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Labor market policy in Austria during the Crises

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Introduction

1. Macroeconomic Situation

In 2012, Austria recorded the highest level of GDP per capita after Luxemburg in the EU-28, at 30 % above the EU average. With 4.8 % the unemployment rate is the lowest in the European Union. Austria can be regarded as Aa countries showing comparatively favorable job market performance, and it has managed to keep its unemployment rate at a relatively low level for a long time (see Figure 5).

Since the accession to the European Union in 1995 the Austrian economy performed very well. Figure 1 shows that the growth of the Austrian economy was stronger than in the Euro area. Austria`s export firms benefited from new sales opportunities created by the opening of Eastern Europe and the deepening of the European integration. Breuss (2013) estimates that the integration bonus in Austria amounts to an additional real GDP growth of 0.5 to 1 percentage point per year.

In the period 2003 to 2007 the Austrian economy profited from the boom of the world economy and the average growth rate has been around 3 percent. In the second half of 2008 the Austrian economy was hit by the worldwide economy downturn. The drop in global demand was focused on sectors producing heavy investment goods. In the third quarter of 2008 the recession started and GDP dropped by 1.3 percentage points quarter on quarter. The recession ended in the third quarter of 2009. In this quarter the level of GDP was 5 percentage points below the value of the first quarter of 2008. While the Austrian economy did not avoid the recession it performed better than many European countries. In contrast to the countries in the periphery of the Euro area the recovery in Austria was rather strong. The pre-crisis output level was reached in the second quarter of 2011. In the years 2011 and 2012 the growth differential between Austria and the Euro area amounted to almost 1.5 percentage points.

The good macroeconomic performance of Austria is reflected in the labour market figures. Until 2003 employment growth in Austria was below the average of the euro area (see Figure 2). In accordance with the boom period employment increased considerably between 2003 and 2008. The recession lead to a fall in employment, however, this fall was clearly less pronounced as in many other European countries. The unemployment rate rose one percentage point in 2009 to 4.8 percent.. However, the negative impact on the labour market was only temporary. Employment increased considerably after the recession and the unemployment rate decreased supported by the economic recovery (see Fig. 2 and 5). Note that a considerable part of the employment gains since 2000 are caused by the inflow of foreign workers. Between 2000 and 2012 the share of dependent workers with non-Austrian nationality increased from 10 to 15 percent. But also the employment rate increased since 2003 (see Figure 4). This development reflects the stronger labour market attachment of females and the better employment performance of older worker. Their employment rate increased considerably but from a low level by international standards.

Traditionally one of the key characteristics of Austrian macroeconomic developments appears to be quite stable growth, in particular exhibiting smaller fluctuations around its medium-term trend. Both the troughs of recessions appear to have been significantly less deep in Austria and, conversely, phases of overheating were less pronounced. In terms of the key labour market indicators, employment and, in particular, the unemployment rate, have been more stable than in many other EU countries. The macroeconomic policy setting has a stability orientation in Austria, which contributes to cushion the impact of negative shocks.

One important factor for the success of the Austrian economy and especially the labour market is the wage policy. It is geared strongly to the macroeconomic conditions and can only be understood with regard to its foundation in the social partnership. The wage policy is influenced both on employee- as on employer side by large, centrally-organized interest groups with a comprehensive right to representation.

Wage negotiation occurs at the sectoral level, where employees are represented by their particular division of the Austrian Federation of Trade Unions (Österreichischen Gewerkschaftsbundes, ÖGB) and employers are represented by their relevant section of the Austrian Federal Economic Chamber (Wirtschaftskammer). Wage negotiations generally take

place yearly, not only an increase of the collective wage contract but also an increase in the so-called “Ist-Lohn” (the actual wage paid to employees) is negotiated. Collective wage contracts are binding for all firms as well as for all employees. Within firms, further increases (overpayments) of the Ist-Lohn can be negotiated either individually or between the works council and management. Due to the close bound between works councils and the unions, a certain coordination of wage policy takes place even at the firm level. While there is no legal minimum wage in Austria, the agreed-upon wages in collective agreements cannot be undercut.

Collective bargainers have traditionally taken into account the overall growth in economic productivity as well as the development of inflation. The current conditions of the labor market and international competitiveness, though, have also drawn their attention. The relatively uniform nature of collective agreements can be explained by the informal coordination that takes place at the ÖGB- and economic chamber-levels, as well as the leadership of the metalworkers’ union with regard to wages. The metalworkers’ contract serves as an informal guideline for other industries during the regular wage negotiations in the fall.

The flexibility with which an economy’s real wages react to external or internal supply shocks constitutes an essential determinant of the macroeconomic performance of an economy. Flexible wage and income policies that are based on the consensus of the social partners have traditionally been an important cornerstone of Austrian efforts to combat unemployment. While real wages rose in harmony with the rate of productivity though the mid-1990s, wage growth has since then remained clearly behind productivity. The moderate increase in unit labor costs has helped maintain the competitiveness of the Austrian economy (see Figure 3).

The Austrian labour market suffered from the great recession. However, its effects have been small, given the scale of the decline in real economic activity. In response to the economic crisis, the Austrian government adopted several economic policy measures. The labour market measures contained publicly sponsored short-time working schemes (see section xx) and the extension of further training allowance program, a subsidy for employees on a training leave (see Hochrainer et al. 2011). The economic stimulus packages focused on making available additional capital – in particular for small and medium-sized enterprises –

by extending government guarantees and on investments into road and rail infrastructure. A tax reform was launched one year earlier than originally planned. According to model simulations this fiscal measures increased the Austrian GDP by approximately 1 percent (see Berger et al. 2009). Apart from discrete measure the Austrian government decided to let the automatic stabilizers work. Overall the budget deficit increased from 1 percent in 2008 to over 4 percent in the years 2009 and 2010.

One important reason for the moderate effect of the crises on employment was the reduction in total hours worked (see Stiglbauer 2010). According to figures from the National Account statistics the number of dependent employees fall by 0.8 % in 2009, which is much less than total hours worked which dropped by 3.6 %. Short-time working, which has been the most prominent tool of active labour market policy during the crises has contributed, but with a minor effect. Another factor was the reduction of overtime working hours, which were very high before the crises. Another reason for the moderate effect was that the affected companies tend to keep their highly qualified employees.

2. Specific labor market policies

3.1. Short-term work[1]

As most European countries, Austria has used publicly sponsored short-time working (STW) schemes in order to prevent otherwise profitable enterprises from going bankrupt and to avoid unnecessary labour shedding and the consequent losses of human capital with adverse effects on output growth and hysteresis effects in the wake of the crisis. These allowances partly compensate the employee for the loss of income associated with a reduction of working hours in response to temporary problems of the enterprise. In Austria, benefits to the employee amount to a minimum of 1/8 of the daily unemployment benefit per hour not worked.

The Austrian short-time working allowance was introduced in 1968 as a means of avoiding labour shedding in times of a slacking demand. Two amendments to this scheme were intro-

[1] This section draws heavily on Berger et al. (2009).

duced in 2009. As a first reform step, human-resource-leasing agency workers were entitled to claim STW allowance. The maximum duration of the allowance was increased to 24 months. The necessary reduction in working hours has been changed to a range of between 10 percent and 90 percent of normal working hours. From the 7th month onwards, the employer's part of social contributions is refunded by the AMS. The scheme can be combined with specific training grants to support the improvement of qualifications for affected workers, but in contrast to some other countries, this combination is not compulsory. 60 percent of the training costs are paid by the AMS in that case. The level of employment has to be maintained during STW as well as some time afterwards (between 1 and 4 months, depending on the length of the arrangement).

Figure 8 depicts the planned and actual number of STW allowances in Austria from October 2008 to February 2011. The maximum number of actually affected workers was reached in April 2009 and was below 40,000. In total, more than 60,000 workers, i.e. more than 1.5 percent of the total labour force, have been affected by STW allowances in 2009. Of these, around 19 percent were women, 10 percent were aged below 25 years and 34 percent were aged 45 and above. 8,000 workers took part in training measures during STW. The average stock of workers in STW in 2009 amounted to 26,000 with an average reduction of working time of 26 percent. It also becomes evident that the amount of planned and actual workers in STW has decreased significantly in the following months. The total budgetary costs of the STW arrangement amounted to 110 million Euro in 2009.

