New Perspectives on a Longer Working Life in Croatia and Slovenia

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ON A LONGER WORKING LIFE
in Croatia and Slovenia

edited by
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eIZ — The Institute of Economics, Zagreb

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Foreword

The 27 member states of the European Union are facing, among other structural challenges, a new reality of demographic changes to a dramatic degree. At present, a much higher percentage of the population has a life expectancy exceeding 75-80 years than 10 to 15 years ago, which is good news to most of us. The trouble starts when one looks at the figures to find out that the younger population in comparison with the older population is stagnating, if not shrinking. The economic and social consequences are enormous: most of the pension systems in Europe are still built on the basis that the economic active population finances the retired part of the population through gigantic public pension funds and taxes. This system has functioned well as long as the ratio of working (and tax paying) population to retired people stood at a 2:1 level or close to it. With the aforesaid demographic changes, this ratio has changed to an unfavourable level, thus forcing the political systems in Europe to think about suitable measures to adapt the economic and social needs to the demographic reality.

One possible way out of this situation could be to explore several alternatives to provide incentives for the older workforce to remain economically active and to stay in employment as long as possible. Therefore, one has to find out first if the older workforce wishes to stay longer in employment rather than prioritising early retirement. At the same time, it is unavoidable to find an empirical proof that employers favour older employees to be employed as long as possible rather than making them redundant in order to provide openings for younger employees and rationalise labour costs.

Empirical studies and surveys of this kind are very hard to find within the EU – and even harder to find in countries with a recent history of economic transition, like Slovenia and Croatia. Both countries have many similarities and yet provide a number of differences. Though being characterised by a small size with a relatively small overall population and being situated at the south eastern border of the EU, the case of Slovenia and Croatia with regard to the effects of a dramatic demographic ageing could stand as an example for other countries with a much larger size and a greater economic power.

In consequence, The Institute of Economics, Zagreb (EIZ) and Friedrich-Ebert-Stiftung (FES), Regional Office Zagreb for Croatia and Slovenia, initiated in the fall 2007 a joint research and publication project to explore the effects of demographic changes in the two countries in order to influence both employers and employees to keep older workers in labour as long as possible.

The EIZ and FES decided not to limit the study to the description of the status quo but also to formulate and promote policy recommendations which would enable policy-makers to design necessary reforms. Therefore, the purpose of this study is to increase everyone's awareness of the changing age profile of the labour force, to improve understanding of the

issues related to demographic certainties lying ahead and to start removing prejudices about the elderly as potential employees.

In this study, a team of experts has analysed the basic demographic forces shaping future labour market developments, identified those elements of the pension system influencing retirement decisions in the two countries and scrutinised employers' willingness to retain older workers. However, everyone should be well aware of the fact that there are many related issues that remained almost untouched by our research, but deserve a further investigation. Therefore, this research project could evolve in many directions, e.g. to include the social situation of unemployed older persons and young retirees, older persons' preparedness to acquire skills and knowledge and their readiness to work longer, but also topics like immigration expectations and immigration policy. Hopefully, this book will provide an incentive for researchers to make new contributions in those areas.

The aforementioned intentions led us to initiate the project presented in this book and therefore the team was focused on the very substance of the research – data, methodology, literature, results and their presentation. However, this research is quite unique by the way how it was performed, namely in a co-operation between Croatian and Slovenian researchers. Collaboration between the two countries on studying economic phenomena is still rare, but this experience shows that it can yield many useful and pleasant synergies.

Again, the book is not meant to be of interest exclusively for experts in the fields of economics, sociology, finance or demographics – on the contrary, it is designed and written with two major purposes. First, it can serve as a valuable contribution to the EU-wide discussion about the challenges of demographic ageing, elder workforce and the reform of the pension systems. Second, it can be used as an inventory of proposals and recommendations on how to cope with the necessary changes and reforms not only in Croatia and Slovenia, but in the entire EU. Thus the book is written in English with the aim to attract the interest of politicians and policy-makers, students, experts, employers and employees as well as the interested public in Croatia and Slovenia, but also in the EU countries.

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Acknowledgements

Abbreviations

AGE	European older people's platform
AJPES	Agencija Republike Slovenije za javnopravne evidence in storitve *(Agency of the Republic of Slovenia for Public Legal Records and Related Services)*
ALMP	Active labour market policy
CBS	Central Bureau of Statistics of the Republic of Croatia
CEEC	Central and East European countries
CEO	Chief executive officer
DZS	Državni zavod za statistiku Republike Hrvatske *(Central Bureau of Statistics of the Republic of Croatia)*
EC	European Council
ECB	European Central Bank
EU	European Union
EU-10	10 new EU members as of May 1, 2004: the Czech Republic, Cyprus, Estonia, Lithuania, Latvia, Hungary, Malta, Poland, the Slovak Republic and Slovenia
EU-12	12 EU member states in which the euro has been adopted as the single currency and in which a single monetary policy is conducted under the responsibility of ECB: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain.
EU-15	15 EU member states prior to the enlargement on May 1, 2004: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, UK.
EU-25	25 EU member states after the enlargement on May 1, 2004 (EU-15 + EU-10)
EU-26	26 EU member states: EU-25 + Bulgaria and Romania - Slovenia
EU-27	27 EU member states: EU-25 + Bulgaria and Romania (Bulgaria and Romania became member states on January 1, 2007)
Euro area (12)	12 EU member states in which the euro has been adopted as the single currency and in which a single monetary policy is conducted under the responsibility of ECB: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain.

Euro area (13)	Euro area (12) + Slovenia (Slovenia became a member of the euro area on January 1, 2007)
EUROSTAT	Statistical Office of the European Communities
FINA	Financijska agencija *(Financial agency)*
GDN	Global Development Network
GDP	Gross domestic product
HR manager	Human resources manager
HRK	Kuna *(Croatian kuna)*
HZMO	Hrvatski zavod za mirovinsko osiguranje *(Croatian Pension Insurance Institute)*
HZZ	Hrvatski zavod za zapošljavanje *(Croatian Employment Service)*
ILO	International Labour Organisation
IMF	International Monetary Fund
LFS	Labour Force Survey
NAPE	National Action Plan for Employment
NGO	Non-governmental organisation
NN	Narodne novine *(Official Gazette of the Republic of Croatia)*
OECD	Organisation for Economic Cooperation and Development
PAYG	Pay-as-you-go (pension system)
PHARE	Pre-accession instrument; main channel for the European Community's financial and technical cooperation with the CEECs
PhD	Doctor of Philosophy
TFP	Total factor productivity
UK	The United Kingdom
UN	United Nations
USA	The United States of America

New perspectives on extending working life: Challenges for Croatia and Slovenia

1.1 Introduction

Technological progress, a better educated labour force and more developed institutions – we expect them with certainty, so there are good reasons to believe that the economic future will bring prosperity and well-being. However, there is almost inevitable disturbing factor that may hurt the growth prospects of many countries. The population is becoming older and demographic projections indicate that this trend will only get worse with time. In fact, the European Commission (2007: 53-123) points to the fact that all EU countries will face a decline in the working-age population in the period 2005-2050, while 13 member states can expect a contraction of more than 20 percent. With the exception of Italy, all these countries belong to the group of new member states. As a result of rapid declines in fertility rate and an increasing life expectancy, the share of older workers in the age range 55-64 in the EU countries is forecast to climb to 23 percent in 2025, from 18 percent in 2006 (Eurostat, 2006). The labour supply will be negatively affected by these demographic trends. Thus governments must find ways to compensate for a loss in the working-age population to prevent a further decline in economic growth. There are basically two directions for the government strategy: one aims to improve labour productivity and the other aims to increase workforce participation. This research explores the possibilities for improvement in older workers' participation rates, either by increased retention in the labour force or the reintegration of those who have left the labour market.

Developed countries like the USA, Australia, New Zealand, Canada as well as the "old" members of the European Union (EU-15) have already recognised this problem. Therefore, it is not surprising that a vast amount of literature deals with it. This literature is continuously growing since the theme of ageing is of interest to sociologists, psychologists, economists, gerontologists, just to mention the most interested scientists. In particular, the consequences of ageing on the labour market and transition to retirement have been discussed for more than a decade (Kohli et al., 1991; Johnson and Zimmerman, 1993; Taylor and Walker, 1994; 1998; Naegele, 1999; Maltby et al., 2004; Taylor, 2004; Leeson, 2005; James, 2007).

Research results indicate that older workers will become a valuable and necessary part of working population in ageing societies in the upcoming years (Gringart, 2003; OECD, 2006; Davey and Davies, 2006; Feinsod and Davenport, 2006; Taylor, 2008; Vodopivec and Dolenc, 2008). Early exits from the labour market and the "early retirement culture" were widely spread in the last century as a result of political decisions based on positive

demographic trends following the Second World War. But with the reversal of this demographic trend, it will become necessary to extend the working life of older workers.

However, research findings on labour market responses to population ageing in the new member states or accession countries are still insufficient (Ihara et al., 2006; World Bank, 2007). This project attempts to contribute to filling this gap by providing a comparative study of new perspectives on extending working lives in Croatia and Slovenia. A review of studies on the consequences of ageing workforce on labour markets indicates that only few researchers have dealt with this topic in Croatia (Kaliterna, 1998; Cvitković and Šošić, 2002; Bejaković, 2007; 2008) and Slovenia (Stanovnik and Stropnik, 1999; Orazem, Vodopivec and Wu, 2005; Vodopivec and Dolenc, 2008; Verbič, 2008).

This book raises some important questions. Is it possible to stay on the path of economic growth while the elderly population is growing and the young population is shrinking? Is there a reservoir of labour that might lessen the problem? How strong are the constraints against older workers on the demand side of the labour market? Do workers have adequate incentives to work longer? Do employers have adequate incentives to retain them? How can the pension system contribute to increasing the activity rate of older workers? What policy measures might be helpful? Do we need a single approach to all countries or should policy responses to the ageing workforce differ according to the specific situation in each individual country?

As implied by the title of the book, it takes the standpoint that a solution can be found in providing opportunities and incentives for older people to stay longer in the labour force. It also explores the possibility of applying this solution in two small European countries, Slovenia and Croatia. Thus the purpose of this book is to shed more light on demographic changes in both countries that will influence older workers' decisions regarding when and how to exit the labour market as well as employers' behaviour towards those workers. Activity rates will depend on both older workers' willingness to remain in the labour force and employers' strategies to keep them in employment. An additional pressure will be exerted on the government and public administration to provide a fair and flexible institutional framework for transition paths from work to retirement and vice versa. Older workers need to have a choice to either leave or remain in the labour force. Employers' strategies to employ and retain older workers deserve public support and certain incentives.

This project does not intend to provide specific policy guidelines and measures. The initiative for creating policy documents like strategic plans, national actions plans and recommendation guidelines should come from the government side. This edition, together with other similar works, provides research results indicating the importance of the problem and the need for urgent government actions.

The research has been constrained by time and budget. Consequently, there are many topics that have not been explored within this publication. They refer to the implications of ageing population for the fiscal sustainability, age distribution of taxes and benefits, productivity impacts, migration effects, workers' perception of extending working life, effects on consumption and investment patterns, changes in aggregate saving, etc. The whole area of economics of ageing includes a wide scope of macro and micro topics. However, macroeconomic results have roots in the microeconomic behaviour of economic agents and this is why this research is more microeconomic. Although many questions have been left unanswered, we still hope that this edition will offer enough challenging material to motivate researchers to undertake further projects.

The chapters in this book provide new perspectives on a longer working life. They offer data on institutional constraints affecting labour force participation rates and discuss labour market challenges. This should allow for the better understanding of future activities of individuals, firms and governments. This book is organised into three parts. The first part introduces the problem of ageing in the European Union as well as in Croatia and Slovenia. The second part explores two different but important and interrelated issues: the problem of workers leaving the labour market due to retirement and the problem of employment of older workers. The third part is devoted to the demand side of the labour market and employers' attitudes and practices towards older workers.

1.2 The institutional settings in Croatia and Slovenia

The problem of the ageing population has been increasing in Slovenia and Croatia for some time. In both countries, the share of older people in the total population is expected to strongly increase by 2050 (Eurostat, 2006). Although the ageing problem has not yet reached its peak, the policy-makers in the two countries have already expressed their concern over mitigating its consequences. We expect similar problems to induce similar policies for combating the negative impacts of labour force reduction.

There is a number of reasons for comparing Croatia and Slovenia while exploring the consequences of ageing on the labour force. These two countries have a common pre-transition history and consequently similar socio-economic characteristics. They have both passed through the transition period of reforms intended to replace central planning with market-based economies. However, the transition in Slovenia was faster and more profound while Croatia had the additional burden of the war for independence, which has impeded the economic development. Currently, the largest difference between the two countries is attributed to their EU status. Slovenia is a full member of the European Union since 2004 while Croatia has the status of a candidate country.

Before the dissolution of the former Yugoslav federation in 1991, Slovenia was its most developed republic, followed by Croatia. In terms of development level, these two countries still differ. Slovenia is a high-income economy with EUR 16,600 GDP per capita while Croatia is an upper middle-income country with EUR 8,600 GDP per capita in 2007 (Eurostat, 2008). Both countries belong to the group of the so-called small population countries. They are also facing a similar intensity of demographic ageing. The long-term expectations predict that they will become countries with the oldest population in the region. A recent World Bank publication (2007: Chapter 3) on the "third transition" of ageing population in Eastern Europe and the former Soviet Union reveals that most of these countries will face a dramatic increase in the average age.[1] According to the UN population projections, Croatia should expect a population decline of 5 percent in the period of 2000-2025 and Slovenia 4 percent. However, both countries also belong to the group of European countries with the highest proportion of the elderly (together with the Czech Republic, Bulgaria, Hungary, Latvia and Poland). Therefore, these two countries may provide an almost natural experiment for exploring the consequences of opting for institutional and policy settings for the participation of older workers in the labour force.

The institutional characteristics of labour markets in both countries are similar despite their different development levels. Both countries share some common features which are worth listing:

- The external shocks of privatisation and necessity of defensive restructuring in the 1990s induced companies to decrease their labour force (Domadenik and Vehovec, 2003).
- During the 1990s, Croatia has implemented early retirement schemes as a more socially and politically correct offer to older workers to lay-offs (Guardiancich, 2004; 2007). A large-scale flow of older workers to inactivity through early retirement schemes resulted in negative side-effects on the general public opinion about older workers' productivity, knowledge and experience. Firms were pushing older workers to early retirement, paying contributions for each additional year until the official retirement age in order to fulfil the conditions for full pension status, even though a person did not achieve the retirement age. Early retirement solutions were subsidised by employers, but they were not preferred by employees. The reason why older workers were willing to accept early retirement was simply the fact it was the second best solution compared with a highly insecure unemployment status. Another reason was a relatively high replacement rate, i.e. the share of average pension in the average wage (Guardianchich, 2007: 103). During the turbulent times of a deep recession, retirement was a way for older people to maintain a socially acceptable status and regain control over their lives. As such, Croatia consciously sacrificed older working generations, pushing them into inactivity before their full

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[1] The "third transition" depicts the period of demographic changes following a communist government, which is called "from red to grey" (World Bank, 2007: Chapter 3).

retirement age. Slovenia, on the other hand, did not have such high unemployment rates. Their policy towards older workers was similar to Croatia's, but more moderate during the process of company restructuring in the period 1990-2000 (Verša, 2004: 227).

- The share of inactive population in the total population for older persons between 50 and 64 years in Croatia (49.8) and Slovenia (48.8) exceeds that of the EU-25 (40.8) for 2007. However, it should be emphasised that inactivity rates for the same cohort in Croatia and Slovenia gradually decreased from 60.8 percent and 55.4 percent in 2002, respectively. Both countries also have substantially higher inactivity rates for older persons aged 55-64 as compared to the EU-27 (41.5) (Eurostat, 2008).

- The old-age dependency ratios are predicted to show dramatic shifts by 2050. Eurostat (2008) forecasts the old-age dependency ratio of 59.4 percent for Slovenia by 2050. Croatian Central Bureau of Statistics (DZS, 2006) predicts it to reach 46.2 percent in Croatia by 2050.

- The average exit age from the labour force was 59.9 years in Croatia and 59.8 years in Slovenia in 2006. This finding is close to the average exit age of 61 years for the EU-25 (Eurostat, 2008).

- As indicated by the employment protection legislation index, the labour market in the 1990s showed high rigidity levels (Riboud et al., 2002; Biondić et al., 2002). Although rigid employment legislation affects all cohorts, the most vulnerable segments are young, disabled and older persons who are always exposed to higher job discrimination because of adverse selection and asymmetric information problem.

- Employment rates began to increase after 2000. For the working-age population, they stood at 57.1 percent in Croatia and 67.8 percent in Slovenia in 2007 (Eurostat, 2008). This indicates that Croatia is still lagging behind the EU-25 (65.8) and EU- 27 (65.4).

- The share of older workers (55-64) in total employment in 2006 was higher in Croatia (12.3 percent) than in Slovenia (8.0 percent) as a result of the ongoing pension reform (Eurostat, 2008).

- The employment rate of the working-age population with tertiary education between 25 and 64 years was 82.2 percent in Croatia in 2007, as compared to the Slovenian percentage of 87.7, EU-27 (85.3) and EU-25 (85.2) (Eurostat, 2008).

- In contrast to Slovenia, Croatia is struggling with a high youth unemployment rate. The youth unemployment rate in Croatia in 2007 was 24 percent, while the Slovenian rate was 10.1 percent (Eurostat, 2008). The existing elevated youth unemployment rates have a profound influence on political decisions supporting early retirement vs. prolonging retirement.

- As a member of the EU, Slovenia has to follow specific employment guidelines on active ageing, the so-called Stockholm and Barcelona targets.[2] Countries attempting

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[2] The Stockholm target from 2001 has set the objective of 50 percent of EU population employed in the age of 55-64 by 2010, and Barcelona target from 2002 asks for a progressive five year increase in the effective average age at which people stop working in the EU by 2010.

to achieve the full membership have the same targets, but are not obliged to follow them as strictly.

- In their pre-transition history, both countries experienced a substantial migration outflow and a very low migration inflow. With the transition to the market economy, both countries are reconsidering their immigration policies to respond to the labour force shortages. These policies will have an impact on the future participation rates of the working-age population.

1.3 The impact of ageing population on the labour force

The problem of population ageing is a world phenomenon which the European Union has to take seriously since many member states show dramatic negative demographic trends. This will induce consequences on the labour market and those changes might create a drag on countries' ability to grow. This problem is discussed in Chapter 2 which analyses the economic impacts of ageing in the EU and their impact on the labour market. Due to natural (fertility vs. mortality rates) and economic (health, life-expectancy) phenomena, the European population is already ageing and will start to decline in the near future. Thereby, the Baltic States, the Czech Republic, Slovakia, Poland and Hungary will face the highest decline (more than 10 percent).

According to these trends, many European countries will have to cope with the decline of the working-age population and the increase of old-age dependency ratio. Older workers will most probably have to take a different role on the labour market. Due to the importance of gaining new knowledge, the share of older workers in the life-long learning should increase. These changes will also put more pressure on employers who will have to adjust their attitudes to the new circumstances. However, not only the employers, but all parts of the society will have to accommodate to the oncoming burden of ageing.

Chapter 3 explores major labour market challenges in the presence of rapid demographic changes in Croatia. Croatia will face a notable population decline until 2050. The main causes include low fertility rate and a longer life span. In respect to these two indicators, the Croatian pattern of demographic changes is similar to the EU-10 countries. Projection would, however, be more optimistic in the case of bigger positive net migration inflows. However, Croatian Central Bureau of Statistics (DZS, 2006) predicts a low net migration flow. Consequently, Croatia will experience a decline in the working-age population and a rise in the share of older workers.

How to cope with the negative economic consequences of the ageing population? One of the solutions might be found in the increasing activity and employment rates of existing population. Some arguments support such expectations, while others bring warnings about possible side-effects. First, the overall activity rate in Croatia is still well below

the averages for the EU-15 and EU-10, which indicates that there is a room for better utilisation of the working-age population. Second, the activity rate of older workers in Croatia is below the EU average, although it has increased substantially following the latest pension system reforms designed to stop early retirement options. Regardless of an increase in the employment share of older workers after 2000, Croatia is still the country with one of the lowest employment rates for older workers compared to the EU countries. Third, the increase in older workers' share in the total employment varies in respect to occupation. The highest share of older workers is present among the most complex jobs. The same is observed in Slovenia. This indicates that an increase in education and specific knowledge of older workers should consequently bring more job opportunities. Fourth, the unemployment rate of older workers is steeply increasing despite a decrease in the total unemployment rate, which means that employers are strongly biased towards the younger labour force.

Chapter 4 deals with the challenges of the ageing population in Slovenia and its influence on the labour market. The share of older cohort aged 65 and more will almost double in the next forty years as well as the total dependency ratio due to a steep increase in the old-age dependency ratio. Demographic changes will directly affect the labour market due to the increasing share of workforce aged 50 and more. Having in mind the current size of employment rates of older men and women, it seems that the Stockholm target of 50 percent of employment rate for the elderly will be hard to achieve in the short period of time. The main reason is current, significantly lower employment rate of older workers (especially older women) and a lower average labour exit age in comparison with the EU-27, EU-15 and Euro area (13) countries.

Due to a shrinking labour force and an ageing population, overall economic consequences are so complex that forecasting is not an easy task. But some changes, like postponing the retirement age and extending the working age are rather simple to envisage. Most probably, the immigration policy will be reconsidered and public finance will have to be adjusted. Serious policy recommendations seek for an efficient active ageing strategy which has to be the basic necessary document for future planning in achieving sustainable economic growth.

1.4 The institutional framework affecting labour market entries and exits

The second part of the book investigates the institutional framework affecting retirement decisions. How to resolve a dilemma on the most important third age decision: to continue working or to retire? Do workers have enough incentives for working longer and what are the main barriers for postponing retirement? Does pension policy stimulate or discourage the increase of older workforce participation?

Chapter 5 investigates these questions in respect to pension regulation in Croatia. The chapter deals with the pension system reform and legal rules that influence retirement decisions. The pension reform has resulted in a higher average retirement age, an increased dependency ratio and the higher employment of older workers, but also in a lower net replacement rate. The new pension system has a paradoxical effect. On the one hand, it creates a strong incentive for later retirement since replacement rates are generally low and retirement is usually linked to a substantial drop in incomes and welfare. On the other hand, the replacement rate for low-income workers is much higher than the average rate due to the minimum pension. In fact, it might be high enough to pull low-income workers into the early retirement. Another set of questions refers to regulations regarding work arrangements at older age. Croatian labour and tax codes provide relatively favourable and flexible conditions for work after one reaches the minimum statutory retirement age. In addition, the current legislation allows for the possibility of being simultaneously retired and in certain forms of paid employment without consequences on pension benefits. In order to investigate the financial incentives to work/retire this chapter provides several simulations of pension benefits under different assumptions about retirement age, insurance period and average life-time income. As both barriers and incentives for postponing retirement have been built into the current pension system, the chapter concludes that it is still insufficiently oriented towards providing incentives for retiring later.

Chapter 6 explores the employment prospects of older workers in the context of imperfect competition on the labour market and its rigid institutional setting in Slovenia. The probability of switching the labour market status from inactivity or unemployment to employment is tested by probit model on LFS data for Slovenia in the period 1999-2002. The results of the empirical analysis indicate that the level of attained education does not affect the individual probability of switching between different labour market statuses. Moreover, education is even less important for the group of job-seekers older than 50 years because older workers have certain specialisations and expert knowledge due to on-the-job-training, which seems to be more important to employers than the education certificate. In general, older workers have lower chances for switching the labour market status with unemployed older workers being the most discriminated by employers in that sense. Therefore, they need an active labour market policy. However, even in the case of abundant state subsidies for employing older workers, they will remain captured by the adverse selection and asymmetric information problem.

1.5 Constraints on the demand side of the labour market

The retention of older workers on the labour market depends on their willingness and incentives to work longer after the official retirement age. The result of the recent workforce survey in the USA (Feinsod and Davenport, 2006: 15) suggested that motivation (the

energy behind employees' workplace contribution) increases with age and is directly related to engagement (the degree to which employees are emotionally and intellectually attached to their organisations and their work). Moreover, the survey has found that the costs of hiring and retaining older workers can be quite modest, suggesting that the assumption that older workers are costly is more a myth than a fact. But even with the willingness of older workers to remain in the workforce, their position is strongly determined by labour demand. The workers' side is always inferior compared to the employers' side. Namely, evidence suggests that employers' decisions are much more important in explaining the variability of older workers' labour force participation (Taylor and Walker, 1994: 571).

The third part of the book is devoted to the demand side of the labour market, particularly to employers' perceptions and practices towards the older workers and the policies that could help increase their activity rate. In order to explore the lack of demand for older workers, Chapter 7 analyses employers' attitudes towards older workers. It employs survey-based methodology to compare employers' perspectives towards older workers. The questionnaire was designed to match a similar European survey and was distributed to Croatian and Slovenian firms of different size. As far as the perceptions of employee characteristics by employers from both countries are concerned, older employers perform better than their younger counterparts in respect to: *willingness to work hard, reliability, attentiveness, professionalism, decision-making competence, loyalty and honesty and integrity*. In direct comparison, Slovenian employers grade most of the characteristics of both old and young cohorts better than Croatian employers. However, employers from Croatia perceive older workers more reliable in comparison with their Slovenian counterparts. In factor analyses all characteristics of older workers are extracted in four dimensions in both countries, but the results are slightly different. Slovenian employers seem to be much more specific and demanding in evaluating the characteristics of old and young employees.

The results of the contingency analyses indicate that employers' practices and policies concerning the employment and retention of older workers are same in both countries regardless of the firm size, respondent age or education. The majority employ a very low percentage of older workers and hardly actively target older workers when searching for new employees. The only difference occurs in Croatian companies with a longer tradition which tend to actively search for older workers more often than their recently established counterparts. However, when it comes to the participation of older employees in education and training programmes, the Slovenian firms have slightly higher proportion.

Employers in both countries have positive attitudes towards the retention of employees after the legal retirement age, which differs in respect to job occupations in various industries. They are also aware of the fact that certain incentives for keeping older workers in employment will be effective. Although overall employers' attitudes towards

older workers in both countries do not show age or gender discrimination, this contradicts their practices when searching actively for new employees and/or retaining older workers. It seems that this is a result of prejudices, which will need to be effectively tackled in the coming years.

An additional effort in reviewing the growing body of literature in the field of economics of ageing is undertaken in Chapter 8. The research is focused on policy-options that stimulate the greater participation of older workers in the labour force. The chapter looks at institutional setting of pension policies which influence individual retirement decisions. Past experience has shown that early retirement was widely used to exit the labour market. However, reasons were different and induced by factors that pull individuals out of the labour force or those that push them out of labour market or by the combination of both. In the last couple of decades early retirement scheme used to be socially and politically correct policy option, convenient for all involved parties. As a result it spread into kind of "early retirement culture".

New perspectives for transition from work to retirement clearly show that formal and informal institutions of early retirement schemes should be changed which is not easy when institutions fuse into the lifestyle culture. The revision of early retirement trends asks for gradual approach which has already started in early 1990s in "old" EU member states. Gradual approach also implicitly comprises combination of various policies and specific measures which offer incentives for longer working lives promotion. Reforms of the pension system and changes of the non-pension incentives for retaining older workers in the labour force are two sets of policies that can move up transition boundaries from work to retirement. Other two pathways for keeping older workers actively in labour market refer to policies that tackle their employability as well as employers' attitudes and their employment practices towards older workers.

Learning from foreign experience and using best practice in enhancing employer's demand for older workers is a legitimate way to develop domestic policies and practices. Thus the chapter gives detailed and comprehensive overview of best practices such as public information campaigns, age discrimination legislation etc. with the description of the most interesting and relevant country cases.

1.6 Challenges ahead: policy recommendations

Many workers aim to retire on decent pension in their early age, which seems as an ideal solution, but can hardly be sustainable for society as a whole, especially in countries facing the problem of ageing workforce. Working longer and retiring later will not be an option but an unavoidable trend in the future. This will bring changes and new opportunities, but also threats and problems which should be identified and disclosed in

order to find appropriate policy responses. The economic consequences of ageing are complex and they have a different effect on different parts of the society. Therefore, there is a need for strong efforts and a careful coordination of policies. European Councils in Stockholm and Barcelona have set two key objectives with respect to the employment of older people and each individual member state should aim to extend the working life of older people under a comprehensive strategy of active ageing.

This book deals with the challenge of increasing older workers' participation rates as only one part of the overall solution to the problem of ageing population. Policy recommendations can be summarised as follows:

i) The pension system should encourage workers to work longer

The pension policy in every country should ensure the long-term stability of the system and provision of decent pensions. It appears that such a goal could only be achieved by prolonging the working life. One way to achieve this goal is by legislative pressure, i.e. by raising the minimum statutory retirement age. The other, and our preferred way, is to build a system of incentives that could result in voluntary decisions on the exact timing of retirement. Here, we propose:

a) *financial discouragement of early retirement* and
b) *premiums for those working longer.*

Early retirement has already been discouraged in Croatia and Slovenia by the introduction of pension benefit decrements. The question is, however, how effective they are. Also, there is additional room for improving the control of disability benefit schemes that have been increasingly used as routes to early retirement. On the employees' side, working longer should be adequately stimulated with higher pension benefits. As a preferred result, neither employer nor the state, but only workers should voluntarily decide when to retire. Pension system design based on actuary neutral pension benefits should be effective in the country with an ageing workforce.

ii) Creating incentives for workers to remain at work longer

On the employees' side, working longer should be stimulated with higher pension benefits. However, in addition to that, flexibility in all aspects could significantly contribute to the workers' willingness to remain longer or to re-enter labour market at a later age. Older workers need flexible employment contracts similar to those for students, flexible working time including part-time jobs as well as friendly conditions at the workplace. Additionally, barriers for the new employment of older workers should be removed and new employment should be encouraged. Older workers and already retired persons are clearly disadvantaged in their employment prospects

(especially unemployed ones) due to formal legislation and informal institutions which are deeply embedded in cultural roots and therefore not easy to change or remove. For instance, the prejudice that younger and older workers are substitutes and not complements does not contribute to age diversity at the workplace. Therefore, the employment policy and active labour market measures can contribute to the employment of older workers. If a retired person would like to reactivate on the labour market, flexible legislation and efficient administration should help in achieving that goal. An active labour market policy is a useful financial tool to encourage employers to employ older workers and to enable their access to training and improving working skills. However, a continuous impact assessment is needed in order to control the efficiency of state aid and to create better tailored measures.

iii) Creating incentives for employers to retain older workers

Our research results indicate that despite the overall positive attitudes of employers towards older workers', their practices are different. Therefore, there is a room for enhancing employers' demand for older workers. The tax policy and pension insurance policy should motivate employers to retain older workers by keeping them active at lower costs for the company. Financial incentives for hiring, retaining and re-training older workers are also welcome in order to increase older workers' capabilities to find or keep jobs. However, it is important that the retention or new employment of older workforce do not have discriminating implications to any other workforce cohort.

iv) The public promotion of older workers' employment

In order to change employers' behaviour, it is helpful to receive external inputs or signals through public anti-discrimination campaigns, well-developed legislation and institutional guidelines for preventing age discrimination. Public campaigns will probably not have an immediate strong impact on employers' behaviour, but they are a useful tool for breaking negative social stereotypes and prejudice. In the longer-run they could influence employers' decisions on employing/retaining older workers.

Another way of public promotion could be the establishment of employment agency for retired people to help them find (new) employment. It is important to stress that each measure of increasing the employment of older workers can partly contribute to the final result, but all measures together would have much better effects.

v) Providing life-long learning opportunities and developing training culture

Investment in human capital through life-long learning opportunities and training courses stimulates the acquiring of new skills and accumulation of knowledge

necessary for longer working lives. State subsidies can be useful in that respect, but it is more important that employers change attitudes towards investing in the employability of older workers, which should not be perceived as a bad investment.

At the beginning of this chapter two questions were raised. What policy measures might be helpful for countries with an ageing workforce and do we need a single approach to all countries or a specific individual approach? In the literature one may found many country case studies with similar recommendations and measures. Thus, it seems that each country should use a combination of measures that are appropriate for a particular economic situation and to decide whether to undertake reforms in a gradual or radical manner. The history of recent reforms teaches us that comprehensive and radical reforms might not be the best choice, especially for developing countries. Gradual policy reforms set in a consistent order might gain superior results.

