



Research Report on the Changing Labour Market Conditions for Older Workers¹

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Abstract

The occurrence of push and pull factors determine, whether measures of active ageing result in their pre-dominant aim to keep older individuals longer in the labour market or not. The retention probability of older workers was evaluated, by comparing the implementation of active ageing measures across three countries: Austria, Germany and the United Kingdom. Regarding institutional work disincentive and, on the other hand, barriers to employment, the extent to which higher labour market participation of older workers has been achieved over the past decade was determined. By studying the differences of the push and pull factors, the results on trends in inequality were received. Analyses accounts for educational, occupational and sectoral differences, and compares older with younger workers' experiences. By evaluating factors of retention the overall result was found, that recent developments of push and pull factors result in new forms of inequalities for older individuals, thereby influencing employment probability the elderly across countries studied in different ways. An increasing employment rate among older workers has been found for all the countries. From a qualitatively perspective, the diversification of employment contracts of the elderly is in evidence. *Active Ageing* measures across the countries studied are consistent with patterns of prolonged employment among older individuals.

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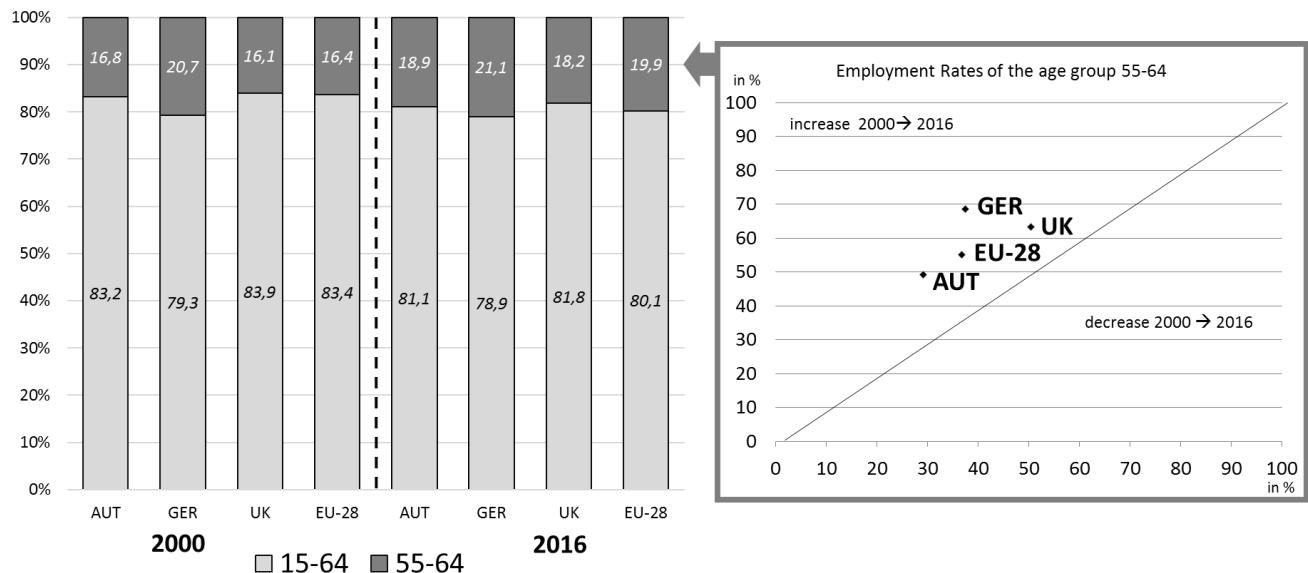
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1. Research Motivation

Since it was common practice in the late 1970s and 1980s to carry out labour force adjustments through early retirement schemes – which can be led back to rising unemployment and the restructuring of traditional industries – the policy change towards encouraging older workers to remain in the labour force was introduced along with the *Active Ageing* measures (EUROPEAN COMMISSION, 2004). The European Employment Strategy (EES) of the year 1997 (see for policy debate: KRAATZ/RHEIN, 2007; CASEY, 2004; FRANZESE/HAYS, 2006) evoked reforms to set incentives to work longer and changing eligibility rules to early retirement (EUROPEAN COMMISSION, 2004). Despite the priority action to increase the total employment rate (15-64) by 70 percent, different strategies have been developed for the concept of *Active Ageing*, integrated into the EES in 1999 (KRAATZ/RHEIN, 2007). To reach the goal of full employment, specific quantitative aims for the group of older workers have additionally been agreed upon during the Stockholm EU-Summit in 2001 (KRAATZ/RHEIN, 2007). Those include the increase of the employment rate of 55-64 by 50 percent in EU-average and were complemented by the guideline of increasing labour market exit ages by five years until 2010 during the Barcelona-Summit in 2002 (KRAATZ/RHEIN, 2007). Across the EU, the share of older individuals at the population is increasing along with rising employment rates of older individuals (55-64) since 2000 (see *Figure 1*).

Figure 1: Population Share of 55-64 at 15-64 and Employment Rates² of 55-64 from 2000³-2016



Source: EUROSTAT, 2017.

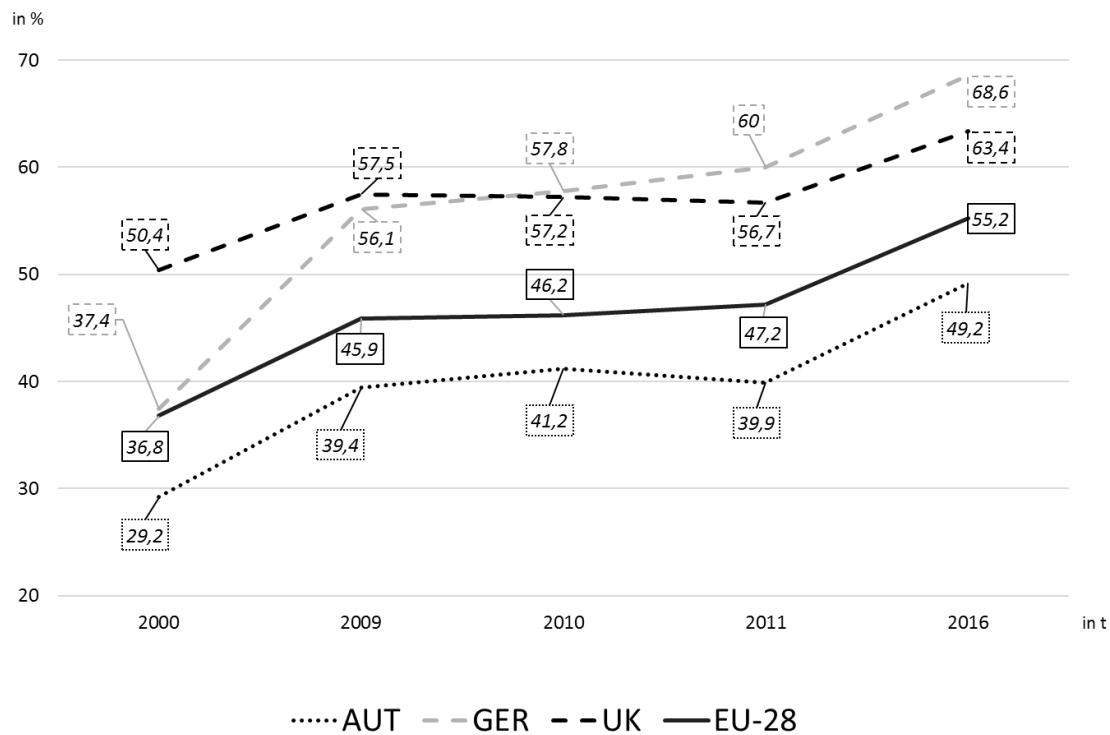
² Employment rates represent employed persons as a percentage of same age total population (EUROSTAT, 2017).

³ In this report, the data of EU-28 relates to EU-27 for the year 2000.

Higher old age employment relates to higher statutory retirement ages, a higher amount of 55+ individuals in the labour market and the successive reduction of early retirement schemes as well as an overall upturn of the business cycle (EBBINGHAUS/HOFÄCKER, 2013; CZEPEK/MOCZALL, 2017; KRAATZ/RHEIN, 2007). Regarding merely the absolute quantity of 15-64-year-old to 55-64-year-old in the labour market, it shows for Austria (AUT) and for the United Kingdom (UK) increasing numbers. In Germany (GER) absolute population numbers in both age groups are declining. Relative changes in old age population shares show in the three countries below the EU-average of 3,5 percentage points from 2000 to 2016. In AUT and UK, the share of 55-64-year-old at the 15-64-year-old changed by 2,1 percentage points from 2000 to 2016. Relative changes in old age population shares in GER showed with 0,4 percentage points. Though, the level is with 21,1% above EU-average and higher than levels in the other countries. Employment in the age group 55-64 is increasing throughout the countries. Comparing the relative changes in old age employment from 2000 to 2016, the German old age employment has changed the strongest, with 31,2 percentage points, also reaching the highest level of employment in that age group in 2016 with a rate of 68,6%. The UK has already started from a higher level of employment than the rest of the countries, reaching a rate of 63,4% in 2016. When changes are regarded, employment changed by 13 percentage points. Thus, UK employment changes are below EU-average, where employment has changed by 18,4 percentage points. AUT's old age employment has changed by 20 percentage points. However, the level of the Austrian old age employment rate is still below EU-average, reaching 49,2% in 2016. EU-28's employment rate was at a level of 55,2% in 2016. It shows, that employment changes have been strongest in GER, followed by AUT and the least strong changes show in the UK. However, when the level of employment is regarded the Austrian employment rate is lowest. GER and UK levels are above EU-average. Within the Stockholm aims of the EES of 2001, employment increases for older workers to 50% in an EU-average until 2010 were committed to (KRAATZ/RHEIN, 2007). The average employment rate of the EU-28 was at a level of 46,3% in 2010 and reached a level of 50,2% in 2013. When looking at *Figure 2*, employment changes show more strongly in the time period from 2000 to 2009, with AUT showing relative changes of 10,2 percentage points compared to employment changes from 2010 to 2016 with 8 percentage points. GER shows employment changes of 18,7 percentage points in the period from 2000 to 2009, compared to the time period from 2010 to 2016, where employment changed by 10,8 percentage points. The UK shows employment changes with 7,1 percentage points from 2000-2009, compared to 6,2 percentage points in the period of 2010-2016. In EU-average, employment changed quite equally with around 9 percentage points in both time periods. Despite for UK and AUT, where the employment rates have slightly decreased within the years of the financial crises, the data overall gives the impression, that old age employment

has continuously been rising since 2000. Regarding the mere quantity of older workers in the labour market, distinctive increases can be viewed.

Figure 2: Development⁴ of Employment Rate of the 55-64-year-old



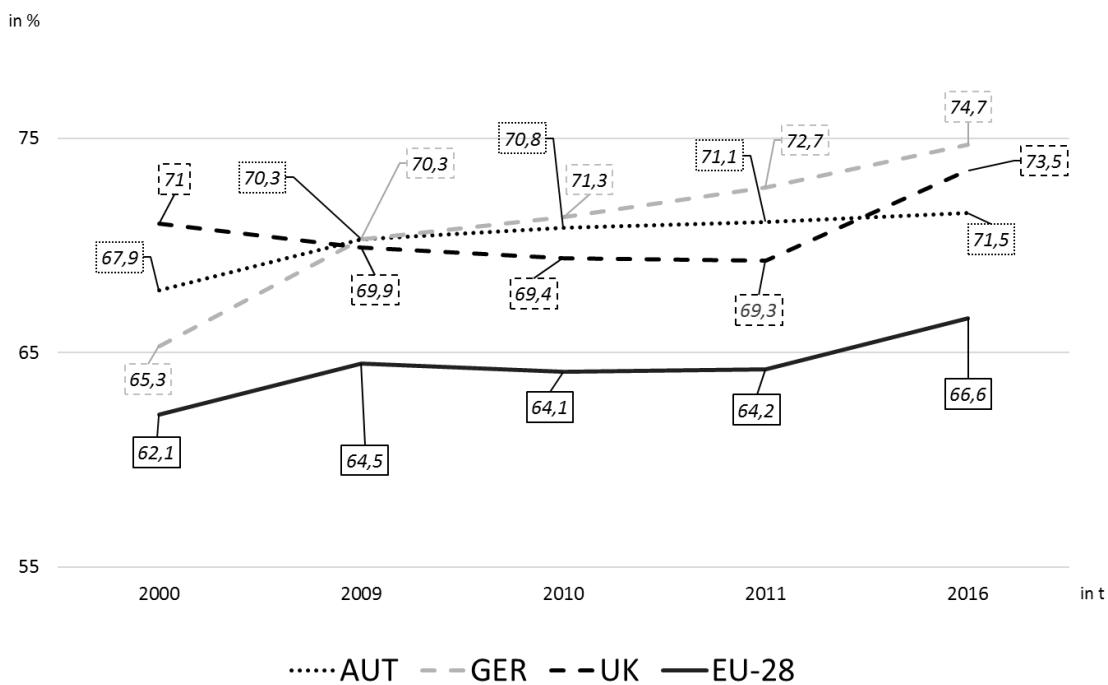
Source: EUROSTAT, 2017.

