



Discussion Papers

The Economic Development of the Finnish Local Government Sector: the Path to the Present

A Report Prepared for the Municipal Guarantee Board

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The Economic Development of the Finnish Local Government Sector: the Path to the Present

Abstract

The purpose of this study is to describe the long term development of the Finnish local government sector. We use information from the national accounts system and other statistical sources to highlight the economic importance of Finnish local government from the past to the present. We describe the development of the Finnish economy and its regional structure since the early 20th century. The size and functions of the local government sector are considered by its share in GDP and its expenditure structure. The number and type of people employed by municipalities are considered in relation to the whole public sector and the whole economy. With regard to local government finance, we consider local taxes, user charges and grants, and also the assets and debts of municipalities. When describing structural features of municipalities, we describe their number and size distribution, municipal cooperation, and alternative ways of providing services. Productivity in the Finnish local government sector is also considered. We conclude with a statistical overview of the entire Finnish public sector during independence (since 1917). The appendices include information on the structure of local government, its functions and revenue sources in other European countries.

JEL Classification: H7

Keywords: Local public finance, Finnish municipalities, History of local public finance.

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FOREWORD

Heikki Niemeläinen, the CEO the Municipal Guarantee Board, gathered a group of economists in December 2009 to discuss how a report on the long run development of Finnish local government could be done. One of the aims of the report would be to give a basic description besides to Finnish audience, also to foreign readers about the nature of Finnish local government sector.

After the first meeting an expert group was formed with professor Heikki A. Loikkanen from the University of Helsinki as chairman. The other members were director Jaakko Kiander from Labour Institute for Economic Research, special advisor Pekka Tiainen from the Ministry of Labor and the Economy, and chief economist Juhani Turkkila from the Association of Finnish Local and Regional Authorities. CEO Heikki Niemeläinen and director Tuukka Salminen from the Municipal Guarantee Board participated in the meetings of the expert group. The Municipal Guarantee Board employed M.Sc.(Econ.&Bus.Adm.) Henna Nivalainen from the University of Jyväskylä to be researcher in the project. She got the permission to use her working space and facilities, arranged by the Government Institute for Economic Research, besides to her doctoral thesis work, also to work in this project. Henna Nivalainen gathered material and worked supervised by professor Loikkanen. She was also supervised by other members of the expert group and received material from them.

When research material cumulated, in addition to Henna Nivalainen, also Heikki A. Loikkanen began to write text to the report and added data and other material to it. The authors of the final Finnish report are Loikkanen and Nivalainen, but much credit goes to the members of the expert group, too. Pekka Tiainen, a member of the group, wrote a chapter to the report on productivity. A separate contribution on the needs to develop municipal bookkeeping was obtained from Leif-Erik Forsberg. Useful material for the project was also obtained from Jaakko Kiander and Juhani Turkkila.

The authors of the report are responsible of the contents of it and the views expressed in the report. The final version of the report in Finnish was dated June 18, 2010, and submitted to the Municipal Guarantee Board, which printed and brought out the report July 15, 2010. It included a short executive summary in English.

After the publication of the Finnish report, the Municipal Guarantee Board asked Heikki A. Loikkanen to make an English version of the report. He translated the text and Henna Nivalainen translated figure texts and made corrections to the text. Also members of the expert group made suggestions to improve the English version. John Pitkin** checked and corrected the version made by Loikkanen and Nivalainen who, however, are responsible for the remaining errors and possible confusions in the English text.

Helsinki, January 21, 2011

Heikki A. Loikkanen Henna Nivalainen

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ECONOMIC DEVELOPMENT OF FINNISH MUNICIPALITIES: THE PATH TO THE PRESENT

SUMMARY

Finland is a unitary state with a public sector that has two levels: the state and a single tier of local government i.e. municipalities. In other Scandinavian states and most West European countries, the public sector has three levels, the state and two tiers of local government. Due to the many functions assigned to municipalities, the overall economic importance of the Finnish municipal sector is considerable. Municipalities account for 70 per cent of total public consumption expenditures, and municipal consumption expenditure is around 15 per cent of GDP. In addition, municipalities employ roughly 20 per cent of the total workforce in Finland.

Under the Finnish constitution, municipalities are self-governing entities; however responsibility for provision of many public services (merit goods) has been delegated from central government to the municipal sector. Municipalities are not only responsible for providing local public goods, such as basic environmental and technical infrastructure services, electricity and water, but also social welfare, health care and most education and cultural services. Therefore, the most important services of Finnish municipalities are education, healthcare and social welfare services, which comprise approximately 70-80 % of total municipal expenditure. Historically, there has been a change of focus. In the early 1900s municipalities contributed to building the Finnish educational system; since the 1960s their main focus has become healthcare and social services.

The principle of local governance recognizes the importance of local circumstances and allows for diversity among municipalities. However, national public policy in Finland also recognizes the principle of universal service: public services must be equally available throughout the country. These principles create a tension between the viewpoints of local governments and the central government. In practice, the importance of merit good type public services (education, health and social services) at local level has led to a situation where all local government reforms are considered primarily from the viewpoint of these services, especially health care. Basic local government functions have a minor role in these reforms.

The demand for local services is expected to be rather stable. For this reason the revenue sources of municipalities should also be stable, and the function of revenue stabilization over business cycles is seen as predominantly a responsibility of central government. In Finland, municipal finances are based on tax revenues, user fees and revenue from sales as well as grants from central government. The main source of revenue is the local tax on

personal income. Municipalities also receive a share of corporate tax revenues, which is sensitive to business cycles, and since the early 1990s they also receive property tax revenue. Uncertainty and unpredictability of revenues create a challenge to municipal finance. Aging of population and domestic migration change both the tax base and service needs in Finnish municipalities. A grant system as well as user fees and sales proceeds have become more important sources of revenues in recent years relative to local tax revenues.

Merit good public services supplied by municipalities are now financed partly by the central government grant system. Previously, transfers from central government to municipalities were based on a matching grant system, where the subsidy rates varied by the type of service. They also depended on a scale of local fiscal capacity with ten levels. The subsidy rates of fiscally weaker municipalities were higher than the subsidy rates of stronger ones for a given service. In the early 1990s a lump-sum grant system was phased in. As a result of this change, the central government no longer tried to affect the service mix chosen at the local level through economic incentives based on variable subsidy rates. The biggest change took place between merit goods and traditional local public goods. The latter were not usually eligible for grants during the matching grant era and needed to be fully financed by local governments' own revenues. After the reform, the marginal costs of all services must be fully covered by revenue from local sources, as the lump-sum grants do not depend on the amount of services delivered in any sector. Thus, the new system motivates municipalities to improve cost efficiency because savings gained through efficiency do not reduce grants. By making unconditioned lump-sum grants, the central government has in principle increased the independence of local decision making. However, at the same time, there has been an increase in the number and tightness of service norms. Since quite a few municipal tasks are now regulated in detail by central government legislation, and the number of subjective service rights of citizens has increased, the municipalities have rather little room to operate independently.

Part of the central government grant system is a revenue equalisation system which guarantees to all municipalities 90 per cent of national average per capita tax revenues. Municipalities whose tax revenue is below this threshold receive the difference as a supplement to their grants. In contrast to government grants, the equalisation system is totally financed by the municipalities. Because of the government grant and equalisation systems, there are only small differences between municipalities in total revenues per capita, even though the differences in tax revenues are large. This has provided the financial basis for relatively equal access to public services throughout the whole country.

The demand for public services at the local level depends on the size of population, its regional distribution and age structure, and on citizens' income level. Although aging is an international phenomenon, the Finnish population is aging faster than in other European countries. The reason behind this is that from the 1940s to 1970s emigration from Finland

was at a high level and at same time the birth rate fell rapidly. These factors have influenced the Finnish population structure both in the short and long term. They also explain to a great extent why the working age population in Finland is currently decreasing faster than in most other countries. This change is not only a national phenomenon, as its impacts are also visible at local level.

The economy of Finland was for a long time based on natural resources and agriculture with a large rural population compared to other European countries. Since the 1960s Finland has urbanized rapidly and narrowed the gap with other countries at the same income level. More recently emigration and domestic migration have shaped regional differences in population and age structure. Population and jobs have concentrated in Southern Finland. Nowadays, half of the 5.4 million people live in Southern Finland, one fourth in Western Finland and the rest in Eastern and Northern Finland. Earlier all cities, small and big, tended to gain from migration. However, during the last decades, only half a dozen of the largest cities with universities have increased in population.

The change of regional population distribution creates pressures on local finances both from the service demand side and the financing side. In municipalities which are losing population, the demand for public services decreases and the structure of demand changes, for instance, because of population aging. Because adjusting the service infrastructure is difficult, unit costs of service production tend to become high. On the other hand, out-migration diminishes the tax base and creates difficulties in financing expenditures. In municipalities that are gaining from migration, an opposite type of problem emerges: service demand increases and building of additional capacity creates financing pressures although the tax base also increases.

As for the change in regional population distribution, attention must also be paid to the fact that within Finnish municipalities and regions settlements are scattered. As a result of this, several service points are needed, or alternatively citizens need to travel a lot. A sprawled structure is difficult to manage efficiently and these difficulties increase when there is migration. In the ongoing municipal reform in Finland, a key challenge is that it is easier to change municipal borders than the spatial structure of people and related demand for public services. This problem does not only affect rural and sparsely populated country-side municipalities. The capital region is also sprawled in comparison to other national capitals.

These facts highlight the importance of local and regional land use policy, which is a key policy area for municipalities. In Finland municipalities have exclusive jurisdiction of land use planning, which should enable them to have a great impact on spatial structure. In practice, however, municipalities have not used their land policy powers very extensively. In the future, use of land policy for this purpose could be motivated by recent research that has shown a strong connection between the density of employment and population and

productivity in the private sector. Accordingly, spatial structures both in urban and other areas matter. One of the challenges facing public service provision is how to increase productivity in related sectors. Part of the solution is to affect spatial structures through land use policies, because the nature of service networks and the possibilities of getting productivity gains from co-location of activities.

The service delivery system in Finnish municipalities has changed over time. Some decades ago municipalities either produced the services delivered themselves or arranged provision of services through joint municipal organizations. Nowadays, non-profit organizations and the private sector service providers are used more than previously. Since the turn of the millennium, outsourcing has increased among Finnish local governments. At the same time, more services than before are also now produced by joint stock companies owned by municipalities. These changes have implications for competition. As a result of mergers, competition among municipalities diminishes if residents cannot choose between competing combinations of public services and taxation in their own region. A lack of competition may have negative effects on both the type of services available and the efficiency of provision. Availability of various supply alternatives can compensate for a lack of competition among municipalities, enhance productivity and improve the quality of services. It is worth pointing out that reforms which only make public monopolies private ones do not help.

True competition among alternative suppliers of services is possible and useful only if their cost accounting and bookkeeping practices are comparable. The latest reform of municipal bookkeeping took place in 1997. Since then, cost accounting and bookkeeping practices have been modified but further changes are still needed. The existing system is not well suited to new circumstances in which alternative producer-provider models are available. In addition, a central challenge is the lack of transparency in cost accounting, especially with regard to staff costs and the amount of staff used. Internal supervision should also be enhanced by monitoring labour efficiency and eliminating inefficient practices.

Quite a few services produced (or provided) as a result of local government investments are either free of charge or highly subsidized. Furthermore, they often have (or are claimed to have) either positive or negative external effects. In cases where markets for services do not exist or external effects are important, societal cost benefit analysis is needed to evaluate investment projects. Private sector criteria cannot either be applied or are misleading in such cases. In order to get good projects accepted and bad projects rejected, there is also a need to increase the use of applied cost-benefit analysis at the local government level and more generally throughout the public sector.

1 INTRODUCTION

Finland is a unitary state with a public sector that has two levels: the state and a single tier of local government i.e. municipalities. In most West European unitary countries, in addition to the central government, there are more than one level of self-governed tiers with elected decision making bodies, functions and forms of finance (appendix 4). Within states in federally systems there are also usually several self-governed tiers. Among Nordic countries, the Finnish two tier system has been an exception. In the other Nordic countries, except in Iceland, and in most European countries the public sector has had at least three levels, i.e. some public sector functions have been decentralized to intermediate levels of government (Laakso & Loikkanen 2004). In the Danish municipality reform of 2007, the earlier intermediate level was abolished and a new regional level was created.

The importance of local governments in society depends on the extent of their functions. If the functions are limited to provision of local public goods (road, parks, fire brigade, libraries etc.) financed by taxes and water, sewage, electricity type utility services financed by user charges, the (macro) economic importance of municipalities is not very great. If the central government (or state government in federal states) mandates additional functions to municipalities and gives transfers to finance them, the local government level can become an important component of the public sector and the whole economy.

In Finland, municipalities have two kinds of functions: those mandated by national enacted laws (statutory functions) and optional or voluntary functions. The former include provision of basic services, the most important of which are health and social services, education and cultural services. In addition municipalities are responsible for land-use planning and zoning. Local-option functions include for instance sport and recreational services, i.e. all services which are not required by national law but the municipalities want to deliver to their inhabitants.

When we speak of local government, we usually mean the entire municipal sector, which consists of municipalities, joint organizations of municipalities and municipal companies, since municipalities can organize the provision and production of services in various ways and in many cases it is most economical to produce them in cooperation with other municipalities, non-profit organizations or the private sector. Joint municipal organizations represent cooperation of municipalities in certain sectors

like health care. Today, three-quarters of the expenditures of municipal joint organizations are for provision of health services. In 2010, there are 342 municipalities in Finland. The number of municipal joint organizations is 184, the most important of which include 19 regional councils, 19 hospital districts, 38 joint organizations related to public health, 13 districts for care of the disabled and 43 related to education (The Association of Finnish Local and Regional Authorities). Municipal companies are firm-type companies owned by municipalities which operate in areas of energy and water, ports and public transportation. In addition, municipalities own shares in joint stock companies. Some previously municipal companies have also been transformed to this type of firm.

The purpose of this study is to describe the Finnish local government sector, its long term development, current situation and future challenges. Its main aim is to use information from the national accounts system and other statistical sources to highlight the economic importance of the Finnish local government sector as far back as possible¹.

The study proceeds as follows. First, we describe the development of the Finnish economy and its regional structure since the early 20th century (chapter 2). The size and tasks of the local government sector are described by considering its share of GDP and expenditure structure (chapter 3). The number and type of people employed by municipalities are considered in relation to the whole public sector and the whole economy (chapter 4). Local government finance and the roles of local revenues (taxes and user charges) and grants are considered in chapter 5, and then the assets and debts of municipalities are analyzed in chapter 6. When municipalities provide services, they can produce them on their own, cooperate with other municipalities or purchase them from outside the public sector. Structural features of municipalities as well as their ways of organizing service provision (chapter 7) are among the many factors affecting productivity in the local government sector (chapter 8). Chapter 9 is a statistical overview of the Finnish public sector during independence (since 1917). This section, not in the original Finnish report, has been added to this English version. The appendices include information on the structure of local government, its functions and revenue sources in comparable European countries (appendix 4), and also municipal bookkeeping is briefly considered (appendix 5). Appendix 6 presents some historical information on the structure of municipal finances. The conclusions of this study can be found in the executive summary at the beginning of the paper.

¹ A more detailed description of the current state of local public finance in Finland and an account of recent reforms can be found in Moisio-Loikkanen-Oulasvirta (2010).