As already stated, the purpose of STW schemes is to avoid excessive layoffs, i.e. the permanent dismissal of workers during a downturn whose jobs would be viable in the longrun. A major potential drawback of STW schemes is that they might hold back productivity growth by delaying reallocation to more productive firms or sectors. However, given the rapidly declining number of workers in STW schemes (see Figure 8), it seems like the Austrian government has been rather successful in limiting this negative impact.

3.2. Apprenticeship system

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3.3. Active Labor Market Policy

The Austrian government passed the first law implementing Active Labor Market Policy (ALMP) in 1968/69 with the aim of increasing labor market mobility and fostering economic growth. With a rise in unemployment over the 1980's and 1990's the budget for ALMP was continuously expanded and the range of programs was extended. During the financial crisis in the late 2000's the ALMP budget saw a further boost, which is slowly reduced in the latest years (see Figure X). Given the relatively low unemployment rate in the country, Austria's expenditures for ALMP are considerable. The share of ALMP spending in GDP per 1 percent point of the unemployment rate was the fourth highest among the OECD countries in 2012 (OECD Employment Outlook, 2013).

The most important tool of ALMP in Austria, both in terms of government spending and participating individuals, is labor market training. About two thirds of the annual budget are allocated to training programs. Further policy tools include subsidized employment in the private and public sector and job search programs.

The effectiveness of Active Labor Market policies has been the subject of vigorous debates over the last decades. Similarly to other European countries, Austria has established a culture of rigorous evaluations of its policy tools. This task has been facilitated by the availability of excellent data from longitudinal administrative records and by rapid advances in methodology.

Card et al. (2010) perform a meta-analysis to synthesize the results from the recent microeconometric evaluation literature. They find that although different countries rely on a heterogeneous mix of types of programs, the evaluation the effectiveness of specific program types is relatively uniform across countries. Therefore their main conclusions should also apply to active labor market policies implemented in Austria. The results from the meta-analysis indicate that job search assistance programs yield relatively favorable program impacts, whereas public sector employment programs are less effective. Training programs are associated with positive medium-term impacts, although in the short term they often appear ineffective.

The most recent Austrian evaluation studies seem to agree with these conclusions. On average, the macroeconomic effects of ALMP in Austria evaluated at the aggregate regional level

appear to be zero (Aumayr 2009). This result is confirmed by microeconometric evaluations of the average effects of large ALMP programs. Lutz et al (2005) and Lechner et al. (2007), evaluate the most important program types implemented in Austria and find that the average participant does not benefit from program participation in terms of employment outcomes over a horizon of three to five years. This overall picture hides a lot of heterogeneity, however. Program effects are differ by the types of programs and by types of participants. A common finding across studies is that employment effects are more favorable for women then for men. In addition, less educated individuals benefit more from training programs than higher educated ones.

Looking at specific program types Eppl et al. (2011) find that private sector employment programs have slightly positive employment effects. But windfall gains are enormous, about half of the positions would have also been filled in absence of the subsidy. Lutz et al. (2005) find positive employment effects of specific public sector employment programs particularly for women and older workers.

Although the results from evaluation studies of Austrian ALMP programs point towards some interesting findings, there are a number of limitations that preclude comprehensive policy recommendations. First, few studies include enough information to make an assessment of the benefits of the program relative to its costs. Second, the methodological design adopted in the studies often precludes a direct assessment of the program effect on welfare-relevant outcomes like earnings, employment, or hours of work. Third, the typical evaluation study adopts a partial equilibrium perspective, and neglects potential spillovers to other groups. Especially ALMP programs, which are implemented at a large scale, might have effects beyond the direct participants and they might change the labor market equilibrium in fundamental ways.

3.4. Foundations as a special labor market policy

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3.5. Unemployment benefits

The Austrian unemployment insurance system is less generous than those of most European countries, both in terms of benefit levels and the duration over which benefits can be

claimed. Job-losers in Austria who have worked at least 52 weeks in the past 24 months are eligible for 20 weeks of unemployment insurance benefits (UI). The benefit replaces 55% of the previous net earnings and is subject to a minimum and maximum amount. The UI benefit duration is extended to 30 weeks if the worker has accumulated 3 years of work experience during the last 5 years. Further benefit extensions are granted to workers in older age groups (above 40 and 50 years) and with long work experience. When regular benefits are exhausted, claimants who satisfy a family-income-based means test can receive Unemployment Assistance (UA) benefits, which are linked to UI. The UI system is financed by a payroll tax with no experience rating.

Seasonal variations in employment have been a significant feature of the Austrian labor market for many decades. The percentage of male workers employed over the active male population regularly fluctuates by more than 5 percentage points between the summer peak and the winter trough. The phenomenon of seasonality observed in Austria is rather atypical for a continental European country, but seasonal employment fluctuations are often observed in economies with extreme climate conditions such as Canada and the Scandinavian countries.
Del Bono and Weber 2008 examine the interaction between unemployment insurance system and seasonal employment fluctuations. Specifically, they analyze wage differentials paid to seasonal workers as compensation for anticipated working time restrictions. Their findings indicate that the observed wage differential for seasonal jobs amounts to about 11% percent of the wage in a permanent job, and a similar amount is covered by the UI system. Thus firms and workers who operate on the basis of seasonal contracts thus receive an indirect subsidy through the UI system.
Several studies exploit policy reforms and discontinuities in the Austrian UI system to estimate behavioral responses to benefit levels and potential benefit durations.
Lalive et al. (2006) exploit a policy change introduced in 1989, which increased the benefit replacement rate for low wage workers and extended the benefit duration for older workers, while it left the rules unchanged for a large majority of the unemployed. Applying a difference-in-difference strategy, they find that unemployed workers respond to disincentives by an increase in unemployment duration. They conclude from their results that a large fraction of additional costs from the benefit expansions introduced by the reform results from behavioral responses.

Card et al. (2007) estimate the excess sensitivity of job search behavior to cash-on-hand using sharp discontinuities in eligibility for severance pay and extended unemployment insurance (UI) benefits in Austria. Analyzing data for over one-half million job losers, they obtain three empirical results: (1) a lump-sum severance payment equal to two months of earnings reduces the job finding rate by 8-12% on average; (2) an extension of the potential duration of UI benefits from 20 weeks to 30 weeks similarly lowers job-finding rates in the first 20 weeks of search by 5-9%; and (3) increases in the duration of search induced by the two programs have little or no effect on subsequent job match quality. They conclude that the behavioral responses to higher benefits are partly due to credit constraints during job search.

Card et al. (2012) analyze the effect of unemployment benefit levels on the duration of joblessness in Austria. Their design exploits nonlinearities in the benefit schedule around kinks at the minimum and maximum benefit levels to identify the behavioral effects. According to their estimates, the elasticity of the duration of joblessness is 1.73. The authors conclude that increases in UI benefits in Austria appear to exert a relatively large effect, somewhat larger than what has been found in recent U.S. studies using difference-in-difference designs.

Nekoei and Weber (2013) examine the effects of unemployment insurance on job search outcomes. The literature typically finds that an extension of unemployment insurance (UI) increases unemployment duration without improving subsequent wages. This study exploits an age-based regression discontinuity design and shows that an extension of UI eligibility by nine weeks increases the average reemployment wage by a statistically significant 0.5%. Further, the UI effect on both unemployment durations and reemployment wages is larger for individuals with a high ex-ante likelihood of benefit exhaustion and for those laid off during local industry-specific downturns.

3.6. Transition into retirement

The Austrian pension system is typically seen as one explanation for the favorable labor market outcomes in the country. Generous early retirement options lead to extremely low labor market participation of older works. During the 1990's and early 2000's employment rate among the age group of 55 – 64 year old workers was below 30%, around 10 percentage points lower than the EU average and less than half of the employment rate in Sweden.

