

Chapter 3

In This World Nothing Is Certain but Death and Taxes: Financing the Elderly

Åsa Hansson

Abstract This chapter discusses possible ways to finance the increased demand for resources from the elderly through the tax system. Maintaining the benefits at today's level will require either increased tax burden on those working or an expanded tax base. As a country with one of the world's highest tax burdens, Sweden has little or no room to raise additional tax revenues through increased tax rates without causing substantial welfare costs. There is, however, some room to raise additional tax revenues by increasing the number of hours worked in the economy. This will likely not be enough however and alternative ways need to be sought and found in order to finance the increased demand from the elderly.

3.1 Introduction

Sweden, like many other countries, faces a demographic challenge in that the share of the elderly to the working population is predicted to increase (see, Chap. 2). As the number of elderly grows so does the demand for resources (such as pensions, social and medical care) directed towards them. Today, the lion's share of these expenditures is financed through the public budget by taxes. It is thus, to a large extent, today's working population that finances the costs of today's elderly. To maintain the welfare state benefits at today's level with the current system, either the tax burden on those working has to increase or the tax base has to expand by, for example, increasing the amount of hours worked in the economy or by raising productivity. The purpose of this chapter is to discuss to what extent the increased demand can be met by increased tax revenues.

Å. Hansson

Department of Economics, School of Economics and Management, Lund University,
Tycho Brahes väg 1, 223 63 Lund, Sweden

Faculty of Engineering, Lund University, Ole Römers väg 30, 221 00 Lund, Sweden

e-mail: asa.hansson@nek.lu.se

The demographic challenge is not unique to Sweden; most developed countries have similar or even worse demographic issues that need to be dealt with, possibly by increasing taxes. Sweden is in some respects a step ahead of many countries in this demographic development as it obtained a large share of elderly earlier than many other countries, which has forced Sweden to already take steps to reform and make the “welfare state” more sustainable (see, Chap. 7). The pension system, for instance, has been reformed and benefits are now contribution rather than benefit based. Part of the pension is based on a funded system and, hence, less dependent on current tax revenues (see, Chap. 4). Compared to many other countries, Sweden is in some respects relatively well off.

Even if other countries may need to raise taxes to meet their challenges, Sweden’s situation is troublesome as it already has one of the world’s highest tax burdens, leaving little or no room to raise additional revenues through increased taxes. Moreover, and even more worrying is that the demographic challenge has surfaced at the same time as national economies are becoming more interdependent, making it costly to deviate in tax and expenditure structures from the rest of the world. It is therefore unlikely that tax rates can be increased further without losing capital and productive labour to lower-tax countries. There is, however, some room to raise tax revenues by expanding the tax base through, for instance, increasing the hours worked in the economy. This will likely not be enough, however, and alternative and creative ways to finance the welfare of elderly need to be sought and found.

3.2 Background

Sweden has one of the largest public sectors and consequently one of the highest tax burdens in the world. What distinguishes the Swedish public sector from public sectors in many other countries is that the government in Sweden plays a large role in providing social services to its population in all stages of life. In other parts of the world these services are to a greater extent provided by the family (e.g., in Southern Europe) or the market (e.g., in the US). There are several economic arguments in favour of providing this social protection collectively rather than through private markets. First, moral hazard is a critical problem for insurance against such risks as becoming poor, and private markets are unlikely to operate at efficient levels or to arise altogether. Similarly, adverse selection may also discourage the creation of private social protection markets. Moreover, the problem of free riders may limit voluntary redistribution even when most people care about the welfare of others (at least to some extent). Finally, individual and local risks can be pooled and bundled to achieve protection at lower costs when done collectively. Compulsory redistribution may therefore result in Pareto improvements (that is, a situation where everybody is at least as well off). On the other hand, however, there are efficiency costs associated with publicly financed and provided redistribution, making it more costly than private redistribution.

Table 3.1 Public sector transfers, % of GDP

	2002	2005	2010	2015	2020
Transfers to households:	18.6	18.46	18.7	19.4	19.6
Old age	8.6	8.9	9.3	10.0	10.2
Sickness	4.4	4.5	4.5	4.4	4.4
Children/education	2.4	2.3	2.3	2.3	2.4
Labour market	1.5	1.2	1.1	1.1	1.1
Other	1.7	1.5	1.5	1.5	1.5
Transfers to firms	1.8	1.4	1.3	1.3	1.3
Transfers abroad	1.1	1.5	1.5	1.5	1.5
Sum	21.4	21.3	21.5	22.2	22.4

Source: SOU (2004:19), attachment 1–2

Table 3.1 shows how public transfers to different groups and purposes have developed and are projected to develop until 2020 in Sweden. In 2002 and 2005 transfers for old age constituted just under 50% of total transfers to households, and by 2020 this share is projected to be slightly over 50%. The rising trend in transfers directed towards the elderly is projected to continue also after 2020. Demographic pressure is actually predicted to be relatively low until 2015 and thereafter increase drastically until 2035 (SOU 2004, p. 19). A conservative estimate is that public expenditure will grow by more than 5 percentage points between 2005 and 2035 alone from the increased demand from the demographic development (SOU 2004, p. 19). Disaggregated, pension payments are predicted to rise from 8.2% in 2007 to 8.9% of GDP at the beginning of the 2030s, and expenditures on health and elderly care from 10% in 2007 to 13% of GDP in 2050 (Proposition 2006/07, p. 100).

Considering that the demand for other types of welfare services – such as education and health care for non-elderly – likely will increase as well, the government faces a considerable challenge trying to finance this increased demand. Many of the goods and services that the government provides have an income elasticity exceeding one, meaning that when income goes up by 1% the demand for these goods (e.g., education and healthcare) increases by more than 1%. Consequently, we will want more of these goods as we get richer. At the same time, many of these goods and services suffer from what is often referred to as Baumol's disease. While many private goods are produced more efficiently and, hence, at lower costs due to technological developments, for some publicly provided goods and services it is difficult to take advantage of these technological developments (for instance, it is hard to increase the pupil per teacher ratio) keeping the production cost of these goods and services at high levels. Yet other publicly provided goods and services, healthcare probably being the most prominent example, have benefited considerably from technological development but with increasing demand and costs as a consequence (see, Chap. 6). This together with non-demographically driven increased demand (e.g., better healthcare and education) will lead to higher tax burdens even without the demographically driven increased demand.