2 THE FINNISH ECONOMY AND ITS REGIONAL STRUCTURE SINCE THE EARLY 20th CENTURY

2.1 Economic development and urbanization of Finland

Industrialization and related economic growth in Finland started later than in other European countries. Industrialization had begun already before independence in 1917, but because of wars, it did not progress very rapidly. Only after the 2nd World War, since 1945, did the era of large scale industry in Finland begin (Suomen taloushistoria 2).

During the 20th century Finland has managed to close the gap with the most prosperous European countries. Economic growth has been so fast that already during the 1940s Finland reached the GDP per capita level of West European (current EU15) countries (figures 1A and 1B). In fact, since the 1980s, excluding the economic crisis in early 1990s, Finland has overtaken the EU15 country average in economic prosperity. By the turn of the millennium Finland had come very close to the level of Sweden. Between 1900 and 2000 per capita GDP in Finland grew over 10-fold.

Economic development leads to income growth and as a result of that, households' consumption structure changes. The share of necessities like food in consumption decreases, whereas the shares of durables and services increase. As the standard of living increases, the demand for education and cultural services as well as the demand for health and social services increases faster than income. When the public sector takes responsibility for providing (and to great extent also producing) this type of basic services, related expenditure tend to increase faster than the economy. If moreover, central government (the national parliament) decides to decentralize the provision of basic services to the local government level as in Finland, economic growth leads to rapid growth of the local level (municipalities).

Industrialization and related change in the structure of the Finnish economy have given an impetus to the growth of cities. Urbanization in Finland did not effectively take off until after the First World War, and since 1960s it has been especially rapid (figure 2). As a result of population redistribution, the

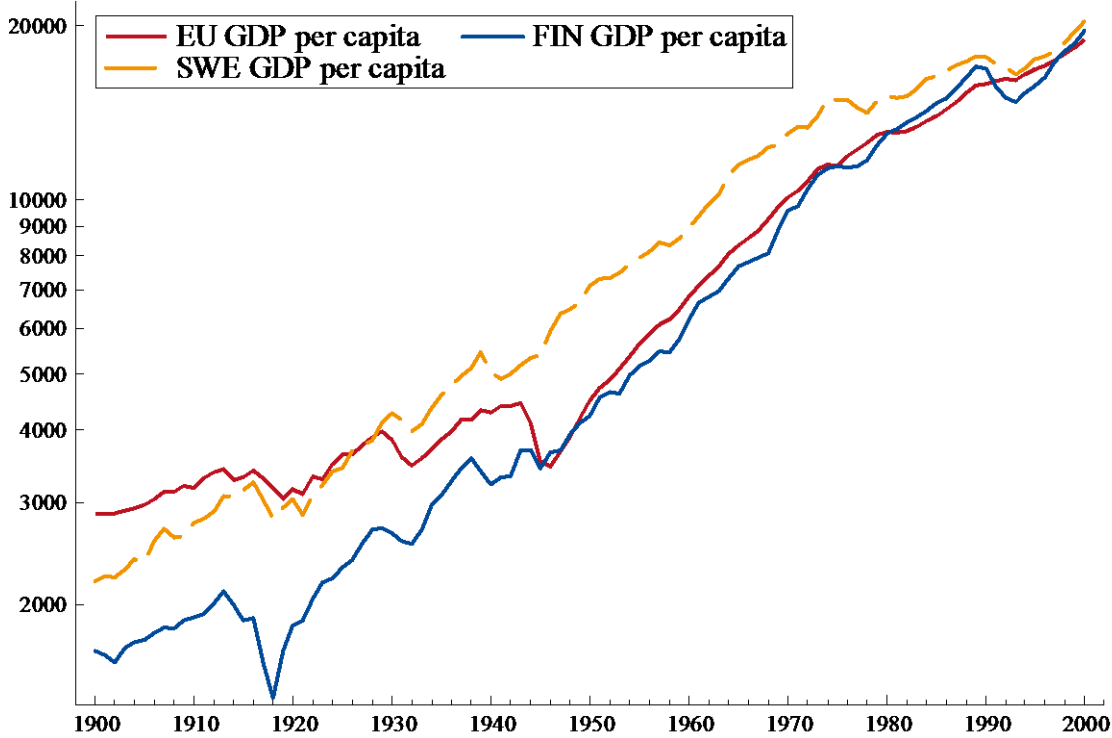
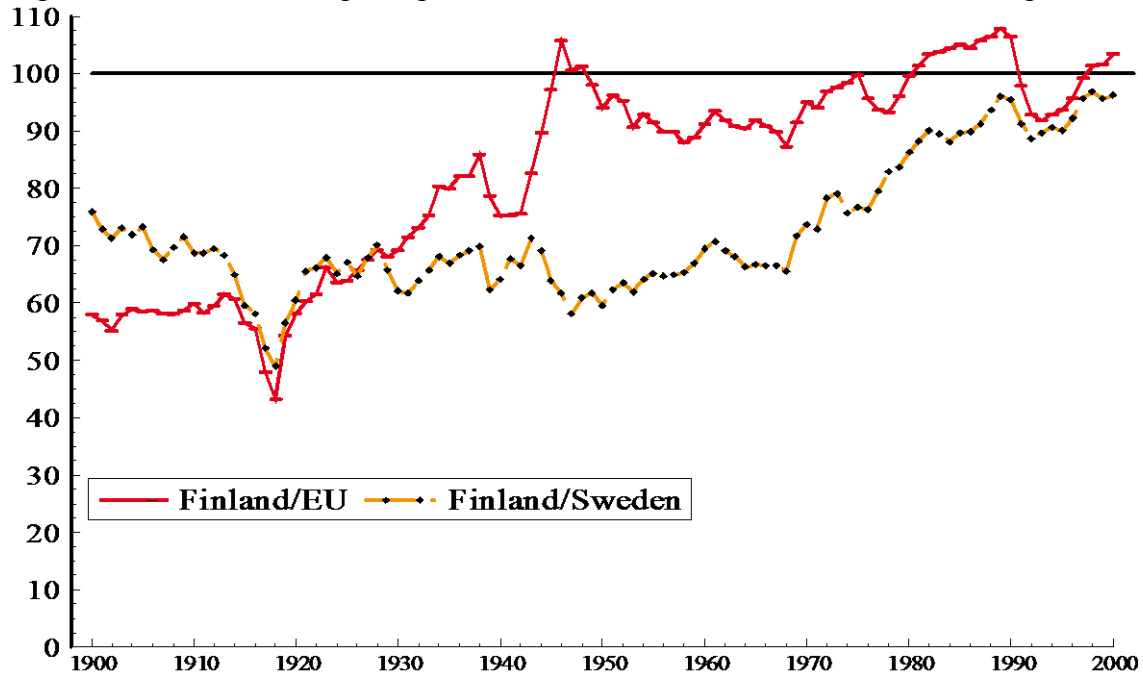
Figure 1A GDP per capita in EU15, Sweden and Finland 1900–2000¹

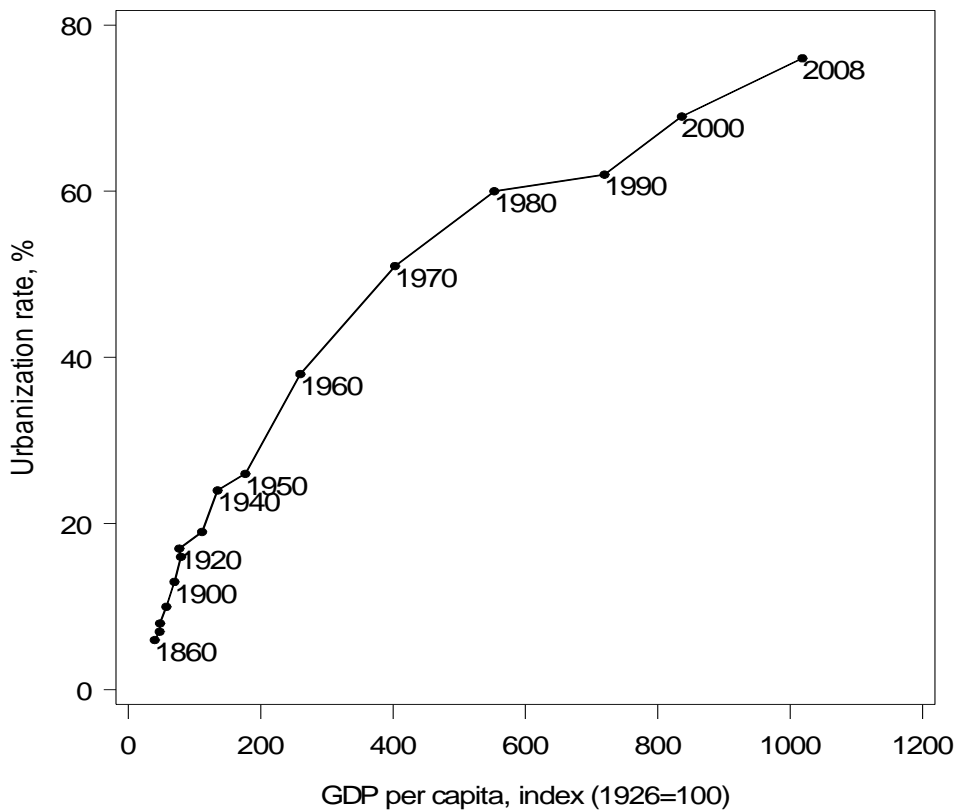
Figure 1B Finland's GDP per capita relative to EU15 and Sweden, 1900–2000, per cent.

¹Logarithmic scale, 1990 Geary-Khamis dollars (cf. appendix 1)

Source: Riitta Hjerpe & Jukka Jalava (2006)

population has increasingly concentrated in cities and at the same time the country-side has lost population. Migration to cities has been mainly related to employment; the mechanization of agriculture and forestry made small scale farms unprofitable, whereas the growing industry and service sectors in cities offered a lot of jobs. Despite the growth of urban employment, the inability of cities to accept an exceptionally rapid influx of movers from the countryside led to the emigration of some 400 000 people in the latter half of the 1960s, most to Sweden.

Figure 2 Degree of urbanization and GDP per capita in Finland, 1860 – 2008



Source: Laakso & Loikkanen (2004), updated to the year 2008.

Urbanization continues to have an important effect on the regional structure of Finland. Earlier all cities tended to grow. During last fifteen years only the larger cities with universities and some other regional centers have gained from job and population growth. In addition to the countryside, some medium-size cities have lost population. These developments have increased the demand for land, housing and transportation related services and investments in cities, whereas the basic problem in areas that are losing population has been the maintenance or downscaling of services and difficulties in local finance.

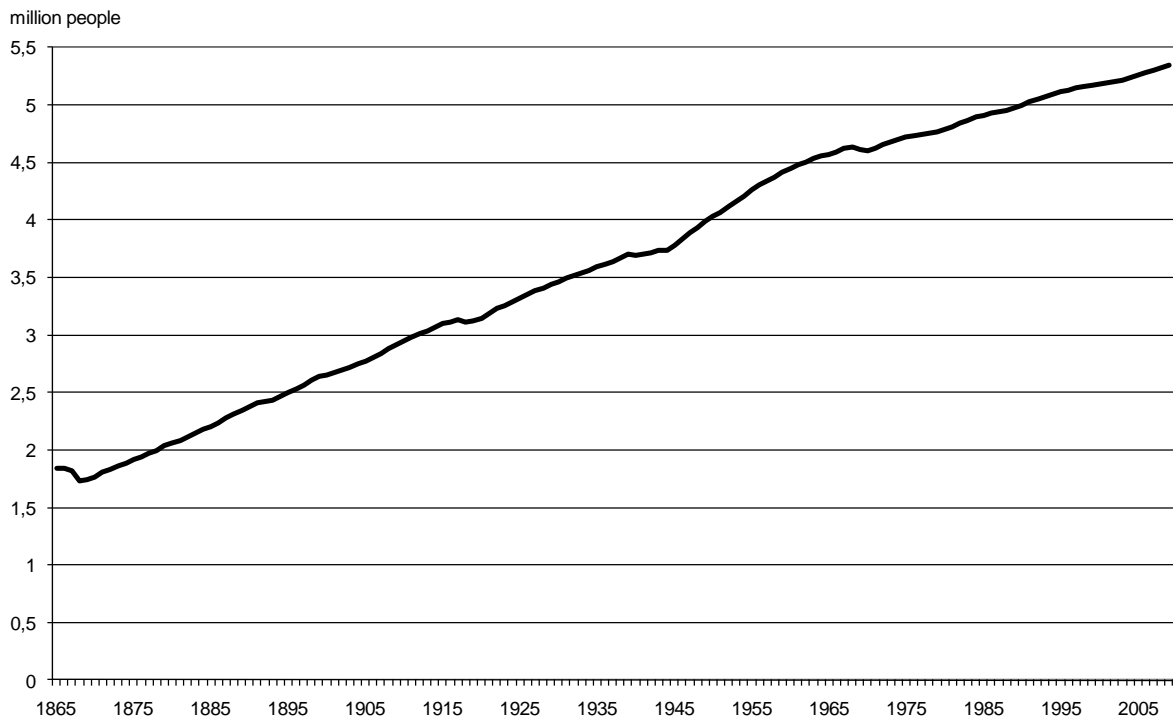
2.2 Population, mobility and regional disparities in Finland

If the provision of basic services is decentralized to municipalities, the demand for services will normally depend on income as well as demographics, including population size, regional distribution, and age structure. At the same time, the structure of local economies and the size of working age population affect the revenue base of municipalities and their ability to finance the costs of service provision not covered by grants. Migration affects population size and composition as well as the demand for basic services. Migration also has an impact on the ability of local governments to raise revenues, especially when local income tax is important like in Finland.

The population of Finland in 1865 (which was a Grand Duchy of Russia from 1809 to 1917) was about 1.8 million, the milestone of two million was reached in the 1880s, three million during the second decade of the 20th century, four million in the 1940s and five million at the beginning of the 1990s (figure 3). The current population is about 5.4 million. The growth of population has been almost linear. Temporary drops in population have been caused by the plague epidemic in the 1860s, the wars and the wave of emigration in the 1960s, which was mainly directed to Sweden.