This seems to be in accordance with a general rise of employment since 2000, if compared to the group of the 15-64-year-old in the three countries (see *Figure 3*). Along with the findings for the group of older workers (*Figure 2*), the financial crisis slightly influenced the labour markets of the three countries in the age group of the 15-64-year-old (*Figure 3*). Since 2011, the employment rate of the 15-64-year-old has been rising again. When this age group is regarded, it is in evidence, that the differences between the countries are not as strong as they show for the age group of the 55-64-year-old. Out of the three countries, AUT has the lowest employment rate, followed by the UK and GER, which is showing the highest employment rate. In this age group, the level of employment in AUT is above the level of the EU-average. With AUT pointing overall towards a high labour market participation, the assumption suggests itself, that AUT, despite efforts of raising employment of older workers and delaying the exit from the labour market, still holds barriers to prolong employment for older workers (SCHMIDTHUBER ET AL. 2016). By avoiding the benefits that used to be accessible through early

⁴ To control within the descriptive analysis for the impact of the financial crisis in the countries on the labour market situation, the trends shown in this paper account for the points in time that followed the outbreak of the crisis in the years 2007/2008.

retirement schemes, questions emerge on the organisation of older workers to accommodate transitions (EUROPEAN COMMISSION, 2004).

Figure 3: Development of Employment Rate of the 15-64-year-old



Source: EUROSTAT, 2017.

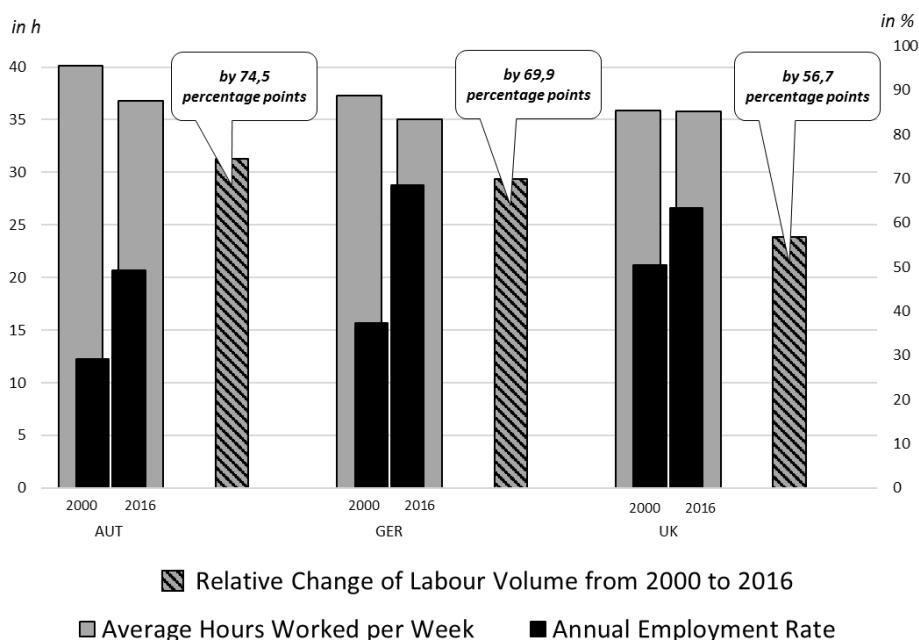
Since financial incentives to discourage early retirement have been integrated within *Active Ageing* regulations, prolonged labour market participation was seen as a way to fully realise the benefits from increased life expectancy (EUROPEAN COMMISSION, 2004). If supported by quality in work, labour market attachment is understood to improve living standards and reduce social exclusion (EUROPEAN COMMISSION, 2004). Despite the consensus of the relevance of the implementation of *Active Ageing* measures, employment politics differ among EU countries in dependence on their institutional background (SCHARPF, 2000). To maintain labour supply and promote long-term employment, the abolishment of early retirement schemes were realised in the year 2009 in AUT and GER (EUROPEAN COMMISSION, 2004). The UK, following a liberal logic of welfare, incentives to retire early are prevented in the form of obligations and more stringent sanctioning (EBBINGHAUS, 2011).

Because changes in the number of employed individuals normally have a direct impact on the accomplished working hours, labour volumes⁵ are studied (DESTATIS, 2017). When regarding the data, a shift towards stronger heterogeneity of employment relations of workers is in

⁵ Labour volumes have been calculated with the annual average hours worked of the same age multiplied by the employed individuals of the same age in the respective year.

evidence (OECD, 2015). *Figure 4* and *5* draws attention to the contrary development, on the one hand, a rising amount of employed individuals in relation to the population and, on the other hand, a decreasing development of the average working hours per week⁶ (KNUTH, 2014).

Figure 4: Development of Labour Volumes⁷ in the age group 55-64 year-old



Source: OECD 2017, EUROSTAT 2017, own calculations.

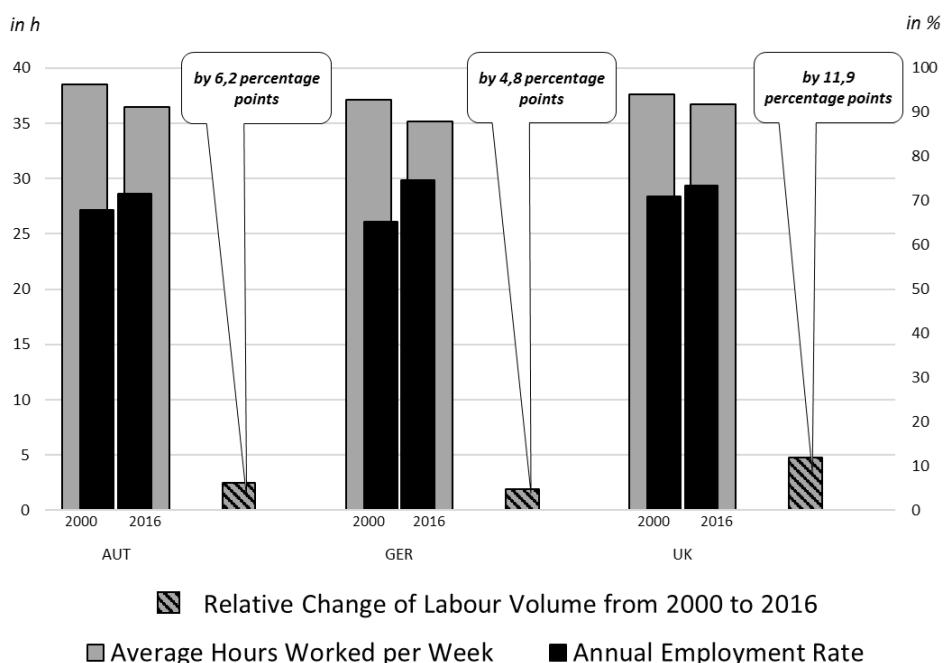
This can be found in every country, despite for the UK, where in 2016, for the age group 55-64, the average hours worked per week do not show significant changes. However, the average hours worked per week in the UK were already at a lower level than in the other countries. Decreases in working hours for older workers are strongest in AUT. In both age groups, 15-64-year-old and 55-64-year-old, the labour volumes show rises. However, in the age group of older workers, the increases are stronger than for the overall employed individuals, with AUT showing the strongest relative changes in labour volumes. This may suggest, that demographic changes towards an elderly population are especially strong in AUT, followed by GER. Though, labour volumes do not allow to explain whether changes emerge due to population or employment effects. However, when looking at the employment rate, which has almost doubled in both, AUT and GER, it can be assumed that, in 2016, older individuals were with a higher

⁶ Data covers average usual weekly hours worked in the main job broken down by total employment (OECD, 2017).

⁷ Though, charts show relative changes of labour volumes across the countries, calculations are based on absolute numbers. Therefore, the chart allows interpretations of in- and decreases, though, cannot account for the effects causing the changes.

probability in employment than they were in 2000. Furthermore, reduced average working hours per week in 2016 compared to 2000 lead to the assumption that older individuals today are more frequently involved in nonstandard forms of employment (KNUTH, 2014). The *International Labour Organisation* (ILO) contributes with their understanding of nonstandard forms of employment (NSFE) to the debate of employment heterogeneity (see KELLER/SEIFERT 2013; WEINKOPF ET AL. 2009; KNUTH 2014, EICHHORST/MARX, 2015).

Figure 5: Development of Labour Volumes in the age group 15-64 year-old



Source: OECD 2017, EUROSTAT 2017, own calculations.

The concept of ILO defines them as all those, that are either not open ended or not in full time, not direct (subordinate relationship with end user) or are not part of an employment relation, such as dependent self-employment (ILO, 2016). In the case of GER and AUT, marginal employment forms (i.e. mini jobs⁸) have been integrated as a labour market instrument, offering to (re-)enter into the labour market quickly and function as a factor that distributes the labour volume among more per capita workers (BÖHEIM/WEBER, 2006; KNUTH, 2014; EUROFOUND, 2016). The equivalent in the UK are zero-hours contracts⁹, where employers only make use of

⁸ Mini jobs are marginal employment forms with a monthly earning level of 450 Euro, with entitlements to the national minimum wage. Employers pay a lump sum social security contribution, whereas mini jobber are exempted from contributions. Since 2013, however, employees in mini jobs are regularly subject to compulsory insurance contributions to the German Pension Insurance (BA, 2017).

⁹ Also known as casual contracts, workers in this employment form are entitled to statutory annual leave and the national minimum wage in the same way as regular workers. Workers are on call, when the employer decides,

the labour power, if services are needed. However, marginal employment leads to contribution deficits in the social insurance and, individually, to reduced entitlements in the social security (KNUTH, 2014). In the following, the concept of NSFE by the ILO is related to. In AUT and GER, the higher number of individuals working in the age group 55-64 seem to outweigh the reduction of working hours. UK's older individuals represent the only exception, with quite constant average hours worked per week. Still, the labour volumes show strong increases in the age group of the 55-64-year-old. As average hours worked have not changed, the rise is caused by a higher quantity of employed elderly. The picture of the age group 15-64-year-old in the three countries is less diverse. Average hours worked per week show reductions in each of the countries. The lowest level of hours worked is seen for GER. The employment rates are similar around 70%. Employment changes have been strongest in GER. Thus, increases in labour volumes are caused by a higher quantity of employed 15-64-year-old. It can summarise, that NSFE have become more popular in AUT and GER, when deviations from the expected standard working hours per week are regarded. For the UK, the changes are not significant, though, average hours worked have already been on a lower level than in the other two countries, suggesting that NSFE are also common.

This report contributes to the understanding of the effects of *Active Ageing* measures on maintaining labour supply and the consequences on the employment situations of older workers. It shows, an increase in labour volumes in the age group 55-64 is driven by a higher number of people in employment, which outweighs the fall in average working hours for this age group. In the UK, a fall of average hours worked does not show. However, average hours worked are generally on a lower level. The probability of older individuals to be in employment now, compared to 2000 will be subject to the following descriptive analyses. To understand how substitutes to early retirement transitions are organised, shifts in employment relations will be analysed in a three country comparison of AUT, GER, and the UK. Further cross-national research (EBBINGHAUS/HOFÄCKER, 2013; HOFÄCKER ET AL. 2016; WRIGHT, 2016) describes the relationship between the labour performance of older workers in dependence of the institutional regimes. Therefore, the differing conditions of labour markets in a comparative context are presented, showing similarities and differences. This chapter gives an understanding of how employment develops among particular labour market groups. Then, the analysis regards the implementation of *Active Ageing* measures in the national labour market institutions in the three countries. By working out factors that support the prolongation of employment and factors that are seen as barriers for old age employment, the result is attained, that the combination of those factors determine the retention probability of older workers. Finally, it will be pointed out, in which countries the probability to stay in the labour market is high, and

that they are needed, though workers are not legally bound to work once they have been asked (UK GOVERNMENT, 2017).

what inferences may be concluded for the effectiveness of *Active Ageing* measures. A short outlook summarises the main findings and sketches future research demand.