What makes the situation particularly problematic today is that our economy is much more dependent on the rest of the world and will likely be even more so in the future. Even if the empirical evidence of tax competition – that is, where countries

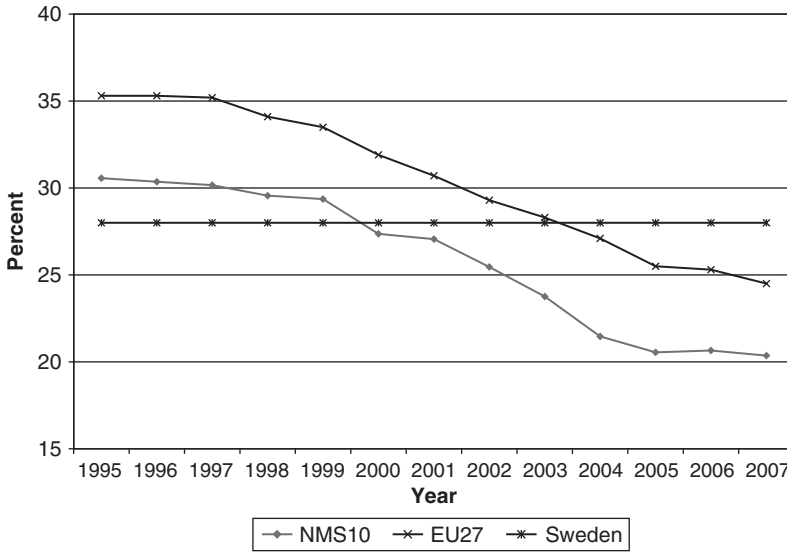


Fig. 3.1 Adjusted top statutory corporate income tax rates for Sweden, the EU27 and the 10 New Member States (NMS10), 1995–2007
Source: Eurostat (2007)

compete by lowering tax rates in order to attract and retain attractive production factors (capital and labour) – has been mixed, there is now mounting evidence that statutory corporate tax rates have declined due to tax competition (Devereux et al. 2002; Dreher 2006; Winner 2005). Figure 3.1 shows how the top statutory corporate income tax has developed since 1995 in the EU. The average for the EU27 has declined with more than 10 percentage points, from around 35% in 1995 to below 25% in 2007. The average among the 10 New Member States has also declined with around 10 percentage points and is now barely over 20%, putting additional pressure on “old Europe” to lower their rates. Regarding Sweden, the corporate tax rate was fairly competitive before and was as a consequence of increased competition recently lowered to 26.3%.

Despite substantial tax rate decline (average OECD statutory corporate tax rates dropped by 12 percentage points between 1986 and 2003 (OECD 2001, 2004)) tax revenues from corporate taxation have not yet decreased, suggesting that the tax base has increased to counteract tax rate declines.¹ In addition, the amount of total

¹In fact, researchers have not been able to find a robust negative relationship between integration and effective corporate tax rates based on measures of corporate tax revenues. Slemrod (2004) and Dreher (2006), for example, found a positive relationship between integration and effective corporate tax rates while a negative relationship between integration and statutory tax rates suggested that the effect of lower statutory rates was offset by increases in the tax base.

tax revenue generated from corporate taxation is relatively small (typically around 5–6% of total revenues). Declining statutory corporate tax rates due to tax competition may therefore be less problematic for financing public sector activities. However, it is important to bear in mind that tax competition will generate both winners and losers and countries that do not succeed in attracting or retaining capital will likely be losers.

It will be more difficult in terms of financing the public sector if labour taxes are forced down due to tax competition. So far there is little evidence of widespread tax competition for attracting labour as labour is much less mobile than capital. Studies are nevertheless finding a negative relationship between increased labour mobility and labour tax rates (e.g., Razin et al. 2002) and few doubts that labour mobility will increase eventually putting pressure on labour tax rates as well. However, capital tax competition can be enough to erode the labour tax base if firms relocate to low-cost countries and thereby reduce domestic jobs.

Top statutory tax rates on labour decreased on average by 20 percentage points between 1980 and 2000 (Gwartney and Lawson 2001). Tax competition is typically not credited for this reduction as the decreases took place well before the integration process deepened. Instead, increased awareness of the large welfare costs associated with high marginal tax rates and the resulting tax rate-cutting base-broadening reforms are credited for this reduction. Figure 3.2 shows that the implicit tax rate (which considers the tax base as well as the tax rate) has been fairly stable since 1995 despite considerable reductions in the top marginal tax rates. Again, Sweden is an outlier with a 10 percentage point higher tax rate compared to the average for the EU27 and the 10 New Member States.

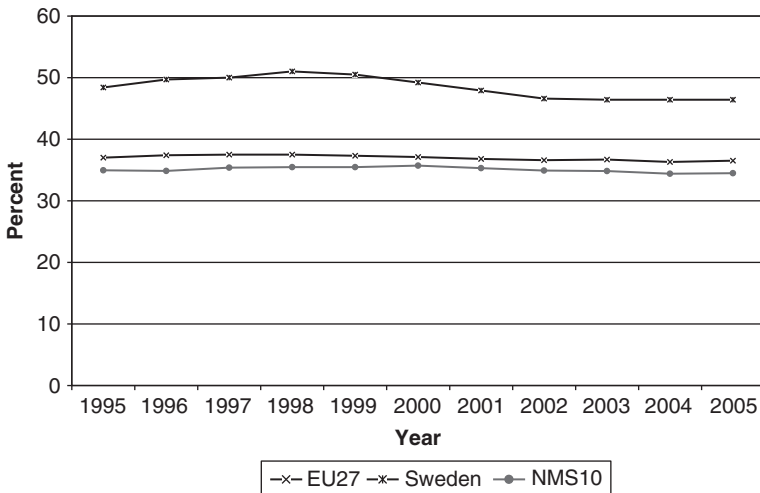


Fig. 3.2 Implicit tax rates on labour in Sweden, the EU27 and the 10 New Member States, 1995–2005

Source: Eurostat (2007)

So far, tax competition has had a very little impact on overall public spending as tax revenues have not declined by as much as feared. Tax competition can limit countries' ability to conduct independent fiscal policy by reducing the overall revenues available but also by affecting what the government spends its revenues on. Redistribution between different income groups and cohorts becomes more costly as net contributors have incentives to leave and net beneficiaries have incentive to locate to countries with generous welfare systems. In addition, countries can try to attract and retain mobile production factors by influencing the mix of public spending. Because different types of government spending are valued differentially by the various production factors, countries may be pressured to use their resources in ways favourable to desired factors. To the extent that capital is more mobile than labour, it has been suggested that increases in integration lead to a shift in expenditures toward those more likely to attract capital at the expense of those benefiting individuals (e.g., Keen and Marchand 1997). As labour becomes more mobile, however, this effect will diminish as expenditures that benefit residents may also attract productive labour (Bénassy-Quéré et al. 2005). This so-called fiscal competition puts additional limitations on individual countries to conduct independent fiscal policy and it is likely that tax competition and fiscal competition will make redistribution between different cohorts particularly costly and consequently be a disadvantage for the elderly.

