

# Future welfare and the ageing population

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Interim report from the Commission on the Future of Sweden



# Preface

Sweden is a good country to live in. But historical success is no guarantee for the future. For Sweden to remain a good country for all, we must tackle a number of challenges in several areas.

Against this background, in November 2011 the government established the Commission on the Future of Sweden with a view to identifying the major challenges for society that Sweden will face in the longer term. The Commission's work will be presented in four different reports on specific challenges for the future as well as in a final report. This is one of the four reports on specific challenges and it examines the challenge stemming from the ageing population.

In the latest population projection from Statistics Sweden, the population of Sweden is expected to increase by over two million people by 2060 and is simultaneously growing older and healthier. The working part of the population will steadily decrease – if we continue as today. In addition, it takes longer time for young people to enter the labour market. Sweden has already come some way to meeting these challenges. All of us need to adapt, however, to ensure that welfare in the form of schools, health care and care of the elderly will continue to improve as there are fewer and fewer to support those in retirement.

To work more and longer will be a key issue for the financing of the future welfare development. We must increase the number of hours worked, but other adjustments will also be needed. The large number of retirements poses a challenge to provide competent human resources to companies and to the welfare

sector. We must also ensure that welfare jobs are attractive to work in. At the regional level, the challenge of the ageing population is amplified by the continued migration to urban areas. As we live longer, attitudes - both employers' and employees' - may need to be adapted and it should become more widely possible to divide life in different phases and also to change career during one's life-time. It is also essential that we continue to improve and develop the quality of different welfare services. Citizens have a right to expect a high standard and that all tax revenues are used responsibly.

Mårten Blix, director and secretary in the Commission on the Future of Sweden, is the author of this report. I have coordinated and continuously followed the work. The author is responsible for the contents of the report.

Stockholm in February 2013

Fredrik Reinfeldt  
Prime Minister and Chairman for the Commission on the  
Future of Sweden

## Author's preface

Writing about the demographic challenge is a bit like standing on a population pyramid of research. A vast amount has been published – in research and policy reports and by think tanks. The reason is simple. Ageing is a huge change in almost the entire international community, but the change is coming gradually and without drama, and there is a risk that small steps that are taken to address the problems are inadequate and lack sufficient strategic direction.

If the challenges of increasingly fewer people supporting more people had been like the IT problem that was associated with Y2K (millennium-bug) or like that of a bank on the verge of collapse, it would have been easier to concentrate forces and do something about it. But the ageing of societies is a lengthy and in many respects undramatic process. We live longer and fewer children are being born, and the welfare costume that was tailored during the 1900s might burst if the scope of working life does not increase. It is not sustainable to stick to a pension norm of 65 years, when people's health is ever better and we live 20-30, or maybe even more years, longer than earlier.

That we live longer opens opportunities not previously available. Choices of profession and work focus that were nearly immutable in the past should now be more open to change. A longer life allows for different phases. You may want to work less in some periods, for instance to be with your children; in other phases you may want to work much or switch to new areas. I think many attitudes to work to a considerable extent are anchored in past decisions that were made early, which is of

course the time when people know the least about what life has to offer. Changing profession is certainly a big decision, but it is probably made into something more dramatic than it ought to be. Maybe in the future it will be just as natural to have a second or third career as it is today for many to move to another home – also a big decision that should not be made lightly.

The interviews that have been undertaken for the Commission on the Future of Sweden and that are presented in one of the background reports (No. 7) may offer a source of inspiration. We learn that those who have changed work have faced various challenges, but have eventually regained joy in their working life. Awareness that it is possible to switch to something else could be a source of inspiration to those who have heavy jobs or do not like their jobs. There is no guarantee of success – but the risk of failure could be weighed against the risk of becoming increasingly dissatisfied over many coming years.

To write this report, I have had great help from more people than I can mention here. I have received many valuable insights and much information from conversations and meetings, but of course I am responsible for all assessments and judgments in the report. I am grateful for discussions or materials from Anna Adelöf, António Afonso, Asees Ahuja, Åsa Andersson, Andreas Bergh, Susanna Bergmann, Anna-Karin Bergstén, Victoria Bergström, Mårten Bjellerup, Per-Lennart Börjesson, Anders Eklund, Eva Eklund, Ingemar Eriksson, Stefan Fölster, Robert Gidehag, Lena Hagman, Linnea Hedkvist, Trevor Huddleston, Lars Jagrén, Nils Karlson, Ulf Kristersson, Tina Lane Fjord, Klas-Göran Larsson, Hans Lindberg, Thomas Lindh, Henrik Moberg, Clas Olsson, Hans Olsson, Mårten Palme, Anders Stenberg, Kristina Ström Olsson, Bo Renman, Thorsten Schnaars, Ole Settergren, Joakim Sonnégård, Lena Sahrblom, Dan Sölverud, Ritha Sörling, Kristina Tidestav, Erik Thedéen, Eva Udden Sonnégård, Britta Velleuer and Annika Wallenskog.

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Looking for weapons in Iraq is a valuable experience in critical scrutiny and I especially want to thank my father, Hans Blix, who, armed with this experience, proofread all chapters and this time actually found many "smoking guns". My mother, Eva Kettis, has also given me valuable assistance and my mother in law, Antonietta Pinto, has provided invaluable support to the family during the most intense phase of the report.

I also thank my children, Melanie and Marco, who do not yet know why I wrote this report, but who will live in the future that the report seeks to avoid or mitigate. Finally, I want to thank my wife, Marianna, for her understanding during the many

weekends and evenings when work life and family life have been in temporary imbalance. *Grazie!*

Stockholm in February 2013

Mårten Blix  
Secretary in the Commission on the Future of Sweden

A note on the translation:

The text is translated from the original publication in Swedish with some minor modifications to enhance the readability in an international context. In some cases, English translations of names for agencies or governmental agencies are made, but primarily to add context. Many references are made to texts only available in Swedish, though sometimes summaries in English are available. The author would like to thank Hans Blix, Marianna Blix Grimaldi, Lina Pinto, Surya Sinha and Mark Storey for assistance with the translation.



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# Executive summary

It is positive that the population is ageing. We live longer and in better health. At the same time, fewer children are born, leading to an ageing population and the risk of an imbalance emerging between those who work and those who are in retirement – if we do not act. The imbalance is the result of the fact that the funding model of the welfare state was designed at a time when we did not live as long as now and fewer people in retirement were in need of support from those who worked. Although life expectancy has increased, the norm for typical retirement age has remained largely unchanged over the past decades. During a period before the mid-1900s, retirement age was about the same as the life expectancy. Today such equivalence would imply about a dozen years higher retirement age than the current norm for retirement at 65.

So far the discussion has largely focused on what the public sector should do. It is true that there are several important challenges facing the public sector, but ageing is one that will affect all parts of society. More focus is needed on what individuals and firms can and should do.

The ageing population is not a challenge that pops up in a few years; *it is already here*. Indeed, it has already existed for many years, but population ageing is a gradual process – not a sudden event, like a banking crisis or high unemployment. However, the absence of an immediate threat should not be a basis for reassurance. There are at least two risks:

- In adapting to an ageing population, small steps risk being insufficient and lacking in strategic direction.
- An increase in the standard of welfare over and above the costs associated purely with the ageing population, will require new financing.

When the situation is uncertain, one strategy could be to do nothing at all ("wait and see"). However, demographic forecasts are not in their nature as uncertain as other predictions, and to do nothing risks leading to arbitrary economic redistribution between generations and between regions. One of the background reports offers a picture in Sweden in which the number of municipalities with an old age dependency ratio that implies considerable financial strain is expected to increase from 3 at present to nearly 120 in 2050 (out of a total of 290) – unless we do something about it. The support burden implied by the old age dependency ratio will increase throughout the country, but it is likely to increase more in rural areas, a trend due to the effects of population ageing being reinforced by the continued urbanisation.

Several of the scenarios outlined in this report show what we do *not* want to happen. What can we do to achieve continued significant rise in public welfare? Most people want the standard of welfare services to continue to increase and will not accept an unchanged standard at today's level.

In the Swedish welfare model, financing is primarily done through taxes and to some extent from fees. If we are not satisfied with the current standard of welfare services we can choose among the following strategic options:

- extending working life through an earlier entry into the labour market, a higher employment rate and extending working life by postponing exit and retirement, all of which increase the tax base and reduce the support burden implied by the rise in the old age dependency ratio

- raising the efficiency in the public sector and the welfare services
- raising fees for or introducing ceilings in the use of welfare services
- raising tax rates
- relying on private alternatives and insurance.

All these tools can be used and the choice is essentially political in nature that this report cannot and will not make. The various options are rather different and would impact on the economy in different ways. Raising the tax level in Sweden, that is one of most highly taxed countries in the world, is not impossible but difficult. Raising taxes on labour would impair economic efficiency, reduce labour supply and thus even undermine the long term financing of the welfare system. Sweden as a small open economy needs to be competitive against the outside world. Raising fees for welfare services has impacts on equity and would make life more difficult for those worse off.

The alternative that seems best for the economy and that is most equitable between generations is more work, mainly through higher employment, extending working life and an earlier entry into the labour market. Higher employment is important for all groups, but especially so for those groups that currently have a relatively low rate of employment and that are farther away from the labour market. Furthermore, it is not a given that public welfare must look exactly the same in the future as it does day. A continued discussion will be needed on what should be included in public welfare. Various forms of private financing and private insurance exist already and are likely to continue to supplement the publicly funded welfare.

It should be possible to achieve a higher welfare development for the same money or the same level of welfare as today for a smaller price tag, but for this to happen we must also use the

opportunities for greater efficiency and increased productivity in the public sector.

How much longer do we need to work? One scenario shows that a sustainable increase in the standard of welfare services can be doubled, if we allow the retirement age to follow the increase in life expectancy. This should be seen only as a rough benchmark, but no other measure will have as reasonable economic and equity consequences. We should extend our working lives, not only because we are healthier and live longer but because there is a very direct link to the increase in the standard of welfare services that we are likely to aspire to and that is achievable.

Is there no risk that older people in the labour market squeeze out the younger if working lives is extended? This is a lingering and untrue myth. In fact, the exits from the labour market due to retirement in Sweden are beginning to be greater in number than the number of people who enter it. But even earlier, when the opposite was true, the claim was not true. Older workers rarely have the same jobs that the younger are looking for, and still more importantly, the total job cake is not fixed or static.

To be sure, there are challenges in the labour market in the future, but they are of rather different nature than earlier. A comprehensive shift in generations is underway and the transfer of professional know-how will be important to avoid dampening productivity growth. Much is at stake when companies address the generational shift and seek to maintain the skill of the work force. For an advanced industrial country like Sweden, high competence is a key to our strength in the global economy, and when the older workforce retires, it is crucial that their skills are transferred. Admittedly, there is generational change going on all the time, but the scale is now of a very different order of magnitude. There will also be a great need for new recruitment to welfare services, both in large cities and in rural areas.

How can working life be extended? For many people, a longer working life will be welcome. Surveys show that attitudes



to working longer have become more positive. But it is not possible to work long in all professions, for instance, in jobs that require physical strength or quick reactions. Here, one possibility is to change jobs *before* problems arise and work related injuries manifest. Changing job or career is still a big decision, but it should be less dramatic today for several reasons.

Firstly the norm "one education, one job and then retirement" seems increasingly anachronistic when life become longer. Today, we live 2-3 times longer than we did in the 1700s. A longer life raises the spectre of different life-phases in ways that were not possible before. For instance, people may want to work less and be with their children in certain phases. In other phases, they may want to work a lot or switch to something else.

Secondly: It is not certain that the first choice of profession is what suits you best. We all know how difficult it was to choose a profession when we were young. Who can reach well founded decisions without knowing what life looks like? A longer life implies that the decision made at an early age, and even decisions during working life, to a much lesser extent need to be unchangeable.

A background report to the Commission on the Future of Sweden contains interviews with almost thirty people who have substantially changed jobs or path during their lives.<sup>1</sup> It was evidently not always easy. In some cases, friends and colleagues even contributed to make the change difficult, but there have also been other obstacles. Nevertheless, the report shows that a second or even third career is possible and that job satisfaction can come back.

The greatest obstacles to extending working life are age limits in various labour agreements and outdated attitudes towards older workers. Working environment, working conditions and various labour market agreements need to be adapted as the workforce is getting older. Notably, it concerns leadership, ergonomics, training, increased flexibility, etc. Many now retire

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<sup>1</sup> Beck-Friis, 2012.

even though they are in fact both willing and able to work longer. Attitudes and standards are cemented in pension agreements and social insurance schemes despite the fact that there is no formal retirement age. It is of great importance that the agreements – where possible and justified – be revised to remove barriers to working longer. Companies, the employer and employee organisations together have a big responsibility to achieve this, while the government and parliament of course have overall responsibility.

What is *not* a solution to the financing of future welfare services? Higher productivity is central to almost everything in the market economy and it is crucial that it continues to develop well. However, it does not solve the financing problem, because higher productivity in the private sector is expected to spill over into higher wages - first in the private sector and then in the public sector. Moreover, there is no "productivity lever" that can be pulled. For this reason, too, we cannot assume that increased productivity will provide succour.

We will be able to continue to have a good increase in the standard of welfare, but the journey is not run on autopilot. The 'do nothing' strategy could lead to severe and uncontrolled economic transfers between generations and between regions. *The most dramatic redistribution would take place if we continue as today*, by not extending working life; the increase in the burden of providing for those in retirement would risk overwhelming the working part of the population. We need to work longer and those who study need to enter the labour market sooner. The best strategy would now be to begin gradually extending our working lives in step with the increases in life expectancy.

# 1 Introduction

"Do not deprive me of my age. I have earned it."

May Sarton

## 1.1 The demographic challenge

One of the greatest successes of the welfare state is that we live longer. In countries at war, with famine and poverty, life expectancy is considerably lower and in some cases even declining. Basic security, health care, education and better working environments have improved living conditions in ways that previous generations could hardly have imagined. However, this success is now increasingly becoming one of the biggest challenges for the welfare state. This report seeks to address these challenges – with a perspective towards 2020 and 2050.

The present challenge is different from that faced when Sweden built up the welfare state through hard work and difficult choices. Sweden today enjoys a basic level of security far in advance of what prevailed only a few decades ago. As a nation, Sweden is also in a much better position than many other countries. We have a sustainable pension system, sustainable public finances and a high standard of living. Sweden is one of the few countries that the OECD considers to have the best – or perhaps least difficult – starting position to meet the challenges of the ageing population (see Table 1.1). Does this mean that nothing needs to be done?

Table 1.1 The extent of the challenge in OECD countries

Share employed of age group 50-64	Projected change in the old-age dependency ratio 2000-50		
	Moderate	Large	Very large
<b>High</b>	Denmark, Iceland, Norway, <b>Sweden</b> , Switzerland, USA	Canada, New Zealand	Japan
<b>Average</b>	Netherlands, UK	Australia, Finland, France, Germany, Ireland Mexico	Czech Republic, Korea, Portugal
<b>Low</b>	Belgium Luxembourg, Turkey	Austria, Hungary	Greece, Italy, Poland, Slovenia, Spain

Source: OECD, 2006, page 20.

## 1.2 What is the problem?

The problem is not that we are living longer and that there will soon be more than ten million inhabitants in Sweden.<sup>1</sup> The core of the demographic challenge is to manage the financing of welfare services in a situation where there are more elderly people in society who are not working. One manifestation of this is that while life expectancy has steadily increased, the retirement age has basically remained unchanged and in some cases has even been lowered.<sup>2</sup> An additional factor that must be addressed is that the elderly have a greater need for welfare services than the working part of the population. Today's retirees

<sup>1</sup> According to SCB, 2012 (Statistics Sweden), Sweden's population will be over 10 million inhabitants in 2018.

<sup>2</sup> See graph 1.3 of this chapter. Pensions are discussed in detail in the interim report of the Commission for Pension Inquiry (SOU 2012:28) and are therefore on briefly discussed in this report.

can look forward to many more years of leisure, time spent with their grandchildren, travel and other things than previous generations. When the big retirement waves will come during the period 2010-2025, the group that does not work becomes bigger while the group that works becomes smaller. Meanwhile, there is also a challenge in that the younger spend longer time in education and thereby have postponed their entry into the labour market compared to before. However, the tax financing of our welfare assumes that those who are working are not too few in relation to the rest of the population.

*Fewer in work to support an increasing number in retirement*

A common way of illustrating what the ageing population implies is to compare the number of people in the group 20-64 years (i.e. those who are working) with the number of people aged 0-19 and 65+ (i.e. those not in paid employment). The group 0-19 years are mainly children and teenagers in school, while the group 65+ mainly consists of retired people. This comparison is not entirely unpredictable but it can still be used to illustrate the consequences of the ageing population.<sup>3</sup>

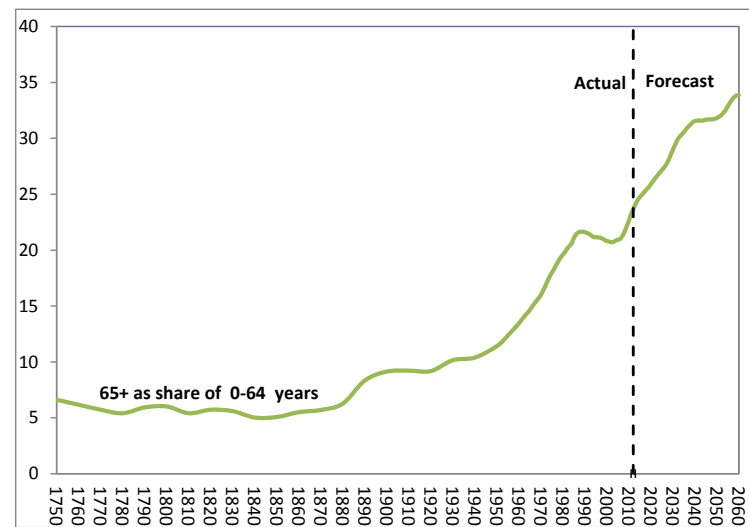
To illustrate the development from a historical perspective, however, we need a somewhat different grouping that offers comparable data. This is illustrated in Figure 1.1, which shows that the group of 65+ as a proportion of the population aged 0-64 increased significantly from about the middle of the 19<sup>th</sup> century. It can further be seen that the forecast is that this trend will continue for decades come. It is clear from figure 1.2 that the same applies throughout all of the OECD – the proportion of those aged 65+ will rise sharply. On this measure, Sweden is positioned in the middle of the OECD-countries, but it should

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<sup>3</sup> There are both teens and 65+ who work as well as many in the group 20-64 years of age who do not work. In Chapter 3, we discuss a better measure, employed 15-74 years of age as share of the population.

be borne in mind that Sweden also has a more comprehensive welfare system to fund than many other countries.

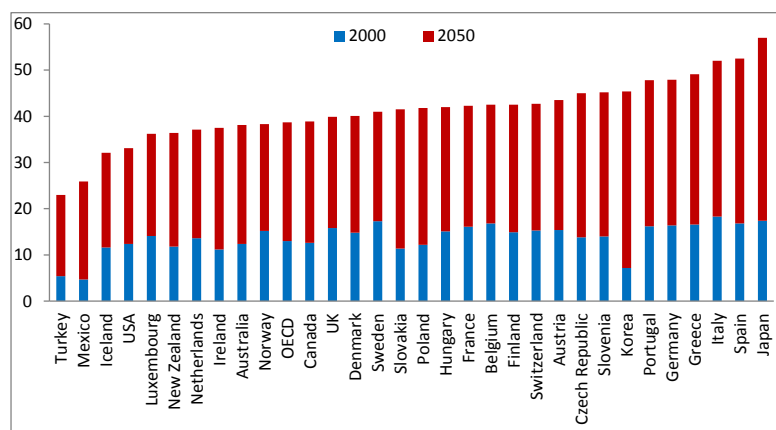
**Figure 1.1. Share of 65+ in Sweden in relation to 0-64**



Source: Statistics Sweden.

There is a marked shift in that fewer people in work are to support more people in retirement – if we stay with the current norm for when people retire. This is a development that takes place in almost all developed countries (see section 1.4).

Figure 1.2 Share of 65+ in OECD-countries



Source: Statistics Sweden.

Today, a person who works is to support 0.71 persons who do not work, the so-called old-age dependency ratio.<sup>4</sup> According to Statistics Sweden's population projection, this ratio will rise to 0.92 in 2060, which means that one person will have to support both himself and almost one more (non-working) person. The deterioration in the dependency ratio may seem small but it is very important for the financing of welfare services. If we were to make a comparison with a pay cut of 30 percent ( $0.71/0.92$ ), this would undoubtedly be a rather sharp drop in income. However, for several reasons it is misleading to consider the increased dependency ratio in this way. As productivity increases, the working population also gets a higher disposable income compared to earlier generations. In other words: Economic growth will continue to make us richer as measured for instance by GDP per capita.

In more everyday terms, we see that both ordinary consumption- and durable goods, like cars or phones, today have qualities and features that did not exist only a few years ago. We

<sup>4</sup> Measured by the share of the age groups 0-19 and 65+ compared to 20-64.

now have the knowledge and technology to cure diseases that could not be treated earlier or that were even mistreated. Overall, there is a vast improvement in the quality of health services as well as products.

*Demographic trends are an order of magnitude more important than movements in the business cycle for the development of public welfare services*

In the debate on economic policy, focus is often on how the business cycle is developing. Even rather small movements may get a lot of attention and play a major role for households, businesses and policy makers. However, the impact of the demographic trends on the economy is of an entirely different magnitude compared to that of fluctuations in a regular business cycle. For a single year, for example, relatively small differences in GDP-growth may signify the difference between a good and a mediocre development in employment. But movements in the business cycle are like ripples on the surface compared to a tidal wave from demographic trends.

The government's so called Long Term Inquiry has emphasised that the goal of increasing funding for welfare can hardly be financed through tax increases.<sup>5</sup> The Swedish association of Local Authorities and Regions (SKL) has made a calculation that an increased demand for welfare services, all else being equal, would require a 13 percentage point rise in local government taxes (see Chapter 2).<sup>6</sup> As Sweden already has one of the world's highest taxes, it is neither realistic nor desirable to finance increased welfare with higher taxes (see Chapters 2, 6 and 7).<sup>7</sup>

A central question in this discussion is how demand for welfare services will develop. A greater number of older people

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<sup>5</sup> See, for example, SOU, 2008:105.

<sup>6</sup> SKL, 2010.

<sup>7</sup> See, for instance, Ds 2009:21, the final report of the Globalisation Council.



will pose a challenge for the recruitment of competent staff and for the funding to care for the elderly. Most reports indicate that we can finance the cost increases due to the ageing population at the existing level of welfare (see Chapter 2). However, most people probably expect a continued rise in the standard of welfare services. The question is thus by how much should the standard of welfare services increase? Depending on the assumptions made regarding the demand for welfare services, a so called funding gap may arise, i.e. that the revenues do not cover the expenditures. The argument supporting the assumption that the demand for welfare services will increase is mainly that when society becomes richer, people will also demand that the standard of publicly funded welfare services should increase as well. In Chapter 2, 6 and 7 we will more fully discuss this assumption and argue that along with other key issues, this assumption must be carefully examined. For instance, it is not self-evident that the mix between private and public welfare services must remain the same as today.

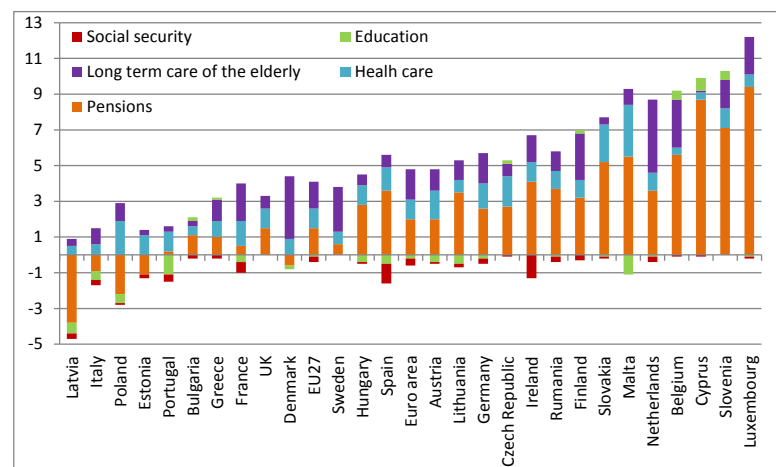
*Where do the increased costs of welfare services arise?*

As we live longer and are healthier, the demand for welfare services changes. Some of these changes are easy to understand while others depend on a number of assumptions and will be discussed more in detail in Chapter 2.

It is mainly in four areas of welfare where there will be cost pressures: pensions, health care, long term care, and education. In many EU and OECD countries where costs associated with the ageing population were already a significant challenge before the financial crisis, the situation has deteriorated further. For the EU as a whole, the EU-Commission estimates that the costs will increase by 4-5 percentage points of GDP by 2060, but the numbers hide rather large differences between different

countries.<sup>8</sup> A Study under the auspices of the Swedish Fiscal Policy Council indicates that in many respects Sweden does not face quite as difficult a challenge as a number of other countries.<sup>9</sup> For many EU countries, increased pension costs are a large part of the explanation for increased total costs, but this does not apply to Sweden to the same degree (see Figure 1.3). However, methodological differences make it difficult to compare pensions systems.<sup>10</sup> Another explanation is that Sweden is slightly ahead of many other countries in that it has a higher proportion of elderly (see section 1.4). It also appears that the expected cost increases from now until 2060 in Sweden is in the lower range compared to other EU members and amounts to about 4 percentage points of GDP.

**Figure 1.3 Increased costs for welfare services in the EU 2060, percentage points of GDP**



Source: European Commission, 2012.

<sup>8</sup> European Commission, 2012.

<sup>9</sup> Hagist et al., 2012 compares Sweden with Norway and Germany in several respects in terms of fiscal sustainability and intergenerational justice. One conclusion is that Sweden is better equipped in all the dimensions compared.

<sup>10</sup> See OECD, 2011e.

We are living longer and remain healthy for a longer portion of our lives. However, at the same time, the differences in health within a generation will increase. Earlier, people worked a long part of their lives and the life expectancy after retirement was only a few years. However, older people now have better health and will thus be able to work longer and have less need for health care than earlier generations. At the same time, there will probably be some older people who live long but in poor health, for example with dementia, and who will need much more health care and help. Appropriate treatment for the number of older people who will require much more care may also come to be more expensive than today, in that quality developments often drive costs. Some argue that the increasing costs from those with greater needs for health care will exceed potential efficiency savings and from having more older people in better health. Long term care will undoubtedly be a challenge, but a higher total cost should not be taken for granted. Although there are studies showing that the public sector in Sweden is effective, there is still a potential to deliver the same welfare services at a lower cost. We will return to this issue in Chapter 6.

#### *Who should perform the welfare services?*

Welfare must not only be funded but also delivered – by someone, and often in some particular location. The place has become less relevant, as technology now enables us to deliver some elements of education and even some medical help using electronic services. However, many welfare services, such as nursing and caring for the elderly, will still need to be performed at a particular location. In more concrete terms, it will remain a challenge to make the jobs in the welfare sector, such as in schools, health care, and long term care attractive and to ensure that skilled staff can be recruited in the whole country. The difficulties of providing skilled staff may be different in rural compared to urban areas (see Chapter 3). While the welfare

sector has a great need for staff, the private sector will also need to secure highly skilled staff.

### 1.3 Why make long-term demographic projections?

*Demography is of great importance to welfare services*

Before we discuss the challenge of financing welfare, it is important to first address a common objection: Is the future not so uncertain that it is pointless to discuss what will happen in 2020, 2050 or even later? Given how difficult it is to make GDP-projections, it should be even harder to make forecasts about the development of welfare well into the future.

The questionable ability of economists to make short-term forecasts should not be used as justification to question the quality of demographic projections. A country's economic voyage must take into account many winds, but ignoring the strong trends in demographics may result in a failure to reach land. Without pushing the metaphor too far, there are examples of countries that have ignored – or largely ignored – demographic development and have consequently faced great social tensions. In Nigeria, for instance, the population is currently about 170 million. In about 25 years, the country's population is expected roughly to double, which in broad terms means a population corresponding to that of the U.S. – in an area that is only about twice as large as that of Sweden. Even today there is overcrowding in Nigeria, a welfare problem that affects many dimensions of the quality of life, not least education and health care.<sup>11</sup>

We need not turn our gaze all the way to Africa to see how the demographic development may jeopardise welfare. In Russia, the birth rate today is among the lowest in the world. This combined with poor health has made Russia one of the few countries that has had periods of declining life expectancy in the

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<sup>11</sup> Rosenthal, 2012.

last quarter century. China's one-child policy which limited increase in population growth is now creating a severe dependency ratio as the population ages, especially as there is no established system to care for the elderly.<sup>12</sup> It is sometimes expressed that China will become "old" before it becomes "rich". In the United States, new statistics suggest that on the life expectancy for those with the lowest education is declining.<sup>13</sup> The European Commission estimates that in some EU-countries, such as Poland, Slovakia, Romania and Latvia, the old-age dependency ratio will increase by more than 40 percent, as measured by the number of people aged 15-64 against other age groups.<sup>14</sup> Sweden belongs (along with Denmark, the UK, Norway, Ireland and the Netherlands) to a category of countries that the EU Commission estimates will see the lowest relative increase in the dependency ratio, while some of the most indebted EU countries, e.g. Greece, Italy and Spain, only for demographic reasons might have to handle a significant increase in the burden of public welfare funding.

The relationship between the old-age dependency ratio and conditions that affect how welfare services are delivered should not be considered only from a narrow economic perspective, but also from an institutional and cultural perspective. In Sweden, we have already developed welfare services for the long-term care of the elderly and to have childcare with preschool that provides opportunity for both parents to work. In parts of Asia and Southern Europe, to take two other examples, there is a tradition of parents being helped by their (grown-up) children in the family rather than organised through public welfare services, and women are often expected to take a pause or completely abstain from work when children are born. The significance of this is that economic challenges of an ageing population are not all that matters, but also the values prevailing in society and our views on the division of roles between the family and the state.

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<sup>12</sup> See for instance The Economist, 2012a.

<sup>13</sup> See for instance Tavernise, 2012.

<sup>14</sup> See the European Commission, 2012.

Values play a central role in how we see the challenge of the ageing population (see Chapter 4).

### *Degrees of uncertainty*

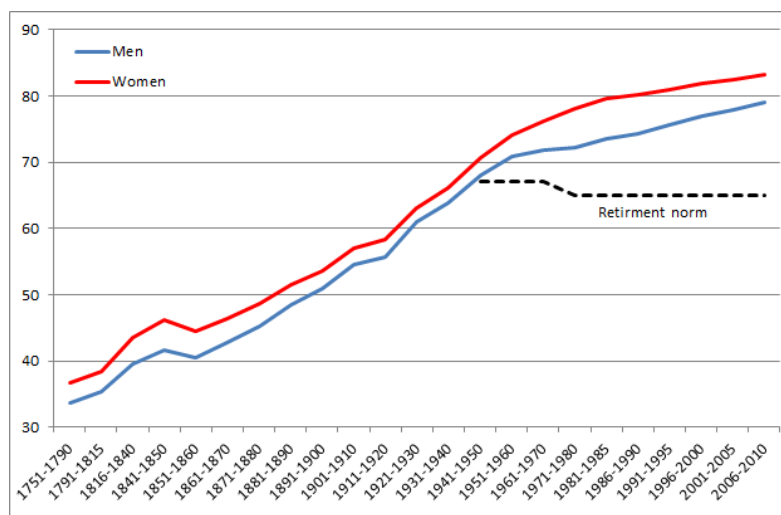
Demographic projections are not as fragile as economic forecasts, but of course they are still subject to uncertainty. The least uncertain part of demographic projection is in regard to life expectancy, which is mainly influenced by how long we live but also by child mortality. It is clear from figure 1.4 that life expectancy has increased markedly in Sweden in recent centuries. In the not too distant future, nearly half of all who are born are expected to live for over 100 years.<sup>15</sup> That life expectancy will continue to gradually increase seems very likely. In the latest long-term projection by Statistics Sweden, men are on average expected to live for 87 years and women for 89 years by 2060, which represents an increase of 7 and 5 years respectively compared to today. Only long term hazards, epidemics or war could disrupt the trend towards increased life expectancy.<sup>16</sup>

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<sup>15</sup> Christensen et al., 2009.

<sup>16</sup> Despite epidemics, starvation and war, life expectancy has increased steadily in the last several hundred years. There is some medical research that aims to directly to slow our ageing. However, the assumption underlying this report is that life expectancy only increases slowly according to the forecast by Statistics Sweden.

Figure 1.4 Life expectancy in Sweden



Sources: Statistics Sweden and the Swedish Pensions Agency.

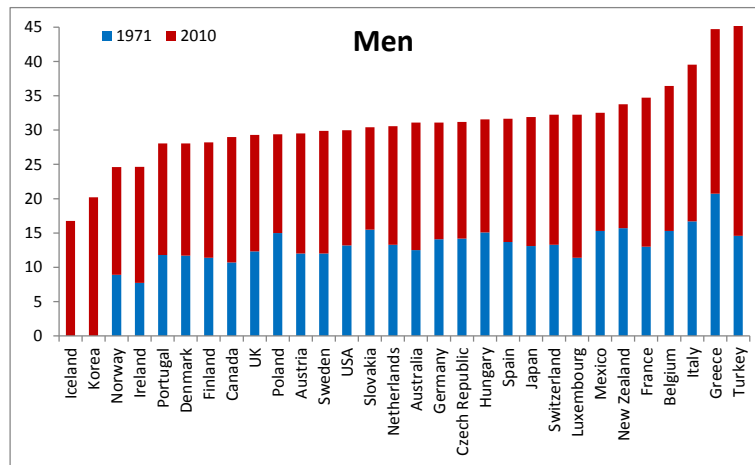
The increased life expectancy means that the number of years with pension increases if the current pattern is maintained (see Figures 1.5a and 1.5b). Thus, unless working life is extended, the number of years of retirement will increase in all OECD countries.