Austria has a public pension system that covers about 93% of the labor force. The system automatically enrolls every person employed in the private sector and withholds fixed pension contributions from their salary. The statutory retirement age in Austria is 65 for males and 60 for females. But individuals can also retire through early retirement or disability. Before the pension reform in 2000, the early retirement age was 60 for males and 55 for females. But males also had facilitated access to disability pensions from age 55 onwards.

Figure X shows survival rates in the labor force for male and female workers, who were still employed at age 53, retire before age 70, and who are not subject to the 2000 pension reform. For women, we see a sharp drop in the survival rate at age 55, when they become first eligible for early retirement, and a second drop at age 60. For males survival rates gradually decline after age 55, due to entries into disability and sharply drop at the early retirement age of 60. After age 60 only a very small fraction of both men and women is left in the labor force and the statutory retirement age for males is more or less ineffective.

Pension eligibility depends on the age cutoffs and a minimum number of insurance years (years of labor market experience). The required number of insurance years is higher for early retirement than for old age or disability pensions. The monetary value of an individual's social security benefit is computed as a product of two factors: (1) the assessment basis, which is an earnings history measure and (2) the pension coefficient, which is a percentage that is applied to the assessment basis. The pension coefficient is increasing in the individual's retirement age and his insurance years up to a maximum of 80%. Prior to 2001, old-age, early retirement and disability pensions were computed identically. Replacement rates from the annual payments are roughly 75% of pre-retirement earnings.

Pension Reforms:

The generous Austrian public pension system implied large implicit liabilities. Comparing EU-15 expenditure rates, Austria’s total public pension expenditure was the second-highest among the EU-15 in 2004 at 13.4% of GDP. Austria’s pension reforms were thus mainly triggered by the need to alleviate the budgetary pressure stemming from the increasing number of pensioners in absolute terms and relative to the working-age population.

The government started reforming the system in the mid 1990’s with small steps that extended the assessment basis to a longer horizon of the work history and changed the disability entry regulations. But with average pension entry ages well below 60 years and about 30 – 40% of pension entries through the disability system, more drastic reforms were deemed

necessary. Hence the pension reforms in 2000, 2003 and 2004 were aimed at improving the sustainability and, in addition, the actuarial fairness of the Austrian pension system. While the pension reform in 2000 mainly focused on increasing the effective retirement age, a comprehensive reform, changing parameters influencing the pension benefits, was implemented in the following two reform phases.

The 2000 pension reform gradually increased the early retirement age (ERA) by 1.5 years from 60 and 55 to 61.5 and 56.5 for men and women respectively. In addition the reform introduced discounts on the pension coefficient for retiring earlier than the statutory retirement age and bonuses for retiring later. The 2003 and 2004 reforms continued the increase in the early retirement age with the aim of eliminating the early retirement option by 2017. Further, it increased discounts and benefits on the pension coefficient and extended the assessment basis to the cover the full working life.

Empirical Evaluations of the Pension Reforms:

The Austrian pension reforms operate with a mixture of financial incentives – via penalties for early retirement – and mandatory changes in the eligibility rules. In general, the reforms are seen as relatively big policy steps that are expected result in the long-term fiscal stability of the pension system. One indication of the reform success is the aggregate employment rate of older workers aged 55 – 64, which has risen by 15.7 percentage points between 2004 and 2012. While it is still below the EU average, the strong upward trend of employment among older worker looks promising. However, the average entry age into retirement is still at 58 years in 2012 and the share of entries into disability amounts to almost one third of total retirement entries. The question is therefore, how effective the policy tools that are implemented in the reforms are in changing labor supply decisions of older workers.

A couple of empirical studies have tried to address individual behavioral responses to the retirement incentives directly and we summarize their main findings.

Staubli (2010) analyzes the reform in 1996, which raised the age at which men become eligible for facilitated entry to disability form 55 to 57. His study is based on a difference-in-difference strategy, which compares labor market outcomes of the affected group of 55 – 56 year old men before and after the reform with an untreated comparison group of 49-52 year old men. The results suggest a substantial decline in disability enrollment of 6 to 7.4 percentage points. But the decline in enrollments only led to an increase in employment of 1.6 to 3.4

percentage points, because of important spillover effects into the unemployment and sickness insurance program.

Two studies explore the increase in the early retirement age mandated by the 2000 and 2004 pension reforms from different perspectives. Staubli and Zweimüller (2013) focus on the group of 60 – 62 year old men and 55 - 58.25 year old women over the period from 2000 - 2010. Their findings show that the reforms reduced early retirement by 18.9 percentage points among affected men and by 22.3 percentage points among affected women. The associated increase in employment was merely 6.8 percentage points among men and 10.1 percentage points among women. The reforms had large spillover effects to the unemployment insurance program but negligible effects on disability insurance claims. Specifically, unemployment increased by roughly 10 percentage points both among men and women.

Manoli and Weber (2013) also study cohorts of men and women who were affected by the reform and faced increases in their early retirement ages. However, they restrict the attention to workers who are still employed at age 53 and examine the effect of the reform on their labor supply decisions. Exploiting the step-wise design of the reform, which extended the early retirement age cohort by cohort, they find corresponding shifts in labor market exits. For the group of workers who are highly attached to the labor market, the increase in the early retirement age directly led to longer working careers and spillovers to other social insurance programs were minimal. In addition, Manoli and Weber (2013) show that workers who were exempted from the reform due to long contribution years also responded in terms of longer employment and later retirement entries.

While these studies demonstrate that mandatory changes in age of eligibility were quite effective in changing retirement entries and even in increasing labor supply, Manoli and Weber (2011) analyze responses to financial incentives from pension benefits. The analysis is based on a mandated rule for employer-provided retirement benefits in Austria. This rule creates policy discontinuities in individuals' intertemporal choice sets. The key policy incentive is for workers to delay retirement to collect larger benefits. The authors present graphical evidence on labor supply responses to the policy discontinuities. In addition, they show that effective financial incentives change at the policy discontinuities, but the average changes

are smaller than in the legislated schedule. The results indicate moderate responses in retirement decisions to financial incentives with an estimated average elasticity of roughly 0.6.

References:

Aumayr, Christine, Blien, Uwe, Dauth, Wolfgang, Hujer, Reinhard, Janisch, Dominik, Kernitzyi, Michael, Kirschner, Eric, Koboltschnig, Rose-Gerd, Woitech, Birgit, Wolf, Katja (2009): Makroökonomische Effekte der aktiven Arbeitsmarktpolitik in Österreich 2001-2007, Studie im Auftrag des BMASK, Wien.

Berger, J. et al. (2009): Konjunkturbelebende Maßnahmen der österreichischen Bundesregierung und der Bundesländer - Abschätzung der volkswirtschaftlichen Effekte, IHS, Studie im Auftrag des BMWA, Wien.

Böheim, René, Judmayr, Christina and Gesine Stephan (2013): An evaluation of the Austrian Apprenticeship scheme, mimeo University of Linz.

Breuss, F. (2013): Effekte der österreichischen EU-Mitgliedschaft, FIW Policy Brief Nr. 18.

Card, David, Jochen Kluve and Andrea Weber (2010): Active Labour Market Policy Evaluations: A Meta-Analysis, Economic Journal, vol. 120(548), pages F452-F477.

Card, David and Raj Chetty and Andrea Weber (2007): Cash-On-Hand and Competing Models of Intertemporal Behavior: New Evidence from the Labor Market, The Quarterly Journal of Economics, vol. 122(4), pages 1511-1560.

Card, David, David Lee, Zhuan Pei and Andrea Weber (2012): Nonlinear Policy Rules and the Identification and Estimation of Causal Effects in a Generalized Regression Kink Design, NBER Working Paper Nr. 18564.

Del Bono, Emilia and Andrea Weber (2008): Do Wages Compensate for Anticipated Working Time Restrictions? Evidence from Seasonal Employment in Austria, Journal of Labor Economics, vol. 26, pages 181-221.