From the perspective of active ageing strategy, a comparison between Croatia and Slovenia leads to the conclusion that Slovenia is in a more comfortable position, but there are some factors that might endanger it.

- A country with an overall lower unemployment rate, especially with a significantly lower youth unemployment rate, is in a better situation to increase the employment rates of older workers. In other words, with the higher rates of youth employment. Slovenia has preconditions for easier implementation of reform policies.
- Slovenia has already taken a path for the easier implementation of active ageing strategy with a 14.8 percent share of the population in the range 25-64 being involved in the life-long learning (Eurostat, 2008), compared to 2.4 percent in Croatia.
- The higher employment rates of the working-age population with tertiary education in Slovenia indicate that older cohorts will also be better educated, and therefore measures to retrain and reintegrate older population will be less complex. In 2007, Slovenia had higher share of women with tertiary education in employment (13.2), as compared to Croatia (9.6) (Eurostat, 2008).
- Age discrimination in the recruitment of old persons might aggravate if the employment protection legislation index stays at high rigidity levels.
- Although the effect of migration inflows has not been included in this research, changes in this variable might significantly affect the overall participation rates of workers in Croatia and Slovenia.
- Finally, a higher GDP per capita in Slovenia allows for the implementation of different policies and measures within an active ageing strategy. It can also guarantee abundant state subsidies for increasing labour force participation rates and lead to a higher quality of the health care protection, which is an important component for a successful extension of working life.

Nowadays, there are no firm visual, physical or intellectual lines between young and old age. The age issue does not mean the same as in the past century. We all live longer and move age frontiers in many fields. Therefore, all recommendations towards increasing the labour force participation should be focused on fostering employability of all age groups rather than relying on age alone.

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I

AGEING POPULATION AND LABOUR FORCE

The economic impacts of ageing in the EU with special focus on the labour market

2.1 Introduction

Over the next few decades, the population of Europe will change significantly. The baby boom generation of 1940s to 1960s will gradually retire. The next generations are significantly smaller due to a decreasing fertility rate in almost all European states. The changing nature of Europe's population is one of its most important political, economic and social challenges. Murray (2008) warns that the changing demographic make-up threatens to blow a hole in government budgets, derail national economies, and leave European countries enfeebled in the face of competition from younger countries elsewhere. But, he adds that there is room for modest optimism. Dependency ratios are expected to stabilise within half a century. Also, pension and healthcare systems are being overhauled, and reforms in the European labour markets should help to mitigate the adverse impact of ageing on public finances and the economy.

The focus of this paper is on the changing demographic profile of the European Union and its impact on the economy. First, demographic trends and population projections (Eurostat[1],[2]) and their impact on the labour market are presented. The macroeconomic challenges and opportunities for societies marked by the ageing population are discussed next. Finally, existing policy responses to the ageing population problem are critically reviewed and possible new additional EU policy responses are listed.

2.2 Declining and ageing population in Europe

Around 2025, the population of the EU is expected to start declining due to a natural decrease; most of the new member states already face population decreases (Eurostat,

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[1] The article is based on population projections prepared by Eurostat. Population projections involve making population estimates or producing the most plausible figures for the years to come. Estimates are made using the latest available figures for the population on January 1. In general, key assumptions are made with respect to mortality, fertility and migration by sex and by age, and ageing techniques are applied to the population pyramid from year to year (Eurostat, 2008a).

[2] The paper does not deal with the problem of potentially erroneous projections. For example, Keilman warns that population forecasts are inaccurate because our understanding of demographic behaviour is imperfect. He warns (2005: 6) that in addition to whatever partial picture demographers obtain from behavioural sciences, they still rely significantly on current real trends in key processes, and they extrapolate those trends into the future. A problem arises when the indicators show unexpected changes in level or slope. Especially (Keilman, 2005: 12), for many developed countries, plotting relative forecast errors against age shows large and positive errors for young age groups, and large negative errors for the older age groups. For intermediate age groups errors are small. He clams that this age effect in forecast accuracy has been established for Europe, Northern America, and Latin America, and for countries such as Canada, Denmark, the Netherlands, Norway, and the United Kingdom.

2008a). Several years before the population decline, the EU will be confronted with a shrinking working-age population (2007 is supposed to mark the declining point). In most of the EU countries, the process of rejuvenation has come to an end; old-age dependency ratios, on the other hand, should rise substantially throughout the whole projection period (overall from 39 percent to 80 percent) (Eurostat, 2006: 127). Population ageing and decline should lead to significant changes in the labour market and will have an important impact on future economic growth in the EU.

2.2.1 Population trends in Europe

Population ageing is a phenomenon faced by almost all developed economies. In less developed regions, the population over 60 represents less than 10 percent; while in more developed regions of the world, people aged 60 or over represent 20 percent of total population: 23 percent in Western Europe, and 17 percent in Northern America. Europe is facing a process of relative population decline (Murray, 2008: 3). According to Murray (2008), its share of the world population has fallen from 12.5 percent in 1960 to the current 7.5 percent and is expected to decline further to just 5 percent by 2050. UN population projections (United Nations, 2002) forecast that Europe (not just the EU) will in 2050 have 603 million inhabitants, while in 2000 it had 727 million. Eurostat (2006: 127-129) shows that population growth in the EU has slowed down considerably in the last decades of the 20th century. Future growth will probably stagnate around 2025 (Figure 2.1).

Figure 2.1: **Population trends in Europe**
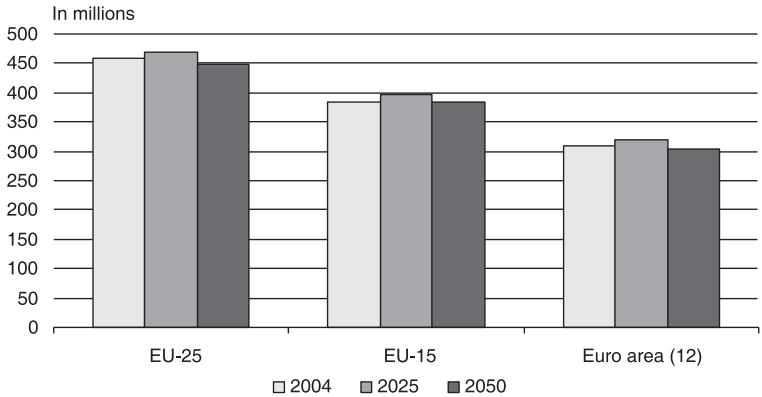
Source: Eurostat.

From 2005 until 2025, the total population of the EU is expected to increase by about 12 million to 470 million. In the period 2025-2050, the population is expected to decrease by 20 million. During the next two decades, the population in most countries will still

increase, except for in the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland and Slovakia, which have been recording a declining trend from the beginning of the projection period onwards (2005). By 2025, a continuous population decrease is expected in another six economies: Italy (starting in 2013), Germany (2014), Slovenia (2014), Portugal (2018), Greece (2020) and Spain (2022). Despite the population decline, by 2050, in approximately half of the EU states, the total population will still outnumber the population of 2005. Between 2005 and 2050, the highest increases are expected in the five countries that probably will not experience a population decrease: Luxembourg (41 percent), Ireland (34 percent), Cyprus (32 percent), Malta (26 percent), and Sweden (13 percent). The largest declines (more than 10 percent) are expected in the Baltic States, the Czech Republic, Slovakia, Poland and Hungary (Eurostat, 2006: 127).

Population growth depends on natural growth (defined as the difference between the fertility rate and mortality rate), and migration (defined as the difference between immigration and emigration) as shown in Figure 2.2. Although natural growth in the EU is still positive, this is not likely to continue in the future. The main reason for this is the "birth deficit" of the post-war (baby boom) generations. Already in the 1980s, a woman in the EU-25 on average gave birth to 1.79 children (in the EU-15: 1.71; in the new member states: 2.17). In the EU-15, the total fertility later fell to 1.46 (1990s) and by 2004 recovered to 1.55. In the former socialist bloc, besides the natural decline of births due to changing values in the society there was also a significant decline in the 1990s due to economic restructuring and uncertainty. The total fertility rate reached only 1.23 in 2003 (Eurostat, 2006: 71).

Figure 2.2: **Crude rate of population increase**
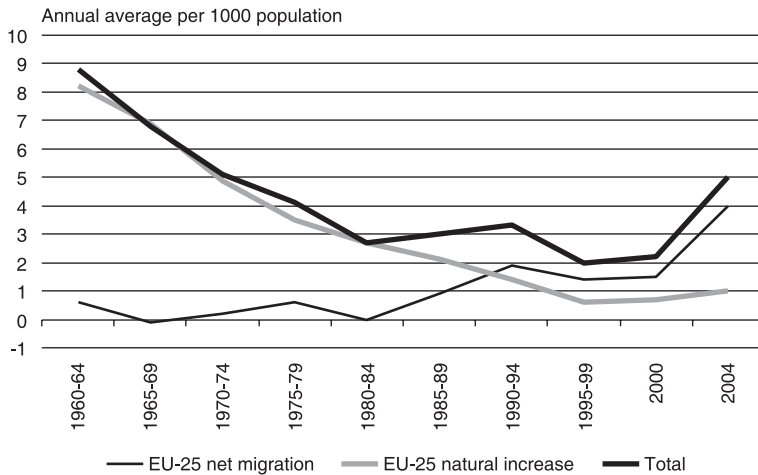
Source: Eurostat.

In addition to a decline in the fertility rate, which, in a short-term, is unlikely to rise significantly enough to overturn population trends, the generations following the baby boomers are smaller. Smaller cohorts will by default result in a lower number of children even if the fertility rate itself does not change. Consequently, the population's age structure and average age will change.

When looking at the mortality rate, it can be ascertained that in the EU it has been decreasing due to better health care, leaving the number of deaths relatively stable at around 4.5 million due to a growing population (Eurostat, 2006: 83). Eventually (with the continuation of present trends), the number of deaths will start to exceed the number of births, resulting in a natural population decrease. Population projections (Eurostat, 2006: 127) forecast that a natural decrease is expected to start in 2010. From 2025 onwards, net migration might no longer outweigh the natural decrease, resulting in a population decline.

Several years prior to the population decline, the EU will face a shrinking working-age population (the number of people aged 20- 59). After 2007, a persistent period of decline will begin. All countries except Luxembourg will face (at least a period of) a declining potential labour force. Except in Ireland, Cyprus, Luxembourg, Malta and Sweden, the absolute size of the working-age population will be significantly smaller in 2050 than in 2005. In Germany, the absolute decline will exceed 11 million people, which is equal to a reduction in the current potential workforce by one fourth. Relatively, the biggest losses (over 30 percent) are forecasted for the Czech Republic, Latvia, Poland and Slovakia. Relatively modest declines are forecasted for France, the Netherlands and the United Kingdom (less than 8 percent) (Eurostat, 2006: 127). Lanzieri (2007) claims that replacing these declining age groups and thus to sustain the growth of the labour force is practically impossible: the "baseline" population projection for the EU shows that even with positive net migration of around 40 million persons over the projection period (2004-2050), in 2050 the working-age population of the EU would have decreased by 52 million, and the total population by 7 million (note that the total population in 2004 amounted to 456 million). An ageing population - smaller younger cohorts and large older cohorts - will also lead to a shrinking working-age population and increased dependency ratios (Figure 2.3).

Young dependency ratios declined from 48.8 percent to 40 percent for EU-25 in the period 1990-2005 (Eurostat, 2006: 62) due to effects of the ageing population and decreased fertility rate. Old-age dependency ratios, on the other hand, were rising steadily from just below 30 percent in 1960, to around 40 percent in 2005. They are expected to further rise in the future to about 60 percent in 2025 and 80 percent in 2050. In 2050, the old-age dependency ratio is expected to be the highest in Spain (98 percent), Italy (96 percent) and Greece (88 percent), while the lowest is expected to be found in Luxembourg (55 percent), the Netherlands (59 percent) and Denmark (61 percent) (Eurostat, 2006: 128).

Figure 2.3: **Old-age dependency ratios***
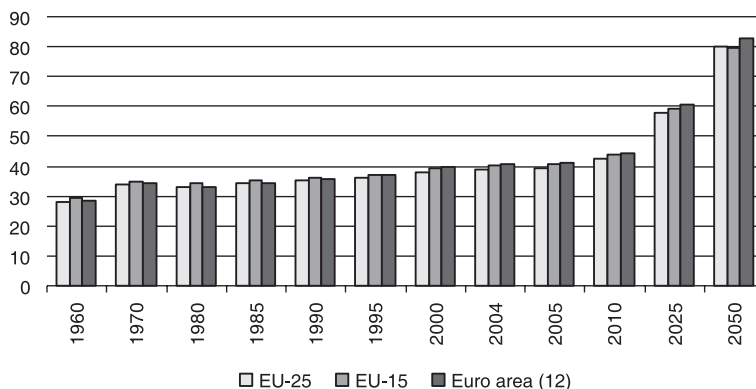
Note: *Population aged 60+ as a percentage of population aged 20-59.
Source: Eurostat.

2.2.2 Ageing and trends in the European labour markets

Ageing will significantly alter the structure of the labour market. Both participation and employment rates of older workers will have to increase, although other age groups will also be affected. The pattern of the labour force participation[3] has changed markedly over the last 30 years; not only due to the changed structure of the population, but also due to a changed lifestyle. Since 1970, participation of women between 25 and 60 has risen significantly, while participation of men of all ages has declined. Participation has risen since the mid-1980s from just under 66 percent to 69 percent in 2000; but this overall picture disguises very different trends according to age and gender and different situations between member states and regions (Commission of the European Communities, 2002: 4).

In the prime age group (25-49), the participation patterns have changed significantly over the last thirty years; with a slight decrease in male participation, but a major rise in female participation, from under 40 percent to over 70 percent for this age group as a whole. Participation peaks in this age group, and divergences between men and women and between high-skilled and low-skilled workers appear. The participation rates of men, particularly those in low-skilled manual occupations, begin to decline rapidly from the age of 50 onwards, compared with the over 60 age group in 1970. Those for women start to decline earlier, at around 45, but decline less rapidly; and activity rates for women aged 50-60 are still higher than they were in 1970. The fall in participation is partly due to involuntary early retirement associated with economic restructuring and partly to the

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[3] The participation rate is the percentage of the general population (over the age of 15) who are currently employed or are actively seeking employment.

impact of early retirement schemes (Commission of the European Communities, 2002: 5). Although the average exit age has been increasing (Figure 2.4), the ageing process, an increasing dependency ratio and long life expectancy (for men 75.6 and for women 81.7 in EU-25 in 2004) will require further adjustment (Eurostat, 2006: 41).

Figure 2.4: **Average exit age**
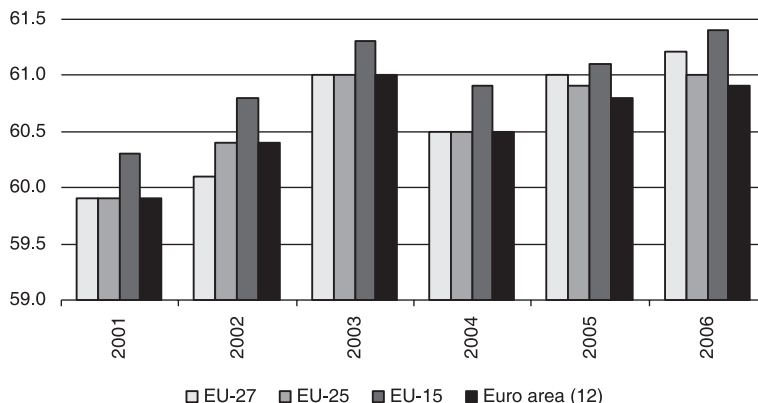
Source: Eurostat.

Apart from participation rates, the employment of older cohorts is also problematic. In the future, policy-makers will have to motivate them to actively seek work; but companies will also have to change their stance towards older workers. Together, this will result in higher employment of older workers. At the moment, the gap between the employment rates of older workers, compared to the total employment rate, is close to 20 percentage points. As shown in Figure 2.5, in EU-27 in 2006, the employment rate for older workers was 43.5 percent compared to 64.5 percent overall.

Life-long learning will become a major concern for the ageing population. Data in Figure 2.6 reveal that the importance of life-long learning is already increasing. But, it is surprisingly low in the Euro area, especially due to low participation in Greece and Portugal (1.9 and 4.2 percent respectively). On the other hand, in 2006, it was very high in Denmark, Finland, Sweden, and the UK (29, 23.1, 32 and 26 percent respectively; (Eurostat, 2008b). Participation in training declines substantially for those over 50, with very low levels for the low-skilled workers. Almost half of the older workers work in firms that provide training, but less than 15 percent take part in training activities – either employer-provided or private; only 7 percent of low-skilled older workers receive training as compared to more than one fourth of the high-skilled older workers (Commission of the European Communities, 2002: 4).

Figure 2.5: **Employment rates of older workers vs. overall employment rates***
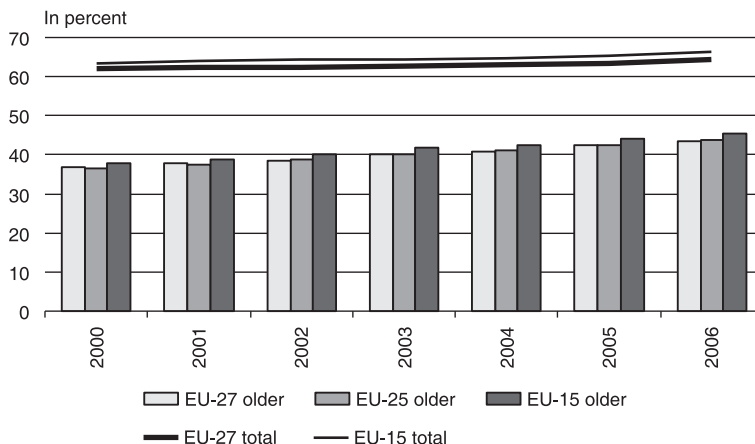
Note: *The employment rate of older workers is calculated by dividing the number of persons aged 55 to 64 by the total population of the same age group.
Source: Eurostat.

Figure 2.6: **Life-long learning***
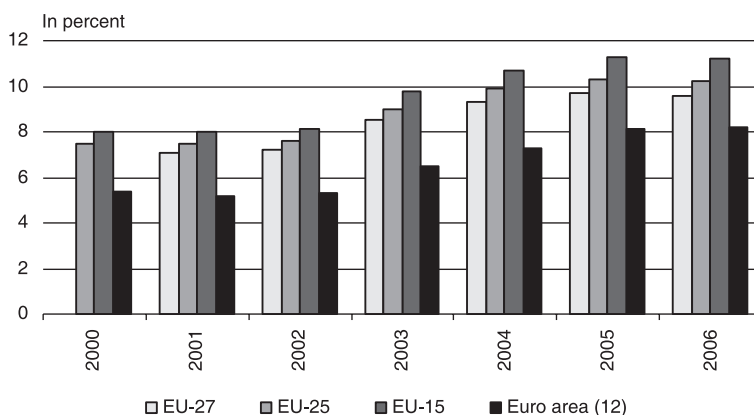
Note: *Percentage of the adult population aged 25 to 64 participating in education and training.
Source: Eurostat.

There are also differences in life-long learning among different groups when they are distinguished by skill. Participation in training activities for the high-skilled is significantly higher compared to that for the low-skilled. Sixty-eight percent of the high skilled workers are employed in firms that provide training, but only 34 percent of the low-skilled work in such firms. Training incidence is consequently around 40 percent among the high-skilled compared with 17 percent for the low-skilled (Commission of the European Communities,

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2002: 4-5). These data should be a wake-up call for the EU policy-makers. As the number of less-skilled increases with age, every effort to promote life-long learning should be undertaken.

The low employment of older workers in Europe represents a waste of individual and societal potential as well as opportunities. Considering the population forecasts, it would seem that the labour market in general, labour codes, the general public life and work values will have to be adjusted to accommodate the oncoming burden of ageing.

2.3 Macroeconomic challenges of ageing population

Ageing population will impact multiple aspects of economic and social systems in Europe. It thus demands a thorough assessment and a careful rethinking of the European (and national) economic and social policy framework(s). Stable and sufficiently high economic growth will be a necessary condition to sustain the attained levels of social security, which are typical for the European models of capitalism. The European Older People's Platform called AGE (2006) suggests that policy changes in many diverse areas, such as employment, pensions, social inclusion, health, transport, urban development, housing, research, education and citizenship need to be carefully coordinated. Only with an investigation into these areas can the meaning of the demographic change be accurately understood and the right policy responses supported. In this section, we closely examine several important macroeconomic consequences of ageing.

Impact on economic growth. Longman (2004) claims that population growth is normally regarded as essential for economic growth: "Capitalism has never flourished except when accompanied by population growth and it is now languishing in those parts of the world where population is stagnant''. European economies are facing both population decline and an ageing population. Both trends will have important consequences on the macroeconomic performance due to a direct impact through the labour market and factor supply as well as due to numerous indirect effects, especially through the pressure of an increased dependency ratio.

Demographic pressures might lower the rate of economic growth. This hypothesis was examined by numerous authors (e.g. Groezen, Meijdam and Verbon, 2005; Stephenson and Scobie, 2002; Bloom, Canning and Malaney, 2000; Prskawetz et al., 2007; Bloom and Canning, 2007). For example, Turner et al. (1998: 13) project that due to a demographic change the growth rate of the European Union will fall gradually, but will be less than 1 percent per annum by 2020 and should on average be less than 0.5 percent per annum between 2030 and 2040. Prskawetz et al. (2007) forecast GDP movements for the EU based on Eurostat's population projections. They claim that the GDP per capita decreases when the share of the working-age population declines. They also study

country-specific trends. The time pattern of the decline in the GDP per capita is expected to differ between regions. The GDP per capita is expected to decrease within a decade in Finland, Sweden, Hungary, the Czech Republic, Malta, Denmark, and the Netherlands. The beginning of a decline is also expected in France, Belgium, the United Kingdom, Ireland, Slovakia, and Slovenia. Italy, Germany, Spain, Greece, Portugal, and Poland, are expected to record an increase in per capita income growth over the next decades. The projections for these economies and also for Latvia and Lithuania exhibit an increase in per capita growth, which is expected to reach a peak between 2015-2025.

Fiscal pressures and additional taxation burden. For a "stylised", average OECD country (a country with a primary government budget surplus of 2.5 percent of the GDP and a public debt of 55 percent of the GDP), the demographic impact of population ageing could add another 6 percent of the GDP to the governmental primary deficit and lead to a 100 percent increase in its public debt over the next 50 years (Dang, Antolin and Oxley, 2001. The key causes of increasing public finance pressures will be public pension commitments and healthcare (Turner et al., 1998: 11).[4] Pay-as-you-go systems will be particularly under pressure due to already defined benefits and increasing dependency ratios. A rising contribution rate as well as uncertainty about the future might threaten intergenerational consensus, sustainability of the system and, also, the meaning of the European welfare state. The European Commission (Maddaloni et al., 2006: 32) expects that on average in EU all additional ageing related burdens will amount to 3.4 percentage points of the GDP by 2050: 2.2 percentage points for pensions, 1.6 for health care and 0.6 for long-term care. But, the projections claim that a savings of 0.3 percentage points of the GDP for unemployment benefits and 0.6 for education can be expected.

Impact on savings. Masson and Tryon (1990) suggest, on the basis of a pooled-time series estimation across the major industrial countries, that an increase of the dependency ratio by 1 percentage point should lead a proportional fall in the savings ratio. Turner et al. (1998: 15) add that the impact of ageing on savings will be reflected in higher interest rates and could, in the end, also impact investment. Park and Changyong (2007) show that both the young age dependency ratio and old-age dependency ratio could significantly impact the savings rate. A rise in either of the two ratios by 1 percentage point would lead to a decrease in the savings rate, as projected by the authors: an increase in the young-age dependency ratio by 0.21 percentage point and in the old-age dependency ratios by 0.86 percentage point.

Impact on productivity. Vegard (2003) finds that individual job performance tends to decrease from around 50 years of age onwards, while wages usually continuously increase. Productivity reductions are particularly evident for work tasks including problem-solving, learning and tasks in which speed is required. But, older individuals

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[4] For example, the ratio of expenditures on the elderly to the non-elderly is estimated for 1993 at 4¾, 4¼ and 3 for Japan, the United States and the EU, respectively.

maintain relatively high productivity levels in jobs in which experience and verbal abilities are needed. Werding (2008) confirms an inversely U-shaped relationship between the share of workers in different age groups and productivity, which is explained through the TFP channel and is in aggregate much stronger at the micro level. He also implies that this pattern could result from cohort effects in human-capital accumulation. Simulations also provide interesting macroeconomic links between productivity and growth. In the USA, the forecasted demographic impact on economic growth is positive almost for the total period; but it is true, that the labour force in this country is projected to increase continuously, neutralizing all negative impacts on productivity. Due to an increase in dependency, the per-capita growth is negatively affected by demographic trends. In Germany and Japan, the forecasts show that reductions in aggregate growth could be higher than those in per-capita growth. Namely, in these two countries, the total population is expected to decline, but at a smaller rate than their labour force (Werding, 2008: 30).

Fiscal pressures, taxation burden, lower savings and potential slower productivity growth will all be reflected in lower economic growth. In order to sustain a competitive edge within the global context, a timely and focused policy response is required.

2.4 The ageing population and policy formulation

As shown in previous segments of this paper, ageing is likely to have a decisive impact on long-term growth opportunities in many developed economies. The key challenge for policy-makers is thus the creation of a policy mix which will minimise the negative effect of ageing on growth. Studies (e.g. OECD, 1998; Tosun, 2003; Gonzalez-Eiras and Niepelt, 2008) suggest several relevant policy-mixes to deal with specific problems. The most important growth challenges can be addressed by fiscal policies and a reform of welfare and pension systems, labour market reform, and reforms to increase productivity.

2.4.1 An overview of general policy responses to ageing

Population ageing will pose a severe strain on the stability of public finances. Also, as already mentioned, in addition to decreased public savings, it will decrease private savings and put pressure on interest rates and, hence, negatively impact economic growth. Turner et al. (1998: 20) suggest that in such a context it would seem prudent to introduce policies designed to raise national saving ratios in the years immediately ahead. The most direct way to achieve this would be to reduce public dissaving. In fact, most OECD and EU countries have already started with or are preparing their pension and social security reforms. Turner et al. (1998: 22) list the following options:

1. The first option is to control the budget deficit. The EU member states are preparing different social security reforms, but budget deficit control is also imposed by the rules in the Growth and Stability Pact associated with the European Monetary Union. These de facto controls reduce the risk of public deficit and limit the public debt/GDP ratios of the involved countries. Such supranational coordination or pressure is likely to produce better results, compared to isolated national efforts. Overall, the influence of public finance controls would be even more efficient if imposed by the member countries in a co-ordinated manner: simultaneous action to increase public saving on a supranational basis would probably lead to larger reductions in real interest rates and larger increases in output compared to the results of individual actions.

2. Reductions in pension generosity and increases in welfare contributions are the most obvious ways of preventing excessive pressure on public finances. But, increasing the retirement age is another important option. Such reforms can be implemented by either increasing the age of eligibility for full benefits or, alternatively, by increasing the number of years of activity and contributions required for full-rate benefits, with benefits being reduced on an actuarial basis for each year of early retirement (see also e.g. Duggan, Singleton and Song, 2007).

The problem of the timing of reforms might also be important (e.g. Samwick, 1998). Appropriate fiscal measures such as reduced pension generosity or an increased age of pension eligibility are not easily implemented due to their unpopularity, especially in countries with high unemployment rates. But, delaying might only produce the need for more drastic reforms in the future.

2.4.2 Guidelines for reforms in the European labour markets

In view of the ongoing ageing and the projected shrinking of their working-age population, the member states of the European Union have agreed on bold goals for increasing the employment rate and the exit age of older workers. Progress so far has been modest; and with enlargement, the challenge has become bigger (Nordheim, 2005). The EU agreed on a special employment guideline on active ageing (Commission of the European Communities, 2002) and set two important strategic objectives to be achieved by 2010:

(1) an increase in the employment rate of older workers to 50 percent (Stockholm 2001);
(2) and a delay in the age at which older workers stop working for five years (Barcelona 2002).[5]

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[5] For more on Stockholm and Barcelona targets, see Commission of the European communities (2003).

The true challenge for the EU remains how to enable and motivate the coming cohorts of older workers to remain in work for several years longer than the present cohort.

Increasing labour-force participation and promoting active ageing (Commission of the European Communities, 2002) deals with employer attitudes towards older workers as one of the important barriers for their higher participation. It suggests several policy goals:

- securing the best use of older workers' experience;
- maintaining the work ability and qualifications of older workers;
- making working arrangements more flexible;
- alerting employers to the strong business case for employing older workers;
- ensuring the right mix of incentives and disincentives in the tax/benefit systems.

European countries are also expected to develop and implement comprehensive active ageing strategies to keep older workers in the labour force (European Employment Strategy and the Broad Economic Policy Guidelines[6]). These should include the following:

- financial incentives to make sure work pays in order to discourage early retirement;
- access to training and life-long learning;
- good working conditions, in particular in relation to health and safety;
- flexible working arrangements;
- and care services.

Incentives for older workers to remain in the labour force must be reflected in real prospects for employment. Social partners will have a major role in encouraging enterprises to take a forward-looking approach and start facilitating better and longer working lives. Policy and action at the EU level supports active ageing through policy coordination, the exchange of experience and best practice, and through financial instruments.

2.5 Conclusion

Ageing will have important macroeconomic consequences: pressures on the public finances, effects on private savings behaviour, labour supply implications, a potential impact on capital accumulation, effects on total factor productivity, and finally an equilibrating role for interest rates and exchange rates and shifts in external balances (European Commission, 2003: 10). Comprehensive economic reforms will be required in many areas in order to outset the negative ageing pressures and ensure the EU's

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[6] More on European Employment Strategy and the Broad Economic Policy Guidelines at: http://ec.europa.eu/ employment_social/employment_strategy/index_en.htm.

competitive position within the global economy. The main reform challenge will be in the labour market.

To ensure a macroeconomically sustainable environment, labour market policies and social policies will need to promote active ageing. But, significant changes will have to take place both on the supply (employees) and demand side (employers). Older workers are often tempted into early retirement. But, with an ageing and shrinking workforce, these attitudes will have to change. Incentives will be needed on both sides, at least in a transition period. Therefore, the challenge of ageing requires cooperation between employees, employers and governments in order to prepare a successful reform plan to answer the challenges of the ageing population presented and discussed in this paper.

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The Croatian demographic reality and labour market challenges

3.1 Introduction

Similar to many European countries, Croatia is facing demographic changes determined by universal phenomena such as a decline in total fertility rates and a rise in life expectancy, and some country specific factors such as socio-economic transition and the Homeland War in the 1990s. All these factors have acted almost in the same direction, thus largely affecting the present size and structure of the population and determining future demographic trends. In the future, the labour market will surely be challenged by the underlying demographics, but there is a considerable potential for an increase in labour utilisation, particularly for older workers, so that the future labour market outcome would depend on the choice of policy options.

3.2 Croatian demographic reality

The total Croatian population rose steadily until the beginning of 1990s when the size of the population started to decline. However, it was already a decade before that the natural population increase started to decline (Figure 3.1). During the last ten years of the past century, the size of the population stabilised at the level of 4.4 million, but it is likely to fall below that level rather soon.

Figure 3.1: **Natural population change in Croatia**
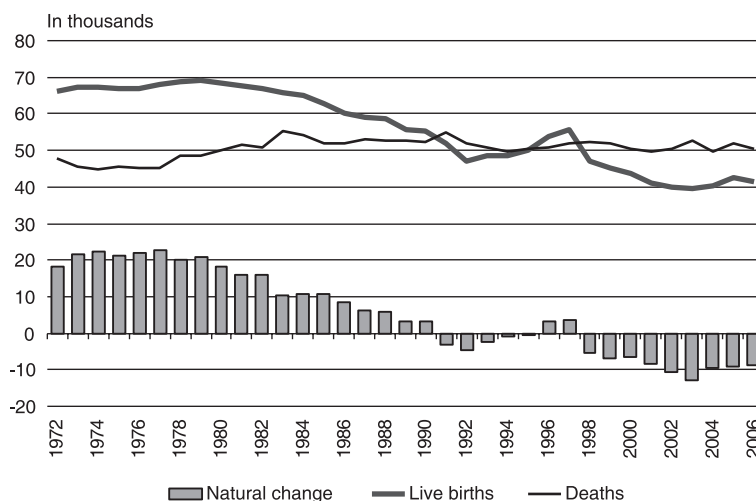
Source: CBS.