Somewhat less certain, but still rather predictable, is the extent of childbirths. In the early 1900s, about 4 children were born per woman in Sweden. Since the 1930s, the number of children per woman declined and is now just below 2 children per woman.<sup>17</sup> Across the EU, the number of children per woman is expected to remain well below 2.1 by 2060, which is often considered the number at which the population remains roughly constant from one generation to the next. This means that the EU population is expected to grow until 2040 and then begin to decline. Sweden is currently one of the European countries with

<sup>17</sup> See SCB 2012 (Statistics Sweden), Chapter 3 for a discussion of fertility in Sweden and p. 138 for a comparison with the EU.

the highest birth rates, along with France, Ireland and Great Britain.<sup>18</sup>

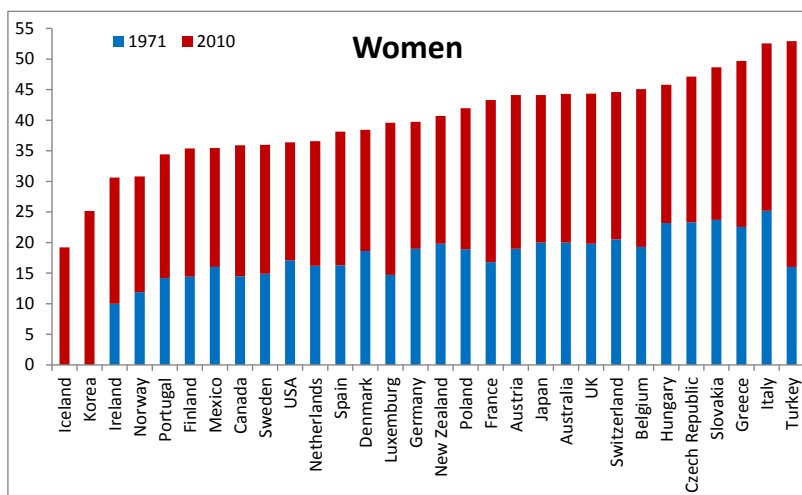
Figure 1.5a Years in retirement, men



<sup>18</sup> European Commission, 2012.



Figure 1.5b Years in retirement, women



Sources to both 1.5a and b: OECD.

It is worth emphasising that a high birth rate is not the same as high welfare, even though in the demographic projection it implies that the challenge from financing the ageing population is not as severe in Sweden as in many other countries.

The most uncertain element of demography projections is the migration.<sup>19</sup> The uncertainty is not just about the number of people who migrate to Sweden but also about their level of education. Differences in languages and levels of education among immigrants imply significantly different conditions for chances to enter the labour market. There are periods where a significant percentage of immigrants were highly qualified, but there are also periods where the reverse has occurred. As it is difficult to predict how immigration will develop – depending on war and poverty in our world – it is necessary to use different scenarios to illustrate a range of possible outcomes.

<sup>19</sup> See for instance Wadensjö, 2012.

## 1.4 Trends in Sweden and abroad

The trends we see in Sweden for the economy and the ageing population is largely the same as in the rest of the world, albeit to varying extents. In this section, we describe some general trends. The aim is to provide an overview of some factors related to demographics rather than provide a comprehensive picture. Questions relating to the environment, integration, equality, democracy and social cohesion are central, but they are discussed only to a limited extent and are covered in other reports from the Commission on Future Challenges for Sweden.<sup>20</sup>

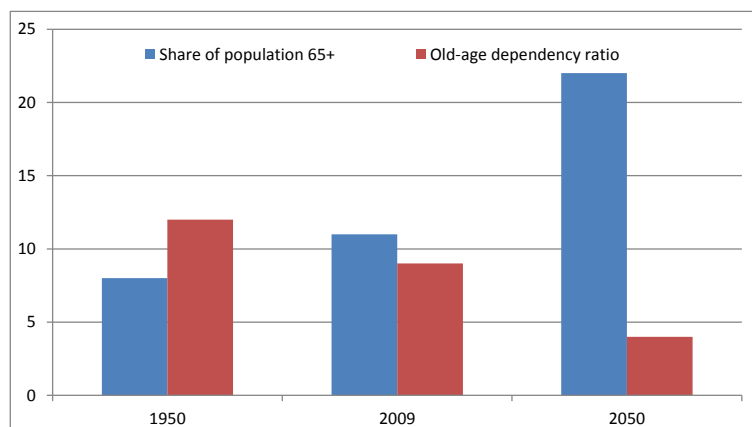
### *Ageing in the world*

In almost the entire world there is a strong shift toward more older people compared to the number of younger people. Lower child mortality, increased reliability of social security systems and better health, often linked to greater economic well-being, have resulted in a significant age shift in the world's population. According to one assessment, the share of the world population that is over 60 years will be 22 percent in 2050, compared to 11 percent currently and 8 percent in 1950. For the development of the dependency ratio, this means that 12 people who worked for every older person (65+) in 1950 has been reduced to 9 persons in 2009 and is expected to fall to four people in 2050 (see Figure 1.6).<sup>21</sup>

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<sup>20</sup> See Hojem, 2013, Joyce, 2013 and Levay, 2013.

<sup>21</sup> United Nations, 2009 & 2010.

**Figure 1.6** The world's ageing population

Note: The old-age dependency ratio as defined by how many are in the age group 15-64 compared to the number of persons 65+.

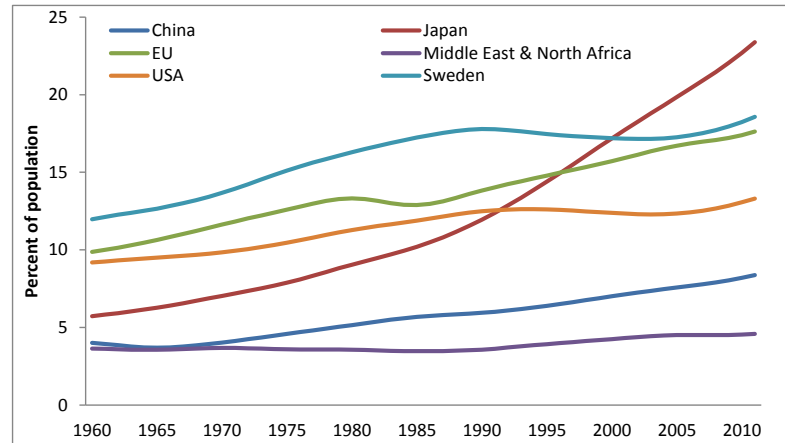
Source: United Nations, 2009.

The world's old age dependency ratio is not as skewed as that of the EU and the OECD. The challenges – particularly in the developing countries – are of a somewhat different nature compared to OECD countries. The costs of more developed social security, health care, education and long term care represent a growing percentage of GDP but they also represent basic security in society. To illustrate, there are calculations indicating that 4 out of 5 persons employed in the world are not covered by public pension systems.<sup>22</sup>

It is clear from Figure 1.7 that Japan, which has the oldest population in the OECD, has a high dependency ratio, but also that Sweden is ahead of many other countries in this regard. Several other countries are facing choices that Sweden had to tackle earlier, and this is part of the reason why Sweden's starting position is now less unfavourable than that of many other countries.

<sup>22</sup> See Forteza et al., 2009.

Figure 1.7 Share of 65+ of the total population



Source: The World Bank.

### *Urbanisation and depopulation of rural areas*

Since industrialization, there has been a steady flow of people from work in agriculture, forestry operations, mining etc. to jobs in factories, service sector and retail, often in – or in connection to – cities. This is a trend that has been going on relentlessly, albeit in different speeds. It is driven by a variety of factors, some of which will be discussed in Chapter 3. As technology is increasingly used to increase production and efficiency, fewer people are needed to perform the same job as before in agriculture and forestry; the other side of the coin is that more jobs in the private services and with a higher level of skills to handle the machines will be required.

Rural depopulation is a significant challenge and many countries implemented policies to mitigate the effects of urbanisation and maintaining a living countryside. A recurring theme in this report is that many issues affecting ageing are intimately linked to the values of society. France, which makes

large contributions to agriculture, especially through the EU's Common Agricultural Policy (CAP), and Norway, use significant resources to increase the incentives to live and work in rural areas. In Sweden, we have a municipal tax equalisation.

Most OECD countries have some form of support to rural areas, but in different ways, reflecting different political systems, institutions and values. However, regardless of the support systems used, it has only been possible to mitigate urbanisation to a limited extent. Even in a rich country such as Norway, which invests a lot of resources in rural areas, urbanisation continues unabated. In Chapter 3, some aspects of this are discussed.

### *Trade and globalisation*

While globalisation has been key to increasing prosperity, its effects have caused strong reactions in many parts of the world, much more so than the reactions to the continued depopulation of the countryside. The technological developments that spread through trade cause a squeeze on achieving profitability in the rural areas, at least when the nature of the small-scale production cannot be offset by other factors. Global production chains can exploit scale and hence have a pressure to push costs down in ways that are difficult or impossible to achieve in rural areas. With the possibility for rapid transport, including perishable goods like fruits and vegetables, the competition for these products has become essentially global. Today, we can buy most food-stuffs, regardless of season. Decreased transportation costs and lower tariffs have increased global trade and increased competition also in areas that were hitherto rather protected. At the same, on some occasions we are acutely reminded of how vulnerable global supply chains can be.<sup>23</sup>

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<sup>23</sup>Some examples from recent years: the volcanic eruption in Iceland, the tsunami in Japan, flooding in Thailand, and, on several recent occasions, the quality and origin of processed food.

In Sweden, the process of structural change has resulted in large shifts in the labour market that have been challenging. But our model has coped and the structural changes are allowed to continue unabated to improve productivity and growth. Textiles and shipbuilding industries are two examples of industries that previously existed in Sweden but which have now basically moved elsewhere. In recent years, large adjustments have been made in the Swedish telecom and automotive industries. Sweden has probably gone further than many other EU countries in adapting to the global economy. In much of Southern Europe, for instance, textile-industries face significant challenges in the form of competition from Asia.<sup>24</sup>

The impact on the global economy of the changing competitiveness must be considered. The discussion in this report, however, is limited to the factors of global competition that are relevant to the demographic challenges.<sup>25</sup>

A global trend that has central relevance to economic development - and also for demographics - is the shift from jobs in the manufacturing sector to work in the service sector. Although there is a firm trend that jobs disappear in the manufacturing industry increasing value added is continually achieved through productivity growth. Meanwhile, new jobs are created in the private service sector. Notably, fewer and fewer services are inherently local in nature and as competition for those services increase, so do the demands on skill requirements, especially as productivity growth is generally lower in the service sector compared to manufacturing. It is the technical development that drives the trend toward fewer jobs in manufacturing and more jobs in the service sector - robots that make cars, digitisation, global production value chains and just-in-time inventory management. In Sweden, we have chosen a model with flexible education and social security systems to facilitate job-seekers' transition to new jobs. As a result,

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<sup>24</sup> See for example Segal, 2010 and IMF, 2012a.

<sup>25</sup> See Ds 2009:21.

individuals and Swedish society at large are continually challenged by the demands of the omnipresent process of structural change.

From a demographic perspective, the increased use of technology has been not only an issue for economic welfare but also a physical one. Many heavy jobs lost have been replaced by machines – and this is a great success for welfare and well-being. Building roads and railways in Sweden were previously back-breaking jobs that contributed to low life expectancy. The same was true for agriculture. Several countries in Asia are now exposed to the challenge of managing generational shifts in, for instance, rice production and thereby partake in the technology leap that has already occurred in OECD-countries. Standing in the sun for hours working with rice plants is a hard job and young people in Asia are drawn to the freedom and opportunities of the big cities, not unlike what happened in OECD-countries in past decades.<sup>26</sup>

Quite regardless of demographic trends, one consequence of globalisation is that education and highly skilled work become ever more important. Developing countries can compete through low prices, while OECD- countries – and increasingly BRIC-countries and the so-called emerging markets – need to compete with both price and quality.<sup>27</sup> The challenges of globalisation will be discussed in Chapter 5, primarily from the viewpoint of the requirements that are posed for matching and skills requirements in the Swedish labour market.

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<sup>26</sup> See Fuller, 2012.

<sup>27</sup> See for instance Barro and Sala-i-Martin, 2003; Rodrik, 2011. BRIC is an abbreviation for Brazil, Russia, India and China.

*Female labour participation high in Sweden, with more potential in other countries*

In many countries, there is a great potential in the possible higher female labour participation rate in paid employment. Sweden is in many ways a leading country in this respect with a female work participation rate that is among the highest in the world. This also means that Sweden does not have the same potential as other countries to increase its labour force. This area is largely driven by values but it is also evident that political will, institutions and regulations have altered – and continue to alter – the landscape of how men and women work.<sup>28</sup> Notably, the development of childcare and social security systems over many years have enabled women in Sweden to participate in the workforce to a much greater extent than in other countries.

The incentives and support mechanisms in the Swedish model have probably been a factor contributing to the number of births in Sweden being higher than in many other OECD- countries. More specifically, while in Sweden on average just below two children are born per woman, the number is significantly lower in parts of South and Central Europe. In Italy, for example, 1.1 children are born per woman. It is likely that there is a link between the availability of childcare and social security systems, and how many children are born. Women who are faced with the choice of having a career or having children increasingly often choose the former. The problem that arises is not the lack of population increase per se, but rather that the age distribution becomes so uneven.

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<sup>28</sup> For an overview of values, see Halman et al., 2012; Ingelheim Hart & Welzel, 2005; Ingelheim Hart et al., 2006.



*Discrimination is harmful to economic growth*

Globalisation, of course, requires of employers to hire the right person for the right job, whether man or women, immigrant, young or old. Ethical considerations should be consonant with economic ones. In fact, to exclude any group is difficult to defend on the basis of productivity and profitability requirements.

Some research indicates that societies that have less inequality may have a higher growth.<sup>29</sup> Even though there is no consensus on this point, it seems likely that growth will be lower in a society or an economy that does not make use of the potential of the entire population.

Even without discrimination, there may be large differences in pay in a society. It is fundamentally a good thing that people can reach success through work and it is one of the reasons for the success of the market economy. However, when the differences in salary or possession of capital are perceived to be high or unreasonable, they can create tensions in society, something that has received renewed attention in the aftermath of the financial crisis.

*Challenges in the different stages of life*

In this report, we mainly discuss questions relating to demographics and the attitudes towards older people. One important issue is how long we work and what barriers there are for older people to remain in the labour market (see Chapter 4 and 5). Another question is whether attitudes to and the attitudes towards working life needs to be adjusted to enable people to cope with extending the years in work.

A stereotypical model illustrates the anachronistic features of working life as life expectancy continues to increase: some number of years in education, followed by 40 years in the same

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<sup>29</sup> See for example Persson and Tabellini, 1994.

job, and finally a long period of retirement. If life is divided into different phases, it is clear that people face different challenges at different stages of life:

- The young face pivotal choices on education and work.
- Parents of young children need to cope with many conflicting requirements: work, time with children and, not least, sleep.
- Physical work becomes more difficult with age.
- Older people who want to continue work are hampered by rules and attitudes in firms and in the labour market as a whole.

Chapter 4 discusses some of the challenges that the individual is facing when trying to navigate a balance between work and leisure. Research suggests that both the framework of rules and attitudes are key factors. There is no simple model that works for everyone. It is a challenge for the individual to respond to the demands of work, education, family and leisure during different phases in life. One issue discussed more in Chapter 4 is the notion of not limiting work to only one job over the lifetime and raise the possibility that, for some people, a second or third career could be beneficial.

#### *Global interest rates and demography*

The world's ageing population may also affect the global interest rate and the current account. One study suggests that the volume of savings may be greater in countries where the age group 35-69 years increases as compared with the rest of the population.<sup>30</sup> When this group is increasing relative to other groups and saves more than the others, this results, all other things being equal, in downward pressures on the global rate of interest. Another effect could be that countries with a larger

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<sup>30</sup> See Wilson & Ahmed, 2010.

proportion of the population in the age group 35-69 years tend to accumulate current account surpluses, if their saving are higher than in other countries. However, it is difficult to make an overall assessment of what these effects may mean, as the current account and the global interest rate are also affected by many other factors.

*Technology - improves productivity and reduces handicaps*

Technology permeates most of society today and will certainly continue to do so. How we use it at work – robots and other technology – is important to our well-being and for health care. In this report, technology will be discussed primarily from the perspective of how it may indirectly lead to higher productivity and prosperity, and how it can make it easier for older people to live and work.

As we get older, our reaction time and strength gradually deteriorate. Elder people can hardly compete with younger in branches where pure strength or speed is decisive. However, jobs require less and less heavy physical work. With technology and various tools the significance of age and gender can be reduced or even made to be completely irrelevant in many jobs. Cranes and other lifting devices can be operated by quite old people; in surgery, surgeons can use robots and IT to perform ever more advanced procedures. The importance of knowledge and experience increases while brute strength and speed of reaction become less important.

In some professions there obviously remain many large elements of physical work. In healthcare, nurses need to perform heavy work that only to a extent can be automated. Many services are also difficult to rationalise, such as haircuts and catering and cleaning services. Blue-collar workers and farmers certainly are greatly helped by modern tools and machines, but elements of physical work remain.

There is no consensus among researchers on how productive older workers are (see Chapter 4). There are some studies, notably from Germany, indicating that in some cases the elderly may be more productive than their younger colleagues, but there is also research that indicates the opposite. Some are of the view that the important thing is the composition of the work team. However, measuring productivity at the level of the individual is not unproblematic, as the individual often performs within a group and it is the group's performance that matters. The effective use of the skills of older people is dependant on both attitude and management. A good leader organizes his or her group to make the whole more than the sum of its parts, including of course the benefit of more experience, typically the domain of older workers.

Although we certainly cannot erase the differences in age, it is clear that technology can be of help. It may also facilitate the provision of specialised services in rural areas. Through access to the internet, it is possible to get help regarding medication and advice on specialised health care, regardless of where in the country patients live. It is a challenge for society to use available technological tools to reduce the difficulty of providing comprehensive welfare and social services in rural areas (see Chapter 3).

## **1.5 Structure of the report**

The purpose of this report is not to come up with proposals for solutions; rather it is to identify possible trends derived from demographics and to discuss the challenges these may raise for obtaining welfare services in the future. One aim is to map different strategies to meet the challenge in a way that maintains and develops welfare and to discuss how effective different measures may be. All of the tools are not equally important, but the challenges are also of such character that they will need to be

met with a broad range of responses. Much will depend on how individuals manage future challenges. No magic solution exists.

Inevitably solution strategies tend to be strongly linked to political beliefs and values. At the same time, our intention is to avoid taking positions on political issues. The aim is to present alternative approaches and to discuss how the demographic challenge can be met without impairing the development of welfare services. So far, the debate about the ageing population in Sweden has focused a lot on what the public sector should do and how welfare is to be financed; these are central issues but it is also urgent to discuss the challenges that *everybody* will face, a matter that hitherto has not received the attention it deserves.

This report consists of 7 chapters. Chapter 2 deals with growth and prosperity, and provides a framework for the other chapters. Above all, this chapter discusses the limitations that the market economy will impose on how we can address the challenges of the ageing population. Some proposed solution strategies work better than others, while others may even be directly harmful to the development of welfare services.

Chapters 3-6 discuss the challenges of demographics from different perspectives. Chapter 3 discusses challenges to regions, mainly involving local governments and regions in different parts of the country as well as governmental agencies. Notably, different institutions have responsibilities at the local or regional level, and this is true also for the challenges from the ageing population. We will not discuss the allocation of responsibility between them; rather the ambition is to highlight the magnitude of the challenges and the factors that are deemed most important.

Challenges for individuals are discussed in Chapter 4. Why have a full chapter on this question? One important reason is that the ageing population will affect *everyone* in virtually all phases of life – how we view school, work and family. Much has been written, to be sure, about the family and the puzzle of balancing work and family, especially those with small children. However, this chapter looks as a starting point at the kind of

solution strategies that we may need to consider. More specifically, issues are identified that will be relevant for the individual to extend his/her working life and maintain a high productivity. This will be crucial to allow us to attain a continued high increase in the standard of welfare services. It is important to emphasise that the challenge of the ageing population is not something that affects “other people”; indeed, the individual plays a key role, and many adjustments will need to be based on how we look at our *own* lives and the goals we have.

Challenges for firms and the social partners on the labour market are discussed in Chapter 5, which in part mirrors the challenges that individuals will be facing. The focus is on firms in the private sector but also employers in the public sector are faced with the same issues. So far, Swedish firms have – as measured by international standards – adapted *too little* to the ageing population and to the need to extend working life.

Challenges for the public sector are discussed in Chapter 6, which deals with the entire public sector, but especially on challenges for health care, education and care for the elderly. This inevitably means some overlap with Chapter 3 that concerns challenges for regions. Chapter 6 focuses more on systemic issues. Different scenarios are discussed about how to continue to increase the standard of welfare services and how to continue striving for more efficiency in the public sector.

The report concludes with Chapter 7 that provides a summary of possible options, taking into account that they are interconnected.

## 2 Growth and welfare

"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."

Mark Twain

How much welfare do we want to fund through the public sector and the tax system? And how will demand for that welfare change in the future? These are key questions in the political debate. They are rooted in our values and they must have solutions that can be borne by the economy.<sup>1</sup> The aim of this chapter is not to take any position on these issues; rather the intention is to point to the factors that indicate that as the population ages, demand for welfare services may be greater than what is possible to finance through public funds given the prevailing level of taxation. Sometimes the term "funding gap" is used to illustrate this challenge. A theme that runs consistently through this report is that what will be required to sustain a rising welfare standard is an increase in working life. This can be achieved by earlier entry into – and later exit from – the labour market.

Several assessments indicate that the funding gap may be significant, at least if no measures are taken. A factor complicating the debate is that value judgments and economics have a tendency to be intertwined - or at least not to be clearly spelled out. The role of the economic analysis should be to show the assumptions that are made, how sensitive the results are to

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<sup>1</sup> For a discussion of the different welfare models, see for instance Esping-Andersen, 1990.

different assumptions and to illustrate the consequences of different assumptions. While the design of welfare is and should remain a political issue, the economic analysis should be a tool that facilitates and helps to spell out the options and what they mean.

In this chapter, we discuss the general goals for long-term economic policy. With these goals as background, we briefly discuss the cost of publicly financed welfare services since 1980, and review different assessments made of the future demand for welfare services. We limit the discussion to welfare services financed by public funds whether delivered through public or private organisations.

## **2.1 Welfare – objectives, resources and constraints**

There is broad parliamentary support in Sweden for the fiscal framework, consisting mainly of the surplus target and the ceiling for government expenditure.<sup>2</sup> These objectives are cornerstones of the design of economic policy in the medium term.

To discuss the demographic challenge in the light of the existing framework, we need to shift our gaze from the medium to the long term. The expenditure ceiling sets a limit on the total public spending in the medium term. Since its introduction in 1997, the ceiling has been a key instrument for responsible fiscal policy and it may become even more important in the future in the light of cost increases caused by demographic trends. The surplus target has several aims. It should contribute to:<sup>3</sup>

1. long-term sustainable fiscal policy

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<sup>2</sup> The surplus target requires that the average financial saving should be 1 percent of GDP over a business cycle, the expenditure ceiling is a ceiling on total public spending three years ahead expressed in a nominal amount.

<sup>3</sup> See for instance Ds, 2010:4.



2. even distribution of resources between generations
3. economic efficiency
4. sufficient margins to avoid deficit during recessions.

In this chapter, it is primarily the first three aims that are relevant to the discussion of welfare development.

### 2.1.1 Long-term sustainable fiscal policy

There is research indicating that economic growth is hampered by large public debt.<sup>4</sup> It is therefore important that fiscal policy is sustainable. Growth is dampened mainly in two ways. Firstly, the payments of interest on the debt becomes large, leaving less room for other spending, including those for welfare services. They might also leave less room for private investment. Secondly, a large public debt inhibits private investment and consumption because there is a risk that the country cannot pay back the loans, creating a general uncertainty about the entire economic development. The recent debt crisis in several EU countries and the high debt levels in Japan and the United States show the problems that may arise.

The requirement that fiscal policy should be sustainable is a basis for the solution strategies that are discussed in Chapter 7. The easiest way is to regard the requirement as a ceiling for what is possible to do, given how much we work and how productive we are. Above a certain level, fiscal policy is not sustainable but below this level, options exist.

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<sup>4</sup> See for instance, Cecchetti et al., 2011, showing that a national debt of 80 percent of GDP inhibits growth. Reinhart & Rogoff, 2010, find that a national debt of 90 percent on average reduce GDP growth by about 1 percentage point in the median, all else equal. Measured by usual average, where the entire distribution is given greater weight, the effect is even greater. There is fair consensus on the qualitative results that higher debt overs some level may affect growth, but the exact magnitude of these results have recently been questioned by Prof. Robert Pollin and Michael Ash at University of Massachusetts Amherst.

### 2.1.2 Equitable distribution of resources between generations

An even and equitable distribution of resources between generations is a central matter in a discussion of the extent of future welfare services. Although most people probably share the view that welfare should be distributed fairly evenly between generations, in practice this is not easy to achieve.<sup>5</sup>

*Future generations mostly have higher welfare - but not always*

In most OECD countries younger generations enjoy higher GDP per capita and have a higher standard of living than earlier generations – as a result of technological developments and productivity growth. Although welfare and living standards are not the same, it is clear that in many respects the younger generation benefit from improvements in life, for instance, through increased life expectancy.

That life will always be better for future generations is not a law of nature, however, but depends on the general economic development, and there are exceptions even among OECD-countries. Some believe that the older generation in Japan, that has one of the "oldest" populations in the world, are better than those who are now working.<sup>6</sup> On the basis of so-called generational accounting, the International Monetary Fund (IMF) made an assessment that those over 60 years in Japan carry a much smaller public finance burden during their lifetime than that carried by those who are younger.<sup>7</sup> There are also signs that productivity growth in Japan has been held back by the

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<sup>5</sup> For a discussion about justice and ageing, see Tremmel, 2008; for generational accounting, see Auerbach et al., 1999.

<sup>6</sup> Japan's strong exchange rate has led to the pensioners' purchasing power for imported goods is strong while the working generations wages have been held back for two decades due to slow growth, see e.g., Fackler, 2012.

<sup>7</sup> See IMF, 2012b, p. 13. The older generations have a considerably higher discounted present value of the net revenue and expenditure of the public sector than younger generations. Generational accounting is discussed later in this chapter.

demographic development, which comes on top of Japan's already record-high public debt and the aftermath of the financial bubble that burst in the early 1990:s.<sup>8</sup>

*The ageing population is a challenge for equitable welfare, which is hampered by high government debt in many OECD countries*

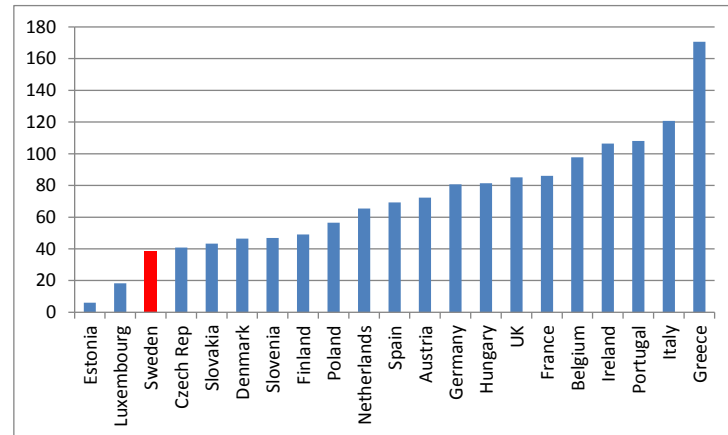
Fairness between generations is one of the biggest challenges in the financing of welfare when populations are ageing. The rising old-age dependency burden in the world is part of this challenge that is complicated by the public debt that was a challenge in several OECD countries even before the financial crisis. Sweden has a low debt today, a bit below 40 percent of GDP, but for many EU and OECD countries, the government debt provides a challenge when it comes to achieving fairness between generations (see Figure 2.1).<sup>9</sup>

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<sup>8</sup> See for instance Shirai, 2012.

<sup>9</sup> See Ministry of Finance, 2012 for a long-term projection of the Swedish public debt. Calculations indicate that the national debt will continue to decrease from today's levels, all else equal.

Figure 2.1 Gross government debt in the EU 2011, percent of GDP



Note: The definition of public debt according to the Maastricht criteria.

Source: OECD.

### *How consolidation is implemented affects intergenerational fairness*

How and at what rate should large public debt be reduced? When some EU countries have government debt that far exceeds 100 percent of GDP, it is easy to forget that even Germany, which in 2011 had a deficit of over 80 percent of GDP, is significantly above the limit of 60 percent of GDP that was agreed in the Stability and Growth Pact.

It is important to emphasize that the *pace* of consolidation and the *instruments* that are chosen affect generations differently. For instance, if taxes on labour are raised this is to the disadvantage of those working, while cuts in welfare services are to the disadvantage of older people in need of health care or long-term care and to youth who need education. Achieving fairness between generations is not easy in practice even under normal circumstances, and the task is further complicated by the large public debts in many countries.

*Various aspects of intergenerational fairness*

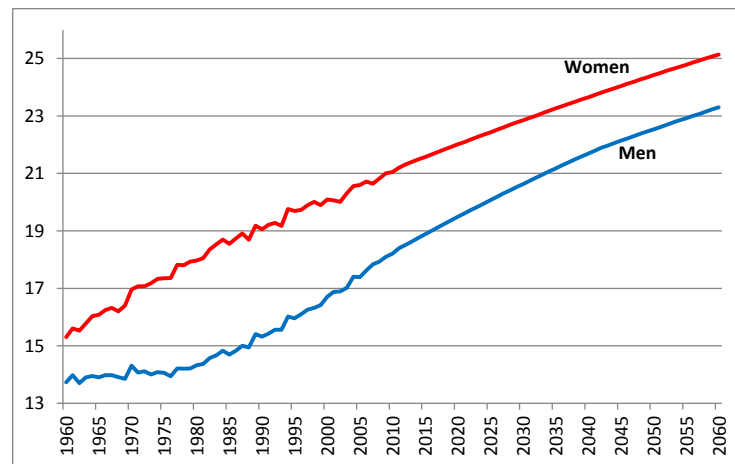
It is hard to imagine any single measurement of fairness that could have universal acceptance, and since there is no such measurement covering all relevant aspects, it is reasonable to use several different measures simultaneously. One way would be to sum up – and appropriately discount – the welfare services that a representative individual enjoys over his or her lifetime.<sup>10</sup> If this amount is about the same between successive generations, is it an equitable outcome? The answer is not obvious, as the average life expectancy has increased markedly over the last centuries.

Figure 2.2 below shows how the number of expected years of life after age 65 – i.e. years of life in relation to the pension norm – has gradually increased. Today, men and women have on the average about 18 and 21 years left in life after age 65, which is often considered the retirement norm. However, in spite of the increased life expectancy the pension norm has remained largely unchanged over the past decades. During a period before the mid 1900s, the retirement age was about the same as the life expectancy. Today this would correspond to a retirement age of about a dozen years more than today's retirement norm of 65.

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<sup>10</sup> Expressed as a formula, two different generations  $s$  and  $t$  could be said to have similar economic benefits over their lifetime if  $\sum_{t=0}^T p^t u(c_t, l_t) = \sum_{t=0}^T p^t u(c_s, l_s)$ , where for generation  $t$ ,  $p$  is a discount factor,  $T$  is the lifetime and  $u$  is the utility of an individual based on consumption  $c$  and leisure  $l$ .

Figure 2.2 Life expectancy in Sweden after 65 years age, actual and forecast



Source: Statistics Sweden.

*Assumption of unchanged policies illustrates the possible consequences*

One method used in long-term projections is to assume that there are no changes of policy, i.e. assume that existing spending patterns and rules continue – a practice routinely followed by the Ministry of Finance in Sweden in its long-term calculations. If taxes do not need to be increased to cope with such projections, it is a sign that the fiscal policy is sustainable.<sup>11</sup> This is a relatively simple, but somewhat blunt approach. For example, the calculation ignores that the population may demand welfare services of higher quality or of different scope. It also does not take into account that part of welfare policy involves some smoothing of income via the tax system – the so-

<sup>11</sup> See Ds, 2010:4, Chapter 5. The method is used, for instance in surveys and calculations on long-term fiscal sustainability. There are several indicators, including the so-called S1 and S2 indicators. See also Hagist et al., 2012.

called distribution policy. One can also discuss the real meaning of an 'unchanged policy': Does it mean unchanged rules or an unchanged standard?

Despite these complications, the assumption of unchanged policies is a valuable tool and can be used as a starting point for discussions regarding choices in welfare.

*The redistribution of public resources within a generation is much more extensive than the redistribution between generations*

Through so-called generational accounting, one can calculate how much different generations pay in taxes to the public sector and how much they get back during their lifetime. One study shows that reallocation of public resources in Sweden within a generation is much larger than the reallocation between generations.<sup>12</sup> Explicit regard is paid in the study to the fact that a large part of welfare policy is deliberately aimed at reallocating public resources over the lifetime of an individual. According to a calculation made for the Long Term Survey of 2003, which takes into account the differences between individuals, an individual receives more than 80 percent of the taxes he or she has paid over their lifetimes, assuming unchanged rules.<sup>13</sup>

A study recently published under the auspices of the Swedish Fiscal Policy Council uses generational accounting and concludes that those born in the 1940s are the ones most adversely affected by the recent pension reform, which is in line with the findings in a previous study.<sup>14</sup> Overall, the study made for the Swedish Fiscal Policy Council shows that those who were under 40 when the study was made will have to carry the major part of the burden from the reforms. One conclusion is that Swedish teens might get 40 percent lower pensions than today's retirees. However, such conclusions must be viewed

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<sup>12</sup> See Pettersson et al., 2006.