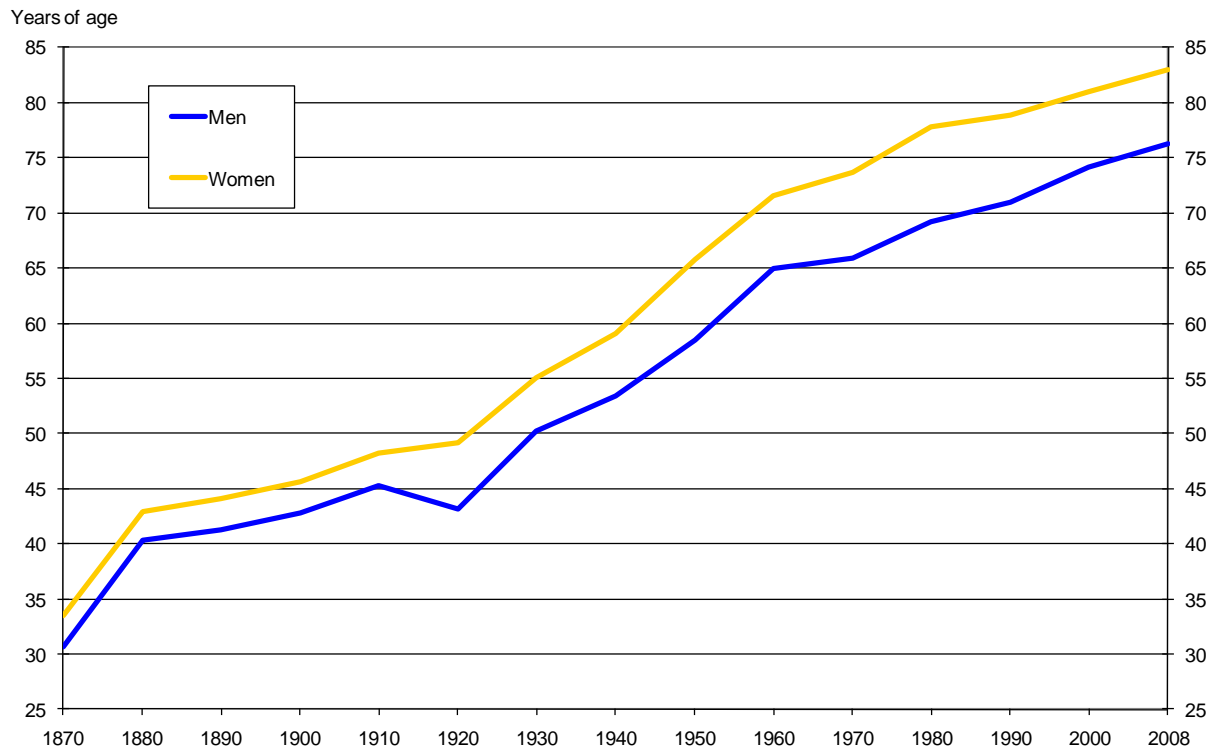
An even greater change than in population size has taken place in **life expectancy**. The life expectancy of newborn babies in 1870 for both men and women was below 35 years (figure 4). In 1930 the life expectancy of women had increased to 55 years and for men it was 50 years. In 2008, the life expectancy of women was 83 and for men it was 76 years. A key factor, which has increased the life expectancy of Finns, is the decline in infant mortality. At the end of 1880s, the infant mortality rate for Finland was above 150, meaning that more than 150 babies out of one thousand died before their first birthday. In 2009 the infant mortality rate in Finland was only 2.6.

Figure 3 Population of Finland during 1865–2009, million people



Source: Statistics Finland, Population statistics

Figure 4 Life expectancy of men and women (for 0 years old) during the years 1870–2008



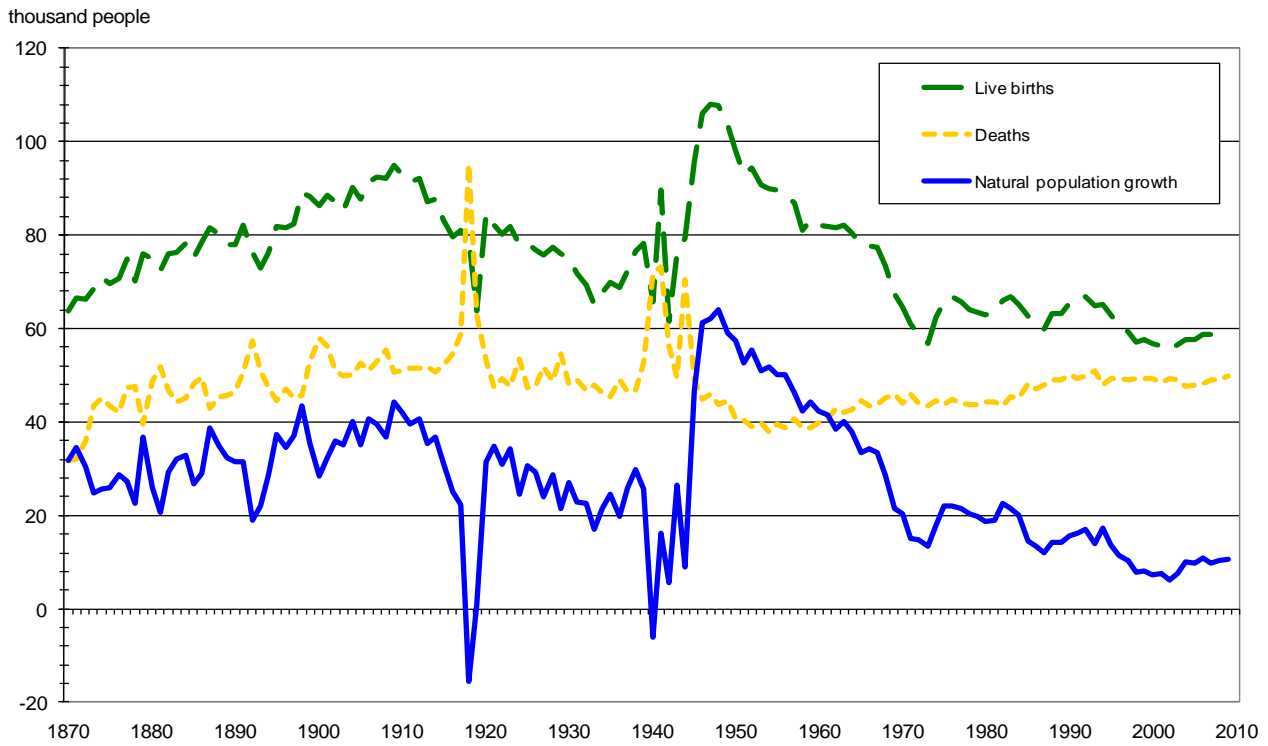
Source: Statistics Finland, Population statistics

Natural population increase, the difference between the number of births and deaths, has varied a lot over time in Finland. From 1870 all the way to the war years in 1940s, with the exception of the population losses during the Finnish Civil War in 1918, annual population growth has been between 20 000 and 40 000 people per year (figure 5). After the latest war, from 1946 to 1956, population growth was exceptionally rapid as the number of babies born exceeded 100 000 in some years. The generations born after the war are called “big age groups” because they constitute a large generation. After the post-war baby boom, natality and natural population increase have decreased steadily.

In addition to natural population increase, **emigration** has had an important impact on the population of Finland. From 1945 until the early 1970s net international migration was negative. As a result, the population of Finland is smaller and its age structure is more unbalanced than it would be if net migration had been zero all the time (figure 6). According to the estimations of Loikkanen and Parkkinen (1999), because of the emigrants and their descendants, the loss of population between 1946 and 1997 was almost 400 000 people, which is about seven per cent of the population of Finland. Although net migration has been positive since the 1980s, it did not reverse the developments of earlier decades, and as a result the working age population in Finland is projected to decrease exceptionally rapidly due to retirement after the year 2010. During the current millennium, the annual population growth in Finland has been only about 20 000 people, of which about half is caused by natural population increase and half by net migration.

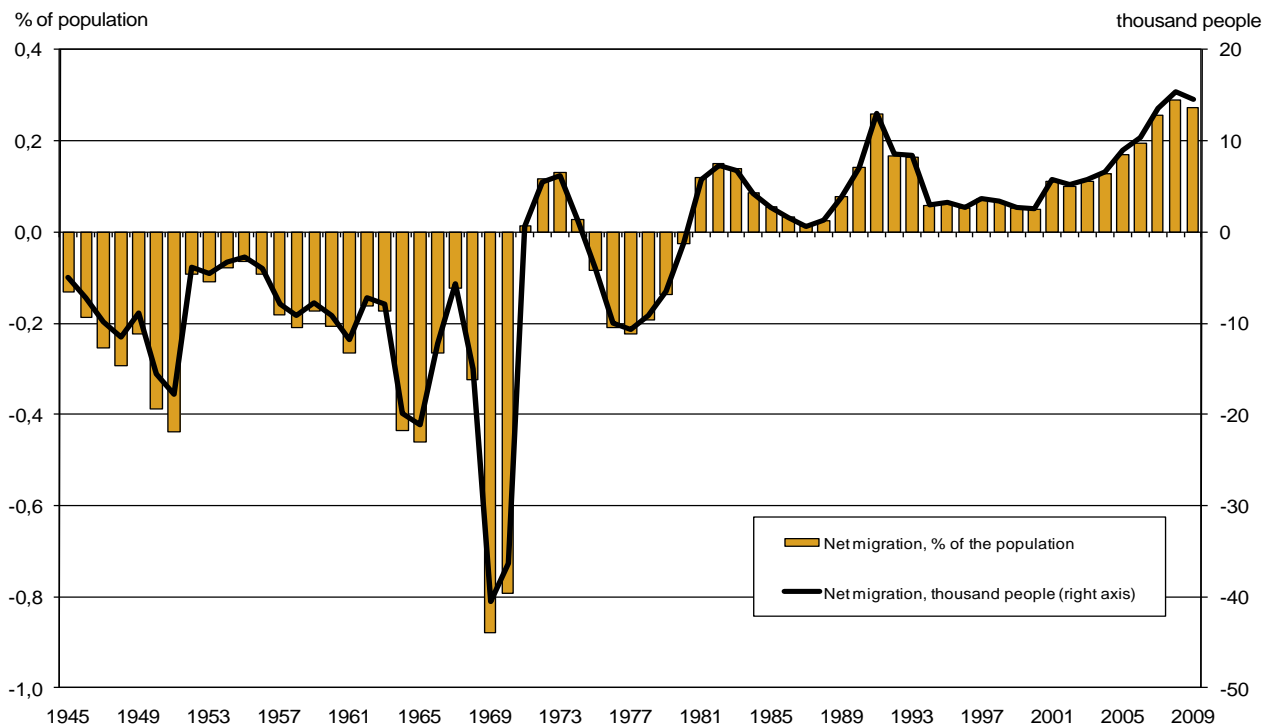
Population age structure is often described by the division among children, working age people and older people. The population share of 15-64 year olds, who are classified to be of working age, had been about 60 per cent until the beginning of the 20th century. Thereafter, it increased until the 1990s, except for the drop in the 1950s and 1960s, caused by the preceding war years (figure 7). The share of working age population was highest in the 1980s, when it was almost 70 per cent, but thereafter the share has decreased somewhat. In 2008 the share of 15-64 year old population was 66 per cent, and according to population forecasts of Statistics Finland this share will decrease by about ten percentage points between 2009 and 2060.

Figure 5 Number of births and deaths, and natural increase of population in Finland 1870–2009



Source: Statistics Finland, Population statistics

Figure 6 Net migration to Finland, 1945–2009

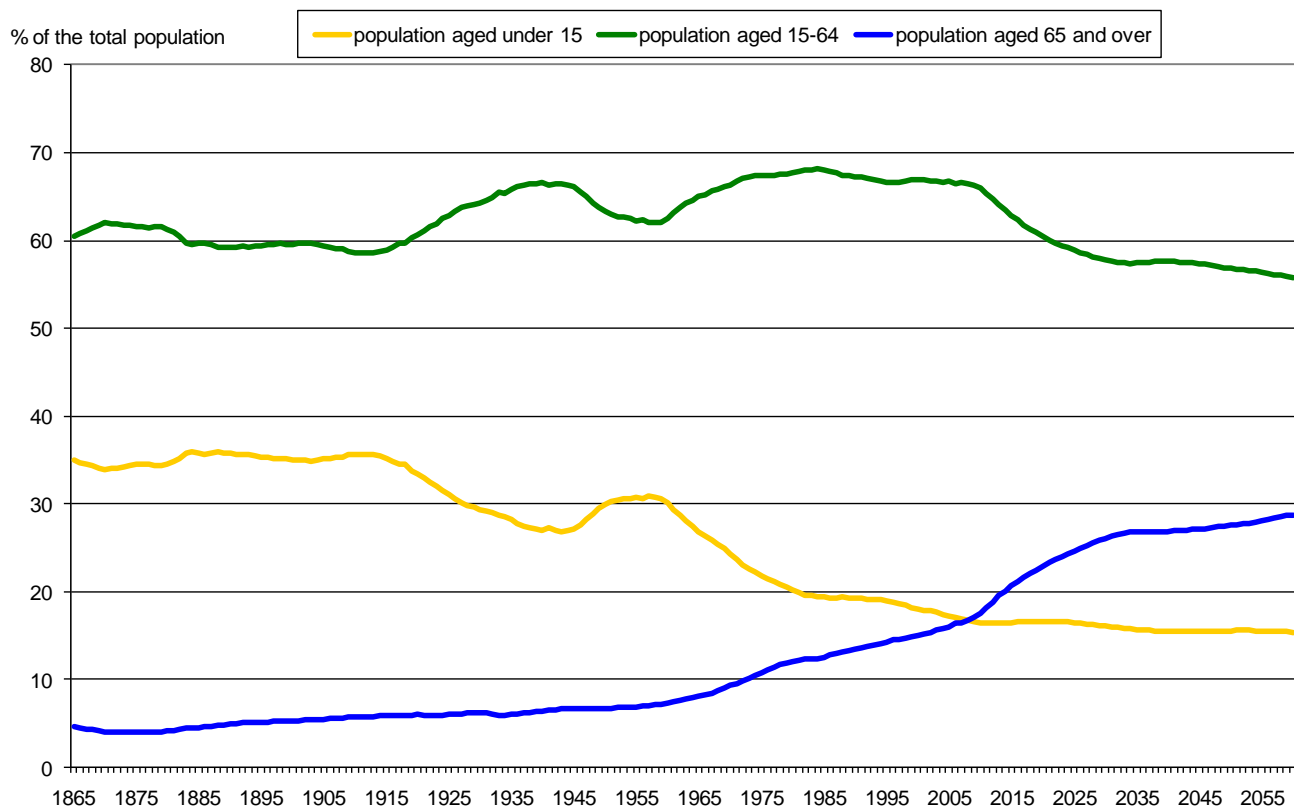


Source: Statistics Finland, Population statistics

The share of children has decreased considerably since the beginning of the 20th century. From 1865 to 1915 the share of 0-14 year olds was about 35 per cent, but by 2008 the share was only 17 per cent. The only exception to the decrease in this downward trend took place after the war between 1950 and 1960 due to the baby boom. Since the 1960s the share of children has decreased steadily. According to forecasts, in 2060 the share of children in the population of Finland will be only about 15 per cent.

The population share of elderly (over age 65 years) was rather stable below 10 per cent until the 1960s, and thereafter it started to increase. The expected future change in the age structure from 2008 to 2060 will substantially increase the share of elderly. In 2008 the share of elderly was about 17 per cent, whereas in 2060 it is expected to be almost 30 per cent.