Demographic projections prepared by the Croatian Central Bureau of Statistics[1] cover the period of time from 2004 to 2051 point to a further decrease in the number of inhabitants; and depending on the variant of the demographic projection, the size of the population is projected to decline by 10.5 – 18.8 percent by 2051 (DZS, 2006). In other words, Croatia could lose some 470 to 830 thousand inhabitants over the next 45 years (Figure 3.2).

Figure 3.2: **Actual* and projected population of Croatia**
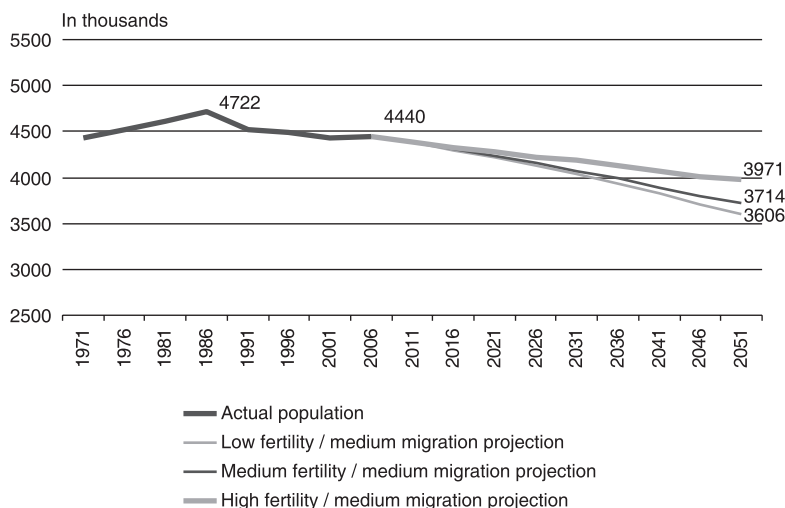
Note: *Data before 2006 refer to mid-year estimates.
Source: CBS.

Such a sharp drop in the size of the population will be primarily caused by the continuation of the natural population dynamics, which is reflected in the negative balance of live births and deaths of close to 10 thousand persons per year.

The main force behind the unfavourable population dynamics will be a low total fertility rate, which, although projected to rebound in comparison with the beginning of the century, continues to stay at the rather low level of 1.6 in the medium fertility demographic projection. In spite of the fact that the projected rise in the total fertility rate is expected to be somewhat more dynamic than in the EU or Slovenia, the total fertility rate in Croatia will not reach the average EU-15 level until 2050 (Figure 3.3).

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[1] Although we were tempted to use projections from other sources, we present results of the official demographic projections prepared by the Croatian Central Bureau of Statistics since they are based on the expert knowledge of the leading national demographers and therefore can be considered the best available for the time being. For assumptions and methodology of this projections, see DZS (2006).

Figure 3.3: **Total fertility rate**
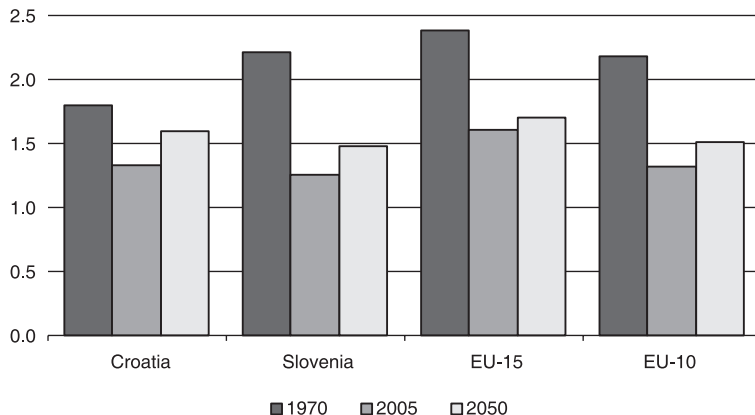
In the same period, it is reasonable to project that people will live longer than before. In Croatia, the life expectancy at birth for men is currently similar to the EU-10, but shorter than in the EU-15 and Slovenia; and the life expectancy for women is lower than in Slovenia or both sub-groups of EU countries. The relationship between life expectancy in Croatia and Slovenia as well as the EU is probably going to remain almost the same, i.e. on average, Croatian men and women are expected to live shorter lives than their neighbours from EU countries. However, Croatia will also face rising longevity of its citizens – in 2050 men are supposed to live 7.3 years longer and women are supposed to live 5 years longer than at the beginning of 21st century (Figures 3.4 and 3.5).

Figure 3.4: **Life expectancy at birth (men)**   Figure 3.5: **Life expectancy at birth (women)**
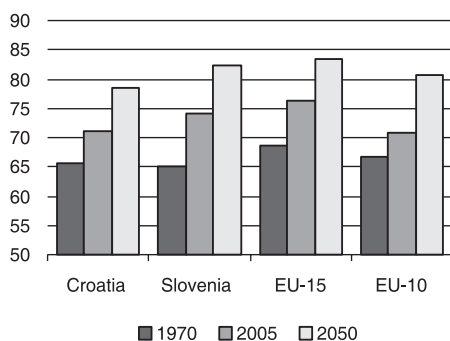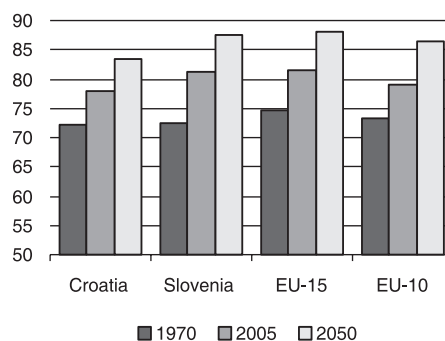
It is worth mentioning that in the past ten years the decline of the population size that would otherwise result from the natural population change was somewhat moderated by the migration flows to Croatia. The net migration balance was positive throughout that period. In 1993 and 1998, it reached almost 1 percent of the total population, and declined afterwards to approximately 0.2 percent of the total population. In the projection period, it is expected that the net migration would remain positive, but low; i.e. without any significant influence on population dynamics (Figure 3.6).[2]

Figure 3.6: **Actual and projected net migration in Croatia**
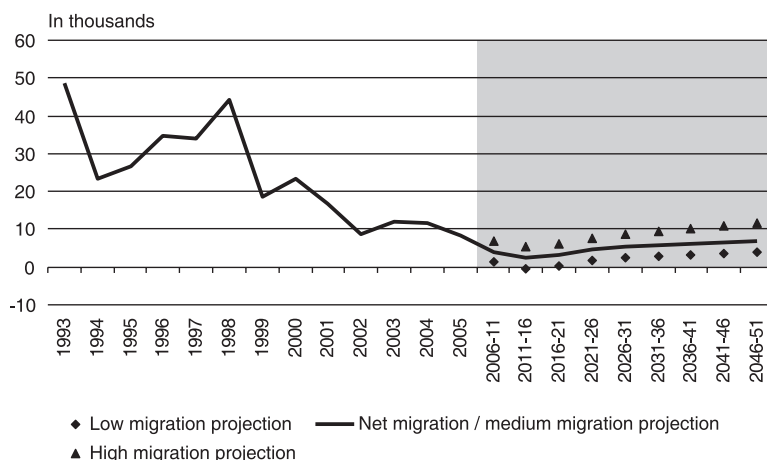
Source: CBS.

As consequence of the demographic projections' basic assumptions of longer lives and a total fertility rate quite below the reproduction rate, the population structure will also change compared to the current situation – the share of elderly will rise, and the share of the working-age population will shrink. It is estimated that, in a medium fertility demographic projection, the number of persons aged 65 years will rise not only in relative, but also in absolute terms reaching 27.6 percent of the total population in 2050. At the same time, the working-age population will decrease by 27 percent compared with 2006; and its share in the total population will be reduced by 8 percentage points (Figure 3.7). Such a declining share of the working-age group in the total population indicates the severity of the situation the Croatian labour market could confront over the next 45 years.

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[2] Projections on net migration flows are probably the most debatable part of the long-term demographic projections for Croatia. The demographic projections published by the Central Bureau of Statistics (DZS, 2006) entail small, but positive net migration balance in all variants (low, medium and high) whereas e.g. demographic projections for Croatia prepared by the UN envisage zero net migration balance. Having in mind future accession to the EU and relatively attractive wages in Croatia, we consider the migration projections prepared by the national statistical office to be more realistic, but still rather conservative.

A look at the development of the share of elderly in the total population in the past 30-35 years shows that the trends were quite different before 2005. The labour supply was abundant during the 1970s, 1980s and 1990s since the "baby-boom generation" was just at its prime age, while the share of elderly was low. Reaching their retirement age, "baby-boomers" started to inflate the old-age, dependent-person class creating numerous challenges for the present and in years to come. Fiscal and labour market implications, but also the consequences on the living standards of older persons, could be quite harmful; consequently it is expected that pressures will rise for the elderly to extend their working lives until the age of 65 or older.

Figure 3.7: **Total and dependent population in medium fertility / medium migration projection**
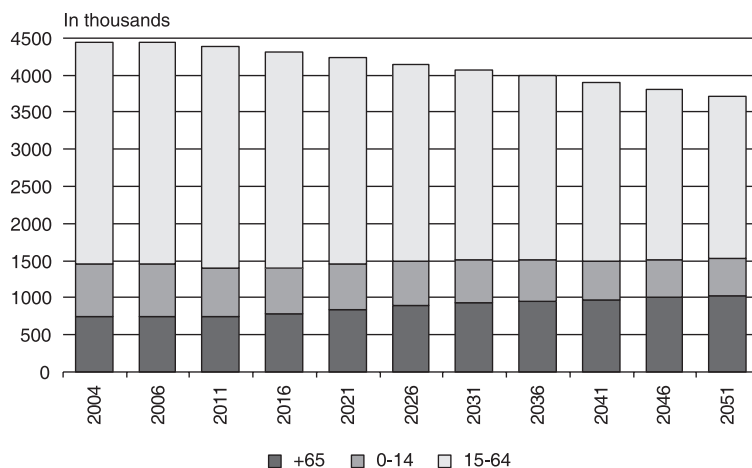
Source: CBS.

A rising share of elderly and of all dependent persons is not a Croatian specificity – it can be observed in almost all European economies. With a somewhat higher expected fertility rate, the share of elderly, i.e. dependent persons, will increase less abruptly than in Slovenia or the 10 new EU members; so that it will reach approximately the same share in the total population as in the EU-15 on average (Figures 3.8 and 3.9).

The size and composition of the working-age population will also change. The number of persons belonging to the younger workers group and prime working-age group will expectedly fall quite rapidly (Figure 3.10). However, the number of older workers is projected to rise in the next decade (until 2016); while in the second part of the projection period, the number of older workers could mildly decline due to the overall trend of population shrinkage. As the result, the share of older workers in the total working-age

population will rise by almost 6 percentage points; i.e. from 16.7 in 2004 to 23.5 percent in 2050.

Figure 3.8: **Population aged 65 and over in total population**

In percent

■ 1970 ■ 2005 □ 2050
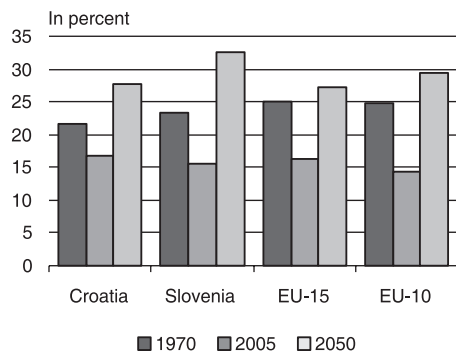
Figure 3.9: **Population aged 65 and over plus population aged below 15 in total population**

In percent

■ 1970 ■ 2005 □ 2050
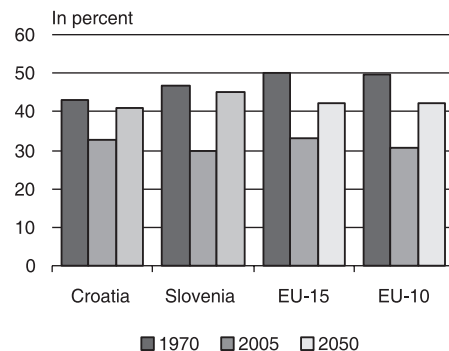
Note: EU-15 and EU-10 data refer to unweighted averages.
Source: Eurostat, UN, CBS, Statistical Office of the Republic of Slovenia.

Figure 3.10: **Size and composition of the working-age population in medium fertility / medium migration projection**

In thousands

■ Older workers (55-64 years)   ■ Prime working-age (25-54 years)
□ Younger workers (15-24 years)

Source: CBS.

3.3 Labour market trends for older workers

In addition to unfavourable demographic trends and its reflection in the labour market, Croatia is faced with a relatively low utilisation of the existing working-age population. Out of the entire working-age population (15-64), around 63 percent participate in the labour market by working or by looking for a job (activity rate); while 56 percent of the working-age population was actually employed in 2006 (employment rate) (Eurostat, 2008). Both indicators are well below the averages for the EU-15 and the EU-10. This situation coupled with a shrinking labour force indicates a possible large loss in the productive potential of the economy in the future. One way of keeping up with the challenges ahead is a better use of the productive capabilities of older workers.[3] The following overview of recent labour market trends for older workers in Croatia indicates that there is a large possibility for such a change.

The activity rate for older workers (55-64) in Croatia was 36.5 percent in 2006 - one of the lowest rates in Europe (Figure 3.11). However, a marked change has been observed in recent years. The activity rate of older workers increased by 12 percentage points in the 4-year period between 2002 and 2006. In the EU, such dynamic changes can only be compared with changes in Germany. Changes is the Croatian pension system after the reform in 1999 have worked in the direction of extending the working life, and this can be seen as the major factor behind the increase in the activity rate for older workers.[4] Demographic factors also contributed to the increasing participation of older people in the labour market. A cohort of the population aged 55-64 has recently become increasingly filled with baby-boomers. In addition, a number of inactive persons that were retired in the early 1990s within early retirement schemes fell out from the population subgroup aged 55-64 years by reaching 65 years, which mechanically lowered the size of the inactive older population.

In spite of increasing older workers' activity rates, Croatia is still characterised by the relatively low age of 60 years old, on average, at which workers usually leave the labour market (Figure 3.11). Early exit from the labour market could explain a part of the relatively low employment rates in Croatia, both for the entire working-age population (15-64 years) of 55.6 percent in 2006 and the older workers (55-64 years) of 34.5 percent (Eurostat, 2008). As suggested by Figure 3.12, countries with a higher exit age from the labour force experience the higher older population employment rate.

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[3] The other way could be immigration, but the discussion on it is outside the scope of this publication.

[4] See Chapter 5 on the Croatian pension system and its influence on the decisions of older workers whether to stay in or exit the labour force.

Figure 3.11: **Activity rates for older workers (55-64 years) in Europe**

In percent   In percentage points

■ Activity rate in 2006 (left scale)   ◆ Change in activity rate 2002-2006 (right scale)
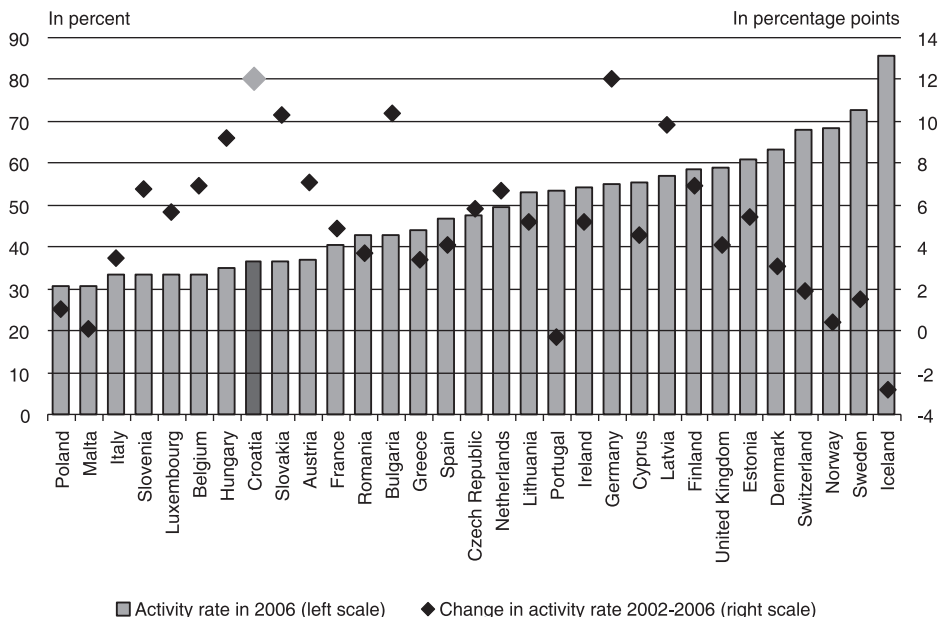
Source: Eurostat.

Figure 3.12: **Average exit age from the labour force and employment rates for older workers (55-64) in Europe, 2006**
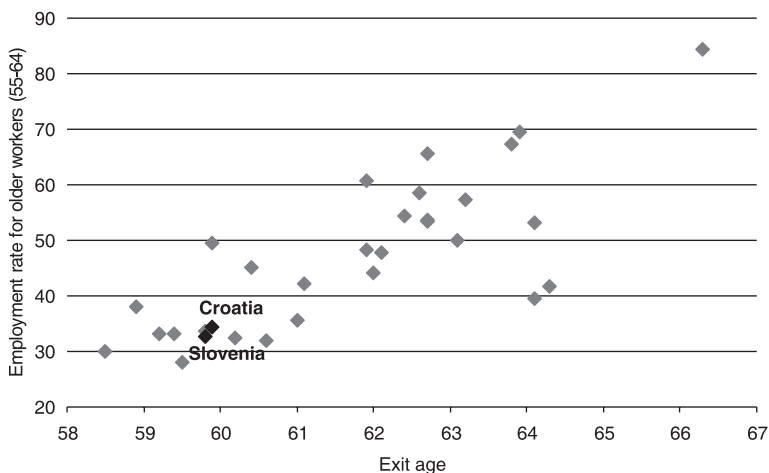
Source: Eurostat.

In parallel with the changing age profile of the population, the existing pool of employed is changing its age profile. In the last 20 years, from 1986 to 2006, the share of young workers in paid employment has declined from 13.1 to below 6.7 percent; while the share of older workers has increased from 5.3 to 9.3 percent (Table 3.1). The increasing share of older workers has been more pronounced recently. Between 2002 and 2006, the employment share of older workers had increased by 2.3 percentage points. Although that was a substantial change registered by the Establishment Surveys, the Labour Force Surveys data suggest an even higher proportion of older workers in employment as well as a more rapid pace of ageing in the workforce.

Table 3.1: **Age profile of paid employment in Croatia, 1986-2006, in percent**

	Age group	1986	1996	2002	2006
Young workers	(15-24)	13.1	6.9	6.8	6.7
Prime-age workers	(25-54)	81.6	87.6	86.2	84.0
Older workers	(55+)	5.3	5.5	7.0	9.3

Note: Figures refer to persons in paid employment in business entities with over 10 employees. Self-employed persons are not considered.
Source: CBS.

According to the comparable LFS data, the proportion of older workers of 12.3 percent in Croatia was slightly higher than it was on average in EU-15 countries, and substantially above the average for EU-10 countries and Slovenia (Table 3.2, first line). Croatia has undergone a substantial change in the early 2000s. An increase in the employment share of older workers in Croatia in the period 2002-2006 has been particularly high. It has been higher than the average of old and new EU countries.[5]

The dimension of change in age structure calculated from the Labour Force Survey data differs from that calculated on the basis of the Establishment Survey due to a different coverage of employment in these surveys in Croatia. The Establishment Survey does not cover self-employed, subsistence agriculture workers, family and occasional workers, as well as workers in the informal sector, which might convey that the largest changes in the age structure have happened in these segments of the labour market.

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[5] In fact, the increase in employment share of older workers in Croatia in the period 2002-2006 was higher than in any particular EU country, where the highest increases are found in Finland (by 4 percentage points), Slovakia (3.1 percentage points), the Netherlands (3.1 percentage points), Hungary (3.0 percentage points) and the Czech Republic (3.0 percentage points) (Eurostat, 2008).

Table 3.2: **Share of older workers (55-64) in the total employment (15-64) by occupation**

	2006				Change 2002-2006			
	EU-15	EU-10	Slovenia	Croatia	EU-15	EU-10	Slovenia	Croatia
	In percent				Change in percentage points			
Total	12.1	9.7	8.0	12.3	1.5	1.8	1.8	4.9
Legislators, senior officials and managers	16.8	14.5	12.5	15.7	1.8	3.7	2.0	8.2
Professionals	14.2	10.5	9.4	20.5	2.1	0.6	1.9	8.7
Technicians and associate professionals	10.6	9.5	6.4	12.9	1.7	2.8	1.6	5.4
Clerks	10.8	7.1	5.2	8.7	2.2	1.5	2.6	4.5
Service workers and shop and market sales workers	9.0	6.5	2.2	4.9	0.6	1.8	0.0	2.5
Skilled agricultural and fishery workers	20.7	14.3	29.7	32.2	-0.2	0.3	1.1	7.2
Craft and related trades workers	10.7	8.4	7.1	9.1	1.1	2.2	2.8	4.5
Plant and machine operators and assemblers	11.8	8.3	4.9	6.2	1.6	2.1	2.1	2.7
Elementary occupations	14.0	12.3	10.0	9.4	1.4	2.7	4.4	5.9

Source: Eurostat.

The employment share of older workers varies substantially by occupation. Agricultural workers are the occupational category with a higher proportion of older workers (55-64) in the EU (Table 3.2). White-collar workers in the most complex jobs (senior officials, managers, professionals) make up a substantial proportion of the older workers. The trend of the rising employment share of older workers seems to be Europe-wide. In Croatia, an increase in the share of older workers between 2002 and 2006 was occupation-wide suggesting that only a systemic change such as a pension reform could have caused such dynamics. However, the increase has been the weakest for middle-demanding jobs in industry and services (service workers, clerks, machine-operators, craft and trade workers). This finding can be linked to the relatively poor demand for workers with such qualifications in the transition period with the possible consequence of their earlier exit from the labour force to retirement, or even their exit to the pool of unemployed.

For older workers, their increasing share in employment is just one side of the coin, while the other side is their increasing unemployment. In 1997, there were around 10,000 unemployed older workers (55 years of age or more), or around 3.5 percent of the total number of unemployed (Figure 3.13). A relatively steep increase in the absolute and the relative number of unemployed older workers has been observed thereafter. At the end 2007, there were around 31,500 unemployed persons at the age of 55 years or more, or 12.8 percent of the total number of unemployed. For the observed trend, two tentative

explanations could be given. First, this is a result of more stringent criteria for early retirement and an increase in the official retirement age brought by the 1999 pension reform. Second, labour demand is strongly biased towards the younger labour force. Rising unemployment for older workers is, in fact, observed amid declining unemployment for the general population - which is a wake-up call for a decisive policy reaction.

Figure 3.13: **Older workers in unemployment**
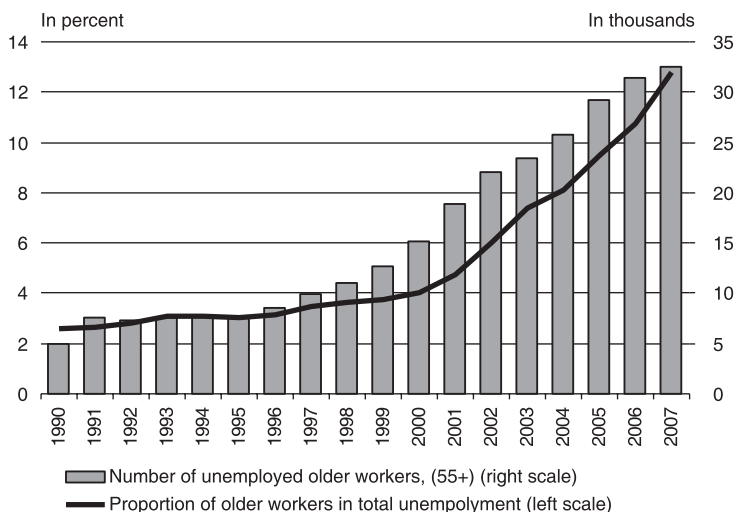
Note: The proportion of older workers in unemployment is calculated by dividing the number of unemployed persons aged 55 years or more by the total number of unemployed as of December 31.
Source: Croatian Employment Service.

3.4 Conclusions

This brief overview of demographic and labour market changes in Croatia presented several findings that call for further elaboration and demand a proper policy reaction. It emphasised that the sharp drop in the size of the population, the most striking feature of the future demographic developments, will be only partly moderated by the positive net migration. There is also good news – people will live longer on average than today. And, that is going to cause for another concern – the share of elderly will rise, and the share of the working-age population will shrink thereby challenging future economic growth and the sustainability of public finances.

As a consequence of demographic changes, the composition of the working-age population will also change. The number of persons belonging to the younger workers group and prime working-age group will fall quite rapidly, while the number of older workers is projected to rise in the next decade. It seems that the labour market situation, public finance sustainability but also the growth potential of the Croatian economy could,

therefore, be influenced by the labour market performance and the productivity of workers aged 55 or more.

It can be argued that Croatia, having low overall activity and employment rates, especially low older workers' activity, has a promising reservoir for increased labour market participation of the older population. Until a decade ago, labour market participation at older age was low - workers used to retire early, most often in their 50s since there were neither legal nor economic or cultural obstacles to act differently. Recently, however, the activity rate for older workers and their share in the workforce have increased substantially. A quite reasonable explanation for such change is the pension reform from 1999 that gradually raised the official retirement age. However, rising older persons' activity did not go hand in hand with their improved employment perspective since the number of unemployed persons aged 55 to 64 has increased quite significantly.

It can, therefore, be concluded that the severe economic consequences of demographic changes could be at least partly mitigated by enhancing employment among older workers. However, it seems that delaying the official retirement age is not a sufficient measure in that direction, and that it should necessarily be accompanied by other carefully designed policy actions and measures.

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Slovenia and the challenge of the ageing population

4.1 Population ageing in Slovenia

Over the next few decades, Slovenia's population will, similarly to the population of the EU, significantly change in both size and age structure. Ageing, the trend that has marked population development across Europe, will also affect Slovenia. Demographic change, caused by a declining fertility rate, a rise in life expectancy and low immigration, along with the ageing of the baby boomers (the generations between 1940s to 1960s), already presents a serious challenge for Slovenian policy-makers, firms and people; bringing forth important economic, social and also political challenges. In 2005, the share of the population aged 65 or more represented 15.2 percent of the total population. By 2050, it is expected to rise to approximately 31 percent of the total population[1] (Eurostat, 2008a; Statistical Office of the Republic of Slovenia, 2008).

4.1.1 Demographic trends in Slovenia

With its roughly 2 million inhabitants, Slovenia is one of the smallest European economies. In 2006, it represented 0.2 percent of the total EU-25 population, which placed it at the very bottom by population size. Only Cyprus (0.2 percent), Estonia (0.3 percent), Luxembourg (0.1 percent) and Malta (0.1 percent) were smaller (Statistical Office of the Republic of Slovenia, 2007b: 4-5).

Slovenia's population steadily increased between 1954 and 1988; the period in which it reached a temporary peak with 1,999,988 inhabitants. During transition, due to less favourable economic conditions, the population started to decline (Figure 4.1). In 1999, it reached a minimum and only slowly recovered to 2,001,114 inhabitants in 2005 (thus almost reaching the 1991 level). The fertility rate, and consequently also the number of live births, declined dramatically. With a relatively stable number of deaths, the natural increase of the population plummeted and remained negative throughout the period 1997-2005 (Figure 4.2). Immigration and emigration fluctuated, but net migration remained positive throughout transition, with the exception of 1998 (Statistical Office of the Republic of Slovenia, 2007a: 57).[2]

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[1] Population projections are baseline projections prepared by Eurostat in cooperation with Statistical office of the Republic of Slovenia. Detailed information on projections can be found at http://www.stat.si/pxweb/ Database/Dem_soc/05_prebivalstvo/07_05197_projekcije.

[2] Immigration is in literature a source of faster population increase. But at least currently, we do not believe that encouraging immigration is an important policy option. Namely, Slovenia has a relatively high unemployment rate among young people. Therefore, general encouragement of immigration is not sensible. But, given the lack of workers in certain professions (especially professions requiring unskilled and semi-skilled workers), the government has been increasing the number of work permits for these groups.

Figure 4.1: **Total mid-year population of Slovenia**

In millions
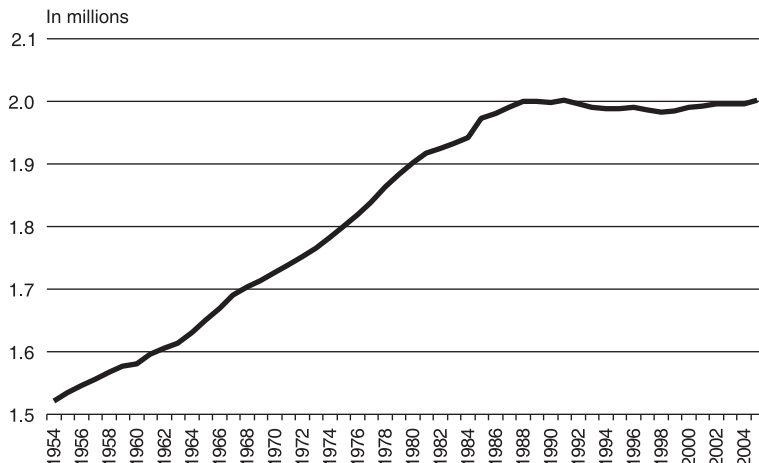
Figure 4.2: **Population in Slovenia: number of live births and deaths**

In thousands   In thousands

Live births (left scale)   Deaths (left scale)

Population change (right scale)
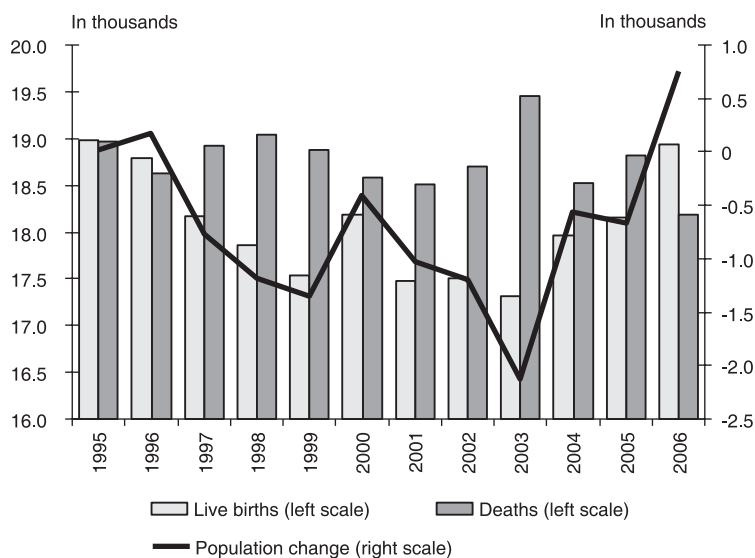
Demographic projections (Eurostat, 2008) show that the population of Slovenia is expected to reach its maximum in 2015 with 2.018.808 inhabitants; henceforth, it is projected to decline (Figure 4.3). In 2051, it is expected that there will be as few as

66

1,893,443 inhabitants, which is close to the 1979-1980 level. The causes of the decline will be similar to those characteristic for other EU economies:

1. The most important factor behind a long-term population decline is a lower fertility rate. Women tend to postpone the decision to have children and, consequently, give birth to less children during their reproductive age (between 1995-1999 women on average had their first child at 25.6 years of age; in 2006 at 28 years of age). The fertility rate declined from an average of 2.11 children per woman in 1980 to its lowest level of 1.20 in 2003. In 2004, 2005 and 2006, it reached 1.25, 1.26 and 1.31 respectively (Statistical Office of the Republic of Slovenia, 2007c). But, the positive trend cannot be expected to continue. The current increased fertility rate seems to be the result of the reproduction cycle of baby-boomers' children.

2. Better health care contributed to the stabilisation of death rates despite the ageing population. Death rates have been relatively stable at around 9.4-9.7 deaths per 1000 persons since 1994 (Statistical Office of the Republic of Slovenia, 2007c).