<sup>13</sup> See SOU, 2003:110.13.

<sup>14</sup> See Hagist et al., 2012 compared to Pettersson et al., 2006.

cautiously as the analysis does not take into account all factors, notably, the rising life expectancy rate.<sup>15</sup>

*Trends in demography hampers a smooth distribution between successive generations*

When generations are roughly equal in size, fairness between them is less complicated. Uncertainty is raised mainly by the developments in the economy and the impact of regulatory changes. When generations are of different sizes, there is an added dimension of uncertainty and complexity. That problem exists now, as generations differ considerably in size, and an analysis shows that it is the decline in birth-rate during the 1900s and not the increase in life expectancy that has made the age distribution so skewed.<sup>16</sup>

When fewer children were born, some generations have become very large in relation to those coming after. Those born in 1940:s – the baby-boomers – have now largely gone into retirement and will in a few years approach 85 years of age, which is the time when many older people begin to have increased needs of health care and long term care. That generations are of different size is not unusual – but it does make it more difficult to achieve fairness between generations.

*Fairness between generations is a complicated issue and there is an advantage to using different approaches*

How to achieve a reasonably equitable distribution of welfare between generations is one of the most central issues in this report. Since fairness between generations is a complex concept,

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<sup>15</sup> For comparisons of pension systems, see SOU 2012:28, OECD, 2012e.

<sup>16</sup> An analysis by Bengtsson, 2010, chapter 2, shows that even if the life expectancy had improved between 1900-2000, the age distribution would still have been the same as today, indicating that it is the falling birth rate that explains the population trends during 20th century.



it is desirable to highlight different aspects and demonstrate the use of multiple measures. Table 2.1 shows a selection of possible measures.

**Table 2.1** Possible ways of measuring welfare of different generations

		Measure of equity
Fiscal sustainability	Can taxes remain unchanged when demographic costs increase? Stable level of debt	Sustainable
Generational accounting	How much does an individual get back from the state over a life-time?	smooth between generations
Quality adjusted duration of life	Higher life quality in old age than previously	smooth between generations
Life expectancy at retirement	Longer lifes big effect on individual's utility function	smooth between generations
Old-age dependency ratio	Comparisons between generations	smooth between generations
Comparing utility functions	Comparisons that consider consumption and leisure	smooth between generations

Source: Author's compilation.

### 2.1.3 Efficient use of resources and welfare

In the fiscal framework, efficiency is an important aspect. It is desirable that the overriding policy rules and budget framework promote the efficient use of resources and help to support the smooth functioning of the economy. For the ageing population, mainly three aspects are central - the predictability of taxes, efficiency losses through taxation and maintain human capital developments.

*Predictability of the tax system*

The first aspect concerns the financing of welfare when the population ages. In Sweden, the majority of welfare services are funded through public taxes and some through direct fees. In order for the economy to function well, taxes should be so designed as to not unduly distort incentives.<sup>17</sup> This is valid whether taxes are high or low, but it is a particularly relevant restriction in Sweden which imposes a high tax burden compared to many other countries. There is an upper limit to the tax funding of welfare.

In addition, the predictability of taxes is essential to allow households, individuals and companies to plan their activities and future without having to worry about a risk that the basic assumptions are wholly or substantially altered. Many conditions inevitably change all the time in an economy, but to allow people to chance to adapt, changes in rules and obligations are usually slow and gradual. There is much research that suggests that countries with abrupt changes in rules, significant corruption and unpredictability risk remaining poor and without growth.<sup>18</sup>

*Efficiency losses from taxes*

The second aspect concerns the level of taxes destined to finance both present and future welfare, as the population ages. Demographic changes have been cited as one of several arguments to justify the government's surplus target. In this regard, there is a clear link between efficiency and equity. On the one hand, resorting to precautionary saving avoids strong fluctuations in taxes when generations of different sizes retire. On the other hand, one can discuss how fair it is to those who are employed to pay for the large number of retirees; for this

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<sup>17</sup> For a more detailed discussion, see Ds, 2010:4, Chapter 4.

<sup>18</sup> See Acemoglu and Robinson 2012.

reason among others, the level of the surplus target has been questioned.<sup>19</sup> In Chapter 7, we will return to this issue.

### *Human capital development*

The third aspect concerns the functioning of the economy from a human capital perspective. A major concern connected with the large number of retirees is how well the know-how of the older generations is transferred to the young. In some workplaces, there is a serious shortage of new staff that can take over when the baby-boomers retire (see Chapter 5).<sup>20</sup> It is a challenge for firms and individuals to take care of the experience and know-how that exists, because failing to transfer the experience and knowledge of the generations who retire may dampen growth.

Long-term calculations often assume that the average productivity growth from the past will just continue in the future. But what if the transfer of skills is not fully achieved between generations? Although future generations have a higher level of education than previous generations, there is also a risk that productivity growth may be lower during a period of adjustment (see Chapter 5).

## **2.2 How have the costs of welfare developed historically?**

In order to assess the future funding needs of welfare services - particularly health, education and social services – it is necessary to first understand the historical development of these services. The Swedish Association of Local Authorities and Regions

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<sup>19</sup> See eg Jakobsson et al., 2006; Bäckström, 2007; Lindbeck, 2008.

<sup>20</sup> See eg Arbetsförmedlingen (the Swedish Employment Agency), 2010a, b; Statistics Sweden, 2011.

(SKL) has published several reports on this subject.<sup>21</sup> Measuring the evolution of welfare costs is not straightforward. There is no uniform and precise definition of what welfare services include and welfare services are performed in both the private and the public sector – which complicates an overall assessment.

The studies that are available indicate that the cost of virtually all welfare services have increased significantly. An analysis from SKL shows that the costs have increased by about 50 percent during the period 1980-2005 (see Table 2.2). Meanwhile, the population increased from approximately 8.3 million to over 9 million in the same period, i.e. by about 8.5 percent. Thus, investments in welfare services have increased more than the population. Another conclusion from the SKL study is that there is a weak relationship between demographics and costs for welfare services. Table 2.2 below shows that the costs of care of the disabled and of individuals and families have increased the most.

**Table 2.2** Cost increases of welfare services in percent according to SKL, 1980-2005

Child care and kindergarten	56
Elementary school	8
High school	39
Care of the handicapped	232
Long term care of the elderly	62
Individual- and family care	186
Health care	42
Total	50

Note: Changes are in fixed prices.

Source: Börjesson, 2008.

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<sup>21</sup> See eg Börjesson, 2008; SKL, 2010.

As young and older generally consume a greater proportion of welfare services than the rest of the population, it is not surprising that total costs increase more than the increase in population; and the fact that the composition of the population is shifting to more older people means increasing costs. The above mentioned study by SKL indicates that welfare costs during the period 1985-2005 have increased by almost 1 percentage point more per year than can explained solely by demographics. One interpretation is that the demand for welfare services has been strong. It is not simple, however, to discern how the total costs derive from demographics, quality improvements in the standard of welfare services and structural changes (see further in Section 2.4). There is a need to separate the individual costs to assess which historical costs will be relevant in the future.

### **2.3 Scenarios for the future demand of welfare services**

Long-term projections for the economy are not forecasts but they are nonetheless important for the understanding of possible outcomes. The Ministry of Finance periodically publishes scenarios for the economy in which the ageing population is an important component.<sup>22</sup> The Ministry of Social Affairs presents long-term scenarios with a focus on health and elderly care – the large components of welfare costs – and SKL has published several scenarios for welfare funding.

Table 2.3 below summarises the conclusions of a selection of publications that make long-term projections of the economy with a focus on welfare funding. There are also several publications that offer in depth discussions of the implications of the ageing population without making their own long-term

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<sup>22</sup> See for example SOU, 2008:108 or the Ministry of Finance, 2012.

projections.<sup>23</sup> In this section, we briefly summarise some broad conclusions from long-term scenarios and in Chapter 7 we shall return to the various policy questions that the scenarios raise. The reported cost estimates have a wide range, from zero kronor to 300 billion kronor (about ten percent of today's GDP) or more.<sup>24</sup>

Despite the different assumptions and starting points that exist, are there any common conclusions that may be drawn based on these varied assumptions and starting points? To start with, we must note that although several different institutions write about welfare challenges, there are only a few that have enough resources to become reference points for our discussion. Almost all studies are based on Statistics Sweden's demographic projections, and the Long-Term surveys, independent but under the auspices of the Swedish Ministry of Finance, play a special role as they present a thorough picture of the entire economy.

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<sup>23</sup> As making long-term scenarios requires considerable resources, only a few institutions present detailed scenarios for the total economic development and for the public finances.

<sup>24</sup> Higher cost scenarios are found, for instance in Klevmarken & Lindgren, 2008, 2009.

Table 2.3 Long-term scenarios

Author	Year	Assumption	Conclusion
Bengtsson, Tommy	2010	Model based approach	Demand for health care increases 30% to 2040; 12 more years of work to avoid reduced age-related consumption to reduces
Borg, Per	2009	Demand for welfare services follow GDP-trend	150 billion SEK to 2030, 11 percentage points higher tax rate
Hagist et al	2012	Generational accounting	Burden for generations 18.6 % tax increase
Klevemarken, and Lindgren	2008	Microsimulation	Threefold increase in health care costs
Swedish National Institute for Economic Research	2011	Unchanged economic standard	Unchanged tax by assumption
LU 2008	2008	Unchanged economic standard	Public finances sustainable with only demographic changes
SCB	2012	Employment 2030 and the old-age dependency ratio	600 000 more employed 2030 to have the same economic burden as today
SKL	2010	Scenario for demography	200 billion SEK higher costs 2035 or 13 percentage points higher tax. If central government is included, about 280 billion SEK
Ministry for Social Affairs	2010	Both demography and alternative scenarios	Costs 2010 about 13 % GDP for health care and long-term care increase to 14 % from demography, but to about 16 % with 0.8 % per year increase in welfare standard, or about 110 billion SEK

A common denominator in most studies is some form of reference scenario in which welfare costs are projected having regard simply to the implications of demographics, and ignoring the improvement in the standard level of welfare services that have occurred in recent decades.

The calculations in the long term surveys indicate that fiscal policy is sustainable if only demographics are taken into account. The Long-Term Survey of 2008, for instance, makes calculations projecting only demographics and unchanged rules. The calculation indicates that demographically driven public consumption would increase by 0.7 percent per year between 2005 and 2030 and that the primary component of this increase is the cost of taking care of the elderly and health care more generally.

The implication of this is that with the existing rules, government debt can be kept roughly constant, and taxes do not need to be increased. This is a convenient way to check whether a policy is sustainable or not. The Ministry of Social Affairs and SKL have similar reference scenarios. However, if demand for welfare services continues to increase, there is a risk that it will not be possible to continue financing welfare in the same way as today.

The long-term projections may be rather complex but the broad lines and conclusions depend on a few variables:

- The labour supply, i.e. how many hours we work and how much we work during our lives
- Productivity, i.e. how efficient we are during the hours we work.

An appropriate level of GDP growth will be necessary to support the anticipated requirement for welfare services. The level of growth required will depend partly on how *much* we work, and partly on how *well* we work. In addition to these variables, development is also influenced by demographic factors, such as life expectancy, fertility and net migration.



Other variables will also matter, but for long-term calculations, these are the factors that will have a significant impact.

One way to handle uncertainty is to make different assumptions to illustrate different possible scenarios. Former U.S. Secretary of Defense, Donald Rumsfeld, put it this way: "there are known knowns; known unknowns and unknown unknowns." When it comes to demographic trends, there are mainly "known knowns" or possibly "known unknowns".<sup>25</sup>

We cannot completely rule out major events that significantly change the basis for the long-term calculations –for example financial crisis that are sometimes referred to as "black swans" – but on the whole, the demographic development is slow, inexorable and rather predictable.<sup>26</sup>

The challenge of and the debate about the future of welfare when the population is ageing can be roughly summed up in a scenario where the demand for welfare services continues to increase as it has done in the past decades. It can almost be characterised as a "known known." In more concrete terms SKL, for instance, has a scenario denoted as the 'plus 1 option', where the costs of welfare services increase approximately as they have historically done, which is about 1 percentage point more than the demographic projection. A consequence of this is that it creates a funding gap between the potential expenditures and revenues of about 200 billion kronor in today's prices, all else equal, if municipal and county taxes are not increased by 13 percentage points by 2035 (see Table 2.3).<sup>27</sup> The SKL study is not the only one that makes such a projection.

A study that projects the demand for welfare services to follow GDP development arrives at a funding gap of about 150 billion crowns by 2030.<sup>28</sup> The Ministry of Health has made a calculation with 0.8 percentage points for improved standard of

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<sup>25</sup> Also Muir, 2012 uses this conceptual framework to create a link between demographics and uncertainty.

<sup>26</sup> Taleb, 2008 popularized the term "black swan" as a way to summarise the highly improbable events actually occurred and may occur in the future.

<sup>27</sup> See SKL, 2010.

<sup>28</sup> See Borg, 2009.

health care, which implies that the GDP share increased from 13 percent in 2010 to about 16 percent in 2050, equivalent to about 110 billion kronor in today's money (see Table 2.3).<sup>29</sup>

Demand for welfare services and the requirement that they should follow the general rise in society's standards is the driving force behind the big cost projection; costs of long term care for the elderly and for healthcare will increase. The value of these calculations is that they may indicate the magnitude of the challenge. In the long term, the "ceteris paribus" assumption is crucial. Most experts probably agree that calculations should not be interpreted mechanically, but be seen more as an indication of the magnitude of the challenge that the political system is facing. The committee for program preparation of welfare funding at SKL emphasises that the so-called 'plus 1 option', in which the costs increase by 200 billion, is the most realistic.

### *Everything else is not equal*

At a general level, the perspective to meet the challenge of an ageing population is that everything else is *not* equal. The value of making long-term analysis is that we want to meet the challenge and have a timely political process in place to make the necessary strategic choices. In this connection it is pertinent to ask whether there are any alternative development paths that could significantly alter the conclusions on a funding gap. Another central question is whether the demand for welfare services will continue to increase as it has done historically – a matter that we shall discuss in the next section.

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<sup>29</sup> See Ministry of Health, 2010b.

*Low productivity in the public sector is not an immutable law*

Low productivity in the public sector and rising costs cannot be seen as immutable forces of nature that we cannot do anything about. Most people probably realize that if it is assumed that increasing efficiency is impossible in care, this assumption becomes a self-fulfilling forecast (see Chapter 6). The Ministry of Social Affairs has a publication highlighting several examples of innovative thinking and increased efficiency that can make it easier to meet the challenge.<sup>30</sup> If the health sector were to have a productivity increase of 0.6 percent per year, the future demand for health care, according to their calculations could be met without any other measures.

For long-term projections mainly two factors are relevant. The first is that the cost of health care is to a large extent dependent on different assumptions as to how healthy – or sick – we will be. The second is the extent to which efficiency gains are possible in health care (see Chapter 6).

*If productivity growth slows down, the demand for publicly funded welfare services may increase*

Many investigations note that although the productivity development is fundamental to prosperity, it does not help to reduce the challenge of the financing gap. The reason is that higher productivity leads to higher wages in the private sector, then the salaries in the public sector will increase as well – and the funding gap will not shrink.

However, the assumption that productivity does not play a significant role for the financing gap is no longer obvious. Earlier, enrolment in private health insurance in Sweden was rather limited; a rough estimate from Insurance Sweden indicates that the number was barely 70 000 in 1999. From 1999 to 2006 there has been a tripling of this number and the increase has

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<sup>30</sup> See Ministry of Health, 2010b.

continued: in 2011 there were about 464,000 private insurance policies (or almost five percent of the total population in 2011).

If productivity growth for some reason were to slow down in the future, it could cause those who have private insurance to turn increasingly to the publicly funded welfare services. If this were to happen when only a few have private insurance policies, it would probably have little cost significance. However, when the number of private insurance policy holders is no longer negligible, it might have a greater impact on public expenditures.

*Recruitment difficulties may lead to higher wage increases in the welfare sector and risk resulting in higher costs*

Wage developments in local and regional government are obviously an important influencing factor. It might almost be considered a "known unknown." In several projections, the wage development is assumed to be about 4 percent per year, which means about 2 percent in real wage increase, if the *Riksbank* (the Swedish Central Bank) attains its 2 percent inflation target. But if it becomes difficult to recruit staff to the welfare sector with its current wage structure, there is a risk of an upward pressure on wages. In turn this means that the development of costs may be stronger than currently assumed. In an alternative scenario described in Chapter 6, we show what implications higher than assumed wages in the public sector may have for the challenge to finance welfare (see Figure 6.1).

Even if the upward pressures on wages develop moderately in the relation between wages in the private sector and the welfare sector, these pressures may change if the wages in the welfare sector follow the private sector, because productivity growth in the welfare sector is likely to be lower. If this were to occur to the full extent, it would mean that taxes would have to be raised continuously, which is not sustainable. In order to avoid such a

development, the nominal consumption of welfare should not increase as a share of GDP over time.<sup>31</sup>

If we take a few further steps into the unknown, towards "Unknown unknowns", the reasoning inevitably becomes more speculative. The world is not predictable. From time to time major shifts occur with far-reaching consequences (electricity, telephone, car, internet, financial crisis). The discussion of the challenge of demographics becomes more complete with a few such examples:

- *Breakthroughs in medicine that slow age-related diseases and significantly raise life expectancy.* This, of course, is essentially positive, but without an increased rate of employment among the elderly, the old-age dependency ratio becomes even more skewed than it already is projected to be. In addition, medical innovations often drive costs upward.
- *Breakthroughs in technological development making transport or the generation and use of energy more efficient in the future.* This would facilitate continued globalisation and increase productivity.

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<sup>31</sup> The problem is sometimes called Baumol's disease or Wagner law, see eg Ds, 2010:4, p. 90.

## 2.4 Why is it difficult to assess the future demand for welfare services?

It is not per se surprising that rising standards are demanded for welfare services when society becomes richer, especially since it is possible to compare the extent and quality of service offered by providers in the private sector. It is not obvious, however, that the cost increases over and above that which is associated with the demographic shift can be attributed to a higher demand for welfare services. It is difficult to separate demand generated by demographics from other factors. There are both practical and theoretical difficulties.

*It is desirable to separate fixed and variable costs of welfare services*

A practical question is how the historical costs can be separated between factors from demography on the one hand and increased demand on the other. Costs can be assumed to be lower to maintain an existing stock of capital than to build it in the first place. A simple approach is to start from a standardised cost for various welfare services, and then to scale it with the demographic projections. A drawback with this method is that the separation between fixed and variable costs are not necessarily fully reflected. For example, for a school class – whether it consists of 15, 20 or 25 students – there is a fixed cost of rent and of the teacher's salary; but books and food, for instance, are variable unit costs that are directly linked to the number of students.

The development of fixed and variable costs may change over time. A school with few children may not necessarily cost less as fewer children need to cover higher proportion of fixed costs. Conversely, a school that approaches a maximum capacity has relatively small marginal costs of bringing in additional children – in any case, until the capacity is filled and a new school needs to be built. Similar issues may exist for advanced medical

equipment, where the initial investment is large but marginal cost can become low at some level of utilisation.

*Increased costs and increased demand for welfare services are not same*

Although there are measurement problems, it is clear that the costs of welfare services have increased. However, the willingness to pay for welfare services need not necessarily in all respects be identical to the cost of development, something several studies seem to assume. Moreover, the welfare services are not offered on a "normal" market basis. In a normal market where two different goods are sold by several companies, it is relatively easy to interpret a larger sale of one of the items as indication of increased demand, at least when the market is sufficiently competitive. The same conclusion is not obvious in the case of welfare services that are often offered under monopoly-like conditions. In recent decades, freedom of choice and competition in Sweden have certainly increased, for instance, in a reform in 1992 allowing private schools, but welfare services in the public sector tend to have special status.

It is therefore not simple to compare the relative demand for daily consumer articles, which are paid out of taxed wage income, with services that we indirectly finance through taxes. In Sweden, we have chosen a model where the majority of welfare is publicly funded through taxes; this is not to say that any increase in costs above that associated with demography can be entirely attributed to increased demand:

- In monopoly-like markets, there is always a risk that parts of the price increase are due to limited competition. A way to counteract this is to try to create competition by other means.<sup>32</sup>

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<sup>32</sup> It is possible to mitigate this problem. One example are pharmacies, where staff informs the customer if there is a prescription drug that is cheaper but equivalent. See also Chapter 6 for a discussion of the importance of creating competition.

- It is not easy for citizens to understand price differences in welfare services from year-to-year in all areas. It is fairly easy to see that the school purchases new books and that the teaching material is of a good standard, but it is difficult for the individual to evaluate investments in advanced medical equipment. It is also frequently easier for the individual to have an idea about the price and quality of an item that he or she buys often than about an item or service that is provided rarely or under traumatic circumstances.<sup>33</sup>

*It is difficult to separate the demographics from other costs and structural changes in society*

The reasoning above shows that it is difficult to separate demographics from other changes. The labour market and welfare sector are subject to constant change and, in addition there are sometimes large structural changes. In recent decades, women's participation in the Swedish labour force has increased significantly and there have been clear incentives for women to work professionally, something that is still relatively weak in many other countries. With a well-developed system of childcare, a revision of tax rules, not least abolishing joint taxation for married couples, as well as extended paid parental leave, it has been possible for women to be and to remain in the labour market in ways that were not possible before. Two major changes of government funding and costs are linked to this development: the expansion of tax-funded childcare and more tax revenue from the increase in women's employment.

If we base ourselves only on historic costs without taking into account these types of structural changes, we risk to under- or overestimate the costs that are relevant in the future when these amounts are to be scaled by different demographic projections.

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<sup>33</sup> A patient who needs recurrent dialysis should have a fairly good idea of his or her care, while someone hit by an acute incident will have difficulties finding comparisons.



*Historical cost increases in health care should not be used as an indication of a “willingness to pay” without a critical review of the conditions under which those increases were implemented*

A study that summarises research on the willingness to pay for medical care when income increases shows a wide spectrum.<sup>34</sup> Admittedly, other parts of the welfare sector are not reflected, notably long term care of the elderly, but the summary shows that the uncertainty is significant and points to the importance of choice of method. The estimates are often correlations rather than structural relationships. The authors use a model for estimating a structural link in the U.S. demand for healthcare and find that the willingness to pay is lower in this model than according to several studies that rely solely on correlations. This underscores the importance of not uncritically using historical costs and projecting them into the future.

Sometimes the U.S. is referred to as an example showing that “free” markets actually generate higher investment in welfare than a model like the Swedish, with a large percentage tax financing. The US has the world's highest cost per capita today for health care – or, perhaps more precisely: the U.S. has by far the highest health care cost as share of GDP.<sup>35</sup> However, US-health care is not evenly distributed across the population; many have rather limited access, while others, by themselves or through their jobs, have access to high level – or at any rate more expensive – health care.

The US example illustrates many interesting things but it cannot be taken as proof that the demand for welfare services necessarily exceeds the development of any other consumption. American health care is not an example of a “free” market with perfect competition. There is a complex institutional relationship between those who pay for health care and those who consume. For Americans covered by private insurance, it is often the companies that are responsible for payment, creating

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<sup>34</sup> Acemoglu et al., 2009.

<sup>35</sup> See OECD, 2011a, p. 149.

significant so called moral hazard problems, which in turn probably contributes to an increase in costs.

## 2.5 The welfare state evolves, but what should be covered?

Now that we are facing the challenge of the ageing population the question arises as to how far the public commitment should extend. The question is not whether we should have a welfare state or not; Sweden has chosen a model where tax-funded welfare in the form of access to care, education and social services that is largely guaranteed to all citizens regardless of their ability to pay. Rather, the question is, given that welfare is largely publicly funded: *How much of the future growth in welfare services is to be financed by all through taxation?*

This investigation is not the place for answering that question; it is basically a question about values and should be discussed in the political arena. However, there is a limit to how much tax can be levied if a market economy is to be able to generate growth, because taxes risk distorting incentives and investments. There is no universal agreement among researchers on which tax levels are compatible with good growth, but most experts probably agree that there is a limit somewhere. In chapter 6 and 7, we approach this issue and give some examples of challenges for the future.

## 2.6 Summary

In this chapter, we have discussed how different assumptions lead to different paths for the demand of welfare services. Most projections based solely on demographics can be handled by currently existing tax-rates, but should the cost increase beyond what this requires, there is a risk of a funding gap. How big is the gap? Studies suggest anything from 0 to 300 billion kronor

(about ten percent of GDP at current prices) in a few decades, in some cases even higher. It should be emphasized, however, that the size of the gap is a rather mechanical result of the assumptions that are made. However, what is important in increasing the standard of welfare services is that we want to consider solutions that also take into account intergenerational fairness as well as economic efficiency. The options available for financing welfare are essentially:

- higher employment and longer work life through earlier entry to and later exit from the labour market
- higher productivity and efficiency in the public sector
- higher fees or cost-ceilings for welfare services
- higher tax rates
- private sector alternatives and private insurance.

Once we have identified the challenges in Chapter 3-6, we shall return to an overall assessment of solution strategies in Chapter 7.



### 3 Challenges for the regions

‘...the scope of current challenges calls for further efforts to make the territorial equity objective sustainable in the long term, especially in sparsely populated northern region, and to rationalise local public service delivery.’

OECD, 2010a, p. 17

In many places the challenge of managing changes related to the ageing population is significantly greater at the regional and local levels than in the country as a whole. The national average conceals major differences. The overall picture is that for the whole country, the old-age dependency ratio is deteriorating, but the big cities have a less unfavourable dependency ratio than the rural areas – and the gap will continue to increase. Thus, the challenge for small municipalities will become even more pronounced in the future.

But this is not the whole picture. Small municipalities will become more numerous, and they will have fewer people than today. This increase in the number of small municipalities with a hefty old-age dependency ratio will also represent a significant proportion of the country’s population in the future. Even metropolitan municipalities will have a burdensome old-age dependency ratio, but the size of their populations will increase. According to the forecast of Statistics Sweden (SCB), Stockholm alone will be home to just over one million people out of a population increase of about 1.8 million between 2010 and 2050.

Overall, this means that an increasing number of people will live in municipalities with an unfavourable and increasing old-age dependency ratio and that these municipalities will be more scattered throughout rural areas than they are today. The proportion of the population that currently lives in municipalities with relatively less unfavourable dependency ratios could be halved by 2050.

The reason for these changes is found in two trends: first, that the population is ageing, and second, that the urbanisation of the country continues, with a reduced need for labour in agriculture and an increased need for labour in the big-city regions. It is by no means a development that is unique to Sweden, but one found throughout the world. Although ageing and urbanisation partly reflect different factors, both are processes that have lasted a long time and that require that we adapt.

Opinion is divided on whether urbanisation is a blessing. Many people want to protect the countryside and let 'the whole country live.' To support this goal, Sweden has a municipal tax-smoothing; in many other countries, there are other types of support for rural areas.

Despite subsidies and tax-smoothing, urbanisation continues throughout the world. The great waves in migration from the countryside in Sweden took place from the mid-1800s until the 1970s (see Figure 3.1), and there are indications that the geographic mobility of employees has increased since 1980.<sup>1</sup> The economic incentive to move came with industrialisation and has accelerated with the increase in trade with the outside world. The trend is likely to continue, but for how long and to what extent is uncertain. There is research that highlights the importance of cities for an improved quality of life, improved supply of skilled labour and higher productivity.<sup>2</sup> In this chapter we discuss what

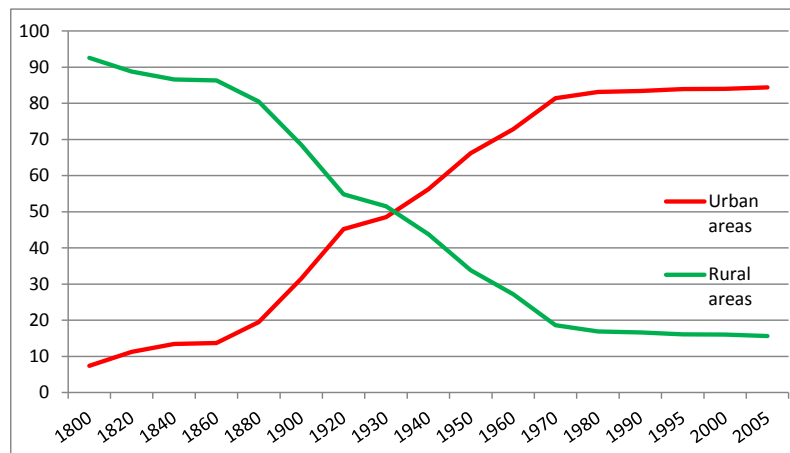
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<sup>1</sup> See Israelsson et al., 2003.

<sup>2</sup> See for instance Shapiro, 2006; Glaeser & Shapiro, 2003; Glaeser & Gottlieb, 2009.

these changes mean and what the differences are between urban and rural areas.

**Figure 3.1** Population in rural and urban areas, percent of total



Source: Statistics Sweden.

Although our focus is on the old-age dependency ratio, it is important to emphasise that the simple figures conceal a great diversity that is not easily summarised. The mirror image of the big cities getting bigger is, of course, that some municipalities get smaller and find it ever harder to maintain schools, health and long-term care of the elderly. In many cases, it is the young who move to the big cities, which tends to reinforce the challenge.<sup>3</sup> At first glance, urbanisation may seem like a kind of zero-sum game, with cities the winners and rural areas the losers. But it is not quite that simple – not, at any rate, from a broad economic perspective. Those who leave rural areas presumably do so out of free will and because they want to try something different. A possibly more important question concerns how Swedish economic development would have been affected by less

<sup>3</sup> For a vivid picture of small municipalities and the emigration to cities, see Mattson, 2011.

extensive urbanisation. It is quite likely that modern technology and industry would have developed at a slower pace if more people had remained in rural areas. In turn, this would have resulted in a weaker development for the whole economy, including the rural areas. At least from this perspective, all of society seems to have benefited from urbanisation.

While modern technology is one of the factors driving the rural exodus, it also helps to facilitate rural life. In particular, IT allowing more services to be performed digitally may *to some extent* alleviate the disadvantages of long distances to densely populated localities. The importance of this should not be underestimated, but there will still be many services and much locally supplied welfare that cannot easily be performed except on site.

### 3.1 The old age dependency ratio at the regional level – ‘a demographic map of Sweden’<sup>4</sup>

Sweden as a whole has a somewhat less unfavourable development than many other countries when it comes to coping with the old-age dependency ratio in the years ahead, but the picture is not as positive when we compare urban and rural areas. The OECD has included Sweden in the group of countries that are in a comparatively better position to meet the challenges of the ageing population (see Table 1.1). But Sweden – together with Finland, France, Japan, Korea, Norway and Portugal (see Figure 3.2) – also belongs to the group of countries with the biggest difference in old-age dependency ratio between urban and rural areas. The fact that Sweden has a more extensive tax-funded welfare system than many other countries reinforces the challenge at the regional level.

In this section, we highlight the development for municipalities of the dependence ratio as measured with a

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<sup>4</sup> All calculations in this section are from Anderstig, 2012 unless otherwise indicated.



common definition based solely on age.<sup>5</sup> To provide a more complete picture, we also use a supplemental measurement of the dependency ratio. It is based on the number of people working rather than on age.<sup>6</sup> The age-based measurement is convenient when making comparisons with other studies, while the employment-based indicator tells us more about the real economic burden from demography.<sup>7</sup> After all, it is the number of people employed and not their age that affects the ability to finance welfare services. Below, we apply the usual definition and specify and comment on the cases where the measurements differ.

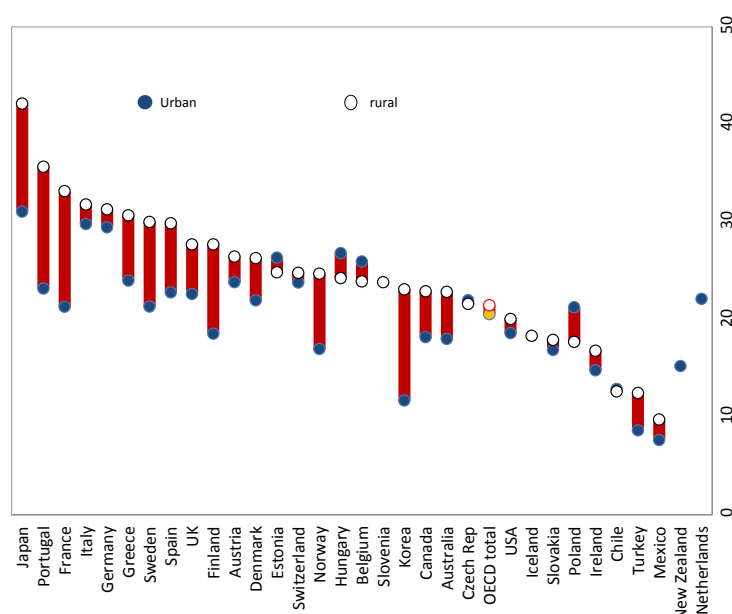
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<sup>5</sup> Number of population in the following age groups: (0-19 and 65+)/ (20-64).

<sup>6</sup> The employment-based measure is: (population-total employment)/total employment.

<sup>7</sup> See also SOU, 2012:28 and Olsson, 2012.

Figure 3.2 Old-age dependency ratio for 65+ compared to the rest of the population, rural and urban areas, 2008



Note: Ratio 65 + / (15-64). For the Netherlands, and New Zealand is no figure for rural areas.

Source: OECD, 2011b, p. 79.

As we discussed in Chapter 1, the national dependency ratio will increase from 0.71 today to 0.87 in 2050, according to SCB's latest assessment. A higher ratio means a more unfavourable development. If the ratio is greater than 1.0, it implies that a person working will have to support both him- or herself and more than one person who is not working.