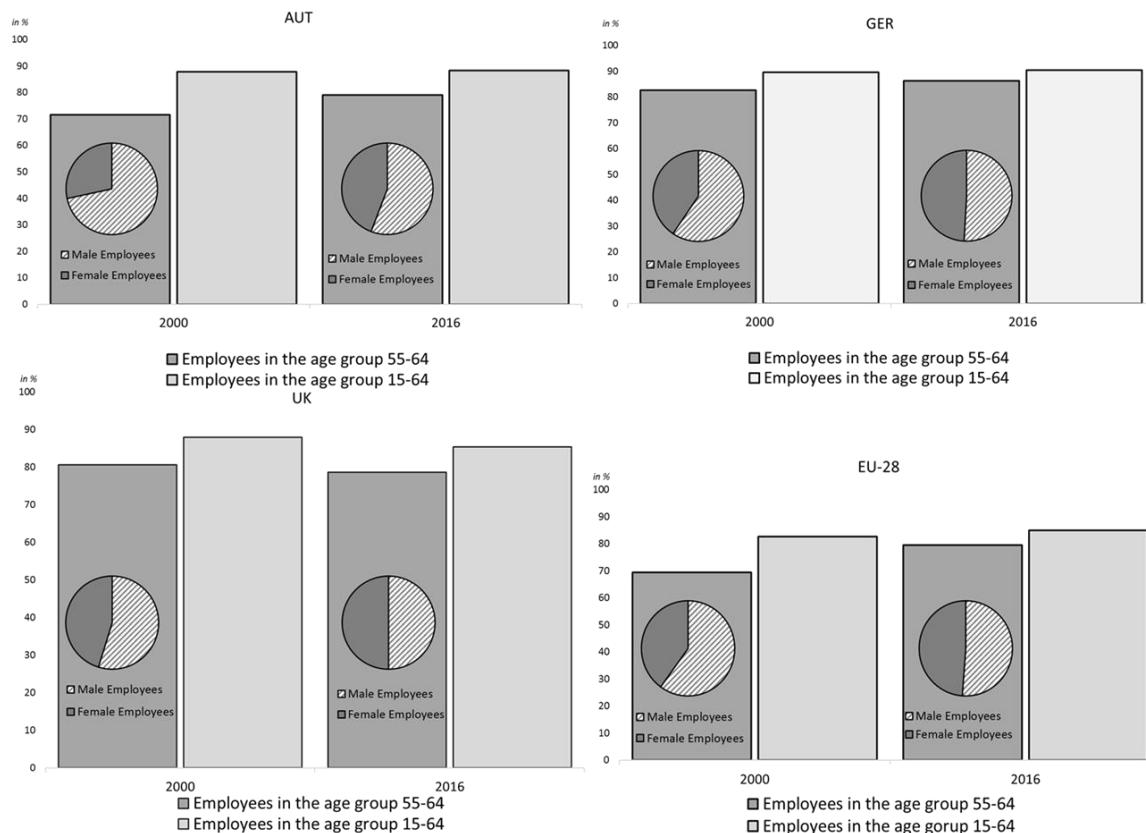
2. Changing Labour Market Conditions in the European Context

Dependent employment is still the main employment form. It includes employees, who work for a public or private employer and who receive compensation in the form of wages, salaries, payment by results or payment in kind.

2.1. Dependent Employment

Despite for the UK, it shows that dependent employment has increased over the years in all of the countries studied (see *Figure 6*).

Figure 6: Gender Share at Dependent Employment¹⁰ in an Age Group Comparison



Source: EUROSTAT, 2017; own calculations¹¹.

This finding holds for both of the age groups studied. *Figure 6* also shows that dependent employment is slightly more common in the age group 15-64, as we see employees with a

¹⁰ Includes non-conscript members of the armed forces (EUROSTAT, 2017).

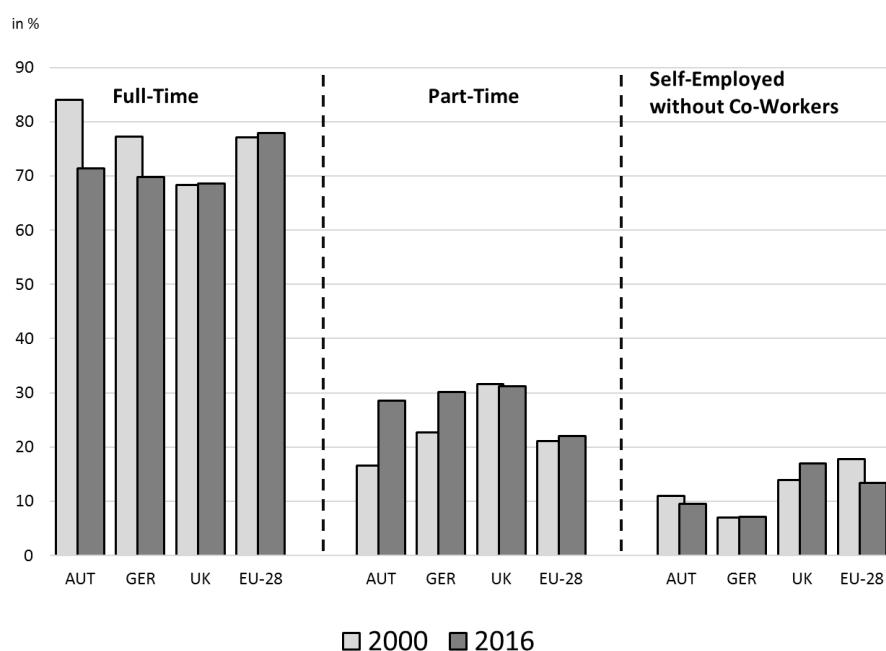
¹¹ Calculations are based on the share of employees within the age group at total employment.

higher share in this age group. In GER and UK, the level of dependent employment is above EU-average for both age groups in 2016. The gender share at employees in the age group 55-64 has developed towards more equality among the sexes in all of the countries studied. AUT still shows inequality among gender participation in dependent employment with below EU-average female employees.

2.2. Nonstandard Forms of Employment

Since 2000, the higher involvement of older individuals in NSFE is in evidence (BRANDL, 2016) (see *Figure 7*).

Figure 7: Employment Structure^{12,13} in the EU



Source: EUROSTAT, 2017; own calculations¹⁴.

For the countries, except for the UK, reduced full-time employment relations and an increased share of part-time work shows. However, when the levels of full- and part time employment

¹² Referring to the definitions of EUROSTAT (2017) “full-time/part-time distinction in the main job is made on the basis of a spontaneous answer given by the respondent in all countries [...]. A self-employed person is considered to be working if she/he meets one of the following criteria: works for the purpose of earning profit, spends time on the operation of a business or is in the process of setting up his/her business.”

¹³ Following theoretical arguments, countries with strict employment protection should more often create incentives for employers to offer temporary employment to labour market participants (DIECKHOFF ET AL., 2015). However, the share of temporary unemployment is for all of the countries below 4 percent with a decreasing tendency for the age group of the 55-64-year-old. Thus, they are excluded from further examination.

¹⁴ Calculations are based on the concept of employed persons, defined as persons aged 15 and over who performed work, even for just one hour per week, for pay, profit or family gain during the reference week or were not at work but had a job or business from which they were temporarily absent because of, for instance, illness, holidays, industrial dispute, and education or training (EUROSTAT, 2017).

forms are regarded, the rates have aligned over the years towards the level of the UK. In the UK, an increase of self-employment is in evidence. Also, the level of self-employment without co-workers is highest among the countries, and in 2016, also above EU-average. Full-time employment is below EU-average in the countries studied. In the case of part-time employment, the opposite trend shows, with all three countries having a share of part-time employment above EU-average. Though, the picture is diverse among the countries, a share of NSFE shows in each of them. Also, in case of the UK, the development of full- and part-time employment is quite constant, though overall, on a lower and higher level respectively. The data supports the general assumption of rising NSFE and its implications on earning distributions in comparison to the standard employment performances (OECD, 2015). Additionally, the self-employment without co-workers seems to become more popular in the UK. This finding is confirmed by the literature (see for EU comparison, e.g. INKSON ET AL., 2013), where the structural change of old age employment in the UK is dominated by a share of self-employment in the age group of 55-64-year-old (REDDEN, 2013). The reduction of dependent employment relations in the UK is in accordance with the increased level of British solo entrepreneurs.

2.3. Gender Division in NSFE

As *Figure 8* shows, there is a gender division within NSFE, as men are disproportionately strong represented in full-time employment across the countries (EUROFOUND, 2009, 2016; OECD, 2015).

Figure 8: Gender Share at Full-Time Employment of 55-64-year-old



Source: EUROSTAT, 2017, own calculations.

However, this gap is decreasing, when comparing the data from 2000 to 2016. An increasing number of women shows to be involved in full-time employment relations in each of the countries. In all of the cases, women's involvement in full-time employment relations is below EU-average. It can be assumed, that especially women are employed in NSFE, which could be explainable by gender-specific labour division that is transforming towards a reduction of full-time employment contracts among male workers and a higher female part-time participation in the service sector (KISTLER/TRISCHLER, 2014; EUROFOUND, 2016).

Figure 9 shows the gender share at part time employment. In 2016, the highest level of female part-time employment across the countries studied shows for GER. Only the UK shows female part-time employment below EU-average, in 2016. In 2000, this finding applies only for AUT. However, the picture changed over the years. When regarding the changes from 2000 to 2016, it shows, that part-time employment has slightly decreased for women in the countries, despite for AUT, where more female older individuals are employed in part-time today.

Figure 9: Gender Share at Part-Time Employment of 55-64-year-old



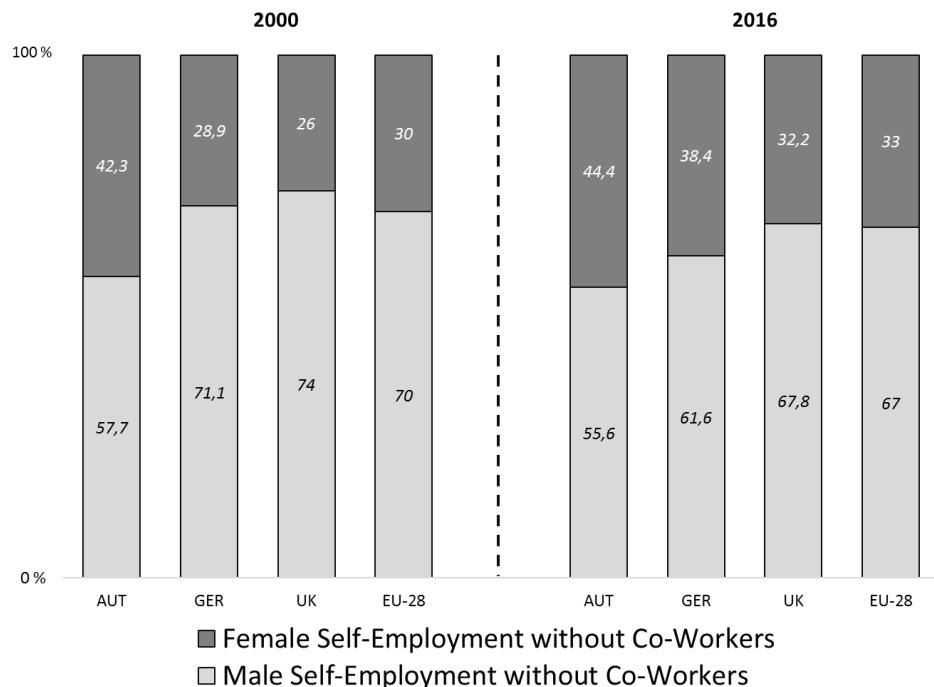
Source: EUROSTAT, 2017, own calculations.

Consequently, old age employment shows divergent for male and female older workers resulting in gender specific provision implications (OECD, 2015). Women belong to the group deviating from the expected standard labour market performance more often than men, which are assumed to result with a higher risk in lower income situations at an old age (OECD, 2015). However, the descriptive analysis does not include the household context, which offers

alternatives and security elements for women's old age provision (see SESSELMEIER ET AL., 2014; BANKS ET AL., 2010; HOSPIDO/ZAMARRO, 2014; RECUENCO, 2015).