The empirical evidence of fiscal competition is limited. So far there is little evidence that tax and fiscal competition have had any major impact on public spending (Hansson 2007a). There is some evidence, however, that increased integration has had a negative impact on public investment expenditures. While public transfers and public consumption have remained unaffected or even increased (transfers) as a result of integration, the amount of public investment or expenditures benefiting mobile capital have declined (Hansson and Olofsdotter 2008). One possible explanation is that it is politically easier to cut public investments than public transfers or consumption when the public sector is forced to cut down due to declining revenues. Results from Lindbom (2007), showing that cutbacks in transfer programs tend to be made in such a way that they go unnoticed by the citizens, are consistent with this hypothesis.

3.3 Are Increased Taxes the Solution?

To discuss the potential to increase the tax revenues in order to meet the growing demand from the elderly, it is useful to first look at how tax revenues in Sweden are distributed between different taxes. Table 3.2 shows how tax revenues, as a share of both GDP and of total tax revenues, and corresponding tax rates are distributed between different taxes in Sweden. The first column shows the revenues from different taxes as a fraction of GDP while the second column presents the tax revenue as a share of total tax revenues for the different taxes. The third column lists the tax rate that applies (with differentiated taxation all rates are reported).

Table 3.2 Tax revenues from different taxes as percentage of GDP and total tax revenues in 2004

	Percent of GDP	Percent of total tax revenues	Tax rate (2006)
Labour income tax, central government	1.4	2.7	0, 20, 25 ^a
Labour income tax, local government	13.9	27.7	31.6
Social security contributions, employer	13.6	27.0	32.28
Social security contributions, self-employed	3.1	6.2	30.71
Taxes on goods and services	13.1	26.2	0, 6, 12, 25 ^b
<i>Total taxes on labour:</i>	<i>45.1</i>	<i>89.8</i>	
Corporate income tax	2.8	5.5	28
Property tax	0.9	1.9	1
Capital gains tax	0.9	1.8	30
Net wealth tax	0.4	0.8	1.5
<i>Total taxes on capital:</i>	<i>5.0</i>	<i>10.0</i>	
Taxes not allocated	0.1	0.2	
<i>Total taxes:</i>	<i>50.2</i>	<i>100</i>	

^aThe central tax rate is progressive; for a majority of individuals this rate is zero (they only pay local tax rate). A 20% rate applies to incomes above the threshold and an additional 5% is paid on high incomes

^bThe general VAT rate is 25% but special rates of 0, 6, or 12% apply to certain goods and services
Source: Skatteverket (2006)

A considerable amount of tax revenue stems from taxes on labour. If tax revenues from taxation of goods and services are included in labour taxes, as they commonly are, nearly 90% of all tax revenue comes from labour taxation. The majority of the revenue from labour taxation comes from the local income tax, social security contributions and taxes on goods and services.

In contrast, taxes on capital including both corporate taxation, property, wealth and capital gains taxation, only make up 10% of the total tax revenue. The revenue generated from these taxes is relatively modest despite comparatively high tax rates, 28 and 30% on corporate income and capital gains respectively, indicating that the tax base for these taxes is small.

Is it possible to finance the growing demand for welfare services for the elderly by expanding the public sector - either through increasing the tax rates or/and the tax base? This issue will be discussed in the following section, beginning with the possibilities of increasing tax rates on labour and capital, and then moving on to possible ways of expanding the tax base.

3.3.1 Increasing Tax Rates: A Non-solution

One possible way to boost tax revenues is by increasing tax rates. When tax rates are raised, however, so is the efficiency cost or welfare cost associated with taxation. A tax on, for example, labour creates a wedge between what the employer pays and what the employee receives. It becomes more expensive for employers to

hire or/and less profitable for workers to work, and as a result less workers are hired and/or workers supply less work.² Hence, the tax does not only reduce our take-home income but it also changes the amount of hours we work. This shift in behaviour is a distortion created by the tax and gives rise to an extra cost for society, typically referred to as the excess burden of taxation. Put differently, this extra cost (the excess burden) means that the total costs of raising one extra Swedish krona (SEK) in tax revenue exceeds one SEK.³ For example, if it costs SEK 1.50 to raise one additional SEK in tax revenues then the excess burden is SEK 0.50. For the tax to be socially motivated, the SEK must then be spent in such a way that it generates increased benefits that at least cover the cost (that is, the additional tax SEK must generate benefits to society of at least 1.50 SEK).

When designing tax systems knowledge of the magnitude of the excess burden is crucial. Put simply, the size of the excess burden depends on the tax rate and how responsive individuals' behaviour is to changes in the tax rate. The higher the initial tax rate is and the more responsive the individuals are to tax rate changes, the higher the excess burden of increasing the tax rate is. In general, it is more efficient to have a lower tax rate on a broad tax base than a high tax on a smaller tax base. The main motivation behind the many tax reforms undertaken around the world in the 1980s and 1990s was to broaden the tax base and to decrease the tax rate in order to make the tax system less costly. At the same time, it is more efficient to tax income that is less responsive to tax rate changes (less elastic) than income that can easily be adjusted to avoid taxation.

Thus, it makes more sense from an efficiency point of view to slightly increase a tax rate on a broad tax base (e.g., labour income) than to increase a tax rate on a smaller tax base (e.g., capital) somewhat more, in order to generate the same amount of tax revenues. This suggests increasing taxation on labour income rather than on capital. In addition, labour income is less responsive to taxation than capital income (that can relatively easy be placed in tax havens) providing additional arguments for increasing labour taxes rather than capital taxes. Even though labour is less mobile than capital there are indications that labour mobility is increasing, especially among the more educated, providing arguments not to increase the tax rates on the more educated. But let us discuss the benefits and drawbacks of increasing each tax, one at a time, starting with taxes on labour income.

3.3.1.1 Increasing the World's Highest Labour Tax Rates: A Non-solution

As labour is less mobile than capital and generates the majority of all tax revenue, increasing the labour income tax seems like the most natural candidate among the

²This result hinges on the substitution effect dominating the income effect, which empirical studies generally tend to find support for.

³Estimates of the excess burden in Sweden typically rank between 0.5 and 3 SEK (Hansson 2007b). Generally, estimates that are more recent have fallen in the upper end. If the excess burden is 2 SEK, then it costs 3 SEK to raise an additional SEK in tax revenues.

tax rates. The local (municipal) tax rate (a flat tax at 31.6% in 2006) generates most tax revenue (27.7% of total tax revenue). Moreover, it is the tax that finances the main share of social service expenditures (apart from pensions) directed towards the elderly. It thus seems natural to increase local tax to meet the increased demand from the elderly. The problem is, however, that the increased demand cannot be met with a one-time minor increase in the local tax. Predictions from the Long Term Commission (SOU 2004, p. 19) show that the local tax rate would need to increase by 0.35–0.40 percentage points every year to meet the augmented demand from the elderly, implying that the local tax would reach 40% in 20 years. As the tax burden on labour already is high, additional increases in the local tax would be associated with substantial welfare costs and likely reduce labour supply, and is therefore not a realistic way to finance the increased demand.