*The dependency ratio increases somewhat more slowly when employment is taken into account*

In Table 3.1, we compare the evolution of the dependency ratio – based on age and employment.<sup>8</sup> It can be seen that the dependency ratio increases slightly more slowly when we take employment into account and do not focus solely on age. There is still a significantly increased burden, but for several reasons it is worth emphasising the importance of the employment factor. One reason is that it is more relevant from an economic perspective, as increased employment of young as well as older people makes the financing of welfare services less burdensome. Another reason is that the employment perspective allows us to calculate different scenarios that may result from an extension of working life – something the exclusively age-based dependency ratio is simply not designed for.

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<sup>8</sup> It is misleading to compare the levels of these different definitions of old-age dependency ratios, as is sometimes done in the public debate. The employment-based definition is usually higher than the age-based definition, but that is not in itself relevant. In Table 3.1, we have created an index-series that enables comparison between the measures in 2020 and in 2050.

**Table 3.1** Index of old age dependency ratio based on different assumptions, change in percent from 2010

	2020	2050
Dependency ratio – employment based	10	17
Old-age dependency ratio – age based	10	22

Note: Own calculations. Both measures have been converted to the index starting at 2010 to allow a comparison of the rate of increase. Note that the differences in growth rates are important after 2020.

Source: Statistics Sweden, 2012 for the age-based measure; Anderstig, 2012 for the employment-based measure.

### *The starting point in 2012 from some studies*

There are a number of studies that illustrate the demographic challenge of the next few years. Although the methods and approaches differ, a common feature is that demography is already beginning to have an impact. In an analysis, it is said that Sweden and Finland are among the more demographically vulnerable countries among the Nordic countries in the sense that certain age groups are fairly unevenly sized relative to the total population.<sup>9</sup> In another report, a significant number of municipalities are judged to have a high dependence ratio already today.<sup>10</sup> It is true that even the initial situation presents a significant challenge, but it is not quite so precarious if one looks at the *total* employment in the group aged 15-74, which is a more relevant measure of the dependency ratio than employment limited to 20-64 year-olds. One reason is that compared to some other countries Sweden has a relatively high employment rate among those who are 65+.

<sup>9</sup> See Nordregio, 2012.

<sup>10</sup> The calculations are sensitive to the assumption of employment. In Magnusson, 2011, 73 municipalities have a high dependency ratio in 2010 but if total employment (group aged 15-74) is used instead, the number of municipalities is reduced to 4.

*The old-age dependency ratio is deteriorating in many municipalities, and the proportion of municipalities that have a pressing dependency ratio is likely to increase from 0.1 percent today to more than 20 percent of the population in 2050*

It is difficult to succinctly illustrate the whole complexity of the old-age dependency ratio for municipalities, but Figures 3.3 and 3.4 come close. In a background report to the Commission on the Future of Sweden, a large number of scenarios have been drawn up for how the dependency ratio may develop by 2020 and 2050.<sup>11</sup> One baseline scenario starts from SCB's latest demographic forecast and from the assumptions made in the long-term scenario of the Ministry of Finance.<sup>12</sup> As the projections are subject to uncertainty, a number of alternative scenarios are presented in the report (discussed further below).

The baseline scenario in the background report is summarised in Figure 3.3 in the form of a map dividing different parts of Sweden into three different levels of the future old-age dependency ratio – 'the demographic map of Sweden in 2050.' This is not a forecast per se. Rather, the map illustrates a development that we would want to prevent or at least mitigate, something that will be further developed below.

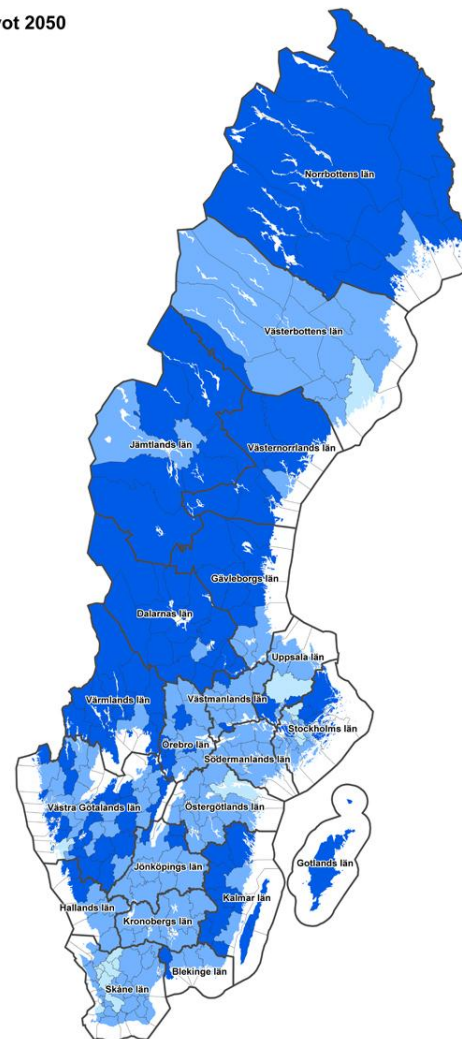
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<sup>11</sup> See Anderstig, 2012.

<sup>12</sup> See Ministry of Finance, 2012; Statistics Sweden, 2012.

Figure 3.3 Demographic map of Sweden 2050

Försörjningskvot 2050



Source: Anderstig, 2012.

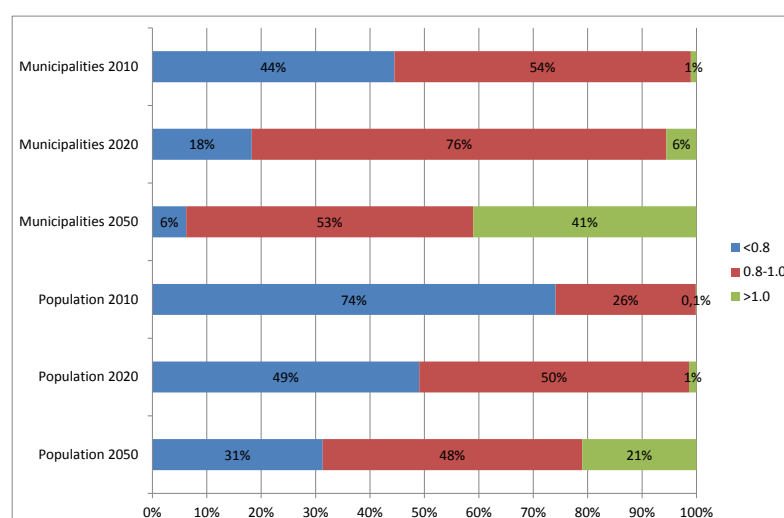
Another way to summarise the meaning of the baseline scenario is presented in Figure 3.4. In the three top bars of the figure, Swedish municipalities have been divided into three groups, according to the size of the age-based dependency ratio:

- less than 0.8 (blue)
- between 0.8 and 1.0 (red)
- more than 1.0 (green)

In the three bottom bars of the figure, a corresponding division is made on the basis of the proportion of the population that is expected to belong to a municipality with the same old-age dependency ratio. It appears that in 2010, the three municipalities had a dependency ratio of 1.0 or more (Pajala in Norrbotten and Bjurholm and Åsele in Västerbotten), which represents 0.13 percent of the population. In 2050, 41 percent of municipalities are expected to have a dependency ratio above 1.0. Put differently: out of Sweden's 290 municipalities there were in 2011 three municipalities that had an old-age dependency ratio above 1.0; in the baseline scenario, this number is expected to increase to 119 municipalities by 2050. In other words, we see clear signs of an increased old-age dependency burden which will fall on a significant portion of the population.

What does it look like for the other municipalities? Today almost the whole population (99.9 percent) lives in municipalities that have a dependency ratio below 1.0 and about 74 percent in municipalities with a ratio lower than 0.8. According to the baseline scenario, the number of people living in municipalities with a dependency ratio lower than 0.8 will roughly be halved and constitute about 31 percent in 2050. Stockholm County and Uppsala County, which will be below the 0.8 ratio in 2020, are expected to be slightly above that ratio in 2050.

**Figure 3.4** Municipalities divided according to size of the old-age based dependency ratio



Source: Anderstig, 2012.

*The difference between an age-based and an employment-based dependency ratio*

The employment-based dependency ratio is more relevant from an economic perspective, but to facilitate comparisons with other studies the discussion above was mainly pursued in terms of the classical old-age dependency ratio. Although the overall difference between big cities and rural areas is not affected by which of these measurements is selected, there are differences between counties that are significant enough to require comment. While it is not possible to compare levels, the relative magnitudes can be compared. Jönköping and Halland Counties have a less unfavourable dependency ratio when taking into account employment as compared to when only the old-age dependency ratio is taken into account. For Gotland and Skåne Counties, the situation is the reverse. For Skåne the difference is



explained by the fact that it has the most favourable age structure but a comparatively low rate of employment, mainly among people born outside the Nordic states.<sup>13</sup> It should be mentioned, however, that the lower employment rate may in part be due to workers commuting to Denmark.

#### *Commuting to jobs strengthens regions*

How the old-age dependency ratios develop should not be viewed from only one perspective but should take into account various opportunities for development and economic viability, not least due to the scope and possibilities of commuting to work. With good transport links and IT, especially in combination with some flexibility in working hours, the barriers to staying in one place and working in another are reduced (see also Chapter 4). Improved opportunities for commuting strengthen overall economic development, and more cooperation at the regional level should therefore include efforts to remove barriers to the development of dynamic labour market regions.

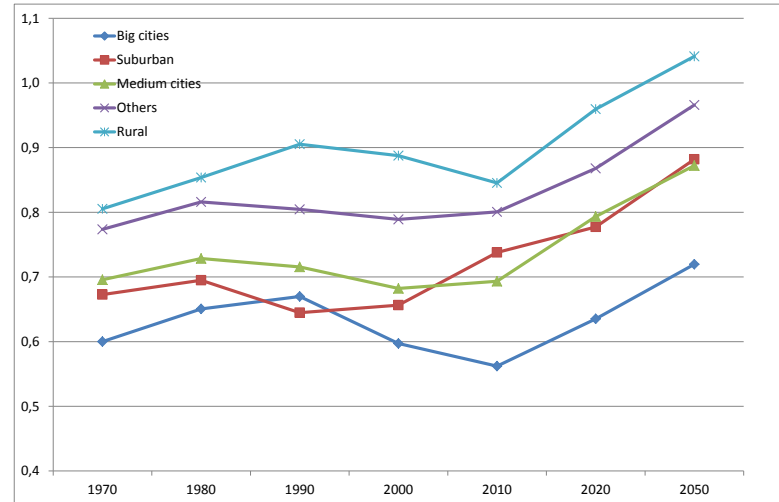
#### *Small municipalities are becoming smaller and large municipalities are increasing*

What differences between the populations in urban and rural areas do the old-age dependency ratios illustrate? It is clear from Figure 3.5 that thinly populated rural municipalities will experience the most adverse evolution of the dependency ratio, but the development in big cities will also deteriorate. However, it should be noted that there are significant differences also within metropolitan areas, ranging from municipalities that grow to municipalities where those working are few compared to the number of young and elderly.

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<sup>13</sup> See also OECD, 2012b.

Figure 3.5 Old-age dependency ratio for different regional categories



Note: Based on the old-age dependency ratio (0-19 and 65+)/(20-64) years.

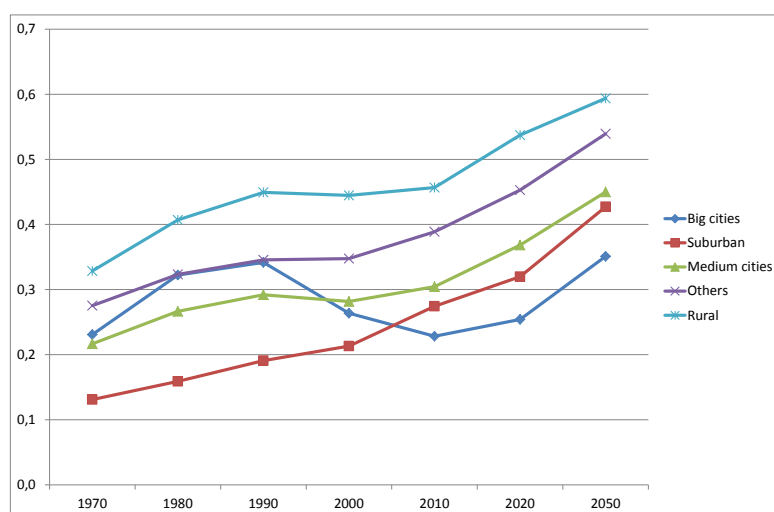
Source: Anderstig, 2012.

Small municipalities in rural areas will thus become ever smaller but also ever more numerous. In Figure 3.4, we see that municipalities with a dependency ratio above 1.0 will represent just over one-fifth of the population. This pattern is explained by the continued urbanisation and the net migration to the big-city areas and major university towns. It is also clear from Figure 3.5 that the differences between various regional categories in the baseline scenario are expected to increase somewhat. The same result emerges if we use the old-age dependency ratio based on employment.

*Increase in the proportion of people approaching an age often associated with more needs for care*

Based on the dependency ratio, it is particularly relevant to calculate a so-called elder-quote to discern how the need for care might increase.<sup>14</sup> In Figure 3.6, this is done for different regional groups. It emerges that all categories will get a significantly higher ratio of the elderly during the whole period. For big cities, the ratio of elderly people decreased during the 1990s, and the increase that will occur from about 2020 to 2050 implies a return to roughly the 1990 level. For the thinly populated areas, the ratio will get worse throughout the period.

**Figure 3.6** Old-age dependency ratio for different categories of municipalities



Note: Number of people age 65+/(20-64 ).

Source: Anderstig, 2012.

<sup>14</sup> The number of people 65+/(20-64) years.

What does this mean for the long-term care of the elderly? In the following section, we discuss the supply of high-quality staff in broad terms, but it is clear that especially long-term care of the elderly will face major challenges, notably in rural areas.

One estimate shows that the proportion of staff with post-secondary education in health care in relation to the population of 80+, which is the group for which care needs to become more common, will shrink by over 20 percent between 2020 and 2050, if current patterns of educational choices remain.<sup>15</sup>

*Alternative scenarios underline the importance of extending working life*

Alternative scenarios are important to illustrate the sensitivity of calculations and be informative about the level of uncertainty. In the background report, a number of scenarios have been calculated on the basis of assumptions made in the Ministry of Finance's latest long-term projections:<sup>16</sup>

- A longer work life through earlier entry to and later exit from the labour market
- A higher employment rate for those born outside of Sweden – the existing difference in employment levels between domestic and foreign-born people is assumed to gradually be reduced by one-third and then remain at that level, representing a substantial improvement in integration<sup>17</sup>

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<sup>15</sup> See Anderstig, 2012.

<sup>16</sup> A selection has been made from the Ministry of Finance's (2012) recent long-term scenarios: aggravated crisis with either temporary or permanent spending increases, higher demand for leisure and welfare services, extending working life, more leisure, increased standard in welfare services, lower entry age into the labour market, higher retirement age, improved integration, higher equilibrium unemployment, higher employment, higher productivity in the public sector and improved health.

<sup>17</sup> The same assumption as in the Ministry of Finance, 2012, pp. 17-18; i.e., the difference between domestic and foreign-born is assumed to be reduced by one-third until 2026 and then remain.

- A higher or lower net migration to big cities – based on an average of the three highest and lowest instances of net migration from historical data.

The selection of scenarios has not been made to show as many positive as negative paths. Even the baseline scenario demonstrates a development that we would want to avoid and thereby is one way of illustrating the need to adapt and change practices as the population is ageing. The first two scenarios have been selected to show those factors that to some extent can be influenced, either by individuals' active decisions or through active policies. The last two scenarios (higher or lower net migration) show what would happen if the move from rural areas is either attenuated or further augmented.

A general conclusion is that a higher rate of employment and more hours worked in the economy will have the most positive effect as this slows the increase in the old-age dependency ratio (see also Chapter 6). More immigration in combination with improved integration into the labour market would also have positive but limited effect on easing the financing of future welfare services.<sup>18</sup>

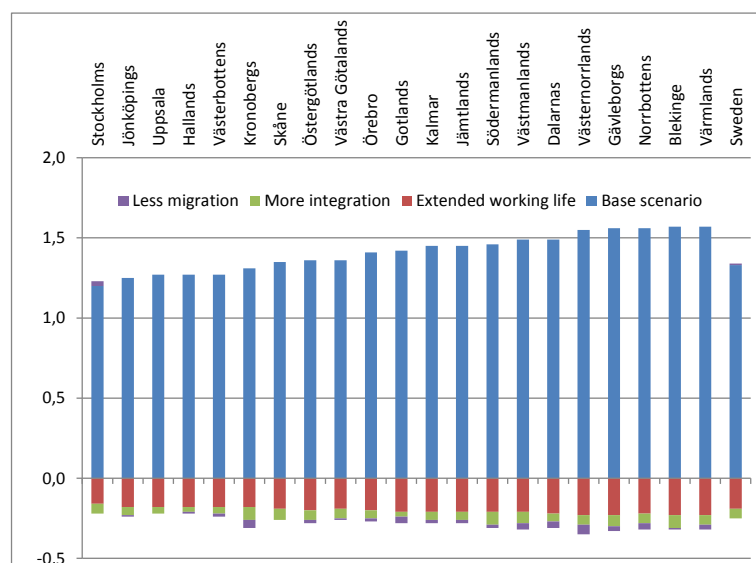
An overall picture of the scenarios is shown in Figure 3.7. The blue bar shows the baseline scenario, while the other bars show changes compared to the baseline scenario. The scenario that most slows the increase in the employment-based old-age dependency ratio is extending working life (red bar), with a reduction of about 0.2 for almost all counties. None of the other scenarios – more integration (green bar) or less net migration (black bar) – come close to the importance of extending working life. Notably, there is a tendency for counties with the most burdensome old-age dependency ratio to attain the greatest improvement when working life is extended. To take just one example, for Värmland County, which will have the highest dependency ratio in 2050 (1.57), an extended working life results

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<sup>18</sup> Wadensjö, 2012, however, shows how difficult it is to predict labour migration.

in a decrease of approximately 0.2, which is slightly better than the corresponding improvement for Stockholm County.

**Figure 3.7** Old-age dependency ratio per county and for the nation in 2050 in the baseline scenario and in some alternative scenarios



Note: Trends of extending working life, more integration of foreign-born people into the labour market, and less urbanisation are shown compared to the level in the baseline scenario.

Source: Anderstig, 2012, Table 2.

The assumption that the rate of employment of foreign-born workers will increase by one-third is optimistic. Even so, the old-age dependency ratio for the country as a whole is barely eased by 0.1 percentage point by 2050.

A higher or lower rate of migration to big cities, the so-called net migration, does not significantly affect the dependency ratio for the country since it basically involves just a different distribution between counties. However, it does affect the distribution between urban and rural areas. The changes are generally small, less than 0.1 percentage points for all counties –

regardless of whether there is more or less migration to big cities. Stockholm is the only county that may get a more onerous old-age dependency ratio if net migration decreases, but the change is fairly marginal.

The small changes in the old-age dependency ratios from alternative scenarios are not the result of these being too cautiously specified. On the contrary, the scenarios have been selected to show the effect on the old-age dependency ratio if there are relatively large changes compared to the baseline scenario. It illustrates a general phenomenon related to the old-age dependency ratio: it changes slowly, not unlike an ocean liner trying to change course. What most eases the burden from an increasing old-age dependency ratio is higher employment and extending working life. Labour migration in combination with improved integration into the labour market will also help somewhat. To make this possible, everyone will need to adapt in some way – businesses, individuals and the public sector (see Chapters 4, 5 and 6). For regions, it will be particularly important to broaden the regional labour markets and to make it easier to commute.

### **3.2 The supply of skilled labour at the regional level**

The next chapter will discuss the challenge of the shift in generations in Sweden and what it may mean for the development of productivity growth. In this section, the focus is limited to the challenges related to skilled labour at the regional level. The intention is not to provide a complete picture, but rather to highlight broad trends and discuss what these might hold for the long term.

The supply of skilled labour at the regional level is affected by the number of young, by the matching-process in the labour market and by how many retire (see Chapter 5).

Stockholm County has the lowest average age in the country, while Värmland, Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten and Norrbotten Counties have the highest.<sup>19</sup>

### *The supply of skilled labour 2010-2025*

In Chapters 4 and 5, we briefly discuss the trends in technology, trade and the production of goods that may continue to be important for the skills that companies need to recruit. To translate these trends into concrete long-term forecasts concerning the need for staff of different professional and educational backgrounds is hardly possible. However, there is much information about the needs of the labour market in the next few years as well as about the outlook for retirement. Assuming that the skilled staff who leave the labour market through retirement are replaced by those with similar skill profiles, it is possible to outline reasonably well what the overall need for skills may look like in the country and at the regional level.

Such analyses are made by *Arbetsförmedlingen* (the Swedish Employment Agency) and others by comparing the extent of retirements with the number of active professionals or newcomers to the labour market.<sup>20</sup> This provides a good starting point for a discussion of the skills needed in the next few years, but it does not give a full picture of the challenge. Even if the inflow into and the outflow from the labour market are in complete balance, this does not necessarily tell us enough about the matching of skills and jobs (see section 5.5).

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<sup>19</sup> See *Arbetsförmedlingen* (the Swedish Employment Agency), 2010b, p. 28.

<sup>20</sup> See *Arbetsförmedlingen* (the Swedish Employment Agency), 2010b.



*Only in larger towns and big cities are there more young people who enter the labour market than older people who leave*

Looking at the number of people who will retire up to 2025, we find that it is only in big towns, big cities and educational centres that the number of young people who will enter the labour market will be greater than the number of retirements. In rural municipalities, the number of young who are expected to enter the labour market is only half the number of those who leave to retire.

*The highest percentage of retirements is expected in agriculture and forestry, health and long-term care of the elderly; the lowest proportion is expected in retail, hotels and restaurants*

A large number of retirements are expected in agriculture and forestry. Almost as many retirements will occur in the public sector and within the care sector (see section 5.6). In thinly populated areas, this compounds the challenges of financing welfare services associated with an already high old-age dependency ratio.

The age departures are significant in manufacturing as well, but at the same time, employment in manufacturing has tended to decrease in step with the improvement in productivity growth and the development of new technology.

The age departures within different fields of activity provide an indication of the need for skills in various fields, but these should be used cautiously. There is a constant structural change in the economy, where one sector decreases and another increases – a process sometimes referred to as ‘creative destruction.’<sup>21</sup> It is not a given that the retirements in one sector will always be replaced by the same number of entrants. A modern market economy continuously sends different signals

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<sup>21</sup> The term ‘creative destruction’ was coined by the famous Austrian economist Joseph Schumpeter.

about where demand is rising and where it is decreasing; for individual firms, retirements offer rather undramatic opportunities for adjustments in staff, at least compared with the closure of factories or the disappearance of entire sectors in Sweden, such as large-scale ship building and textiles.

*As a generational shift is underway among small firms, the question of corporate relocation may arise*

Research shows that those who are self-employed or owners in small firms work longer than others (see section 4.3.1), and it is harder to assess when their retirements will occur as they are not bound by labour market agreements in the same way as employees often are. Nevertheless, the self-employed, too, retire at *some* point, and this may imply big challenges, perhaps especially at the regional level, as many self-employed have a strong link to a particular place or region.

When the generational shift occurs, the question of a company's physical location may arise. A strong local association with an area may sometimes be insufficient for a firm to remain in the same place; a relocation to a metropolitan region or outsourcing of some production to other countries with cheaper labour may well be contemplated. This happens all the time.

### 3.3 What can we learn from other countries?

It is sometimes said that if Sweden were to change the institutional relations between the state, counties and municipalities, the rural areas would get a better chance to develop than in the current scenario. It is a major issue that has been discussed in several contexts.<sup>22</sup> This section addresses the

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<sup>22</sup> For a discussion of the challenges for small municipalities, see for instance SOU, 2007, p. 10 and Sundstrom & Tingvall, 2006. For a discussion of the different institutional conditions at the regional level, see OECD, 2009 and OECD, 2012e.

issue from the narrow perspective of the challenge raised by the ageing population. We have seen in this chapter how small municipalities will have a more severe challenge in funding welfare services and in retaining and recruiting staff, especially for the long-term care of the elderly. Changing an institutional relationship is no obvious solution to these problems. In Sweden, as in the most countries, there are certainly areas outside the major cities with dynamic companies and/or natural resources that make the areas attractive. Would not greater autonomy be a good thing for such areas?

This is to make the issue a bit too simple. The country consists not only of areas with a dynamic labour market. There are several areas that lack natural resources, or lack the benefit of being located in a so-called cluster.<sup>23</sup> Greater autonomy cannot of itself change that.

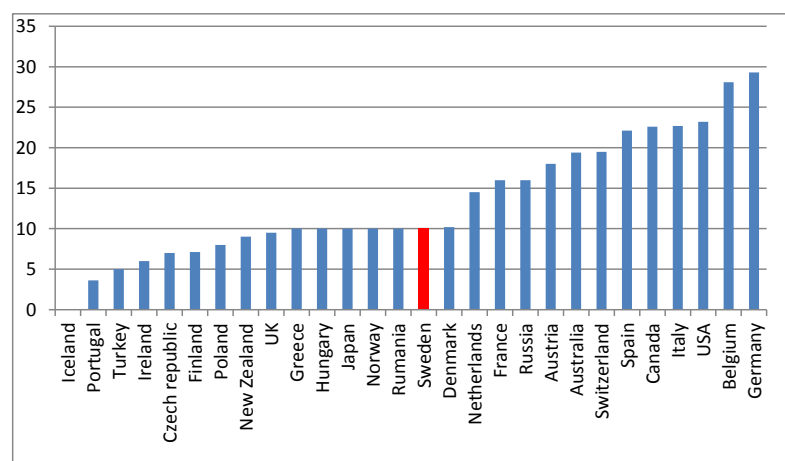
However, it may be worth broadening the horizons somewhat to get a better perspective.<sup>24</sup> Among OECD countries, there are a number of different ways that power is allocated between central and local government, including governmental agencies – almost as many ways as there are countries. One group of countries may be characterised as federal, including Austria, Belgium, Canada, Chile, Germany, Mexico, Spain and the U.S. In another group, to which Sweden belongs, government is centralised, but there are different degrees of delegation to the regional level. Some researchers have categorised the degree of regional autonomy in a regional authority index (RAI, see Figure 3.8), where higher scores roughly mean more power to the regions. It appears that the federal states generally land higher up on the index, as one would expect.

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<sup>23</sup> See OECD, 2011c, pp. 167-174.

<sup>24</sup> See OECD, 2011c, pp. 175-184.

Figure 3.8 Regional authority index (RAI)



Source: Hooghe et al., 2010.

Countries differ *inter alia* in terms of the degree to which the regional level is allowed to levy taxes, which taxes can be levied and what the money may be used for. In general, a large part of the welfare is performed at the regional level.

*International comparisons show no clear correlation between regional autonomy and the ability to handle the challenge of the ageing population*

Could it be that federal countries and countries with high local autonomy face a lesser challenge from ageing? It is difficult to draw any such general conclusions. However, we can try to pose the question in relation to two issues: a possible connection between regional autonomy and the old-age dependency ratio, and the magnitude of public debt.

What is a possible link to the old-age dependency ratio? Can regions with high autonomy be more successful in avoiding extreme old-age dependency ratios, for instance by creating

conditions leading young people to migrate to the cities to a lesser extent? A comparison between OECD countries shows no clear correlation between the degree of regional autonomy (for instance, how many taxes they can levy) and the challenges of an ageing population. One reason is probably that regions that have much higher taxes than their neighbours, just like countries, incur a competitive disadvantage. More regional autonomy, at least for this reason, is therefore not something that eases the challenge of the ageing population in rural areas.

### 3.4 Summary

The challenge of the ageing population is greater at the regional level than at the national level. There will be more small municipalities and they will have a greater share of the population. Even large cities will see a deterioration in the old-age dependency ratio, but their populations will increase, especially in Stockholm County.

Emigration from rural areas will probably continue and many small municipalities will face the following:

- providing schools and teachers when there are fewer students
- coping with long-term care of the elderly as well as recruitment to the welfare sector
- coping with the financing of welfare when fewer are at work.

What applies at the national level – a higher degree of employment and extending working life – will also help at the regional level. Labour immigration, especially combined with better integration, would certainly help somewhat. IT and modern technology can to some extent alleviate the problem, but it is difficult to identify any one simple measure, for instance more autonomy at the regional level, that can help to keep ‘all of Sweden living.’

The scenario described in this chapter will pose great challenges, especially for rural areas. It is therefore important not to close the door on innovative solutions. It is not obvious that the structures that exist today are the best to meet future requirements. That regions are increasingly open to cooperation with other regions is a good thing. This may make it possible to mitigate some of the cost increases in welfare and to further improve the conditions for job commuting.

Municipalities and regions should continue to learn from others, share experiences and test new knowledge to deliver welfare services, for instance by benchmarking activities against those who are the most successful. With the great challenges ahead there should be an openness to try new solutions and to affirm healthy competition among good ideas.

## 4 Challenges for the individual

‘...productivity isn’t everything, but in the long-run it is almost everything.’

Paul Krugman

What was it like working in a mine in Sweden a hundred years ago? And what was it like to work as a farmer's wife in the country? Literature, movies and museums show a picture of something that seems like another world. Though Sweden has been spared from war for a very long time, life was still hard before it was revolutionised by electricity, machines, tractors and modern tools. There were hardly any ordinary people who contemplated the balance between leisure and work in those days; to plan holidays and free time with children and grandchildren was probably also not a problem for most people – you had to work to survive and then life was over.

Economic development after the industrial revolution has significantly changed life. At the same time, values in our society have changed, but probably in a more complex and multifaceted manner. Research shows that there is a clear correlation between economic prosperity and values: in rich countries, there is a gradual change in values, but this change does not occur to a significant extent in poor countries.<sup>1</sup> In this chapter, we will briefly discuss the challenges for the individual from the ageing

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<sup>1</sup> Extensive research data suggest that cultural changes are driven to increase prosperity; see for instance Inglehart & Welzel, 2005. But changing values is a slow process; see for instance Oscarsson, 2011 for a discussion of Sweden 1988-2011.

population. This discussion revolves directly around issues related to how we value work, leisure and family – and children.

How long we should work is, of course, an economic issue, but development shows that when wealth grows in a free society, it brings about an increased importance for values. Our values concerning work, family and leisure have a far-reaching influence on our decisions in everyday life. When we leave the old norm – ‘one education, one job and then retirement’ – a world of new possibilities opens up. To some extent, society has adapted to the new conditions, but the challenges of an ageing population can be an apt opportunity to discuss some norms that might be due more to inertia than to something related to deeper values (see Box 4.1).

The attitude towards parental leave – especially paternity leave – is an example of a norm that has gradually changed in Sweden. Today it is normal – indeed expected – that many fathers take time off for their children and that women work. This was not previously the case, and in most non-Nordic countries it is still rather unusual. But there are other examples showing attitudes that have not changed as much:

- The phase of family and children is for many people a period when it is expected that you should work a great deal if you want to build a career. Even without such ambitions, for many parents it is today a challenge to cope with work, picking up children from school and finding time for each other.
- Changing jobs can be a way for individuals to extend working life, but there is research showing the existence of various forms of discrimination against older workers as well as against other groups.



The challenges in these cases concern flexibility and productivity in the labour market.<sup>2</sup> In Sweden, the conditions have significantly improved for combining children and work and for continuing working when we become older. There is public childcare and extensive parental social security, and the tax rules have been modified to promote female labour market participation (for instance through the abolishment of joint household taxation).

But how is the labour market adapted to utilise our skills and manage our time as we go through different phases of life – youth, parenthood, old age? For example, there are indications that firms invest *less* in the training of older workers; it can also be difficult to climb the career ladder if you have to wait until the phase with small children is over.

Do current values result in an environment that to an excessive extent perceives *temporary* changes in different life phases, for example working hours and work-capacity, as being of a more *permanent* nature? Despite improved flexibility over many years, it is likely that steps need to be taken, for example to make it easier to adapt to a longer working life and to simplify the work-life balance.

We begin this chapter with a discussion of values related to work. We then discuss attitudes in an international context, followed by questions about how working life can be extended and about productivity. Finally, we discuss some issues related to how to adapt to the future labour market.

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<sup>2</sup> Much has been written about the challenge of life balance. Slaughter, 2012 has recently written an acclaimed article and aroused extensive debate; see for instance Roiphe, 2012 and Giridharadas, 2012. In Sweden, the subject has been treated in several published articles and books, such as Granqvist, 2011 and Kågeson, 2006.

**Box 4.1: Life – one education, one job, and then ‘basta’?**

When life was much shorter, the school and training phases were also shorter. As the industrial revolution and technological development became more pronounced, however, the importance of education increased. From an economic perspective, education and human capital have steadily become more important in order to maintain productivity growth. Since classroom time postpones entry into work, years in school should have some relation to the number of years in working life, at any rate if common welfare services are to be funded. In view of this, the old norm of one education and one job or profession made sense. Before a universal pension scheme was introduced in Sweden, people worked as long as possible in order to make a living. The introduction of general retirement benefits was one of several building blocks in the construction of the modern welfare state. It contributed significantly to raising quality of life at the end of life.

The norm of ‘one education – one job’ has, at least in part, been relaxed. Sweden is one of the countries that invest the most in lifelong learning and adult education.<sup>3</sup> But the norm remains to some extent, especially for the more physically demanding jobs, such as construction, forestry work and jobs in the health sector. For those who enjoy their jobs, continuing in working life is not a problem. But those who are not happy at work and those who for physical reasons find it difficult to work when older have vast opportunities in Sweden to retrain for a second or third phase of professional life. One report shows that changing jobs is one way to regain work satisfaction. It can thus be one way to extend working life successfully.<sup>4</sup>

<sup>3</sup>See for instance Stenberg, 2012.

<sup>4</sup>See Beck-Friis, 2012.

## 4.1 Values related to work

One theme in this report, and something that several other reports emphasise, is the vital importance of extending working life.<sup>5</sup> Research shows that work has a value in itself over and above what is needed to finance different choices of consumption and leisure time. From the perspective of the demographic challenge, however, how much we work is mainly a question about how much welfare service we can finance through the public sector.