Figure 4.3: **Total population of Slovenia according to population projections**
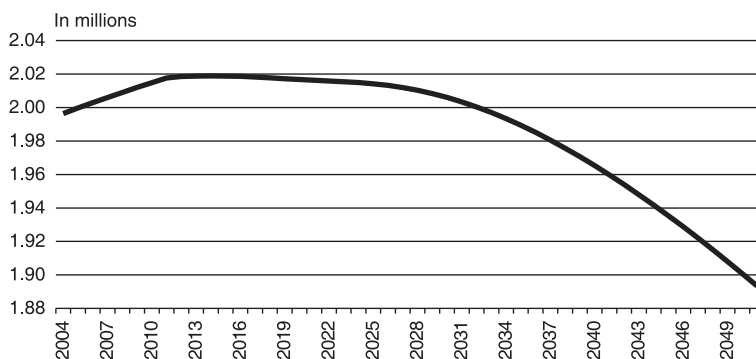
Source: Eurostat.

Declining population will be, like in the majority of other European economies, accompanied with the ageing of the population.

4.1.2 The phenomenon of ageing

Over the past decades, a declining fertility rate and relatively stable mortality rate have been contributing to population ageing in Slovenia. In 2005, the share of people aged 65 or more in the total population was 15.3 percent. By 2010, it is supposed to rise to 16.5

percent. By 2050, almost a third of the total population will be 65 or older (Figure 4.4) (Eurostat, 2008b).

Figure 4.4: **Population of Slovenia aged 65 or more compared to the total population**
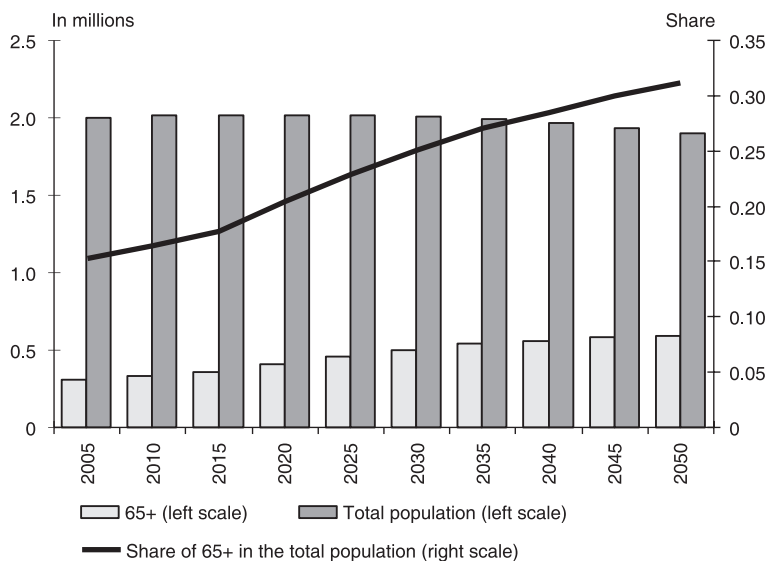
Source: Eurostat, authors' calculations.

Ageing index is another important indicator of future demographic developments. It is calculated as the number of persons aged 60 years or older per hundred persons under the age of 15 (United Nations, 2002). In Slovenia (Figure 4.5), the ageing index is currently 148, but it is expected to peak in about four decades at the level of around 300. This implies that the number of people aged 60 years or more will be three times larger than the number of people below 15.

Ageing will also affect the dependency ratios. The total number of the young people is expected to slowly increase until the 2020s and then start decreasing slowly. The number of people aged 65 or more will steadily increase. The total number of the dependent population, comprising of those under 15 years of age and those aged 65 or older, will steadily increase, because the increased share of the elderly will outweigh the decline of the young, dependent population. By 2050, the number of persons between 15 and 64 will be larger than the number of dependent persons by a mere 230 thousand (Figure 4.6).

Figure 4.5: **Number of people under 15, number of those aged 60 or more and ageing index for Slovenia**
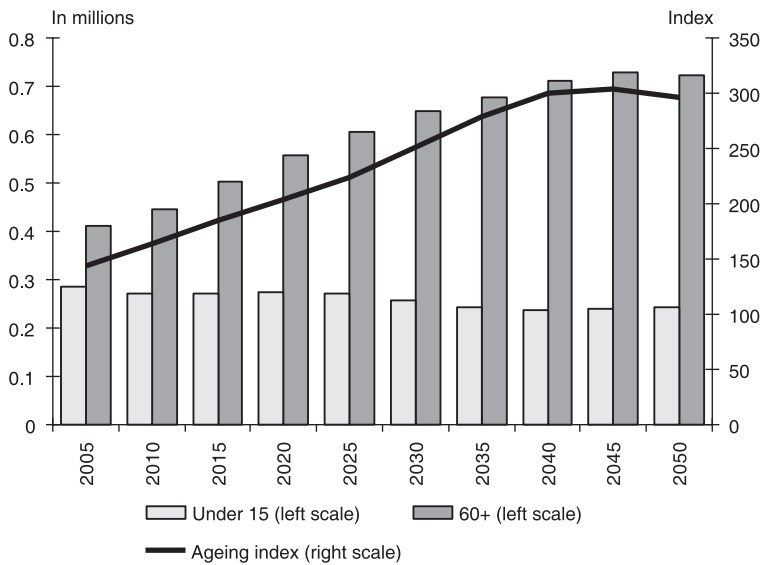
Source: Eurostat, authors' calculations.

Figure 4.6: **Changing structure of the dependent population in Slovenia**
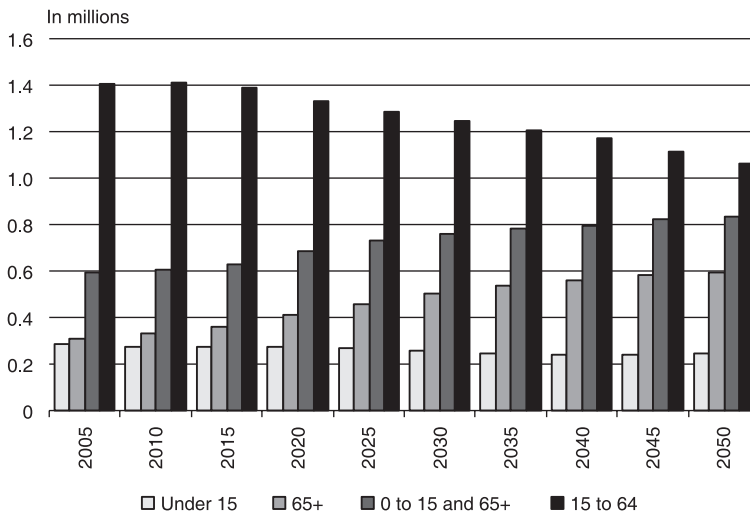
Source: Eurostat, authors' calculations.

Dependency ratios will continue to worsen. Figure 4.7 (dependency ratios as defined by the UN[3]) reveals that the youth dependency ratio will remain relatively stable at around 0.2. The old-age dependency ratio will increase steadily and by 2050 reach 0.56. In practice, this means that each person of working-age might be expected to support more than a half of an elderly person and, in total, each person of working-age might be expected to support almost 0.8 of a person (total dependency ratio) by 2050.

Figure 4.7: **Dependency ratios for Slovenia**
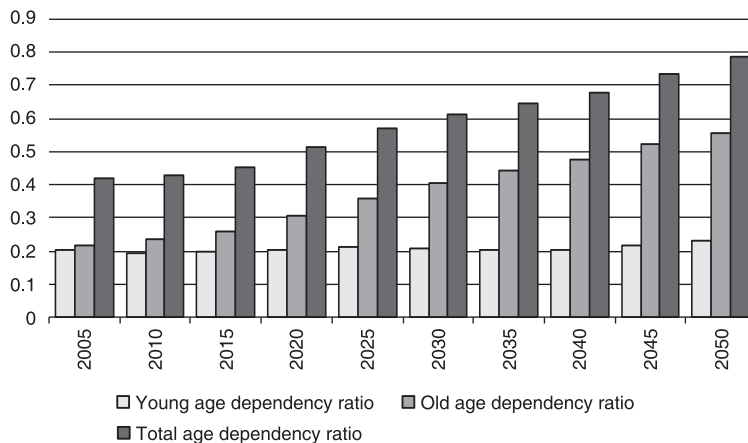
Source: Eurostat, authors' calculations.

The picture gets even worse when taking into account the fact that most of the young continue their education at least through the secondary school and, consequently, do not actually enter the labour market until they reach the age of 20 (Figure 4.8). In 2005, the dependency ratio for the young was larger than that for the old, while the total dependency reached 0.56. By 2050, on average each person between 20 and 64 will have to support one whole person. These trends in both types of dependency ratios could have serious economic implications and pose a real challenge to policy-makers.

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[3] The total dependency ratio is the number of persons under the age of 15 plus persons aged 65 or older per one hundred persons between 15 and 64. It is the sum of the youth dependency ratio and the old-age dependency ratio. The youth dependency ratio is the number of persons of 0 to 14 years per one hundred persons of 15 to 64 years. The old-age dependency ratio is the number of persons of 65 years and over per one hundred persons of 15 to 64 years (United Nations, 2002).

Figure 4.8: **Dependency ratios for Slovenia including young up to 20 into supported population**

□ Young age (up to 20) dependency ratio ▨ Old age dependency ratio
■ Total age (up to 20 and 65+) dependency ratio
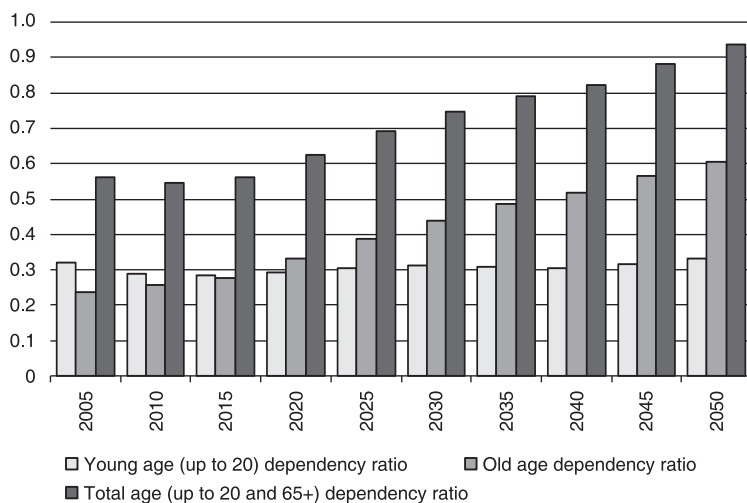
Source: Eurostat, authors' calculations.

4.2 Ageing and the labour market in Slovenia

Economic changes, especially in the labour market, will be highly affected by ageing. However, labour market changes will mainly depend on the rising share of those aged 50 or more in the total population. In 2005, the share of those aged 50 or more in the total population was 34.1 percent. By 2010, this share will rise to 37.2 percent; and by 2035, it will reach 49.5 percent of the total population and then stabilise around half of the total population (Figure 4.9). At the moment, the baby boom generation is ageing, and this contributes to a faster increase of those aged 50 or more in the total population compared to those aged 65 or more (Eurostat, 2008b).

As a consequence of these trends, the structure of the working-age population will also change (Figure 4.10). In 2005, the share of those over 50 in the total working-age population (15-64) was 26.7 percent. Taking into account the fact that the education process holds the majority of the population off the labour market at least until the age of 20, the share of those aged 50 or more in the total working-age population (this time 20-64) rises to 29.4 percent. The share of the older workers in the total working-age population will continue to rise over the next three decades, when the current young cohorts, which are significantly smaller than the baby boom cohorts, reach older age. This will cause the trend to turn around slightly.

Figure 4.9: **Population aged 50 or more compared to the total population in Slovenia**

In millions / Share

Legend:
- 50+ (left scale)
- Total population (left scale)
- 50+ in the total population (right scale)
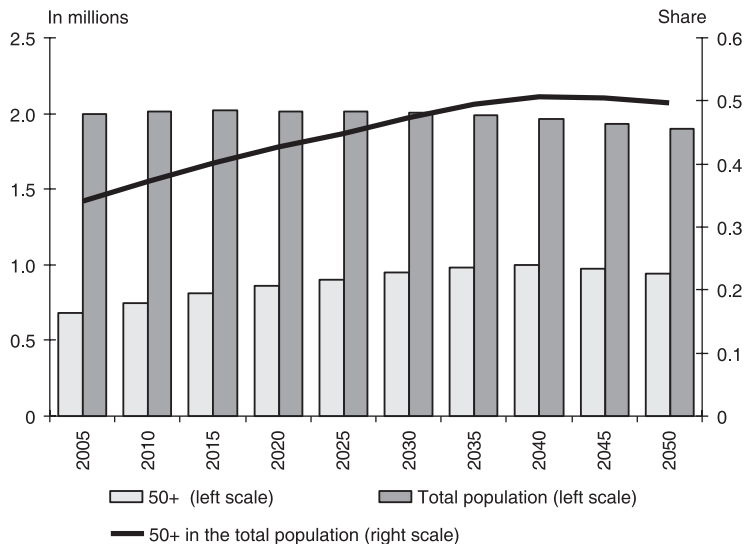
Source: Eurostat.

Given that currently the fertility rate in Slovenia is slightly rising, the cohorts aged 50 or more will strengthen again after 2050. Yet, taking into account the fact that the fertility rate probably will not keep rising, the ratio can be expected to stabilise; probably below its peak of 0.41 (0.37).

An overview of current statistics shows that several significant problems in the labour market already exist and could gain in importance with ageing. First, the employment rate of older workers in Slovenia has been significantly below the European levels, especially for women (Table 4.1).

European Union member countries agreed on a special employment guideline concerning active ageing (Commission of the European Communities, 2002). Two important strategic objectives, which should be achieved by 2010, are: (1) an increase in the employment rate of older workers to 50 percent (Stockholm 2001); and (2) a 5-year delay of the age at which older workers stop working (Barcelona 2002).[4] In Slovenia, the employment rates for older men are not far below the target, whereas the older female population faces serious employment-related challenges. The generally low employment of the older population is a consequence of transition in Slovenia due to the fact that early retirement was one of the mild approaches to reducing the number of employees in companies, which resulted in a large number of relatively young retired people.

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[4] For more on the Stockholm and Barcelona targets see http://ec.europa.eu/employment_social/employment_analysis/age_en.htm. The targets are also analysed in more detail in the paper on demographic trends in the EU in Chapter 2.

Figure 4.10: **Age structure of the working-age population in Slovenia**
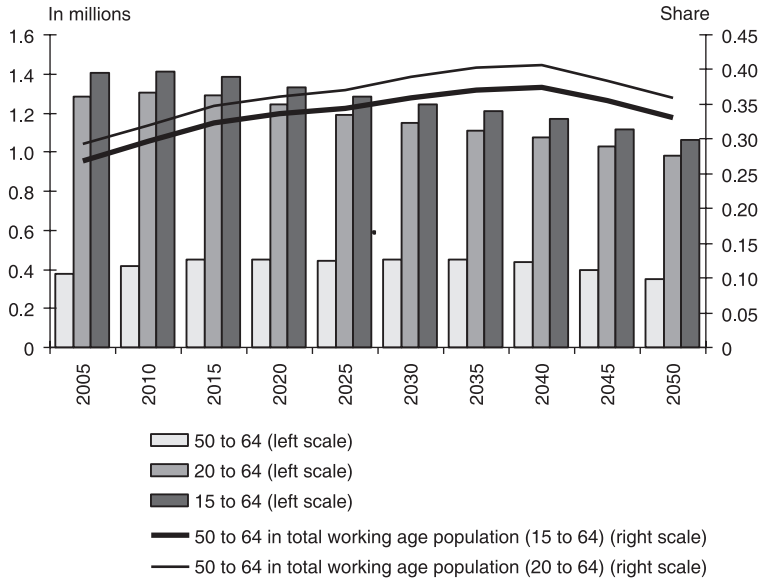
Source: Eurostat.

Table 4.1: **Employment rates for older workers: a comparison***

Employment rates for older workers - total

	2000	2001	2002	2003	2004	2005	2006	2007
EU-27	36.9	37.7	38.5	40.0	40.7	42.4	43.5	44.7
EU-15	37.8	38.8	40.2	41.7	42.5	44.2	45.3	46.6
Euro area (13)	34.3	35.1	36.4	37.8	38.6	40.5	41.8	43.3
Slovenia	22.7	25.5	24.5	23.5	29.0	30.7	32.6	33.5

Employment rates for older workers - female

	2000	2001	2002	2003	2004	2005	2006	2007
EU-27	27.4	28.2	29.1	30.7	31.6	33.6	34.9	36.0
EU-15	28.0	29.1	30.7	32.2	33.2	35.5	36.9	38.1
Euro area (13)	24.3	25.1	26.6	28.0	29.0	31.6	33.1	34.7
Slovenia	13.8	15.8	14.2	14.6	17.8	18.5	21.0	22.2

Employment rates for older workers - male

	2000	2001	2002	2003	2004	2005	2006	2007
EU-27	47.1	47.7	48.4	49.9	50.4	51.6	52.7	53.9
EU-15	48.0	48.9	50.1	51.6	52.2	53.3	54.1	55.3
Euro area (13)	44.8	45.5	46.7	48.0	48.6	49.8	50.9	52.3
Slovenia	32.3	35.9	35.4	33.2	40.9	43.1	44.5	45.3

Note: *The employment rate of older workers is calculated by dividing the number of workers aged 55 to 64 in employment by the total worker population of the same age group. The indicator is based on the EU Labour Force Survey.
Source: Eurostat.

It also should be pointed out that the average exit age in Slovenia is lower than in the EU. On average, a Slovenian worker exits the labour market at 59.8 years as opposed to the EU-27 (61.2 years), EU-15 (61.4 years) and the Euro area of 13 countries (60.9 years) (Eurostat, 2008a). All these results are well behind the desired goal of 65 years of age.

To keep the older workers employed and to ensure a sustainable growth environment, more than a simple legislative change like a rise in the mandatory retirement age is required. All potential consequences of ageing as well as the interactions among potential reforms should be carefully considered.

4.3 Economic challenges of ageing in Slovenia

In order to create an economic environment allowing for economic growth,[5] policy makers will have to deal with the following main characteristics of the labour market and consequences of ageing in Slovenia:

(1) decreasing population and decreasing number of working-age population, which can have a negative impact on economic growth;
(2) increasing share of older workers within the working-age population, which will require significant changes in the attitudes of workers, companies, and the state towards their employment and life-long learning;
(3) currently low employment rates of older workers and low average exit age;
(4) very high and increasing old-age dependency ratios, which - without a general economic adjustment to the new economic situation caused by the aforementioned demographic shifts - will become a too heavy of a tax burden.

Sustainable economic growth will only be possible in a macroeconomic environment, which will be sufficiently competitive in the ever more competitive global context. This will also require a different labour market. Additionally, the problem of ageing will have to be solved. AGE (2006) suggests that policy developments in many areas such as employment, pensions, social inclusion, health, transport, urban development, housing, research, education and citizenship need to be carefully coordinated. Only by considering

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[5] One could speculate that a productivity increase could cover for the increase of the dependency ratio and its economic burden. Should productivity grow faster than the dependency ratio, the increasing dependency ratio would not pose a threat to economic growth. But data from Trichet (2005) show that in the euro area, average productivity growth (measured in terms of output per hour worked), after growing on average by about 2.5 percent from 1980 to 1995, declined to just above 1.5 percent in the period 1995-2000 and further to just above 1.0 percent on average in the period 2000-2004. The dependency ratio is expected to increase from 0.42 (2005) in 0.78 (in 2050), growing on average by 1.38 percent a year. Even if we assume that such sustained productivity growth is possible, there are always a few more problems that arise: (1) can the tax burden be increased additionally by total productivity growth, (2) can wages remain unchanged or rise only by such an amount to sustain the younger dependent population, (3) profit is a residual category, but its trends are crucial for investment and future growth, etc. Numerous issues should be considered, but this is well beyond the purpose of this chapter.

these areas can, the meaning of the demographic change be accurately understood and the right policy responses developed.

The challenges of the future economic consequences of ageing are very complex, therefore, detailed analyses of interrelations among different reforms and economic impacts of ageing are hard to perform (Kraigher, 2003). But, forecasted values for retirement expenses, disability expenses and medical care already indicate the importance of the problem. Kraigher (2003) forecasts that by 2050 as much as 30.8 percent of the GDP could be required for pensions in the case of very unfavourable developments in the future (a high life expectancy, low migration, a low employment rate, a similar rate of retirement and similar social rights – e.g. pensions - as today). In the case of high immigration, high employment, a decline in the retirement rates and significantly lower benefits, the GDP burden of pensions would be around 14 percent (see Kraigher, 2003, for details on the projection). Health insurance costs are also expected to rise dramatically already by 2040: from around 7 percent of the GDP today to 11.6 percent in the case of unfavourable developments or to at least 9.2 percent in the best case scenario.

The ageing population in Slovenia (as well as in other ageing economies) will affect growth through several other main channels: expenditure pressures on public finances, which was already mentioned, "life cycle" effects on private savings behaviour, as well as Ricardian equivalence[6] effects operating through the deterioration in public savings, labour supply implications, a potential impact on capital accumulation, effects on the total factor productivity, and, finally, the equilibrating role for interest rates, exchange rates, and shifts in external balances (for the EU-15 these consequences were mentioned by the European Commission, 2003: 10).

All in all, the key challenge seems to be the labour market reform. Should the labour market successfully adapt to the new reality, all ageing-related problems can be solved. Unfortunately, Slovenia currently has no specific strategy concerning the "ageing problem" in the labour market; although the problem of the ageing population is mentioned or dealt with briefly in several documents (e.g. Ministrstvo za delo, družino in socialne zadeve 2006a, 2006b and 2006c).

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[6] Ricardian equivalence (or Ricardo-Barro equivalence) deals with inter-temporal exchange between private and government consumption. It suggests that when the government stimulates demand by increasing debt-financed government spending and, therefore, leaving private incomes unchanged, people act rationally and are aware of the future tax burden and, therefore, private demand remains unchanged. The future tax burden is already calculated into the total life-cycle income of individuals. The public will save its excess "current" money to pay for future tax increases that will be needed to pay off the additional debt. The key idea of Ricardo's theorem is that it does not matter how a government chooses to increase spending, whether with debt financing or tax financing, the outcome will be the same and private demand will remain unchanged. People are rational.

Thus, an active ageing strategy is still in preparation. Apart from other problems, it will primarily need to address the issues connected with the older labour force. According to Pušnik et al. (2007: 16), these issues are the following:

(1) Employment legislation is not appropriately protecting the older workforce from dismissal in the cases of company reorganisation. Consequently, older workers are dismissed more frequently than younger workers.
(2) The consulting service for the older unemployed is not efficient due to overburdened consultants.
(3) Employment policies and human resource management in companies often discriminate older employees. Unions are often not vigilant enough when defending the rights of the older employment seekers, or of the older employees.
(4) Disabled, older unemployed workers, which represent the majority of disabled workers, because of their disability face additional problems.
(5) Older unemployed workers are also reported to have psychological problems (lower self-esteem, lack of socialisation, loss of skills, attrition of work habits, etc.).

An efficient active ageing strategy should also identify the demand side problems in labour markets and the attitudes of companies towards older workers. However, it seems clear even without looking at the empirical results that an appropriate labour market solution of the ageing problem will require close cooperation among the demand side (companies), the supply side (workers), and the state.

4.4 Conclusion

Slovenia is facing the problem of an ageing population. In the next four to five decades, its population is expected to decline and significantly age. The share of those aged 65 or more is expected to rise from the current 15 percent to 31 percent by 2050. The total dependency ratio will rise from 0.42 (2005) to 0.78 (2050) resulting from a dramatic increase in the old-age dependency ratio, which is expected to rise in the same period from 0.42 to 0.56; while the young-age dependency ratio will remain relatively stable (0.2 in 2005 and 0.23 in 2050).

Population changes will be reflected in the labour market. People aged 50 or more represented just over a third of the population in 2005. But, their share is expected to rise to one half by 2035 and to stabilise. With a shrinking and ageing population, the labour market and the economy as a whole will have to sustain deep changes to ensure sustainable growth conditions. Measures such as active age prolongation and the increased employment of older workers will need to be carried out to ensure a large enough labour force for the functioning of the economy and for lowering the fiscal burden

of ageing. To achieve these goals, the needs and attitudes of companies and workers will have to be carefully examined and a suitable reform strategy will have to be prepared and implemented by the government.

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II

THE INSTITUTIONAL FRAMEWORK AFFECTING RETIREMENT DECISIONS

From work to retirement: Pension system incentives to continued labour market participation in Croatia

5.1 Introduction

The Croatian population is ageing at a rapid pace, with wide-ranging implications for economic and social life. According to demographic projections, Croatia will experience a significant change in the population structure - the share of the elderly will strongly increase, while the share of the working-age population will decline substantially. For example, the working-age population (15-64 years of age) is projected to shrink from around 3.0 million today to 2.2 million by 2050, and its share in the population will decline from 67 percent to 59 percent (DZS, 2006). In addition, the labour force will comprise a large proportion of older workers.

Policy challenges posed by population ageing are enormous, not only in Croatia but all over Europe and industrialised world. Economists are worried how to keep the economy growing at a pace that facilitates improvements in the living standards of the overall population and how to ensure the sustainability of public finances, especially public pension schemes. The critical point in this respect is the labour market. The challenges ahead call for policy initiatives for increasing the participation rates of older people by creating a friendly institutional and cultural environment for longer working lives of older workers. Accordingly, the EU has taken a new approach by promoting active ageing. This is reflected in two strategic objectives to be achieved by 2010: to increase the employment rates of older workers to 50 percent (Stockholm target); and to delay by five years the age at which older workers stop working (Barcelona target).

The pension system design is one of the key factors influencing work and retirement decisions. This paper focuses on the Croatian pension system and incentives it provides to continued labour market participation. It analyses the pension system effects on the average retirement age, public pension expenditures and the replacement rate. Finally, it considers policies towards rewarding people for working longer.

This chapter is organised as follows. Section 5.2 describes the development of the Croatian pension system since 1990 by focusing on changes in the eligibility criteria for retirement. Incentives and barriers to continued work after reaching the official retirement age are discussed in Section 5.3. Section 5.4 gives policy recommendations, while Section 5.5 concludes.

5.2 Retirement policy in Croatia

The Croatian pension system has gone through three broad phases in the post-socialist period, each providing specific incentives for the work/retirement decisions of older workers. These are:

a) prior to the pension reform (1990-1998);
b) transition period of the pension reform (1999-2007);
c) advanced phase of the reform (2008 on).

The crucial point in examining the Croatian pension system is the Pension Insurance Act (enacted in July 1998, while its implementation started in January 1999) (NN, 102/98), the first and the most important act in setting the new system.

5.2.1 Prior to the pension reform

Up to 1999, the Croatian pension system retained the basic features of the socialist era. There was only one public PAYG pension scheme of a defined-benefit type. The official retirement age was low and the penalties for early retirement were weak. A person was eligible for the old-age pension:

a) at the age of 60 for men and 55 for women, with at least 20 years of service;
b) at the age of 65 for men and 60 for women, with a minimum of 15 years of service;
c) at any age, with 40 years of service for men and 35 for women.

It was possible to opt for an early retirement at the age of 55 for men (with at least 35 years of service) and 50 for women (and 30 years of service). The penalties for early retirements were relatively weak. The annual decrement in pension benefit was 1.33 percent. For unemployed persons who had lost their jobs due to enterprise bankruptcy and had chosen to retire earlier, it was even lower - 0.5 percent per year. It is important to note that the decrement was not permanent, but valid until the official retirement age. When a person reached that age, his/her pension benefit was recalculated at a regular rate for old-age pension. In all cases, the pension benefit valorisation was based on the 10 best years of earnings in one's career.

A new set of measures was introduced in 1990 aimed at helping redundant workers and unemployed older persons to retire earlier. In order to meet the requirement c) listed above, one could "purchase" up to five years of service (i.e. five years of contribution to the pension fund) by making a one-time contribution payment. Such a possibility was widely used by privatised firms and the Croatian Employment Service for older

unemployed persons who had lost their jobs due to the bankruptcy of their former employer.[1] Even more often, it was used simply to reduce employment at a reasonable cost for companies. This particular measure was abolished in 1995. Around 57 thousand people entered retirement in this manner, mostly blue-collar workers who had started working in their teens.

Various forms of early retirement were extensively used during the early 1990s, especially in the period from 1991 to 1993. At that time, Croatia experienced a considerable decline in economic activity, massive loss of jobs and high unemployment. Furthermore, the social protection system faced the problem of internally displaced persons and refugees. In that situation, the policy of (early) retirement, even with a relatively low pension benefit, provided a minimum of social security to older people, so it was seen as a reasonable choice at that time. However, it caused serious financial problems to the pension system. Total expenditures on pensions increased from 7.7 percent of GDP in 1992 to over 12 percent of GDP in 1997 and 1998. The pension system dependency ratio (the number of contributors over the number of pensioners) declined from 3.0 in 1990 to 1.5 in 1998. The pension reform was necessary in order to ensure the long-term sustainability of the pension system.

5.2.2 Transition period (1999-2007)

A comprehensive reform of the pension system in Croatia started in 1999 with the implementation of the Pension Insurance Act. The pure PAYG system has been modified into a "three-pillar" system. The first pillar remains to function as the PAYG defined-benefit scheme, but with a reduced size. The new second pillar is a mandatory fully funded scheme of defined-contribution type and the third pillar is a voluntary fully-funded scheme of defined-contribution type. The pension reform has involved substantial changes in the PAYG system starting from 1999. The introduction of the second and third pillar was postponed until 2002.[2]

The changes in the PAYG system included:

a) an increase in the official retirement age to 65 years for men and 60 years for women (the minimum of 15 years of contribution is required);

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[1] As stated by the experts from the Croatian Pension Insurance Institute, years of contribution were "purchased" by 20-25 percent of persons who had lost their jobs. The average age of such pensioners was 51 year.

[2] At present, pensions are paid from the PAYG scheme and the same practice will continue in the mid-term period. Apart from the small number of individual cases, the first cohort of combined pensioners, i.e. those receiving pension from the first (the PAYG scheme) and the second pillar (mandatory fully funded scheme), will emerge in 2010, but even then it will be relatively small compared to those insured in the PAYG scheme alone. The first pillar design, therefore, remains crucial for the current work-retirement decisions of older workers. The effects of the second pillar on pensions are not yet visible to older workers and, currently, they do not influence their decisions. Therefore, we focus on the effects of the first pillar.

b) an increase in the minimum age for early retirement to 60 for men and 55 for women (the minimum of 35 years of contribution for men and 30 for women is required);

c) an increase in the annual decrement for early retirement from 1.33 percent to 3.6 percent per year[3];

d) a gradual widening of the benefit calculation period from the 10 best earning years to the life-time average earnings (more precisely, from 1970 on);

e) changes in the pension benefit valorisation formula and the post-retirement benefit indexation (switch to the Swiss-type formula with a 50-percent price up-rating and a 50-percent wage up-rating).[4]

The changes in retirement age and pension benefit calculations were gradual, although they can be considered quite radical by international standards. A 5-year increase in the official retirement age was effectuated within 10 years in a way that 6 months were added in each year. The same transition period (1999-2007) was necessary to increase the official retirement age. Transition lasted a bit longer in the case of pension benefit calculations. Starting from the best 10 years in 1999, the calculation period has been raised by 3 years in each subsequent year, and it will reach the 40 best years of earnings in 2009 and thereafter all earnings in the period from 1970 on will be used for calculations.[5]

Also, the minimum age for early retirement has been gradually increased by six months per year to reach 60 for men and 55 for women by 2008. However, a minimum of 35 years of contribution for men and 30 for women was required for the early retirement.

In the transition period (1999-2007), there was an exceptional opportunity to take a regular old-age retirement based on the "full" contribution period, i.e. at least 40 years of contribution for men and 35 years for women. In that case, the stipulated minimum retirement age was the same as for the early retirement scheme, i.e. five years lower than the regular retirement age. For example, in 2004, an insured person was entitled to an old-age pension after reaching 40 years of contribution (35 for women) and 58 years of age (53 for women). That opportunity was ceased in 2008.

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[3] In 2002, the decrement was further raised to 4.08 percent per year (0.34 percent per month), but then substantially lowered to 1.8 percent per year (0.15 percent per month) in 2008.