Increasing the central tax rate on labour income is not a realistic alternative either. First of all, this tax generates less than 3% of total revenue and would have to be raised substantially to generate enough revenue. Further, it is highly questionable if increased rates would generate additional revenues. Second, high-income earners tend to be more responsive to tax increases than lower-income earners, and increasing the tax wedge for them additionally would likely have serious negative impacts on their labour supply and give rise to large welfare effects. As is evident from Fig. 3.3, Sweden along with Denmark has the highest personal income tax rates making it costly to increase them further. Denmark is lowering its top rate in 2010, however.

Another seemingly reasonable “tax” to increase is the social security contributions that are intended, among other things, to finance pensions and generate a substantial share of total tax revenues (27 plus 6.2%). In Sweden, employers pay the social security contributions for all employed individuals while self-employed

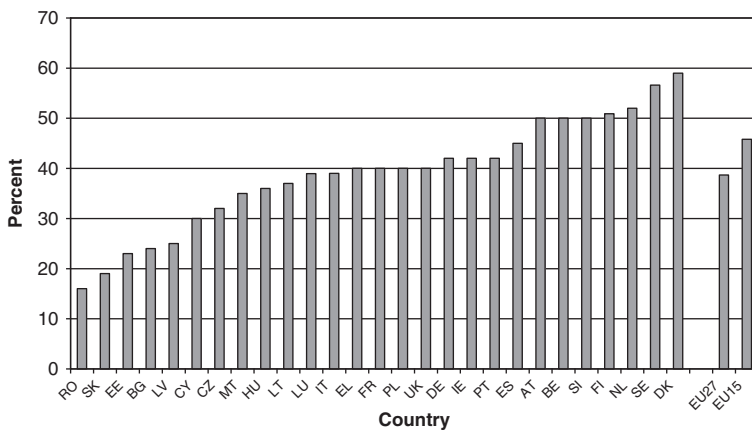


Fig. 3.3 Top statutory personal income tax rates in the EU in 2005
 Source: Eurostat (2007)

individuals pay the tax themselves.⁴ In other countries, the US for example, employers and employees share the social security contributions evenly. Be it employers or employees, it is largely irrelevant who pays the social security contributions, as the burden of the tax does not hinge on who legally pays the tax, but rather on how elastic the demand relative to the supply of labour is. The social security contributions paid by employers can be shifted to the employees by making their net-return from work less even though they legally do not pay the tax. Similarly, social security contributions paid by employees can be shifted to the employers by increasing the compensation that employees require in order to supply their labour and thereby increase the employers' labour costs (Palme and Palmer (1989) find empirical support for this to be the case). In reality, the burden of social security contributions is often split between employers and employees even if it is the employers who legally pay the tax.

It can also be discussed whether these contributions should be considered as taxes or a form of forced savings for retirement. If individuals believe that these contributions will generate future benefits exactly equal to the contributions, then the contributions can be seen as forced savings and not a tax. If individuals believe that the contributions will generate zero benefits later, the contributions are fully to be considered as a tax. In actual fact, part of the contributions will generate future benefits while other parts will not and can thus be considered a traditional tax. As it is only pension benefits that are contribution-based, the link between contributions and benefits is generally weak. The share of the contribution that is considered as tax differs between individuals as social security contributions are paid on incomes that do not generate benefits, and are paid at the same rate regardless of the individual's likelihood of utilising the benefit. A special social security tax of 24.26% applies to incomes that do not generate any pension benefits. Hence, of the total 32.28% paid in social security contributions, two-thirds of this is generally considered to be a tax.

It is interesting to note that social security contribution is the tax that has increased the most since the 1970s. One can speculate why this is the case. One hypothesis is that because this tax is paid by employers, taxpayers may tend to believe that this is a tax *on employers* rather than on their labour income and therefore be relatively easy to increase without massive protests from taxpayers. This tax is often referred to as an "invisible" tax as taxpayers tend to be less aware of it and its magnitude. Nevertheless, increasing this tax further, without corresponding increases in benefits, will add to the already high tax burden on labour income and generate high welfare costs – a measure that is difficult to recommend.

The third largest revenue generating tax is the indirect tax on goods and services, or the value added tax (VAT). The VAT is differentiated with a fairly high general rate of 25%, reduced rates of 12% on food, hotel accommodation and camping, and 6% on newspapers, books, magazines, culture and sports events as well as public

⁴In addition to the social security insurance provided through the government, most employees (90%) are covered by additional insurances through their employer. For instance, employers typically put aside 3.5% of the employees' income for her/him to invest in future pensions. Insurance for other purposes are also provided by the employer.

transportation, while some services (such as medical, dental, and social services, education, financial services and certain cultural and sporting activities as well as purchase and rental of immobile property) are exempt from VAT.⁵

The tax on goods and services is relatively high in Sweden compared to many other countries. One of the suggestions that came from the Committee on Tax Base Mobility (SOU 2002, p. 47) was that Sweden should adjust its tax on goods and services downwards towards the levels of the EU, rendering it unwise to increase rates. Figure 3.4 compares the implicit tax rate on consumption in Sweden with the average for the EU27 and the 10 New Member States. As is apparent from the figure, Sweden sticks out as an outlier with high rates on consumption. It is also noteworthy that the rates have tended to increase during the past few years, both for Sweden and for the 10 New Member States, while for the EU27 the average rate has been fairly constant. This is in stark contrast to taxes on labour and capital income that have been declining. It is, among economists, generally considered more efficient to tax consumption compared to income from labour and capital, and the shift from income taxation to consumption taxation is probably a result of it being increasingly costly to tax mobile

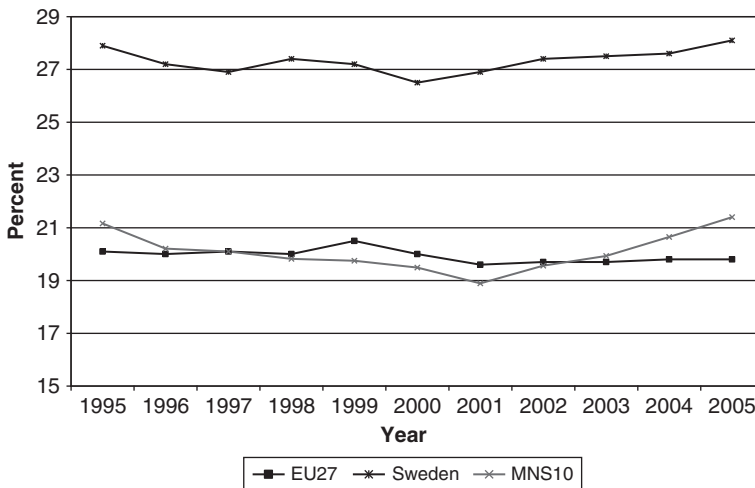


Fig. 3.4 Implicit tax rates on consumption in Sweden, the EU27 and the 10 New Member States, 1995–2005