Figure 7 The age structure of Finnish population during 1865-2060*

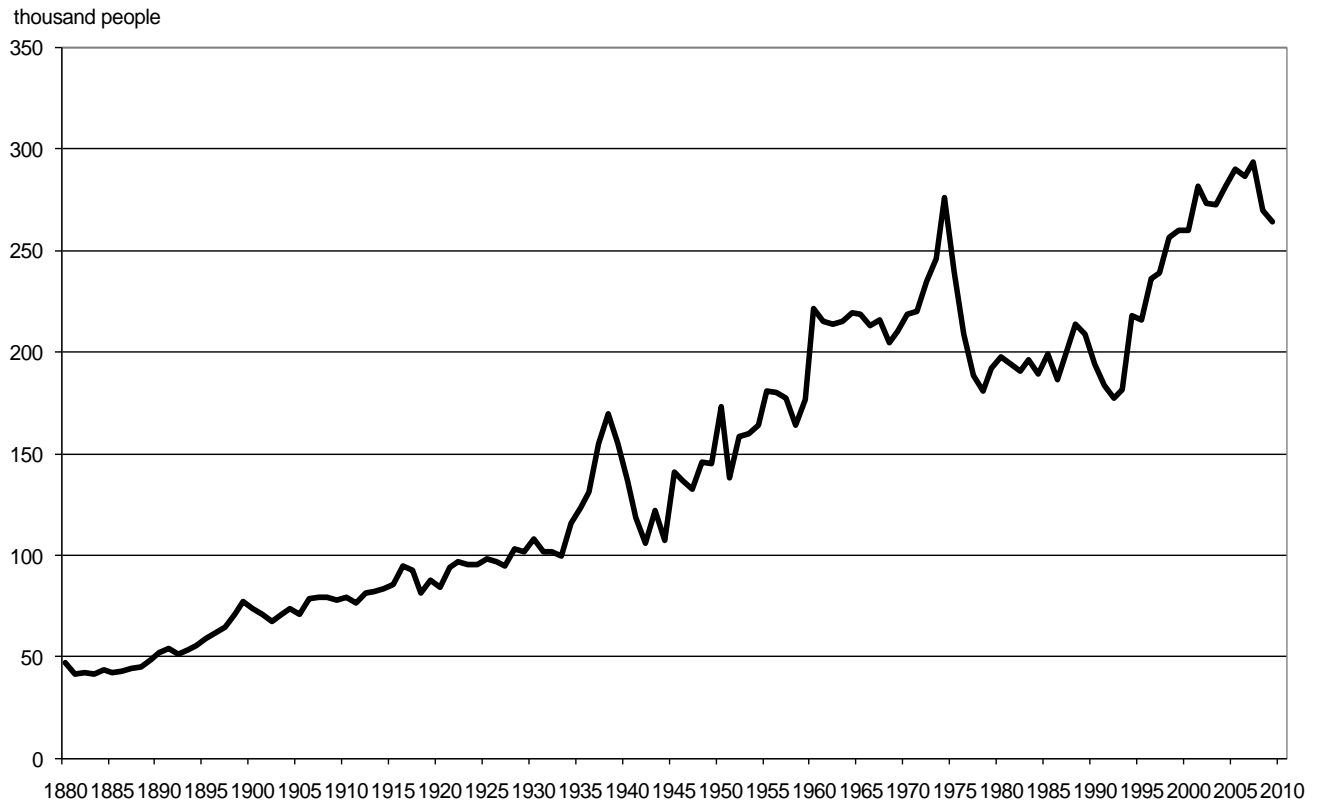


* Forecast for the years 2009–2060

Source: Statistics Finland, Demographic statistics

During recent years immigration to Finland has averaged over 10 000 people per year, most in prime working age (20-34 years) and with families (Myrskylä 2006). In the 2009 population forecast of Statistics Finland, annual immigration is projected to be 15 000. Without positive net migration, the future age structure of the Finnish population would be even more skewed to older ages (Volk & Nivalainen 2009).

Figure 8 Mobility between municipalities in Finland, 1880–2009 (1000s)

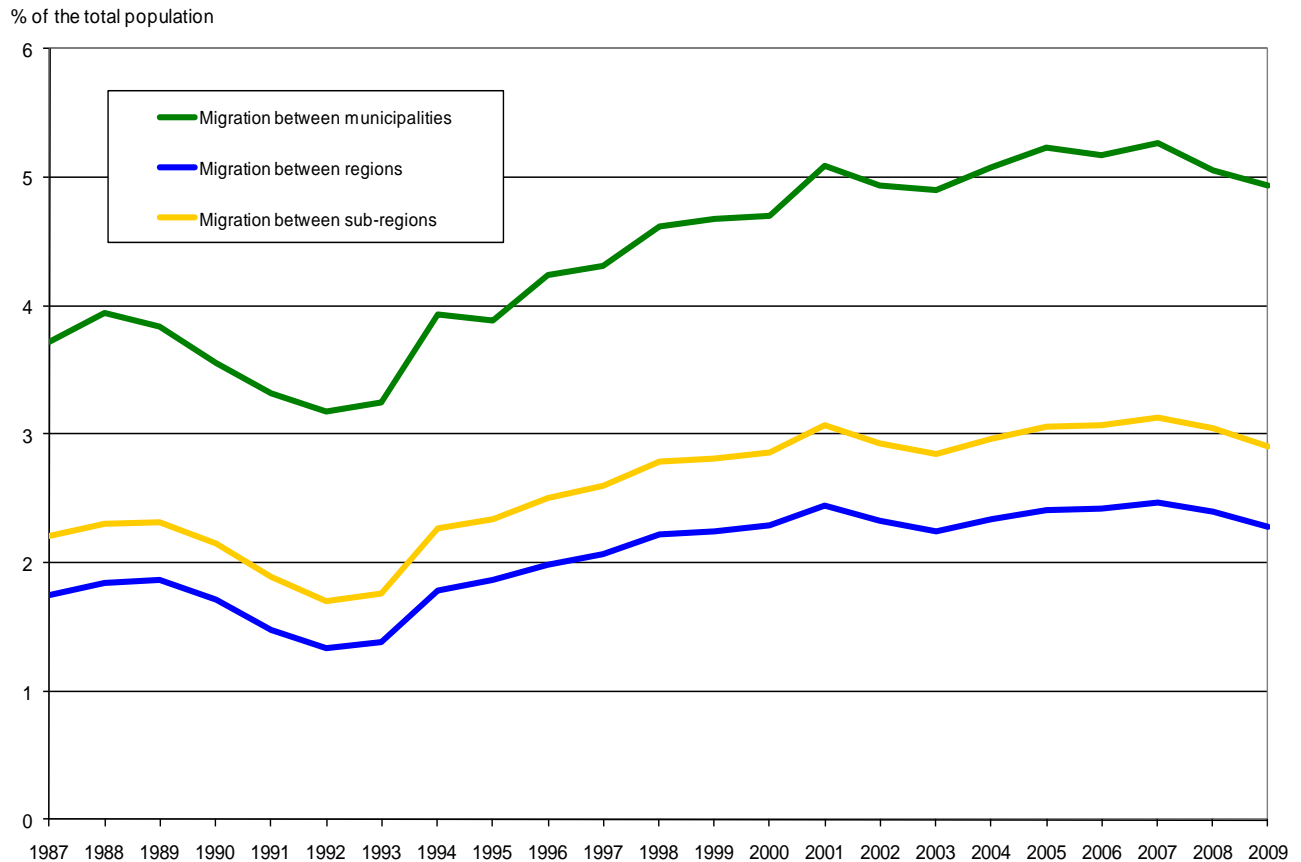


Source: Statistics Finland, Population statistics

Domestic mobility and migration have had a significant impact on shifts in the population age structure in different regions. Mobility between municipalities has increased since the end of 20th century and it has increased regional disparities in both population size and age structure (figure 8). A large share of migration consists of longer distance moves, in which people move between regions (NUTS3 and NUTS2). Nowadays, about 5 per cent of people move across municipal borders annually, and about 60 per cent of them change also cross borders of NUTS3 regions and 50 per cent borders of NUTS2 regions (figure 9). In connection of long distance moves, it is worth remembering that the number of municipalities has changed over time. It should also be noted that, as a result of Second

World War, Karelia was lost and its population moved to the remaining parts of independent Finland and this can be seen as a spike in mobility in figure 8.

Figure 9 Mobility between municipalities, sub-regions (NUTS4) and regions (NUTS3) in Finland, 1987–2009, per cent of total population



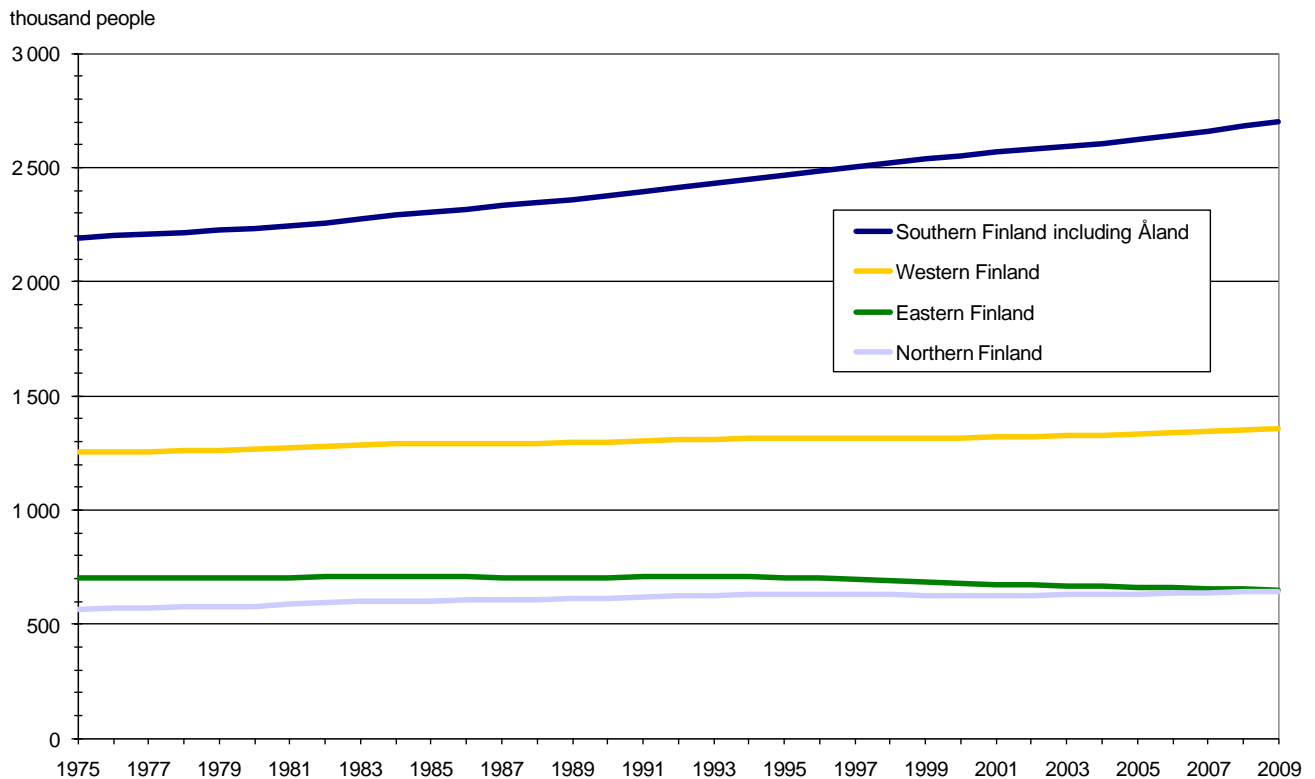
Source: Statistics Finland, Population statistics

Reasons for moving are related to personal characteristics like age and phase of life. For the majority of people in the 18-50 age group mobility is related to studies or work (Virtanen 2003). As production, jobs and education opportunities have increasingly located in Southern Finland and the biggest cities, this has increased regional disparities. Other important motives to move are related to housing and social reasons, especially among people who are over 50 years old.

As for the **regional structure** of Finland, population as well as production and employment have concentrated during the last thirty years more and more in the southern part of the country. Especially Eastern Finland (figure 10) has lost population. Between 1975 and 2009 the net change in population

has been positive in all major regions except Eastern Finland, which lost about 7 per cent of its population. At the moment the population of Finland is almost 5.4 million people, with half living in Southern Finland, one quarter in Western Finland, and the rest is divided between Eastern and Northern Finland.

Figure 10 Population of Finland by major (NUTS2) regions, 1975–2009 (1000s)



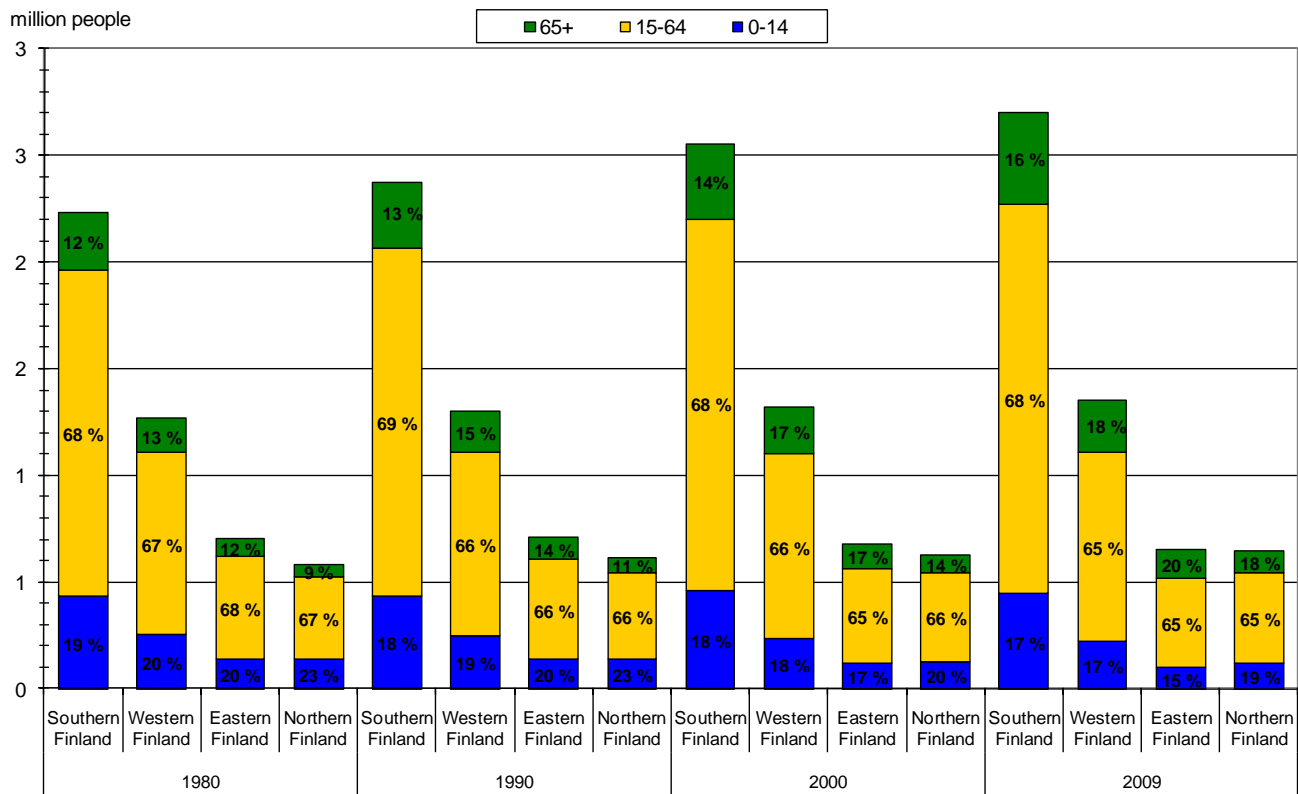
Source: Statistics Finland, Population statistics

As a result of migration, the effects of aging have become pronounced in certain areas. In Southern Finland the share of working age population remained relatively unchanged between 1980 and 2009, whereas in Western, Eastern and Northern Finland this share has decreased (figure 11). In these three areas the population shares of elderly people have increased significantly, while the impacts of aging in Southern Finland have been much more moderate. In Eastern and Northern Finland the shares of elderly have almost doubled during the past thirty years. The shares of children have decreased in all major regions, and the biggest change has taken place in Eastern Finland, where the share of 0-14 year old population was about five percentage points smaller than the share of the elderly (over 65 years

old). In the other three major regions, the shares of children and the elderly have been about the same, but the shares of elderly are projected to exceed the shares of children in all regions.