[4] Indexation for both the initial pension valorisation and post-retirement benefit adjustment by 50 percent on price and 50 percent on wage inflation is commonly labelled in Croatia as a "Swiss-formula", although the actual Swiss practice is somewhat different (to valorise at wages and have post-retirement adjustment 50 percent at prices and 50 percent at wages). It could be more appropriate to label the practice of both valorising and indexing benefits at the same rate (50 percent-50 percent at prices and wages) as a "Croatian formula" (Anušić, O'Keefe, and Madžarević-Šujster, 2003: 28). However, we would use the term Swiss-type formula.

[5] In 2008, the pension benefit is calculated on the basis of the 37 best earning years.

The changes in the PAYG system effectuated up to 2007 resulted in mixed incentives to retire or to continue working. Generally, the transition period is considered to be a period of favourable retirement conditions, as compared to the situation expected in the future.

5.2.3 Retirement policy in 2008

Pension entitlements regulated by the Pension Insurance Act became fully operative in 2008. Only in the case of benefit calculation period, the targeted level of 40 years will be reached in 2010. In 2008, the minimum statutory retirement age is 65 for men and 60 for women with at least 15 years of contribution. Early retirement is possible at the age of 60 for men (with 35 years of contribution) and 55 for women (with 30 years of contribution).

The pension benefit for early retirement is lower than in the case of retiring at the official retirement age. The last changes in the Pension Insurance Act enacted in 2007 bring a much milder decrement in 2008, as compared to the earlier period. In 2008, a decrement for each month of retirement prior to the regular retirement age amounted to 0.15 percent (1.8 percent per year, and 9 percent for the maximum of five years). It seems that such a mild penalty for early retirement could only motivate older workers with the minimum years of contributions to retire earlier. The same decrement will be applied to all pensioners who retired earlier, i.e. to those who joined the early retirement scheme in the previous years with much more stringent criteria, so their pension benefits will be increased accordingly.

An important modification in the pension system, or more precisely in the amount of pension benefits, has been brought by the 2007 Law on Supplement on Pension Benefits Accrued According to the Pension Insurance Act. It will introduce a hike in benefits for pensioners retired in 1999 and later. The "new" pensioners have been receiving a supplement to their regular pension benefits starting from October 1, 2007. The amount of the pension supplement increases with the year of retirement, from 4 percent of the pension benefit for those retired in 1999 to 27 percent for those who will retire in 2010 and later. For those retired in 2003, the supplement is 19 percent of their pension benefit and 25.9 percent for those retired in 2008. This supplement helps us to measure the difference in pension benefits between a person retired in the reform period and a person retired before the reform. It also aims to bring equity into the pension system, so the total pension (the regular pension benefit plus the supplement) is roughly the same, regardless of the year of retirement.

5.2.4 Immediate effects of the pension reform?

The pension reform has brought substantial changes in the functioning of the PAYG scheme. Its financial position has improved, inflows into the system have decelerated and the link between contributions and pensions has strengthened. The pension reform results include, in particular:[6]

    a)   an increase in the average age of new pensioners;
    b)   a decline in expenditures on pensions (measured in percent of GDP);
    c)   an improvement in the pension system dependency ratio;
    d)   a decrease in the replacement rate.

The average age of new pensioners has increased by three to five years in the period covered by the pension reform, depending on sex and the type of retirement. In the case of old-age retirement, the average age increased from 59 years for men and 57 for women in 2000 to 64 years for men and 60 for women in 2007 (HZMO, 2008b). As for early retirement, the average age increased from 57 to 61 year for men and from 51 to 55 years for women between 2000 and 2007. The pension reform is likely to have had a major impact on current higher employment rates among the elderly.

The change in the average age of new pensioners is primarily a result of legislative pressure that also helped to stabilise the inflow into retirement. Figure 5.1 shows inflows into old-age and disability retirement from a longer perspective, covering the period 1988-2007. In the early 1990s, the inflow of old-age pensioners and early retirees increased heavily, but thereafter it was stabilised. In the second half of the 1990s, the inflow into retirement was growing again. However, the 1999 reform prevented a further increase in the number of pensioners. Disability retirement often serves as a pathway to early retirement, if conditions for old-age retirement are more stringent. In that respect, it is interesting to look at trends in the number of new disability pensioners in Croatia since 1999. The hike in 1999 was caused by administrative reasons, since various social benefits for persons with disabilities were converted to disability pension. But the pension reform introduced a more restrictive definition of disability, and consequently more stringent criteria for disability pensions. Therefore, the number of new disability pensioners declined in 2000. However, there has been a rising trend in the number of new disability pensioners since 2000, which can be explained by the rising health problems associated with a longer working life. Also, the exploitation of disability rules in order to retire earlier might have taken place.

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[6] Economic and development effects of the 1999 reform are wide-reaching, but they are not in the focus of this paper. For example, the introduction of a fully-funded defined-contribution private pension scheme in the second (mandatory) and the third (voluntary) pillar of the pension system is expected to bring a long-term stability in the overall pension system, improve total domestic savings and help to develop the domestic capital market.

Figure 5.1: **Inflows into retirement**

In thousands
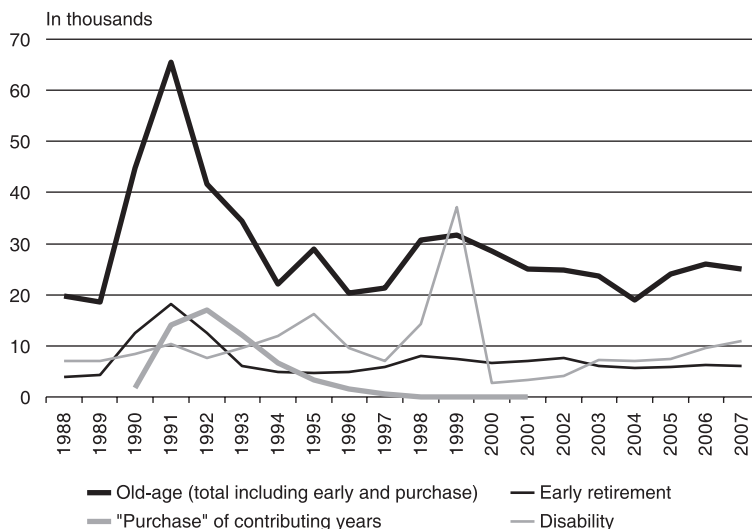
Source: HZMO (2008b).

One of the goals of the pension reform was to lower the burden of a relatively high pension share in GDP. In 1999, overall pension expenditures stood at 13.5 percent of GDP, and they were expected to decline gradually. With the exception of 2001, when the pension hike increased it to 13.9 percent of GDP, the pension share steadily declined to 11.1 percent in 2007 (HZMO, 2008a). It can be noted that around 60 percent of overall expenditures is covered by contributions, while the remaining 40 percent comes from the state budget. The pension supplement for post-reform pensioners requires additional HRK 720 millions from the budget in 2008, or around 0.25 percent of GDP.

The pension reform helped to increase the pension system dependency ratio, i.e. the ratio between contributors and pensioners by increasing the average retirement age (Table 5.2). However, it must be noted that an increase in the dependency ratio from 1.36 in 2000 to 1.41 in 2007 was also driven by an improved economic situation, where strong economic growth induced employment growth, as opposed to the early 1990s characterised by the overall economic decline or the late 1990s characterised by jobless growth. The long-term trend of worsening dependency ratio is quite obvious, which again stresses the importance of policies aimed at increasing activity and employment rates for the population in general, and for older workers in particular.

Table 5.1: **Pension system dependency ratio and net replacement rate**

Year	Pensioners	Contributors	Dependency ratio	Net replacement rate (in %)
1952	84,543	493,090	5.83	66.4*
1962	206,490	975,019	4.72	60.8**
1980	449,080	1,816,191	4.04	59.7
1985	524,154	1,931,254	3.68	55.4
1990	655,788	1,968,737	3.00	75.3
1995	865,769	1,567,981	1.81	45.9
1998	955,352	1,471,509	1.54	46.3
1999	1,017,801	1,406,091	1.38	38.4
2000	1,018,504	1,380,510	1.36	37.6
2001	1,032,120	1,402,102	1.36	41.4
2002	1,042,192	1,421,981	1.36	40.7
2003	1,054,549	1,443,995	1.37	40.0
2004	1,065,655	1,460,105	1.37	42.1
2005	1,080,571	1,498,877	1.39	41.8
2006	1,100,086	1,538,170	1.40	40.5
2007	1,121,540	1,579,463	1.41	39.4

Note: Pension system dependency ratio is a ratio between contributors and pensioners. Net replacement rate is the net average pension (including old-age, disability and family pensions) expressed as a percentage of the net average wage. *1953; **1960.
Source: Puljiz (2007), HZMO (2008a).

The net replacement rate, calculated as the ratio of the average pension and the average wage, has continued to decline with the implementation of new parameters of the PAYG system. Table 5.1 shows a long-term declining tendency in the net replacement rate and a decrease in the pension system dependency ratio. The net replacement rate fell from 46.3 percent in 1998 to 37.6 percent in 2000. However, by 2005 it slightly rose to 41.8 percent, but as a result of ad hoc policy measures rather than the pension reform. In 2001, it grew for the first time due to an increase in pensions for those retired by 1998, which was aimed to alleviate the problem of variations in pension benefits based on the years of retirement. In 2002 and 2003, the net dependency rate declined, followed by another rise in 2004 due to the inclusion of certain pension supplements in a regular pension benefit. Again, without interventions, the net replacement rate in the period 2005-2007 declined. However, the pension hike in 2008 induced by the 2007 Law on Supplement on Pension Benefits may increase the net replacement rate again. In March 2008, it stood at 40.5 percent.

The replacement rate in the current setting of the PAYG system is actually designed to decline with years, or more precisely, as long as there is a rise in the average real wage. For those in retirement, a decline in pension benefits relative to the average

wage is a result of the Swiss-type indexation formula, where the post-retirement benefit adjustment is done by 50 percent at inflation rate and 50 percent at wage growth. Usually, the average wage hike is higher than the price hike, meaning that pension benefits are adjusted by a factor that is below the average wage growth. A decline in the replacement rate for new pensioners is the result of applying the same adjustment formula to the initial benefit valorisation, i.e. to adjustment in the actual pension value, one of the key parts in determining the pension benefit for new pensioners. This is aimed to counterbalance the problem of ageing population, including increased longevity. Currently, life expectancy for a man at 65 is 13.2 years and for a woman at age 60 it is 20.9 years (DZS, 2006), and that is the expected time span of receiving the pension benefit in the case of getting retired at the official retirement age. Demographic projections show that in 2020 life expectancy will be 14.6 years for men (aged 65) and 22.1 years for women (aged 60), which is an increase of 1.5 years for men and 1.2 years for women (DZS, 2006).

A sharp increase in the participation and employment rate of older workers in Croatia at the beginning of the 2000s was another consequence of a rapid pace in the pension reform.[7] Tightened retirement conditions became fully operational in a relatively short period of time within 10-12 years after the start of the reform. It led to an increase in the participation rate for older workers (55-64 years) from 24.5 percent in 2002 to 36.5 percent in 2006, i.e. by 12 percentage points in four years, which was the most dynamic change in Europe. Similarly, the employment rate for older workers increased from 22.7 percent in 2002 to 34.3 percent in 2006 (Eurostat, 2008).

5.3 Incentives and barriers to work after reaching the minimum retirement age

In Croatia, workers entitled to old-age retirement mostly retire at the earliest possible time. In 2007, the average age for new pensioners in the case of old-age retirement was 64 years for men and 60 years for women while the official age for retirement was 64 years and 6 months for men and 59 years and 6 months for women. This difference in the average and official retirement age can be explained by the possibility to combine "full" service years (40 for men) with lower age, as explained earlier. Workers used to retire at around the statutory retirement age despite a reasonable flexibility with the actual time of retirement provided in the current legislation.

The Labour Act allows for the possibility of prolonging working life. The standard employment contract in Croatia should be terminated when a worker reaches 65 years of age and 20 years of employment service, unless otherwise is agreed by the employer and the employee. Namely, the employee can continue working without any legal obstacle

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[7] For more information on the recent labour market trends for older workers in Croatia see Chapter 3.

after reaching retirement age. On the other hand, the employee can retire earlier if he/she is entitled to such a pension.

In the public sector, there are some exemptions from these general rules. For civil servants (employees of central and local government), the employment contract terminates at the end of calendar year in which a worker reaches 65 years of age and a minimum of 20 years of service, as stated in the Law on Civil Servants. In principle, such a worker can be employed in other sectors of the economy, but this is rarely the case. The same applies to teachers in primary and secondary schools. According to the legislation, teachers can continue to work in their schools after retirement on the basis of a service contract, which can be combined with a pension benefit. Namely, teachers are willing to work because their pension benefits are relatively low compared to salaries. Furthermore, schools are short of teachers, so they are willing to extend cooperation with older teachers, and this seems to be a win-win situation. For teaching and research staff employed in science and higher education, the employment contract terminates at the end of calendar year in which a worker reaches 65 years. However, if an employer is interested in a full professor with tenure to continue working, he/she can be employed on a fixed-term contract at most for 5 years. This possibility is often used in Croatia, showing that employers and employees in science and higher education are interested in extending working life after the legal age of retirement. However, it seems that such a mutual interest is missing in most other sectors.[8]

5.3.1 Combining work and retirement

Pensioners still have the option to enter the labour force without losing their pension benefit. For example, they are allowed to work on a service contract for third parties, to be employed in handicraft trades and secondary occupations. Ministry of Economy, Labour and Entrepreneurship strictly defines such jobs as those done on their own, without employing other persons, while total revenue from it is limited to ten average monthly gross wages for a calendar year. The income received from such work is treated as an additional income, and it is subject to standard income taxation.

Pensioners have a preferential treatment in income taxation; their personal allowance is almost twice as high as of other tax payers. Therefore, pension benefits are hardly ever taxed. According to the distribution of pension benefits, around 85 percent of pension benefits are below the personal allowance. The same personal allowance is applied to all other income sources of pensioners, not only pension benefits. Therefore, additional work combined with retirement could be an attractive option for those who are healthy and have an opportunity to work, but now in a more flexible work arrangement.

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[8] In the education sector, in 2006, around 1 percent of workers were of age 65 or older, while in manufacturing and construction the comparable number was 0.1 percent (CBS, 2007).

In addition, there is plenty of anecdotal evidence on the unregistered work of pension beneficiaries.[9] In some cases, workers' willingness to retire as early as possible may be a smart way to combine i) income security by receiving pension benefits and ii) earning opportunities by taking casual jobs while there is enough mental and physical ability. Relatively low pension benefits and relatively small differences in pension benefits between early, regular and later retirement, especially for those with relatively low earnings, mean that the combination of work and retirement might be attractive. Unfortunately, we do not have enough hard evidence on the prevalence of this phenomenon.

Some forms of paid work cannot be combined with retirement. If a person in retirement starts working on the basis of employment contract his/her pension benefit will be automatically abolished, as well as their retiree status. So, it is possible to stop receiving pension and start working on a regular basis again. In that case, retirement request can be renewed no sooner than a year after the first retirement, provided that pension insurance contributions are paid in the meantime. The new calculation of pension benefit will be done on the basis of total contribution years, in the same manner as in the first retirement. The new pension benefit cannot be lower than in the case of first retirement because one can always choose a more favourable pension benefit.

Employers in unincorporated sector (crafts, trade and free-lances) are stimulated to regularly employ a person who cancel receiving pension benefit and choose to start working again. Such employers, which pay personal income tax on income stemmed from their business can deduct taxable income by full amount of earnings and social security contributions paid to such a new worker. The group of employers eligible for this kind of subsidy is estimated to employ less than 10 percent of the total employees in Croatia. Unfortunately, we are not aware of official information on how often this kind of employment subsidy is actually used, but the effects are surely worth studying.

5.3.2 The pension benefit calculation

Financial rewards could be the most important incentives for older workers to stay in employment once the minimum retirement age is reached. This section will present the pension benefit calculation for several typical cases to get an insight on how current regulation treats longer work in terms of accrued pension benefit.

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[9] Croatia has a substantial number of pensioners below 60 years of age. At the end of 2007, they comprised around 20 percent of total number of retirees (including beneficiaries of disability and family pensions, but without military personal and war veterans) (HZMO, 2008a).

Calculations are done for persons insured in the first pillar who chose to retire at the beginning of 2008.[10] The pension benefit calculation is prepared separately for male and female workers in three cases regarding pension eligibility and four cases regarding previous earnings. As for eligibility, we calculate the pension benefit for i) a person who retires after satisfying minimum conditions for early retirement, ii) a person with 5 more years of age and 5 more years of service when retiring (i.e. a person choosing to retire at the statutory minimum age) and iii) a person with 10 more years of age and 10 more years of service than in the case of early retirement. In this way, we can get a rough idea of benefit implications of continued employment. In some sense, it can illustrate the choice whether to retire early, to work until eligible to the statutory old-age pension or to continue working five more years after becoming eligible to the statutory old-age pension. We are aware of shortcomings in the static dimension of comparison, but think it can lead to some useful conclusions. As for earnings, we assume that a person is paid the same wage relative to the national average in the course of entire service period. Four cases are considered; life-time earnings in the amount of 60, 90, 100 and 200 percent of the national average.

The pension benefit in the Croatian PAYG scheme is calculated as:

*Benefit = PF * APV * PP,*

where

PP = AVP*Years of service*IF.

The PF stands for the pension factor, APV is the actual pension value and PP is the personal point. The pension factor depends on the type of pension; in the case of old-age pension, early retirement and disability pension it equals 1.00.[11] The actual pension value (APV) is a coefficient determined by the pension fund administration. In fact, it is the amount of pension for each personal point (PP). The APV is updated every six months in line with the indexation formula of Swiss-type (50 percent at price increase and 50 percent at wage increase). Personal points relate a worker's contribution to the pension fund with his/her pension benefit. They are calculated by multiplying average value points (AVP) by the period of service and by the initial factor (IF). The average value points are determined on the basis of wages earned. A person's wage in each calendar year is divided by the average wage in Croatia for the same calendar year and then averaged over the whole period used for the calculation of benefits (the best 37 years of earnings, as applied in 2008). The initial factor (IF) depends on the age of the insured person on the

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[10] Majority of current older workers in Croatia are insured only in the first PAYG pillar. In 2002, when the mandatory second pillar was introduced, workers below 40 years of age had to enter that scheme, while for those between 40 and 50 it was optional.

[11] The pension factors for various types of disability and family pensions take values from 0.33 to 1.00.

day of acquisition of entitlement to a pension. The initial factor takes the value 1.0 for the old-age pension, disability pensions and family pensions, but it takes lower values in the case of early retirement. The initial factor is decreased by certain percentage (currently by 0.15 percent) for each calendar month of taking retirement before reaching the official retirement age (65 years for men and 60 for women).

The benefit calculation formula in the Croatian PAYG scheme is the same for men and women. However, we separate results for men and women to stress the difference in pension benefit that stems from different age at which men and women are eligible for early and statutory old-age retirement. Women can retire 5 years earlier than men, but in that case they have fewer years of service and consequently lower pension benefit. Results are shown in Table 5.2 for men and Table 5.3 for women.

Another element of the pension system may be important for assessing benefits – the minimum pension. The minimum pension is calculated as the product of service years and the minimum benefit factor, which is defined for a year of service. In this way, the minimum pension is proportionally related to the years of service. The minimum pension is relatively low for those with a short career, but its influence is very important for those with a longer career. For example, for workers with 40 years of experience and life-time wage in the amount of 97 percent of the national average, the pension benefit will be approximately equal to the minimum pension.

Table 5.2 shows the absolute amounts of pension benefits and net replacement rates for men retired in 2008 in twelve various cases depending on age/years of career and life-time earnings. Pension benefit increases with age/career length and earnings. The net replacement rate increases with age/career length but decreases with earnings. The pension benefit relative to pre-retirement earnings is the highest for those with the lowest earnings. For example, a man with the life-time earnings in the amount of 60 percent of the national average should receive a pension benefit in the amount of 61 percent of his pre-retirement earnings in the case of statutory old-age retirement with 40 years of service. In a similar situation, a pension benefit of a person with earnings in the amount of 200 percent of the average earnings would be below 37 percent of pre-retirement earnings. Such a difference in the net replacement rate reflects a degree of solidarity in the Croatian pension system and it is mostly caused by the minimum pension regulation. It also indicates that retirement means a greater relative loss of income to high-wage workers than to low-wage workers. Therefore, early retirement is more attractive to low-wage workers.

Table 5.2: **Calculation of pension benefits in Croatia for men as of January 2008**

Life-time earnings (in % of average earnings)	Pension benefit		
	Early retirement (60 years of age and 35 years of contribution)	Statutory old-age (65 years of age and 40 years of contribution)	Later retirement (70 years of age and 45 years of contribution)
	Absolute amount (in HRK)		
60% of average	1,836 (1,034 but receives minimum pension)	2,098 (1,299 but receives minimum pension)	2,361 (1,461 but receives minimum pension)
90% of average	1,836 (1,551 but receives minimum pension)	2,098 (1,948 but receives minimum pension)	2,361 (2,191 but receives minimum pension)
100% of average	1,836 (1,723 but receives minimum pension)	2,164	2,435
200% of average	3,380	4,129	4,589
	In percent of pre-retirement earnings		
60% of average	61.0	69.7	78.4
90% of average	40.6	46.4	52.3
100% of average	36.6	43.1	48.5
200% of average	33.7	41.1	45.7

Note: Pension benefit after taxation (assuming a person without dependent family members). Taxation affects only pension benefits above 3000 HRK.
Source: Authors' calculations.

Table 5.3: **Calculation of pension benefits in Croatia for women as of January 2008**

Life-time earnings (in % of average earnings)	Pension benefit		
	Early retirement (55 years of age and 30 years of contribution)	Statutory old-age (60 years of age and 35 years of contribution)	Later retirement (65 years of age and 40 years of contribution)
	Absolute amount (in HRK)		
60% of average	1,574 (886 but receives minimum pension)	1,836 (1,136 but receives minimum pension)	2,098 (1,299 but receives minimum pension)
90% of average	1,574 (1,329 but receives minimum pension)	1,836 (1,704 but receives minimum pension)	2,098 (1,948 but receives minimum pension)
100% of average	1,574 (1,477 but receives minimum pension)	1,894	2,164
200% of average	2,954	3,670	4,129
	In percent of pre-retirement earnings		
60% of average	52.3	61.0	69.7
90% of average	34.8	40.6	46.4
100% of average	31.4	37.7	43.1
200% of average	29.4	36.6	41.1

Note: Pension benefit after taxation (assuming a person without dependent family members). Taxation affects only pension benefits above 3000 HRK.
Source: Authors' calculations.

The calculations of pension benefits shown in Table 5.2 are less clear in assessing financial incentives to retire later. Benefits in the case of early retirement are lower than in the case of retirement at the minimum statutory age. However, a penalty is a bit higher for a high-wage worker than for a low-wage worker. For a worker with pre-retirement earnings at the level of 60 percent of the average earning, the pension benefit in the case of early retirement amounted to 87.5 percent of the benefit in the case of statutory old-age, i.e. in the case of additional five years of working. The pension benefit for early retirement for a worker with pre-retirement earnings at the level of 200 percent of the average earning is 81.8 percent of the benefit in the case of "regular" retirement (HRK 4,129/3,380). The minimum pension means a higher replacement rate to low-wage workers. Although high-wage workers receive a higher pension benefit, it is taxed by the personal income tax and therefore they face a lower net replacement ratio.

Incentives to work beyond the minimum statutory retirement age seem unclear. Later retirement would bring a higher pension benefit, as shown in Table 5.2. However, another factor should also be taken into account beyond all the assumptions already made in our exercise. The Croatian pension system incorporates the Swiss-type formula for the valorisation of pension benefit (50 percent price up-rating and 50 percent wage up-rating). In a situation where wage increase could be substantially higher than price inflation, the net replacement rate in the moment of retirement will be lower in the future than today, other things being equal. Maybe such a situation could discourage one from later retirement.

Table 5.3 presents benefit calculations for women. Typically, women accumulate five years less of service than men and consequently receive a lower pension benefit. A female worker with life-time earnings at the level of the national average earnings retired at the minimum statutory retirement age could expect to receive around a 12 percent lower pension than her male counterpart (but, she will have five years of age and service less than men).[12] Conclusions regarding the incentives for women to retire earlier are practically the same as for men.

Net replacement rates expected for all those with earnings above the national average are rather low, below 50 percent even in the case of later retirement. Replacement rates for women are even lower, for about 5 percentage points. Such situation points to a substantial drop in welfare if one chooses to retire, as compared to the option of continued work. And this seems crucial – generally low replacement rates in Croatia could motivate many workers to work longer. This is surely not a kind of motivation that one would wish for in the pension system, but it is one of the most important factors explaining the increased participation of older workers in Croatia in the 2000s.

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[12] It could be added that women in Croatia earn around 12 percent less than men on average (Nestić, 2007), which additionally contributes to their lower pension benefits.

It should be stressed that the benefit calculations from Table 5.2 and 5.3 do not include permanent pension supplements that are given to all pensioners retired after 1998. For example, for those retired in 2008, the supplement reaches 25.9 percent of the regular pension benefit. Although enacted in 2007, the full implementation of the pension supplement is expected during 2008. However, the supplement is not included in our calculations as to better illustrate the situation in the last several years.[13]

However, it is questionable whether workers are aware of the results presented in such calculations. Usually, they are not familiar with detailed results, but with some general facts – such as the currently low net replacement rate and its declining trend over the last 15 years as well as the possible continuation of such a trend.

To conclude, we see that a low replacement rate in Croatia could be an important factor for keeping older population in work longer than before, or alternatively, for choosing some combination of work and retirement, sometimes unregistered.

5.4 Policy recommendations

In spite of unfavourable demographic trends and problems with the sustainability of the public pension system in Croatia, we do not see that policy-makers recognise the importance of increased labour market participation of older workers as a part of solution to such challenges ahead. Although some initial steps in that direction are taken within the National Action Plan for Employment (NAPE), the proposed actions aimed at promoting active ageing and longer working lives are not yet enacted or implemented. The pension system is not entirely oriented towards motivating older workers to stay longer at work since it currently creates incentives to retire late in parallel with incentives to retire early. Strategic decision should be made to integrate incentives for later retirement in the pension system, but also in the overall welfare system.

Policy incentives for extending working life related to the design of the pension system should be introduced on both the employers (labour demand) and employees (labour supply) side.

Measures addressing employers include the creation and introduction of incentives for employers to retain senior workers above the regular retirement age, possibly in the form of decreased pension insurance contributions. However, in designing such measures,

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[13] The supplement could substantially influence individual position of those retired after 1998. For example, in 2008, the individual net replacement rate in the case of the old-age retirement for a person with 40 years of service and life-time earnings equal to the national average earnings will reach 54.3 percent, instead of 43.1 percent, as calculated in Table 5.2. Those with earnings well below the average will continue to receive pensions at the level of the minimum pension, because the minimum wage remained unchanged by the introduction of the pension supplement. Although pension supplement will increase replacement rates for those with higher wages, it will not substantially change our major findings.

one should be careful that other cohorts are not squeezed out by the retention or reemployment of older workers, which might be important in the current situation of a relatively high unemployment rate. Currently, employers in the unincorporated sector enjoy tax relieves for reemploying pensioners. A careful study of the effects of this measure could provide some answers regarding the costs and effectiveness of the measure in Croatia. The other caveat is related to the public sector employers, where the decision on retaining older workers is often motivated by factors other than gains in productivity and output. The creation of appropriate incentives for employers in the public sector is important in order to prevent an unfair preference towards insiders in the case of their poor productivity.

Several measures addressing older workers could be proposed to increase their willingness to work longer under the general principle that the decision to stay at work or retire should be taken solely by workers. The system should encourage rather than enforce workers to prolong their working life.

The financial premium for longer employment could be effectively coupled by an adequate penalisation for early retirement. It seems that a higher retirement age can be attained through higher benefits for those who put off their retirement and through a higher decrement, as illustrated in the case of Belgium by Maes (2008). The recent decline in annual decrement for early retirement in Croatia is a step in the wrong direction and it did not contribute to increasing the participation of older workers.

In Croatia, one could also think of additional rewards for delayed retirement for those with smaller salaries since their current motivation for working longer is the weakest, as shown in our calculations for the current benefits. One option could be to introduce some sort of means-tested income supports for workers in pre-retirement age aimed at increasing the income of the poorest older workers, which could then weaken their incentives for early retirement. Narazani and Shima (2008) present simulations showing the possible positive labour supply effect of such a measure in Austria.

Finally, it is worth to consider changes in the pension system that should result in actuarially neutral pension benefits, where the present value of all future pension benefits is invariant on the choice of the retirement age. Such a system produces an adequate pension premium for those who opt to work longer.

Another option is to promote a gradual retirement or a gradual decrease of work intensity for older workers. Gradual retirement takes place when a person reduces his or her working hours at the later stage of the working career and at the same time receives both earnings and pension (either partial or full pension). However, such options might become a pathway to early retirement if incentives for postponing retirement are not carefully designed.

5.5 Conclusions

This chapter addressed the relationship between the pension system in Croatia and the incentives it provides to older workers for staying in employment. We argued that the 1999 pension reform, with its tightened retirement conditions, resulted in an increased age of new pensioners and strongly contributed to the recent rise in employment rates for older workers. We provided an analysis of the pension system reform, reviewed labour and tax regulations related to retirement and performed the simulations of pension benefits in various cases to support the argument.

The pension system reform has had a substantial effect on the major parameters of the pension system – retirement age, pension expenditures, system dependency ratio and the net replacement rate. An increased official minimum retirement age and more strict retirement conditions lead to retirement at a later age. The Croatian labour and tax legislation provides relatively favourable conditions for continued employment, at least in the private sector. There is a substantial flexibility regarding the retirement age and an open possibility to work in parallel with receiving the pension benefit. Although this option is related only to certain forms of work, conditions are not too restrictive. The favourable tax treatment of pensioners might encourage people to combine work and retirement. It also might encourage their early retirement. The calculation of current pension benefits shows that the years of service contribute most to the amount of pension benefit. Since women retire earlier than men, they receive lower pensions. Net replacement rates in Croatia are relatively low and they decline with earnings because the application of minimum pension results in proportionally higher replacement rates for low-income workers than to higher income ones. As for incentives the benefit structure provides to older workers, the results are mixed. On the one hand, there is an incentive to retire late since replacement rates are low and highly dependent on the years of service. On the other hand, there is an incentive to retire early for low-income workers who benefit from the minimum wage. Also, those who plan to work after retirement, often unregistered, could find their pension benefit too low in all possible cases of retirement (early, regular, later). Consequently, they may not be motivated to stay in regular employment after becoming entitled to early retirement.

At the policy level, we propose that incentives for later retirement should be consistently integrated in the pension system, but also in the overall welfare system. The higher labour participation of older workers could be beneficial for their welfare position and self-esteem, as well as for the economy as a whole. In any case, we believe that work/ retirement decisions should be made by workers themselves. Their decision when to retire should be based on transparent and reliable rules set by authorities, where workers bear the welfare consequence of such a decision.

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The employment prospects of the ageing population: Evidence from Slovenia

6.1 Introduction

Throughout the past decades, and recently at an accelerating pace, the declining fertility of baby-boom cohorts has significantly transformed the composition of European societies. Demographic change, associated with a pronounced decline in fertility rate and a simultaneous rise in life expectancy, induces long-term challenges for policy makers regarding social and employment policies.[1] The most direct and easily observable impact of population ageing is on national pension systems and their financing. The prevailing pay-as-you-go system of social security has come under pressure due to defined benefits and a rising old-age dependency ratio. Furthermore, it is clear that the whole spectrum of social security systems (not only old-age security, but also the public health care system) has been affected by these developments.[2]

The discussion of population ageing usually overlooks a series of important consequences on the labour demand and supply. After all, an ageing society tends to imply a decline in the relative labour supply of younger population that enters the labour market later due to prolonged education, but with significantly higher educational attainment. Moreover, since school-leaving age and the age of retirement are not fixed anymore, ageing might affect the level and composition of the labour force in a much more intricate way than it is often recognised. In European countries, these issues need to be discussed within the framework of imperfectly competitive labour markets, shifting the attention from wages to employment and unemployment rates. Furthermore, underdeveloped labour market institutions might significantly slow down the firms' adjustment to new demographic conditions and therefore influence the wealth and long-term growth of the whole economy (Hall and Jones, 1999; Acemoglu, Johnson and Robinson, 2001).[3] Numerous negative effects of a rigid labour market regulation, which is characterised by difficulties in the hiring and firing of workers, as well as the working time regulation and high costs

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[1] However, there is some heterogeneity regarding the precise timing within the EU countries. According to the World Bank projections, Germany will soon have the highest share of older people among all industrialised countries (the proportion of the elderly relative to the labour force is projected to rise from 21 percent in 1995 to 36 percent in 2035). Italy, Spain and Greece follow this path (Fertig and Schmidt, 2003).