### *Consequences of working less*

What happens if we turn the argument around and, instead of aiming for a continued increase in the standard of welfare services, set some limit on how much we work – for example 20 hours a week – and simply accept whatever level of welfare that could then be financed? The answer depends on how much we value work, leisure, material wealth and welfare services. There is nothing illogical about wanting to work less *and* accepting less welfare services. However, it is not reasonable to demand that welfare should remain unaffected while simultaneously requiring a reduction in work.

Whether we should be working more – or less – is a question that has been discussed since far back. In a famous text, Keynes argued that since GDP will be many times higher in the future, we should be able to work correspondingly less but still retain our level of consumption.<sup>6</sup> In modern microeconomic theory, the scope of work is the outcome of what balance we choose between consumption and leisure. Keynes's idea of reduced work could be interpreted as the trade-off that occurs between

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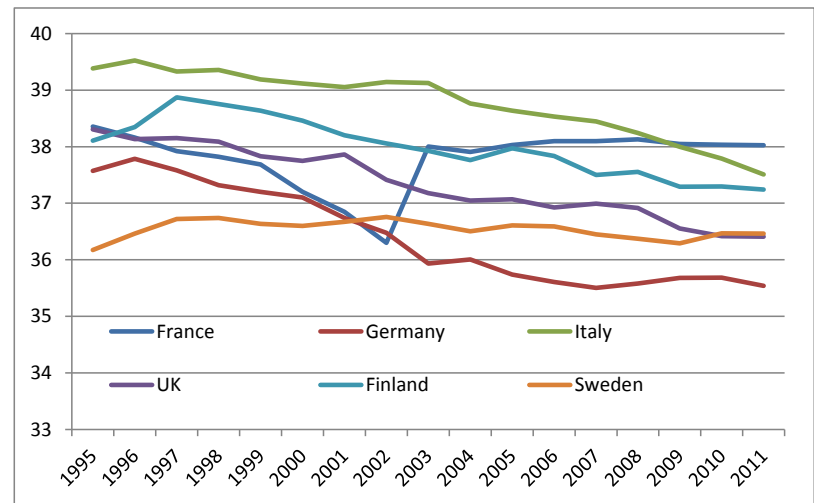
<sup>5</sup> See for example SOU, 2004, p. 19; SOU, 2006, p. 86; OECD, 2006; SOU, 2008, p. 105; SOU, 2012, p. 28; European Commission, 2012.

<sup>6</sup> Keynes, 1963.

consumption and time shifting to a greater emphasis on leisure when a certain level of prosperity is reached.

To some extent the development has been towards less work.<sup>7</sup> The issue has been reexamined in a recent book.<sup>8</sup> Longer time series are not readily available, but the statistics show that working hours declined slightly in recent decades in several OECD countries (see Figure 4.1). For Sweden, there has been some variation in working hours over the period, but essentially it has remained at the same level as at the beginning of the period. Comparisons over longer time periods indicate that we worked more hours in the past, but hardly to the extent that Keynes assumed.

Figure 4.1 Average hours worked in some OECD countries



Note: Average hours worked per employed person.

Source: OECD.

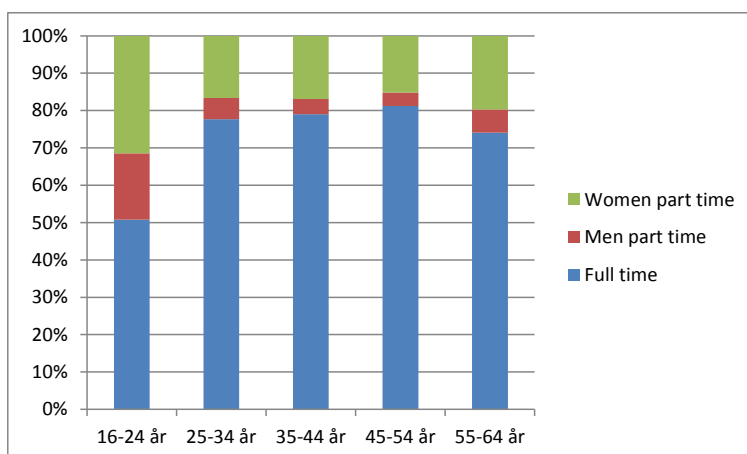
<sup>7</sup> See the book review by Posner, 2012 on Skidelsky & Skidelsky, 2012.

<sup>8</sup> Skidelsky & Skidelsky, 2012.

Having children is a fairly common cause of part-time work; in Sweden, this was the reason for a little less than 40 percent of all part-time workers in 2011. Some labour unions demand shorter working hours or extended weekends. Women make up the majority of part-time workers (see Figure 4.2). However, overall, we have not taken out much more leisure time now that society has become richer. Why do we not content ourselves with a given level of prosperity and limit the scope of work?

It is difficult to give an exhaustive answer to this question, but obviously many choose to work full-time when the possibility exists. What would less work and lower disposable incomes imply for people in practice? It could, for example, entail refraining from holiday trips that others can make, and it could imply having to accept a lower standard of living (housing, household appliances, clothing) than one's peers. Evidently, many people do not want to work less when it implies abstaining from higher private consumption.

Figure 4.2 The share of part-time work for men and women 2011



Source: Statistics Sweden.

*Research emphasises the intrinsic value of work*

There is a long tradition of research that emphasises the intrinsic value of work, over and above the fact that it enables private consumption.<sup>9</sup> Work also provides a sense of belonging and a community of peers and can increase self-esteem and confidence. Those who become unemployed often have poorer health than those with jobs. There is some evidence suggesting that young men with little education risk permanent social exclusion.<sup>10</sup> They have a hard time finding jobs, when many jobs in Sweden (and other OECD countries) require at least upper secondary education. They also have a higher risk of not meeting a partner and not being able to start a family.

Studies clearly show that work provides a sense of well-being far above what can be explained by the salary alone. Work contributes to individuals' sense of belonging in the community, their opportunity for independence and a stronger identity. In addition, those who work the most and the longest are usually those with the highest education or salary as well as with the highest marginal tax rates, i.e., those who essentially have the least economic need to extend working life.

The conclusions of this report are not significantly affected, however, by findings that work has an intrinsic value beyond providing a basis for consumption; so long as there is a direct link between growth and the welfare that we want to finance through public funds, the central challenge in the future will be about how we extend working life. To have a longer working life in terms of hours worked is the most important way to achieve this.

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<sup>9</sup> See for example Sen, 2000; SOU, 2006, p. 86; Social Survey, 2005, pp. 17-22; Mallaby, 2012; Kellaway, 2011.

<sup>10</sup> See for instance Rothstein, 2012.

*Sabbaticals and slow educational pace*

Another way to increase the number of hours worked is through improving the pace of educational programs. Studies indicate that, among OECD countries, Sweden has one of the lowest speeds of completion of studies. It is explained both by late starts in tertiary education ('sabbatical' year, etc.) and protracted completion times (due to a variety of reasons) for such education.<sup>11</sup> One report indicates that students may have an incentive to study longer programs with lower rate of intensity rather than the other way around.<sup>12</sup>

It used to be the case that not many could afford to have a break between upper secondary and tertiary education. Nowadays, it is rather common for young people to delay studies to travel and do other things. Above all, it is a challenge for young people to choose a path – either to enter the workforce or to continue with education. It is a difficult decision for many.

A sabbatical year can have positive effects in increasing maturity and insight, but this is not a given; it depends on how the time is used. It is a challenge to help the young be in a better position to make decisions about their studies and careers. It ought to be possible to change professions in midlife, but if too many wait too long before they begin their studies, and, in addition, take a long time to complete the studies, the financing of welfare services becomes more difficult.

*Most significant is to increase employment and extending working lives*

It is clear from the above that a significant improvement would be attained if the pace of studies in the educational systems increased (see the next section). However, higher employment

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<sup>11</sup> See Uusitalo, 2010; OECD, 2010c.

<sup>12</sup> See for instance Sonnerby, 2012.

and an extended working life are an order of magnitude more important: faster training can add a year or so to working life, but extending work instead of retiring may add not only one but several more years. Women in Sweden are already working to a greater extent than in many other countries, so extending working life for the elderly is what will have the strongest effect on increasing labour supply.

## 4.2 Attitudes in Sweden and in other countries

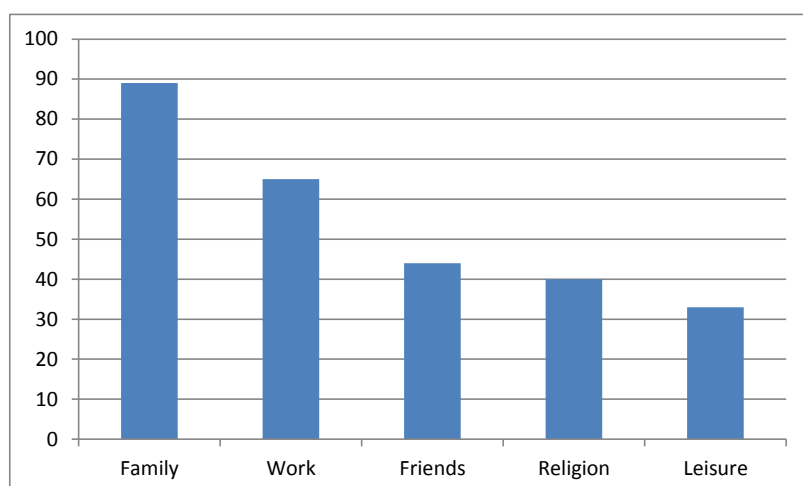
The statements made about values show large differences between countries, but a few key features are common. Figure 4.3 shows that in a sample of 81 countries, family is considered most important, followed by work. Another survey based solely on European countries comes to the same conclusion.<sup>13</sup>

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<sup>13</sup> Halman et al., 2008; Halman et al., 2012.



Figure 4.3 Values in 81 countries in 2000, share in percent of those who have specified respective question as important



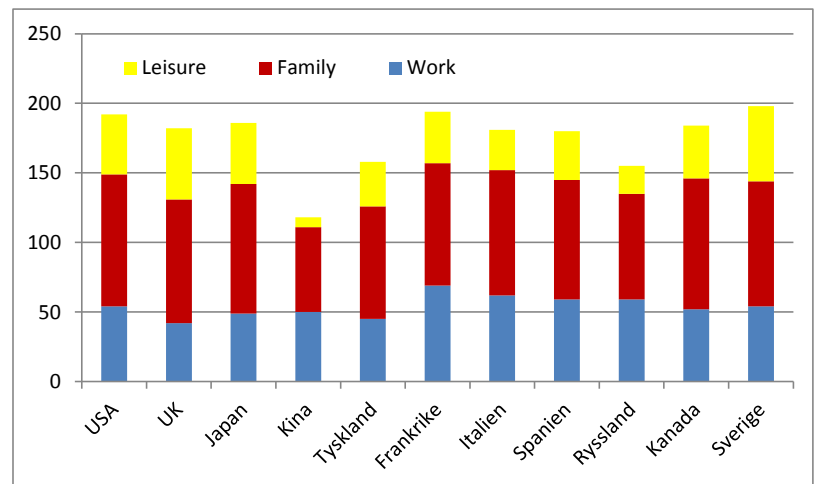
Source: Inglehart et al., 2006.

It is clear from Figure 4.4 that the differences in values about family, work and leisure between some selected countries are not very significant, in spite of different political systems and different geographical locations. China stands out somewhat by valuing leisure rather little. The value given to work is fairly similar despite rather large differences in actual working hours, welfare services and taxes. Americans as a rule work more hours than Europeans. One study indicates that Americans' longer average hours compared with Germany cannot alone be explained by the higher tax rates in Germany.<sup>14</sup>

It can also be seen that the variation between countries is somewhat larger in terms of values linked to work (see Figure 4.4).

<sup>14</sup> Average hours worked in the U.S. is approximately 25.1 hours compared, for instance, to 18.6 hours in Germany; see Alesina et al., 2006. Olovsson, 2004, compares Sweden and the U.S. and finds that taxes can explain some of the difference in hours worked in Sweden compared to the U.S.

Figure 4.4 Sum of shares in percent who view the questions put as important, 2000

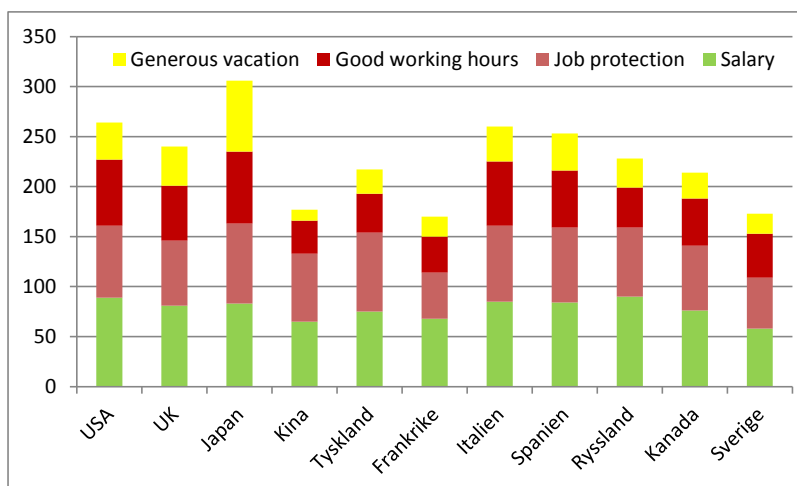


Note: Each colour bar represents the share that answered that question to be important.

Source: Inglehart et al., 2006.

In most countries, salary level and job security are deemed important, but for other factors, such vacation and good working hours, the differences in values are slightly higher (see Figure 4.5). The figures should, of course, be interpreted with some caution, but here, too, China differs from the others by placing a low value on holidays along with, perhaps somewhat surprisingly, France.

Figure 4.5 Sum of shares in percent who view the questions put as important, 2000



Note: Each colour bar represents the share that answered that question to be important.

Source: Inglehart et al., 2006.

### 4.3 Extending working life

What do we know about those working well into old age, and what do we know about those who retire earlier? What influences their decisions? Are there any barriers for those who want to work longer? In this section, we briefly summarise research on these questions. A more detailed review can be found in the recently published government Pension Inquiry.<sup>15</sup>

<sup>15</sup> See SOU, 2012, p. 28.

### 4.3.1 Who works after 65 and who retires early?

The decision to retire or to continue working has many dimensions – economic, physical, psychological, etc. – but empirical studies have identified several fairly universal factors.<sup>16</sup> The transition between employment and retirement is becoming less clear than before.<sup>17</sup> More men than women work after age 65 (see Figure 4.6). It is also apparent from Figure 4.7 that the level of education for those who are 65+ is increasing in Sweden, which is a consequence of the general level of education becoming higher. In very simplified terms, the characteristics of those working after age 65 are:

- a man, educated, self-employed, in good health
- a situation where unemployment is low.

Also very simplified, the characteristics of those retiring early are:

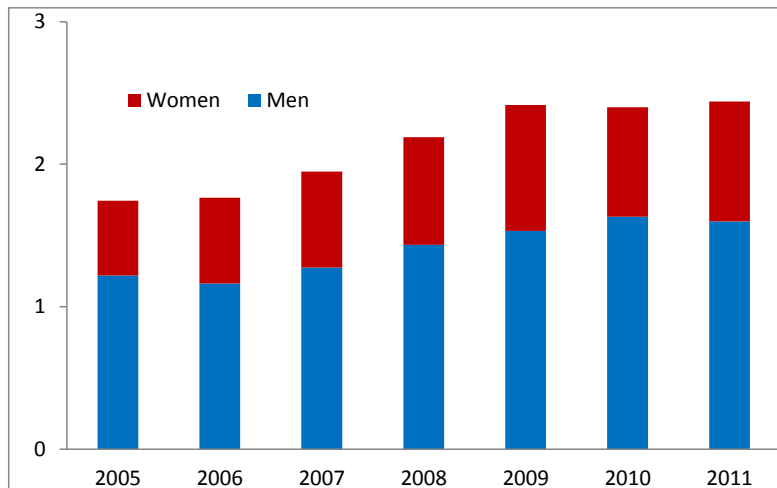
- low education, working in a job that is physically demanding and/or health problems
- not inclined to return to the labour market.

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<sup>16</sup> See SOU, 2010, p. 85; Arnek, 2012.

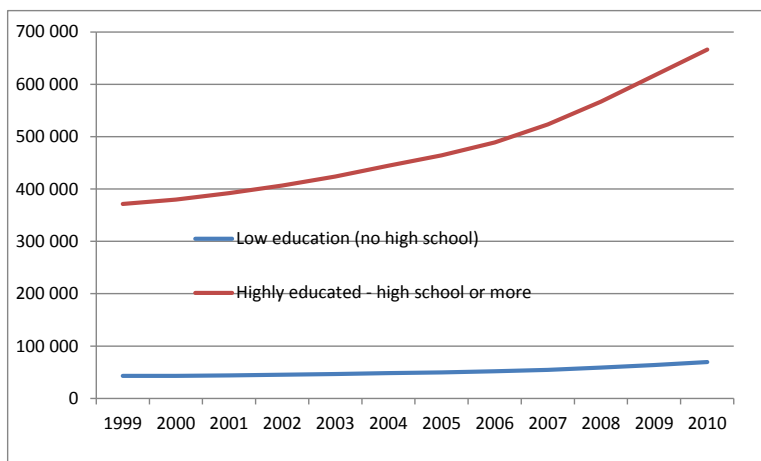
<sup>17</sup> See Ds, 2011, p. 42.

Figure 4.6 Employed 65+ as share of total labour force (15-74 years)



Source: Statistics Sweden.

Figure 4.7 Educational level for 65+ in Sweden, in thousands



Note: Low-educated means below high school level and highly educated means high school or more.

Source: Statistics Sweden.

### 4.3.2 What are the barriers to older people working longer?

Are there any barriers to older people who want to work? In this section, we briefly indicate some factors that are often discussed in academic research.<sup>18</sup>

*Surveys indicate that Swedish employers are more unprepared for the ageing workforce than employers in other countries*

In a survey of about 30 countries, Swedish employers stand out as among those who are least prepared for the ageing population. As a whole, the survey shows that about 90 percent of Swedish employers do not have a strategy to retain older labour or to recruit older workers.<sup>19</sup> Another survey in the report on the Pension Review shows that more than half of the employers hold the view that employees over 60 years of age should not continue to work, despite the expected labour shortage.

The survey is an indication that there is a significant challenge. A large part of the workforce is ageing, and this should prompt some adaption. It is true that throughout time small changes in the workplace occur all the time as generations change. However, the survey is cause for alarm in that there seems to be *insufficient strategic compass* in light of the magnitude of the ageing population and those retiring. The attitude of employers towards the elderly should also be viewed in light of the research that indicates that the proportion of elderly people in Sweden who want to keep working is increasing.<sup>20</sup> Surveys also indicate that it is often those who are higher up in the hierarchy and who have higher salaries who want to work longer.<sup>21</sup>

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<sup>18</sup> For a more detailed discussion, see SOU, 2012, p. 28.

<sup>19</sup> Manpower, 2006 shows that Sweden is ranked 27/29 and 25/29 in recruiting and retaining older workers. In Chapter 5, we discuss this further.

<sup>20</sup> See Stattin, 2012; SOU, 2012, p. 28.

<sup>21</sup> For an analysis of pension attitudes in health care, see Nilsson, 2006; Nilsson et al., 2011.

It is likely that the attitudes of those in our immediate environment – family, friends, and colleagues – towards working longer play a role. Existing research indicates that spouses coordinate their decision to retire. Since men are often the somewhat older spouse, this may be a partial explanation for the women's average retirement age being slightly lower than that of men.<sup>22</sup> There is also research that indicates that the decision to go into retirement may be 'contagious' in the sense that one's propensity to retire increases if one's colleague does.<sup>23</sup> In Sweden, the Institute for Labour Market and Education Policy (IFAU) found similar signs in terms of sick leave, which illustrate the existence of such coordination. It is possible that the same phenomenon can occur for the decision to retire.<sup>24</sup>

*Improved health provides the conditions needed for longer working life*

To what extent do older people's physical health and abilities pose obstacles to working beyond the current retirement norm? Measuring health is of course not a one-dimensional issue. We know, however, that life expectancy is steadily increasing, and there are indications that the *self-estimated* health of the population has improved. One conclusion from the government's Pension Inquiry is that, on average, health conditions are favourable for a longer working life.<sup>25</sup> However, the average conceals large variations, and the conditions for a longer work life may look different depending on a variety of factors, among them the profession.

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<sup>22</sup> Olsson, 2011 shows that on average, women retire over 1.5 years earlier than men. See Nilsson et al., 2011 on the coordination of both spouses' pension decisions in health care.

<sup>23</sup> Brown & Laschever, 2012.

<sup>24</sup> Hesselius et al., 2008.

<sup>25</sup> SOU, 2012, p. 28.

*Those with low incomes have weak incentives to work longer*

A person with median income receives significant economic benefit from working beyond the retirement norm. By contrast, the calculations in the government Pension Inquiry show that those with low income typically obtain a higher disposable income if they retire at 65 instead of working one year longer. The incentive to work is thus not only weak for those on low incomes, it even goes in the wrong direction if we are to extend working life.<sup>26</sup> It is therefore a challenge to create incentives for work for all in the future labour market.

## 4.4 Productivity

As we get older, strength, speed and responsiveness are impaired. At the same time, other abilities become stronger and compensate. More experience and the use of new technologies are likely to outweigh some of the negative effects of ageing, where some abilities can perhaps be compensated for fully and others only in part. How the labour market is influenced by the advantages and disadvantages of working at an older age will in turn affect the overall labour productivity in the economy. Since we are facing a shift where more and more grow older, the issue of older worker's labour productivity is becoming all the more important.

*Productivity at the firm level*

Research indicates that some companies that do not retain older workers can be more productive.<sup>27</sup> However, what is cause and what is effect is not obvious. How older workers are used might play a major role, and there is also research that, in fact, draws

<sup>26</sup> See SOU, 2012, p. 28, pp. 296-297.

<sup>27</sup> See for instance Ilmakunnas, Mali & Ranta, 2007 who indicate that the productivity of the elderly is lower, and Ours & Stoeldraijer, 2010 for an overview.



the opposite conclusion – that the productivity of a company does *not* need to become lower due to the higher average age of its workforce. The German Ministry of Labour has published some studies that indicate that the elderly may well be as – or sometimes more – productive than younger workers.<sup>28</sup> This could be explained by the existence of new technology that diminishes the importance of strength and speed.<sup>29</sup>

- Productivity at the individual level is not an obvious measure of performance from an economic perspective, as it is the group's composition and ability to deliver output that matter in the end.
- It is not clear what is cause and what is effect; companies in stagnant industries may have a higher proportion of older people working, as it may not be viable to finance new recruitment.

From a broader perspective, it is a challenge for a company's or organisation's leadership to take care of the competence of anyone who may be at risk of becoming less productive. For instance, making use of lifelong learning and the creation of new tasks may be important components to maintain motivation and productivity in a knowledge-based economy. However, a survey under the auspices of the government Pension Inquiry indicates only limited investments in the training of older workers.<sup>30</sup>

There are examples of companies that have more systematically adapted their work to the ageing workforce (see Chapter 5), and since the change in the composition of the workforce is so great, it may be warranted for businesses to review their working methods and routines. It is possible that changes that will help older people to continue to contribute to

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<sup>28</sup> Bundesministerium für Arbeit und Soziales, 2012; see also Göbel & Zwick, 2012 and Borsch-Supan & Weiss, 2011.

<sup>29</sup> Thomas Lindh at the Institute for Futures Studies has highlighted this; see for instance Ingenjören, 2012.

<sup>30</sup> A survey in SOU, 2012, p. 28 shows that about 5 percent of all sectors indicate less spending on the training of older workers.

productivity are good also for *all* employees (see Chapter 5). To some extent, the physical aspects of the workplace – which may be even more important for older than for younger employees – are an issue of the quality of the work environment. But increasingly, this will also be a profitability issue. If a firm cannot take advantage of its workforce – young and old – to a sufficient degree, it will risk undermining productivity and competitiveness.

### *Productivity in the economy as a whole*

What does the ageing population imply for productivity and growth in the economy as a whole? As discussed in Chapter 2, it is important to be careful of the implications from the ‘all else equal’ assumption. One study finds that ageing may have a slightly negative effect on growth (a few tenths of a percentage point) on the assumption that we do not extend working life.<sup>31</sup> It is probably a fairly robust conclusion: a purely mechanical calculation with a share of employed people declining compared with those who do not work will result in fewer hours worked per capita, and thus slightly lower growth.

In some countries, increasing female labour participation may to some extent compensate for this negative effect. The more women that enter the labour market, the more the decline in hours worked for the whole economy will be offset. This applies to a greater extent to countries other than Sweden, which has one of the highest female labour participation rates in the world, and it is not obvious that a further increase in Sweden would have the same effect as in other countries.

One of the more prominent researchers on U.S. productivity, Robert Gordon, points to the ageing population as a risk factor for lower productivity growth in the future – perhaps one or two tenths of a percentage point.<sup>32</sup> This is the same magnitude as in

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<sup>31</sup> See Bloom et al., 2011.

<sup>32</sup> See Gordon, 2012.

the study above, but Gordon also highlights other ‘headwinds’ for growth, including high public debt and environmental threats – which together almost completely erase the productivity that most projections for the U.S. assume.<sup>33</sup> Gordon emphasises, however, the high degree of uncertainty and the qualitative nature of the assessments, and states that the risk is probably smaller in countries like Sweden or Canada.

*No law of nature tells us that an ageing population must imply lower productivity and growth*

As described above, there are known factors (‘known knowns’) that could lead to lower productivity growth. The risk that the ageing population poses to growth has been discussed in several reports, particularly in terms of whether the number of hours worked decreases when there are fewer people in the labour supply.<sup>34</sup> But as shown above, there is also a risk that productivity growth will be dampened. What can we conclude from this?

We should keep in mind that productivity and number of hours worked are affected by what we do now and in the future. There are positive examples at the firm and the individual level, indicating that productivity need not become lower (see Chapter 5). The firms that adapt their activity to the ageing workforce are better placed to become – or remain – successful. As described above, however, there are strong indications that thus far Swedish firms have done relatively little (see section 4.3.2). What business can do to make better use of older workers is discussed in the next chapter. In the last section of this chapter, we discuss what individuals can do. *Everything else is not equal*, and we can influence our own situation.

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<sup>33</sup> Other risk factors for productivity, according to Gordon, 2012, are lower yields from education, increased income inequality and the continued outsourcing of IT.

<sup>34</sup> Johansson et al., 2012; European Commission, 2012.

## 4.5 How can we adapt to the demands and opportunities of the future?

How can working life be extended? In this section, we discuss the challenges for the individual's to adapt to how the demands and requirements may change in the labour market. Of course, no one can know exactly how the future labour market will unfold. The patterns of work that we see now have emerged over long periods of time and continue to change with new insights and experiences.

### *Today's trends strengthened tomorrow?*

A possible starting point is that the trends that we see today are amplified, i.e., that there is a continued increase in globalisation and a continued growth in employment in the service sector, while manufacturing decreases (see also section 5.6 in the next chapter).<sup>35</sup>

Describing in detail how the challenge for individuals will turn out is not meaningful. The intention is rather to illustrate in broad terms some issues that may arise when the aim is to maintain good productivity and to extend working life. Since it is productivity and the number of hours worked that together determine GDP growth, it is desirable that changes enhance both.

### *Continued technological developments affect the labour market and skill requirements*

From the beginning of industrialisation, there has been a tremendous development in how people work with machines to streamline, improve quality and reduce costs. Nowadays, the human role has increasingly become that of servicing the

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<sup>35</sup> For a vision of the future of services, see Hagman, 2012b.

machines and performing quality control, rather than trying to keep pace with the production line. The trend of using more technology and robots will undoubtedly continue, particularly when it is possible to achieve large-scale production of appliances and electronics. Robots will probably continue to become more versatile and programmable and capable of being used for more and more purposes.

What could this mean for the future labour market and for outsourcing? The outsourcing that to date has taken place (for example, to Asia) in terms of high-tech production is often motivated by low labour costs for relatively unskilled work in combination with flexible and long working days.<sup>36</sup>

However, as the Asian countries become richer, the workers are also likely to demand higher wages, thereby gradually reducing the current cost advantages of production. In the future, high-tech production may therefore need to move to other countries, where the cost pressures are still low, but it also cannot be ruled out that robots will become so versatile and cost effective that some production will move back to OECD countries.<sup>37</sup> It is also possible that this may occur on a much broader front than before, even in areas where automation has so far been too expensive to implement.<sup>38</sup> The jobs that will then be created will be about reprogramming and servicing robots. However, this development is unlikely to increase the number of simple, low-skilled jobs. Overall, it is likely that the need for low-skilled labour will continue to decrease, while the number of jobs requiring more specialised skills will increase.

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<sup>36</sup> See Duhigg & Bradsher, 2012 for an acclaimed examination of how iPhone production moved to China.

<sup>37</sup> See Markoff, 2012 and Friedman, 2012, who describe how robots are becoming more versatile and programmable and less dangerous to humans. See also *The Economist*, 2012b and Eisenberg, 2012.

<sup>38</sup> Brynjolfsson & McAfee, 2012 argue that we have only seen the beginning of the productivity gains driven by the use of machinery.

*Major changes may also occur in working arrangements*

It is not obvious that all forms of work will undergo only small, gradual changes. In many workplaces, human interaction and informal meetings are important – the coffee break, informal meetings and so on. To build and nurture informal contacts is considered by many to be important. However, over the past few years several different ways to communicate have become available. Even today there are jobs where communication is primarily through e-mail or electronic format without any people meeting in real life (sometimes referred to as home sourcing).<sup>39</sup> One-on-one meetings and phone calls have been supplemented by SMS, e-mail, twitter, Facebook and RSS.

Standards rapidly evolve, especially among younger people, around ways to communicate. The evolving norms make communication between generations harder, which may hamper the effective exchange of information. It is of course quite normal that different generations communicate in somewhat different ways. What makes the challenge all the greater in the present is the extensive generational shift that we face (see Chapter 5), where fewer people will enter the labour market than leave it. Good communication between generations will affect how well the skills can be transferred and, by extension, productivity.

It is easy to dismiss less human interaction at work as something extreme and odd. But it is quite likely that even traditional forms of social interaction at work will change. Although there are many advantages to workplace interactions, there are also disadvantages: we become more susceptible to contagious illnesses, spend time travelling and, from time to time, participate in superfluous meetings. Increased flexibility in the workplace can affect both the amount of work and productivity. If, for example, the time saved from reduced

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<sup>39</sup> Kellaway, 2012 describes an IT entrepreneur who never met his clients and who never talked to them on the phone – all contact was through e-mail.

commuting, unnecessary meetings and reduction of sick days leads to more productive work, the effect is obviously positive.

However, it cannot be excluded that reduced social contact may have a dampening effect on creativity and learning. To guess what the cumulative effect may be is therefore far from straightforward.

*Is it possible for everyone to work longer?*

While the labour market has generally changed so that there are fewer and fewer jobs where only strength and speed are important factors, in some professions it is still difficult to work into old age. There is plenty of research that shows that our responsiveness and strength decreases as we age. A general observation is that those with higher education are more likely to work longer.

*People working strenuous jobs often started to work earlier than those with tertiary education*

Is it really fair for those with physically strenuous jobs to have to work after their 60<sup>th</sup> birthday? Sometimes the need to extend working life is seen simply as tantamount to working beyond the pension norm. Often this is the case, but what matters for the funding of welfare is mainly related to the total number of hours worked during a professional life in combination with how productive a worker has been.

A particular challenge for those with higher or tertiary education is to start working sooner. The study pace in Swedish education is low from an international perspective.<sup>40</sup> For most people, however, it is possible to extend working life, which we discuss in the next section.

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<sup>40</sup> See OECD, 2010c; Sonnerby, 2012.

*Changing jobs – a way to extend working life and to retain high productivity?*

For those who are satisfied with their work, the challenge of extending working life is not so complicated. It is about continuing as before, possibly with a gradual reduction in working time, or working more from home, if it is possible. It is not as easy for those who have physically demanding jobs or are dissatisfied at work.

Some turnover of jobs is central to the knowledge economy and productivity developments. Labour mobility can help resources to be used more productively, for example, when jobs move from declining to growing sectors. Excessively high mobility, however, can have the opposite effect if transaction and learning costs become too high relative to the time in the new job.<sup>41</sup>

Changing jobs can be a way to deal with the challenge of extending working life. In some cases, retraining is needed, and sometimes this requires some years of learning and start-up costs which may – at least initially – lead to lower productivity and income. However, changing jobs or shifting to something new and interesting may be both a way to extend working life and – at least after a few years – to increase productivity and salary. It turns out that many times a change of job may be stimulating for those who are not happy with their current job or where the current job has physical requirements that make it difficult to continue.<sup>42</sup> There are indications that the young and more educated more frequently change jobs compared to older workers, who seldom do.<sup>43</sup> For some jobs that require physical strength or endurance, it can also be an advantage to switch to another job or change direction before pain or work-related injuries begin to occur.

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<sup>41</sup> See Andersen et al., 2008.

<sup>42</sup> Even a change of jobs from one industry to another can take place. For interviews with some who have completely changed jobs or focus, see Beck-Friis, 2012.

<sup>43</sup> See Israelsson et al., 2003.



Motivation is a key factor in working longer, and in this regard a change of job may help. In many cases, it is possible to change jobs within the same company or organisation. This type of change occurs all the time and is often a routine matter. There are several advantages to switching to something close to one's existing tasks. In many cases, a relatively small change can be stimulating. Moreover, the start-up cost may be small and the risk of an initial drop in productivity may be lower.