Eppel, Rainer, Mahringer, Helmut, Weber, Andrea, Zulehner, Christine (2011): Evaluierung der Eingliederungsbeihilfe, Studie im Auftrag des BMASK, Wien.

Fersterer, Josef, Pischke, Steve and Rudolf Winter-Ebmer (2008): Returns to Apprenticeship Training in Austria: Evidence form Failed Firms, Scandinavian Journal of Economics.

Hochrainer, K., Potmesil, S., Zauner, M. (2011): Die österreichische Arbeitsmarktpolitik in der Wirtschaftskrise, WISO 2/2011, 33-47.

Hofer, H., Weyerstrass, K. (2011): Wirtschaftliche Entwicklungen und Trends in Österreich während und nach der Wirtschaftskrise, in ÖSB-Consulting (Hrsg.), Maßnahmen der aktiven Arbeitsmarktpolitik während und nach der Wirtschaftskrise: Erfahrungen und Good-Practice-Beispiele aus Bulgarien und Österreich, Wien, 15-19.

Lalive, Rafael, Camille Landais and Josef Zweimüller (2013): Market Externalities of Large Unemployment Insurance Extension Programs, NRN Working Papers 2013-12, The Austrian Center for Labor Economics and the Analysis of the Welfare State, Johannes Kepler University Linz, Austria.

Lechner, Michael, Miquel, Ruth, Werner, Stephan, Wiehler, Stephan (2007): Mikroökonometrische Evaluierung der Instrumente der aktiven Arbeitsmarktpolitik in Österreich, Studie im Auftrag des BMWA.

Lutz, Hedwig, Mahringer, Helmut, Pöschl, Andrea (2005): Evaluierung der österreichischen Arbeitsmarktförderung 2000-2003, Studie im Auftrag des BMASK, Wien.

Manoli, Dayanand S. and Andrea Weber (2011): Nonparametric Evidence on the Effects of Financial Incentives on Retirement Decisions, NBER Working Papers 17320, National Bureau of Economic Research, Inc.

Manoli, Dayanand S. and Andrea Weber (2013): Labor Market Effects of the Early Retirement Age, mimeo, University of Mannheim.

Nekoei, Arash and Andrea Weber (2013): Does Extending Unemployment Benefits Improve Job Quality, mimeo, Harvard University.

Rafael Lalive and Jan van Ours and Josef Zweimüller (2006): How Changes in Financial Incentives Affect the Duration of Unemployment, Review of Economic Studies, 73, pages 1009-1038.

Rudolf Winter-Ebmer (2006): Coping with a Structural Crisis: Evaluating an Innovative Redundancy-Retraining Project, International Journal of Manpower.

Staubli, Stefan and Josef Zweimüller (2013): Does Raising the Retirement Age increase Employment of Older Workers?, Journal of Public Economics, vol. 108, pages 17-32.

Staubli, Stefan (2011): The impact of stricter criteria for disability insurance on labor force participation, Journal of Public Economics, vol. 95(9-10), pages 1223-1235.

Stiglbauer, A. (2010), The Austrian Labor Market and the Great Recession: Developments and Measures Taken, Monetary Policy & the Economy, issue 3, p. 25-44.

Stöger, Klaus and Rudolf Winter-Ebmer (2002): Weniger Lehrplätze in Österreich: Sind Struktureffekte verantwortlich?, Wirtschaftspolitische Blätter.

Table 1: Apprenticeship Subsidies

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Stock of persons	3.554	3.530	3.860	6.534	17.027	28.315	30.817	20.586	11.636	6.937	6.884
New Entrants	6.672	7.541	8.468	18.036	30.861	45.117	42.537	31.891	21.441	13.961	13.106
Mean Duration in days	331	278	244	223	262	295	313	329	320	299	294
Budget per Person	2.194	1.616	1.284	648	1.738	2.069	2.442	1.901	1.507	1.592	1.723

Table 2: Foundations

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Stock	4.413	5.332	5.210	4.811	4.864	4.660	4.912	7.677	9.292	6.869	5.424
New Entrants	5.879	7.256	5.961	4.961	4.739	5.007	5.490	10.743	7.252	3.706	3.889
Mean Duration	267	272	296	350	350	349	340	295	328	454	523
Budget per Person	715	7.798	9.878	13.421	14.734	13.790	13.050	10.595	21.855	32.363	24.221