Looking at the data of self-employment without co-workers in *Figure 10* it shows to be dominated by male involvement. In 2000, male self-employment without co-workers was above EU-average in each of the countries, despite for AUT. Contrary, in 2016, male self-employment without co-workers is below EU-average, despite for the UK. Overall, an increasing share of women is found among this employment form. Also, the findings suggest, that self-employment without co-workers seems to be the least popular in AUT.

Figure 10: Gender Share at Self-Employment without Co-Workers of 55-64-year-old



Source: EUROSTAT, 2017, own calculations.

It shows that self-employment without co-workers does not follow a consequent pattern. The descriptive analysis does not account for professional structure, levels of qualification or income situations of the self-employed elderly in the countries studies. Generally, it is assumed that self-employment without co-workers divides into two groups (BRENKE, 2013). The larger group that follows aims usually associated with self-employment, such as autonomy and freedom of choice (BRENKE, 2013). Yet, the other group that is drawn into self-employment out of distress, such as unemployment, lack of employment alternatives or problems related to the work place employed before (BRENKE, 2013). The average earning situation of solo entrepreneurs is usually related to financial risks, if displacement effects from dependent employment situations can be assumed (BRENKE, 2013). As a consequence, for the age group

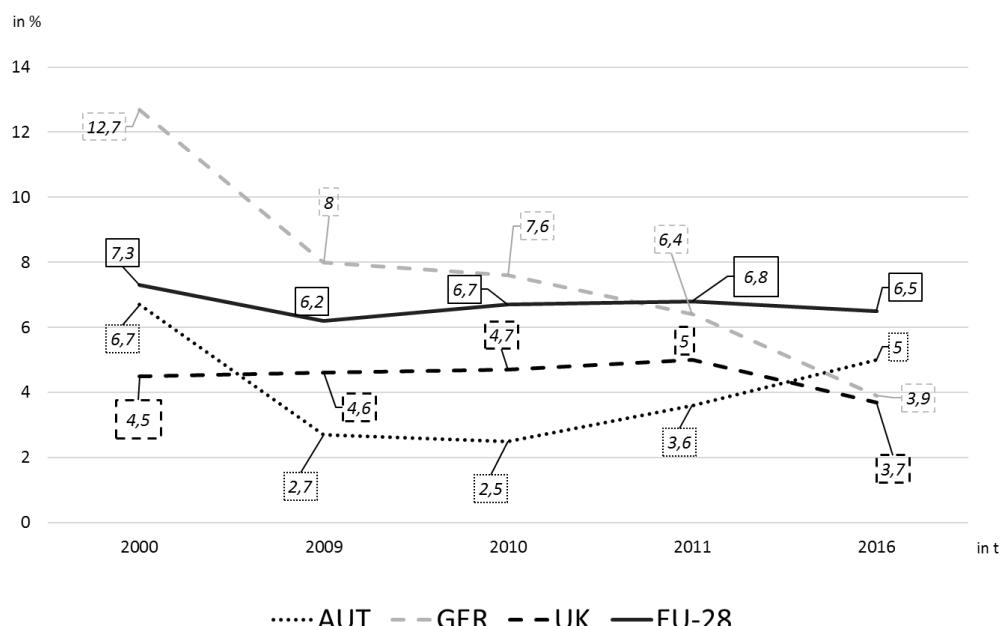
regarded, provision deficits from self-employment without co-workers at retirement age may emerge. Provision risks should be lower in AUT, since this group is integrated in the compulsory pension insurance since 1958 (BLANK ET AL., 2016).

Another relevant indicator is unemployment. Time periods between labour market exit and retirement are sometimes covered by transfer benefits from unemployment (KRAATZ/RHEIN, 2007). Unemployment can be seen as a corridor to retirement (KRAATZ/RHEIN, 2007; BRUSSIG, 2014). However, despite low wage compensation, questions emerge on the coverage of pension payments by the unemployment insurances (BRUSSIG, 2014). Long-term unemployment draws attention to the competitiveness of older individuals at the labour market (see WÜBBEKE 2005; BRUSSIG 2007; BRUSSIG et al. 2016; KNUTH, 2016). If the number of older individuals, who have not been employed for more than a year, rises, there might be barriers to the labour market for this age group (DGB, 2015). Also, employment risks are assumed to be higher in liberal countries than in others (SCHMELZER, 2010).

2.4. Unemployment

As Figure 11 shows, unemployment in the age group 55-64-year-old has decreased in every country, except for AUT.

Figure 11: Unemployment Rate¹⁵ in the age group 55-64-year-old



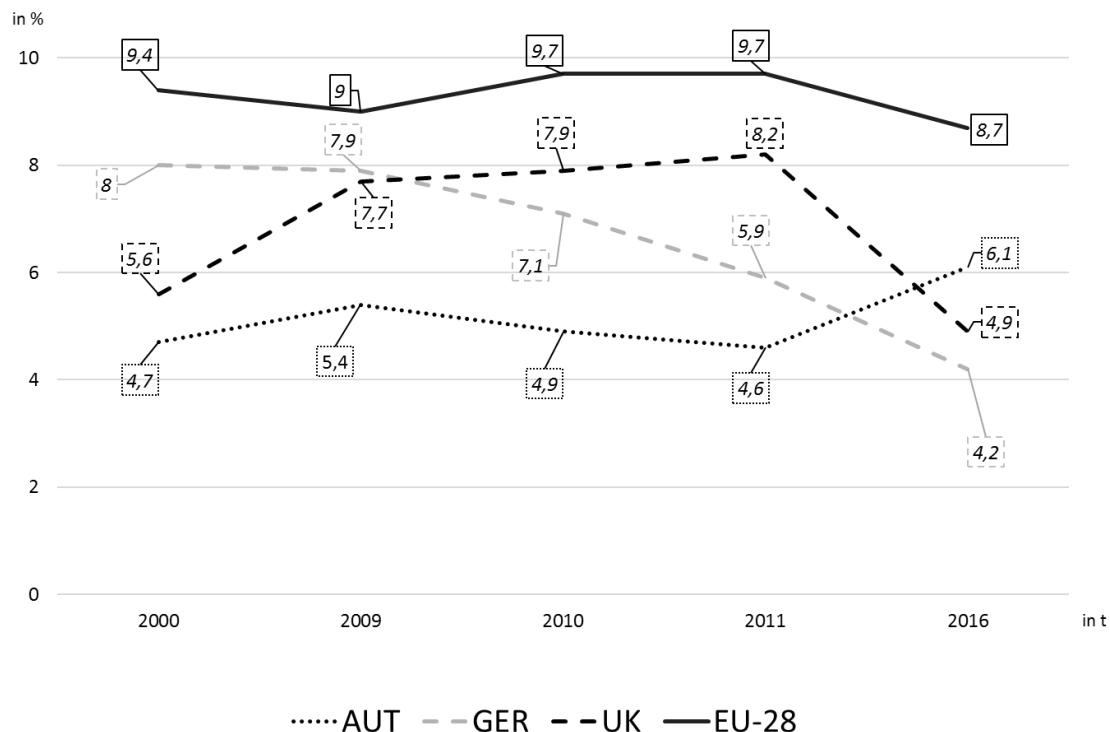
Source: EUROSTAT, 2017.

¹⁵ Unemployment rates represent unemployed persons as a percentage of the active population (EUROSTAT, 2017).

For GER, the data shows a continuous fall of the unemployment rate in this age group since 2000. In the UK, there has been a slight increase of unemployment of older individuals during the financial crises. However, it constantly shows decreases since then. By 2011, the unemployment rates were below EU-average for all of the three countries. Before 2011, the German unemployment rate was above EU-average.

Comparing the unemployment rate of the older individuals to the rate of the age group of the 15-64-year-old (see *Figure 12*), it shows that in general, unemployment is slightly more common when younger age groups are included. Again, only AUT shows increases in the unemployment rate of the 15-64-year-old. In the UK, the financial crises led also in this age group to a slight increase in unemployment, however, has fallen again since 2011.

Figure 12: Unemployment Rate in the age group 15-64-year-old



Source: EUROSTAT, 2017.

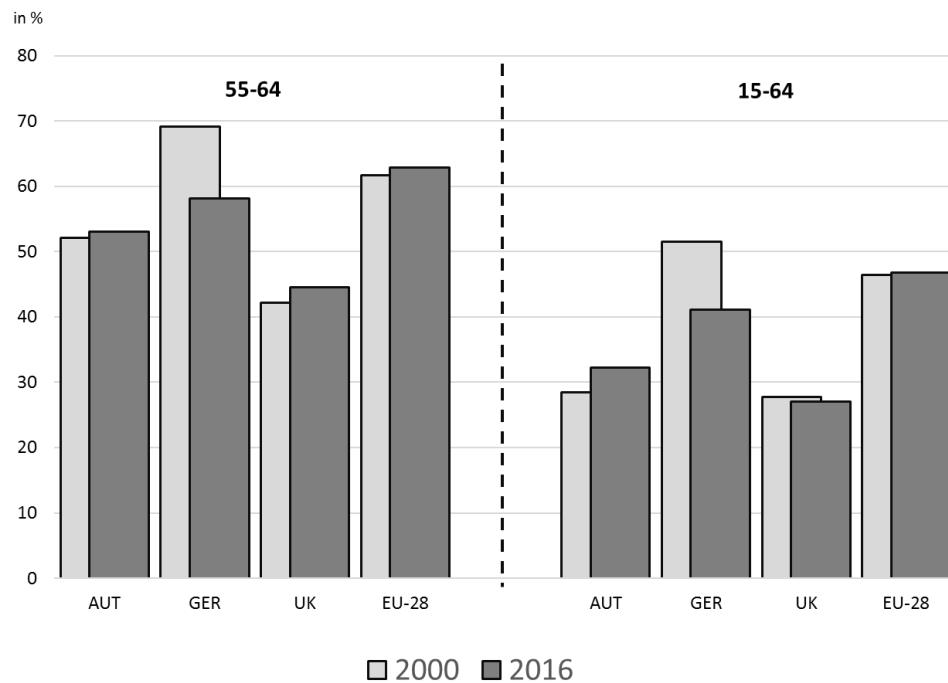
The unemployment rates are below EU-average. Those findings contradict the theory of liberal welfare countries, because AUT shows the highest share of unemployment for both groups among the countries studied. Higher unemployment rates in AUT are in accordance with the findings of a lower share of self-employment without co-workers that is sometimes used as a corridor out of unemployment (BRENKE, 2013). Austrian entrepreneurs before 2009 were able to keep their unemployment claims from earlier dependent employment (KOCH ET AL., 2011). Since then, incentives have been changed towards stricter regulations for the voluntary unemployment insurance of entrepreneurs (KOCH ET AL., 2011). Along with periods of

receiving unemployment insurance benefits and unemployment assistance count (at 70% of the assessment basis) as contribution years for the pension scheme (OECD, 2015B), incentives for older labour market participants to transit into unemployment might have become more attractive in AUT.

2.5. Long-Term Unemployment

Additionally, long-term unemployment shows an increase across the countries, except for GER in both age groups, as *Figure 13* shows. This may be connected to, on the one hand, the existence of marginal employment forms (KNUTH, 2014; EUROPEAN COMMISSION, 2015A). Those offer individuals to (re-)enter into the labour market quickly, though with incomes, that deviate strongly from the expected standard income (BRUSSIG, 2009). This affects the material situation before and after retirement, because the financial situation may be constraint (BRUSSIG, 2009).

Figure 13: Comparison of Long-Term Unemployment¹⁶ of the 55-64-year-old to the 15-64-year-old



Source: EUROSTAT, 2017.

On the other hand, once individuals enter long-term unemployment after an age of 58,5 in GER, individuals have to enter into retirement with payment reductions (BRUSSIG, 2016). Also, when

¹⁶ Long-term unemployed persons are persons who have been unemployed for one year or more (EUROSTAT, 2017).

the level of long-term unemployment is regarded, it is still highest in GER. All of the three countries show long-term unemployment shares in both age groups in 2016 below EU-average. However, in the age group of the 55-64-year-old, long-term unemployment shows on a higher overall level than in the age group of the 15-64-year-old. This could point towards difficulties of older individuals to re-integrate back into the labour market (DGB, 2015). The case of GER shows in 2000, that long-term unemployment was above EU-average and has dropped to below EU-average in 2016 for both sexes.