[2] Medical expenditures usually increase significantly with age. An increasing proportion of elderly will tend to generate a disproportionately strong cost push to health care. In the absence of fundamental reforms, most European countries finance the bulk of these expenditures through worker's wage-related contributions.

[3] Countries with more established political and economic institutions developed faster in the past and are richer compared to the countries whose institutions are not so well developed (Djankov, McLeish and Ramalho, 2006).

associated with these factors have led to intense debates over the labour market reform in numerous European economies.[4]

This paper contributes to the ongoing debates about direct and indirect implications of the rigid labour market legislation on employment probabilities of older workers. It studies the magnitude of flows between different labour market statuses (unemployment to employment, inactivity to employment) and flows within the group of employed job-seekers, linking them to the development of labour market institutions in Slovenia. The paper presents a model of adverse selection, in which hiring and firing costs (as the implicit value of a rigid labour market legislation) reduce the hiring of both unemployed and employed job-seekers, but where the hiring of the former is more sensitive to increases in turnover costs than that of the latter. The model provides a theoretical foundation for testing whether an implicit discrimination against the particular population cohort exists.

The outline of the paper is as follows. Section 6.2 presents a theoretical framework and the estimating equation. Section 6.3 discusses the evolution of labour market institutions in Slovenia during transition. Section 6.4 gives a data description and definitions of variables while Section 6.5 discusses the results, followed by some concluding remarks.

6.2 Population ageing and labour markets

In the economic literature, population ageing is first and foremost related to (i) a decline of the labour supply of younger relative to that of the older workers and (ii) an increase of the old-age dependency ratio. While the first effect exerts important implications for the social security system, there are also consequences related to different behavioural responses of individuals regarding human capital acquisition, organisation of work, wage structure and the level of employment. The alteration of the population shares of workers and retirees also holds direct and sizeable implications for aggregate labour productivity, depending on capital accumulation (Börsch-Supan, 2003).[5]

Population and labour force ageing are usually highly correlated. If we assume that each birth cohort is a different factor of production, we can model its decisions on human capital acquisitions and the labour market entry during the natural life cycle. Younger

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[4] Inflexible labour markets thus stifle new job creation but even more importantly, they also push workers into the informal sector. According to World Bank surveys, three quarters of informal workers are women. They receive no social security benefits, no sick leave or pensions. If abused by their employer, they have no recourse to courts. Far from protecting the vulnerable, a rigid employment regulation excludes them from the market (World Bank, 2006).

[5] When relatively few workers contribute to the economic activity of a large, mature population, per capita income will be relatively low, if higher capital accumulation does not compensate for labour scarcity. Since the number of active workers is low, the level of wages will tend to be high (see, for example, Wright, 1991, for the UK and Dahlberg and Nahum, 2003, for Sweden). Consequently, ageing is a phenomenon driving a wedge between the wage and per capita income.

cohorts tend to invest in human capital and enter the labour market later compared to the situation 20 years ago, while medium-age cohorts focus on household and labour market production. At some point, they leave the labour market. Smaller birth cohorts will tend to experience generational crowding throughout their lives, unless a high-fertility rate period or the large-scale immigration of a subsequent birth cohort counteracts these implications[6] (Fertig and Schmidt, 2003). Therefore, we can distinguish workers of different age as different factors of production, where age and a relative size are the most important characteristics. Workers at different ages are obviously imperfect substitutes in production. Changes in a relative cohort size of an age group directly translate in the shifts of relative labour supply of these different factors of production. Large birth cohorts lead to a relatively abundant labour supply when they enter any age cohort. Currently, the production factor "medium-aged workers" is relatively abundant all across Europe, due to the widely experienced post-war baby boom.

6.2.1 Labour market regulation

Employment regulations are motivated by an assumption that free labour markets are imperfect and might cause a creation of rents in the employment relationship. In order to extract these rents, employers are motivated to abuse workers, leading to both unfairness and inefficiency in the labour market (Stigler, 1971; Becker and Mulligan, 2003). In response to the perceived unfairness and inefficiency of the free market employment relationship, nearly every state intervenes to protect workers. The regulations dealing with the issues that range from a mandatory minimum wage to premiums for overtime work and from grounds for dismissal to severance pay have been introduced to remedy at least the most apparent market failures. These range from the inability to diversify the risk of unemployment to discrimination based on gender, race or age. Social security regulation was created to protect against the risk of unemployment or sickness and, through pensions, against the risk of poverty in old age, while a regulatory framework was created to protect against discrimination.

But despite the obvious benefits of such an intervention of the state in the labour market, there are also several drawbacks to it; and the intervention itself, although aimed well, might actually cause the exact opposite effect of that desired. Several negative side effects of a well-intentioned labour regulation have been identified, from less intense job creation to even more obvious discrimination. First, with a rigid regulation employers choose conservatively. Some groups of workers benefit from a rigid regulation; data show that it is mostly men with several years of working experience (Botero et al., 2004). Young workers, female workers and low-skilled workers, on the other hand, often

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[6] The relatively small subsequent baby bust generation is now around their thirties. Due to distinct and well-researched life-cycle patterns of labour market activity and success, the focus of empirical labour studies has been on age relating heterogeneity of relevant outcomes.

lose out, being denied job opportunities. Rigid employment regulations often end up protecting the existing jobs at the expense of workers in general and do not help in the process of job creation or toward reducing unemployment. Second, high severance payments are usually adopted with a view to reducing the risk of unemployment but, again, the beneficiaries are people who already have jobs. Meanwhile, the high cost forces employers to cut back on new hiring. As a result, very few new jobs are created. Far from diversifying risks and being beneficial to the economy at large, such policies reduce the odds of finding a job and decrease the dynamics in the economy.[7]

6.2.2 Theoretical framework

The model we present in this paper is based on Mortensen and Pissarides (1994) and upgraded by Kugler and Saint-Paul (2004) and Domadenik (2007) where, on the one hand, the latter have simplified some aspects to preserve the analytical tractability and, on the other hand, they have introduced dismissal costs and imperfect observability of worker quality in order to capture the underdeveloped institutional structure and imperfect competition in the labour market discussed in the previous section. In the asymmetric information model, firms use discretion in terms of whom to fire and, thus, low quality workers are more likely to be dismissed than high quality workers. Therefore, the proportion of low quality workers is greater among the unemployed than among the employed, and prospective employers know it.

The total labour force is normalised to one and split between two types of workers: "good" and "bad". The proportion of workers who are "good" is denoted by z. Prior to hiring, firms do not observe the quality of applicants, nor do they observe their labour history. The only thing they observe is whether the applicant is currently employed or not. Immediately after hiring, however, firms observe the productivity of a worker as either "high" or "low". Workers are matched to firms and together they produce output. This matching process takes time. A job-seeker meets a vacant job with some probability while a position meets a worker with a given probability. Firms freely enter the market by creating vacant positions. There is a fixed setup cost of creating a position equal to C. Because of free entry, the value of an empty position must always be equal to C in equilibrium. Once a position is filled, production takes place. Production takes place until either the firm decides to close the position or the worker quits voluntarily. When hit by a shock, firms may decide to fire the worker, in which case they have to pay a tax F. This tax is dissipated, i.e. paid to a third party. When a firm decides to fire, the position is closed

[7] This is especially problematic in the globalisation era. This is stated by Bolaky and Freund (2004) who report that a flexible employment regulation also increases the benefits of trade liberalisation. As the economy opens, competition from the now cheaper imports drives jobs away from less productive to more productive ones, expanding the economy. But this happens only if workers have the ability to move. Where barriers to hiring and firing are high, labour stays in unproductive sectors. This results in less jobs and a loss of competitiveness.

and the firm's value drops to zero. Moreover, production may also end when workers quit voluntarily. A fraction π of workers is constantly looking for another job. The day they leave to take another job, the position becomes vacant and its value falls back to C. In addition, in case of voluntary quits firms do not have to pay the tax F.

Kugler and Saint-Paul (2004) showed that bad workers are fired more often than good workers. Thus the pool of the unemployed is composed of a disproportionate number of "lemons". For this reason, at the time of hiring firms use the employment status as a signal of quality and are more reluctant to hire unemployed than employed job-seekers. Moreover, they showed that increases in hiring and firing costs exacerbate discrimination against the unemployed, while large enough reductions of hiring and firing costs might eliminate discrimination against unemployed workers completely.[8] In contrast, when hiring and firing costs are high, firms are reluctant to hire unemployed workers who are more likely to turn out to be "lemons" and, consequently, might have to be fired when a firm is hit by a shock. However, the impact of hiring and firing costs on the discrimination of the unemployed clashes with the impact of wages on discrimination.

In order to operationalise the model, a reduced form specification is presented. In the discrete choice model, the dependent variable y takes the value of 1 if the person was successful in finding a job within a given time interval and the value of 0 otherwise. Generally, success in finding a job depends on the contract rate, offer rate and acceptance rate (which is simply equal to 1 in the model[9]). According to the model, what generates differences in job finding rates between the two groups is the difference in offer probabilities between the two groups. If we take J(m, η) to be the value to the firm of a job with worker-specific productivity η and firm-specific productivity m, we might assume that firms extend a job offer if the expected profits (J) of hiring an applicant are greater than or equal to the hiring cost, and they do not make a job offer if the expected profits fall below the hiring cost, or:

y=1 if   EJs ≥ C   (1)

or 0 otherwise.

Letting EJs – C be a continuous random variable, it can be expressed as a linear function of a vector of explanatory variables, X, and an indicator of whether the job applicant is unemployed, U, and a random term, ε:

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[8] The reason for this lies in the fact that if hiring and firing costs are nil, firms can always hire workers to sample their quality and fire them at no cost.

[9] If a person applies for a job, he/she is always accepted. In reality there are also differences in the contract and acceptance rates between unemployed workers and employed job-seekers that must be taken into account. In an empirical analysis, these differences are partly controlled by a number of variables that control for the contract and acceptance rate.

$$EJ - C = y^* = \beta X + \delta U + \varepsilon \tag{2}$$

From (1) and (2) we can derive the following:

$$y = 1 \ if \quad y^* = \beta X + \delta U + \varepsilon \geq 0 \tag{3}$$

$or \ 0 \ if \quad y^* \leq 0$

Thus, if **g** is assumed to be normally distributed, the probability of finding a job is:

$$\Pr(y = 1) = \Pr(\beta X + \delta U + \varepsilon \geq 0) = \Phi(\beta X + \delta U) \tag{4}$$

The vector of X includes individual characteristics affecting the contract rate, the offer rate and the acceptance rate of workers, including age, education, occupation, industry, union status, tenure, gender, race, marital status, number of children, wage (the wage in the current job for employed job-seekers and the wage in the last job for the unemployed) and other income of the household. In addition, the local unemployment rate and gross domestic product are both included because they should affect the contract rate.

The unemployment dummy is included because the model above tells us that employment status should affect the expected profits out of a new hire and, thus, the offer rate. In addition, employment status may also affect the contract rate if the unemployed can search more intensively for jobs than employed job-seekers and it may affect the acceptance rate if the unemployed have different reservation wages from employed workers. However, as we are interested in employment probabilities of older workers we divided the sample into three broad groups: younger than 29 years, prime-age population (30-49) and older than 50 years. We control for gender, labour market status prior to the current employment, education and personal status (single vs. married). Due to the fact that official labour force surveys in Slovenia do not include regions, wages or the number of children of individuals in the survey, we were not able to control for the number of children, wages or several acceptance and contract rate characteristics (local unemployment rate, gross domestic product in the region, industry, and union status membership.

6.3 Labour market transition in Slovenia

Slovenia's economy proved itself capable of a fast output turnaround[10] in the first phase of transition, but this has not led to a significant employment growth. The labour force declined 2 percent during the first 6 years of transition (1992-1997), while employment declined 5 percent although real output increased 21 percent. For the 1992-2002 decade as a whole, employment and the labour force remained practically flat, while real output increased 48 percent, reflecting significant productivity gains (Statistical Office of the Republic of Slovenia, 2008).

The unemployment rate remained relatively low and on a declining trend during transition mostly due to the choice of Slovenia's privatisation model, which maintained the status quo and avoided massive layoffs. Thanks to substantial state subsidies to loss-making firms in the textile, leather and many other industries policy-makers avoided social tensions. From 1993 to 2002, the ILO unemployment rate fell by about one-third to 6.3 percent. Such unemployment levels are low in comparison with other transition economies and lower than those in a number of EU member states (Riboud, Sanchez-Paramo and Silva-Jauregui, 2002). The low overall unemployment rate hides large regional disparities, with unemployment remaining highly concentrated among unskilled and older workers. Moreover, the average duration of unemployment has increased, suggesting that the bulk of unemployment is structural. As Slovenia became a full member of the EU, many firms in loss-making industries (generally, labour intensive industries) face big problems how to survive without state subsidies.

The bulk of adjustment occurred in the early 1990s and by 2001, when transition was almost over, the picture was relatively favourable. Both employment and wages started to rise, unemployment was on a steady decline, with a turnaround occurring in 1993-1995. In 2001, total employment and the labour force exceeded the 1991 levels. But the structure of employment changed significantly. First, the employment shares of young and older workers declined. The share of employed workers under 30 decreased from more than 32 percent in 1990 to 25 percent in 2001, and the share of employed workers over 50 decreased from more than 12 percent to below 10 percent in the same period (Vodopivec, 2004). Many older workers retired in the early 1990s, some under pressure and with the encouragement of government-sponsored early retirement programmes. A trend of the falling share of older workers was reversed in 1998 by the pension reform, which introduced a gradual increase in the retirement age, and several programmes of

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[10] Since 1993, Slovenia has maintained a robust growth rate of about 4 percent a year on average, substantially narrowing the income gap with the European Union in 2006 (GDP per capita amounted to almost 82 percent of the average EU-26 GDP per capita). Much of this economic performance has come through gains in productivity as employment remained more or less constant during this period. Slovenia also managed to gradually bring inflation down to 8.6 percent already by the end of 1995. Inflation continued to ease and declined significantly (to 2.8 percent in 2006) in order to accomplish the Maastricht criteria and enter the euro-zone in 2007 as the first among all transition economies.

active labour market policies.[11] If we look at unemployment by educational attainment in all age cohorts, we can observe a downward trend for those without elementary school education who were probably included in the non-active cohort. More than 25 percent of the registered jobless in 2003 had some sort of secondary education and their share increased slightly during the transition period. In the case of the youth cohort, the share of the jobless with secondary education prevails and already in 2003 it represented more than 35 percent (Employment Service of Slovenia).

The number of workers in the labour force fell in the early 1990s and again in the late 1990s. Because of strong growth in the interval, however, in 2001 the labour force exceeded its 1991 level by 2.7 percent. Despite this growth, the labour force participation rate declined, reflecting strong flows of the working-age population into non-participation. In 2001, the labour force participation rate stood at 58 percent, which is relatively low by international standards (2.6 percentage points below that of a group of six industrialised Western European countries (Eurostat, 2008)).

6.4 Description of data and variables

The data used in the analysis originate from the Labour Force Surveys conducted in Slovenia by the Statistical Office of the Republic of Slovenia. These surveys are representative of the underlying population and follow similar ILO definitions to detect the labour market status. The data are elicited quarterly on a sample of over 60,000 individuals. The sub-sample consists of individuals who either changed their labour market status (switching from inactivity to employment or from unemployment to employment) or their employers (switching from employment to employment). Due to a specific organisation of labour market survey we are able to trace individuals – switchers – only on the basis of consecutive years. Therefore, we have 1199 switchers in 1999, 767 in 2000, 803 in 2001 and 815 in 2002.

The estimates are based on the fourth quarter of annual data in the period of 1999-2002. These years are interesting as the earliest year spots transitional labour markets in the middle of the decade when transition was still under way, while the latest year is representative of advanced phase of economic transition. In 1998, Slovenia introduced a special incentive scheme to increase employment of older workers as part of its active labour market policy (ALMP). Therefore we will be able to see whether there are any results from the ALMP.

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[11] Measures included educational and training programmes, programmes of personal growth, public works, encouraging self-employment and the measure of reimbursing the employer's contribution in the case of employing persons older than 50 who are receiving unemployment or social benefits.

Table 6.1 provides a basic descriptive statistics for individuals included in the Slovene Labour Force study for the year 2002.[12] In the four surveys carried out in Slovenia in 2002, 66,143 individuals were interviewed, of whom 52.2 percent were women. Almost 56 percent of individuals in the whole sample were participating in the labour market, while almost 14 percent were in education. Some 1.3 percent of the sampled population were self-employed, 8.3 percent were unemployed, while the rest were employed on a permanent (40.6) or temporary (4.8) basis. Women had a higher non-participation rate than men, with fewer women permanently employed or self-employed.

Table 6.1: **Sample population (15-64) by gender, citizenship and labour market status, 2002, in percent**

	Men	Women	Total
Students	13.91	13.68	13.79
Other inactive	25.74	36.25	31.22
Unemployed	8.68	7.94	8.29
Permanently employed	44.81	36.74	40.6
Temporarily employed	4.82	4.75	4.78
Self-employed	2.05	0.65	1.32
Total	100.00	100.00	100.00

Source: Authors' calculations based on LFS data.

About 10 percent of the employees (when comparing the relative share of permanently and temporarily employed workers in Table 6.1) are employed on a temporary basis, which is quite high compared to the EU average. Comparing labour market statuses by level of education attained we see that the highest non-participation rate is that of individuals with no education (without any or with incomplete compulsory education) or with compulsory education only. Similarly, the unemployment rate is the highest for those two groups and it falls when moving to groups of individuals with higher education.[13] A much lower than average unemployment rate is found among persons holding a bachelor's or university degree, suggesting that education is an important variable in predicting the probability of being active or employed in the labour market.

Research on the labour market participation of people follows the assumption that their labour market status is mutually exclusive. According to their answers to similar

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[12] Summary statistics are very similar from a year to year. Other tables can be obtained from the authors upon request.

[13] Interestingly, the only exemption is the group with a four-year bachelor's degree, where unemployment is higher than in the group with a three-year bachelor's degree. One possible reason lies in the fact that this academic qualification has been introduced in the education system recently (the first graduates entered the labour market in 2000) and hence, the group consists mostly of first-time job-seekers.

questions in the surveys, respondents have been grouped into one of three homogeneous statuses:

- *Inactivity*, including those still undergoing compulsory schooling, vocational schooling, apprenticeship, academic or university education as well as those holding domestic unpaid jobs, being on maternity leave, undergoing military service or involved in other activities;
- *Unemployment*, including those who are jobless, but actively seeking a job;
- *Employment*, including those holding permanent or temporary paid jobs or the self-employed.

The switchers are identified as the individuals who successfully or unsuccessfully switched between different labour market statuses in a given year (inactivity to employment, unemployment to employment) or moved successfully from one employer to another. Unfortunately, we are unable to detect the individuals who had the intention to move but failed to do so for various reasons. From the sample of individuals older than 15 but younger than 65, we eliminated students and workers employed in agriculture.

Table 6.2: **Proportion of particular groups in switchers and sample population, 2002, in percent**

Variables	Switchers	Full sample
Individuals with primary education	9.44	25.27
Individuals with secondary education	69.44	56.93
Individuals with tertiary education	20.36	12.89
Individuals older than 15 but younger than 29	59.87	27.47
Individuals older than 30 but younger than 49	19.50	14.05
Individuals older than 50	5.76	38.61
Unemployed receiving unemployment benefits among all unemployed	33.92	27.26
Unemployed	38.40	51.11
Married	36.81	60.21
Male	52.88	48.78
Number of observations	815	17833

Source: Authors' calculations based on LFS data.

If we compare the sub-sample of switchers to the complete labour force survey sample for the year 2002[14], we can observe some differences. Among all switchers, 69 percent had secondary and 20 percent tertiary education while the representation of individuals with such an education level in all sample is 21 percentage points lower. Obviously,

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[14] Differences are very similar from a year to year. Other tables can be obtained from the authors upon request.

prime age single men (15-29) are more likely to belong to the group of actual or potential switchers.

6.5 Results

Based on Equation 4 we run probit in order to predict the probability that an individual would switch his/her labour market status based on individual characteristics. The summary statistics of those characteristics are presented in Table 6.2. Unfortunately, due to data limitations, we cannot check for firm level characteristics. The control group of people is represented by single inactive prime-age women (30-49) who attained primary education.

Based on annual estimations presented in Table 6.3, we can see that the level of attained education did not affect the individual probability of switching different labour market statuses (inactivity or unemployment) to employment or from one type of employment to another. However, in 2002, individuals with a higher education level were more likely to switch into employment, indicating that education gained a signalling effect and people with higher education were more likely to be employed than people with lower educational attainment. Interestingly, among the group of job-seekers older than 50 years, education played even a smaller role. However, it is difficult to disentangle the effect of education from the size of sub-population. The results in this age cohort might be driven by the fact that there are only few older people with higher education seeking for a new job.

People younger than 30 years were more likely to switch their labour market status compared with their older counterparts. There is no significant difference in switching among individuals regarding gender or marital status. The results also show that the least motivated group of switchers might be that of unemployed people. Significantly lower probabilities to switch from inactivity to employment, or from one employment to other, were reported in 2000 and 2002. These results are probably driven by relatively generous unemployment benefits that de-stimulated the unemployed to search for employment. Obviously, the government's social benefit system acts in a rather perverted fashion. Instead of helping people in their difficulties over a short period of unemployment, state unemployment benefits motivate them to remain unemployed as long as possible.[15]

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[15] As described by Vodopivec (2004), Slovenia had one of the most generous passive labour market policies among all transition countries in that period. Although the system has been reformed to a degree, it is very comparable to the system adopted by developed EU countries. Unemployed workers in Slovenia may apply for unemployment benefits that range from a 3-month pay for workers with few years of service to a 24-month pay for workers with longer service and older workers. The replacement rate in the period under study (1997-2002) was 70 percent in the first three months and dropped to 60 percent thereafter. In most other transition countries, the potential duration of eligibility is between 6 and 12 months. In the 1990s, the generosity of unemployment benefits index (defined as a product of the replacement rate and the share of compensated unemployed among all unemployed) standing at 21.8 in Slovenia was the highest among all transition countries, or well above the CEEC average of 12.7. (Vodopivec, 2004).

Older workers exhibit lower probability to switch from inactivity to employment or from one employment to another. In 2000, individuals older than 50 years exhibited significantly lower probability to switch. The negative trend was evident also later. We might assume that the governmental ALMP programmes targeting higher employability of older people were not successful.[16] This conclusion might also be confirmed by the result that older job-seekers who are unemployed are even more discriminated by potential employers than the average individual in this age cohort.

Table 6.3: **Probability of switching labour market statuses to employment**

Independent variables	1999	2000	2001	2002
Secondary education	-0.127 (0.127)	0.094 (0.258)	0.162 (0.159)	0.219 (0.174)
University education	0.138 (0.165)	0.204 (0.352)	0.159 (0.194)	0.672** (0.219)
Age: 15-29	0.600*** (0.106)	-0.514* (0.264)	0.434*** (0.128)	0.307** (0.139)
Age: 50 and more	-0.048 (0.595)	-1.041** (0.334)	-0.067 (0.534)	-0.425 (0.663)
Unemployed	0.362 (0.242)	-0.919*** (0.178)	0.257* (0.135)	-0.878*** (0.195)
Male	0.054 (0.088)	0.165 (0.184)	0.138 (0.104)	0.154 (0.113)
Married	-0.132 (0.105)	0.029 (0.231)	0.072 (0.129)	-0.114 (0.137)
Men, older than 50 years	0.383 (0.519)	–	-0.159 (0.442)	0.033 (0.475)
Secondary education & older than 50 years	0.006 (0.482)	–	0.517 (0.555)	0.692 (0.612)
University education & older than 50 years	-0.545 (0.562)	–	-0.029 (0.584)	0.637 (0.808)
Unemployed & older than 50 years	-0.805** (0.652)	–	-0.494 (0.546)	-0.719 (0.633)
Number of observations	1199	767	803	815
Pseudo-R^2	0.059	0.148	0.030	0.070

Note: Standard errors are reported in parentheses. In 2000 we were not able to control for individual characteristics of older cohort due to disproportions in sub-samples. *, ** and *** correspond to 10%, 5% and 1% significance level.
Source: Authors' calculations.

6.6 Conclusion

Employment policies are usually used when labour market institutions are not completely developed and are often targeted at some specific demographic groups, particularly those facing more difficulties in finding jobs (youth, female, long–term unemployed, older). In the case of older workers, we have to disentangle between two groups: those who are not

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[16] For assessing the impact of ALMP on the employment probability of older workers, one would also need to run the same regression on data prior the ALMP was implemented.

yet entitled to pension benefits and those who are already retired. It is important to place such an incentive system which would stimulate an active participation of both groups of older people in the labour market. Our paper studies the active participation of the first group. However, we have to be aware that especially the second group of older cohort faces a range of work disincentives and barriers to employment. One of the important issues is related to the penalties in the pension system and social policies for carrying on working in old-age pensions. Those penalties arise from the assumption that younger and older workers are substitutes, so by retiring older employees the employment rate of younger cohort would be higher. However, empirical studies show that older employees are rather complements than substitutes to younger employees and the effect created by early retirement schemes and other incentives for older people to become inactive was completely the opposite. On the other hand, employers are often reluctant to hire older workers and retain them in their jobs for variety of reasons. The challenging task of lowering these barriers and disincentives to work in order to attract older workers for (at least part-time) jobs is the issue for the next decade.

The paper finds out that high dismissal costs, created mostly by the adverse selection model and rigid legislation, introduce certain distortions on the labour market that are not similar for all the groups of potential or current employees. The highest probability of switching from unemployment or inactivity to employment, or from one employer to another, is detected among the young age population (15-29 years old), while in 2002, the probability of switching increases substantially for individuals with tertiary education. Older people, especially those unemployed, are evidently discriminated against by potential employers. These results may indicate that state subsidies and other governmental programs introduced within the ALMP programmes were not able to reduce the effect of suboptimal institutional structure on the labour market. However, we need to incorporate a longer data set to confirm it.

The second important conclusion is that there is also evidence of self-discrimination by the unemployed who are entitled to participate in unemployment benefits schemes. Such people are obviously not motivated to actively look for a job. Slovenia will have to remodel financial incentives to get the unemployed back to work (Boone and van Ours, 2006). Several studies show that a deterioration of the embodied human capital is positively linked with the spell of unemployment. An inefficient benefits system ruins the human capital implicitly and reduces the probability of finding employment for such people in the long-run.

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III

DEMAND FOR LABOUR: DOES AGE MATTER?

Employer attitudes towards older workers: A comparative study of Croatia and Slovenia

7.1 Introduction

The interdisciplinary body of literature on labour force ageing and on the process of transition from working life to retirement is abundant and still growing rapidly. However, most studies on the specific issue of employer attitudes towards, and demand for, older workers cannot be found before the 1990s; and most of them deal with problems in developed countries, such as in the countries of Scandinavia, the USA, Australia, Great Britain, and Germany. For the former transition countries, this issue has only become important very recently. Thus, the purpose of this study is to contribute to the existing body of literature by adding empirical evidence from transition countries, which can form the basis for relevant policy recommendations.

Employer attitudes towards older workers are usually accounted for using survey methodology. In the middle of the 1990s, Taylor and Walker (1994) were among the first to do a complex analysis of employer attitudes and policies concerning the employment of older workers in Great Britain. They built on Atkinson's (1989) work on employer adjustment to the demographic downturn and upgraded it using in-depth interviews with British employers using a mail survey. They found out that although employers expressed positive attitudes towards older workers, these attitudes were not translated into positive action: only a very small minority of employers encouraged the employment of older people. This was partly due to a *recession* marking the period under study as well as the *age discrimination* inherent to the recruitment process. The most important among the factors discouraging employers from recruiting older workers was the perceived lack of appropriate skills. In terms of industry, one interesting finding of Taylor and Walker's study was that the service sector was more likely to be positively oriented towards older workers than manufacturing industries.

Loretto and White (2006) followed the path of Taylor and Walker's addressing similar issues in the framework of focus groups consisting of Scottish employers. Although most of them had a favourable perception of older workers, their practices hardly differed from those established by Taylor and Walker a decade ago. Recruitment decisions were still based on general stereotypes and prejudice. The age mix within individual organisations seemed to be the result of chance rather than policy. The researchers found out that in terms of training and return on investment, an age mix personnel policy could only gain in relevance if longer-career and flexible retirement schemes were an option.

A global ageing survey was the basis for Harper et al.'s (2006) comparative research exploring how widespread negative attitudes towards, and stereotypes of older workers among employers are; and whether or not they influence employer behaviour towards older employees. The study indicated that attitudes towards older workers are significantly influenced by the *firm size*. Smaller firms tend to have higher levels of negative stereotypes while larger firms are flexible about older workers both in the workplace and even at the time of recruitment. Additionally, the researchers also noted differences stemming from *different levels of country development*. Less developed countries have a stable supply of younger workers which makes their actual and perceived need for older workers obsolete. However, the European countries which are facing the consequences of general population ageing need to retain older workers, yet paradoxically seem to encourage early retirement practices as well as have a lower level of recruitment of older people.

The size of the firm as a factor influencing employer attitudes towards older workers was also confirmed by Metcalf and Meadows (2006), who investigated employer policies, practices and preferences related to age before the implementation of the Employment Equality Regulations in the UK. In 2004 and 2005, they carried out a survey involving more than 2,000 British establishments. Another important factor Metcalf and Meadows established was the difference between practices in the *public and private sectors*; the public sector being more prone to recruiting and retaining older employees.

To obtain a better understanding of the employment prospects of older workers, Munnell, Sass and Soto (2006) conducted a survey among private sector employers in the USA. Employers were asked to compare the productivity of older workers with that of the younger ones (both groups being predominantly white collar). Perception of the productivity of older workers varied with the *respondent age* and *firm size*. Younger respondents in small, start-up organisations were more likely to view the productivity of older workers in a negative light. Additionally, very large firms were also less enthusiastic about older workers' productivity. The researchers listed two characteristics of older workers which increase their productivity: "knowledge of the procedures and other job aspects" as well as "ability to interact with customers". Although employers see older workers as "more expensive", their overall evaluation of older workers' relative attractiveness is equal to that of the younger workers. Researchers concluded that older workers, if willing, have reasonably good prospects for prolonging their working life.

Another recent survey study from McNair, Flynn and Dutton (2007) demonstrated how employers in the UK are managing an ageing workforce particularly in response to the introduction of the Employment Equality (Age) Regulations. This qualitative study, carried out during a period of economic growth among seventy firms, explored in more depth some of the issues identified in previous research conducted by Metcalf and Meadows (2006). The researchers confirmed that most differences in employer practices could be

attributed to *firm size* and *ownership* (private or public). Large and public firms generally had more equal-opportunity policies and formal processes which allowed them to more easily implement changes demanded by the new legislation. In general, this study found more positive views of older workers in comparison with the previous one. However, it was established that the respondent age is a major factor determining the nature of the employer's attitude towards older workers. Awareness of the general population and labour market trends among the respondents was generally low; they seemed to be very much focused on catering to their short-term business needs. It was established that the positive practice of employee retention was much more common than the active recruitment of older workers.

To summarise: given the findings from the literature review covering the last decade, several factors seem to determine employer preferences, practices and policies concerning the older workforce: firm size, ownership (public or private), period in the economic cycle (growth or decline), as well as sector (service or manufacturing). As it would seem that more positive attitudes stem from older respondents, this respondent bias needs to be accounted for in any subsequent research of these issues.

In this chapter, we aim to identify employer attitudes and practices targeting the older workforce in Croatia and Slovenia. Specifically, our research aims to (1) explore and compare the attitudes of Croatian and Slovenian employers towards ageing workers, (2) detect major factors explaining the employment of elderly workers, (3) identify factors affecting employer willingness to retain older workers even after they reach their official retirement age, and (4) identify barriers to the continued labour market participation of older workers in both countries.

7.2 Project methodology

Lack of motivation to work on the part of older workers can be caused by the lack of demand for older workers. In order to assess employer perspectives on older workers' employment, a survey on the attitudes of employers towards ageing workers was conducted on a sample of 216 Croatian and 200 Slovenian firms in the spring of 2008. The questionnaire was designed to match similar European surveys.