*The risk of failure in switching careers should be weighed against the risk of being unhappy in the current job*

A more marked shift in profession can be seen as a big change – both by colleagues and family. The risk of failure may be a deterrent: a change of job is no guarantee of success. There is also no guarantee that a job in another city, in another industry or in another specialisation will meet all one's expectations. The risk of failure, however, must be weighed against the disadvantage of not feeling happy at the current job, the risk of a decrease in physical stamina and other problems. Not to do something about one's situation may lead to discontent and frustration, while switching to something new may mean a new start in life.

That this may be the case is illustrated in a background report to the Commission on the Future of Sweden, where some 30 people who switched professions in midlife were interviewed.<sup>44</sup> Some examples from the report are:

- a professional rugby player who becomes a service technician
- an air traffic assistant who becomes a nurse
- an industrial worker who becomes an accountant

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<sup>44</sup>Beck-Friis, 2012.

- an officer with the armoured troops who becomes a doctor
- an artist who becomes a speech therapist.

*One or more changes of jobs may be beneficial for motivation, prolonging work life and improving productivity – up to a point*

In Sweden, there are excellent opportunities to change jobs in a relatively safe way. We have a variety of opportunities for education, training and retraining, and the population as a whole is relatively healthy.

Of course there are limits to how many job changes are beneficial or possible. For people with less education and who perform simple tasks, it may be more difficult to find new training or to change professions. But it is apparently not only highly skilled workers, sports stars or the self-employed who can successfully change jobs. Probably our values and our identification with the chosen profession explain why we often want to remain where we are, even though many factors may suggest a change.

We have a free labour market, and there is little to prevent workers to change jobs or orientation often, if they so wish. Presumably, however, changing too many times has diminishing returns, for example if the productive working hours are too short in relation to education or the start-up cost of learning the new tasks. However, for most people, this should not be a significant factor.

## 4.6 Summary

The future labour market will offer opportunities and challenges that we must meet if we are to continue to develop our public welfare services. We cannot know how the future demands for labour will turn out. However, it is likely that most people will have to work longer as life expectancy increases. How this will

vary between individuals, genders, professions or perhaps even generations, we can only guess.

Based on what we know today, however, it is possible to identify some issues that we need to address in the future labour market:

- If we are to increase the number of hours worked, it is necessary to ensure an earlier entry into the labour force, notably by increasing the pace and completion rate in education, by increasing employment and by extending working life.
- For those who are happy with their jobs, an extended working life is not so complicated, perhaps involving some kind of part-time work near or after retirement as a possible alternative. Those who are dissatisfied in their work, or who have physical reasons to leave it, have good reasons to seek a new job or profession. The risk of change should be weighed against the risk of losing motivation to work or losing the physical ability needed to cope with the present job.
- The continued expansion of public welfare services requires that we work longer and uphold productivity growth. Productivity will not automatically remain high just because we desire it to be so. Rather, it depends on a variety of factors, not least the choices we make in our education and in the labour market.



## 5 Challenges for firms

‘We found that the older team produced as much as the younger team and production quality rose.’

Jochen Frey, BMW<sup>1</sup>

There are signs that Swedish firms have thus far not done enough to adapt to the ageing population. Although Sweden has a higher proportion of employment in the group aged 60-64 than the OECD average (see Figure 5.1),<sup>2</sup> at the same time Sweden has a more extensive welfare state to fund than most countries.

The positive employment rates among older workers in Sweden compared with the OECD should be balanced against other factors that are of greater concern for efficiency in the economy and the possibilities of extending working life. The employment rate in the group aged 60-64 increased between 1960 and 2011 while the share of those 65+ who work declined until 2006, after which it has increased each year (see Figure 4.6).<sup>3</sup> The development in Sweden was thus in the wrong direction for many years and did not shift until 2006. We are not yet back at the 1960 level of employment for those 65+ despite the rise life expectancy. Furthermore, the proportion of older workers recruited in Sweden is below the OECD average.<sup>4</sup> There is also a survey by Manpower indicating that Swedish firms are

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<sup>1</sup> See Clegg, 2012.

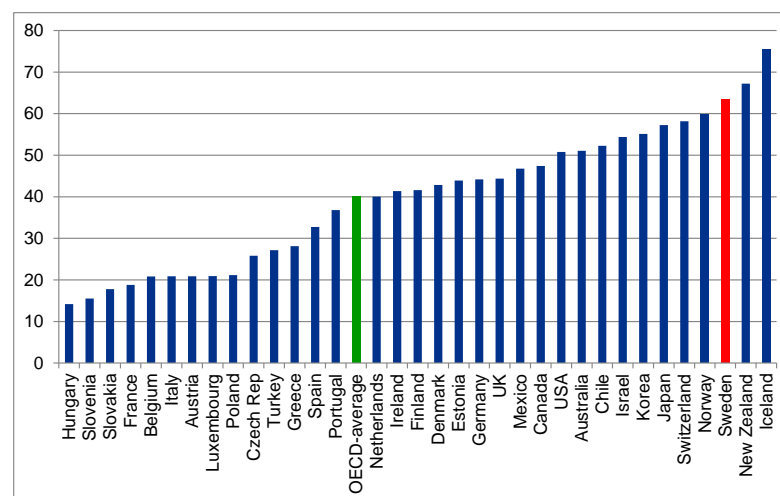
<sup>2</sup> OECD, 2012a shows that in 2011, the employed persons in the group aged 60-64 as a share the age group was 63 percent compared to an OECD average of 40 percent.

<sup>3</sup> See *Arbetsmiljöverket* (Work Environment Authority), 2012.

<sup>4</sup> OECD, 2012a shows that in Sweden in 2011, those hired were 5,6 percent as a share of the total age group 60-64 compared to an OECD average of 8,5 percent.

among the least prepared among 29 countries in terms of retaining and recruiting older workers (see also section 4.3.2).

**Figure 5.1** Employment for 60-64 as share of age group 2011



Source: OECD, Older worker's scoreboard.

In many cases, the challenges for the individuals discussed in the previous chapter imply a corresponding challenge for the labour market as a whole – for the social partners, for firms and for employers. In this chapter, we focus primarily on the challenges faced by firms in the private sector, but several factors are also relevant to employers in the public sector (see Chapter 6). Of course, parliament and government have overall responsibility. Other issues are discussed only to the extent that there is a link to demography.

As in Chapter 4, we find that regulation – social security, pension agreements and labour market agreements – as well as values are central for how working life is viewed in general, and for the retirement decision in particular.<sup>5</sup> It is likely that formal

<sup>5</sup> See for example Arnek, 2012 and SOU, 2012, p. 28.

rules affect workers' attitudes, but the opposite can also occur. In connection with the decision to retire, there are norms and values that can affect motivation as well as major or minor decisions, such as opportunities for further on-the-job training or even for changing jobs. Motivation may be influenced in many different subtle or less-than-subtle ways, for example when an employee is not allowed to attend a relevant training course due to the expectation of imminent retirement. Not least, it is important to emphasise that pension norms and structures laid down in contracts and pension agreements can act as formal or informal barriers to extending working life.

*Shifts in generations have always occurred – why have they become a challenge?*

What kind of challenge does the ageing workforce imply for firms? Shifts in generations and transfers of skills have been going on for ages. This has worked before – what's the problem now?

As part of the process of structural change, firms need to be ready to adapt all the time. When one generation retires and another takes over, the transition presents an opportunity to find new ways of doing a job. In some cases, the new methods are worse while in other cases they may prove to be more effective.

The older workforce possesses a great wealth of practical knowledge that it is rarely possible to attain through academic study alone. What makes the challenge ahead so great is the magnitude of retirements ahead; in 2012, for the first time in a long time, there were more retirees than entrants to the labour market.<sup>6</sup> In other words, many more experienced employees will retire compared to before.

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<sup>6</sup> See *Arbetsförmedlingen* (the Swedish Employment Agency), 2010b, p. 27.

In addition, there are signs that matching in the labour market has room for improvement. Matching of workers and jobs is a central part of labour market performance. When matching is not up to par, firms do not obtain the skilled workers they want, and job seekers risk remaining unemployed.

*Different phases in life – full-time and part-time can vary*

If people are to be able to work longer in the future, several things are needed. A norm with full-time work as its foundation need not necessarily imply full-time work in all the phases of life – it should be possible to work part-time, it should be possible to be on parental leave and it should be possible to change jobs throughout one's working life.

In theory, these opportunities already exist, but in practice there are barriers for older people to work longer, not least regulation and attitudes among individuals and employers (see section 4.3.2).

The matching of jobs and skills for all ages needs to improve, not only for those who are younger than 55. To cope with generational change, firms face several challenges:

- removing negative attitudes towards the elderly, for example in conjunction with training and recruitment
- the need for managers to utilise the skills of all employees regardless of age
- adapting the physical environment to the fact that the average age of the workforce is increasing.



## 5.1 Why should Swedish firms care about the ageing population?

For the financing of future welfare, it is important that firms and the social partners take the challenge of the ageing population seriously. There are several reasons why, in fact, their self-interest should be in line with the public interest. Too often, however, it seems as though retirement presents a way for firms to get rid of employees who are perceived as less productive and to replace them with younger ones. Sometimes this attitude is underpinned by the false notion that older workers prevent the young from getting jobs. Existing research indicates no such connection *even* at times when those who retired were fewer than those to enter the labour market.<sup>7</sup>

*Profitability may be in jeopardy if firms do not invest in the older workforce*

A major reason for firms to take on the challenge of the ageing workforce is that it is likely to affect profitability. If generational change is not implemented well, firms face the risk of skill gaps that could take years to close. Admittedly, this is a common challenge for many firms in developed countries, but for Sweden, as one of the most export-dependent countries in the world, it is especially important to be able to be globally competitive.

Any form of discrimination or negative attitudes towards older workers is in a way a deviation from a meritocracy – that one should hire and invest in the most competent person. This poses a risk to profitability. The stronger the competition, the stronger the case for using all available advantages. Firms should therefore make better use of the skills of older workers in order

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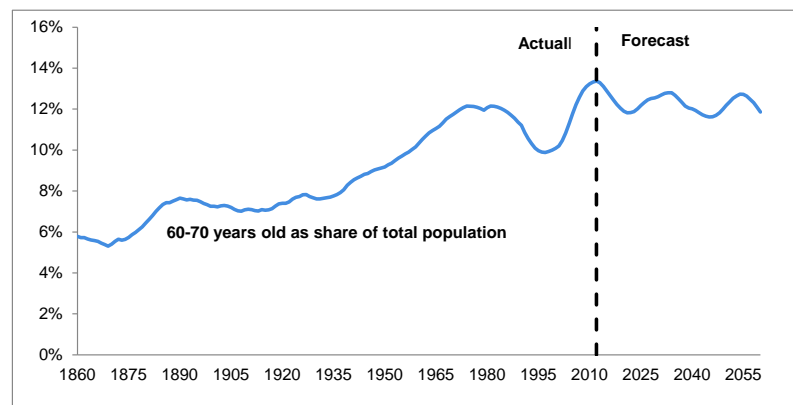
<sup>7</sup> The notion that older workers prevent the young from entering the labour market is sometimes called the 'lump of labour fallacy.' For an overview, see OECD, 2011e, pp. 76-78. For current research, see Munnell & Wu, 2012.

to maintain their competitiveness. There is also a significant public interest in firms' successful management of this issue.

## 5.2 The scope of generational shift is significant

According to the Swedish governmental agency responsible for matching employers with job seekers, *Arbetsförmedlingen*, about 1.6 million people are due to leave the labour market for retirement between 2010 and 2025, which is almost 20 percent more than retirements in the past 15 years.<sup>8</sup> Even taking into account that population is due to increase by over 10 percent during the same time, this presents a significant challenge. Figure 5.2 shows the proportion of 60-70 year-olds in the population. It is not an ideal measure of shifts in generations, but it indicates that the proportion of older people who are to retire has grown over many years and that we are facing a major change of in terms of employment.

**Figure 5.2** Indication of the scope of the generational shift as measured by the number of 60-70 year-olds as share of the age group, by percent



Source: Statistics Sweden.

<sup>8</sup> *Arbetsförmedlingen* (the Swedish Employment Agency), 2010b.

*Shifting trends – more leave the labour market than enter*

According to Statistics Sweden and *Arbetsförmedlingen* (the Swedish Employment Agency), in the near future the number of retirements will be larger than the number of young people who will enter the labour market (see Figure 5.3a, which shows the total change for both men and women). As shown in Figures 5.3b and c, there is a big difference between men and women. Men entering the labour market will by 2018 be less than the number leaving (Figure 5.3b), but even now there are more women leaving than entering, and this difference is set to continue to increase throughout the whole period (Figure 5.3c). Overall, this presents a significant change affecting the conditions in the labour market.

**Figure 5.3a** The labour market – entry and exit, thousands

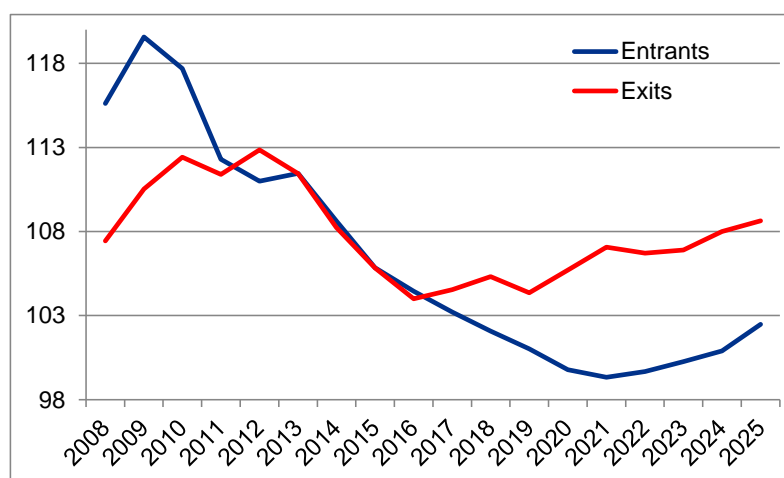


Figure 5.3b The labour market – entry and exit of men, thousands

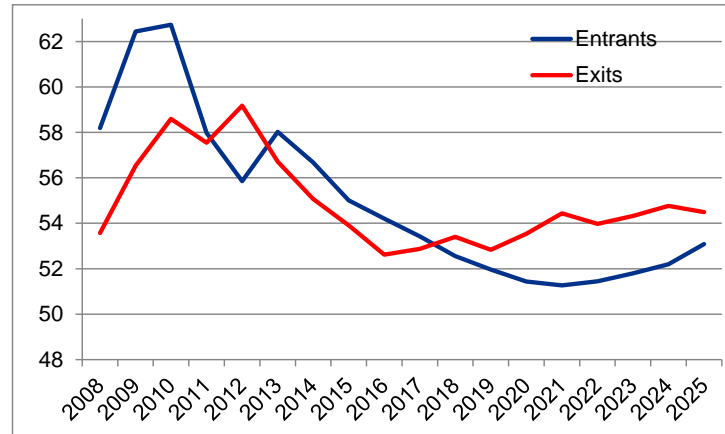
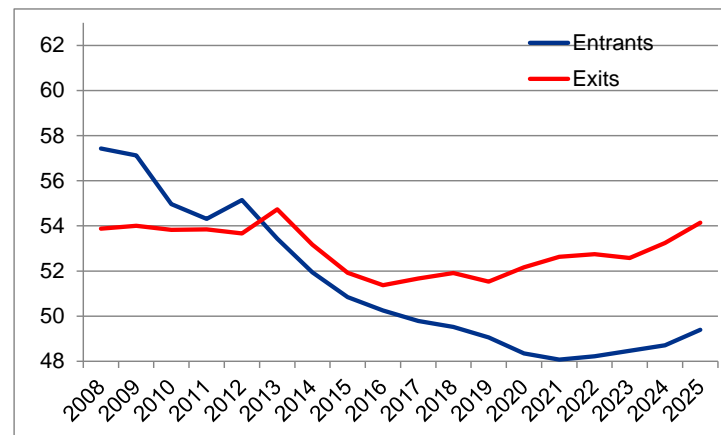


Figure 5.3c The labour market – entry and exit of women, thousands



Sources for Figures 5.3a, b and c: Statistics Sweden and *Arbetsförmedlingen* (the Swedish Employment Agency)

*The generational shift is both a risk and an opportunity*

It is important to have a broad perspective on the generational shift we face. In various parts of this report we have discussed implications for productivity growth and hours worked in the economy. In section 4.4, the focus was on how ageing can affect productivity given the individual's capacity and capability. The generational shift, however, is a slightly different challenge in that the focus is the effect of the *transition* from older to younger workers, rather than the effect of the average age being higher.

When the young are to enter – and the elderly to leave – the labour market, there is a clear risk that productivity growth will, at least temporarily, be dampened because many are learning new jobs. Notably, in many occupations craftsmanship is important, and the benefits that the young have in terms of speed and ability to learn can be contrasted to the benefits of experience and expertise that the older workers have. To the extent that skills are not transferred in full, there is a tangible risk that productivity growth may be held back for several years. A temporary dampening in productivity growth can all too easily become a long-lasting one – unless we take action (see also section 4.4).

However, it is wrong to see the generational shift as only a risk. It is part of the process of structural change that gives opportunities for improvement and for increased efficiency. An example from history can illustrate this: when the printing press was introduced for large-scale production of text, it was a significant technological advance that made it possible to spread knowledge in a simpler and more comprehensive way than ever before. Thus, the need to copy books by hand disappeared and those who did so needed to change jobs or switch to servicing the printing press instead.

Technological change can come quickly, but its dissemination often occurs gradually and is probably facilitated by shifts in generations. In many areas in industry, shifts in generations have

probably eased the transition to new technologies. This principle does not apply to the same extent in the service sector or for many welfare services. But even there, technology and improved knowledge imply that the quality has improved.

It is likely that generational shifts have the greatest potential to be positive for productivity growth in times when there is a quantum leap in the technological frontier. And conversely, when technological developments are slow, it is likely that the older workers' experience and knowledge are not outweighed, especially when there are significantly fewer younger than older workers.

*A survey indicates that most firms in Sweden do not take steps to adapt to the ageing population*

A survey that the Swedish Federation of Business Owners, *Företagarna*, has conducted with a selection of their members shows that most of them have not taken measures to adapt to the ageing population (see Table 5.1). It is worth noting that those who believe that productivity among the older workers is actually higher than among the young are almost as many as those who believe that productivity is about equal.

Table 5.1 Survey of Swedish firms' views on older workers, percent

Has the firm adapted organisation, work-routines and environment due to the ageing population?	How is the productivity of older workers compared to younger?	Assessment of the change in average age of employees in the future
Yes 23	Higher 37	Increased 32
No 73	Same 41	Unchanged 37
Unknown 4	Lower 9	Decreased 18
	Unknown 12	Unknown 11

Source: Företagarna (Swedish Federation of Business Owners).

Note: Due to rounding, some columns do not sum to 100.

### 5.3 What needs to be done? Challenges for firms and employers

*A great responsibility rests with the social partners, firms and employers to show leadership and via labour market contracts and other tools contribute to factors that make extending working life easier*

A great responsibility for the effective functioning of the future labour market rests on the social partners, firms and employers, in both the private and the public sector. Since wage setting, pensions and many other conditions in the labour market are governed by agreements, the social partners together have a central normative role in wielding several of the tools that may need to be used:

- rules and standards in the agreements, such as terms for pensions<sup>9</sup>

<sup>9</sup> For example, for salaried employees in the contract ITP2, which still applies to most, earn no pension rights after 65 years and the defined benefit sections provide incentives to stop at 65.

- education for both the young and elderly
- facilitating the opportunity to change jobs within the firm or support for retraining
- creation of a dynamic labour market for older workers, so that it is as natural to look for a new job at the age of 55 as at the age of 20.

*Negative attitudes towards older workers – a challenge for both employers and labour unions*

Some research indicates that discrimination might reduce employment and output.<sup>10</sup> This is not surprising. If factors other than merit are used for hiring – such as ethnicity, sexual orientation or disability – there is a clear risk of not getting the best candidate.<sup>11</sup>

There is not room here to conduct an extensive review of what negative attitudes about older workers imply for the functioning of the labour market; rather, the intention is to highlight some aspects that are particularly relevant as the population ages.

There are studies in Sweden that indicate the presence of outdated attitudes towards older workers in the labour market. Statistics from OECD indicate a wide prevalence of age discrimination, which, however, is lower in Sweden than in many other countries for the group 50+ (see Figure 5.4). There is also evidence that people with the same skills may have different employment chances depending on ethnicity, gender and age.<sup>12</sup> The study also indicates that the motive for discrimination

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<sup>10</sup> See for instance OECD, 2006; OECD, 2011e, Chapter 4; Kedefors & Johansson Hanse, 2012; Neumark, 2008.

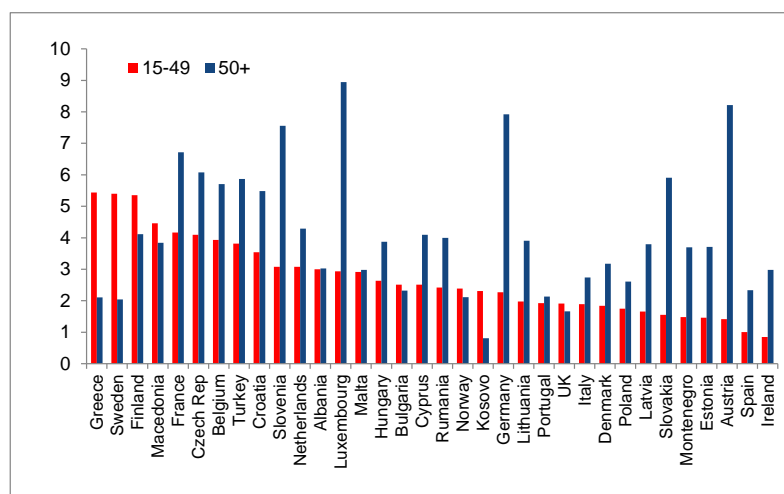
<sup>11</sup> A study by Berggren & Elinder, 2012 finds a correlation between tolerance and growth if it is not statistically robust. See also Hsieh et al., 2013.

<sup>12</sup> Eriksson et al., 2012; Ahmed et al., 2011.



seems to be uncertainty about the job applicant's productivity; International studies suggest the same.<sup>13</sup>

**Figure 5.4** Share of employed in 2010 reporting age discrimination during the last year



Source: OECD, European survey of working conditions.

The existence of negative attitudes towards older workers is fairly well documented. What do such attitudes mean for the challenge of coping with the ageing population?

It should be in everyone's interest to work to reduce negative attitudes towards older workers. With increasing competition – domestic and global – and given the level of the change that is in progress, outdated attitudes may simply be forced to disappear to uphold profitability. There is a significant difference between having a small number of elderly who are retired and the situation that we are now facing. Given that the increase occurs gradually, there is a risk that adjustment may be too slow. We will return to this in Chapters 6 and 7.

<sup>13</sup>For a summary of research, see SOU, 2012, p. 28. A selection of studies is Neumark, 2008; Bendick et al., 1999; Riach & Rich, 2006.

### 5.3.1 Strategies to adapt

The average age in the labour market entails significant changes in conditions for work, family and the life course that will characterise virtually the entire developed world. The changes will occur gradually but with great strength. For firms to meet this challenge, they need to have a strategic perspective on working hours, work environment and leadership.

*There is a temptation to postpone the challenge as the changes are gradual*

Often it is easier to adapt activities and develop strategies when there is a clear date when a risk may occur. For example, before the turn of the millennium, there was such a widespread concern and preparedness for computer problems associated with the transition to the new century – the so-called Y2K bug. Many firms and authorities undertook extensive preparations and planning in view of a potential computer crash. Some even used the opportunity to make leaps in technology and modernise their systems.

The millennium shift is an example of a clearly defined change expected at a specific time. It received much attention and mobilised many. This is not the case with the ageing population, as it lacks a clear time frame, is a gradual, multifaceted challenge, and is – not least – ‘so far so good.’ It may therefore be tempting to defer questions about the need to adapt.

*Small adjustments from year to year might be insufficient to adapt activities to the ageing population*

The extent of ageing is so great that small changes made from year to year without strategic direction are likely to be insufficient. But since the productivity of a firm depends on how the whole is working, this is a risky strategy that ignores the ever-growing proportion of the staff consisting of the elderly.

The picture of what firms have done so far is somewhat fragmented. This is perhaps not so surprising, since firms have different cultures, operate in different markets and also have reasons to keep their business secrets. But the differences between firms should not be exaggerated. For example, human capital-intensive firms are similar in having to address human capital, lifelong learning and knowledge transfer between generations.

*The positive power of example – what have firms done to adapt to the ageing population?*

An overview of what firms have done thus far can highlight some examples that have more general interest. Box 5.1 represents such a compilation. Several positive experiences are relevant (leadership, attitudes, reduced discrimination and the physical environment).

An overall conclusion is that there are quite a few things that firms and institutions can do. Several of these, involving leadership, scheduling, planning and work flexibility, do not involve any direct costs, but have many benefits. For example, allowing older workers to be involved in tasks that require high accuracy rather than strenuous physical work (Wojdyla) can be viewed as an example of good management. To have an organisation that facilitates such flexibility is a way to make adaptability more systematic (Deutsche Bahn).

Of course, some measures to adapt have direct costs. BMW's new assembly hall that is specifically designed to also function for the elderly is one such example. This raises at least two questions of perspective:

- Is the adaptation an investment for an overall better and more productive process, or is it an expression of 'feeling sorry' for the elderly?
- Can a physical working environment that is adapted to older workers also improve productivity and help to extend working life for younger workers?

Several of the examples given in Box 5.1 are by their nature an investment in a firm's production capacity. It seems like a reasonable hypothesis that the firms that make an adjustment for older workers to increase profitability have better chances of success. Employees can be expected to read the management's signals and unite behind a common goal. And conversely, if management makes the investment solely for reasons of 'feeling sorry' for the older workers, there is a risk that it will strengthen negative attitudes and become self-fulfilling.

Let's take a hypothetical example. Say an institution is planning to change its IT systems but chooses not to encourage – or even to discourage – the older IT technicians to attend a training course. Something that simple can represent a subtle but strong message.

The hypothesis in the second point above – that improved working conditions are good for everyone – also seems plausible. Research is somewhat limited, but a work environment that works well for older workers – for example, reduced noise and improved conditions for light and visibility – is probably positive for all employees.

**Box 5.1. Example of what firms can do to adapt to the ageing population**

*The physical work environment*<sup>14</sup> (ergonomics, light, noise, etc.)

- Build a new assembly hall specifically designed to support a healthy but ageing workforce (BMW Group, Germany).
- Maintain an administrative unit dealing specifically with placement of employees who can no longer be used in their more physically demanding jobs (Deutschen Bahn Service, Germany).
- Place the older employees in positions that require precision rather than physical strength (Wojdyla, construction firms, Poland).

*Leadership*<sup>15</sup>

- Introduce so-called age management including program training and practical guidance in which managers together with their employees learn to utilise and develop employees' skills. For example, Vattenfall (a Swedish energy multinational) has experienced measurable effects of such programs, including reducing the burden of sickness absence from 5.1 to 4.1 percent, and an increase in the average retirement age from 58.7 years in 2001 to 62.8 in 2007 (Age Management Sweden AB).
- Creating motivation via career meetings for employees between 45 and 48 years. Meetings conducted with 3,000 employees have led to 500 people changing positions in the firm (Le Credit Lyonnais, bank, France).

<sup>14</sup> For BMW, see Clegg, 2012; for Deutsche Bahn, see AARP, 2011; for Wojdyla, see European Commission, 2006, p. 83.

<sup>15</sup> For Vattenfall, see Skoglund & Skoglund, 2007; for Le Credit Lyonnais, see European Commission, 2006, pp. 141-142.

*More flexible working hours<sup>16</sup>*

- Introduce accounts for work over longer time periods that provide opportunities for extended absence. Rehiring former retired employees with specific skills for specific projects (Bundesagentur für arbeit, Federal Labour Agency, Germany).
- Take out firm pension and continue to work part time (Marks and Spencer plc, retail, UK).
- Flexible pension choices (The Co-operative Group, consumer cooperatives, UK).
- Reduce salaries up to 20 percent at age 55 and take out part of the pension (Cabinet Office, UK).
- Develop a personal plan for each employee over 55 years. Create pension plans and determine what is needed for the employee to stay longer (UPM-Kymmene's Tervasaari, paper mill, Finland).
- Working in pairs – junior and senior (UPM-Kymmene's Tervasaari, paper mill, Finland).

*On-the-job training and education<sup>17</sup>*

- Flexible working and training in age and diversity (Centrica plc, energy, UK).
- Individual capacity building (Daikin Industries, manufacturing, Japan).

<sup>16</sup> For Bundesagentur and Marks and Spencer, see AARP, 2011; for The Co-operative Group, see AARP, 2011; for the Cabinet Office and UPM-Kymmene's Tervasaari, see the TAEN, 2011.

<sup>17</sup> For Centrica, Daikin Industries, DSW21 and Lam Soon Edible Oils, see AARP, 2011; for Brisbane City Council, see the TAEN, 2011; for the UK-ENSEC, see European Commission 2006, p. 149.

- Alternative jobs and retraining (DSW21, Dortmund municipality, Germany).
- Personal physical and psychological risk profiles (Elkerliek Hospital, The Netherlands).
- Older workers can become experts. The role of expert advisor raises the status of older workers (Lam Soon Edible Oils Sdn Bhd, food production, Malaysia).
- Annual career support (Brisbane City Council, Australia).
- Apprenticeship training for employees over 40 years (UK ENEC, energy, United Kingdom).

#### *Health considerations<sup>18</sup>*

- Health checks and internal psychological evaluations (DSW21, municipal Dortmund, Germany).
- Recreation opportunities such as qigong, help to stop smoking and transition to healthy food (Salzburg AG für Energi, Verkehr und Telecommunications, energy and infrastructure company, Germany).
- Rehabilitation, physical therapy, coaching and training, which has resulted in lower absenteeism and reduced disability (Saarioinen, food producer, Finland).

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<sup>18</sup> For DSW21 and Salzburg AG, see AARP, 2011; for Saarioinen, see European Commission, 2006, p. 98.

### 5.3.2 The tools

#### *Leadership*

Managers have the responsibility to use employees' skills so that they do as good a job as possible. This leadership responsibility includes everything that is relevant to the job – including ensuring that new employees can quickly learn the job as well as utilise the experience of the older workers. Good leadership should be a superfluous heading in a report like this, but it seems far from evident that it can go unmentioned.

Dissatisfaction at work can partly be due to poor leadership, and this may in turn influence the decision to retire early.<sup>19</sup> Moreover, some surveys indicate that employers are less inclined to hire older workers.<sup>20</sup> The will to develop and retain older workers also has a link to incentives for organisations.<sup>21</sup> The low job turnover among older workers is probably a problem in Sweden, but if it were more common to change jobs throughout one's working life, it would not be strange to do so also when older.

There is an extensive literature on leadership and a substantial, predominantly international literature on age-conscious leadership.<sup>22</sup> The following are two principles that should be particularly emphasised:

- Good leadership (for example, the manager's responsibility to use the different strengths of the individuals to make a better team) for older workers is probably the same as good leadership for all.
- Better utilising the skills of older people can be accomplished – depending on the workplace – in many different ways, such as through mentorship or acting as a coach. It can also occur

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<sup>19</sup> See Nilsson, 2011; Ilmarinen, 2006.

<sup>20</sup> See Kedefors & Johansson Hanse, 2012.

<sup>21</sup> Nilsson, 2013.

<sup>22</sup> For a Swedish book, see Skoglund & Skoglund, 2005.

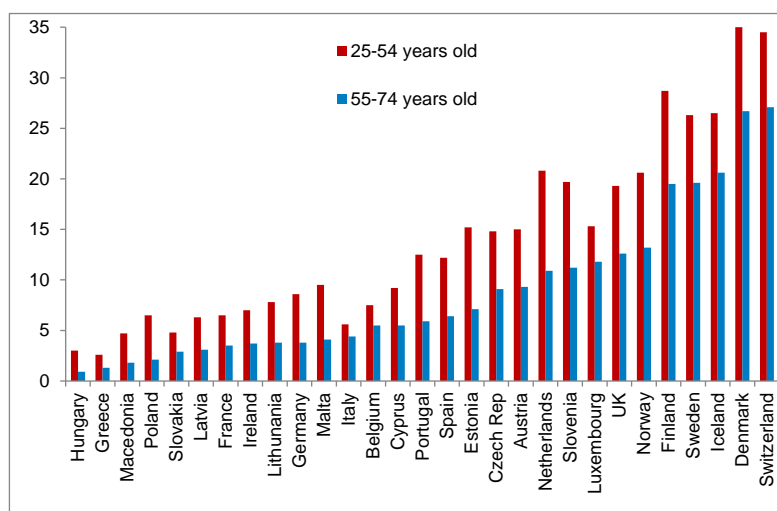


in various forms – in everything from full-time to part-time work.

*Training for older people is important to retain skills*

Figure 5.5 shows that firms invest less in the education of older workers, which may be an obstacle to extending working life.

**Figure 5.5** Extent of in-job education for younger and older workers, percent of total employed



Source: OECD.

Research in Sweden suggests that adult education improves wage but does not affect the time of retirement.<sup>23</sup> However, we know from other studies that level of education is an important factor for at what age people retire.<sup>24</sup> A study on Dutch data shows that the training that takes place under the auspices of the firm also

<sup>23</sup> See Stenberg et al., 2012; Stenberg 2012. For an international discussion, see Bassanini et al., 2005; Pischkel, 2005.

<sup>24</sup> See Klevmarken, 2010.

improves older workers' general potential to be hired.<sup>25</sup> One objection to this study is that those who attend training may not be representative of all older workers, but experimental studies where such methodological problems do not exist provide similar conclusions.<sup>26</sup> For those who have attended adult education, however, the attitudes and expectations prevalent in the work environment may still be an obstacle to extending working life.