Source: Eurostat (2007)

⁵Apart from the general VAT, certain goods and services are subject to excise and custom duties. Approximately a third of the revenues from taxation of goods and services stem from excise and custom duties. The largest contributor is revenues from energy and environmental duties (2/3), while excise taxes on alcohol and tobacco constitute roughly 1/5 of the total revenues from excise and custom duties.

capital and labour. For Sweden it is, however, hard to increase consumption taxation further, as consumption is already heavily taxed.

There may, however, be some room to increase revenues slightly by reintroducing a uniform tax on goods and services, thereby increasing the tax rate on food, newspapers and books, hotel accommodation, and public transportation to 25%. Reintroducing a higher tax rate on food in particular will generate additional revenues but may require compensation for low-income households to balance increased costs. Redistributing to low-income households using a lower VAT on food is not efficient. Income redistribution directly aimed at low-income households is more cost-effective.

While increasing excise and duties on alcohol may not be in line with the globalization process, increasing energy and environmental taxes has been fairly popular. For instance, lower labour taxes in exchange for higher energy and environmental taxes (the so-called green tax exchange) has been considered a win-win situation; lower labour taxes and hence reduced distortions (from the high labour taxes) and less negative externalities from lower energy use and pollution. Nonetheless, it would be unrealistic to expect significant tax revenue increases from further energy and environmental tax increases and it could also hurt Sweden's energy intensive industry.

To summarise, the labour tax rate in Sweden is already very high from an international perspective (see Fig. 3.2) and, even if labour is less mobile than capital, increasing the tax rate further will have substantial welfare costs in terms of a lower labour supply and substantial distortions. The total tax wedge, calculating the difference between what the employers pay for a unit of labour and what the employee can consume, is 59% for an individual paying only local taxes and 71 and 74% for those facing an additional central tax rate of 20 and 25%, respectively. These tax rates are already high from an international perspective and increasing them further would not only go against the international trend of lower labour tax rates, it would also be costly and unlikely to generate additional tax revenues. Estimates of the tax rate that maximises tax revenues (the peak of the Laffer curve) are indeed close to the tax rates in the higher range (estimates of the tax rates that maximise the Laffer curve range between 73 and 79% (Hansson 2007b)). If anything, Sweden should follow the international trend with lower labour tax rates. The existence of the expert tax (foreign "experts" are subject to a substantially lower tax rate compared to fellow Swedes) suggests that the tax rates on labour are too high in a global economy. There may be some revenue to gain by reintroducing a uniform VAT, however.

3.3.1.2 Increasing Taxes on Mobile Capital: A Non-solution

Of the capital taxes, the corporate income tax generates the most, even though it is a modest 5.5% of total tax revenues. The corporate tax rate in Sweden has recently been lowered to 26.3%. As Fig. 3.1 showed above, Sweden used to have a rate well below the EU average. Due to, among other things, increased tax competition

several countries – including Sweden – have lowered their rates, and all new EU member states have lower tax rates.

As the base for the corporate tax rate is considered to be the most mobile, raising this rate is more likely to reduce tax revenues than increase them. Internationally, corporate tax rates have been lowered without corresponding reductions in tax revenues; on the contrary, the revenues have increased despite lower rates, suggesting that the base has expanded due to tax rate reductions. It may therefore be wiser to further decrease the corporate tax rate in order to attract foreign capital and retain capital within Sweden, but it will unlikely generate considerable extra tax revenues.

The second largest revenue-generating capital tax is the property tax. This tax used to be a national tax of 1% on the assessment value of the property but has been replaced by a local fee amounting to a maximum of 6,000 SEK or 0.75% of the assessment value. This implies that most Swedes will face a lower property tax. This is particularly the case for households living in attractive areas or big cities. The reform is supposed to be fully financed within the housing sector and, as a result, the capital gains tax on realized property gains has increased from 20 to 22% together with the introduction of interest payments on postponed capital gains.

The reasons to reform the property tax were mainly political – many perceive the tax to be unfair, lacking public support and legitimacy. Among economists the tax was generally considered to be a tax with low welfare costs as the base (the value of the property) is relatively immobile. Perhaps a better alternative to turning the property tax into a flat local *fee* is to turn the tax into a local *tax/fee* that each municipally is free to set, as is common in almost all other countries. Having a local property tax set by each municipality would strengthen the link between the tax and the benefits that the revenue generates, and may thus increase the efficiency of the usage of the property tax. Arguably, a municipality that uses its revenues unwisely would lose citizens to a municipality that uses its revenues more efficiently. The threat of losing citizens to other municipalities would work as a disciplinary effect on the municipalities. However, when it comes to spending on the elderly, the property tax is a poor candidate as it would drive out non-elderly who would not receive benefits from the revenues. In any case, it is questionable whether it is wise to abolish property tax and replace it with a fairly low local fee. Especially in a global world where most tax bases grow increasingly mobile, the property tax base is a fairly immobile tax base that needs to be exploited wisely.

A third capital tax is the capital income and gains tax. Sweden employs a dual income tax system taxing capital income and capital gains at a flat rate of 30%. Compared to many other countries that tax capital income together with earned income, this is a fairly low rate. However, dividends are doubly taxed in Sweden, first at 26.3% at the corporate level and then at 30% at the shareholder level, rendering the effective rate quite high (48%). In addition, there is no deduction as is common elsewhere so even the first Swedish krona in capital gain is taxed at 30%. It is also common elsewhere to tax differentiate depending on holding time. The longer the investment has been held the lower the tax rate, and if held for more

than 5 years many countries exempt the gains from taxation all together. This makes capital gains taxation in Sweden rather high despite a seemingly modest rate. As capital is highly mobile and can easily be “hidden” in tax havens, increasing this rate is not an option. If anything, it is more likely that this rate will need to be lowered in order to retain capital in Sweden.

Finally, a declining number of European countries tax wealth. Sweden was one of those countries until 2007 when the net wealth tax was abolished. While the property tax reform was mainly driven by political reasons and disliked by economists, the abolition of the net wealth tax was difficult to implement politically but welcomed by most economists who perceived the tax to be costly as it drove capital out of Sweden and led to extensive tax planning and tax evasion. The tax never generated much revenue (less than 1% of total tax revenues) and, hence, had little impact on the public budget.