In Croatia, the survey was carried out partly as a mail survey and partly as a web survey, performed by the external market research agency which acquired the job in the process of public procurement. In Slovenia, the survey was carried out partly as a mail survey and partly as a phone survey via a centralised facility located at the University of Ljubljana's Faculty of Economics.

In Croatia, the target population consisted of 16,894 small (excluding micro), medium and large firms (FINA, 2007). The targeted stratified sample of 200 units was supposed to include 100 small firms (with less than 50 employees), 60 medium-sized firms (from 50 to 249 employees) and 40 large firms (with 250 employees or more). Table 7.1 shows the actual sample structure by firm size. The sample reflects the relative proportion of firms in terms of firm and employee numbers. The average Croatian respondent was female aged 44.5 years with a finished college or bachelor's degree. Her average total length of employment was almost 21 years; the last 13.5 years were spent in the present employment. The average length of the sample company existence is 29.9 years.

Out of the whole population of 53,189 business entities which existed in Slovenia on December 31, 2007 (AJPES, 2007), we excluded all those employing less than 3 employees. From the rest we randomly chose 1,615 units making sure to match the population structure by firm size in our sample. Thus, 60 percent of our targeted sample units were classified as small, 30 percent as medium-sized and the remaining 10 percent as large firms. In the small firms, the questionnaires were mainly filled in by the CEOs; in medium-sized and large firms the respondents were predominantly heads of the human resources management departments. The average Slovenian respondent was female, aged 42.4 years with a bachelor's degree. Her average total length of employment was slightly more than 19 years; slightly more than the last 11 years were spent in the present employment. The average length of the sample company existence is 25.5 years.

Table 7.1: **Absolute and relative frequency of sample units by firm size**

Firm size	Croatia		Slovenia	
	Frequency	%	Frequency	%
Small (4-49 employees)	110	50.9	91	45.5
Medium (50-249 employees)	66	30.6	87	43.5
Large (250+ employees)	40	18.5	22	11.0
Total	216	100.0	200	100.0

Following from Table 7.1, approximately one half of the Croatian sample units are small firms. The Croatian share of large companies in the sample is also larger than in case of Slovenia. On average, Croatian companies included in the sample have been incorporated for a longer time than the Slovenian ones; the same goes for the average age of the respondents and the average length of their affiliation with the present employer – both are longer in Croatia. Additionally, in Croatia the respondent education structure is slightly weaker than in Slovenia (Table 7.2).

Table 7.2: **Absolute and relative frequency of sample units by respondent education**

Respondent education	Croatia		Slovenia	
	Frequency	%	Frequency	%
Finished secondary school	82	38.0	40	20.0
Finished college	42	19.4	45	22.5
Bachelor's degree	82	38.0	106	53.0
Master's degree	8	3.7	8	4.0
PhD	0	0.0	1	0.5
Unknown	2	0.9	0	0.0
Total	216	100.0	200	100.0

Approximately 85 percent of the firms in both countries report that they currently employ at least one worker older than 50 years of age (Table 7.3).

Table 7.3: **Absolute and relative frequency of sample units by whether or not they currently employ at least one person over 50 years of age**

Employment of at least one person over 50 years of age	Croatia		Slovenia	
	Frequency	%	Frequency	%
No	33	15.3	28	14.0
Yes	183	84.7	170	85.0
Unknown	0	0.0	2	1.0
Total	216	100.0	200	100.0

The average proportion of employees over 50 years of age in Croatian companies is 23.5 percent and the average proportion of employees over 50 years of age hired last year amounts to 3.4 percent. In Slovenia, these two proportions are even smaller: 21.5 percent and 1.8 percent respectively.

7.3 Comparison of older and younger employee characteristics

In Croatian and Slovenian firms, older and younger employee characteristics were evaluated on the following 5-point scale: 1 – significantly less than company average, 2 – slightly less than company average, 3 – company average, 4 – slightly more than company average, and 5 – significantly more than company average.

The results of a direct comparison of older and younger employee characteristics as perceived by the Croatian and Slovenian employers are shown in Table 7.4 and reveal some interesting similarities and differences.

Table 7.4: **Comparison of mean values for perceived characteristics of older and younger employees in Croatia and Slovenia**

Variable	Croatia			Slovenia		
	Old	Young	Gap	Old	Young	Gap
Initiative	3.00	3.51	-0.51	3.07	3.54	-0.47
Honesty and integrity	3.89	3.22	0.67	3.90	3.13	0.77
Motivation	3.07	3.53	-0.46	2.98	3.63	-0.65
Ambition	2.72	3.86	-1.14	2.64	4.18	-1.54
Loyalty	3.95	3.06	0.89	4.14	2.79	1.35
Willingness to cooperate	3.58	3.36	0.22	3.42	3.52	-0.10
Decision-making competence	3.56	3.00	0.56	3.55	3.10	0.45
Good health	2.76	3.82	-1.06	2.56	4.07	-1.51
Creativity	2.90	3.59	-0.69	2.92	3.79	-0.87
Professionalism	3.55	3.26	0.29	3.70	3.28	0.42
Propensity to have accidents	2.74	3.03	-0.29	2.99	3.13	-0.14
Adaptability to change	2.52	3.87	-1.35	2.52	4.07	-1.55
Physical strength	2.66	4.12	-1.46	2.54	4.04	-1.50
Attentiveness	3.89	2.94	0.95	3.99	2.81	1.18
Reliability	4.02	3.10	0.92	3.68	3.04	0.64
Adaptability to new technologies	2.49	4.07	-1.58	2.43	4.30	-1.87
Productivity	3.25	3.60	-0.35	3.05	3.61	-0.56
Willingness to work hard	3.63	3.28	0.35	3.74	3.20	0.54
Readiness to learn	2.44	3.82	-1.38	2.55	4.04	-1.49
Ability to acquire new skills and knowledge	2.40	3.96	-1.56	2.34	4.19	-1.85

As far as perceptions of employee characteristics by Croatian and Slovenian employers are concerned, older employees perform better than their younger counterparts (in comparison to the company average) when it comes to *willingness to work hard, reliability, attentiveness, professionalism, decision-making competence, loyalty* as well as *honesty and integrity.* Interestingly, *propensity to have accidents* is larger than the average in the case of younger employees, although they seem to be in much better health than older employees (see also Figures 7.1 and 7.2). Apart from *propensity to have accidents* and *willingness to cooperate* in the case of Slovenia, all other differences in mean scores for older and younger employees in each country are statistically significant.[1]

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[1] Results of paired samples t-test are statistically significant at p≤0.05.

Figure 7.1: **Comparison of older and younger employee characteristics as perceived by Croatian employers**

Characteristic	Young	Old
Initiative	3.51	3.00
Honesty and integrity	3.22	3.89
Motivation	3.53	3.07
Ambition	3.86	2.72
Loyalty	3.06	3.95
Willingness to cooperate	3.36	3.58
Decision-making competence	3.00	3.56
Good health	3.82	2.76
Creativity	3.59	2.90
Professionalism	3.26	3.55
Propensity to have accidents	3.03	2.74
Adaptability to change	3.87	2.52
Physical strength	4.12	2.66
Attentiveness	2.94	3.89
Reliability	3.10	4.02
Adaptability to new technologies	4.07	2.49
Productivity	3.60	3.25
Willingness to work hard	3.28	3.63
Readiness to learn	3.82	2.44
Ability to acquire new skills and knowledge	3.96	2.40

☐ Old   ▨ Young

Figure 7.2: **Comparison of older and younger employee characteristics as perceived by Slovenian employers**

Characteristic	Young	Old
Initiative	3.54	3.07
Honesty and integrity	3.13	3.90
Motivation	3.63	2.98
Ambition	4.18	2.64
Loyalty	2.79	4.14
Willingness to cooperate	3.52	3.42
Decision-making competence	3.10	3.55
Good health	4.07	2.56
Creativity	3.79	2.92
Professionalism	3.28	3.70
Propensity to have accidents	3.13	2.99
Adaptability to change	4.07	2.52
Physical strength	4.04	2.54
Attentiveness	2.81	3.99
Reliability	3.04	3.68
Adaptability to new technologies	4.30	2.43
Productivity	3.61	3.05
Willingness to work hard	3.20	3.74
Readiness to learn	4.04	2.55
Ability to acquire new skills and knowledge	4.19	2.34

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00

☐ Old ■ Young

In direct comparison, Slovenian employers seem to evaluate most characteristics of older employees and younger employees higher than their Croatian counterparts when benchmarking them against the company average (Figures 7.3 and 7.4). In the case of older workers, the variables *motivation, ambition, willingness to cooperate, good health,*

physical strengths, adaptability to new technologies, productivity as well as *ability to acquire new skills and knowledge* are an exception.

Figure 7.3: **Comparison of older employee characteristics as perceived by Croatian and Slovenian employers**

Characteristic	Croatia	Slovenia
Initiative	3.00	3.07
Honesty and integrity	3.89	3.90
Motivation	3.07	2.98
Ambition	2.72	2.64
Loyalty	3.95	4.14
Willingness to cooperate	3.58	3.42
Decision-making competence	3.56	3.55
Good health	2.76	2.56
Creativity	2.90	2.92
Professionalism	3.55	3.70
Propensity to have accidents	2.74	2.99
Adaptability to change	2.52	2.52
Physical strength	2.66	2.54
Attentiveness	3.89	3.99
Reliability	4.02	3.68
Adaptability to new technologies	2.49	2.43
Productivity	3.25	3.05
Willingness to work hard	3.63	3.74
Readiness to learn	2.44	2.55
Ability to acquire new skills and knowledge	2.40	2.34

□ Croatia ▣ Slovenia

Figure 7.4: **Comparison of younger employee characteristics as perceived by Croatian and Slovenian employers**

Characteristic	Croatia	Slovenia
Initiative	3.51	3.54
Honesty and integrity	3.22	3.13
Motivation	3.53	3.63
Ambition	3.86	4.18
Loyalty	3.06	2.79
Willingness to cooperate	3.36	3.52
Decision-making competence	3.00	3.10
Good health	3.82	4.07
Creativity	3.59	3.79
Professionalism	3.26	3.28
Propensity to have accidents	3.03	3.13
Adaptability to change	3.87	4.07
Physical strength	4.12	4.04
Attentiveness	2.94	2.81
Reliability	3.10	3.04
Adaptability to new technologies	4.07	4.30
Productivity	3.60	3.61
Willingness to work hard	3.28	3.20
Readiness to learn	3.82	4.04
Ability to acquire new skills and knowledge	3.96	4.19

☐ Croatia   ■ Slovenia

In the case of older workers, the differences between the two countries are especially prominent when it comes to *loyalty, professionalism*, but also *propensity to have accidents* – Slovenian employers assigned these characteristics a higher average value. The only prominently higher value assigned the older workers by Croatian employers is that for *reliability* – it would seem that Croatian employers perceive older workers as much more reliable than their Slovenian counterparts.[2] *Attentiveness* and *reliability* seem to be the characteristics which create a comparative advantage of older versus younger employees in Croatia, while Slovenian employers pointed to *attentiveness* and *loyalty*. The largest disadvantages of older versus younger workers in both countries stem from a poorer evaluation of their *readiness to learn, ability to acquire new skills and knowledge* and *adaptability to new technologies*.

In the case of younger employees, the mean values of the following variables are distinctly different: *honesty and integrity, loyalty, attentiveness, physical strength, reliability* as well as *willingness to work hard*.[3] In general, it would seem that when it comes to the comparison of younger and older employee characteristics to the company average, the perceptions of Slovenian employers are more stereotypically distinctive than those of their Croatian counterparts.

A direct comparison of mean scores is one possible way to analyse the differences in employer perceptions of older and younger workers' characteristics. Another way is the use of factor analysis, which helps us to summarise information contained in a larger given set of variables with a smaller number of extracted components (factors).

In our case, factor analysis was carried out as the principal components extraction (accounting for as much of the common variance as possible) with varimax rotation (a form of rotation which maximises the variance of the factor loadings and thus enables easier factor interpretation).

Finally, the reliability of the resulting factors was verified by calculating Cronbach's alpha coefficients for each extracted factor. All but one of the reliability coefficients were satisfactory (larger than 0.700), which means that in all but one case the correlations among variables defining a single factor were high as well.

The results of factor analysis are shown in Tables 7.5 to 7.9.

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[2] However, in the case of older employees, it should be noted that only the differences in the mean scores for the variables *productivity, reliability, propensity to have accidents* and *good health* are statistically significant at $p \leq 0.05$ (independent samples t-test). Additionally, the difference in the mean scores for the variable *willingness to cooperate* is statistically significant at $p \leq 0.07$.

[3] When comparing characteristics of the younger employees in both countries, it should be noted that only the differences in the mean scores for the variables *ability to acquire new skills and knowledge, readiness to learn, adaptability to new technologies, adaptability to change, creativity, loyalty* and *ambition* are statistically significant at $p \leq 0.05$ (independent samples t-test). Additionally, the difference in the mean scores for the variable *willingness to cooperate* is statistically significant at $p \leq 0.08$.

Table 7.5: **Summary of factor analysis results**

Country	Employees	Number of extracted factors	% of explained variance
Croatia	Older	4	62.71
	Younger	3	55.14
Slovenia	Older	4	60.18
	Younger	5	61.22

Table 7.6: **Rotated component matrix for older Croatian employees**

Variable	Factor			
	Physical and mental capabilities 1	Professional and moral qualities 2	Self-sufficiency 3	Propensity to have accidents 4
Old_Ability to acquire new skills and knowledge	0.704	0.119	0.187	-0.266
Old_Readiness to learn	0.685	0.192	0.198	-0.112
Old_Productivity	0.489	0.443	0.274	-0.035
Old_Adaptability to new technologies	0.768	0.113	0.190	0.039
Old_Physical strength	0.763	0.086	-0.044	-0.012
Old_Adaptability to change	0.783	0.188	0.192	0.003
Old_Good health	0.752	0.059	-0.085	-0.207
Old_Ambition	0.677	0.103	0.392	0.137
Old_Motivation	0.557	0.346	0.378	0.143
Old_Initiative	0.524	0.277	0.475	-0.048
Old_Willingness to work hard	0.280	0.660	0.153	-0.128
Old_Reliability	0.163	0.787	0.166	0.078
Old_Attentiveness	-0.012	0.739	0.209	0.177
Old_Willingness to cooperate	0.385	0.601	0.131	-0.106
Old_Loyalty	0.029	0.759	0.161	0.034
Old_Honesty and integrity	0.136	0.795	0.026	-0.082
Old_Professionalism	0.002	0.321	0.766	-0.069
Old_Creativity	0.453	0.016	0.687	0.034
Old_Decision-making competence	0.199	0.418	0.618	-0.142
Old_Propensity to have accidents	-0.129	0.029	-0.076	0.914
Reliability coefficient	0.906	0.848	0.708	-

Factor 1 in Table 7.6 could be labelled *physical and mental capabilities* of older workers, whereas factor 2 encompasses their *professional and moral qualities*. Factor 3 is about the *self-sufficiency* of older workers (their ability to make creative and professional decisions), and factor 4 (determined by a single variable) is about their *propensity to have accidents*.

Table 7.7: **Rotated component matrix for older Slovenian employees**

Variable	Factor			
	Professional and moral qualities	**Physical capabilities and mental drive**	**Learning capabilities**	**Propensity to have accidents**
	1	2	3	4
Old_Willingness to work hard	0.679	0.025	0.188	-0.131
Old_Reliability	0.678	0.084	-0.059	0.027
Old_Attentiveness	0.736	-0.054	0.029	0.077
Old_Professionalism	0.628	0.282	-0.095	0.167
Old_Decision-making competence	0.666	0.186	-0.094	-0.163
Old_Willingness to cooperate	0.649	0.231	0.343	0.055
Old_Loyalty	0.848	-0.057	-0.048	0.145
Old_Motivation	0.589	0.409	0.376	0.167
Old_Honesty and integrity	0.695	0.011	0.142	0.233
Old_Productivity	0.468	0.470	0.103	-0.272
Old_Physical strength	-0.082	0.710	0.245	-0.109
Old_Adaptability to change	-0.037	0.602	0.482	0.017
Old_Creativity	0.278	0.688	-0.030	0.195
Old_Good health	-0.006	0.749	0.128	-0.195
Old_Ambition	0.175	0.617	0.307	0.255
Old_Initiative	0.412	0.627	0.010	0.319
Old_Ability to acquire new skills and knowledge	0.029	0.172	0.795	0.084
Old_Readiness to learn	0.076	0.189	0.847	-0.112
Old_Adaptability to new technologies	0.060	0.536	0.488	0.244
Old_Propensity to have accidents	0.101	0.061	0.041	0.839
Reliability coefficient	0.870	0.823	0.748	-

Although we also get a four-factor structure for older Slovenian employees, the factors are slightly different. The first one is a cross between *professional and moral qualities* as well as older workers' *self-sufficiency*. It would seem that to Slovenian employers their older employees' leadership qualities (reflected in their professional and moral qualities as well as their ability to make creative and professional decisions) are much more important than to their Croatian counterparts.

The second factor for older Slovenian employees can be labelled *physical capabilities and mental drive*. The third one is very distinctly about *learning capabilities* – a dimension which, in the case of Croatia, is not a distinct one; it is, however, included in factor 1. Factor 4 is again determined by a single variable and encompasses older worker's *propensity to have accidents* (Table 7.7).

At this point, it is impossible to say whether these differences in structure for older Croatian and Slovenian employees stem from differences in the process of transition, from differences in the industry and/or size structure, or may be the result of company-internal factors - this is clearly an issue that needs further research.

Apart from the "standard" last factor defined by a single variable *(propensity to have accidents)*, two other factors can be identified for the younger employees of Croatian companies: *moral and leadership qualities* as factor 1, and *capabilities and mental drive* as factor 2 (Table 7.8).

Table 7.8: **Rotated component matrix for younger Croatian employees**

Variable	Factor		
	Moral and leadership qualities 1	Capabilities and mental drive 2	Propensity to have accidents 3
Young_Willingness to work hard	0.615	0.332	0.039
Young_Productivity	0.483	0.481	0.054
Young_Reliability	0.715	0.210	-0.075
Young_Attentiveness	0.789	0.029	0.005
Young_Professionalism	0.572	0.213	-0.088
Young_Creativity	0.589	0.422	0.194
Young_Decision-making competence	0.722	0.156	0.064
Young_Willingness to cooperate	0.699	0.170	-0.070
Young_Loyalty	0.778	0.073	-0.171
Young_Motivation	0.557	0.440	0.103
Young_Honesty and integrity	0.734	0.159	0.050
Young_Ability to acquire new skills and knowledge	0.149	0.732	0.173
Young_Readiness to learn	0.147	0.743	0.013
Young_Adaptability to new technologies	0.078	0.755	-0.009
Young_Physical strength	0.236	0.556	0.113
Young_Adaptability to change	0.136	0.717	-0.133
Young_Good health	0.136	0.679	-0.149
Young_Ambition	0.308	0.645	0.149
Young_Initiative	0.493	0.550	0.092
Young_Propensity to have accidents	-0.094	0.056	0.940
Reliability coefficient	0.902	0.851	-

Finally, the following factors were extracted for the younger employees of Slovenian companies: *moral and leadership qualities, physical strength and mental flexibility, mental drive, robustness and team qualities*, and, last but not least, the *propensity to have accidents* (Table 7.9).

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Table 7.9: **Rotated component matrix for younger Slovenian employees**

Variable	Factor				
	Moral and leadership qualities	Physical strength and mental flexibility	Mental drive	Robustness and team qualities	Propensity to have accidents
	1	2	3	4	5
Young_Attentiveness	0.672	0.199	-0.033	0.259	-0.011
Young_Professionalism	0.664	0.157	0.275	0.062	0.226
Young_Decision-making competence	0.395	0.039	0.114	0.500	-0.137
Young_Loyalty	0.729	-0.027	0.093	0.106	-0.019
Young_Honesty and integrity	0.746	0.055	0.237	0.060	-0.163
Young_Ability to acquire new skills and knowledge	0.110	0.820	0.127	-0.026	-0.004
Young_Readiness to learn	0.232	0.479	0.475	0.075	0.320
Young_Adaptability to new technologies	0.131	0.760	0.103	0.244	-0.187
Young_Physical strength	0.056	0.634	0.165	0.234	0.171
Young_Adaptability to change	0.003	0.559	0.294	0.413	0.098
Young_Creativity	0.084	0.378	0.667	0.213	0.049
Young_Ambition	-0.062	0.388	0.678	0.003	-0.288
Young_Motivation	0.333	0.067	0.638	0.385	-0.033
Young_Initiative	0.315	0.069	0.712	0.180	-0.012
Young_Willingness to work hard	0.522	0.072	0.196	0.527	0.149
Young_Productivity	0.232	0.371	0.173	0.591	-0.071
Young_Reliability	0.398	0.132	0.023	0.573	0.011
Young_Good health	-0.235	0.331	0.188	0.588	0.025
Young_Willingness to cooperate	0.259	0.069	0.437	0.572	0.159
Young_Propensity to have accidents	-0.044	0.028	-0.066	0.006	0.905
Reliability coefficient	0.757	0.785	0.759	0.342*	-

Note: *With the exclusion of the variable good health the value of the reliability coefficient goes up to 0.765.

As far as *moral and leadership qualities* as well as the *propensity to have accidents* of younger employees are concerned, we were very pleased to establish some similarities in extracted factors. However, the structure between the first and the last extracted factor is much more detailed in the case of Slovenian companies, again probably stemming from differences in the current development level of both countries.

Additionally, it needs to be pointed out that *propensity to have accidents* seems to be the least important factor and, at the same time, also the least important of all twenty

employee characteristics that our respondents were presented with when benchmarking older and younger employees against the company average.

When comparing the extracted factors for older and younger employees in both countries, we can conclude that Slovenian employers seem to be much more specific and demanding in their evaluations of employee characteristics than their Croatian counterparts. This might be a result of the slightly higher Slovenian respondent education level and/or the more developed post-transitional industry and industrial relations in Slovenia, which would be interesting to monitor and compare in a longitudinal study.

7.4 Employment and retention of older workers

At the beginning of this chapter, we listed factors which seem to determine employer preferences, practices and policies concerning the older workforce: firm size, ownership (public or private), phase in the economic cycle (growth or decline), as well as sector (service or manufacturing). It was also established in the literature review that more positive attitudes towards older employees stem from older respondents.

In our empirical research, we attempted to account for the *firm size* (measured by the number of employees), *respondent age, respondent education and length of firm's existence*. Using contingency analysis,[4] we strived to verify the following hypotheses:

H_1: Present proportion of employees aged 50 to 64 is related to the firm size.
H_2: Active search for new employees aged 50 to 64 is related to the firm size.
H_3: Active search for new employees aged 50 to 64 is related to the age of responsible person (CEO or HR manager – in our case the respondent).
H_4: Active search for new employees aged 50 to 64 is related to the education of the responsible person (CEO or HR manager – in our case the respondent).
H_5: Active search for new employees aged 50 to 64 is related to the length of the firm's existence in years.

In the first four cases, our p-values were far above the 0.05 level which means that our zero hypothesis that there is no relationship between the given pairs of variables could not be safely rejected. In other words, as far as the present employment of older employees and the active search for new employees aged 50 to 64 are concerned, both Croatian and Slovenian companies behave in approximately the same manner regardless of the

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[4] Contingency analysis is the analysis of (in)dependence between two qualitative variables (at least one of them has more than two values). It is carried out by calculating the χ^2 statistics with the relevant statistical significance value (commonly known as the probability or p-value). If the p-value is above the 0.05 level, this means that the zero hypothesis about there being no relationship between the given pair of variables cannot be safely rejected – the probability that there is no relationship between the given pair of variables is larger than 5 percent.

firm size, respondent age and respondent education: the majority employ a very low percentage of older employees and hardly actively target new employees aged 50 to 64.

However, in the fifth case, it was possible to reject the zero hypothesis for Croatian firms at p = 0.10. It seems that Croatian companies with a longer tradition do tend to actively search for older employees more often than their more recently established counterparts.

In our next step, we attempted to find out to what extent the Croatian and Slovenian employers hired older employees and invested in them (in terms of their participation in education and training programmes) in the year 2007 (Table 7.10).

Table 7.10: **Proportion of older employees**

Variable	Mean value for Croatian companies	Mean value for Slovenian companies
Proportion of older employees in the company	23.5	21.5
Proportion of older employees among all the newly hired employees in 2007	3.4	1.8
Proportion of older employees among employees who participated in education and training programmes in 2007	11.1	13.3

Following from Table 7.10, we can conclude that Croatian companies have a slightly higher proportion of older employees and did hire more of them in 2007. However, when it comes to the participation of older employees in education and training programmes in 2007, the Slovenian proportion is slightly higher than the Croatian one.[5]

Apart from factors which seem to determine employer preferences, practices and policies concerning the older workforce, we also investigated employer attitudes towards the retention of offically retired workers. Around half of the companies from both countries expressed their willingness to keep their male and female employees over the legal retirement age under a regular job contract if legally possible (Table 7.11).

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[5] Please note that the mean score differences are only statistically significant in case of the second variable (proportion of older employees among all the newly hired employees in 2007) and that only at the $p \leq 0.07$ level (independent samples t-test).

Table 7.11: **Willingness of employers to retain their employees after the legal retirement age under a regular job contract if legally possible**

Response category	Croatia				Slovenia			
	Male employees		Female employees		Male employees		Female employees	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Not willing to retain	65	30.1	66	30.6	51	25.5	59	29.5
Willing to retain	114	52.8	110	50.9	117	58.5	109	54.5
Unknown	37	17.1	40	18.5	32	16.0	32	16.0
Total	216	100.0	216	100.0	200	100.0	200	100.0

For Croatia, the results in Table 7.11 are directly contradicted by the responses given to the question whether or not the current legal retirement age is the best age to retire (Table 7.12). In Slovenia, almost 60 percent of respondents do not perceive the current legal retirement age as the best age to retire. Interestingly, the perceived, average best age to retire for men is in Slovenia slightly lower than in Croatia; the opposite is the case for women (Table 7.13).

Table 7.12: **Perception of the current legal retirement age as the best age to retire**

Response category	Croatia				Slovenia			
	Male employees		Female employees		Male employees		Female employees	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Not best	91	42.1	95	44.0	119	59.5	114	57.0
Best	120	55.6	117	54.2	76	38.0	81	40.5
Unknown	5	2.3	4	1.9	5	2.5	5	2.5
Total	216	100.0	216	100.0	200	100.0	200	100.0

Table 7.13: **Perceived average best age to retire**

Best age to retire	Croatia				Slovenia			
	Min.	Max.	Average	Standard deviation	Min.	Max.	Average	Standard deviation
For men	50	70	59.8	2.9	50	63	59.3	2.3
For women	50	70	55.3	3.3	50	65	56.0	2.7

It would seem that the personal preferences of respondents played a major role when answering the questions about the best age to retire. It is probably not too far-fetched to assume that they would personally prefer to retire as early as possible and enjoy life while still in good health. However, many respondents used the possibility of further elaborating on their response choices by adding comments such as "the best age to retire depends on the *individual* in question – some individuals are much fitter than the others" and "the

best age to retire depends on the *job* in question – there are some jobs which cannot be effectively performed by older employees".

Furthermore, it seems that the period of economic depression is still very present in the memory of our respondents. In economic history, there is a lot of evidence on the encouragement of older people to remain active in periods of economic growth only to be the first to be let go in times of recession (Taylor and Walker, 1998: 570; Henkens and Schippers, 2008: 141). To this day, some companies rely heavily on the practice which marked both Croatian and Slovenian economies in the period of transition: defensive restructuring was implemented by the active encouragement of older workers to take early retirement (Bejaković, 1992; Domadenik and Vehovec, 2003; Guardiancich, 2007). The firms were literally pushing older workers to early retirement by the advance payment of pension contributions for each additional working year up until the official retirement age. This kind of subsidised early retirement was widely used by employers but not voluntarily preferred by employees,[6] although for the time-being it helped to maintain the social and political stability. Only after a decade can it be firmly established that this large-scale flow of older workers to inactivity through early retirement brought not only poor economic consequences (Guardiancich, 2007: 101-108) but also negative side effects manifested in the general, negative public opinion about older workers productivity, knowledge and experience. With the imminent threat of a shrinking workforce, these prejudices will need to be effectively tackled as they represent the major obstacle both to the retention and fresh employment of the older workers.

What about other barriers to the continued labour market participation of older workers? As shown in previous chapters of this book, both Croatia and Slovenia have been facing negative rates of natural increase. As a result, a substantial shift in the age distribution of the working-age population can be observed in both countries. Consequently, in both countries, these changes already induced the need for reforming the first pension pillar (the mandatory public pension scheme) and for the active promotion of the voluntary second and third pillars.

Our research indicates that a strong majority of companies would be willing to pay additional retirement insurance for employees if it were considered to be a tax benefit (Table 7.14).

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[6] In the period from 1990 to 1995, more than 57,000 Croatian workers exited their working lives in this manner before reaching the statutory retirement age (HZMO, 2008).

Table 7.14: **Willingness to pay additional retirement insurance for employees if it were considered to be a tax benefit**

Response category	Croatia		Slovenia	
	Frequency	**%**	**Frequency**	**%**
Not willing to pay	42	19.4	29	14.5
Willing to pay	164	75.9	166	83.0
Unknown	10	4.6	5	2.5
Total	216	100.0	216	100.0

In addition to the need for pension pillars reform, a gradual increase of the full retirement age is necessary. In Slovenia, this increase has been in progress since the year 2000 and in Croatia since 1999. However, in the long-run, a broader policy revision is required in both countries to facilitate macroeconomic stability and growth. In Slovenia in 2007, the average pension benefit is at the estimated level of 61.3 percent of the net average wage (67.7 percent for old-age benefit). In Croatia in 2007, the average pension benefit was 40 percent and 44 percent for old-age benefit. But, the demographic pressures will either require a significant pension system reform or will lead to a dramatic cut in pension benefit.

Given that the ageing problem has not been perceived as acute in Croatia and Slovenia (almost 50 percent of respondents in both countries still view the retirement process more as a creation of opportunities for younger people as opposed to the perception of it as being more a loss of valuable skills and experience), the topic of older workers' employment prospects still has not entered the public mind. However, with the rapidly approaching official retirement age of the baby boom generation, both public discussions of and implementation of government actions towards working life extension remain only a question of time.

7.5 Conclusion

General population ageing in Croatia and Slovenia is not only a fiscal sustainability question, but also a growth challenge. In the long-run in order to facilitate growth, Croatian and Slovenian governments will have to develop and implement strategies to keep older workers in the labour force. These will have to be oriented towards two major goals:

- the introduction of incentives for older workers to remain in the labour force, and
- the encouragement of enterprises to take a forward-looking approach and start facilitating better and longer working lives.

Should governments continue on their present "interception" path, this will end with a severe labour shortage after the baby boom generation starts retiring at the official retirement age in the next 5 to 10 years. However, should the baby boomers be provided with enough incentives to continue working beyond their official (statutory and mandatory) retirement age on one hand, and their employers be induced to retain and additionally employ older workers on the other hand, the "adjustment" path will enable the Croatian and Slovenian economy to at least remain stable if not continue to grow in the long-run. Following from our research, we can conclude that, at present, companies in both countries employ a very low percentage of older employees and hardly target new employees aged 50-64. However, employers in both countries do not show age or gender discrimination attitudes that could become a severe obstacle to the implementation of the "adjustment" path, if selected.

Taking into account the general demographic and labour market trends presented and discussed in this book, we believe that the establishment of employment agencies for retired people who would like to continue to work part-time should become the priority of policy-makers. Such employment agencies should bring a favourable tax treatment and introduce flexible employment contracts similar to student work. In this way, employing older people would become more attractive from firms' perspective while retired people would be able to mitigate the problems of maintaining the lifestyle they were used to when on salary with their low pensions.

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Enhancing employers' demand for older workers: Policies, practices and recommendations

8.1 Introduction

After the baby boom in the decades following the Second World War at the end of the 20th century, it became evident that demographic trends were reversing due to declining fertility rates and rising life expectancy. As a result, most nations worldwide began to face a significant increase in the proportion of elderly in the total population, and the population projections indicate that the same trends will persist in the future.