#### *A work environment adapted to an older workforce*

There is extensive material and research on the capacities of older workers.<sup>27</sup> For example, *Arbetsmiljöverket* (the Swedish Work Environment Authority) has published several studies and surveys.<sup>28</sup> Factors highlighted concern how the work environment can be adapted for the older workforce through improved light conditions, reduced noise and ergonomics (see also Box 5.1). When a better working environment for older workers helps to extend working life and aids productivity growth, the steps taken could be seen as a good investment in the firm's capacity and its ability to be competitive.

#### *Flexibility in working hours and how the work is carried out*

The ageing population is just one of several changes that will shape the future labour market. From the beginning of industrialisation, when demands for attendance and pay-per-hour were common, the labour market has become more flexible in terms of where and how work is done. With the help of ICT, many can work from home or on the move. It facilitates the ability of many to work, especially parents of young children.

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<sup>25</sup> See Picchio and van Ours, 2011.

<sup>26</sup> See de Grip & Sauermann, 2011.

<sup>27</sup> See Ilmarinen, 2006; OECD, 2006.

<sup>28</sup> Arbetsmiljöverket (Swedish Work Environment Authority), 2004 & 2012.

Even older people who choose to work will benefit from how the modern office changes.

With modern technology, it will probably be increasingly easy to work flexibly at different ages and in different places. At the same time, this creates a new challenge for managers in that the traditional workplace decreases in importance.

## 5.4 The matching process in the labour market needs to improve

There are signs that matching in the labour market should improve.<sup>29</sup> Statistics show that job vacancies are not filled despite the presence of job seekers. There are many potential explanations. Some job seekers may have *too much* education, while others have *too little*, be in the wrong place or have wrong specialty. In many cases several factors may reinforce each other.

Paradoxically, it is quite possible for job seekers as a group to be both over- and undereducated for the available jobs. For example, this can occur if there are too many graduates for the jobs that do not require such training while there are too few applicants for jobs that do not require more than a high school education. The matching process appears to be simple but is actually rather complicated.

A report indicates that Swedish higher education would be more efficient *inter alia* if students took more informed choices and universities improved their ability to combine academic training with preparation for working life.<sup>30</sup>

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<sup>29</sup> See Karlsson & Skåniger, 2012 and NIER, 2012. Authorities working on matching in the labour market are *Arbetsförmedlingen* (the Employment Service) and the National Agency for Higher Vocational Education.

<sup>30</sup> See Sonnerby, 2012.

*Inadequate matching is a risk for the future labour market*

Mismatches in the labour market prevent economic efficiency. It is wasteful when there are vacant jobs due to skill requirements that cannot be matched by job seekers. Another problem is that young people who lack relevant expertise may become unemployed for long periods of time and have a higher risk of being marginalised in society. Some factors indicate that the current shortcomings of matching may matter also when we view the labour market in the long term, to 2020 and beyond:

- The matching process changes slowly because it is linked to study choices made over time and with a view to the skills that businesses need.
- The matching is difficult because the number of retirements in 2012 and several years after is estimated to be larger than the number of young who are to enter the labour market.

The combination of matching as a slow-moving process and the availability of fewer young workers to replace the large number of retirees poses a risk to both productivity and employment. If firms cannot fill vacancies with the skill profiles they want, there are some options that can have undesirable consequences:

- The vacancy is not filled – production decreases or is moved to another place or country.
- The vacancy is filled but with someone of lower skills – there is the risk of longer start-up time to learn the job and potential drop in productivity growth.

A particular issue is the matching of older workers. Often it is taken for granted that job matching is mainly about the younger workers in relation to vacancies. In a dynamic labour market, however, searching for new jobs may be just as natural for older people as it is for younger people. If the labour market is to

successfully recruit workers of all ages, the matching also needs to be about older workers.

A mismatch that persists for many years may hamper a dynamic labour market for everyone, including the elderly. An example may illustrate this: if firms need many new electrical engineers but can only cover a portion of the need and the gap persists for several years, the market for experienced electrical engineers will also be negatively affected.

Overall, the problems described for matching will be a major challenge for the changes needed to cope with the ageing population. This challenge also underlines the importance of the need to widen regional labour markets to ease matching at the regional level (see Chapter 3).

## 5.5 Future labour market and skill requirements

Of course, no one can know exactly what training and skills will be needed in the future labour market. A modern market economy is continually in a process of sending signals of the opportunities in the labour market. In the previous section, we discussed the challenges of improving the match between labour demand and the skills of job seekers. In this section, we turn our attention to historical patterns to discuss the trends that are likely to play a role in the future labour market.

*Much recruitment is needed in health care and especially in long-term care of the elderly*

One of the least uncertain forecasts is that the ageing population will require a greater degree of health care and long-term care. This is a trend that has already become clear.

A central issue is thus recruitment to health care and to long-term care of the elderly. The future elderly will probably be more experienced in technology than today, and there will also

be more technical solutions that help. But with the elderly becoming a larger group, some will require more care, and it cannot be taken for granted that the various forms of efficiency gains along with improved health will outweigh the risks of more scope for labour-intensive care of the elderly in poor health.

#### *Recruitment needs for the labour market in 2020*

With the next few years in view, several assessments have been made of the recruitment needs in different sectors and regions, including those conducted by the Swedish Association of Local Regions (SKL) and the Employment Service (AF). SKL has recently determined that 420,000 people need to be recruited to the welfare sector by 2019. Expected retirements will require approximately 330,000 people, and beyond that it is expected that 90,000 jobs need to be filled due to demographic trends (mainly elderly).<sup>31</sup> In particular, the assessment highlights the need to recruit kindergarten and elementary school teachers, nurses, physicians and specialists. SKL has seen only a weak correlation between demography and resource requirements in historical data but appears in this forecast to make a partial reassessment of future needs.<sup>32</sup> That it involves major changes can be understood by comparing SKL's assessment that 420,000 people need to be recruited to the 1.1 million who are already employed in the welfare sector today. Also, AF makes such an assessment of significant recruitment needs in the welfare sector. Retirement implies a turnover of about one-third of the staff. It becomes a significant challenge to manage generational change, especially as there are signs that the employees in the welfare sector have expressed criticism of how leadership has been conducted.<sup>33</sup>

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<sup>31</sup> SKL, 2011a.

<sup>32</sup> In Börjesson, 2008 one conclusion is that demographics are not significantly related to historical costs.

<sup>33</sup> SKL, 2011b.

AF regularly identifies which industries have a shortage of labour and where the competition for jobs is tough.<sup>34</sup> It appears that – in addition to the need of recruitment to the welfare sector – there is a lack of job seekers for IT programming and sales, trade, transportation and technology. However, in some areas many compete for few jobs, such as journalism, photography and sailing. Overall, many jobs require at least upper secondary education.

Statistics Sweden has conducted surveys on labour demand and arrived at similar results. Moreover, Statistics Sweden predicts a labour shortage in many areas of technology and in some social sciences.<sup>35</sup>

### *Outlook for the future labour market*

There are at least three broad market trends that have played a role in skills and recruitment needs:

- Developed countries are competing on price and especially on quality; we cannot match the cost advantages of developing countries in production of simple products, but we can compete in highly refined production that requires specialised skills. As developing countries become richer, the so-called BRIC countries will increasingly improve the quality of competition also in high-value-added production.<sup>36</sup>
- The development of technology has led the manufacturing industry to constantly use fewer workers in production while the service sector continues to increase. The jobs in manufacturing will probably be more about servicing machines and robots, while jobs in the service sector are likely to consist of both simple and more advanced tasks.

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<sup>34</sup> *Arbetsförmedlingen* (the Swedish Employment Agency), 2011.

<sup>35</sup> SCB (Statistics Sweden), 2012.

<sup>36</sup> 'BRIC countries' is sometimes used as shorthand for a group of countries (Brazil, Russia, India and China) that have high growth or growth potential.

One international comparison shows that there is significant room for productivity improvement in the Swedish service sector.<sup>37</sup>

- Globalisation continues, and because Sweden is a small and very open economy, we are particularly dependent on it.

These three trends related to the demand for labour will interact with the development of the labour supply from the ageing population.

## 5.6 Summary

Today, the older workers who become unemployed in Sweden have only a small chance of returning to the labour market. There are several signs of rigid attitudes and structures that remain from a time when the world of work was different and life – as well as time to work – was shorter. As life expectancy increases, the need to extend working life increases correspondingly. It is a challenge for the social partners and individuals to adjust to this.

It should be as natural to change jobs at 55 + as at a younger age, and a dynamic labour market should have a turnover of jobs in all age groups. For this to occur, several things need to happen:

- Rigid attitudes towards career length and labour market agreements need to be adapted so that people can work longer.
- Training should be continuous.
- Leadership should focus on making use of all available skills, including those from the elderly.

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<sup>37</sup> See Hagman & Bergström, 2010 and OECD, 2005 for an international comparison.



- The matching process in the labour market should be improved and dialogue between employers and educators should develop and deepen.

The changes that are needed get some tailwind of developments at large, but will address the challenges only to a limited extent.

*There is no quick fix for negative attitudes towards older workers, but firms, the social partners and employers can eliminate such unnecessary barriers to extending working life. Moreover, parliament and the government have overall responsibilities.*

The government's Pension Inquiry and research which are summarised indicates the strength of regulations and standards for participation of the elderly in the labour force as well as the decision to retire. Although 65 years is not a formal retirement age, it has become an informal norm that influences behaviour in several ways, notably in decisions on training, and the impact may also affect motivation. There may then be an element of something self-fulfilling and not based on the individual's own ability to work longer.

If the pension norm is adapted to a longer working life, it is likely to result in changes in firms as to how older people plan and view their work. Someone who is approaching 60 years and planning to retire may refrain from maintaining their human capital through education and become less curious about the environment and changes in society. If instead the norm for pension is extended, it becomes more natural for older people to continue their education and thus contribute to the workplace.

The pension norm is the most significant threshold, but it is a challenge to transform even the less visible barriers to longer working life, notably those contained in the various labour market agreements. The social partners, firms and employers have different tools and opportunities to reduce the barriers that

stand in the way of a longer working life. Moreover, parliament and the government have overall responsibilities.

## 6 Challenges for the public sector

‘The question we ask today is not whether our government is too big or too small, but whether it works ... Where the answer is yes, we intend to move forward. Where the answer is no, programs will end. And those of us who manage the public's dollars will be held to account – to spend wisely, reform bad habits, and do our business in the light of day...’

President Barack Obama, inaugural speech, 20 January 2009.

What does the ageing population imply for the public sector and for the possibility of enhancing welfare services in the coming decades? In this chapter we highlight some broad issues. The intention is not to make any detailed review of the public sector and welfare services but rather to illustrate what the demographic trends may imply and our options for coping with them. In particular, it is important to discuss what level of increase in the standard of public welfare services is sustainable – and what we can do in order to make the standard continue to improve.

From an overall perspective, Sweden is better positioned than many other countries when it comes to dealing with the challenge of ageing population: The pension system is sustainable, Sweden has a well-developed welfare system and public debt is amongst the lowest in the OECD.

However, Sweden also has a more developed and comprehensive public welfare sector, which means the financing of this sector may be more sensitive to demographic trends than other countries.

The challenge is essentially about how to further develop publicly funded welfare to preserve that which is good and at the same time continue to raise the quality of welfare where there is room for improvement. Surveys provide some evidence that the public's willingness to pay for taxes is high in Sweden, which probably reflects the fact that many hold the view that that you receive many welfare services for the taxes paid. It may also reflect several other things, not least an opinion about the importance of an equitable distribution in society generally. However, this does not mean that the willingness to pay taxes is unlimited. Indeed, it is expected that we will be careful with scarce resources and constantly work to improve efficiency.<sup>1</sup>

## 6.1 Developing the future welfare

Sweden has chosen a welfare model where the public sector provides a broad and universal coverage and where schools and health care are mainly financed by the tax system.<sup>2</sup> There are fees for certain services, such as for doctor visits and for care of young children or the elderly, but often the price charged is far from actual cost and there are often ceilings for the maximum amount an individual has to pay.

*Is the historical cost of welfare services a good guide for the future?*

The historical development of the welfare state, especially during the last 20-30 years, provides a starting point to discuss what increase in the standard of welfare services is possible in the future (see also Chapter 2). The Swedish welfare state has been built up throughout the 20th century, especially after World

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<sup>1</sup> Synovate, 2008 conducted a survey that provides some support for a high willingness to pay tax for welfare services in Sweden. The questions, however, are not asked in a way where different financing options are set against each as the costs of the ageing population increases. See also Svallfors, 2011.

<sup>2</sup> For a discussion of different models of welfare states, see Esping-Andersen, 1990.

War II. Childcare was expanded, women began to enter the labour force to a greater extent and care for children and the elderly was expanded. Some of the costs incurred in building the welfare state are not fully relevant when we look ahead as the costs of maintaining an existing capital stock can be assumed to be less than the costs of establishing it in the first place. For example, once a school or kindergarten is built, it can be used for many years if maintained well. To establish routines that allow parents to be home when children are sick is another example of system changes carried out in Sweden, and which is part of the explanation for the rate of female labour force participation being higher than in the most other countries.

There are also costs that are likely to be higher in the future, particularly since care for the elderly will need to expand as there will be more older people. The population is also becoming more well-informed and may have high demands, such as choice of medical treatment and of medication.<sup>3</sup> Thus, there are factors that indicate higher costs but also factors that indicate the possibility of a lower increase than before. If we use historical cost as a basis to look forward, it remains important to have these limitations in mind.

*How can the increase in the standard of welfare services be accomplished?*

Most analysis indicates that we can manage the financing of the existing level of welfare based on the cost increases associated with the ageing population (see Chapter 2).<sup>4</sup> Most people, however, expect a continued increase in the standard of welfare services. The question is therefore, by how much can the standard of welfare services increase. Funding that would enable

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<sup>3</sup> See eg Swedish Insurance 2012a, b; Borg, 2009; SKL, 2010, the Commission on welfare future funding, 2010.

<sup>4</sup> See eg SOU, 2008:105.

an increased standard of welfare services can be achieved in several possible ways:

- an earlier entry into the labour market by job seekers; a higher employment rate and a longer working life; these all contribute to increasing the tax base and ease the burden implied by a rising dependency ratio
- increased efficiency in the public sector and welfare services
- higher fees or a raised cost-ceiling for welfare services
- higher tax rates
- private alternatives and private insurance.

In this chapter, we discuss the first two options, and in Chapter 7 we make an appraisal where the last three options are examined.

The next section presents a calculation that shows a possible scenario for how the standard of welfare services can increase when taxes or fees remain unchanged. It is an important calculation that shows one way of achieving an increased standard of welfare services while maintaining sustainable public finances. It is followed by a discussion on increased efficiency in the public sector.

#### *Which development of welfare services do we want?*

In this section, we discuss how large an increase in the level standard of welfare services that can be achieved when we limit ourselves to a projection of existing structures and behaviour patterns. In Chapter 7, we discuss this issue from a broader perspective and from possible policy options.

On behalf of the Commission on the Future of Sweden, the Ministry of Finance has made some calculations that give a rough indication about the increase in the standard level of welfare that is sustainable over the period 2016-2050, which

provides a base-scenario that can be used for comparisons.<sup>5</sup> Inevitably, there are uncertainties in these calculations, and care should be taken not to assume that all scenarios are equally likely. The ageing population requires such a large scale of change in expenditure and in the revenues to finance welfare services that the conclusions are substantially less sensitive to assumptions than for example in forecasting business cycle movements.

In some alternative scenarios, calculations also show what is needed for the increase in welfare services to become larger, and what might cause it to increase at a lesser rate. Here we do *not* make the common assumption that the policy is unchanged. Rather, the sustainable standard increase is calculated by answering the following question: If government consumption should be approximately constant as a share of GDP - how much could the standard in welfare services increase each year?<sup>6</sup> It should be emphasized that this is not a forecast, but rather a way to illustrate one possible development. Conversely, it is also a way to show what we need to do if we would like to see another scenario being realised.

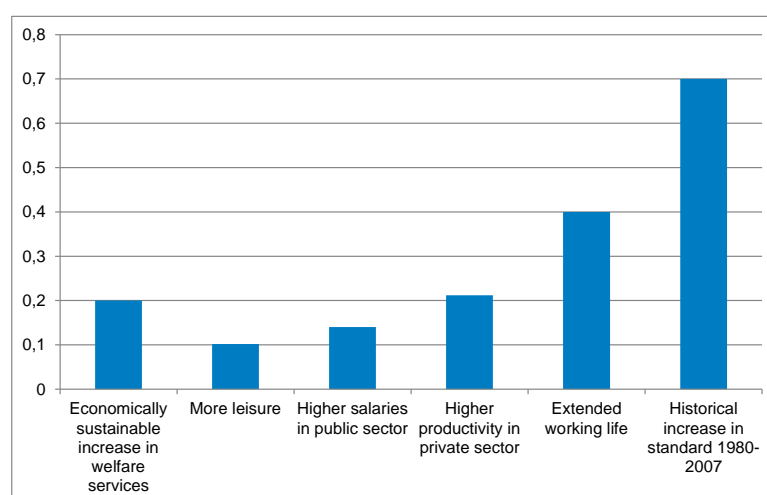
The results of the calculation are shown in Figure 6.1. On the far right is an assessment of the historical increase in the standard of welfare services: about 0.7 percent per year.

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<sup>5</sup> The results are reported in Enegren, 2012. The calculations are based on the assumptions of the past long-term projection as presented in an annex to Vårpropositionen, 2012 (Spring Budget) and SCB's (Statistics Sweden) demographic forecasts. In the long term calculation, the following average increases per year are assumed in the long term: real GDP - 2.2 percent, hourly wages - 4 percent, employment for the group 15-74 old - about 67 per cent, inflation - 2 percent. For other assumptions, see Ministry of Finance, 2012, p. 21.

<sup>6</sup> The increase in the standard of welfare services is measured by volume increases in public consumption.

**Figure 6.1** Increase in standard of welfare services, average per year in percent



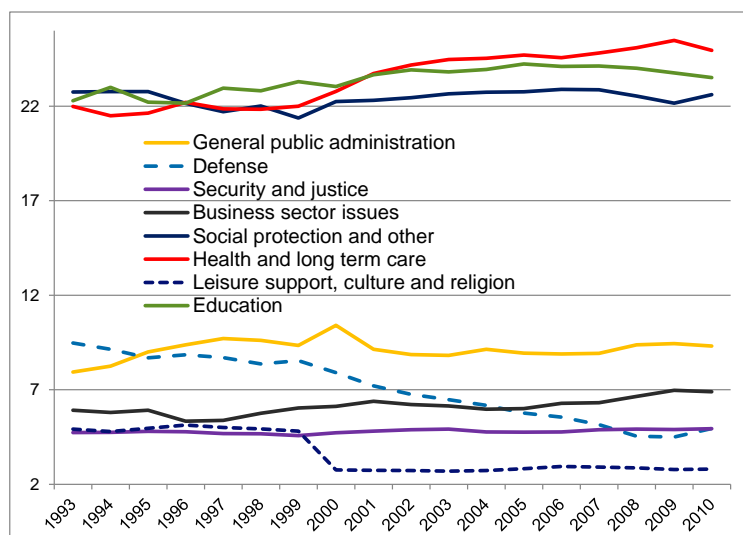
Note: Measured as volume increase in government consumption. The increase in standard is calculated as an average for the period 2016-2050.

Source: Enegren, 2012.

The increase in future standard of welfare services that is assessed to be sustainable is at the far left and is about 0.2 percent per year. During the period 1980-2008, we had a higher average increase in welfare standard, which was partly possible due to the fact that the costs of the ageing population did not fully impact on welfare spending yet and partly due to changed spending priorities in the public sector. More specifically, there were relative reductions on culture and defence spending (see Chart 6.2), as well as relatively modest real-wage increases in the public sector.



Figure 6.2 Expenditure as share of total government consumption



Source: Statistics Sweden.

The calculation may seem somewhat theoretical and an illustration may help: roughly speaking, the difference between 0.2 and 0.7 percent sustainable historical increase in the standard of welfare services corresponds to labour taxes in the model gradually raised by about 8.3 percentage points up until 2050. The calculation should be interpreted with great caution: it does not take into account that labour supply may be dramatically reduced as a result. The Swedish Association of Local Authorities and Regions (SKL) reports an estimate where local taxes gradually increase by about 13 percentage points in 2035 to achieve an increase in the standard of welfare services by one percent, but it is an increase that is about twice as high as in the example above. Comparisons, however, are generally difficult, because SKL's calculation was made about four years ago.

Higher taxes are an option but risk reducing efficiency in the economy (see Chapters 2 and 7). One question is therefore what do we need to do to get a larger increase in the standard of

welfare services than 0.2 percent per year without tax increases? Another question concerns which developments may cause the standard of welfare services to increase at a slower rate? The Ministry of Finance has computed some alternative scenarios for the period 2016-2050 to illustrate such developments:

- increased leisure by 0.1 percentage points lower average hours worked per years, which implies that the annual working time in 2050 would be approximately 55 hours (3.6 percent) lower than today<sup>7</sup>
- slightly higher wage increases, 0.1 percentage point per year, in the public sector relative to the baseline in the private sector
- higher private sector productivity growth by 0.1 percentage points per year
- longer working-life where the retirement age begins to follow the increase in life expectancy.<sup>8</sup>

If we increase leisure or if wages in the public sector increase more than the assumption in the baseline scenario, the increase in the standard of welfare services that is sustainable (i.e. with no increase in taxes) becomes lower than 0.2 percent per year. If both were to occur, virtually the entire room for a sustainable increase in welfare services disappears.

It is clear from Figure 6.1 that the single most important thing we can do to have a continued high increase in the standard of welfare services is to *extend working life*. A number of factors lead to this conclusion, the most important being that tax revenues from work are a substantial funding source for welfare spending. Increased tax revenues can also come from a

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<sup>7</sup> Figure 4.1 shows a picture of how the average working hours in Sweden and some other countries have changed from 1995 to 2011.

<sup>8</sup> In technical terms, extended working life is implemented by adjusting the retirement age in the baseline scenario so that employment in 2050 increases from 67.8 percent to 71 percent for the age group 16-74 years.

generally higher employment and an earlier entry into the labour market (see also Chapter 7).

Higher productivity in the private sector helps a bit but is rather marginal for contributing to the financing of welfare. Productivity growth is central for GDP-growth – and for development of disposable income – but it does not ease the financing of public welfare spending. The reason for this is that higher productivity in the private sector is expected to lead to higher wages, which are assumed to spill over to the public sector. Moreover, government transfer payments such as pensions, child allowances, health insurance are assumed to increase in line with growth in income levels in the long term.

A longer working-life, which follows the increase in life expectancy, is a fairly significant change in our society and at the same time would essentially amount to a normalisation to the state of affairs when the pension system was introduced. Statistics Sweden (SCB) has made a calculation that illustrates the issue from a different perspective: for the old-age dependency ratio in 2030 to be about the same as today, employment needs to increase by about 600,000 people.<sup>9</sup>

*What does it mean that the standard of welfare services increases?*

One question for the future is whether we want the increase in the standard of welfare services to increase by more than 0.2 percent per year, for example to reach the historically high figure of 0.7 percent per year or perhaps even somewhat higher. The next section discusses how greater efficiency can help but in this section we instead address what welfare services we can get for the money.

It is an advantage to adopt a broader and longer-term perspective on welfare state development. Both the welfare state and the economy as a whole are in constant change and

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<sup>9</sup> Wilén & Hellsing, 2012.

development. Welfare services previously requested may increase, change character or even disappear. Moreover, welfare services and society tend to change rather slowly and, as a consequence, it can therefore be difficult to detect changes from year to year. Seen over a couple of decades, however, the changes tend to be rather substantial. To compare change in the content of welfare services (beyond purely pecuniary measures) is more difficult than to compare changes in goods or in production. We can easily compare an older car with a car of today's model, and note that now typically catalytic converter, ABS-brakes, and airbags, often are standard. Measuring improvements in welfare services is more difficult – but the difficulty should not be exaggerated. We can see that schools today have a different pedagogic level compared to a few decades ago. Also ICT and technical progress provide an aid to teaching many subjects and provide both interactive- and distance learning, particularly if materials in English are used. In health care, we can now treat many diseases and disabilities that were hitherto not possible.

How we will use an eventual increase in the standard of welfare services in the years ahead is an important issue to address in the political process. While the past decades can be characterized as a build-up phase for welfare services the coming decades will largely be about further development of the existing welfare services – which in turn will be significantly affected by the ageing population.

The increase in the standard of welfare services can be distributed to the different parts of the welfare state, such as to schools, health care and elderly care. But we should not only focus on the increased standard. It is also important to continually *develop, assess and re-assess* what services we want in relation to the consequences in terms of tax financing.

In the next section, we discuss some examples of services that can illustrate some issues inherent in seeking to develop, assess and re-assess welfare services. There are areas where we may want to add much of the increase in standard, but also other areas that might alter character or form. When faced with such a

big change as the ageing population implies, it is important that the various scenarios and possible priorities provide good input into a transparent political process.

*Challenge to develop the content of the publicly funded welfare*

The increase in the standard of welfare services can come in various forms in schools, health care or care for the elderly. How it will be distributed will be an important part of a political process, but is outside the scope of this report. Increases in the quality of health care will continue to allow medical procedures that mitigate – and sometimes almost eliminate – the effects of diseases and impairments.<sup>10</sup> Some of these improvements may be simple and inexpensive, while others may be more expensive and difficult to finance through the public welfare system.

It will be a challenge to determine what level of standard welfare services should be financed by public means.<sup>11</sup> This is an issue that has existed throughout the construction of the welfare state and it will also be relevant in the future. Already today, there are welfare services, such as in dentistry, where adults are asked to pay the full costs up to some ceiling level. We also have to pay the full costs for our own glasses and contact lenses, as well as pay for laser eye-surgery, whereas, for example, hearing aids are subsidised by the government.

In some areas, there is an active and vibrant debate about what the public sector should provide. Recently, for example, there has been a discussion of how extra police support in connection with football games and festivals should be funded – by the government, by the private organisers or via higher ticket prices. In health care, there are daily choices that doctors are forced to make between medical standpoints and what patients

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<sup>10</sup> For some examples, see Cookson, 2012a, b; Fountain, 2012a, b, c.

<sup>11</sup> See eg Berg, 2001; Molander, 1999; Molander & Andersen, 2002 and Commission welfare of future funding, 2010.

want. The questions asked are difficult and important.<sup>12</sup> Sometimes patients wish to receive treatment abroad; is it reasonable that this is financed by other taxpayers?

There are examples of expanded services in some municipalities, for example pre-schools that are open in the evening or at night, and provide childcare for parents with irregular work hours. The examples illustrate the vast range of issues at hand. There are no universal answers, but rather an on-going development. Public sector welfare generally does not include medical services considered primarily as cosmetic or performance enhancing, but it is becoming harder for such a simple boundary to be drawn. Where the boundary between welfare funded by public means and private commitments should be drawn is generally a difficult question, which does not mean that we can ignore it. Without a process clarifying what is a public welfare commitment and what should be in the private sphere, there are risks of for arbitrariness and for differences between regions.

### *Greater challenge in rural areas*

In Chapter 3 we showed that small municipalities will become smaller, be more numerous and have a higher old-age dependency ratio. Small municipalities will have a larger number of older people than today and many young people will continue to move to urban areas. Welfare funding in small municipalities is therefore a particular challenge, which may imply tensions for the management of the government's system of municipal tax smoothing. It will also be a challenge to find qualified personnel to work in schools and especially to provide care for the elderly in small municipalities.<sup>13</sup> Employers in the welfare sector will need to ensure that jobs in health, education and social services

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<sup>12</sup> See for example materials and publications from the prioriteringscentrum, Linköping's University (National Centre for Priority Setting in Health Care).

<sup>13</sup> For an overview, see chapter 5 of the OECD, 2011d. See also SKL, 2011a.

are attractive. Otherwise, there is a risk that recruitment to the welfare sector becomes more difficult, which can lead to higher wage increases than those assumed in the base-scenario and thereby ultimately risk reducing the rate of increase in public welfare services that is sustainable (see Figure 6.1).

## 6.2 Increased efficiency in the public sector

The private sector has had productivity growth around two percent on average per year over a longer time period. Sometimes it is assumed that the public sector has no productivity, but this has not been shown to be the case and is an assumption that runs the risk of becoming self-fulfilling: If you do not believe that it is possible to improve a service, clearly the risk increases that the standard remains unchanged. Any form of increased productivity in the public sector will greatly facilitate a higher sustainable rate of increase in the standard level of welfare services compared to the baseline that was discussed in the previous section.

### *Potential for improvement through competition and other tools*

In the public sector, it is difficult to measure productivity. Measurement problems are partly due to the fact that the effects of government consumption and its quality are difficult to define. In the private sector, it is relatively easy to calculate the costs and profits of an activity. Although measuring costs in the public sector can be readily be done, the results or outputs that we care about are seldom measured in monetary terms. Below are some examples of how the efficiency of public sector can increase:

- Use benchmarking to set goals that have been shown to be achievable if resources are used as efficiently as possible.
- Continue to develop the objectives and results of state authorities.
- Use automatic and predictable rules for agencies which contribute to cost effectiveness.
- Allow competition from private sector providers of services on equal terms.<sup>14</sup>
- Improve public procurement.
- Improve governance of state-owned companies, but also when appropriate, sell stakes in state-owned companies.

Previously, the public sector has to a greater or lesser degree had a monopoly on welfare services, but choice and competition have over many years been expanded and improved, for example the school reform in 1992 where municipalities were obliged to fund private schools that satisfy certain criteria. Notwithstanding these changes, the competition in Sweden is still somewhat limited and more competition would be good for productivity and efficiency in the public sector. A study of the effect from the above mentioned school reform found an improvement in grades in *both* private- and municipal schools. The authors control for other possible effects, for example from grade inflation, and conclude that it is the increased competition that is the main explanation.<sup>15</sup> Overall, it is a challenge – to the extent possible – to try to re-create the effects of competition by other means.<sup>16</sup> Since the public sector cannot go bankrupt in same way as a private company, it is important to always strive for cost efficiency, fiscal discipline and economic efficiency.

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<sup>14</sup> See eg Valfärdsutvecklingsrådets (Welfare Development Council's) report to the government, 2012.

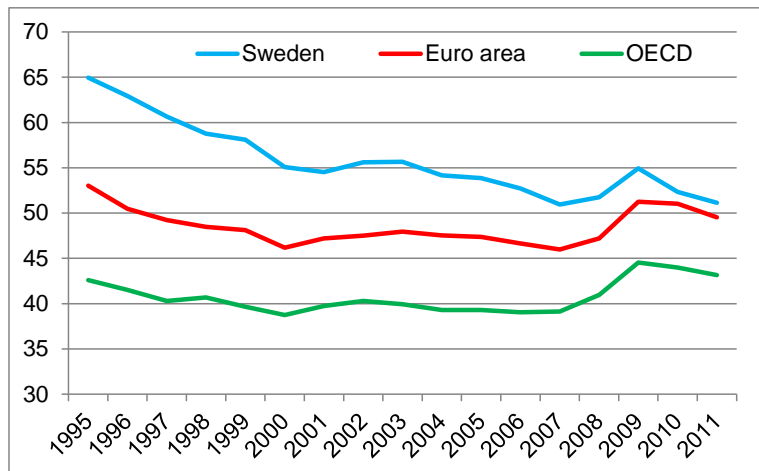
<sup>15</sup> See Böhlmark & Lindahl, 2012.

<sup>16</sup> A not dissimilar problem for central banks, which also does not have any competition and beyond what is sometimes called a soft budget constraint, see Blix et al., 2003.



In Sweden, all of these possibilities are used. For example, SKL conducts such benchmarking of hospitals to facilitate comparisons.<sup>17</sup> In order to promote efficiency, in Sweden specific budget rules are imposed on governmental agencies which determine how funds are allocated to them.<sup>18</sup>

Figure 6.3a Government spending as share of GDP 1995-2011

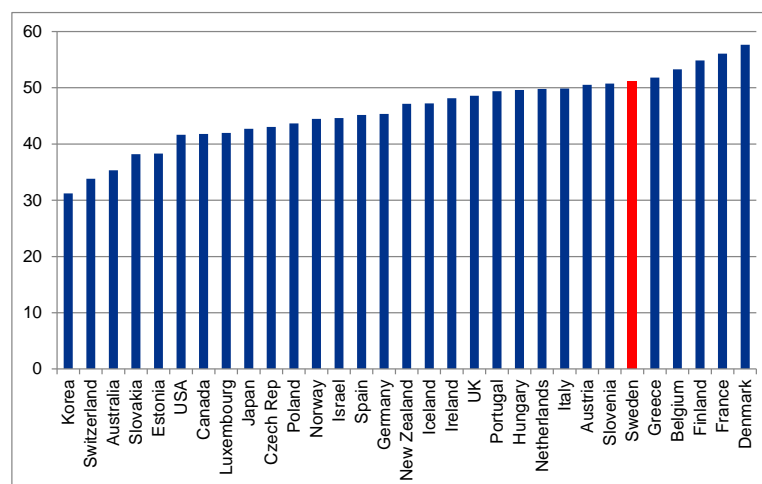


Source: OECD Economic Outlook, 2012f.

<sup>17</sup> See eg SKL, 2005.

<sup>18</sup> The system is known as price and salary calculated appropriations. The principle is that governmental agencies' expenditure on wages and rents should decrease relative to an average of productivity growth in the private sector.

Figure 6.3b Government spending as share of GDP in OECD-countries



Source: OECD Economic Outlook, 2012f.