2.6. Gender Share at Unemployment

The gender share in unemployment shows to be slightly stronger for men than for woman in the age group of 55-64-year-old (see *Figure 14*). However, along with the stronger integration of women in the labour market, their transitions into unemployment seem to have increased likewise. For GER, the share has not changed much over the years. Despite for GER, female unemployment shows below EU-average in both years. Whereas for male unemployment, only GER shows rates below EU-average in both years. The unemployment of older male individuals in the UK has dropped strongly in 2016 compared to 2000.

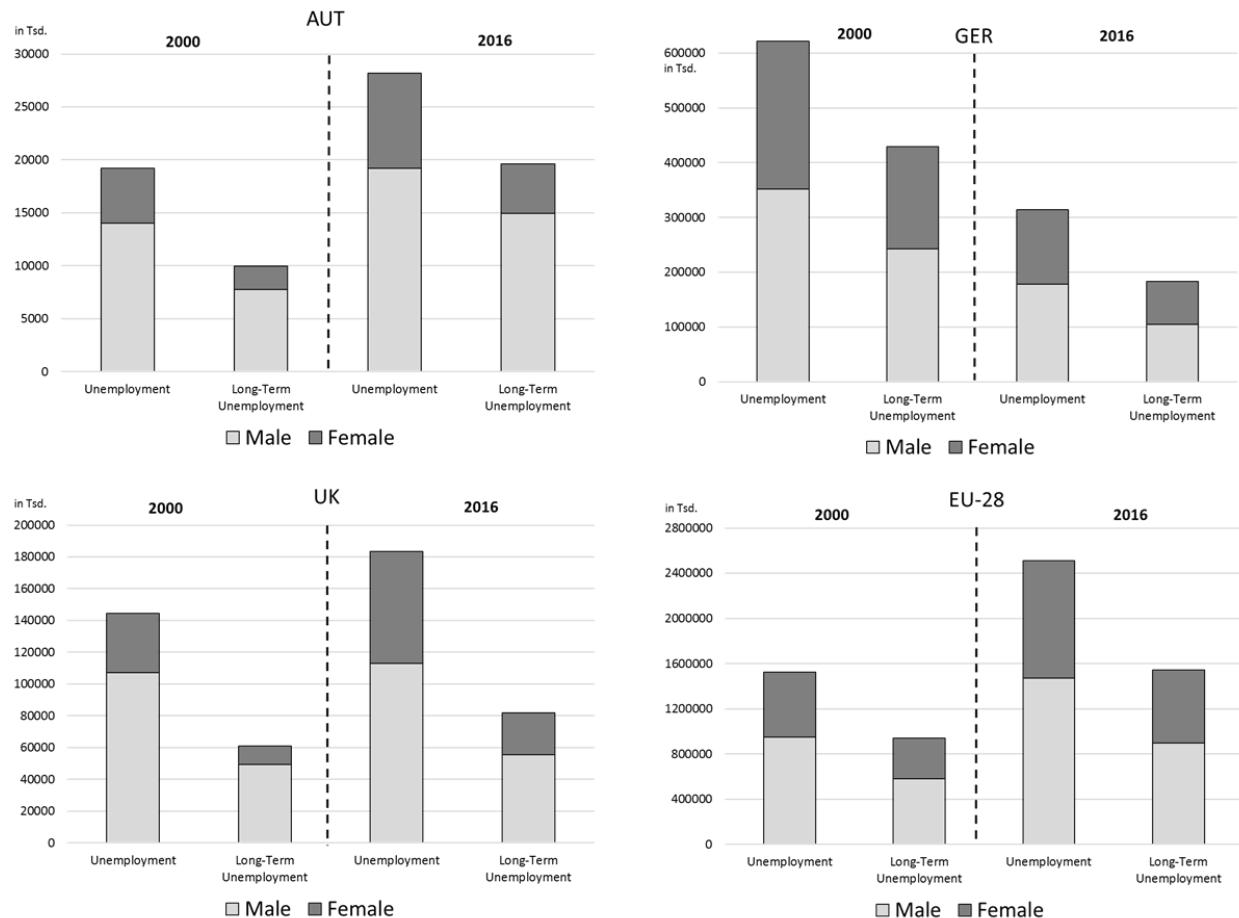
Figure 14: Gender Share at Unemployment of 55-64-year-old



Source: EUROSTAT, 2017, own calculations.

In *Figure 15*, the case for AUT shows for both types of unemployment increases among both sexes, with male older individuals showing slightly higher numbers.

Figure 15: Long-Term Unemployment at Unemployment across EU



Source: EUROSTAT, 2017, own calculations.

In GER, unemployment and long-term unemployment has been reduced by half with the sexes being equally represented. In the UK, unemployment has been rising due to a higher involvement of older women in unemployment. Whereas the long-term unemployment has not changed much over the years for male older individuals, female long-term unemployment shows increases. In EU-average, the trend shows towards a rising quantity in both types of unemployment with incrementally rising representation of older women.

2.7. Interim Summary

Quantitatively, the labour market data shows increases in old age employment. Different causes are likely. Higher numbers of older individuals in the labour market are leading to higher labour market potentials of the elderly (CZEPEK/MOCZALL, 2017). Though, reductions of early retirement schemes and later statutory retirement ages also connect to the time period regarded (CZEPEK/MOCZALL, 2017). When the business cycle is studied, it shows, that in 2000 and in 2016, there has been economic upturns (see *Figure 16*). Thus, higher old age employment can also be led back to a generally good economy development. However, even in the period of the

economic slow-down due to the financial crisis, the employment rates of the 55-64-year-old showed resilient. Overall, it seems that older individuals adapted to changes in labour market transitions towards being with a higher probability in employment than in 2000.

Figure 16: EU Annual GDP Growth Rate



Source: TRADING ECONOMICS, 2017.

Qualitatively, the diversification of employment forms affects older individuals unequally among gender (KISTLER/TRISCHLER, 2014; TRISCHLER, 2014; KNUTH 2014). However, the dividing line for defining NSFE in terms of inferior job quality is not easy to identify (EICHHORST/TOBSCH, 2013) When NSFE are attached to features of instability, limited professional perspectives or low pay they are likely to be linked to a higher risk of deprived material situations before and after retirement (EICHHORST/TOBSCH 2013; KISTLER/TRISCHLER, 2014). Old age provision depends on life course employment integration of individuals (KISTLER/TRISCHLER, 2014). Rising periods of unemployment, along with deviations from standard labour market performances with varying standard incomes along with effects on financial asset accumulations during the life course of individuals result in the need of political discussion on those issues (KISTLER/TRISCHLER, 2014; BRUSSIG, 2014).

3. Analysis of Active Ageing Policies

The implementation of *Active Ageing* policies follows the strategic aim to prolong employment and reduce early exit by changing incentives (EBBINGHAUS/HOFÄCKER, 2013). Those are, for example, adjustments of age at which early retirement can be first accessed, the present value of pension wealth from working an additional year or regulations on training participation (OECD, 2006). In dependence on the institutional context, *Active Ageing* policies supports those measures that decrease increments to leave the labour market while incentives to stay are

increased (OECD, 2006). Changes of increment structures are commonly grasped by the concept of push and pull factors (OECD, 2006; SCHMIDTHUBER ET AL. 2016; SESSELMEIER ET AL. 2014; EBBINGHAUS/HOFÄCKER, 2013) (see *Table 1*).

Table 1: Concept of Push and Pull Factors

Push-factors	Pull-factors
Employment conditions	Financial incentives
Unemployment	Leisure time orientation
Illness	Family or partnership constellations
Retention-factors	
Enhancing older individual's employability	

Different motivational factors determine older individuals in their personal perception of work-retirement decisions. Transitions are marked by life situations of labour market actors as well as by institutional arrangements (STÖBE-BLOSSEY, 2016). Usually, three dimensions of factors are applied to explain these decisions. The first dimension is categorised as push factors, clarifying that work-retirement decisions are not simply explainable by financial constraints, but by certain factors that force the individual out of the labour market (HOFÄCKER ET AL., 2016). Push factors are influenced by voluntary or involuntary determinants, which support the assessment of the nature and motives of retirement transitions (HOFÄCKER ET AL., 2016). Once illness is the reason for retirement, the individual does not have the advantage of free choice, which demonstrates a specific case when looking at retirement transitions (EBBINGHAUS/HOFÄCKER, 2013). When a decision emerges voluntarily, the relative preference of leisure time over continuing work is pivotal (DORN/SOUZA-POZA, 2007). Therefore, the degree of choice over leaving the labour market is high. Contrary, an involuntary decision occurs in a situation of employment constraints, which forces the individual to exit the labour market (DORN/SOUZA-POZA, 2007). Compared to the voluntary situation, the possibility to choose to stay in or to exit the labour market is low (DORN/SOUZA-POZA, 2007). Pull factors are financially attractive incentives in the welfare states, that provide opportunities to exit the labour market (HOFÄCKER ET AL., 2016). Also, the general orientation for leisure time or family and partnership constellations can influence the decision (SESELMEIER ET AL., 2014). Institutional arrangements express the predominant perception of the desirable outcome (BRUSSIG, 2016). Regarding the shape of institutional arrangements, incentives can emerge, which may achieve the socially wanted situation (BRUSSIG, 2016). Here, retention factors are understood as the probability of older workers to prolong employment and stay in the labour market for longer. This contradicts with common approaches (EBBINGHAUS/HOFÄCKER, 2013;

HOFÄCKER ET AL., 2016), where retention factors are understood as the employability of older individuals.

3.1. Measuring Active Ageing Policies

By conducting a literature review and secondary data analysis, a comparison of the implementation of *Active Ageing* measures across the three countries has been accomplished. The focus is thereby on the general research question, whether, since the implementation of *Active Ageing* policies across AUT, GER and the UK, older individuals are with a higher probability in employment. Accordingly, the main research hypothesis is formulated as follows:

H1: The occurrence of push and pull factors determine, whether measures of Active Ageing result in their pre-dominant aim to keep older individuals longer in the labour market or not.

H1 aims at explaining the effectiveness of *Active Ageing* measures. From the descriptive part, the first impression is received that institutional settings in each of the countries determine strongly the performance of older workers on the labour market. AUT and GER are classified as the conservative welfare type, though, show differences in the empirical evidence of the impact of the same political measures (ESPING-ANDERSEN, 1990). On the other hand, the UK gives insight on the implications of the same political measure within a welfare regime, that is classified as the liberal type (ESPING-ANDERSEN, 1990; WRIGHT, 2016). From this hypothesis it is expected, that changes point towards late exit from the labour market in the UK, early exit in AUT and exits around statutory retirement ages in GER. To answer the main research thesis, further sub-hypotheses were formulated.

H2: Depending on the degree of regulations mechanism of the welfare states, employment rates show increases accordingly.

To analyse the *H2*, aiming at analysing the effects of the type of welfare regime on the consistency of the main hypothesis, whether *Active Ageing* measures are in accordance with prolonged working lives in dependence of the institutional background. Welfare regimes and employment models were classified. The following labour market factors were regarded: Employment rates by age groups, hiring rates, structures of employment contracts, retention rates and unemployment as well as separation rates. Regarding the welfare regimes, we would expect employment rates to be highest in the UK (ESPING-ANDERSEN, 1990). Also, for the UK, highest employment changes are assumable (ESPING-ANDERSEN, 1990). On the other hand, retirement systems were categorised across the countries. The following factors were used to comprehend the differences within the regimes: pathways to retirement, pension eligibility ages, rate of individuals neither being in employment nor completely in retirement. Following the logic of ESPING-ANDERSEN (1990), it is to be expected that pathways to early retirement

exist in AUT. Furthermore, it is anticipated that exceptions in pension eligibility ages occur in AUT more often than in the other countries studied and that individuals use the unemployment pathway with a higher rate than the elderly in GER and the UK. For GER it is expected that incentives to use pathways despite regular retirement patterns along with pension eligibility ages are successively being closed. Furthermore, due to the regulation on imposing retirement on individuals in long-term unemployment starting at an age of 58,5 (BRUSSIG, 2016), it is assumed that the rate of individuals neither being in employment nor completely in retirement to be lower than in AUT. For the UK, the factors should be pointing towards late exit and prolonged employment with late pension ages and restricted pathways to early retirement, due to the pension system making early withdrawal from the labour market unattractive (SCHMELZER, 2010).

H2: If pull factors are strong, moderate, weak, then the individual is inclined to exit from the labour market earlier than, at, later than statutory pension age.