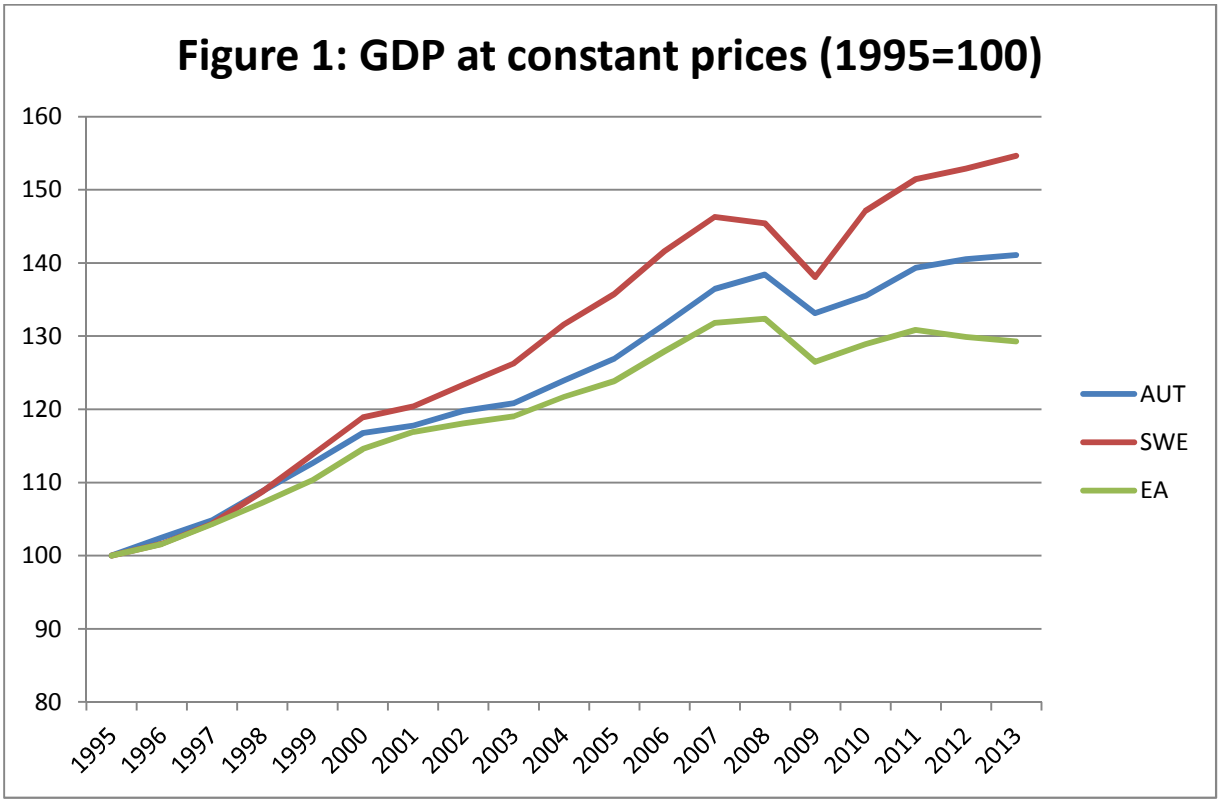
Figure 1: GDP at constant prices (1995=100)
160
150
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130
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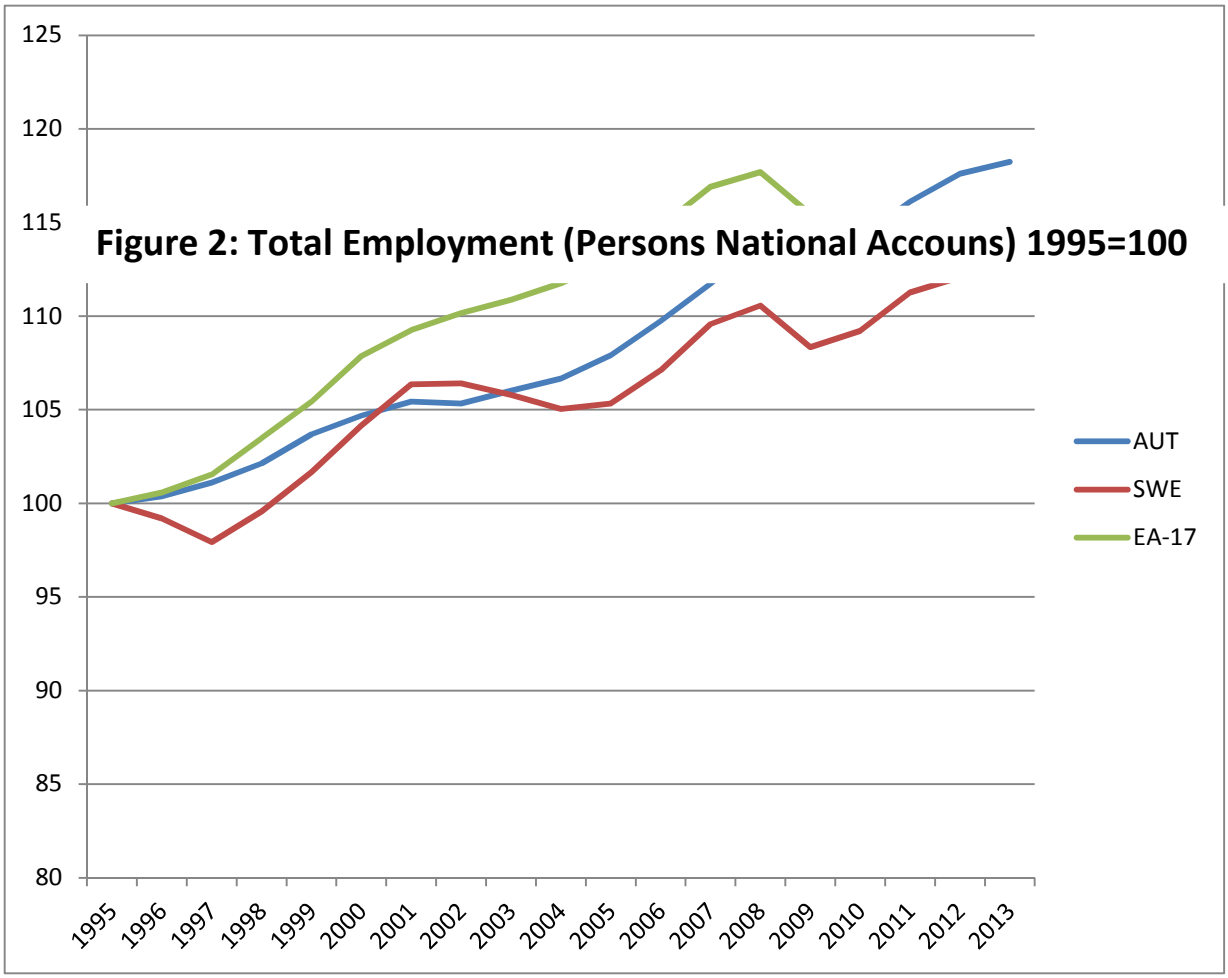
125
120
115
Figure 2: Total Employment (Persons National Accouns) 1995=100
110
105
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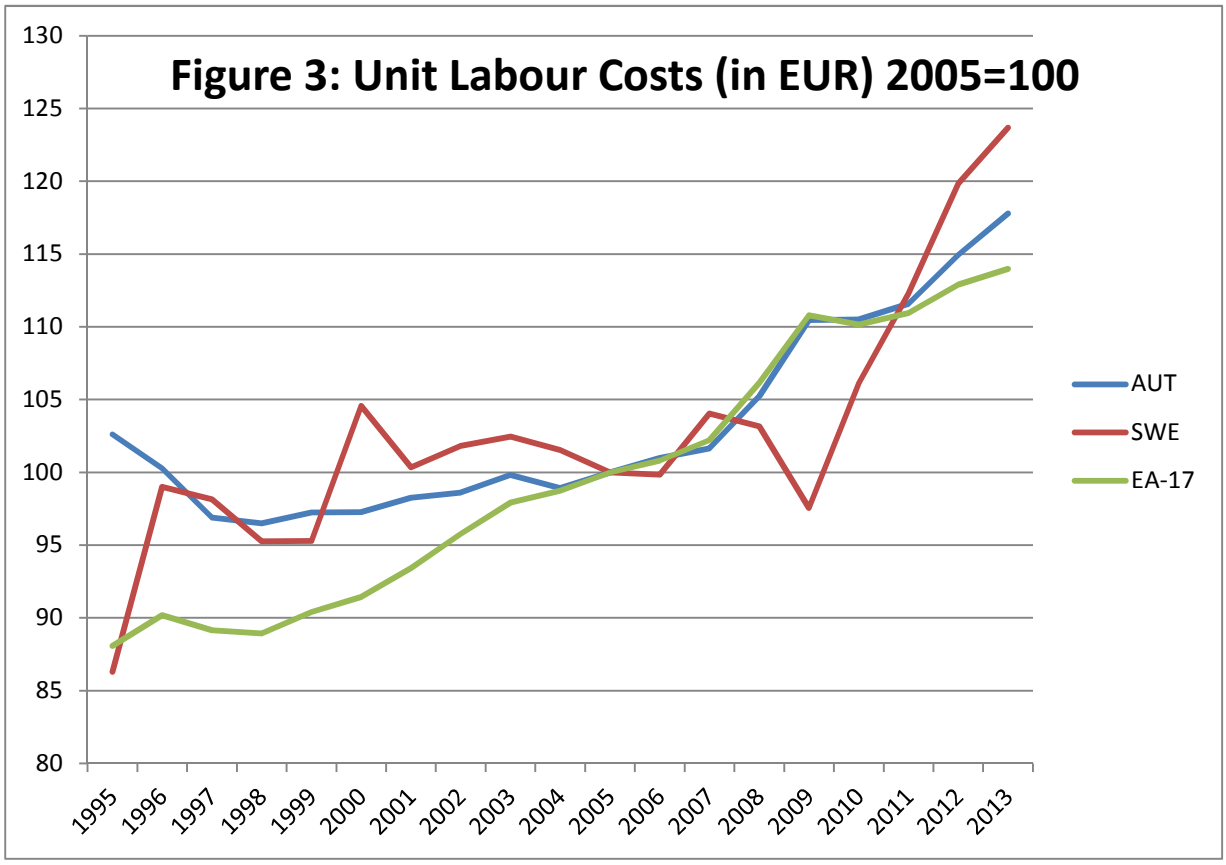


Figure 3: Unit Labour Costs (in EUR) 2005=100
130
125
120
115
110
105
100
95
90
85
80
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
AUT
SWE
EA-17