It was soon recognised that so-called demographic ageing might affect virtually all aspects of social, economic and even political life. It is, therefore, not surprising that there is a large and rapidly growing body of literature encompassing both theoretical contributions and empirical studies on the social and economic implications of population ageing, as well as policy papers providing recommendations on how to mitigate the unpleasant consequences of demographic changes.

In this chapter, we will concentrate mainly on the implications of population ageing on the labour force shrinkage; which could have detrimental effects on the long-term sustainability of pension systems and on the sustainability of public finance in general, and could also impair the potential for further economic growth of ageing nations (see e.g. Maddaloni et al., 2006; Leibfritz and Roeger, 2008). However, there are many other concerns raised by demographic changes that are also important but will not be tackled here, such as the implications of ageing on savings and investments, capital markets, housing markets, international economic relations, poverty and consumption patterns (Börsch-Supan, 2001; 2004; Maddaloni et al., 2006; United Nations, 2007). Demographic ageing might even aggravate regional disparities for countries with different regional profiles of demographic development, such as Germany (Meier, 2008). The fact that the ageing of the median voter could also influence political outcomes should not be neglected, which stresses the importance of reaching political decisions on structural reforms in pension and health systems before the median voter gets too old (Jackson, 2003).

The rising share of the older population itself should not be perceived as a threat to economic development and prosperity, but it should also not be ignored. It is important to be aware of the challenges which population ageing brings and to prepare acceptable policy options to avoid unwanted outcomes. One such policy option was developed with the intention to raise older workers' participation in the labour market, and particularly,

to affect employers' willingness to employ this part of the workforce and to keep them employed. This policy option will be particularly elaborated here.

This chapter addresses the issues related to the timing of retirement, which has an important impact on the labour market participation of older workers and, therefore, on the size of the workforce. The role of effective retirement age becomes more and more important with the growing share of an older workforce, since early retirement could mean a significant loss in labour utilisation (Leibfritz and Roeger, 2008). It is worth mentioning that although the demographic trends are quite similar across the European Union, i.e. in "old" member states and in the transition economies becoming new members of the Union, the issue of early retirement attracted different levels of attention in those two groups of countries. There are at least two plausible explanations for the little concern of transition economies for the early retirement phenomenon. The first one is that the economic restructuring in transition economies and the resulting use of early retirement as an easy solution for the necessary downsizing of the number of employees started at least a decade later than in the "old" member states. The second reason could be that restructuring brought by the transition was so far-reaching and so distressing for the entire workforce that the activity of older workers was simply not perceived as a priority. However, once the economies started to recover after the transitional downturn, it became evident that the participation of older age groups in the workforce has the least potential to be restored.

This chapter consists of five sections. After the introductory section, we focus on the factors that influence individual retirement decisions and identify three main reasons for the postponement of retirement. In Section 8.3, we discuss the main policies that could reverse the early retirement trend. In addition to the policies aimed at changing the institutional settings, we stress the importance of changing the employers' attitudes towards older workers and elaborate the ways that the demand for older workers could be influenced. In Section 8.4, we give a few examples of policies employed in some EU countries that contain the aim of enhancing the demand for older people. Based on those countries' practices and empirical evidence, we draw recommendations for the design of policy measures directed towards raising demand for older workers in Croatia and Slovenia.

8.2 Determinants of individual retirement decisions

As the search for a solution has to start with an inquiry into the causes of the problem, it is necessary to find out why people choose to retire before the statutory retirement age and why they opt not to work beyond the statutory retirement age even if their physical and mental abilities would allow them to remain employed.

Contemporary literature dealing with the causes of the withdrawal from the labour force before the official pensionable age recognises two major forces causing early retirement. There are factors that *pull* the individuals out of the labour force and those that *push* them out of the labour market.

Pull factors

Pull factors are mainly *financial incentives* which make retirement more desirable than employment, and which are primarily linked to (i) provisions of the public pension systems and (ii) private pension arrangements, but also to other (iii) formal or (iv) informal early retirement schemes.

- **Pension system.** Elements of the pension system that influence retirement decisions are (i) the age at which early retirement benefits could first be accessed, (ii) the replacement rates and (iii) the implicit tax on continuing to work in terms of changes in the present value of net pension wealth from working an additional year[1] (Gruber and Wise, 2005).

- **Private retirement schemes.** Access to the private, i.e. occupational retirement schemes, which are available in many countries, also facilitates the decisions of individuals to retire before the statutory retirement age if they have accumulated considerable pension wealth in such schemes (OECD, 2006).

- **Formal early retirement schemes.** In the periods of rising overall unemployment such as in 1970s and 1980s, "old" EU member governments of several European countries officially promoted early retirement by subsidizing retirement before the standard retirement age. It has even been claimed that there was a kind of collusion between the government, trade unions and employers to resolve the political and economic problem of high unemployment in such a socially acceptable way (Ebbinghaus, 2006).

- **Informal early retirement schemes.** There are numerous examples of incentives for early retirement that are embedded in elements of the social welfare system other than the pension system which entitle older unemployed or inactive persons to certain benefits and thus provide a smooth passage into the early retirement. Those are the incentives linked to long-term sickness programmes, disability insurance and special unemployment programmes (Gruber and Wise, 2005; OECD, 2006).

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[1] Here, an implicit tax on work is a loss in the present discounted value of pension benefits that occur in the case of remaining in the labour force. According to Gruber and Wise (2005), in many countries the implicit tax on work is 80 percent or more the first year after benefit eligibility.

Push factors

Whereas the pull factors mainly refer to the *characteristics of the institutional settings*, push factors are *characteristics of the older persons or companies* that have a negative impact on the older workers' chances of finding attractive job opportunities or to remain employed.

- **Push factors on the side of employers.** Employers may become reluctant to employ or retain older workers if they perceive older workers to be (i) more expensive than younger workers, (ii) less productive, (iii) more difficult to retrain, (iv) more appropriate targets for redundancy or (v) more difficult to fire without violating employment protection rules (Howse, 2006).

- **Push factors on the side of the employees.** Older workers become less employable because their skills become obsolete due to technological changes and other structural changes in labour demand, and, at the same time, they are not prepared for learning and training because they see too few benefits from investing in it.

To the list of the factors pushing the workers out of the labour market, one should also add *deteriorating health and disability*, which proves to be the second most important reason why older workers leave their job before the official retirement age in EU (European Commission, 2004a).

In addition to recognizing that there are pull and push factors and health status factors, numerous empirical analyses have tried to pinpoint more exactly the determinants affecting individual decisions to retire, and to explore the factors causing differences in companies' inclination to offer an early retirement option to their employees.

Many of the factors determining individual retirement decisions are, of course, closely connected to the *preservation of financial security*, such as income, wealth, level of education, employment in a specific economic sector, profession, work experience and tenure. As expected, people who have accumulated a sufficient level of wealth during their working life are more likely to go into early retirement (Bloemen, 2006; Dorn and Sousa-Poza, 2005).

However, there are also other important factors determining the decision to retire which are not necessarily connected to the financial status of the person, but rather to her or his *socio-demographic characteristics*. Surveys have confirmed the existence of a strong relationship between early retirement and gender, a partner's labour market status and the presence of caring responsibilities (Irving, Steels and Hall, 2005). Empirical studies also show that self-employed workers as well as workers who experienced a period of unemployment in the past rarely retire early (Dorn and Sousa-Poza, 2005). Factors like

taste for leisure or job satisfaction as well as many other practical and personal factors are also found to have non-negligible influence on individual retirement decisions (Esser, 2005; Irving, Steels and Hall, 2005).

Although financial considerations have the most important role in deciding on remaining or withdrawing from the labour market, they are usually re-enforced by other pull or push factors (Irving, Steels and Hall, 2005). The decision to retire is, in addition, reached much more easily if the *companies themselves offer early retirement schemes* to their employers. It is empirically proven that the companies that are more likely to offer the early retirement schemes are primarily large companies and companies within the service sector. The economic and employment situation which applies to a particular company can also influence the offer of early retirement, whereby such offer can be found more often in establishments where the employment trends in recent years have been declining and where there is a need for a reduction in personnel. Interestingly, a company's assessment of the overall economic situation or its need for employees does not seem to correlate with the offer of early retirement (European Foundation for the Improvement of Living and Working Conditions, 2007).

The effects of the factors that work in favour of early retirement are certainly very strong, and early retirement has become in many countries the second most important pathway into retirement, after retirement at the standard age (European Commission, 2007). Since the institutional framework facilitates retirement before the official retirement age, and both employers and employees consider this to be convenient, one can speak of the so-called "early retirement culture" that has developed all over Europe. Moreover, some surveys point to the development of an interesting pattern regarding policy preferences of the workers. They would like to retire even before their expected retirement age or, more precisely in 2003, the average preferred retirement age in the EU-12 was 58.2 for men and 57.5 for women, which is for both sexes around 4 years lower than the effective retirement age and 6 years lower than the legislated standard retirement age (Esser, 2005). The situation in new member states (excluding Bulgaria and Romania) is quite similar, with a preferred retirement age of 56 years for both sexes, which is on average 3.4 years lower than the effective retirement age (European Commission, 2004b) (Figure 8.1).

Figure 8.1: **Preferred and effective retirement age in new EU countries, 2003**
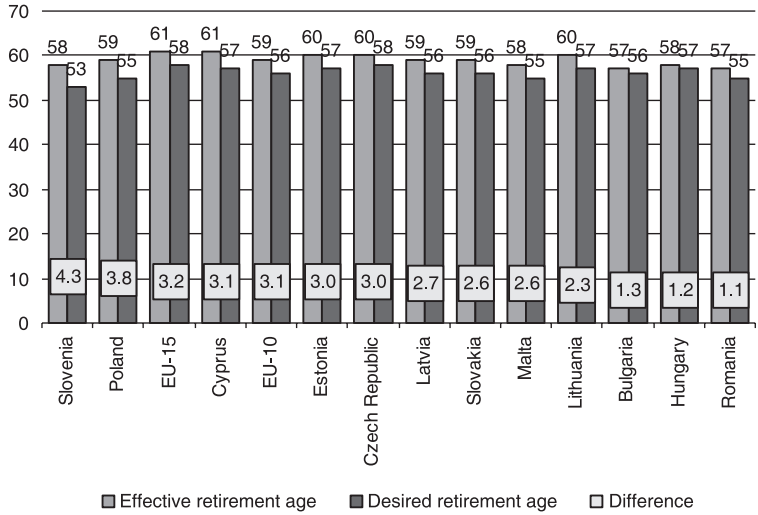
Source: European Commission (2004b).

With the rise in the share of elderly in the total population, it is clear that the ever-earlier retirement trend is not feasible and that the "early retirement culture" should be abolished. Presently, people in Europe spend approximately 20 percent of their entire life, or more than 30 percent of their adult life, in retirement (Leeson, 2006). When this fact is taken into account, it becomes obvious that the transition from work to retirement should be delayed for many reasons. Firstly, the increase in the effective retirement age could contribute to the *preservation of the financial sustainability* of public pension systems. Secondly, raising the participation of older workers in the labour force could *mitigate the reduction of the growth potential of economies*. Thirdly, an extended working life helps *maintain the economic well-being of the elderly*. Finally, delaying the transition from work to retirement helps *promote active ageing*, which is crucial for healthy and successful ageing (Howse, 2006). In other words, later retirement should be promoted both for the interest of nations and individuals. According to the available data for the EU, the average exit age corresponds to the expected healthy-life years, and it is argued that with the postponement of the average effective exit age, people could expect a longer life without physical and mental illnesses (see Figure 8.2.).

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Figure 8.2: **Life expectancy at birth, average exit age and healthy years at birth in selected EU countries, 2005***

Males

Females

■ Healthy life years at birth ○ Average exit age ▲ Life expectancy at birth
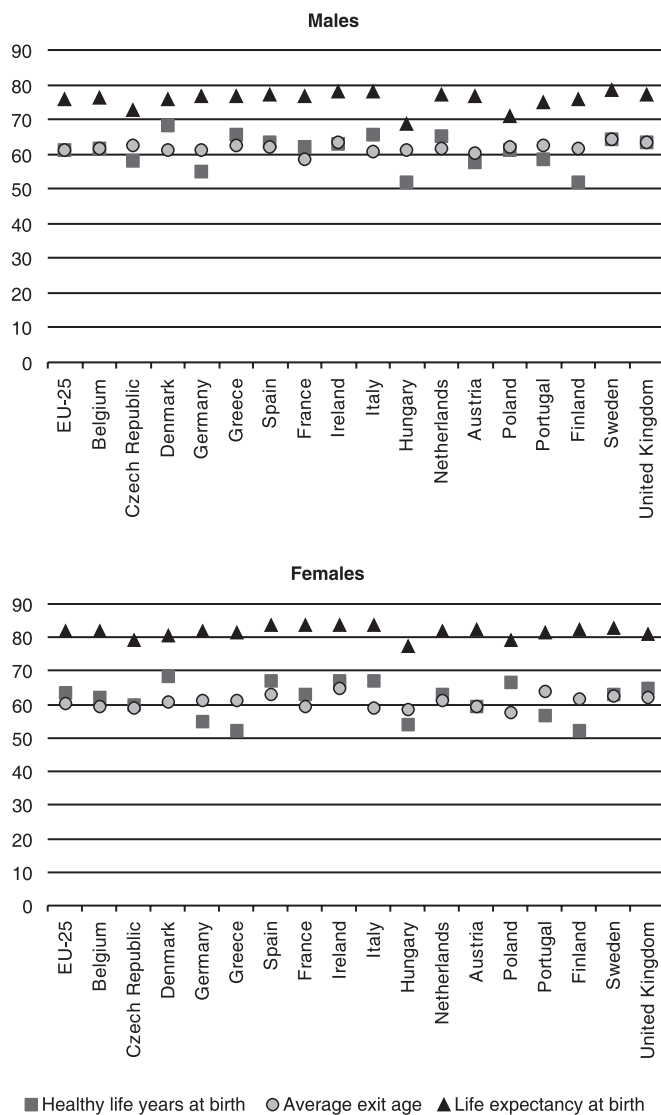
Note: *Data on healthy years at birth for Italy refer to 2004. Data for average exit age for Germany refer to 2004.
Source: Eurostat.

8.3 Reversing early retirement trends

In the two most recent decades, countries have undertaken actions aimed at stopping the trend towards early retirement and at raising the activity of older workers. The data imply that those actions have been rather successful – in the EU the activity rate of workers in the 55-64 age cohort increased to 47.3 percent in 2007 compared to 40.8 percent in 2000.

The policies and specific measures that are employed with the intention of promoting longer working lives vary greatly across countries, but they all fall within the four broad policy categories that should counteract the factors causing early retirement. Those policy categories are (i) pension reforms, (ii) policies changing non-pension incentives to remain in work, (iii) policies increasing the employability of older workers and (iv) policies changing employers' attitudes and employment practices (OECD, 2006).

- **Reform of a pension system.** There are many different ways to reform a pension system and, thereby, to increase the incentive to work, but basically there are three typical measures available. These are (i) the reduction of pension entitlements, (ii) the delay of the age at which benefits can be drawn – accomplished by raising the official retirement age and restricting options for early retirement and (iii) the introduction of steeper penalties and rewards based on the time of retirement, i.e. the introduction of actuarial fairness of benefits adjustment[2] (Casey et al., 2003, Howse, 2006; OECD, 2006).

- **Policies changing non-pension incentives to remain in work.** In order to be effective, reform of a pension system should be accompanied by restrictions in the methods to leave the labour market such as through sickness or disability pensions and long-term unemployment benefits for older persons. It is, however, to be expected that there are older persons that for some reason cannot or will not be employed full-time and that their retainment in labour force can be preserved only if the institutional framework allows more flexible work options. Although often praised, flexible means to retirement should be carefully designed to avoid the negative net effects on older workers' participation (Loretto, Vickerstaff and White, 2005).

- **Policies increasing the employability of older workers.** Measures that tackle the supply side of the older workers' labour market belong mainly to three groups: (i) measures promoting learning and the training of older age groups, (ii) measures aimed at providing better employment services for older people and (iii) measures promoting better working conditions and better health and safety standards.

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[2] The "actuarial fairness" of benefits adjustment is achieved through the "actuarially equivalent" or "actuarially neutral" system in which an individual's pension wealth (the discounted stream of future pension payments) does not change when a worker retires earlier or later than a defined standard age.

- **Policies changing employers' attitudes and employment practices.** Measures that fall into this group can be divided into (i) measures tackling age discrimination and changing negative employer attitudes towards older workers and (ii) measures affecting the objective factors reducing the demand for older people. Measures belonging to the first group can be based on two approaches: (i) the voluntary approach through public information campaigns and guidelines and (ii) the formal approach through the implementation of legislation preventing age discrimination in employment. The second group of measures is mainly concentrated on making the older workers more attractive to the employers by providing them with financial incentives to hire and retain the older workers. The rationale beyond such measures is that the standard seniority-based wages of older workers do not correspond with the productivity of the members of this age group, so that the government's subsidy for employing older workers should bring the labour costs in line with the performance of the older individuals. Measures inducing changes in wage-setting policies are based on the same principle of matching costs to older workers' productivity.

  Into the group of measures that raise the demand for older persons, one can also include legislative changes that increase the legal protection of older workers by penalizing firms in the case of their dismissal and measures intended to increase the productivity of older workers. The latter correspond to the measures that increase the employability of older workers.

There is no EU member country that has not implemented some or most of the policies, which have the intention to reduce the incentives for early retirement by changing the institutional framework or by affecting the behaviour of employers or older employees. The results of the implemented measures are generally positive, but there is a diversity of experiences both with respect to the country and with respect to the measures employed. The empirical evidence has shown that some measures have yielded only marginal results or have even had negative effects on the employment of older persons or on overall employment. The assessment of the measures is complicated by the fact that the countries that have introduced incentives to work longer have not, at the same time, completely abolished disincentives to continue working (European Commission, 2007).

It is generally recognised that policy measures have a higher probability of being effective if they are part of a wider set of measures that raise the awareness of the importance of enhancing older workers' participation in the labour market and change negative perception of older persons. It seems also that the measures aimed at fostering the participation of older people are more effective in cases where they are incorporated within the national ageing strategies providing a coherent and well-coordinated context for such measures (OECD, 2006).

The next section gives some examples of policy measures implemented in European countries that have the intention to enhance employer's demand for older people.

8.4 Country practices in enhancing employers' demand for older people

Public information campaigns

Government-sponsored information campaigns promoting the employment of older people and raising awareness of the importance of labour market participation of the elderly and of the labour market implications of demographic changes took place in a number of European countries such as Austria, Denmark, Finland, Luxembourg, the Netherlands, the United Kingdom and Norway (OECD, 2006). Although these campaigns have usually been accompanied by other more formal measures, they prove to be crucial in mobilizing the whole society and changing stereotypes of older persons and their working capacities. Many campaigns also stress age diversity as a productivity enhancing company practice as opposed to the perception of a negative relationship between age and productivity. It should be, however, noted that empirical studies do not verify the hypothesis of higher productivity of teams with greater diversity in age (Hamilton, Nickerson and Owan, 2004), but this does not mean that younger workers are necessarily more productive than older ones. Contrary to expectations, one piece of empirical evidence shows that productivity does not decline with age (Börsch-Supan, Düzgün and Weiss, 2007).

Box 1 **Public information campaigns in the UK, Finland and Norway**

United Kingdom

Since 1999, the UK government has supported the information campaign "Age Positive" which encourages employers to employ a mixed-age workforce, provides assistance in the case of age discrimination and helps employers to comply with legislation on age discrimination in employment. The campaign uses publications, research, the press, events and awards initiatives to reach the wider public. It has its own website providing a range of information and links to other sources of information on the best practices for employers and on labour market issues and pensions for individuals.

Within the campaign, the government has also issued the Good Practice Standards that should help employers to recognise the benefits of an age-diverse workforce. The guidelines given in the Good Practice Standards cover six areas of employment: recruitment, selection, promotion, training and development, redundancy and retirement.

Finland

In Finland, the changes in early exit arrangements which took place at the beginning of the 1990s were associated with a number of nationwide programmes and campaigns. At the beginning, the campaigns attempted to change the attitudes and capabilities of ageing workers; and in the period 1998-2002, the focus of the National Programme on Ageing Workers was shifted to the workplaces. The main goal of the Programme was to promote the employability of people over 45 and to reduce their exclusion and premature retirement. The programme aims to build a wide consensus at the policy level, both to value the experience of the ageing workforce and to raise the actual age of retirement. One of the programme's main targets was to influence general attitudes, so the programme adopted a slogan "experience as a national asset".

The programme was not very effective in prolonging working life or initiating deep cultural changes, and it was criticised since it reflected mainly the perspective of the state and not that of the individual. However, external evaluation recognised its role in raising the level of knowledge of the ageing process and information on the status of older people in the labour market.

Norway

Norway is not an example of an early exit culture but a country with a broadly accepted and institutionalised societal norm that older workers have a right and duty to participate in the labour market. Government efforts did not, therefore, have to deal with early retirement; but due to the labour shortage, their efforts had to be directed towards the promotion of the rights of older workers who wish to continue to work. This was done through the Action Programme for Senior Policy, which began in 2001 and ended in 2005 and was prepared by the semi-public Centre for Senior Planning.

The Action Programme was active for six years: mobilizing working life organisations (social partners, ministries, employment authorities, personnel management consultants, research institutes, adult education units and social security administrators) and stimulating senior policy activities within them; raising awareness regarding the situation of ageing workers through a media campaign and information addressed to target groups in working life, initiating development programmes, research, education and competence improvement and raising funds to support changes at the workplace level.

Source: Gould and Saurama (2004), de Vroom (2004a), Fortuny, Nesporova and Popova (2003), Solem and Øverbye (2004), OECD (2006), http://www.agepositive.gov.uk.

Age discrimination legislation

The European Eurobarometer opinion survey showed that in the EU-15, age is the most often cited grounds for discrimination and that people over 50 years of age were thought to be the third most disadvantaged group (after those with learning difficulties and physical disabilities) in terms of getting a job, training or a promotion (European Commission, 2003). Similarly, research evidence confirms that the age dimension (at both ends of the age range) is a decisive element in recruitment policies, that there is a widespread employers' practice of targeting older workers for job losses and that an increasing number of workers are obliged or persuaded to leave the workplace 5-15 years before the official retirement age (Leeson, 2006). It is, therefore, understandable that the introduction of the age-discrimination or other related legislation is one of the main elements of policies that should affect employers' attitudes towards older workers.

In 2000, the European Council adopted the Council Directive 2000/78/EC establishing a general framework for equal treatment in employment and occupation (Council of the European Union, 2000). This directive recognised the threat that discrimination based on religion or beliefs, age, sexual orientation or disability is opposed to the objectives of the EC Treaty and required from the member states to implement the national legislation banning age and disability discrimination by the end of 2006. Today, all the EU member states have adopted the age-discrimination legislation.

Box 2 **Measures against age discrimination in the Netherlands and Estonia**

The Netherlands
The Netherlands is characterised by a low labour force participation of older workers which, similar to Norway, in 1990s in the era of relatively high economic growth contributed to a labour shortage and posed a constraint to the further prosperity of the nation. The policy action that the Dutch government undertook was a combination of different initiatives and policies where anti-age discrimination played an important role. This was a response to the higher awareness of the presence of age discrimination in the mid-1990s. Soon after, the government published a document called the "Integral Programme of Action for Policy for the Elderly 1995-1998", where the issue of age discrimination was addressed and which initiated the government's battle against it. Since 1997, the Government has submitted several versions of anti-age discrimination bills to parliament, but the bills were always heavily criticised because they have not covered all of the cases in which age discrimination can take place (work-related recruitment, selection, training, education, promotion, dismissals, etc.), or they have foreseen some exceptions or escape formulas. The bills were not implemented; and the Dutch policy-makers decided to wait for the final EU recommendation and eventually adopted the age-discrimination legislation in

2004. Even though the anti-age discrimination bill had not been put in place before, the preparation of the bill and the political debate that followed contributed to a change in public opinion and a rising consensus that decreasing participation of ageing workers is a negative and undesirable tendency.

Estonia

Following the International Year of Older Persons in 1999, the Estonian Government adopted the Policy for the Elderly in Estonia and established a Commission of Policies for the Elderly. The policy provided a starting point for raising awareness of age discrimination in Estonian society and was the first official acknowledgement that age discrimination is "unethical". According to the policy, it is "unethical to discriminate against people on the basis of their age" and addresses, to some extent, discrimination in employment.

Source: de Vroom (2004b), Fortuny, Nesporova and Popova (2003).

Croatia does not have a separate law on combating age discrimination or a national strategy dealing with the same issue, but the provisions to tackle discrimination are included in a number of laws, programmes and strategies. As an accession country, Croatia has to align with the EU Directive on equal treatment in employment and occupation, and it is known that the national strategy on the prevention of all forms of discrimination is under preparation (European Commission, 2006b). Although there is some public discussion on particular topics that will be covered in that strategic document, it focuses mainly on discrimination based on sex, sexual orientation, ethnic origin or disability. Age, as a ground for discrimination, is still not perceived as a policy issue.

Wage subsidies to hire and retain older workers

Many countries have introduced various types of wage subsidies for older workers that should decrease the labour costs of older people and match the costs of employing persons beyond a certain age with their level of productivity. Such direct financial incentives for employers can be found in most of the old EU member countries (Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Spain and Sweden), but also in some new member states (e.g. Estonia and Slovenia) (Fortuny, Nesporova and Popova, 2003; OECD, 2006; Verša, 2004).

Wage subsidies are given either in the form of a hiring subsidy (where the subsidy is provided during a limited period of time), wage subsidy (subsidies are paid to employers for an indefinite period) or in the form of a reduction of social security benefits, unemployment insurance contributions or disability contributions.

On the basis of the results of the empirical studies on the effectiveness of wage subsidies, it could be concluded that these are not appropriate policy measures, since their effectiveness is low due to deadweight effects. In other words, the empirical evidence implies that an increase in subsidised hiring is accompanied by an almost equal decline in unsubsidised new employment (Boockmann et al., 2007; Jacobi and Kluve, 2006).

Box 3 **Wage subsidies for older workers in Slovenia and Croatia**

Croatia

In 1993, the Croatian Employment Office initiated a set of measures for improving employability, and 1994, it enhanced this set of measures by providing wage subsidies for persons older than 50. The measure consisted in a government subsidy covering up to 50 percent of the gross wage and meal and transportation costs for employees aged 50 or more in the first year of their employment, in the case of a permanent work contract. This measure, however, survived only for two years since it was perceived as inefficient. Only 328 persons were employed thanks to this measure.

The Active Labour Market Policy from the previous cycle, 2002-2005, did not have measures directly tailored for employment subsidies to older workers. The actual ALMP started in 2006 and is structured according to the National Employment Action Plan, which follows the European employment strategy. Among the ALMP measures, one employment subsidy is specifically tailored for older women above 45 and older men above 50 years, but other measures also include older workers such as subsidies for long-term unemployment and educational and training programmes for keeping jobs or for improving employability, public works and special handicap groups. Preliminary results for the number of active participants resulting from the ALMP measures from 2006 and 2007 show a slight increase in the share of participants between 50-54 years and a slight decline in the share of participants between 55-59 years of age (HZZ, working document PHARE 2005 program "Evaluation, design of recommendations, capacity building and grant scheme management in the field of active employment measures in Croatia"). Overall, the share of persons aged between 50-59 years participating in the ALMP measures is 11 percent and the overall share of registered unemployed of the same cohort is close to 23 percent.

Slovenia

In 1998, Slovenia started to deal with the problem of unemployment among older workers and to formulate several active labour market policy measures targeted towards people above 40 (!) years of age. Measures included educational and training programmes, programmes of personal growth, public works, encouraging self-employment and the measure of reimbursing the employer's contribution in the case of employment of persons older than 50

who are receiving unemployment or social benefits. Reimbursement of contributions amounts to 50 percent of the contributions paid by employers for the first three years, and then it is reduced to 25 percent. In 2000, only 10 unemployed persons older than 50 got jobs as a result of this measure. It is claimed that the measure was ineffective because promotional activities were insufficient and the active labour market policy measures were not coordinated with other measures created for the development of the older labour force.

Source: Kerovec (2001), Verša (2004).

Protecting older workers

Since older workers prove to be less employable than younger workers, many countries protect older workers by requiring longer notice periods in the case of dismissals or higher severance payments. Some governments have even introduced additional "penalties" for firms firing older workers in the form of additional taxes or higher social security contributions. However, measures that increase the costs of firing older workers often change the employers' behaviour in a way that they become reluctant to employ older persons in order to avoid such costs. In that sense, protecting older workers instead of increasing employment of older workers may result in quite the opposite outcome (OECD, 2006).

Box 4 **Penalties for firing older workers in France**

France is a country with a deep-rooted "early retirement culture", and its employment rate of people aged 55 to 64 is very low compared to the other industrialised countries. Faced with both low activity of the elderly and a rapidly ageing labour force, and also with high unemployment, the French government realised that the situation in the pension system and the whole welfare system will soon become unbearable. Therefore, it set several policy objectives in the early 1990s. In addition to compensating older workers who left the labour market early and reforming the retirement system, the government introduced measures aimed at maintaining older wage-earners in employment and at helping them develop with new qualifications. One of these measures was the so-called Delalande Agreement, which penalises firms that dismiss workers over 50. The amount of the penalty is adjusted according to the age at which the dismissal took place. In 2005, it corresponded to a maximum of 12 months of salary for a worker aged 56-57 in enterprises with 50 or more workers and 6 months of salary in smaller firms.

According to the empirical evidence, this measure had a very low effect on retaining older workers, and it might even have had negative effects on labour mobility and on the hiring of older persons. French measures fighting unemployment and inactivity among older persons were rather unsuccessful since they were not embedded in a wider set of policies aimed towards older workers and active ageing. In addition, little was done to raise the awareness of companies on demographic ageing. Measures employed were mainly negative, in the sense that they tried to tighten controls over early exit or restrict it, and not positive, giving opportunities to firms and older persons to remain in the labour force.

Source: Guillemard and Argoud (2004), OECD (2006).

8.5 Recommendations

Before giving any recommendations on appropriate policy measures to be introduced in Croatia and Slovenia in order to enhance the participation of older persons in the labour force and increase the demand for older workers, it is useful to mention that both countries share similar perceptions about early retirement. There is a high proportion of people in both countries (71 percent in Croatia, and 49 percent in Slovenia compared to 45 percent in EU-25 on average) who agree that people in their country retire too early (European Commission, 2006a). Based on this insight, one could conclude that the "early retirement culture" could be easily abolished in both countries, especially in Croatia, once the institutional disincentives to work beyond a certain age are lifted. Also, one can suppose that public opinion would not be very opposed to measures promoting the employment of older workers that act on the supply side of this segment of the labour market. Therefore, it seems crucial to append such measures with ones that make older workers more attractive and ones that tackle employers' attitudes towards them.

The countries facing a labour force shrinkage due to the population ageing phenomenon apply a variety of different measures to raise the demand for older people so as to affect the employers' decisions to employ or retain older workers in employment. Based on their experience, the following conclusions can be drawn:

- The same measures can generate different outcomes if applied in different macroeconomic settings and in a different institutional environment. Therefore, it is highly advisable to evaluate policy measures in advance, and also to assess their effectiveness once they are introduced. It is also necessary to monitor the demographic trends and the trends in the labour market in order to be able to react in a timely and proper manner.

- Public information campaigns that raise employers' awareness of the value of older workers' experience and change the "early retirement culture" in general are highly recommended. However, although necessary, they are often not sufficient for a policy intended to enhance older workers' participation in the labour force.
- The introduction of age discrimination legislation also proves to be an indispensable element of the policy mix.
- Country practices show that NGOs can play an important role in carrying out the necessary research and in raising the public awareness about issues like age discrimination and other barriers to the employment of older workers.
- General active labour market policy measures promoting employability such as life-long learning and training may have manifold positive effects. They enhance older workers self-esteem and encourage them to participate in the labour market, increase their productivity, bringing their wages in line with their performance and making them more attractive in the labour market.
- Penalties for dismissals and wage subsidies are two measures that, although frequently applied could have unwanted effects and should, therefore, either be omitted or designed very carefully.
- It is important for governments to employ a wider set of measures focused on the issues related to the older workers' labour participation in the era of population ageing. It is even advisable to prepare and publicly discuss a national strategic document on ageing and to include a set of policy responses to the challenge of demographic change in the broad framework of such a document.
- Governments should make the selected policy options visible and understandable so as to insure their acceptance and support by older workers and employers. A full commitment of trade unions and employers' associations is vital for the success of such measures.

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