The analysis included indicators that show the governmental and private reductions of generosity for early exits from the labour market. The following factors were included: adjustments of unemployment benefits, age at which early retirement can be first accessed, generosity of replacement rates, present value of pension wealth from working an additional year, private pension arrangements, joint retirement. Also the indicator qualification was accounted for, by looking into the share of 55-64 year-old with tertiary education. The strength of work disincentives (*pull factors*), are assumed to be strong in AUT, medium in GER and low in the UK.

H3: If push factors are weak, moderate, strong, then the individual is inclined to exit from the labour market later than, at, earlier than statutory pension age.

To analyse the push factors, indicators pointing at improvements of rewarding a delayed labour market exit were summarised. The following factors were included: financial increments for late labour market exit, effective retirement ages, age discrimination and negative attitudes, relative earnings, explicitly the ratio of 55-64 to 25-54 year-old, seniority wages and mandatory retirement as well as an evaluation of full time earnings of the 55-64-year-old compared to 25-54 year-old and regulations on employment protection legislation, training participation rates, public employment services and work schedules. The strength of barriers to employment (*push factors*) are expected to be strong in AUT, medium in GER and low in the UK.

H4: The differences of the push and pull factors equal the retention probability of older workers.

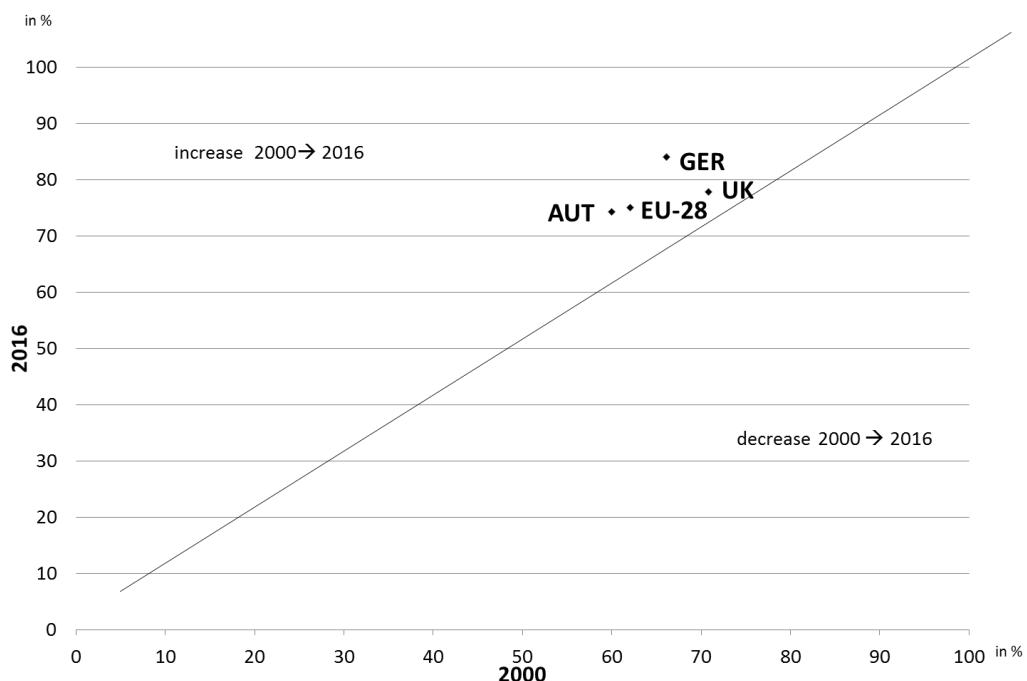
The factors old age employment, economic security and social inequalities were evaluated on a quantitative and qualitative level. Trends in transition changes towards prolonged

employment (*retention factors*), are supposed to be low in AUT, medium in GER and high in the UK. Overall, trends towards retention on the labour market are expected to spread unequally among labour market participants. It is supposed that women exit earlier than men in every country studied. Also, it is expected that lower qualified individuals are less often in employment than other groups of qualification. Furthermore, once unemployed, it is assumed that older individuals are less likely to enter in employment again, than other age groups. Additionally, once unemployed, individuals are more likely to enter into NSFE.

3.2. Results

Overall, the quantity of older individuals in the labour market has been rising (see *Appendix-Table 1, Figure 1*), suggesting that *Active Ageing* measures raise the probability of older individuals to prolong employment (EUROFOUND, 2016). The finding of higher old age employment is in accordance with research, pointing towards higher participation rates of older individuals (e.g. BRANDL, 2016; KNUTH, 2014; EUROFOUND, 2016; HOFÄCKER ET AL., 2016; DGB; 2015).

Figure 17: Employment Rates of Men in the age group 55-59

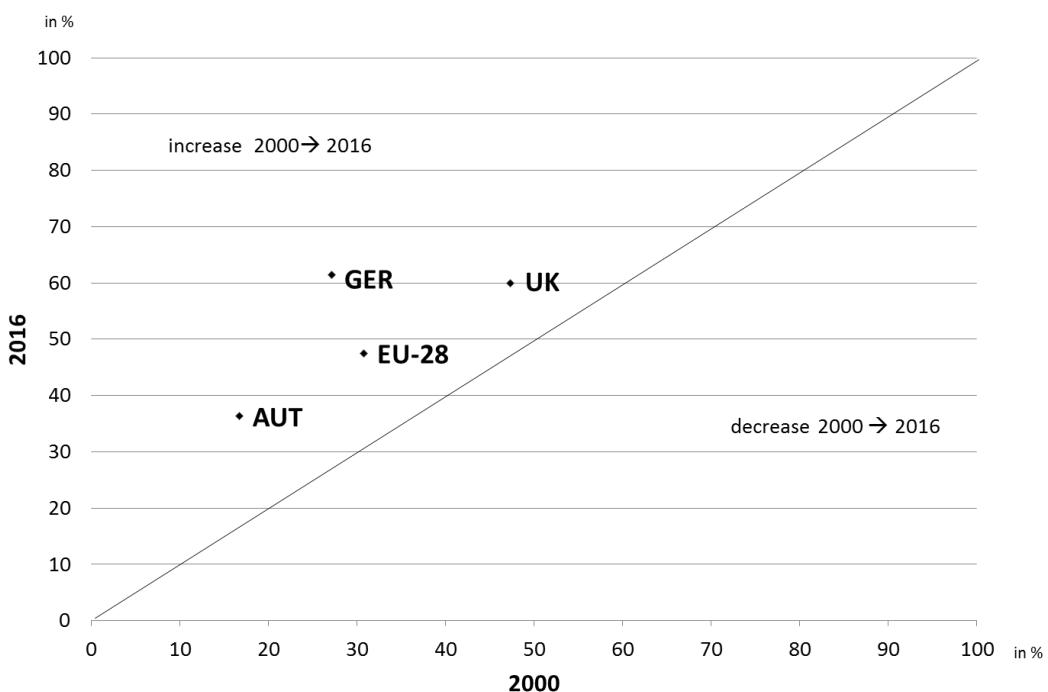


Source: EUROSTAT, 2017.

AUT and GER show the highest employment changes among the countries studied in the age group 55-59-year-old males. The level of employment rates in GER and UK are above EU-average. GER shows the highest employment rate, followed by UK and last AUT. In the age

group 60-64 of males, each country shows increases in employment. Highest employment changes can be seen for GER, which are almost double as high than increases of EU-average. For AUT, the level of employment rate in the age group 60-64 is much lower than for the other countries. However, changes in employment are higher than those of the UK. UK's employment rate in the age group 60-64-year-old is almost at the same level as GER's rate. Yet, it has not changed with the same strength. For all of the countries, the employment changes of the age group 60-64-year-old males are higher compared to the 55-59-year-old.

Figure 18: Employment Rate of Men in the age group 60-64



Source: EUROSTAT, 2017.

However, along with employment increases, NSFE were also found to be rising in the three countries. This could point towards a decrease in economic security of older individuals, due to employment situations of older individuals that result in contribution deficits in the social insurance and lead to reduced entitlements in the social security (KNUTH, 2014; TRISCHLER, 2014). This, as a consequence, would impose implications for social inequalities at an old age (TRISCHLER, 2014). The literature points towards differences across the countries. In the UK, low qualified are expected to be at an especial risk of disadvantageous labour market positions (SCHMELZER, 2010). In GER the polarisation between high and low-income groups is suggested to be widening (DGB; 2015; BRANDL, 2016), yet, in AUT the gender gap in pension payments is assumed to be broadening (EUROPEAN COMMISSION, 2014A, 2015C). We can conclude, that

inequalities emerge differently across the countries, though, it is suggested, that they can be found in each of them (see *Appendix-Table 1*).

- H2: The type of welfare regime

As *Appendix-Table 2* shows, regulation mechanisms are diverse among the countries (BLOSSFELD ET AL., 2010; ESPING-ANDERSEN, 1990). The level of old age employment is expected to be highest in the UK. In GER and AUT the levels of old age employment should be at a similar level. This assumption is not necessarily confirmed by the findings. The highest level of old age employment can be seen for GER. This could be explainable by the service economy model, the UK is classified in. If this theory holds, then capital management services are prioritised over producer services, in contrast to GER (RUBERY ET AL., 2009). Thus, service activities become the key element, increasingly integrating into the international economic system (RUBERY ET AL., 2009), which could incrementally lead to vacancies in which older individuals are less competitive over younger ones. Thus, re-entering the labour market becomes more difficult compared to GER, once older individuals transit into unemployment in the UK. Insofar, the design of employment models (see BOSCH ET AL., 2009; BLOSSFELD ET AL., 2010; MAIER 1994), demographic factors and the overall economic situation of countries seem to play an important role (BOSCH ET AL., 2009; KRAATZ/RHEIN, 2007). While for the UK, the labour market is highly flexible with low compensation of individual risks, employment protection is relatively low (BOSCH ET AL., 2009; BLOSSFELD ET AL., 2010). Therefore, the employment system is designed to participate highly, though, individual social hazards are also high (BOSCH ET AL., 2009). AUT and GER show rigid labour markets with strong insider and outsider segmentation, yet, employment regulations are organised differently (BOSCH ET AL., 2009; BLOSSFELD ET AL., 2010).

Collective agreements to maintain labour standards support the coverage of individual risks, e.g. employment protection legislation¹⁷ (EPL) (see *Table 2*) (BOSCH ET AL., 2009; OECD 2016b). In the countries studied, the strictness is highest in GER and AUT, and last, the UK (OECD 2016b). This shows that, although, the architecture of the model being similar, the responses by the respective political actors in the countries have diverse implications for the labour market (BOSCH ET AL., 2009). The organisation of EPL sheds light on dismissals of older employees (SCHMIDTHUBER ET AL., 2016).

¹⁷ In the present analysis, EPL is grasped as a push-factor.

Table 2: Strictness of EPL

<i>Strictness of EPL¹⁸ in 2013</i>	Scale (0-3) ¹⁹	AUT	GER	UK
		2,37	2,84	1,66

Source: OECD, 2014B.

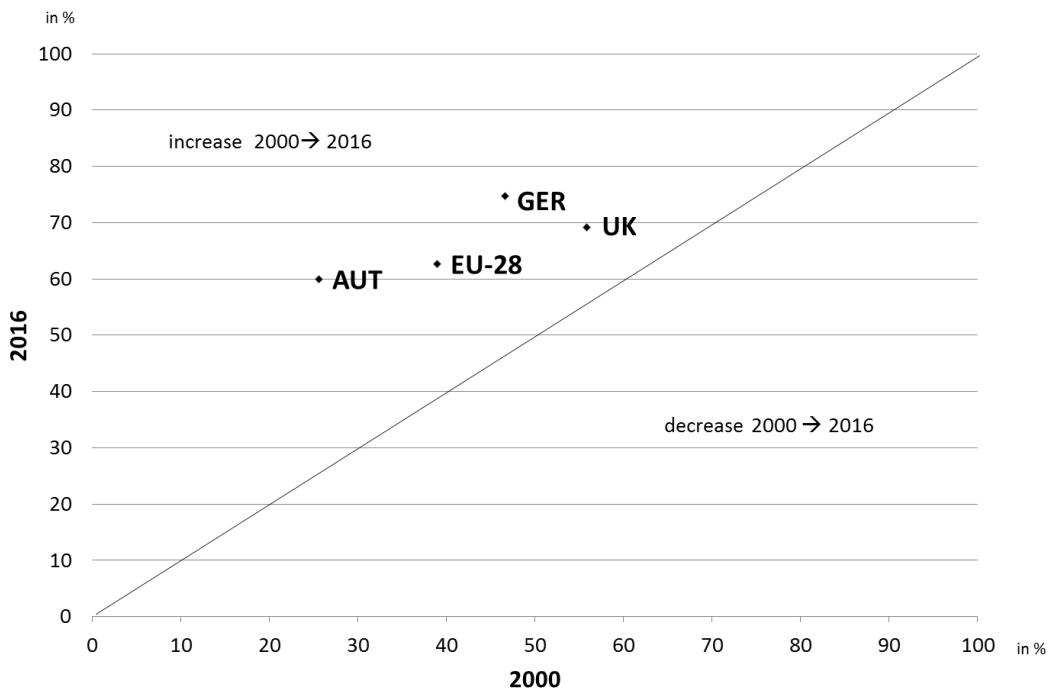
In those countries, where EPL is strict, employers are more likely to send older workers in early retirement instead of making them redundant (SCHMIDTHUBER ET AL., 2016). This is in evidence with the findings of the present analysis, that show, that in AUT early retirement is still quite common (see *Table 5*).