Looking at population at the level of major regions gives one a general picture of regional divergence. One must note, however, that major regions (NUTS2) conceal differences between regions (NUTS3), sub-regions (NUTS4) and municipalities. For instance, the major region of Northern Finland includes the region of North Ostrobothnia, where the share of children has always been remarkably high (21 per cent in 2009) and the share of elderly much less than the average (14 per cent in 2009).

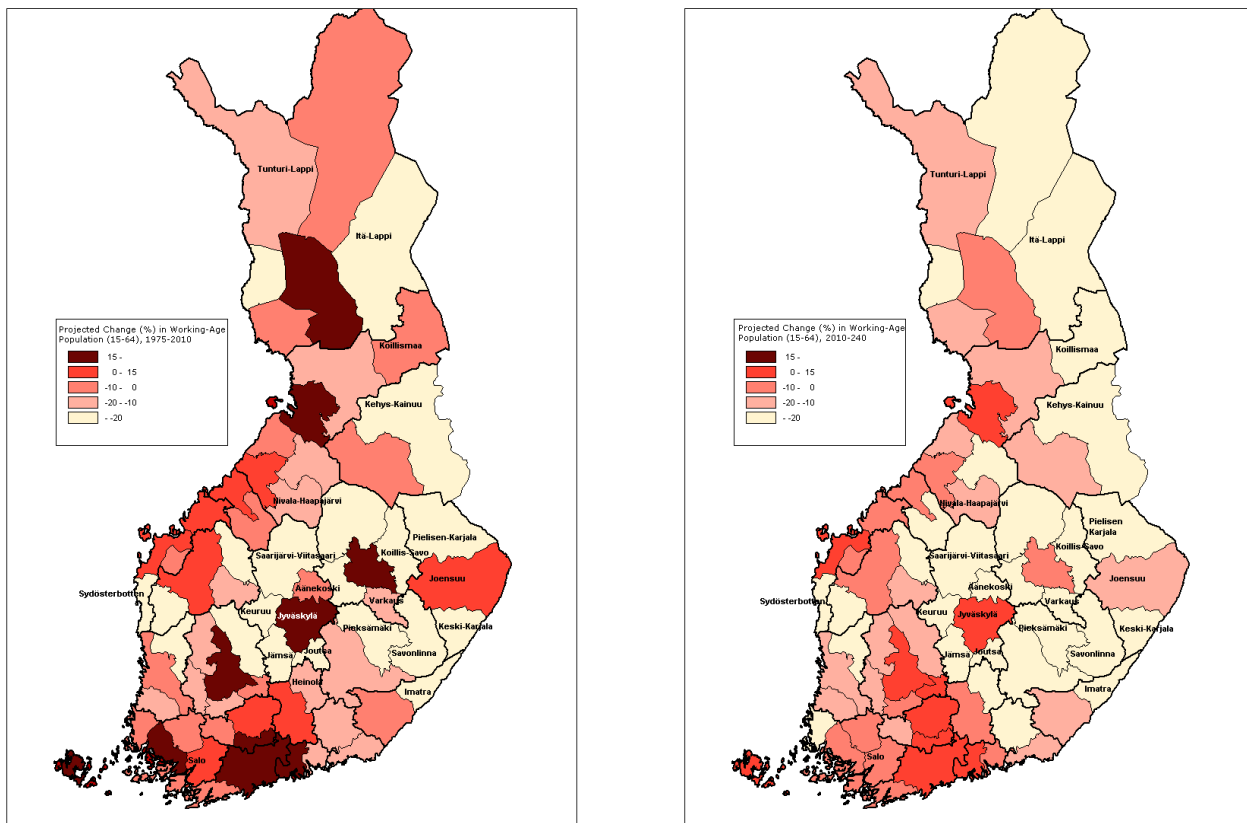
Figure 11 Age structure of population by major regions (NUTS2) in Finland, 1980–2009 (millions)



Source: Statistics Finland, Population statistics

The left hand side of figure 12 presents the realized change of working age population from 1975 to 2010 and the right side presents the respective forecast of Statistics Finland for the period 2010-2040. This gives a more detailed picture of regional development patterns and future prospects than information at the major area level.

Figure 12 Change in working age population NUTS3 regions, 1975–2010, and 2010–2040, as a per cent of original population



Source: Ministry of Employment and the Economy; Statistics Finland

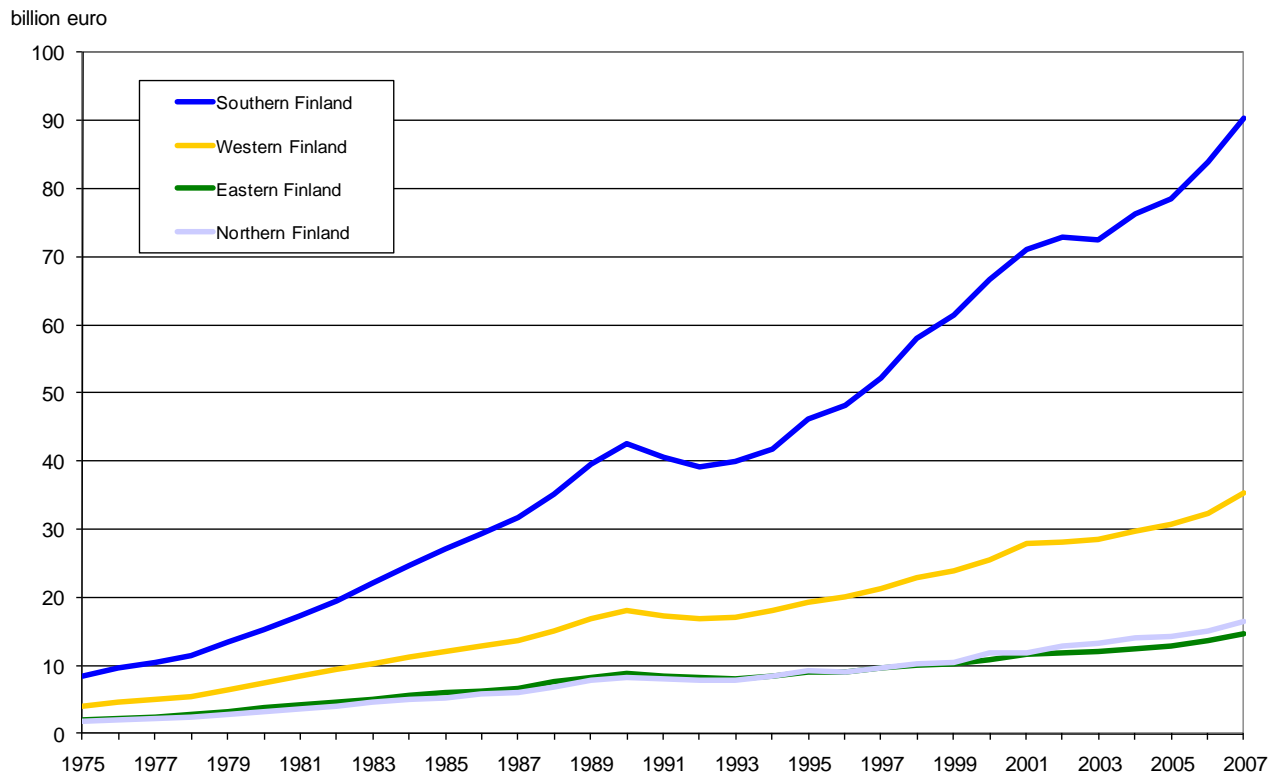
Continuing losses of population have caused declines in the working age population during last few decades in most of the sub-regions (NUTS3). Between 1975 and 2010 the working age population declined by more than one fifth in 20 sub-regions, located mainly in Eastern and Northern Finland, and also in central areas of Finland. A drop of similar size is expected to happen, according to the population forecast, in 30 sub-regions between 2010 and 2040.

Substantial growth of more than 15 per cent in working age population, took place in six sub-regions, all areas with universities in the central city. The seventh area of growth was the Åland Islands. In future decades, the growth of working age population will also decrease in these areas as aging of the population continues. There is no area where the population is expected to grow by more than 15 per cent between 2010 and 2040.

2.3 Production and disposable income by region

Economic development has been regionally unbalanced everywhere in the world (World Bank 2009). As the share of basic industries in the economy has decreased and firms in other industries have tended to cluster in places where the locational advantages in production (agglomeration and localization effects) and access to markets are the best, the whole economy has tended to concentrate spatially. In Finland, business firms and jobs as well as population have increasingly concentrated in southern parts of the country and cities, especially in the increasingly important capital city region.

Figure 13 GDP measured in producer prices by Finnish main (NUTS2) regions, 1975–2007, billions of euros



Source: Statistics Finland, Regional statistics

But we must also ask what has happened to regional disparities in output as the population became more regionally concentrated and urbanized. Because of regional output data from earlier times are not available, we shall consider the period since 1975 (figure 13). By dividing Finland in North-East direction into four NUTS2-regions - (appendix 2A and 2B), we note that output has increased much more rapidly in Southern Finland than elsewhere. Northern and Eastern Finland, which are remote and

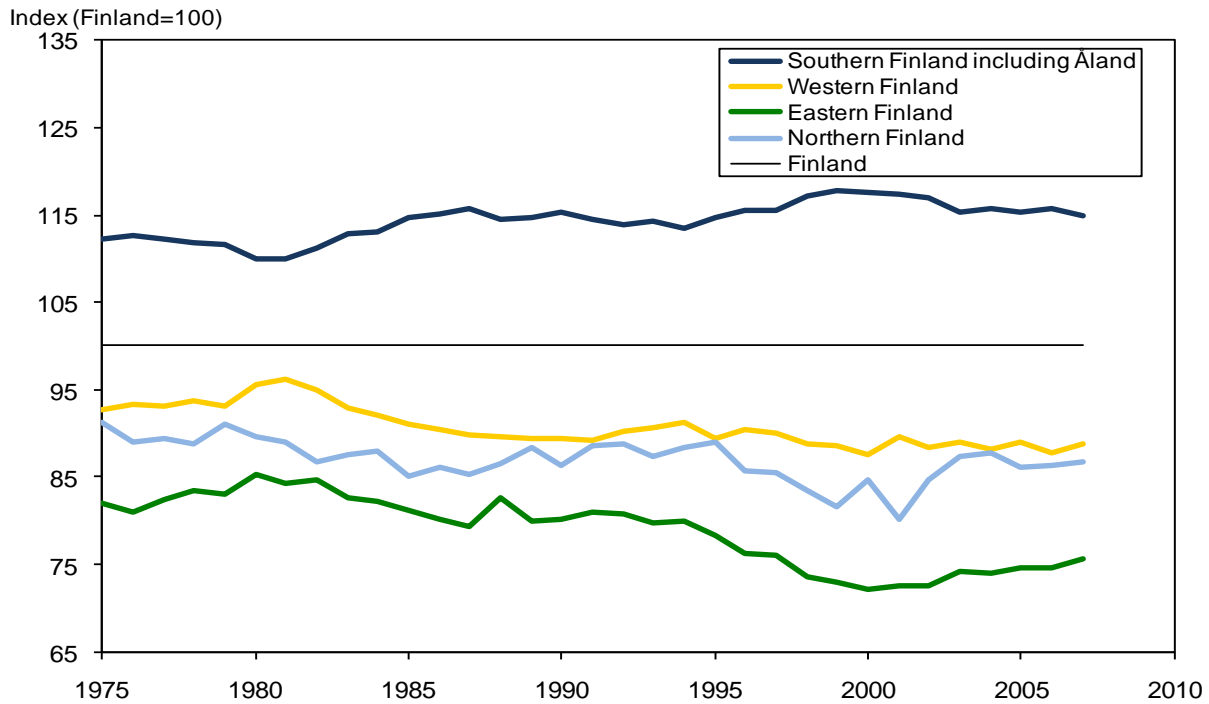
disadvantaged by the Eastern border with Russia (formerly the Soviet Union), have lagged behind not only Southern Finland but also Western Finland.

When the regional structure of output, jobs and population has changed, what has happened to regional disparities in output per capita and income per capita? In figure 14 the national average for output (Gross Domestic Product) per capita is 100 during all years considered. By applying the NUTS2 regional division, regional disparities in output per capita narrowed from 1975 to the start of next decade. The exception to this pattern was Northern Finland, whose relative position remained about the same. In the early 1980s regional disparities clearly increased, but thereafter they remained at the same level even during the economic crisis years of the early 1990s, when output dropped more or less by the same extent in all areas of Finland. With the rapid economic growth which started in mid-1990s, differences in regional output per capita began to increase, and this continued until the end of the millennium. Thereafter these regional disparities have narrowed such that Southern Finland has lost some of its relative position, whereas Northern and Eastern Finland have both improved their position.

Measurement of regional disparities depends to some extent on what concepts are considered. In figure 14 we use output per capita, which measures where production has taken place. When regional disparities in well-being are considered, it is more appropriate to compare disposable income (market income + transfers – direct taxes) per capita. Disposable income contains elements that can come from other areas or go to other areas, such as capital income. Direct taxes and transfers may also affect the disposable income in different areas unequally.

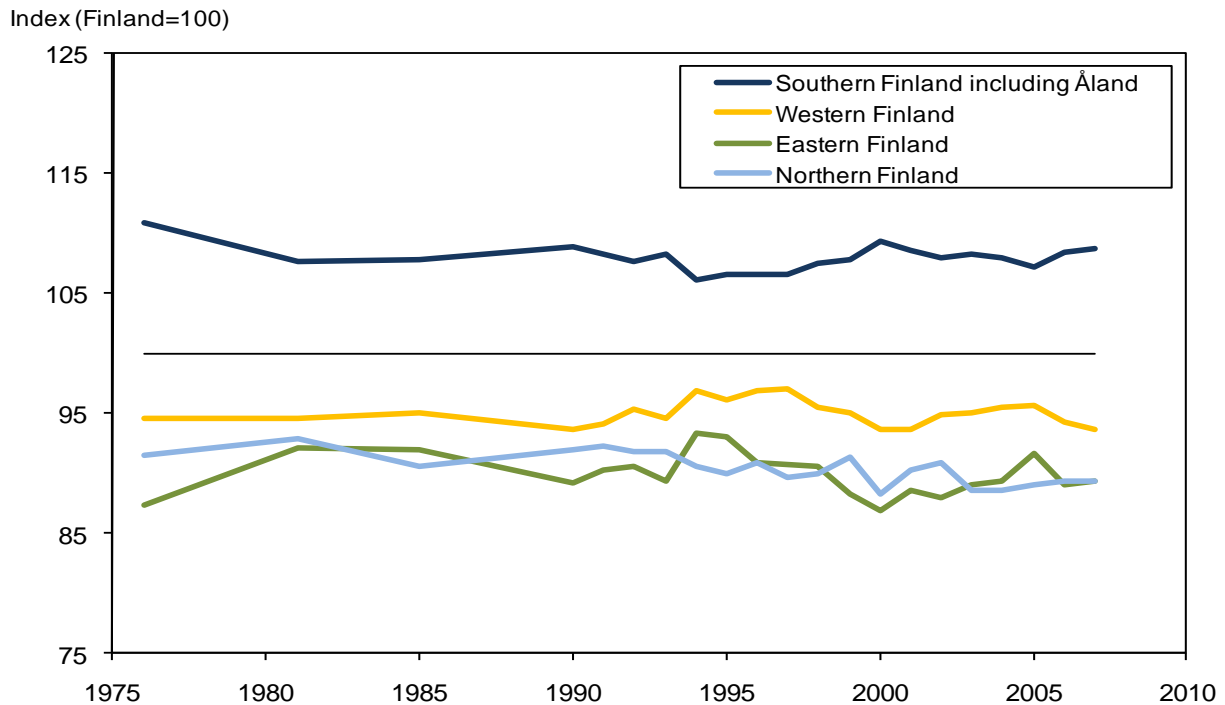
In figure 15 we apply the NUTS2 regional division and consider the period 1976-2007. Note that annual observations begin only in 1990. Before that we have single year observations in 1976, 1982 and 1985. Regional disparities in disposable income per person (adult equivalent person) decreased from the mid-1960s to the early 1980s according to Loikkanen et al. (2007). As shown in figure 15, relative disparities have thereafter remained very much the same, including the economic depression years of the early 1990s, when absolute income levels decreased in all areas more or less equally.