To sum up, it is not realistic to expect that tax rates on capital will increase. If anything, they are likely to decline. The only capital tax that has potential to be raised without large welfare costs is the property tax. Politically it may be difficult to find the support for increasing property taxes, and it is unlikely that the potential revenues obtained from an increase in property tax would benefit the elderly. Perhaps a more realistic alternative is to expand the tax base, which will be discussed in the following section.

3.3.2 *Increasing the Tax Base: A Partial Solution*

An alternative, and possibly more promising, way to generate more revenue is to increase the tax base. As the main share of the revenues comes from labour income, I will begin by discussing the potential for increasing the personal income tax base. Table 3.3 lists a number of ways to do this and their potential effects on tax revenues and GDP, which will be discussed below.

Table 3.3 Ways to increase the tax base and their consequences on that tax base and welfare

	Effect on net tax revenues	Effect on GDP
Decreasing sickness leave and other kinds of leave from work	+	+
Decreasing unemployment	+	+
Reducing black market activity	+	+
Reducing time spent on home production	+	+
Increasing immigration	+?	+?
Postponing retirement	+	+
Graduating faster and at an earlier age(starting younger and finishing sooner)	+	+
Increasing productivity	?	+

3.3.2.1 Increasing the Tax Base on the Labour Side

The labour income tax base can be expanded by increasing the number of hours worked in the economy or by increasing productivity. Any measures taken to stimulate work and work effort are vital for the tax base and hence the amount of tax revenue the government can extract.

Even if Sweden, compared to many other countries, has large labour force participation and cannot expand the tax base by increasing female labour supply to the same extent as other countries, there is still a great potential for increasing the number of hours worked in the Swedish economy. Table 3.4 shows the breakdown of the 52 weeks in a year into weeks worked, weeks used for holidays and weeks spent on other types of leave, respectively. As is evident from Table 3.4, Swedes work the least weeks. On average, Swedes work 36 weeks in a year, which is more than 10 weeks less than in the US and five weeks less than the average number of weeks worked for the countries reported in Table 3.4. It is not the number of weeks spent on vacation (6.9) that brings down the total annual weeks worked in Sweden but instead the inflated levels of absence from work due to sickness, maternity leave and other reasons compared to other countries.

Table 3.4 Breakdown of the year's 52 weeks into weeks worked and weeks used for holidays and other types of leave for full-time employees

	Annual weeks worked	Holiday & vacation weeks	Full-week absences due to non-holiday reasons	Part-week absences due to non-holiday reasons	Absence due to sickness & maternity leave
Austria	39.5	7.3	2.6	0.4	2.3
Belgium	40.3	7.1	2.2	0.5	2.0
Denmark	39.4	7.4	2.2	1.0	1.9
Finland	38.9	7.1	2.4	1.5	2.1
France	40.7	7.0	2.0	0.4	1.8
Germany	40.6	7.8	1.8	0.3	1.5
Greece	44.6	6.7	0.3	0.2	0.2
Hungary	43.9	6.3	0.9	0.1	0.8
Ireland	43.9	5.7	1.2	0.2	0.9
Italy	41.1	7.9	1.7	0.3	0.9
Luxembourg	41.9	7.5	1.3	0.1	1.1
Netherlands	39.6	7.6	2.0	0.8	2.0
Norway	37.0	6.5	4.0	1.1	3.5
Poland	43.5	6.2	1.2	0.3	0.9
Portugal	41.9	7.3	1.4	0.2	1.2
Spain	42.1	7.0	1.3	0.4	1.2
Sweden	36.0	6.9	3.8	1.7	3.7
Switzerland	42.6	6.1	1.5	0.7	1.1
UK	40.8	6.6	1.5	1.5	1.6
US	46.2	3.9	0.9		1.0
Average	41.2	6.8	1.8	0.6	1.6

Source: Alesina et al. (2005)

Table 3.5 Share of full-time employees absent from work

	2005	2006
Average hours worked by employed individuals		
Contracted	37.5	37.5
Actually worked	29.6	29.5
Share of employed individuals absent from work		
Whole week	17.0	16.8
Part of the week	16.1	17.7

Source: SCB (2007)

Table 3.5 shows how often Swedes are absent from work. The first row presents the number of hours full-time employees by agreement are supposed to work, namely 37.5 h. The row below presents the number of hours that are actually worked per week, 29.6 and 29.5 h per week for 2005 and 2006 respectively. According to these numbers Swedes are absent from work for more than 20% of the hours that they are supposed to work. Approximately 17% of all employed individuals are absent from work a whole week and more than 16% of employees are absent for part of the week. Taken together, more than a third of all employed individuals are absent from work at least for part of the week. Hence, there is ample opportunity to increase the number of hours worked in the economy by increasing the number of weeks worked among those that have employment.

Moreover, as many individuals are unemployed there is potential for further increasing the hours worked in the Swedish economy. Currently, Sweden has a fairly modest official unemployment rate compared to many other European countries, but the unemployment rate is still high among certain groups (e.g., young individuals with foreign background). Lowering unemployment rates further is essential as it not only would generate more revenue but also cut public spending.

In addition, it has been questioned whether the official unemployment statistics underreport “real” unemployment. Previously, students looking for employment were not considered unemployed in Sweden. Failing to incorporate them has been estimated as an underreporting of unemployment by more than 2% (Herin et al. 2006). Today the method for calculating unemployment in Sweden corresponds to that used in Europe and therefore includes students searching for employment. In addition and as in most countries, those who are unemployed but participating in labour market programs are per definition not considered unemployed. However, as Sweden has relatively extensive labour market programs, this manner of reporting may underreport “real” unemployment to a larger degree in Sweden than in many other countries. Figures presented by Forslund and Krueger (2006) indicate that if individuals that participate in labour market activities are counted as unemployed the unemployment rates increase by as much as 5 percentage points (for example, from 8 to 13% in 1993). Moreover, many have argued that a substantial part of those who retire early or are on long-term sick leave instead are disguised unemployed. Edling (2005) estimates the number of individuals that are disguised unemployed by assuming that health is constant across different municipalities and that those in excess are instead disguised unemployed. Ljungqvist and Sargent

