of unemployment into employment.

The ambiguity of the results on the effectiveness of ALMP measures may have diverse reasons. First, different datasets were used in all of the studies. Second, because the evaluation studies focus on different periods of time, their results may be affected by critical and time sensitive changes in ALMP measures. Third, the empirical methodology used, namely the way of matching participants and non-participants, has a tremendous effect on the results (Calmfors and Skedinger 1995) and can be viewed as a major reason why these studies lead to different findings. The use of different specifications for the empirical analysis may result from the fact that ALMP measures are usually designed to impact a specific group of unemployed individuals. Hence, they are likely to have only a marginal effect in the whole economy.

The discussion in this section illustrates that, in most cases, ALMP is partly able to decrease the level of unemployment and have a positive effect on the labour market matching process, subsequently increasing the level of employment (Layard, Nickell and Jackman 1991; Calmfors, Forslund, and

Hemstrom 2002; Hujer, Caliendo, and Zeiss 2004; Bohlinger 2007). It is important to remember that macro level evaluations analyse the aggregate impact of ALMP programs, including the impact on non-participants. Thus, a positive result connotes that the degree of benefits received by participants is high enough to compensate for the possible disadvantages of non-participants caused by substitution or deadweight effects.

7. Future challenges of the active labour market policies in Germany

While ALMP measure face the challenge of counteracting long-term unemployment, demographic and technological changes pose new challenges that ALMP must confront. The ageing of the German workforce increases the importance of developing strategies to keep older people employed in order to compensate for the decreasing share of the economically active population (Caliendo and Hogenacker 2012; Rinne and Zimmermann 2012). Due to the steep increase in average life expectation and the simultaneous decrease of the birth rate since the 1960s, Germany's older age dependency ratio[8], which increased in the past, will continue to increase in the future. The Federal Statistical Office (2014) predicts a significant decrease in the working population of more than 30 percent by 2060. If labour demand exceeds labour supply, firms are expected to face problems of skill mismatch due to skill shortages (Fuchs et al. 2010; Caliendo and Hogenacker 2012; Rinne and Zimmermann 2012). This raises the questions of how to maintain sustainable economic growth in the face of a shrinking workforce, and how to maintain the current social security system in the wake of an ever-growing number of older people eligible for retirement benefits. Due to the fact that only a small number of women are working full-time, one possible solution could be to create incentives for women to work full-time (Caliendo and Hogenacker 2012).

[8] This indicator is the ratio between the number of individuals aged above 64 years and the number of persons aged between 15 and 64 years.

To compensate for the decreasing labour supply, older and female workers play a crucial role. One possibility to raise the total working population would be to elevate the retirement age, or to improve the employability of older unemployed individuals (OECD 2012). There is a widespread belief that a worker's productivity decreases with age. In Germany, this belief reduces the willingness of businesses to hire older people (Heywood et al. 2010; Caliendo and Hogenacker 2012). The studies by Malmberg et al. (2008) as well as Göbel and Zwick (2009) have shown, however, that such a productivity decrease with age does not generally apply. Börsch-Supan and Weiss (2011) have even shown that as workers age their productivity actually slightly increases.

Furthermore, due to technological changes there is a decreasing demand for routine tasks and an increasing need for highly qualified labour to handle the new technologies (Goos, Manning and Salomons 2014). Hence, policy should provide education and create incentives the workers to keep their skills up to date. Technological change and globalization lead to new demands on the labour market, as the number of low skilled jobs decrease, occupations requiring higher skills are growing. This pattern is expected to continue over the next decades and implies low employment opportunities for workers with a low educational levels (Spitz-Oener 2006; Michaels, Natraj and Van Reenen 2014). The increasing educational requirements for workers create a need for upskilling. For this reason, it may also be desirable to facility access to tertiary education in order to improve the labour supply of skilled personnel.

Besides the demographic and technological changes, ALMP should put a special focus on the accuracy of the targeting of their measures. As we pointed out in sections 5.1 to 5.3, most ALMP measures are only effective for a small group of potential participants (Koch et al. 2011). Thus, an increasing accuracy regarding the selection of the participants would increase the total effectiveness. Furthermore, since entrepreneurship promotion appears to be

one of the most effective instruments of the German ALMP, NSUS should be made more attractive for a broader range of unemployed individuals.

8. Conclusions

The German ALMP comprises a large number of measures to increase employment for different groups of unemployed workers. This review of evaluation studies shows that most ALMP measures provide positive effects only for specific groups of unemployed individuals. Some inappropriate measures may even lower the labour market prospects of unemployed worker. Thus, improving the selection process for participation in ALMP measures should be an important goal of policy writers. Reducing the number of measures would simplify the German funding system and improve efficiency. Since the current micro evaluations have shown that ALMP measures exhibit positive effects for only a few specific groups of unemployed people, the targeting of the instruments should be improved.

In spite of the more or less weak results of the micro level evaluations of the effectiveness of the German ALMP, we would like to point out that especially entrepreneurship promotion programs perform relatively well and may thus play a crucial role in the sustainable re-integration of several groups of unemployed persons. No other instrument provides such positive evaluation results in the short, medium, and long-run. The BA was the first ALMP instrument to promote start-ups out of unemployment. Evaluations of this ALMP measure show that participants who founded a firm with the support of the BA measure have quite similar characteristics compared to founders who started their businesses out of a regular employment. To make entrepreneurship promotion attractive for more groups of unemployed individuals, the SUS was introduced in the year 2003. Both measures have shown enormously high rates of re-integration into the labour market: 70 to 80 percent of the participants remained self-employed or found a job in dependent employment after a few years.

Since 2006, both measures were replaced by the NSUS to simplify the German funding system. The NSUS contains characteristics of the BA and SUS; unfortunately, the NSUS is attractive for only a select group of unemployed individuals, mainly participants who share the same characteristics as participants in the former BA measure. Although the NSUS also shows significantly positive results, the selection of the participants is biased due to the high attractiveness of the program for unemployed persons with a high employability. Thus, policy should adjust the NSUS in such a way that it increases its attractiveness for a broader range of unemployed persons, such as former SUS participants. One possibility would be to increase the duration of the NSUS making it more attractive for those unemployed individuals who are more risk averse. However, a longer duration of the measure would lead to higher costs and would contradict the goal of the 2011 reform. An alternative possibility is to provide an NSUS participant a with longer duration time, but lower monthly payments ending up with the same total expenditures. This could make this measure more attractive for more risk averse unemployed individuals such as former SUS participants.

The German ALMP has to face many challenges in the future, as pointed out in section 6. Demographic changes will create a shrinking German workforce and increased average age. In particular, strategies to keep older people employed and to increase female labour market participation to address this structural challenge are desirable. Besides demographic change, technological change creates steadily growing demands with regard to the educational level of workers.

Overall, the changes and improvements of active labour market policies over the last decades tell one story, the effects have been positive. Especially the promotion of entrepreneurship has been very successful and is creating a sustainable way to integrate unemployed persons into the labour market. Therefore, labour market policies should focus on making the new start-up subsidy attractive for more target groups. Besides further changes of current ALMP measures, institutional adjustments such as elevating the re-

tirement age or creating incentives for keeping skills up to date are important to counteract demographic change and the challenge of technological transition.

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