Figure 14 GDP (in producer prices) per capita by major regions (NUTS2) in Finland, 1975–2007
(index, Finland =100)



Source: Statistics Finland, Regional statistics and Population statistics

Figure 15 Average disposable income per capita (per adult equivalent) by major regions (NUTS2) in Finland, 1976–2007 (index, Finland =100)



Source: Loikkanen, Riihelä, Sullström (2007), updated

By comparing figures 14 and 15 one can infer that transfers and direct taxation decrease regional disparities. At the beginning of the period considered this effect appears to have been smaller than at the end.

2.4 Basic municipal services from household's viewpoint

Disposable income (or private consumption) as an indicator of well-being omits free of charge and subsidized basic services that are financed by taxation. Part of these services are national public goods like general administration, public safety, defense, and some infrastructure. They are the same for all citizens and cannot be allocated or targeted to individuals or families.

Other publicly provided services are like private goods in the sense that they can be allocated to and be consumed by individuals. Education, health and social services are of this type and they are mainly provided by municipalities in Finland as the central government (the Parliament) has decentralized their provision to municipalities through laws, statutes and norms. The provision and the availability of basic services in Finland is based on the “universality principle,” according to which all households irrespective of their income have equal right to use these services. The economic value from the subsidized use of such services depends on their volume and value per unit. The latter will be evaluated by average production cost. In order to get the value of public provision, also related user charges have to be taken into account (deducted).

According to the terminology of the System of National Accounts (SNA), these basic services are called *social benefits in kind*. When the value of these and some other services is added to disposable household income, the sum is called total income (or adjusted disposable income)². When the value of basic services is calculated on the basis of their average production cost, their total value in 2006 was on average 6100 euro per household. Their share of households' total income was about one quarter. This share has remained about the same since the end of the 1980s, when this kind of information became available. Even during the economic depression of the early 1990s, this share did not change to

² In SNA social transfers in kind received by households include social benefits in kind and transfers of individual non-market goods and services. When these items are added to disposable household income one gets adjusted household disposable income or as we call it above total income.

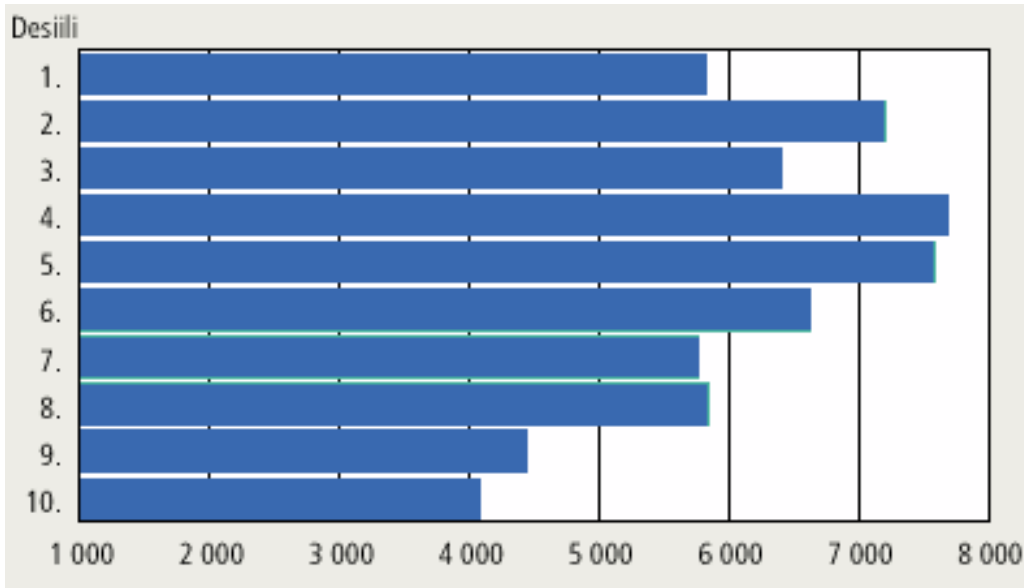
any greater extent. Although the income and consumption level of households decreased in real terms by about ten per cent, the value of social benefits in kind remained about the same. These facts indicate the importance of basic services provided by municipalities in households' income and consumption. Out of the total value of individual basic services in 2006, the share of education was greatest (47.9 %), next came health services (40.5 %) and the rest consisted of social services (11.6 %). (Lindqvist 2008.)

Use of individual basic services varies by age and income. For instance, families with children use and benefit more than others from publicly provided education and day care. The use of health services is more even over the life cycle. As the use and value of basic services is not the same for all households, basic services affect the distribution of income.

In order to get a picture of the distribution of the value of basic services among households at different income levels, we divide households into deciles of income, the first decile being the lowest and tenth decile the highest. In absolute terms, the greatest beneficiaries from basic services fall in the second, fourth and fifth deciles, all of which receive over 7000 euro per year (figure 16). Households in the fourth and fifth deciles can be characterized as medium income, whereas those in the second decile have low incomes. The latter group includes many elderly people and single-parent households. Households in third and sixth deciles also benefit more than average from the use of basic services. (Lindqvist 2008.)

People in seventh and eighth deciles benefit somewhat less (almost 6000 euros) than the average from the use of basic public services. In the first decile there are a lot of single person households consisting of students and elderly people; 15 per cent of families with a single parent also belong to this decile. People in the seventh and eighth deciles have already rather high incomes and most are in two earner families with children and married-couple families without children at home.

Figure 16 Benefit from basic public services by income deciles (desiili in Finnish) in 2006. The deciles are formed on the basis of disposable income per equivalent adult, euros



Source: Households' expenditure survey 2006, Statistics Finland and Lindqvist (2008)

The highest income people in 9th and 10th deciles benefit annually from publicly provided basic services valued at 4000-5000 euros, and this is clearly less than other deciles receive. In the two top deciles, there are more childless working age couples than in other deciles, and they use only public education and social services to a minor extent and public health services to a moderate extent.

When the value of publicly provided basic services is considered relative to disposable income and private consumption, in both cases they are greatest in the first decile. Relative to income, the ratio exceeds 50 per cent and relative to private consumption the ratio is more than 40 per cent. Both measures decline almost monotonically in progressively higher deciles. In the mid deciles the ratios are still between 20 and 30 per cent, whereas in the top decile the ratios are only five per cent (disposable income) and eight per cent (private consumption).

Table 1 Households' average disposable income, consumption expenditure and benefit from basic public services by income deciles, 2006

Decile	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Disposable income	10 700	17 500	21 500	25 200	29 600	34 400	37 200	44 800	50 300	82 800
Private consumption	13 800	18 700	21 300	24 600	27 500	30 600	33 100	37 900	42 200	52 900
Benefit of services	5 800	7 200	6 400	7 700	7 600	6 600	5 800	5 800	4 500	4 100
- per cent of income, %	54	41	30	30	26	19	16	13	9	5
- per cent of consumption, %	42	39	30	31	28	22	17	15	10	8

Source: Household expenditure survey 2006, Statistics Finland and Lindqvist (2008)

On the basis of the above information, public provision of basic services is part of income distribution policy. As a result of providing these services, the differences in households' well-being are much smaller than they would otherwise be. Although the central government finances part of the cost of basic service delivery via the grant system, municipalities have an important role in carrying out basic service provision and most of their production, too and also finance part of them from local revenue sources.

2.5 Do the benefits from publicly provided services affect regional disparities?³

In the preceding section the benefits from publicly provided services were considered from households' point of view. Here, the basic question is whether the benefits from public services affect disparities among the regions (NUTS2, as in figures 14 and 15, above). Here, two income concepts are compared across regions, namely disposable income and total income. The latter consists of disposable income plus net benefit (gross benefit minus user charge) from the use of services in terms of euros in 2006 price level. In addition to health services, these services include social services and education provided by municipalities, as well as individually allocable services provided by the central government (such as university education).

³ This section was not in the original Finnish report. It has been added to this English version.

Statistics Finland has calculated the benefits of publicly provided services for households in the Household Expenditure Surveys (HES) of 1971, 1976, 1981, 1985, 1990 and 2006. First, it is important to note that this is not a time series, rather each HES is a cross-section. Thus, there are some differences in the way the benefits of services are calculated. However, the basic principle is the same in all years. The benefits are based on national averages of unit costs and the quantities of services used by households. Second, although several Household Expenditure Surveys were conducted between 1990 and 2006, they did not include calculations of the benefits of publicly provided services for households. For this reason the topic has not been analyzed since the study of regional total income disparities from 1971 to 1990 by Loikkanen, Laakso and Sullström (1997). Here, the results for all older cross sections are calculated from original data, using the NUTS2 regional division and the OECD equivalence scale. The use of the equivalence scale means that incomes in households of various sizes are calculated per equivalent adult, although we refer to them as per capita incomes. The calculations have been made by Marja Riihelä from the Government Institute for Economic Research (VATT) and are part of a joint project on regional disparities with Heikki A. Loikkanen.

According to Table 2, in 1971 disposable income per capita (equivalent adult) in Finland was 8660 euros and total income was 9797 euros. Thus the benefit from services was 13 per cent (1137 euros) of disposable income. In 2006, disposable income in Finland was 20719 euros per capita (equivalent adult) and total income was 24509 euros. Thus the benefit from services was 18 per cent (3790 euros) of disposable income. This indicates that publicly provided individual services have become more important over time.

As for regional disparities, they are smaller for total income than for disposable income in each year. Thus, provision of services decreases regional income differences. In the year 1971 both disposable income and total income per capita varied from region to another. Over time these regional differences have diminished. In 2006, Southern Finland was 10 per cent above the average national total income level, but the other three regions were on about the same level. Almost the same applies for disposable income differences in 2006, although there are somewhat larger regional differences.

Table 2 Real disposable income and total income¹⁾ in NUTS2 regions, average (€) and index (Finland=100)

	Southern Finland	Western Finland	Eastern Finland	Northern Finland	Finland
1971					
Disposable income, €	9912	8009	7301	7456	8660
%	114	92	84	86	100
Total income, €	10912	9206	8536	8834	9797
%	111	94	87	90	100
1976					
Disposable income, €	11798	10058	9297	9745	10645
%	111	94	87	92	100
Total income, €	13272	11485	10881	11409	12144
%	109	95	90	94	100
1981					
Disposable income, €	12168	10689	10420	10493	11309
%	108	95	92	93	100
Total income, €	13768	12362	12260	12376	12999
%	106	95	94	95	100
1985					
Disposable income, €	13152	11597	11216	11055	12199
%	108	95	92	91	100
Total income, €	15160	13748	13586	13650	14370
%	105	96	95	95	100
1990					
Disposable income, €	16409	14121	13423	13727	15055
%	109	94	89	91	100
Total income, €	19047	17026	16423	16995	17893
%	106	95	92	95	100
2006					
Disposable income, €	23133	18720	18227	18072	20719
%	112	90	88	87	100
Total income, €	26858	22385	22256	22156	24509
%	110	91	91	90	100

Data source: Household Budget Surveys, Statistics Finland.

Calculations by Marja Riihelä, Government Institute for Economic Research.

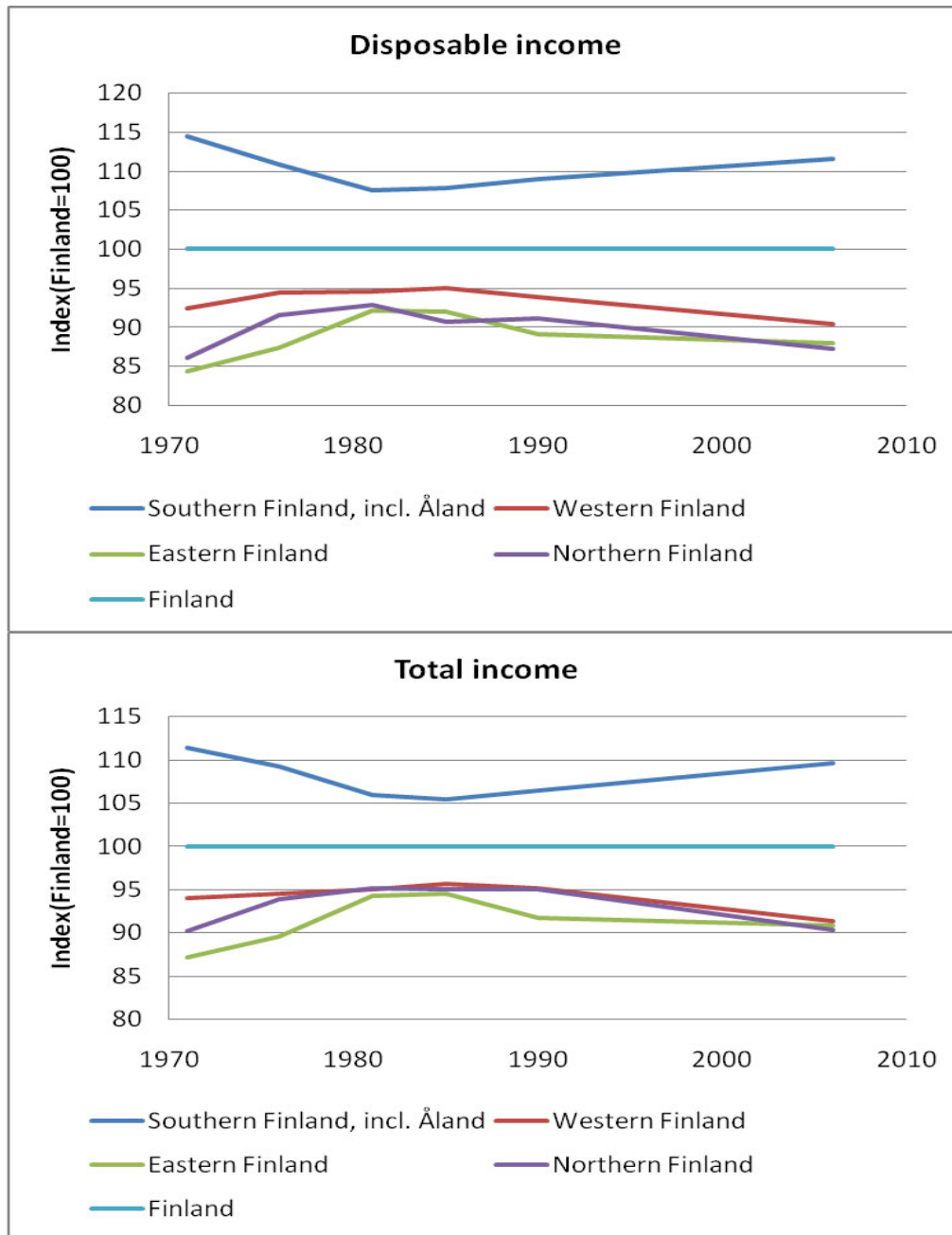
¹⁾ Total Income = Disposable income plus the benefit from basic public services.