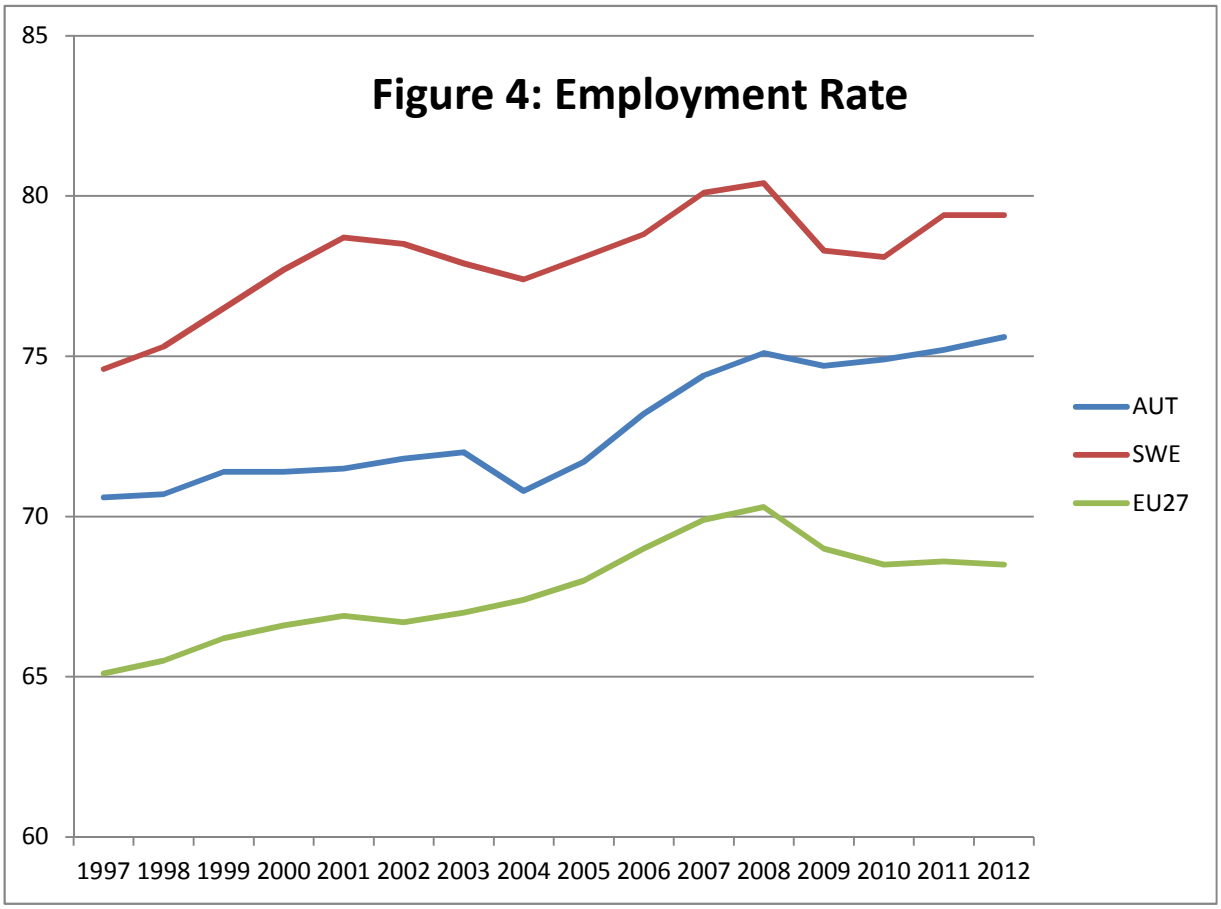


Figure 4: Employment Rate
85
80
75
70
65
60
1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
AUT
SWE
EU27

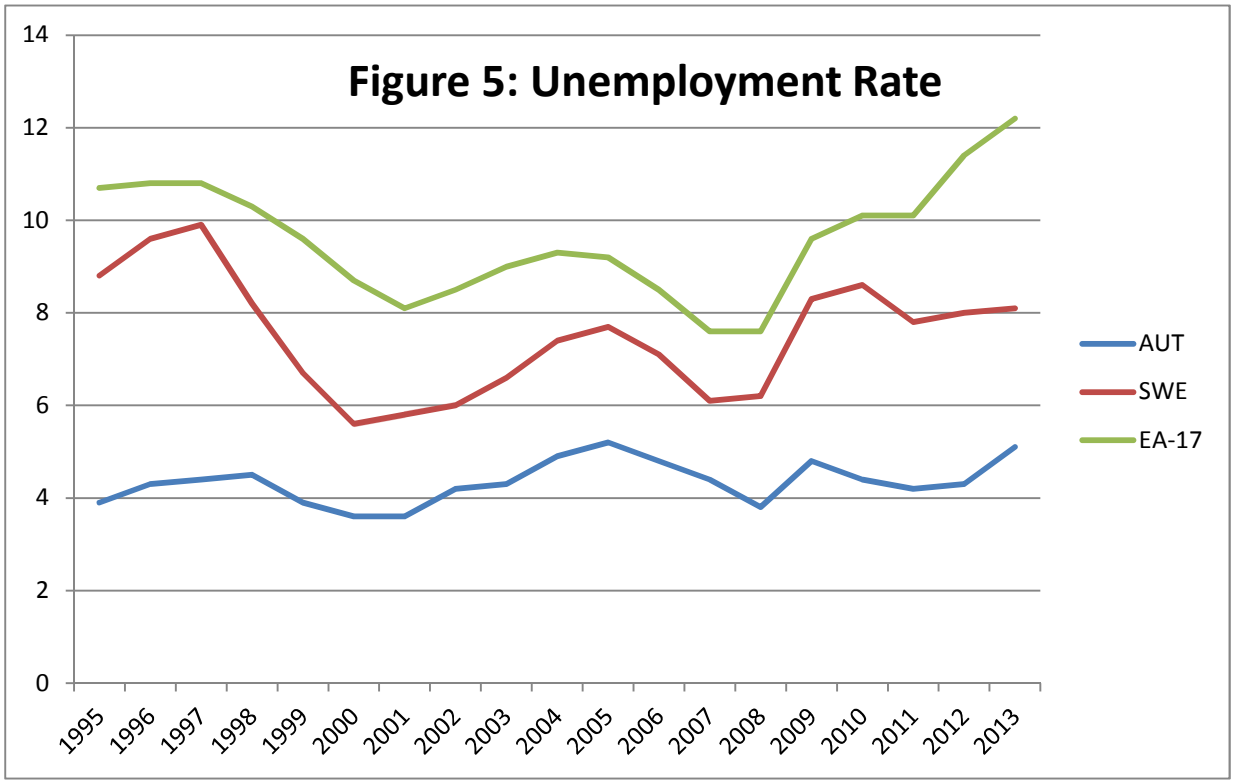


Figure 5: Unemployment Rate
14
12
10
8
6
4
2
0
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
AUT
SWE
EA-17