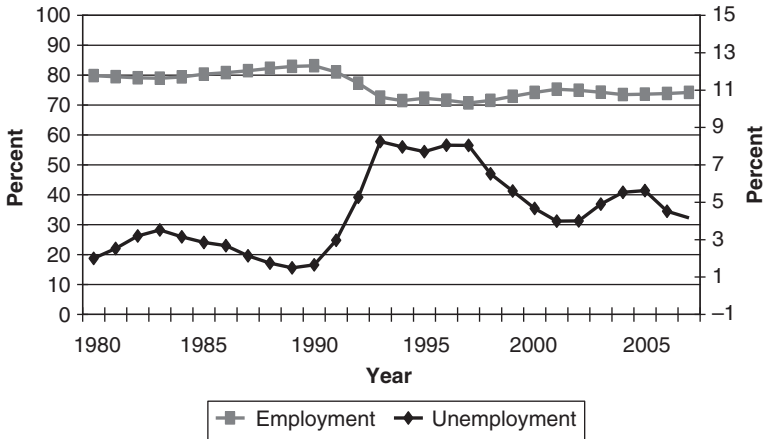


Fig. 3.5 Percent of employed individuals in the working-age population and the percent unemployed in the labour force, 1980–2007
 Source: OECD (2006)

(2006) follow a similar approach, but instead assume that the share of those on long-term sick leave or who have gone into early retirement has not changed since 1975; anything above that level is disguised unemployment. Interestingly, both Edling (2005) and Ljungqvist and Sargent (2006) end up with similar unemployment rates of around 17–18%.

Identifying real levels of unemployment is obviously difficult and any figure should be interpreted with care, but comparing the rate of employment and unemployment as presented in Fig. 3.5 shows that there is a large discrepancy between unemployment rates and employment rates. Unemployment increased dramatically in the early 1990s with a corresponding drop in employment. The unemployment rate, however, has fallen since the late 1990s but without corresponding increases in employment, suggesting that the unemployed have not left unemployment for jobs (instead maybe for early retirement or long-term sickness leave).

Another substantial possibility for Sweden to increase its tax base is by reducing black market activities in the economy. The tax authority in Sweden estimates that 10% of the total income earned or 5% of GDP is generated on the black market (SOU 2006, p. 4). If a large part of this income could be subject to income taxes and social security contributions it would clearly have a positive effect on the tax revenues collected in the economy.

Several measures have been taken internationally and more recently also in Sweden to encourage work and to reduce black market activities. For instance, several countries have introduced earned income tax credit (EITC) programs in order to stimulate work effort at the lower end of the income distribution. The US introduced the EITC in 1975 and several countries have followed in Europe (e.g. the UK, Germany and Denmark). Sweden has recently introduced an EITC. Compared to many other countries with an EITC, the credit in Sweden is not primarily

directed towards the poor but to taxpayers throughout the income distribution, making the credit fairly expensive. It is too early to estimate the impact of the EITC in Sweden, but assessments from, for example, the US indicate that the EITC has affected labour supply positively.

Other measures taken by especially the Nordic countries (Denmark, Finland but also France) are reforms aimed at stimulating work by subsidising market-purchased household services. The subsidy is intended to make it affordable for individuals to hire someone to perform household tasks that can then free up time for work or leisure. The subsidy will effect the hours worked in the economy by increasing the labour supplied by those taking advantage of the subsidy and hiring somebody, increasing the demand for labour and turning black jobs into taxed white jobs. It is estimated that the reform in Sweden will increase each individual's labour supply with 4 h per year or increase employment by between 0.07 and 0.46% (Öberg 2005). The major part, 61%, would come from reduced black market activity, 21% from a reduction in time not worked, and 18% from reduced home-production (Öberg 2005).

Immigration is often mentioned as a solution. According to estimates from Statistics Sweden the sole reason there will be a net increase in the number of individuals in the working-age population (between 20 and 64 years of age) in the period 2010–2020 is due to immigration. Without immigration the working-age population will actually shrink (SCB 2003). Of the immigrants the majority come from countries outside the EU, and this is expected to remain the case (SOU 2004, p. 19). Unfortunately, in this group the employment prospects are lower than for the average Swedish-born individual and consequently the unemployment rates are much higher within this group (SOU 2004, p. 19).⁶ If immigration is going to have a net positive effect on the public budget employment opportunities for the immigrants must increase (see, Chap. 2, for a further discussion about immigration).

Other ways to increase the number of hours worked in the economy is to postpone the retirement age. There is no fixed retirement age in Sweden; an individual can choose to collect retirement benefits anytime after the age of 61. As opposed to many other publicly provided benefits, the pension system is contribution rather than benefit based. Thus, an individual who chooses to retire early receives lower benefits than an individual retiring later (all else remains the same) (see, Chap. 4 for a detailed discussion about the Swedish pension system). The pension system is already designed to encourage individuals to work and compared to many other European countries Swedes retire late. Nevertheless, as we live longer and are generally healthier, penalising early retirement and encouraging postponement of the retirement age further would have positive effects on the public budget. The occupational pension system may, however, encourage early retirement, especially among the educated and well paid, and pose a problem.

In addition, in an international perspective Swedes tend to be quite old when they enter the labour market after completing their higher education. The median

⁶In 2002, 80.9% of the Swedish-born population between 20 and 64 were employed. The corresponding figure for the foreign-born population was 62.7% (SOU 2004, p. 19).

age for starting higher education is a little over 18 in Belgium, France and Ireland (SCB 2005). In Sweden, the median beginner is 23 years old, and more than 30% of first-year students are above the age of 30 (SCB 2005). Encouraging students to complete their education at a faster rate will increase the hours worked in the economy. Moreover, if the quality of the education is improved and students graduate younger the tax base can expand further.

In short, there is substantial room to increase the tax base by actual hours worked in the Swedish economy. For instance, by increasing employment among especially the young and foreign-born population and by reducing the number of hours that those who work are absent from work due to sickness, the amount of tax revenue available for other purposes can be increased substantially. Measures have been taken to reduce sick leave by tightening the sick leave benefits. Measures have also been taken to increase the demand and supply of labour by reducing social security contributions for different regions, certain groups and the young. Another important, and maybe more difficult, challenge to navigate is the reduction of black market activities. Reducing the black market is not only important for increasing the tax base but also for maintaining a high tax morale and general support for a high tax system.

Increasing Productivity

Increasing productivity is another means of generating economic growth and potentially increasing the tax base. Productivity growth has undoubtedly played an important role in achieving economic growth and welfare. Between 1970 and 2002 the hours worked in the Swedish economy declined despite the fact that the number of persons of working age increased by 10% (LU 2003/04). During the same period, GDP per capita grew by almost 90%, and, hence, the productivity growth made up more than the whole growth in GDP per capita. Thus, can increased productivity boost the tax base enough to generate the extra revenue needed to meet the demand from the elderly? This argument is often put forth and increased productivity will improve our welfare but may not necessarily result in more resources for the public sector. The reason for this is that the public sector is labour intensive and a large share of the total public expenditures constitutes wage costs. If the wages in the public sector follow those in the private sector (as wages in the public sector need to do to be able to attract labour) where productivity increases allow higher wages, the increased wage costs in the public sector may actually raise the total costs for the public sector (Baumol's disease).