The information in Table 2 is summarized in two figures. The upper part of figure 17 shows the relative regional differences in disposable income per capita (equivalent adult) and the lower part the corresponding total income differences. On the basis of the cross sections considered here, regional disparities of total income were smaller in the 1980s (in 1981 and 1985) than before (1971 and 1975). In 2006, the disparities in total income are clearly greater than in the 1980s, but still somewhat smaller than in 1971.

When the two income concepts are considered by region relative to the national average (figure 18), it becomes clear that at least in the years considered, publicly provided services decrease regional disparities: relative regional differences in total income are smaller than the corresponding differences in disposable income.

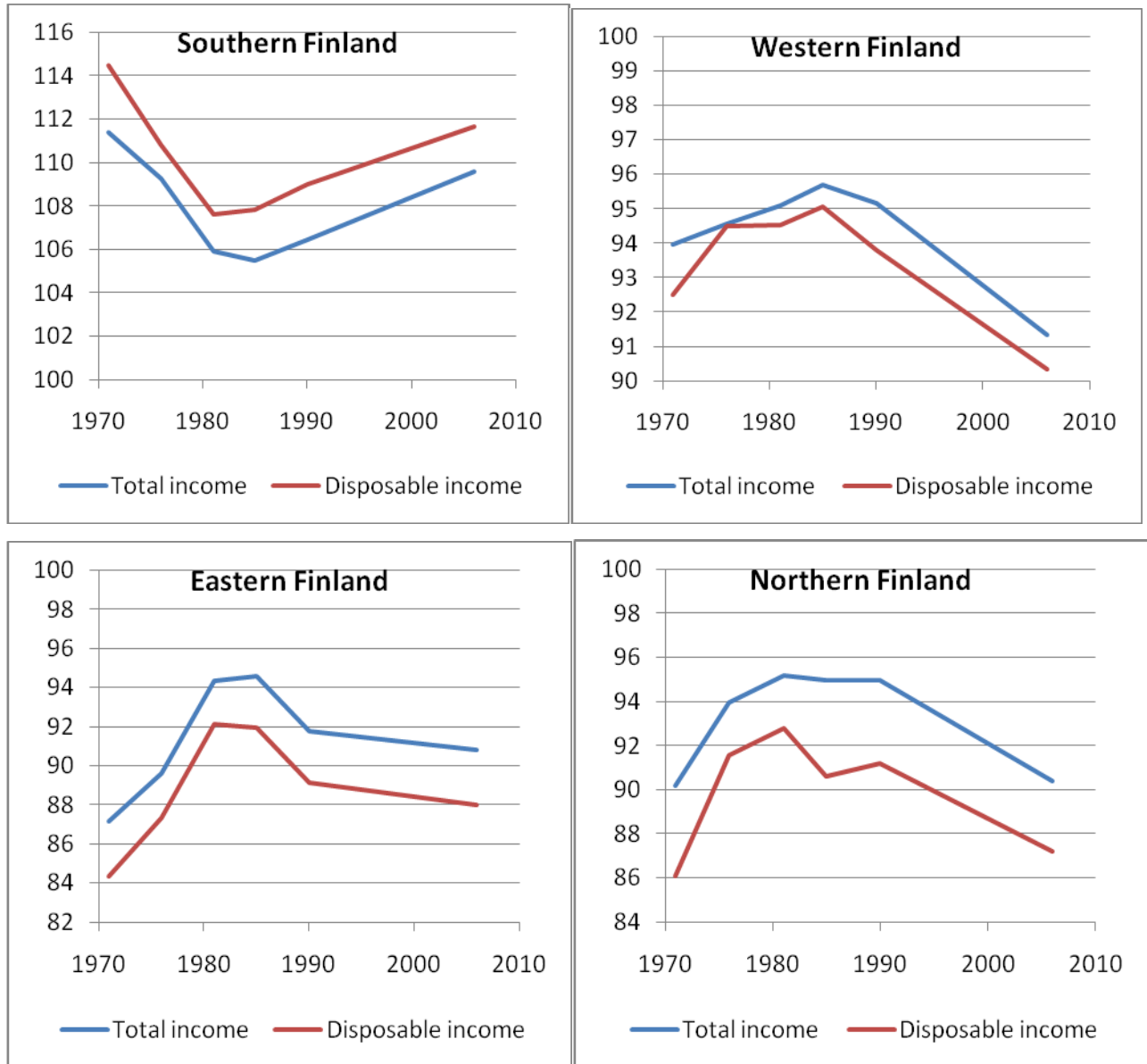
As a general conclusion one must say that regional (disposable and total) income differences are small in Finland. Income differences among households and individuals are the largest component of income inequality (Riihelä 2009), whereas regional income differences are a small component. If regional incomes had been deflated by regional price indices (especially the housing component), the difference between Southern Finland and the other three areas would be even smaller.

Figure 17 Disposable income and total income per capita (equivalent adult) differences in NUTS2 regions, (Finland=100)



Data source: Household Budget Surveys, Statistics Finland.
Based on calculations by Marja Riihelä (see table 2).

Figure 18 Relative disposable income and total income per capita (equivalent adult), NUTS2 regions, (Finland=100)



Data source: Household Budget Surveys, Statistics Finland.
Based on calculations by Marja Riihelä (see table 2).

3 FINNISH MUNICIPALITIES AND MUNICIPAL EXPENDITURES IN THE PUBLIC SECTOR

3.1 Municipalities as part of the economy and the public sector

As a result of income growth, demographic changes and technological development (new products etc.), the demand for local public goods, especially the demand for basic services whose provision by law has been increasingly made a municipal responsibility, has increased. As a result, the significance of municipalities has increased both as a share of the public sector and also as a share of the whole economy. The GDP share of local government consumption expenditure has increased rather steadily from less than two per cent to 15 per cent between 1860 and 2008 (figure 19A). Similarly, the share of local government consumption expenditure in public consumption expenditure has tripled (figure 19B). The only exceptions to continuous growth have been declines during the Civil War of 1918 and the wars in the 1940s, when central government expenditure increased. During the Winter, Continuation and Lapland Wars normal functioning of municipalities was interrupted due to shortages of workforce, materials and equipment (Soikkanen 1966).

After the war years of the 1940s, the functions of municipalities were enlarged and the services they provided increased, expanding the local government sector of the economy. In 1950 municipalities and central government accounted for equal shares of public consumption expenditure, but since then the share of municipalities has risen above the share of central government. The local government economic sector in Finland has been affected by the building of a welfare state and by economic growth, which since 1950s has required industrialization and a structural change from agriculture to a service based economy. The creation of a welfare state brought reforms, including those of health insurance, the pension system, the comprehensive school system and day care. These reforms have emphasized the role of municipalities as service providers and producers. In 2008 the share of municipalities in total public consumption expenditure was almost 70 per cent, which reflects the concentration of responsibility for providing and producing public services at the municipal level (figure 19B).

Figure 19A Consumption expenditure of local government, 1860-2008, % of GDP

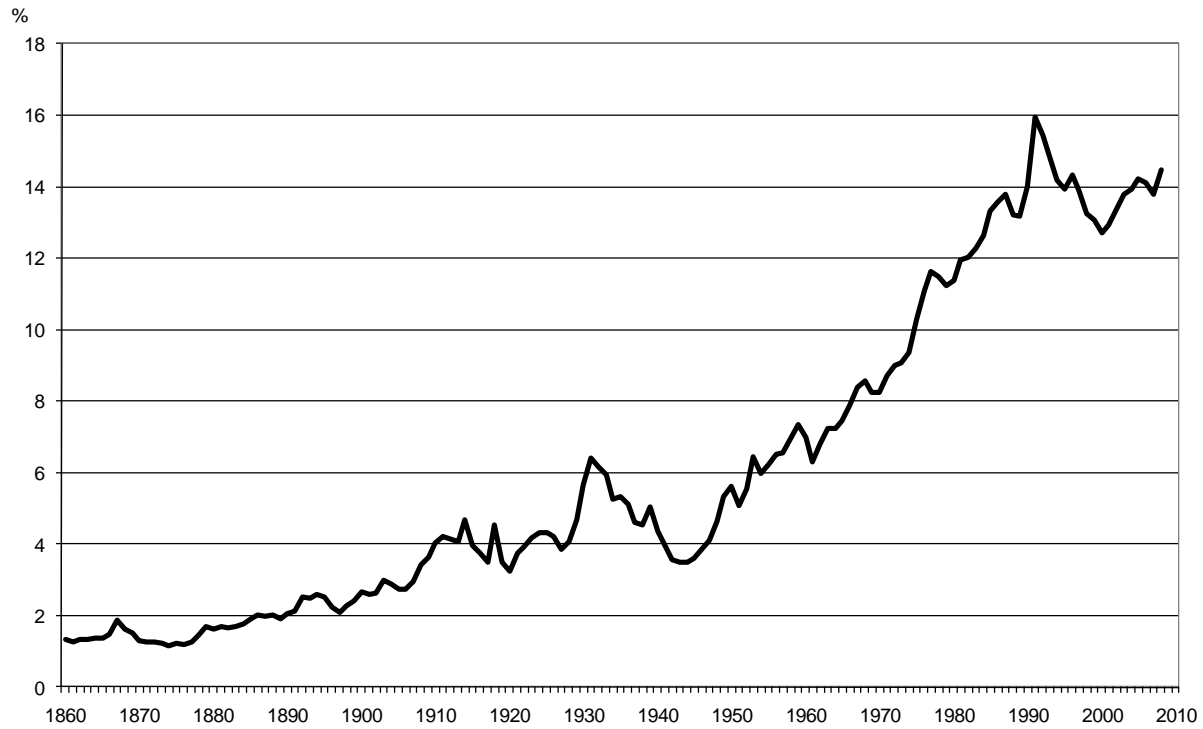
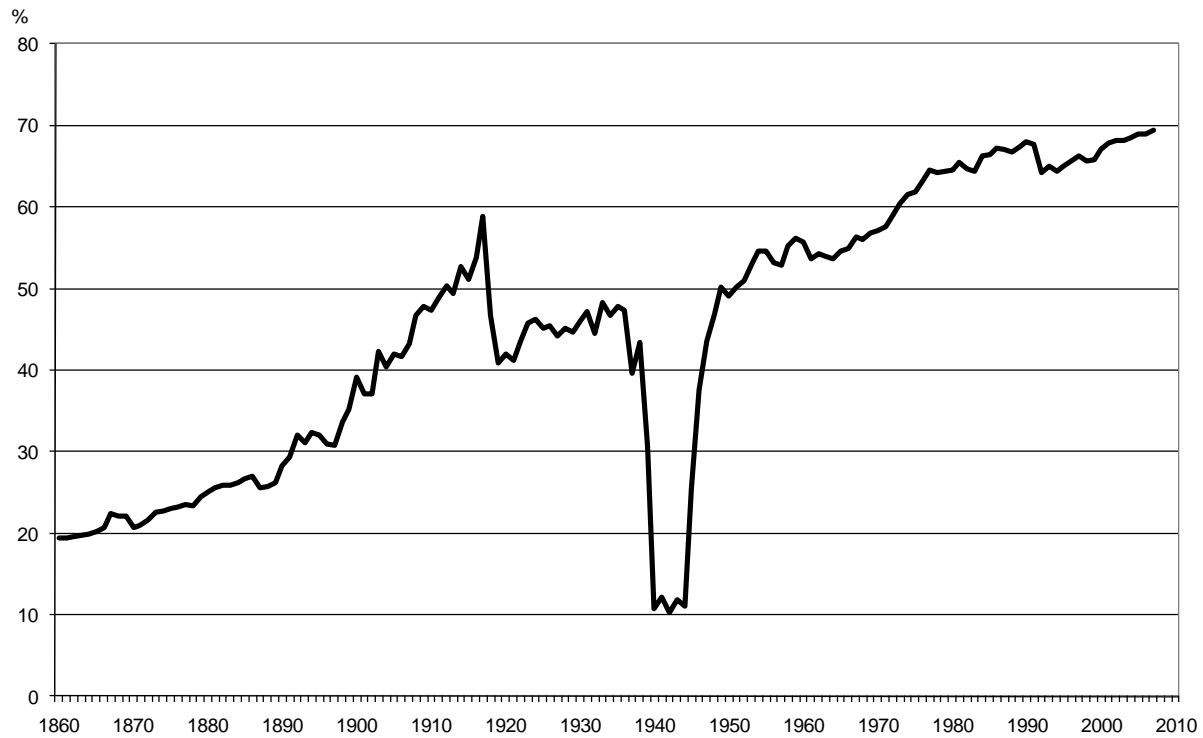


Figure 19B Consumption expenditure of local government, 1860-2007, as % of public consumption expenditure



Source: Statistics Finland, National accounts (historical series)

In most European countries, municipalities do not have to provide as many services as in Finland. Elsewhere, some of the services provided municipalities in Finland are provided by intermediate levels of government, special purpose districts with their own revenue sources, federal states or central government. In this respect the Finnish public sector is exceptionally decentralized to the local level (municipalities) although the central government co-finances it to a great extent through grants (Laakso & Loikkanen 2004, chapter 29).

3.2 Structure of municipal expenditures

When the functional mix of local municipal expenditures is considered, we get a picture of how the structure of municipal services has changed over time and how resources have been allocated to different branches of administration. The three largest functions of municipalities at all times have been health care, social services and education. Their combined share of municipal expenditures has been between 70 and 80 per cent (figure 20A and 20B). As a result of changes in society and the structure of the local government sector, the mix of these three service sectors has varied over time. Also, the picture we get of the service structure depends on whether consumption or total expenditure is considered. Total expenditure includes all expenditure of municipalities (consumption and investment), whereas consumption expenditure consist mainly of labor costs and costs of services and material inputs⁴.

At the beginning of the 20th century education *was* the top priority for municipalities. In 1921 a law on compulsory education was enacted. According to this law every municipality had to build a sufficient number of elementary schools to ensure that the distance from homes to school did not exceed five kilometers (Kaukovalta 1940). During the 1920s and 1930s municipalities used their resources to comply with this law. After the war, measures were taken to make education more effective. Class sizes were limited and municipalities were required to employ special teachers like home economics and craft teachers (Soikkanen 1966). In the 1950s also the structure of education was modernized by

⁴ Total expenditure includes costs of intermediate inputs, labour costs, subsidies, capital costs, social benefits, transfers, capital transfers, investments and the net purchase costs land and other forms of real estate. Consumption expenditure includes labor costs, imputed interest and depreciation costs, maintenance and repair costs and the difference between the value of goods and services bought and sold.

establishing municipal middle schools. In 1972 to 1977 there was a school reform in Finland, in which the two channel school system was dispensed with, and the comprehensive school idea was adopted.⁵

Education's share of expenditure has decreased since the turn of the millenium. In 1930 the share of education in total expenditure of municipalities was 36 per cent, whereas in 2008 it was only 23 per cent. Priorities have shifted gradually to social and health services, most clearly since the 1970s. As the sizes of recent birth cohorts have declined and the population has aged, the share of education expenditure has declined.