Another example of similarities of employment models, yet, differences in the policy designs is seen (SCHARPF, 2000), for example, for mini jobs in AUT and GER. Marginal employment forms reduce unemployment issues and function as an instrument to react flexible to external shocks (TRISCHLER, 2014). Each of the national models is affected by internal and societal changes, such as the ageing of society or the changes in gender roles (BOSCH ET AL., 2009). This is confirmed by the findings, where the subjected age group of employed individuals is also marked by a higher women's employment (CZEPEK/MOCZALL, 2017) (see *Figure 19* and *20*). Increases in women's employment is especially high for the age group 55-59-year-old across the countries. For UK and GER, above EU-average levels of employment rates can be seen. Though, AUT shows women's employment on a lower level, the rises in employment are higher than those for GER and the UK. The lowest increase in old age female employment shows the UK in this age group. In the age group of 60-64-year-old women, the increases in employment in GER exceed the increases in comparison to the rest of the countries studied as well as in comparison to the increases viewed for the age group of the 55-59-year-old women. For GER and the UK, the level of employment rates of the female age group 60-64-year-old are above EU-average. Austrian women's employment is on the lowest level among the countries studied and shows likewise the smallest increases in employment.

¹⁸ Version 3 of the indicator of strictness of employment protection against individual and collective dismissals for workers with a regular contract is the weighted sum of sub-indicators concerning the regulations for individual dismissals (weight of 5/7) and additional provisions for collective dismissals (2/7). It incorporates 13 detailed data items (OECD, 2014B).

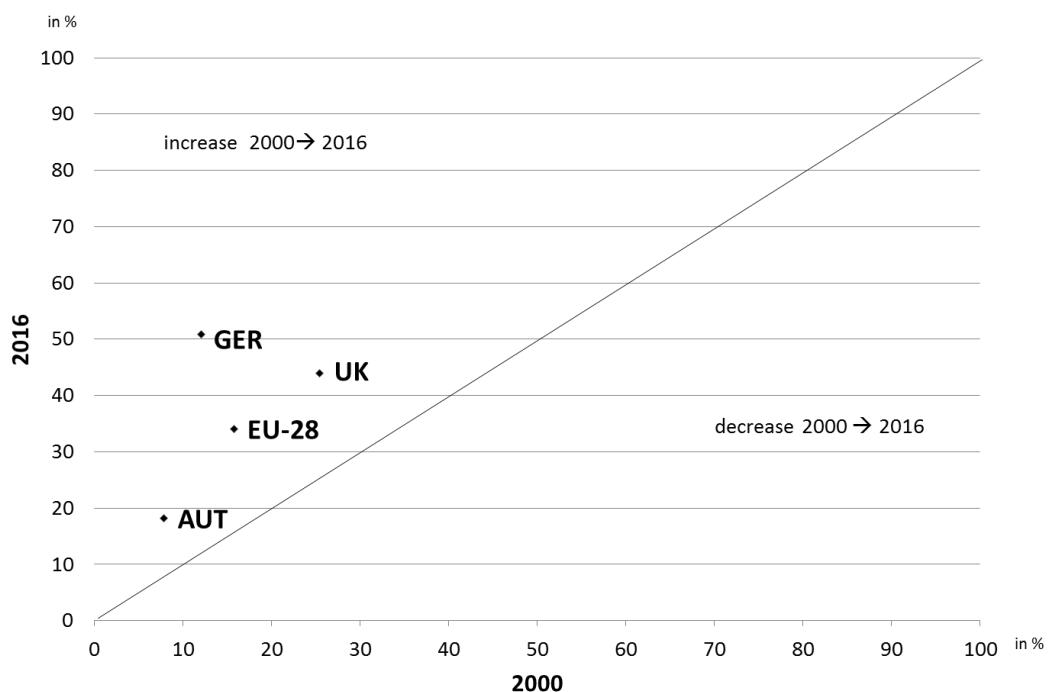
¹⁹ The scale of EPL is 0 to 3. 0 when an oral statement is enough; 1 when a written statement of the reasons for dismissal must be supplied to the employee; 2 when a third party (such as works council or the competent labour authority) must be notified; 3 when the employer cannot proceed to dismissal without authorisation from a third party (OECD, 2014B).

Figure 19: Employment Rate of Women in the age group 55-59 year-old



Source: Eurostat, 2017.

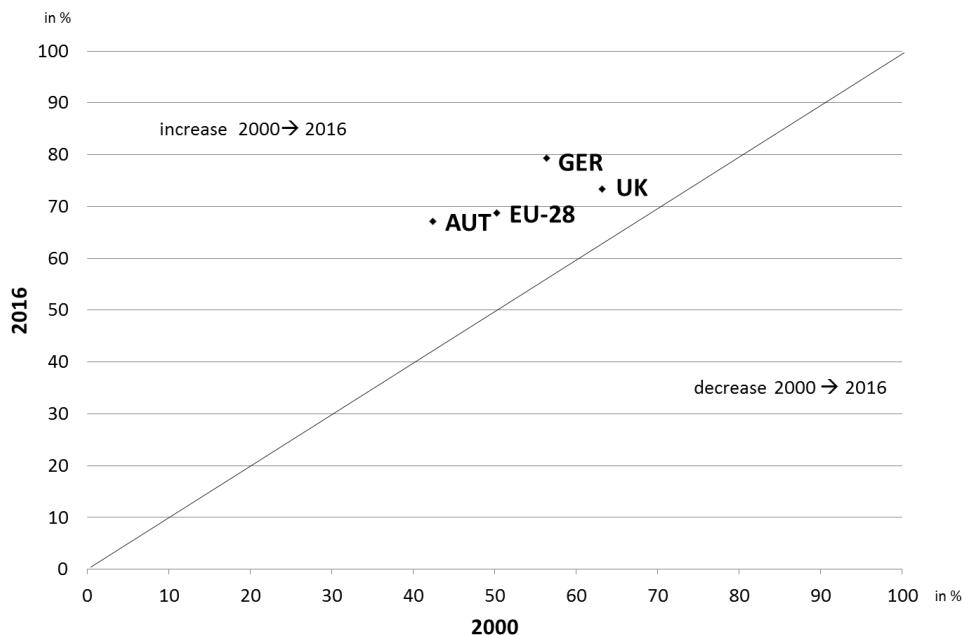
Figure 20: Employment Rate of Women in the age group 60-64 year-old



Source: Eurostat, 2017.

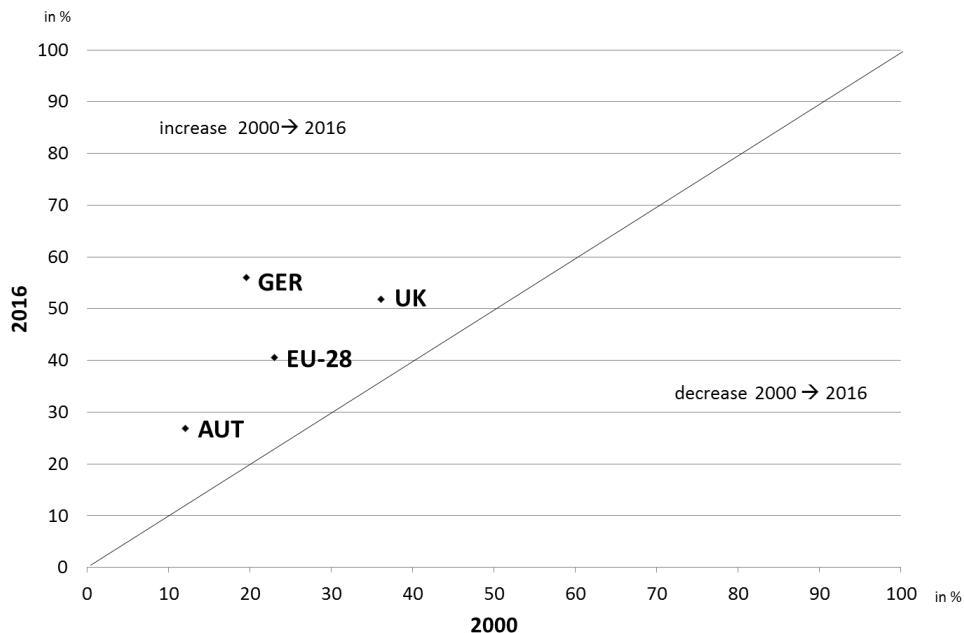
Additionally, differences within the age groups are in evidence (*Figures 21 and 22*). Stronger increases of old age employment are viewable for the age group 60-64 compared to the age group 55-59 in GER and UK, whereas for AUT, the age group 55-59 show stronger growths. When *Figures 21 and 22* are regarded a higher level of employment in the age group 55-59 compared to 60-64-year-old is in evidence for all the countries studied. Comparing the country specific rates with the EU-average, the level of employment of both age groups is higher in GER and the UK. AUT shows in the age group of 55-59-year-old the strongest employment changes among the countries, followed by GER. Employment changes are below EU-average in the UK for both age groups. In AUT, changes in employment are below EU-average in the age group 60-64-year-old. The UK shows after GER, the highest level of old age employment in the age group 60-64-year-old. Therefore, the integration of older individuals into the labour market is highest in GER. In the UK, pathways to prolonged old age employment have already been existing for longer and have been used more intensely since 2000. In AUT, higher old age employment is less strongly reached by the 60-64-year-old, than, by the 55-59-year-old.

Figure 21: Employment Rate in the age group 55-59



Source: Eurostat, 2017.

Figure 22: Employment Rate in the age group 60-64



Source: Eurostat, 2017

- H3: The strength of work disincentives (Pull factors)

Regarding Appendix-Table 3, disincentives to continue working are strong in AUT, whereas GER shows a moderate strength of institutionalised pull factors. The UK has the lowest amount of institutionalised disincentives to prolong employment. For example, qualification sheds light on pull factors (see Table 3) (CZEPEK/MOCZALL 2017; EUROFOUND, 2016; BRUSSIG ET AL. 2016). Individuals with higher educational background, are unlikely to leave the labour market earlier than statutory retirement age. This is in accordance with the findings of the present analysis, that shows for the UK, pull factors are low, and individuals tend to exit from the labour market late (see Table 5).

Table 3: Share of Qualification across the EU

Indicator	Data	AUT	GER	UK
Qualification	Share of 55-64 with tertiary education (% of the age group) ²⁰ in 2013	20,9	29,3	34,4

Source: OECD, 2014A.

²⁰ Percentage of 55-64 either unemployed or inactive but willing to work.

Those results support the assumption, that the lower the degree of pull factors, old age employment is increased.

- H4: The strength of barriers to employment (Push factors)

The information in *Appendix-Table 4* show, that in GER and AUT the institutionalised mechanism that support early exit from the labour market are moderate. They are weak in the UK.

Table 4: Training participation across the EU

Indicator	Data	AUT	GER	UK
<i>Training participation</i>	<i>Training participation (55-64)²¹, absolute (% of all employed in the age group) in 2013</i>	9,8	4,3 ²²	12,1

Source: OECD, 2014A.

For example, advanced qualification measures can be regarded. If qualification measures for older individuals are available, the individual will stay in the labour market longer (see *Table 4*) (OECD, 2006; BLANPAIN, 2008; INKSON AT AL. 2014). Those findings are in accordance with the results of the present analysis, that in UK the participation rate in training is highest among the countries, and exit from the labour market is latest among the countries (see *Table 5*) (OECD, 2014A). Those results support the assumption, that the lower the degree of push factors, old age employment is increased.