In addition, many public transfers are wage indexed, such as pensions, and will follow the productivity growth in the private sector, increasing the cost of these transfers. Hence, productivity increases may not necessarily lead to increased resources for publicly provided welfare but are nevertheless desirable as they increase households' ability to finance welfare services privately.

Typically, it is assumed that it is harder to take advantage of productivity increases in the public sector than in the private sector as the public sector is labour

intensive. This does not imply that it is impossible for the public sector to become more productive. The fact that there are cost differences between different municipalities in Sweden suggests that there is room for increased productivity. In addition, it is important that the public sector utilises the advantages the integration process provides and opens up for not only national but also for international competition among providers. This will likely increase efficiency and reduce costs.

3.3.2.2 Increasing the Tax Base on the Capital Side

Increasing the capital tax base will affect the tax base and, to a lesser extent, the amount of tax revenue generated as the share of revenue stemming from capital taxation is relatively small. Being a high-tax country like Sweden, the challenge may be to retain our capital tax base instead of expanding it. As our capital taxes tend to be high compared to other countries and capital is highly mobile, we may continue to lose capital if our rates do not adjust downwards. The tax authority has, for example, estimated that between 250 and 500 billion SEK are invested abroad (Skatteverket 2006). The tax revenue this money would have generated had it been retained in Sweden instead and subject to capital and wealth taxation is estimated to be between 7 and 8 billion SEK or 0.5 to 0.6% of total tax revenues (Skatteverket 2006).

Much of the tax competition literature is based on the assumption that countries compete by lowering tax rates or/and by supplying an attractive public good mix (e.g., well functioning infrastructure and R&D) to attract mobile production factors. Although Sweden never will be able to compete with low-cost countries in Asia, Sweden has many features attractive to foreign direct investment (FDI), such as a well functioning infrastructure, well developed IT technology, large R&D expenditures, and a well educated labour force making Sweden competitive within Europe. Lowering the corporate tax rate would probably not turn Sweden into the “New Ireland” but would most likely not lead to declining corporate tax revenues. The same probably holds true for the other capital taxes as well.

3.4 Discussion and Conclusions

Sweden, like many other countries, faces future challenges from an aging population and increased tax competition. When it comes to the demographic challenge, Sweden is in many regards ahead of the rest who will have to find ways to finance an aging population likely by increasing taxes. This may have a dampening effect on tax competition in the near future. Even if Swedes in general are supportive of a generous taxed-financed welfare state it is questionable whether Sweden can increase taxes in order to meet future demand from the elderly by increasing taxes. A more realistic scenario is to increase the tax base. Even if additional tax revenues can be extracted by increasing the number of hours worked in the economy it is uncertain if these additional revenues will benefit the elderly. With deepened integration it is likely to become increasingly hard to redistribute publicly

in the future, not only between rich and poor but also between different cohorts – such as redistribution between those working and the retired. Even if welfare driven mobility is not widespread so far, there are incentives for net contributors to move out of a jurisdiction with high levels of intergenerational transfers and for net beneficiaries to move in. For instance, in a global world with mobile tax bases, redistribution to the elderly or pension payments based on a pay-as-you-go system will be difficult to finance as those paying have incentives to relocate to jurisdictions with lower pension payments (funded systems) and those close to retirement age have incentives to move to a jurisdiction with generous pension benefits based on a pay-as-you-go principle.⁷ To overcome this problem, many countries have moved to a contributions-based pay-as-you-go system where pension size depends on contributions, and where amounts can be carried over between countries. In order not to hinder mobility, pension benefits and other benefits earned in one country need to be permitted to be carried with individuals changing jurisdictions. For other social insurances benefits, however, the link between contributions and amounts collected is weaker.

Due to integration and the demographic development the public sector will likely undergo major reconstruction over the next few decades, both concerning its activities as well as its financing. The demand for many of the goods and services currently provided by the government will likely increase, not only due to increased demand from the elderly but also from other groups in society (for instance spending on education and healthcare for the non-elderly). Clearly, resources are needed to increase spending on these activities. It is, however, unrealistic to expect that they will come solely from the public budget. The extent of government involvement in the economy will likely have to lessen because the cost of providing these goods and services publicly will increase with globalisation as tax bases become increasingly mobile. Justifying an expansion of government involvement would require that the benefits from the expansion increase accordingly. For some government activities this may be the case, but not for others. It is, however, important that activities which are more suitable to being provided by the government remain in the public sector's regime while other activities that are not public goods or give rise to substantial externalities will have to be moved to the private sphere.

As stated before, there are economic arguments for providing social insurance publicly. One argument is moral hazard,⁸ where individuals change behaviour to their private benefit after signing an insurance contract. When it comes to social insurances directed towards the elderly, moral hazard is probably less of a problem as benefits are tied to age, which itself is difficult to change as opposed to whether one becomes poor or not. Adverse selection, a second argument for public

⁷Wildasin (1999), for instance, showed that an individual can gain an additional 15% or more of her/his lifetime wealth by moving from one public pension program to another, given that the benefits are not contributions-based.

⁸The moral hazard problem is not resolved by social insurance but private insurance may fail to materialise altogether with extensive moral hazard.

involvement, is problematic as those that expect to live longer have greater incentives to sign up for pension insurance than those that expect to die young. To mitigate this problem, private insurance can tie pension benefits to life insurance as adverse selection goes in opposite directions for the two. This should render insurance less costly and provide incentives for private agents to operate on the market. The third argument for publicly provided insurance, the free rider problem, can be dealt with by instituting mandatory minimum payments (forced savings) for pensions and other old-age expenditures into private accounts. Anything above and beyond that will be voluntarily. The government will still have to provide a minimum amount but the total expenditure can be cut drastically.

The arguments supporting publicly provided social insurance for the elderly may consequently be weaker than for other types of social insurances (e.g., poverty). As any changes to the current system will have to be implemented over time to give individuals time to adjust to new circumstances, new solutions should be discussed and realised with some degree of urgency. Given that 80% of public redistribution in Sweden is estimated to be redistributed back to the same individual either in the same year or later in their life (Pettersson and Pettersson 2003), there should be plenty of room for private alternatives to establish over time. A likely future scenario is that the public sector provides a safety net guaranteeing some basic level of security. Anything above and beyond that will have to be provided privately, for example by individual accounts for pensions, social care and medical care, or through employment-based insurance. These accounts should be globally transferable to enhance mobility across jurisdictions and, moreover, not discourage work or effort.

Acknowledgments I would like to thank all the authors of this volume for insightful and valuable comments and discussions from which this chapter has greatly benefited.

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