*Public sector in Sweden has decreased significantly since 1995 but is among the largest in the OECD, which reinforces the importance of continually striving for efficiency*

Total public expenditure as a share of GDP has declined significantly in Sweden – from about 65 percent in 1995 to about 51 percent 2011 (see Figure 6.3a). In the euro area, the public sector as measured by the government expenditure as share of GDP has also decreased every year except during the financial crisis but for Sweden the change has been greater. Since total government expenditure in Sweden still is among the largest amongst OECD-countries (see Figure 6.3b), it is important to, with all means, continuously strive to increase efficiency and limit costs. As shown in Table 6.1, Sweden does well internationally in a variety of indices and often has a top placement. The OECD also noted in its latest review that Sweden had one of the strongest developments in the past few

years.<sup>19</sup> Also noteworthy, *The Economist* recently published a special issue in which the success of the Nordic welfare model was analysed.<sup>20</sup> A good development and maintaining a strong position, however, cannot be taken for granted and, as shown in the next section, there is potential to further improve the efficiency of the public sector.

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<sup>19</sup> OECD 2012d, p. 13: "In many areas, Sweden is at or close to the frontier, with high per capita income, low inequality and poverty rates, good health status and environmental quality, a sound balance between work and life and high trust in institutions. Moreover, GDP growth has been strong in recent years ... These good outcomes are the fruit of sound macroeconomic policies and structural reforms that have also helped to cope with economic, demographic and other shocks."

<sup>20</sup> *The Economist*, 2013.

**Table 6.1** Sweden's ranking in different international indices

Index	Source	Rank
Nation Brands	Anholt-GfK Roper	10/50 (2011)
CountryRep	Reputation Institute	3/50 (2012)
FutureBrand Country Brand	FutureBrand	4/118 (2012-2013)
Cities of Opportunity	PricewaterhouseCoopers	Stockholm: 5/27 (2012)
Corruption Perception	Transparency International	4/183 (2011)
Human Development	UN Development Program	10/187 (2011-2012)
Legatum Prosperity	Legatum Institute	3/142 (2012)
Environmental Performance	Yale University, World Economic Forum	9/132 (2012)
The Global Gender Gap Report	World Economic Forum	4/135 (2011)
State of the World's Mothers	International Save the Children Alliance	3/165 (2012)
Travel & Tourism Competitiveness	World Economic Forum	5/139 (2011)
Global Talent	Heidrick & Struggles	5/60(2012)
Innovation Capacity	European Business School	1/130 (2010-2011)
Innovation Union Scoreboard	European Commission	1/27 (2011)
Global Innovation	INSEAD Business School	2/141 (2012)
Knowledge Economy	World Bank	1/145 (2012)
The Global Competitiveness Report	World Economic Forum	4/144 (2012-2013)
World Competitiveness Yearbook	IMD Business School, Switzerland	5/59 (2012)
Responsible Competitiveness	AccountAbility	1/108 (2007)
Doing Business	International Finance Cooperation	14/183 (2011)
Global Enabling Trade	World Economic Forum	4/132 (2012)
Global Creativity	Martin Prosperity Institute	1/82 (2011)
The Networked Readiness	World Economic Forum	1/142 (2012)
The Web	The World Wide Web Foundation	1/61 (2012)
Global Government Effectiveness	World Bank	3/213 (2011)

Source: See [www.si.se](http://www.si.se) or respective organisation.

*Research indicates that Sweden has a relatively efficient public sector, but that the results could be even better given the huge resources devoted to welfare*

What does research say about how well the public sector in Sweden performs? It is relatively easy to measure effort (costs and hours worked), but harder to measure results (increased health, more educated population, etc.). The questions that research are seeking to answer can be roughly summarised as follows:

- Are public services of satisfactory quality given the resources used?
- Is it possible to achieve better results with the same resources?
- Is it possible to achieve the same results with lesser resources?
- Is it possible to develop international comparative standards (benchmarks) to learn from those who are the best performers?
- Is it possible to measure and understand the sources of inefficiency?

The research seeks to estimate the efficiency of the public sector while controlling for external factors. To describe the methods and data used is outside the scope of this report, but an example can illustrate the importance of controlling for external factors: When comparing the effectiveness of health care in different countries, it is necessary to take into account that customs and cultural differences also can affect outcomes. For example, if one country has a healthy food and exercise culture a high level of health is cannot solely be attributed to the quality of care.

The research can be summarised by the fact that Sweden stands up fairly well in various measures of effectiveness, particularly in the health and medical care sectors, and

(especially in higher) education. In some studies, Sweden is among the best ranked countries but there are also signs that in the Swedish education system, the time taken to complete studies is too long; also, the completed diplomas as share of the total is low (see Chapter 4). Studies also show that the results could be even better, given that taxes represent a relatively large proportion of GDP.<sup>21</sup> Or conversely, we could get *the same amount of public welfare* at lower costs if public sector in Sweden became more efficient.

### *Who should work for greater efficiency?*

As discussed above, further efficiency either means that we get more welfare for the same money or that we get the same welfare at lower cost. Striving for efficiency and imposing priorities should be part of the normal work each year in the public sector and should not be confused with downsizing.

Who should work for greater efficiency? Actually the question should be the reverse: Is there any governmental agency authority, any municipality or county that should *not* work with efficiency? It should apply to everyone – from central government and government agencies to municipalities. Confidence in the public sector and the willingness to pay taxes crucially depend on tax money being prudently spent and to the benefit of society at large. It is a challenge for the public sector to ensure that efficiency is always on the agenda and is part of the regular work cycle.

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<sup>21</sup> For a selection of studies, see eg Afonso et al., 2005; Afonso & St. Aubyn, 2005a, b; Afonso & St. Aubyn, 2010; Joumard et al., 2010; Jonker, 2012 and St.. Aubyn et al., 2009.

*Continued efficiency gains through e-services*

Several Swedish authorities have successfully implemented e-services which citizens can use for everything from paying taxes to apply for seek compensation for social security. More and more services that citizens need are possible to access via the internet. Once the investment costs are made, this represents a significant efficiency gain as well as an expanded availability of public services. It is also a challenge that those gains are shared across the whole population. Many older people may find it difficult to use modern ICT-services and so far, not all parts of the country have good connectivity to the Internet. Despite these obstacles, the e-solutions will probably continue to gradually become more significant and contribute to increased efficiency. As the population ages, the average ICT skills will also become higher than it is today.

Sweden has come a long way with e-services that citizens use:

- Prescriptions for medicines are electronic. They can be used in all pharmacies and the risk of ineligible or misinterpreted prescriptions is lower.
- Tax declarations can in large part be done on the Internet.
- Many simple transactions, such as reporting care of stay-at-home sick children and parental leave can be done on the Internet.
- Electronic medical records increase efficiency and reduce risk of incorrect treatments.

*Potential for improvement in health care through ICT and other tools*

In Sweden, the Ministry of Social Affairs, SKL and other stakeholders are implementing a strategy for *e-health* in order to bring benefits from increased ICT.<sup>22</sup> A study shows that the potential for the whole of Europe of more and more electronic services is considerable.<sup>23</sup>

It is a difficult and comprehensive work to integrate ICT systems into core business; this applies also in the public sector and in health care. Often the difficulty is not to make the information electronically available but rather that it raises issues related to working practices and routines that must be adjusted. It is a challenge to achieve this whilst ensuring quality, integrity and usability.

Many simple medical tests could be done electronically, for example various measurements (blood pressure, etc.). Easier monitoring can also be done electronically or perhaps via a video link. Probably, it is older people who have the most to gain from more being done electronically, as they often have more contact with health care and would avoid tiresome trips. In addition, the risk of infection is reduced when fewer people need to visit health care facilities only to perform routine matters. Via electronic means, doctors even in far-away places have quick access to world-leading expertise. In modern, so-called smartphones, much information and formulae can be saved that can assist physicians as well as patients.<sup>24</sup>

Probably, we are only at the beginning of the challenges and potential benefits such increased ICT in health care can bring. If it is possible to increasingly simplify and automate

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<sup>22</sup> Socialdepartementet (Ministry of Health) 2010a, b.

<sup>23</sup> Gartner, 2009 estimates that several million incorrect or misinterpreted recipes in the EU with the risks they entail can be avoided by using electronic prescriptions.

<sup>24</sup> For an overview and summary, see OECD, 2012c, 2010b. For benefits to the elderly, see e.g. Brody, 2012. For use of smartphones, see Hafner, 2012. For use of apps see Brustein, 2012. For a vision of how technology can improve health and quality in life, see National Intelligence Council, 2012, p. 99-100.



measurements, diagnosis and follow-up with the help of ICT, this should free up time for physicians to devote more time to more complex and difficult cases where direct contact with the patient is important. Even in rural areas, increased electronic use can make things significantly easier. Instead of travelling long distances to a clinic or hospitals, patients may use different ICT solutions. Even in care for the elderly, increased use of ICT can make matters easier, as the average ICT skills of older people increases. It can involve simple things like reminders to take medication, monitoring blood pressure etc.

There are examples in other countries with e-solutions that have not had any productivity gains,<sup>25</sup> and we need to learn from those experiences in order to avoid the pitfalls that exist. It is a challenge to fully take advantage of the improvements in quality and efficiencies ICT can bring; benefits of ICT can be more limited if the technology is not used in full, or if parallel work practices are developed.

But efficiency is not limited to use of ICT. The Swedish Ministry of Health has done an analysis that shows that many small improvements collectively may have significant effect.<sup>26</sup> The cost reductions required so that health care will not increase as a percentage of GDP is in the order 0.5 percent per year and just under 1 percent for care of the elderly. There are also international studies that illustrate how the regulatory framework, incentives and technologies can work together to achieve better results.<sup>27</sup>

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<sup>25</sup> See Lee et al., 2012.

<sup>26</sup> Socialdepartementet (Ministry of Health), 2010b, p. 43 for examples of how small savings together can make a big impact: better health, fewer falls (prevention), avoided medical injuries etc.

<sup>27</sup> See OECD 2011d, Chapter 10.

### 6.3 Extending working lives

The importance of more work to manage welfare is a central theme in this report. The issue has been discussed from different perspectives in almost every chapter. To accomplish more work, the age of entry to the labour force needs to be earlier, the time taken to complete studies needs to be reduced. In addition, it is important to raise the employment rate and to extend working life.

The baseline scenario in section 6.1 shows how much working life needs to be extended to achieve an increase in the standard of welfare services. However, as discussed in other chapters, attitudes, norms and even economic incentives in different ways present obstacles to extending working life. A recent study shows that elevated earned income tax credits and the reduction in employer contributions, introduced by the government in 2007, resulted in higher labour supply among people 65+.<sup>28</sup>

Although there is no formal retirement age, the age 65 figures as a limit in many formal labour market agreements.<sup>29</sup> As we discussed in Chapter 5, this limit becomes something of a norm that affect the behaviour of both workers and employers. In public pension-related compensation, the 65-year limit figures prominently, for example in housing subsidies for the elderly, the so called guarantee rule (G94) and pension for widows or widowers, to name a few. The unemployment benefits contain several rules with a 65-year limit, such as unemployment insurance, notably in several collective bargaining agreements in municipalities and in central government as well as in private sector insurance. Also for benefits in the event of sickness, the age of 65 is a common limit for addressing incapacity for work. Age limits are also often in specific agreement in parts of the pension system.

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<sup>28</sup> See Laun, 2012.

<sup>29</sup> See Sjögren Lindquist & Wadensjö, 2012 and SOU 2012:28, Section 17.2-3 for a review of different ages in the pension plan and insurance.

Age limits are thus deeply rooted in many systems and agreements, which in addition are rather complex. Both the government and social partners – employee and employer organisations – face a big challenge to overcome unjustified age limits that in effect are unnecessary obstacles to prolong working life. One difficulty is the considerable monetary values at stake. Another difficulty is the complexity and the multitude of different principals responsible for various parts of the whole system. In the same way as there is no lever to pull to increase productivity in the economy, there is no single way to eliminate all unnecessary and unjustified age barriers in employment. It is of course difficult to address all the obstacles at once, but already to start is a challenge. To specify a direction may create a process that gradually lessens barriers to extend working life.

## 6.4 Summary

Often it is assumed that productivity is low in the public sector. However, this is misleading and can even be said to be self-fulfilling in a forward-looking perspective. If at least a modest increase in productivity can be achieved in the public welfare sector it will facilitate the financing of an increased standard of welfare services. It should therefore be a central goal that all public institutions strive for budget discipline and to improve efficiency in the organisation with all the available tools. Confidence in the Swedish model with publicly financed welfare depends, among other things, on that public funds are managed carefully and that citizens perceive that they get much welfare for the taxes paid.

To further enhance the sustainable increase in the standard of welfare services, we collectively need to work longer, begin working life earlier and raise employment rates. Formal and informal barriers to achieving this should be removed. In order to start the journey towards a longer working life, we therefore need to revise some formal rules and agreements. It is likely that

the informal norm to retire at the age of 65 or earlier is affected by a variety of formal agreements on pensions, unemployment and sickness benefits. The agreements are often complex, and in addition, have a multitude of principals: government, municipalities, labour unions and private employers. Here also the Swedish parliament and government have overall responsibility. The difficulty in reviewing contracts should, however, be weighed against the significant challenge from coping with the ageing population. It is of considerable importance that the process towards a longer working life commences and that we do not postpone the challenge into the distant future.

## 7 Strategic choices

‘The principles of justice are chosen behind a veil of ignorance.’  
John Rawls, *A Theory of Justice*

In this chapter, we discuss strategic choices to address the challenge from the ageing population. It will require everyone to adapt: individuals and private firms as well as the public sector. The ‘do-nothing’ alternative is a strategy that is likely to result in arbitrary economic redistributions between generations and between regions. *The most dramatic redistribution would take place if we were to continue as today* and retain the same scope of working life; the increase in the old-age dependency ratio is likely to become overwhelming for the working part of the population, unless working life increases in proportion to the increase in life expectancy.

The ageing population is a fact. The children born today will on average live longer than those born in previous generations, and they are fewer in number. There are uncertainties – not least about how much immigration and emigration Sweden will have – that will affect the age distribution and the challenge ahead.<sup>1</sup> These uncertainties are not insignificant, but they are still small compared to what we can be fairly confident about. To invoke this uncertainty as a reason for inaction would be an error, as the problems we see on the horizon will not disappear by themselves.

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<sup>1</sup> See for example Wadensjö, 2012.

We are therefore faced with a number of important choices that will affect how the standard of public welfare services can improve in Sweden. The purpose of this chapter is to summarise the conclusions of the report and indicate which issues are the most important to consider when addressing the demographic challenge.

## 7.1 Starting points

Most analysis indicates that we can manage with financing the existing level of welfare, even including the costs of having an older population. However, most people expect a continued increase in the standard of welfare services. The question is therefore the extent to which the standard of welfare services can be improved. Several estimates have been made regarding the magnitude of this expectation. The Swedish Association of Local Authorities and Regions (SKL) has calculated that the same welfare development as in the past 30 years, in addition to the demographic costs, would require a tax increase of about 13 percentage points by 2035. In Chapter 6, we reported a new calculation from the Ministry of Finance that indicated a tax increase of about 8.3 percentage points, which represents the difference in the tax ratio between an increase in the standard of welfare services of about 0.2 percent (a sustained increase without tax increases) and the historical growth of around 0.7 percent on average per year over the past decades. Although the estimates are uncertain and do not take into account that labour supply would be negatively affected by such a large tax increase, they still give an indication of the magnitude of the amounts involved.

*The calculations show various scenarios and are not forecasts. They should be used primarily to ask questions about the ultimate goal and about an alternative path if a different development is preferred*

In the discussion of goals, we use the following criteria:

- Fiscal policy should be sustainable.
- Economic efficiency should be considered.
- There should be a continued increase in the standard of welfare services financed by taxes.
- Striving for fairness and equitable distribution of welfare between generations should be emphasised.

These points have been discussed in Chapter 2; a brief summary is given below.

*Sustainable fiscal policy is a prerequisite for a well-functioning market economy*

That fiscal policy is sustainable is one of several prerequisites for a healthy market economy to function well. Clearly, several other factors are important to the economy, not least the business climate and education policies. But our highlighting of sustainable fiscal policy as a prerequisite – albeit among several other necessary factors – is due to sustainability imposing a direct limit on the solution strategies that may be considered. The widespread problems that a high national debt and poor government finances imply could be seen very clearly in Sweden in the aftermath of the crisis in the 1990s as well as in the ongoing crisis in the eurozone. The requirement that fiscal policy should be sustainable has the consequence, among other things, that an increase in welfare services above a certain level is not possible unless it can be financed by extending working life, higher taxes, more efficiency or higher fees for welfare services.

*Economic efficiency limits the potential scope of tax increases*

Some increases in public welfare services over the past few decades have been made possible by substantial increases of the municipal tax rates. Also, changes have been made in the priorities among spending areas. According to OECD data, taxes in Sweden as a share of GDP grew from about 33 percent in 1965 to just over 51 percent in 2000, and then began a decline to just over 45 percent in 2011. As discussed in Chapter 6, the total public expenditure as a share of GDP declined significantly in Sweden from about 65 percent in 1995 to about 51 percent in 2011.

The potential for raising taxes is limited – partly due to Sweden already having some of the highest tax rates in the world, and partly due to Sweden being a small open economy, vulnerable to trade flows with the outside world and therefore in need of a competitive tax system (see Chapter 6).

Tax policy is a key tool for the government, but the high costs linked to ageing cannot be handled through higher taxes without major economic inefficiencies, which in turn might dampen productivity growth and hold back labour supply.

*How much do we want the standard in welfare services to improve?*

The extent to which the future standard in welfare services can be improved is by nature a matter of degrees. As we pointed out in Chapter 2, several assessments indicate that we can probably handle the purely demographically driven cost increases; the core question is about how the standard of welfare services can improve beyond that point. There is fairly widespread agreement that there are expectations of continued improvement in the standard of tax-funded welfare services. People want tax-financed health care to use new findings and improved medical techniques, quality in schools to increase and care of the elderly to be improved. But *how much* is an open question.



In what follows, we use the improvement in the standard of welfare services from recent decades as a reference point to discuss solution strategies. However, the level of the desired improvement in the standard of welfare services should be weighed against an assessment of the means of achieving it. How much the standard should increase is ultimately a political question subject to the constraints imposed by a well-functioning market economy.

*Striving for fairness between successive generations*

Fairness is one of the pillars of a modern economy, but it is difficult to define (see Chapter 2). Fundamentally, the ageing population changes the balance between those who pay tax through work and those who are in school or retired, and it is important to highlight the different dimensions of the issue – how long we live, our standard of living, health, etc.

In what follows, we will mainly discuss how different solution strategies may affect *intergenerational fairness*, even though the largest redistribution of resources in fact takes place *within* generations (see Chapter 2).

## 7.2 Which instruments should we use and which are less appropriate?

*The main tool for achieving a good improvement in the standard of welfare services is more work over a lifetime – a higher employment rate, earlier entry to and later exit from the labour market. It will also be crucial to continue to improve efficiency in tax-funded services and to improve the content of welfare services. Tax increases are unsuitable as a long-term solution strategy because they would reduce economic efficiency and risk creating arbitrary redistributions in welfare between generations*

There is no single measure that is more important to achieving an improvement in the standard of welfare than to work more during life. It may be achieved through a higher employment rate as well as earlier entry to and later exit from the labour market. A higher employment rate is important for all groups, and especially for those who currently have a relatively low employment rate and who are further from the labour market. A clear improvement would be achieved with a faster pace of completion in the education system. However, the significance of extending working life has even greater importance. A rough calculation, where work is extended in line with the increase in life expectancy, shows that it may allow approximately twice the increase in the standard of welfare services that is sustainable (see section 6.1).

A recurring theme in this report is that more work during life – through higher employment rates and earlier entry to and later exit from the labour market – provides conditions for a good improvement in the standard of welfare services. That the analysis leads to this conclusion is hardly surprising. The challenge of financing welfare arises because we are living longer, but have so far not fully adapted to these changed conditions.

Working longer meets the requirements discussed in the previous section: the sustainability of public finances and economic efficiency. In Chapter 6, we discussed how the

sustainable increase in the standard of welfare services increases by 0.2 percent on average per year, which could be doubled if working life were extended in line with the increase in life expectancy.

A progressively longer working life is probably also the best way to achieve fairness between successive generations. An exact calculation is hardly possible, but an example may be illustrative: if taxes on labour were raised, it would mean that fewer and fewer working people would be paying more for increased free time for those who are in retirement and who no longer work. Such a change would risk creating conflicts between the generations: the one now going into retirement and the one that will continue working in the coming decades.

Of course, hardly anyone is advocating that the *entire* future increase in the standard of welfare should be paid by tax increases. Nevertheless, it cannot be excluded that some form of tax increase in combination with a longer working life can help somewhat to ease the financing of welfare services. Sweden has one of the highest tax rates in the OECD, but it is probable that in the context of fiscal consolidation several countries will need to raise their taxes (and lower their spending). A longer working life does not imply that the risk of reduced economic efficiency and competitiveness will disappear; however, the effects will not be as severe as would otherwise be the case. At the same time, the competition from countries characterised by lower tax rates and lower welfare ambitions needs to be taken into account.

Overall, any increase in the tax burden, even a moderate one, is an inappropriate instrument for meeting the challenge of an ageing population. *The effect is small but the damages are likely to be severe* in the form of a reduced labour supply, diminished competitiveness and an increased inequality between generations. While several other countries with large public debts are obliged to consolidate their public expenses, Sweden can use the next few years to facilitate the transition to a longer working life and thereby further strengthen its competitiveness.

How much does working life need to be extended to further improve the standard of welfare services above the baseline scenario? Chapter 6 shows calculations in which working life is extended and essentially follows the whole increase in life expectancy from now on; this will result in *doubling* the increase in the standard level of public welfare services as compared to the baseline. This result shows the approximate orders of magnitude that are likely to be required.

Before the 1950s, the retirement age was about the same as the life expectancy. Today, this would correspond to a retirement age of about a dozen years more than today's pension norm of 65 years. The fact that we are living longer after retirement age is a success of the welfare state. However, how much longer people work also strongly affects the extent to which the standard of welfare services can be improved. *A balance must be struck between the various degrees of a longer working life and a desirable improvement in the standard of welfare services.* This, of course, is not something that can easily be done in practice, but it clearly illustrates at what rate the working life might be extended. Ultimately, it is a matter of assessing whether people would prefer to take their increased standard in life in the form of more leisure time (i.e., more years in retirement) or in the form of higher sustainable development in public welfare services; the financing of welfare implies that we cannot have everything – we must choose.

Since we do not know exactly what welfare increase we are prepared to work for, it is a reasonable strategy to *gradually increase the pension norm* with the available tools. For several reasons, it is appropriate to relate the increase in pension norm to the increased life expectancy. Admittedly, it can be a disadvantage not to establish a specific age to which expectations could be anchored and which would arguably be easier to communicate and understand for both employers and employees. However, an important advantage in not setting a specific age is that the sustainable increase in the standard of public welfare becomes less susceptible to deviations from

assumptions. For example, for many years Statistics Sweden (SCB) has had to revise upward the figure of life expectancy. It cannot be excluded that the life expectancy increase will slow down or even accelerate. If the pension norm follows the actual increase in life expectancy, such uncertainty will not matter. Another important advantage of a gradual increase in the retirement norm is that it gives people time to adapt. It reduces the risk of large uncontrolled distributional effects and gives individuals and households the opportunity to plan and adapt their behaviour to face their future. A gradual adjustment makes it possible to reduce risks of large disruptive imbalances.

The discussion in Sweden has often focused on what the public sector should do. But it is crucial to also emphasise the challenges that businesses and social partners need to face. There are signs that rigid attitudes towards older workers and obstructive structures persist from a time when working life was rather different and when both life and time spent at work were shorter. The working environment and labour market agreements need to be adapted to a labour force that is getting older. This is in regard to such aspects as leadership, ergonomics, training and increasing flexibility. It is also a challenge to systematically work with the shift in generations in the private sector so as to use and benefit from everyone's skills. Firms have a key role in this adjustment (see Chapter 5).

However, negative attitudes are not the only obstacle to working longer; there are also formal obstacles in different labour market agreements. It is likely that the retirement decision is influenced by a variety of formal agreements that govern pensions, unemployment and sickness benefits. Agreements are often rather complex. Moreover, they often have different principals: the state, municipalities, county councils, unions and private employers. In order to encourage a longer working life, it is important that agreements where 65-year and other age limits exist are examined and, where possible and desirable, adapted to longer working life. An overall responsibility rests on the government and the parliament.

*A longer working life must be complemented by an improvement in the efficiency of tax-funded production, and include other features such as fees and public and private insurance*

There is significant potential in continuing to improve the efficiency of tax-funded production. Based on extensive international comparisons, research shows that it is possible to achieve the same level of welfare but at a lower cost (see Chapter 6). Improvements in efficiency are difficult to achieve in areas that include services, such as schools and in long-term care of the elderly, but in these areas our knowledge of good methods, such as technology and the use of ICT, is increasing. In schools, ICT enables new forms of teaching and interactive learning. To assume that a higher level of efficiency cannot be achieved in these activities risks becoming a self-fulfilling prophecy.

Longer working life and a higher level of efficiency are not the only alternatives for financing an expansion of taxpayer-funded welfare services. Although welfare is largely financed by public taxes, the use of fees can be increased and the degree of subsidy can be altered. Even today, there are areas such as dental care where individuals have to pay almost all expenses out of pocket. However, somewhat arbitrary limits exist in several areas; for example, hearing aids are subsidised whereas glasses and contact lenses are not. As costs increase, the question about what should be financed entirely by taxes and what should be subsidised continues to be relevant. A political discussion that takes into account the distributional aspects of what public money should be used for is needed. Without such a political debate, we risk adverse distributional effects and arbitrary differences between cities and regions.

Private insurance is another tool for satisfying an increased demand for welfare services. In Chapter 2, we discussed how the demand for welfare services has risen from a relatively insignificant level in the 1990s to that of today; it now covers about half a million citizens. In many cases, insurance schemes are funded by private firms but are also subscribed from by

individuals. Unions offer complementary labour income insurance. The Swedish model is mainly based on welfare that is collectively financed through public taxes. The political and popular consensus for this model is strong. Alternative solutions can be seen as complementary.

Overall, if we want to continue to improve the standard of welfare services, it is difficult to see any other solution than a combination of more work through earlier entry to and later exit from the labour market, as well as striving for increased efficiency. As regards future public welfare services, it will be important to regularly *develop, consider and reevaluate* them in relation to financing needs. In addition, it is advisable to regularly monitor fees for welfare services, and it is possible that private insurance can be used as a complement.

### 7.3 Roads that can become pitfalls

*Higher productivity is desirable but does not solve the problem of financing welfare*

There are ideas in the public debate which, on closer analysis, do not provide solutions and may even be counterproductive. One such idea is that a general increase in productivity in the private sector could solve the financing gap. Higher productivity (or better innovation) is certainly central in several other contexts, particularly for real wage increases and for higher disposable income, but it does not solve the challenge of financing tax-financed public welfare, because in all likelihood it will lead to higher wages in the private sector that subsequently spill over into the public sector. Consequently, the financing gap would not be substantially eased. Moreover, there is no magic lever that can be pulled to automatically generate higher productivity.

However, it is well documented that differences in wealth between the poor and rich countries are largely explained by the quality of institutions and regulations. It is also well known that

human capital is the key to boosting productivity and labour supply. It is therefore important to remove unjustified obstacles to extending working life and to facilitate the major generational shift that is now underway. To the extent that skills are not passed on in full, there is a real risk that productivity growth would be held back for several years; A temporary drop in productivity growth can all too easily turn into a prolonged one (see Chapters 4 and 5).

*Unless working life is extended, the increase in the standard of welfare services may significantly slow down*

Another strategy that is closely related to that of higher productivity growth is both simple and more feasible. Now that we have such a 'high' level of prosperity, why not accept the welfare level already achieved and maintain the scope of today's working life, or perhaps even work fewer hours? The time thus gained could be utilised in a variety of ways: more time with children or grandchildren, sports, culture or simply more relaxation. The strategy can in its simpler versions appear appealing: why not substitute future growth opportunities in the form of increased leisure time today, accept the same salary but work less? Formulated in terms of the challenge from the ageing population it could, for example, take the form of sticking with the current norm for retirement despite the steady rise in life expectancy.

This solution strategy does not have the disadvantage of being dependent on wishful thinking. Although it is possible to work less, we must accept that the corresponding salary will be lower. As leisure time is not taxed, it will of course mean that improvement in the standard of public welfare services must be curtailed. Are we really willing to accept that? When life expectancy is increasing, we cannot expect a shorter or unchanged working life and increased leisure time while



demanding a higher standard in tax-financed welfare. This is simply unsustainable.

*So called prefunding of the costs of ageing populations may help, but is not a very fair approach and risks being inefficient for the economy*

Could so-called prefunding of the increased costs of public welfare be a solution? In more concrete terms, this means that current working generations could save more money for the future by maintaining a surplus in the government budget. The surplus could then be accumulated over the years and be used to improve the standard of welfare services without building up more public debt.

For several reasons, this is an inappropriate solution. One policy conclusion of the research is that while temporary costs can be managed through temporary solutions, trend increases in costs should be dealt with by measures of a more permanent and far-reaching character.<sup>2</sup> Economic growth also means that future generations will normally receive a higher standard of welfare, which creates a very real risk of unfairness between successive generations.

That we live longer is a development that has been in the making for a long time, essentially since the beginning of industrialisation, and it can hardly be regarded as anything other than a permanent change. Sometimes it is claimed that the lower birth rates that many OECD-countries are now experiencing are temporary. However, lower fertility rates have been a reality for decades, and even this change appears to be, if not permanent, at least very long lasting. The UN forecast for the number of children born per woman is at a level that implies a decline in the world population and in most OECD-countries – but not in Sweden; the number of children born is significantly

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<sup>2</sup> See for example Andersen, 2010; Olovsson, 2008; Ds 2010, p. 4.

below the level that is associated with a stable population size (see Chapter 1).<sup>3</sup>

Most factors indicate that lower birth rates and longer life is permanent – or at least long lasting – in nature. To generate enough surplus to effectively meet this development would require significant tax increases for those who are currently working and/or expenditure reductions in public welfare programs. As discussed above, this is difficult to reconcile with intergenerational justice and, moreover, risks being economically inefficient.

## 7.4 Conclusions

The public debate has placed a strong focus on what the public sector needs to do to meet the challenges stemming from the ageing population, notably in terms of managing the financing costs of welfare, hiring competent staff to work in the welfare sector and continuing to improve the standard of welfare services. All these are major challenges, but the focus on them has led to a neglect of the challenges for all – private firms as well as individuals. It cannot be emphasised enough that improvement in public welfare services hinges on how well firms and individuals manage to adapt to a longer working life.

For the individual, adapting to how work and education are changing in light of higher life expectancy will be a challenge. The traditional division into phases of school, work, family and retirement cannot be unaffected when life is two to three times longer than it was three centuries ago. The most striking change is that having only one job or profession during such a long lifetime seems increasingly anachronistic.

Working life may also need to adapt to different phases in personal life. Notably, families with small children need time with their children and flexible working hours. These

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<sup>3</sup> See United Nations, 2009.

opportunities already exist and are more developed in Sweden than in most countries, which make our challenge in this regard considerably smaller. There are also many possibilities for lifelong learning that provide opportunities to study new subjects or to shift to another profession in the course of working life.

When we live longer, it seems increasingly unreasonable to view decisions regarding career path or education as permanent. Changing jobs or career paths is a challenge that may provide many benefits. For the individual, it may become a way to find new motivation and work fulfilment.<sup>4</sup> For the economy as a whole, it may be one way to extend working life. The risk of a job change resulting in failure can be weighed against the risk of becoming increasingly unhappy by staying in a job that one does not like.

Opportunities are already available, and welfare in Sweden presently enables us to enjoy the fruits of longer life. However, there remain attitudes among individuals and firms – and in the public sector – that have not kept pace with this evolution. Viewing older workers as less productive and as obstacles that stand in the way of the young entering the labour market is not unusual – but it is mistaken. The private sector needs to address the challenge of the shift in generations that is now underway – otherwise productivity growth, which is the basis of wealth creation, may be dampened. High productivity growth can only help to finance an improvement in the standard of public services to a limited extent, but it is central to economic growth and prosperity.

We will be able to make a good improvement in the standard of welfare, but it will require increasing the duration of working life in line with the increase in life expectancy as well as striving for efficiency in tax-funded public welfare services. Moreover, it is not self-evident that public welfare services will look exactly the same in the future as they do today. We will need to have an

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<sup>4</sup> See Beck-Friis, 2012.

active debate on how our public funds are best used and what should be prioritised. Various forms of private financing and private insurance are already available and are likely to continue to be a complement to publicly funded welfare. A considerable part of tax-funded welfare services are already performed by the private sector, and this proportion may increase further. It is therefore important that the procurement of these services is made as efficient and cost-effective as possible and that production in the service sector continues to become more efficient. We must constantly ask ourselves how we can achieve improved welfare for the same money or maintain the same level of welfare as today but at a lower price.

How can we extend working life? We are healthier and will most likely live longer in the future. For many, a longer working life will be natural, but in some professions, it may be difficult to work into old age. For some, a longer working life may mean that it becomes necessary to change jobs or professions. It is central to initiate a process that removes obstacles to a longer working life, such as anachronistic norms and attitudes and, not least, various labour market agreements among the social partners that cement outdated age limits.

The challenge of responding to an ageing population is significant, but Sweden is generally better equipped to do so than many other countries – or is at least among those with the least difficult starting position. The challenges will be severe in rural areas, where the old-age dependency ratio is likely to increase sharply. Financing of welfare services is a challenge particularly for small municipalities and can put a strain on the system of municipal tax smoothing. Moreover, hiring competent staff for schools and especially for the care of the elderly will be a considerable challenge in rural areas.

The generations that are in retirement – or are approaching retirement – built the welfare state to the modern society we have today. This achievement now faces a big test, and if *gradual* adjustments are not made to extend working life, we increase the risk of major and abrupt changes later. A gradual adjustment

towards working longer is essential for economic *fairness between generations*. Conversely, if the length of working life remains unchanged, we risk developing widespread and arbitrary differences between individuals, between generations and between city and country. Overall, we will be able to achieve a good improvement in the standard of public welfare, but the journey will not proceed on autopilot. We need to work as well.



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