- H5: Trends in inequality (Retention factors)

The difference of pull and push factors (see *Table 5*) indicates for the UK (HOFÄCKER ET AL. 2015) that older individuals will rather prolong employment.

Table 5: Retention Probability

	AUT	GER	UK
Pull-Factors	Strong	Moderate	Weak
Push-Factors	Moderate	Moderate	Weak

²¹ Job-related training during the last month, 2004, 2007, 2011.

²² Figures relate to 2007.

Timing of Labour Market Exit	<i>Voluntary</i> <i>Early</i> <i>Exit</i>	<i>Exit at Retirement Age</i>	<i>Late exit</i>
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Source: Own conclusions.

For GER, the results show that incentives and disincentives are relatively equal and therefore, older individuals will exit at retirement age. In AUT, individuals prefer to choose an early exit, however, the mechanisms indicate incentives to work longer. The retention probability is therefore high, wherever the work disincentives and barriers to employment are low.

4. Conclusion and Implications

Implementation of *Active Ageing* measures are consistent with prolonged employment among older individuals, though, at the same time expenses of employment quality in regard to their deviation from standard employment relations are in evidence. Therefore, the main research question is confirmed, that with a higher probability older individuals are in employment now, compared to 2000. Those results are in accordance with general findings of labour research, pointing towards a higher old age employment (BRANDL, 2016; OECD 2015; REDDEN, 2013; HOFÄCKER ET AL. 2016; KISTLER/TRISCHLER, 2014). If involuntary constellations hinder the individual to continue working, supposedly, *Active Ageing* measures are not sufficient to prolong employment (DORN/SOUZA-POZA, 2007). The results indicate the dependence of institutional measures on labour market developments (EICHHORST/MARX, 2015; SCHARPF, 2000). It is supposed, that employment situations close to the retirement age affect the transition decision (TRISCHLER, 2014; HOFÄCKER ET AL. 2016; SCHMELZER, 2014). From the countries studied, heterogeneity in old age employment are expected to be connected to inferior social protection, which leads to detriments in old age provision (TRISCHLER, 2014). Though, the results also point towards diversity depending on the welfare regime (HOFÄCKER ET AL., 2016; EBBINGHAUS/HOFÄCKER, 2013; BLOSSFELD ET AL. 2010). In old age insurances the level of transfers is strongly connected to income situations during the life course but also to the continuation and duration of employment. A sufficient high pension would be attained with an employment period of thirty to forty years and a low full-time income (MAIER, 1994). We would thus assume, that in AUT and GER, where full-time employment has been reduced, specific groups may be at a higher risk to reach insufficient old age coverage. On the other hand, in the UK, interruptions due to low EPL and the liberal welfare setting are more common (WRIGHT, 2016; SCHMELZER, 2010), which could lead to pension entitlements below full-time employment expectations as well (MAIER, 1994). Therefore, political challenges depend on national institutional settings (EUROFOUND, 2016; SCHARPF, 2000).

In the literature, the rising relevance of gaps in the labour market integration of individuals close to retirement age is discussed (KISTLER/TRISCHLER, 2014; KNUTH, 2014). The standards of living within different groups of older individuals is changing (SCHMELZER, 2014; BRANDL, 2016; DGB, 2015; EUROPEAN COMMISSION, 2015C, 2014A; BLANPAIN, 2008; CONTRERAS ET AL. 2011). Future research will regard the causality between prolonged working lives and higher probability to be involved in NSFE. The meaning of labour market performances for old age employment and provision during the life course, will be analysed by employment structures of older individuals by socio-economic features and comparing them to other age groups (INKSON AT AL. 2014; KELLER/SEIFERT, 2013; BRUSSIG ET AL., 2016; EICHHORST/MARX, 2015).

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Appendix

Appendix-Table 1: Comparative Results

Criterion	Indicators	Data	Interpretation	Results				
Countries				UK	GER	BEL	AUT	ESP
	<i>Old age employment</i>		<i>Employment rate of older individuals</i>	The quantity of older individuals in the labour market has been rising. Older individuals stay in the labour market longer.				Old age employment has not been rising.
	<i>Economic Security</i>		<i>Employment situations of older individuals have decreased in quality</i>	<p>Low qualified more often in atypical employment.</p> <p>Low qualified at higher risks of becoming economically inactive on the basis of flexibilisation of the labour market result in</p> <p>Market-oriented reforms negative effects on the pension income for low-qualified individuals, because of the design focussing on career profiles.</p>	<p>Once older individuals lose their previous employment situation, they are more likely to be employed in an atypical employment situation.</p> <p>Incidences of self-employment and perforated life circles foster employment beyond statutory retirement age in</p>	<p>The system of part-time end-of-career jobs is seen as a way of gradually leaving the labour market and is mostly used by the 50-59, not by the 60-64 who are the primary target group.</p> <p>Further reduction of the level of the pensions for persons working beyond the age of</p>	<p>Perforated life circles have become more often.</p> <p>Women are at a higher risk of not being in dependent employment situations than men.</p>	<p>Great problems with unemployment due to the crisis.</p> <p>45+ face particular difficulties in finding employment.</p> <p>Lack of training required to fulfil the new needs of the production market.</p>

					mini jobs to finance standard of living.	62, including low pensions.		
[SOURCE]				SCHMELZER (2010), P. 265, 280	BRANDL (2016), P. 94	BLANPAIN (2008), P. 84-85; CONTRERAS ET AL. (2011), P. 45; EUROPEAN COMMISSION (2015c), P. 23	EUROPEAN COMMISSION (2015a), P. 18	EUROPEAN COMMISSION (2015c), p. 120
	<i>Social inequalities in old age</i>		<i>Precarious constellations</i>	Low qualified older workers.	Polarisation between above average and below average earners.	Continuous decrease of replacement rates	Gender Gap in Pensions	Long- Term Unemployed
[SOURCE]				SCHMELZER (2010), P. 265-266, 280	BRANDL (2016), P. 103-104.	EUROPEAN COMMISSION (2015c), P. 23	EUROPEAN COMMISSION (2015c), P. 261	EUROPEAN COMMISSION (2015c), P. 124, 120

Source: Own illustration.

Appendix-Table 2: Welfare Regimes

Criterion	Indicators	Data	Interpretation	Results				
				UK	GER	BEL	AUT	ESP
Countries				Liberal	Conservative	Conservative	Conservative	Fragmented
Regime Type			<i>The succession of the countries emerges from their degree of regulations mechanism .</i>					

[SOURCE]				BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25	FENGER (2007), P. 24	FENGER (2007), P. 24	BLOSSFELD ET AL. (2010), P. 24-25
Welfare regime				Residual workforce with strong individualisation and privatisation risks	Transfer-orientated welfare state aiming at status maintenance	Transfer-orientated welfare state based on a watered down version of earnings-related social insurance	Transfer-orientated welfare state aiming at status maintenance, strongly focusing on work and family.	Fragmented welfare state with strong transfer orientation for insiders
[SOURCE]				BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25; EBBINGHAUS (2011), P. 58	BLOSSFELD ET AL. (2010), P. 24-25; GUGER (1998), P. 32	BLOSSFELD ET AL. (2010), P. 24-25
Labour Market				Highly flexible with low compensation of individual risks	Rigid with strong insider/outsider segmentation	Rigid with strong insider/outsider segmentation	Rigid with strong insider/outsider segmentation	Rigid with very strong insider/outsider segmentation
[SOURCE]				BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25	BLOSSFELD ET AL. (2010), P. 24-25
	Retirement			Traditional system of late exit from the labour market	Reversion of early retirement trend towards late exit from labour market	Unemployment as well as sickness and disability benefits are key elements for early retirement, as both types of benefits are not necessarily time-limited	Though reversion of early retirement schemes can be seen, substantial labour market withdrawal through disability or unemployment pathway shows	Moderate early retirement regime with particular groups showing later exit from labour market
[SOURCE]				EBBINGHAUS/HOFÄCKER (2013) P. 849, 851	EBBINGHAUS/HOFÄCKER, (2013) P. 849, 851	JOUSTEN/LEFEBVRE (2013), P. 5	INDERBITZIN ET AL. (2012), P. 5	EBBINGHAUS/HOFÄCKER (2013), P. 849, 851

Source: Own illustration.

Appendix-Table 3: Pull Factors

Criterion	Indicators	Data	Interpretation	Results									
Countries				UK	GER	BEL	AUT	ESP					
Pull factors [work disincentives]	<i>Reduction of Generosity</i>			Weak	Moderate	Strong	Strong	Moderate					
Governmental		Gross replacement rate	<i>The higher the replacement rate, the earlier the individual will exit from the labour market.</i>	21,6 % individual gross earnings (of individual earnings, multiple of average 1)	37,5 % individual gross earnings (of individual earnings, multiple of average 1)	46,6 % individual gross earnings (of individual earnings, multiple of average 1)	78,1 % individual gross earnings (of individual earnings, multiple of average 1)	82,1 % individual gross earnings (of individual earnings, multiple of average 1)					
		Net replacement rates		28,5 % individual net earnings (of individual earnings, multiple of average 1)	50,0 % individual net earnings (of individual earnings, multiple of average 1)	60,9 % individual net earnings (of individual earnings, multiple of average 1)	91,6 % individual net earnings (of individual earnings, multiple of average 1)	89,5 % individual net earnings (of individual earnings, multiple of average 1)					
[SOURCE]				OECD (2015B), P.371	OECD (2015B), P.264	OECD (2015B), P.220	OECD (2015B), P. 215	OECD (2015B), P. 351					
Private	Qualification	Share of 55-64 with tertiary education (% of the age group) ²³	<i>Individuals with higher educational background, are unlikely to leave the</i>	2003 25,5	2013 34,4	2003 26,5	2013 29,3	2003 26,3	2013 29,9	2003 17,8	2013 20,9	2003 17,7	2013 22,1

²³ Percentage of 55-64 either unemployed or inactive but willing to work.

			<i>LM earlier than statutory retirement age.</i>										
[SOURCE]		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)	

Source: Own illustration.

Appendix-Table 4: Push Factors

Criterion	Indicators	Data	Interpretation	Results				
				UK	GER	BEL	AUT	ESP
Countries								
Push Factors [barriers to employment]	<i>Improve reward of delay</i>		<i>If push factors are weak, moderate, strong, then the individual is inclined to exit from the labour market later than, at, earlier than statutory pension age.</i>	Weak	Moderate	Strong	Moderate	Strong

	<i>Delay minimum age</i>	<i>Effective retirement age</i>	<i>If reductions to pension payments for retiring earlier than statutory retirement ages are high, the individual will stay in the labour market longer.</i>	2003	2013	2003	2013	2003	2013	2003	2013	2003	2013	2003	2013
				M: 63,1 F: 61,2	M: 63,7 F: 63,2	M: 61,0 F: 60,2	M: 62,1 F: 61,6	M: 58,5 F: 56,8	M: 59,6 F: 58,7	M: 59,9 F: 59,1	M: 61,9 F: 59,4	M: 61,6 F: 61,4	M: 62,3 F: 63,2		
[SOURCE]				OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)	
	<i>Training participation (55-64)²⁴</i>	<i>Training participation</i>	<i>If qualification measures for older individuals are available, the individual will stay in the labour market longer.</i>	Lack of coordination in provision of training and adult career guidance		Low incidence of adult training, especially after 50		Low incidence of adult training		Lack of training opportunities, especially for inactive people		Education level of older workers is low. Provision of adult training is inadequate.			

²⁴ Job-related training during the last month, 2004, 2007, 2011.

[SOURCE]				OECD (2006)		OECD (2006)		OECD (2006)		OECD (2006)		OECD (2006)	
		<i>Absolute (% of all employed in the age group)</i>		2003	2013	2003	2007	2003	2007	2003	2013	2003	2013
		15,4		12,1		2,9	4,3	5,9	4,4	8,3	9,8	1,1	6,5
[SOURCE]		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)	
		<i>Relative to employed persons aged 25-54 (ratio)</i>		2003	2013	2003	2013	2003	2013	2003	2013	2003	2013
		0,66		0,76		0,63	0,67	0,58	0,84	0,65	0,79	0,33	0,64
[SOURCE]		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)		OECD (2014A)	

Source: Own illustration.