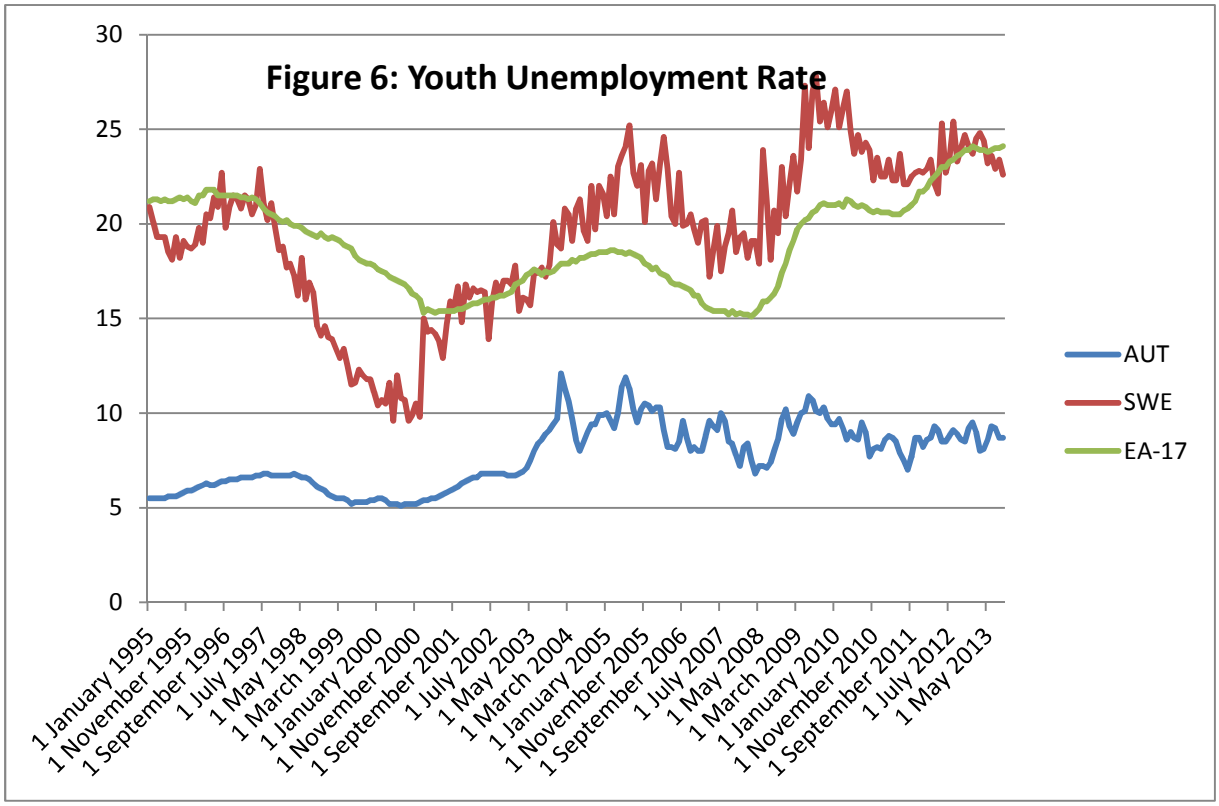


Figure 6: Youth Unemployment Rate
30
25
20
15
10
5
0
1 January 1995
1 November 1995
1 September 1996
1 July 1997
1 May 1998
1 March 1999
1 January 2000
1 November 2000
1 September 2001
1 July 2002
1 May 2003
1 March 2004
1 January 2005
1 November 2005
1 September 2006
1 July 2007
1 May 2008
1 March 2009
1 January 2010
1 November 2010
1 September 2011
1 July 2012
1 May 2013
AUT
SWE
EA-17

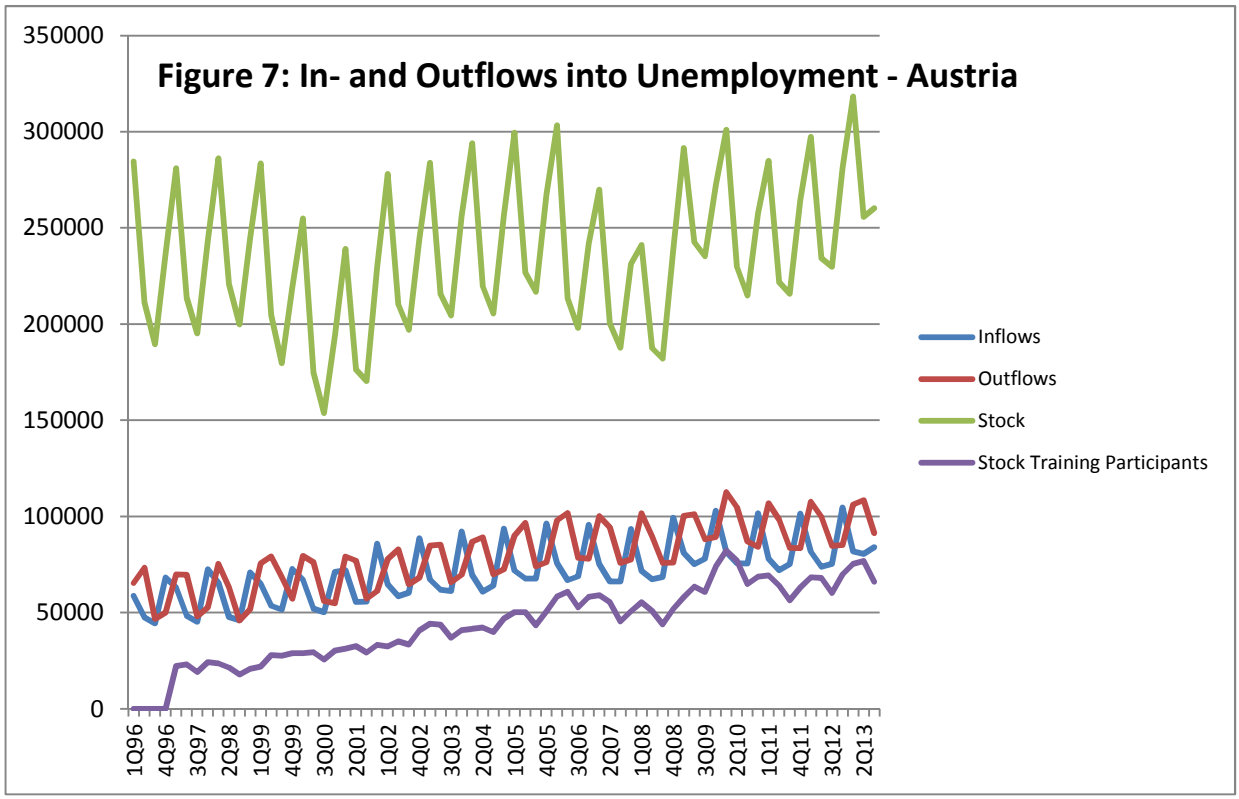


Figure 7: In- and Outflows into Unemployment - Austria
350000
300000
250000
200000
150000
100000
50000
0
1Q96
4Q96
3Q97
2Q98
1Q99
4Q99
3Q00
2Q01
1Q02
4Q02
3Q03
2Q04
1Q05
4Q05
3Q06
2Q07
1Q08
4Q08
3Q09
2Q10
1Q11
4Q11
3Q12
2Q13
Inflows
Outflows
Stock
Stock Training Participants

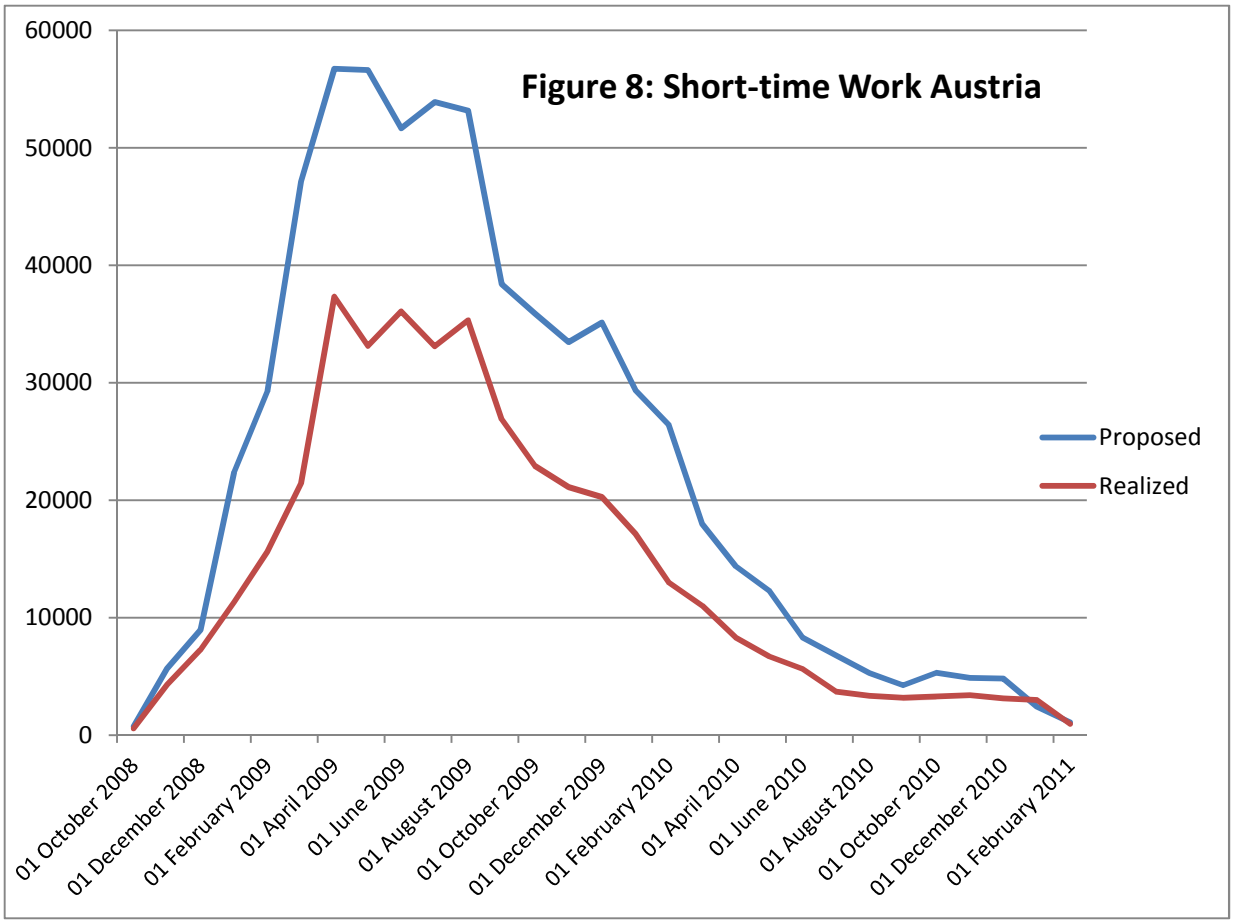
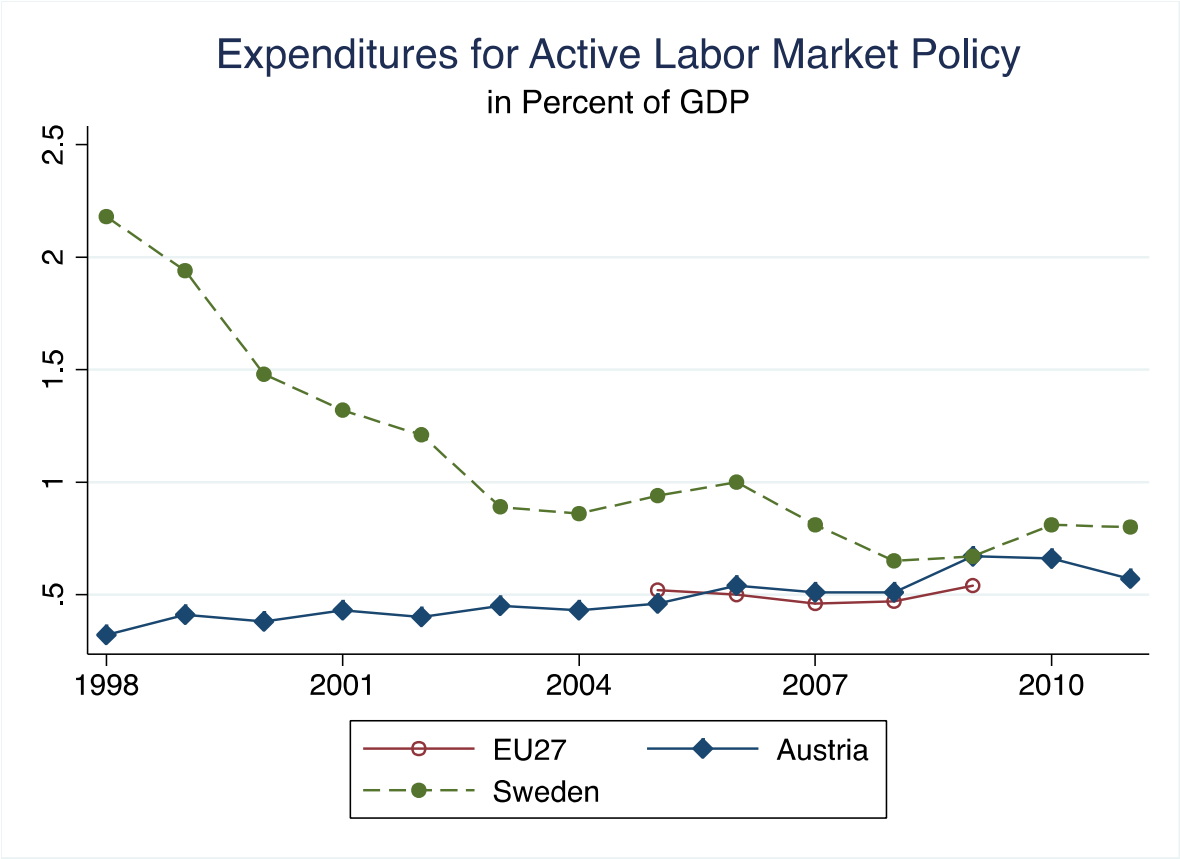
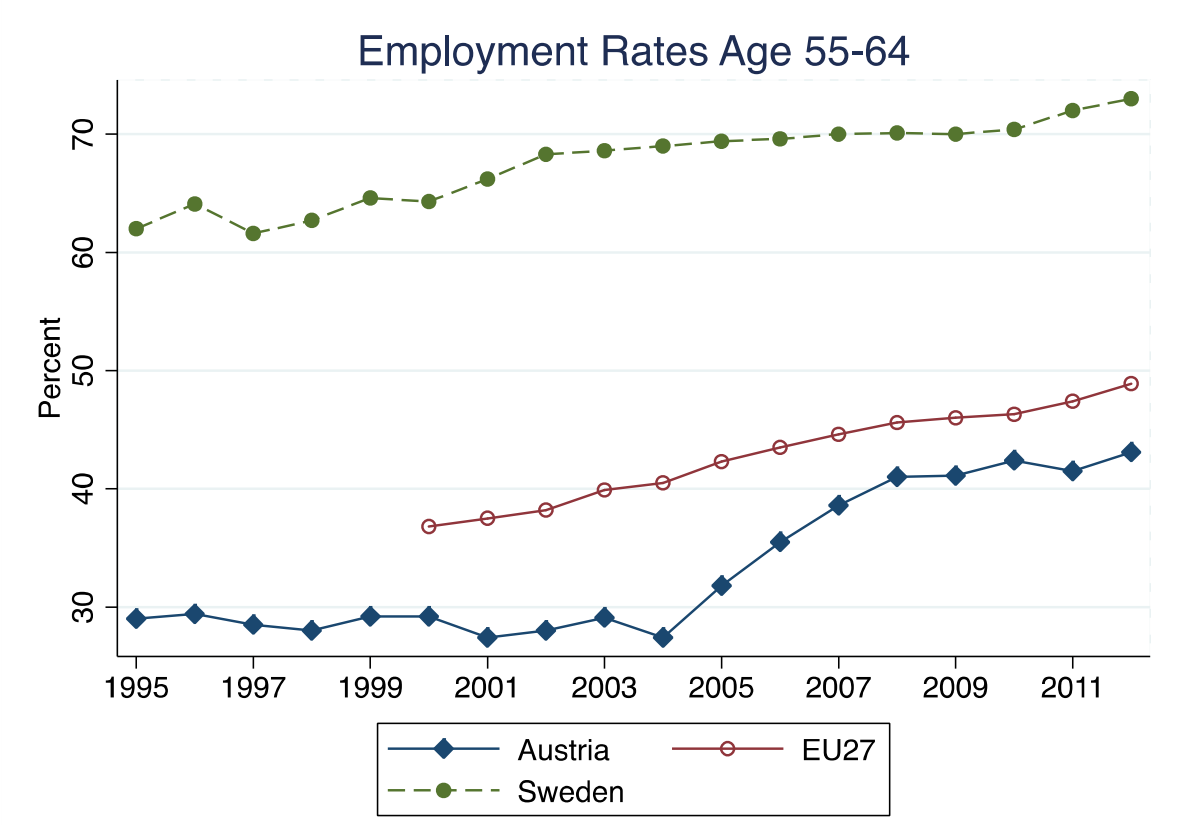


Figure 8: Short-time Work Austria
60000
50000
40000
30000
20000
10000
0
01 October 2008
01 December 2008
01 February 2009
01 April 2009
01 June 2009
01 August 2009
01 October 2009
01 December 2009
01 February 2010
01 April 2010
01 June 2010
01 August 2010
01 October 2010
01 December 2010
01 February 2011
Proposed
Realized



Notes: Source Eurostat, Code: lmp_ind_exp.



Notes: Source Eurostat, Code: lsta_ergan.

Notes: For computing the survival curves, the sample is restricted to pre-reform birth cohorts (1930 through 1939 for men and 1935 through 1944 for women) and also to individuals for whom a claim is observed prior to age 70.