During the post war period especially municipalities have invested in health care. Its share of total municipal expenditures almost tripled between 1930 and 2008, although the share of health care in consumption expenditure has been stable. In 1939 a law on general health care was enacted according to which all municipalities either alone or in combination were obliged to fund a position of medical doctor, since about 200 municipalities did not have one (Kaukovalta 1940). Since 1944 municipalities have also been required to have district nurses and midwives as well as maternity and child health centers (Soikkanen 1966).

At the end of the 1950s and the beginning of 1960s the Finnish hospital network expanded greatly and municipalities were pressed to improve their health care services. During this period, there was also a school reform, which required every municipality to provide medical doctors and dentists for schools. The health insurance system, enacted in 1963, aimed at providing health services to all citizens, and the national health law of 1972 made municipalities responsible for health counseling, transportation of patients and health services as well as occupational health care and dental care (Primary Health Care Act 28.1.1972/66). At the same time there was a change from a system of municipal hospitals and doctors to municipal health centers.

⁵ The Finnish school system had been a two channel system since the time of autonomy (Finland being a Grand Duchy of Russia). During the first four years, all pupils went to elementary school, after which some pupils moved to high school (secondary school) and other pupils continued in higher classes of elementary school. The high school consisted of two levels: a five year middle school (junior high school) and a three year high school (senior high school). The purpose of the elementary school reform was to guarantee all pupils equal access to education, and this aim was also enhanced by free of charge basic education.

Figure 20A Local government expenditure by task groups during 1930–2008, per cent of local total expenditure (capital expenditure is included during 1990–2008)

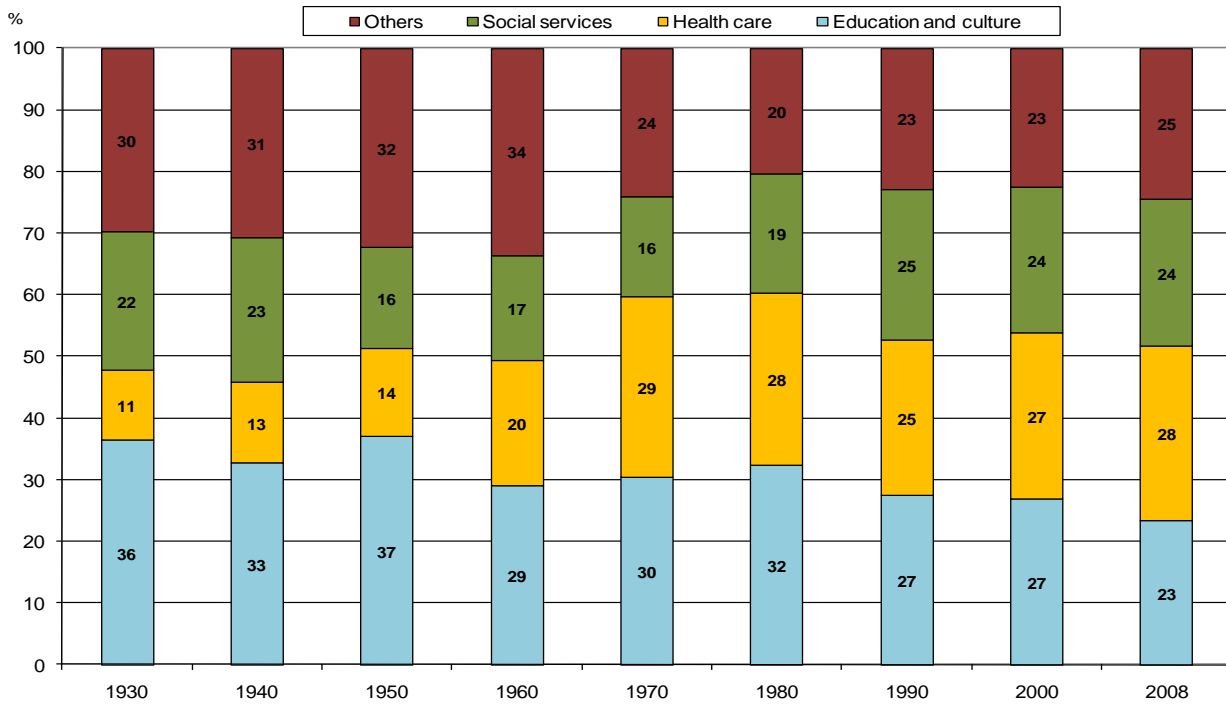
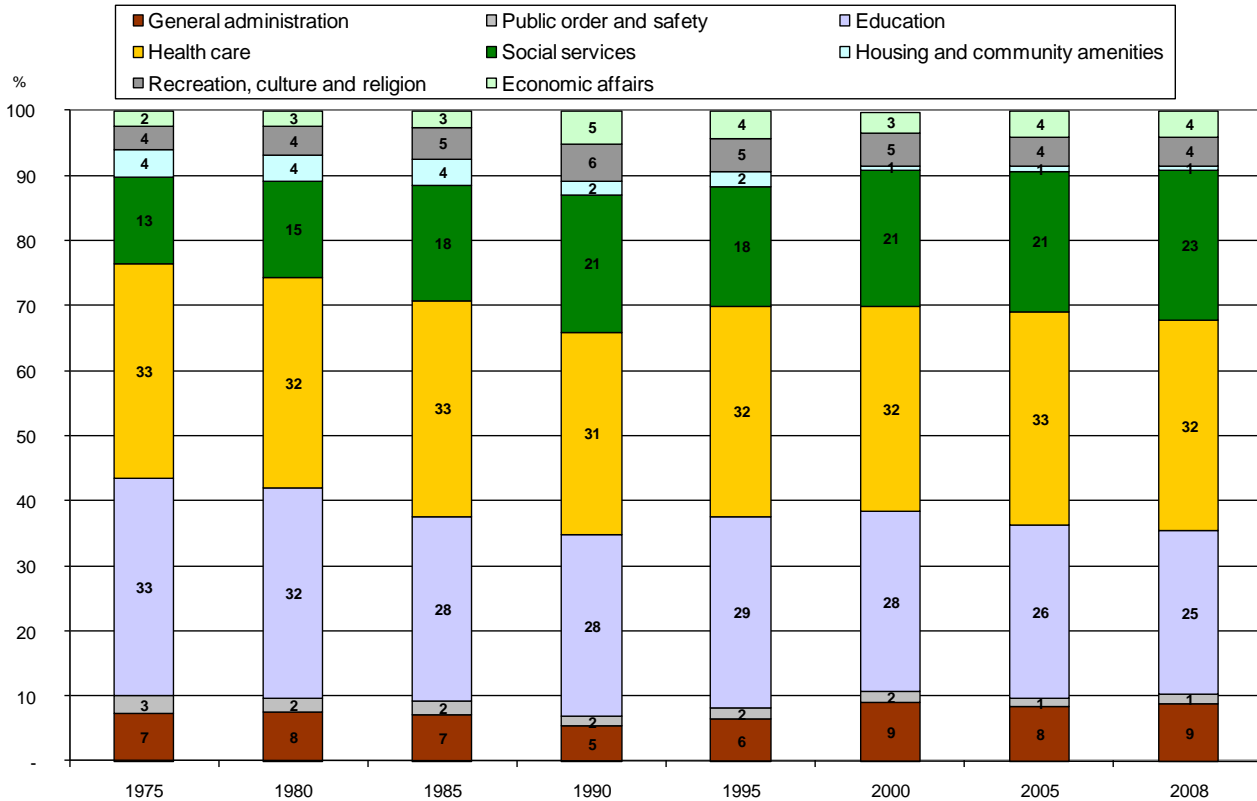


Figure 20B Local government consumption expenditure by task groups during 1975-2008, per cent of local consumption expenditure



Source: Suomen taloushistoria 3; Käär (1988) & Statistics Finland, public sector statistics

Since the 1960s the growth of total health expenditures has been affected by aging of the population. In response to aging and the increasing costs of health services, municipalities have tried to develop less costly substitutes for in-patient health care. Since the 1980s municipalities have increased outpatient care of the elderly including sheltered housing, visiting nurses and home help services (Vaarama & Noro 2005). During the 1990s especially institutional care decreased and sheltered housing increased.

After independence, almost all social security legislation was reformed in Finland. For instance, in 1922 a law concerning poor relief required municipalities to build municipal homes and work places for the indigent and raise the quality of mental health care (Kaukovalta 1940). Between 1920 and 1930 new laws were enacted concerning inspection of trades, employment offices, child welfare and vagabondism, which all were primary responsibilities of municipalities. Also, aging of the population, especially since the 1970s, has increased social expenditures of municipalities. The share of social services in municipal consumption expenditure has almost doubled since the 1970s⁶. This growth was also affected by a 1973 law concerning municipal child care.

There have been persistent differences in the expenditure structures of urban (cities and towns) and rural municipalities (appendix 6, table 7). In the 1930s and 1960s social and education expenditure shares were somewhat smaller in urban than rural municipalities. Cities, on the other hand, have more expenses for law enforcement and public works than rural municipalities.

3.3 Demography and future municipal expenditures

The size and financing needs of the local government sector in the future are driven by the growth of the demand for basic services. The demand for these services will increase due just to income growth, but changes in the size and structure of population can also have an impact on service demand. Because recent public discussion in Finland has emphasized the effects of changes in the age structure of the population, in this section we consider the impact of pure demographic change for expenditures related to different basic public services in the future.

⁶ The share of social services in consumption expenditure of municipalities has always been smaller than the respective share in total expenditure. The reason for this is that households receive social benefits and other transfers, and payments to social security fund are related to the financing of pensions.

Our forecast is based on per capita expenditure for various basic services in 2003 by 5-year age groups, separately for men and women (Project to Restructure Local Government and Services). On the basis of this information and the population forecast of Statistics Finland, we have calculated a forecast for expenditure related to main basic service groups from 2009 to 2060. In other words, basic service expenditure have been fixed at the 2003 level and the only effects on expenditure in future decades are caused by changes in population size and structure.

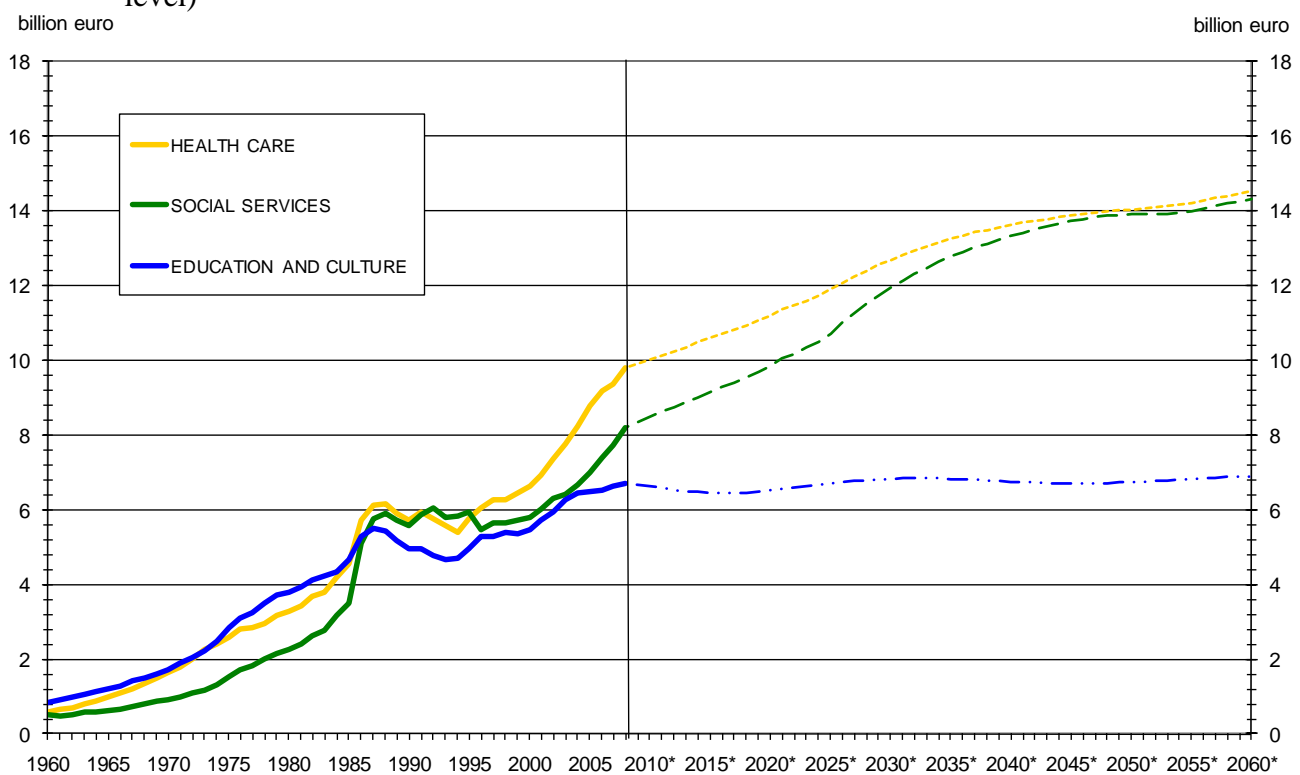
In appendix 3, municipal expenditures on health, social and education services are presented by age groups and by gender. These are used in the calculation of the forecast. For education, expenditures occur between 5 and 24 years of age and there are no gender differences. For social and health services, expenditures increase with age, especially after 60. Furthermore, expenditures for social services for women are higher than for men, but for health care the opposite applies. Differences between women and men are partly due to differences in longevity. In 2008, life expectancy for women was 83 years and for men 76 years.

Figure 21 presents both the observed levels of expenditure in 1960 to 2008 and the service specific forecasts for 2009-2060, both at 2003 price levels. One must take into account that observed past changes have been affected by all relevant factors (growth of income, demographic changes etc.), but the forecast is affected only by changes in population size and age structure, as displayed in figure 7.

On the basis of this calculation, municipal expenditures on health and especially social services are expected to increase rapidly until 2045, after which their growth decreases somewhat (figure 21). Education expenditures do not change remarkably in the future, they stay at about the 2008 level. In 2060 municipal expenditures on health and social services are both expected to be about 14 billion euro and education expenditures almost 7 billion euro. Demographic change during the next 50 years increases health expenditures by about 45 per cent, and the corresponding growth in social service expenditure is 75 per cent. The calculation indicates that demography matters, but that its effect is small in comparison to actual increases since 1960, which cannot be explained by demographic factors alone.

Income growth has had large effects on expenditures for basic services (their income elasticity is above one) and inclusion of the impact of future income growth would have a clear positive impact on this forecast. However, technological change can have either negative or positive effects on expenditures for basic services. Which effect predominates depends on whether there will be innovations such as new forms of treatment that increase the demand for health services or innovations that replace earlier expensive treatments with cheaper ones.

Figure 21 Municipal health, social service and education expenditures, 1960–2008, and forecast to 2060 of the pure impacts of projected changes in population, billion euro (at 2003 price level)¹

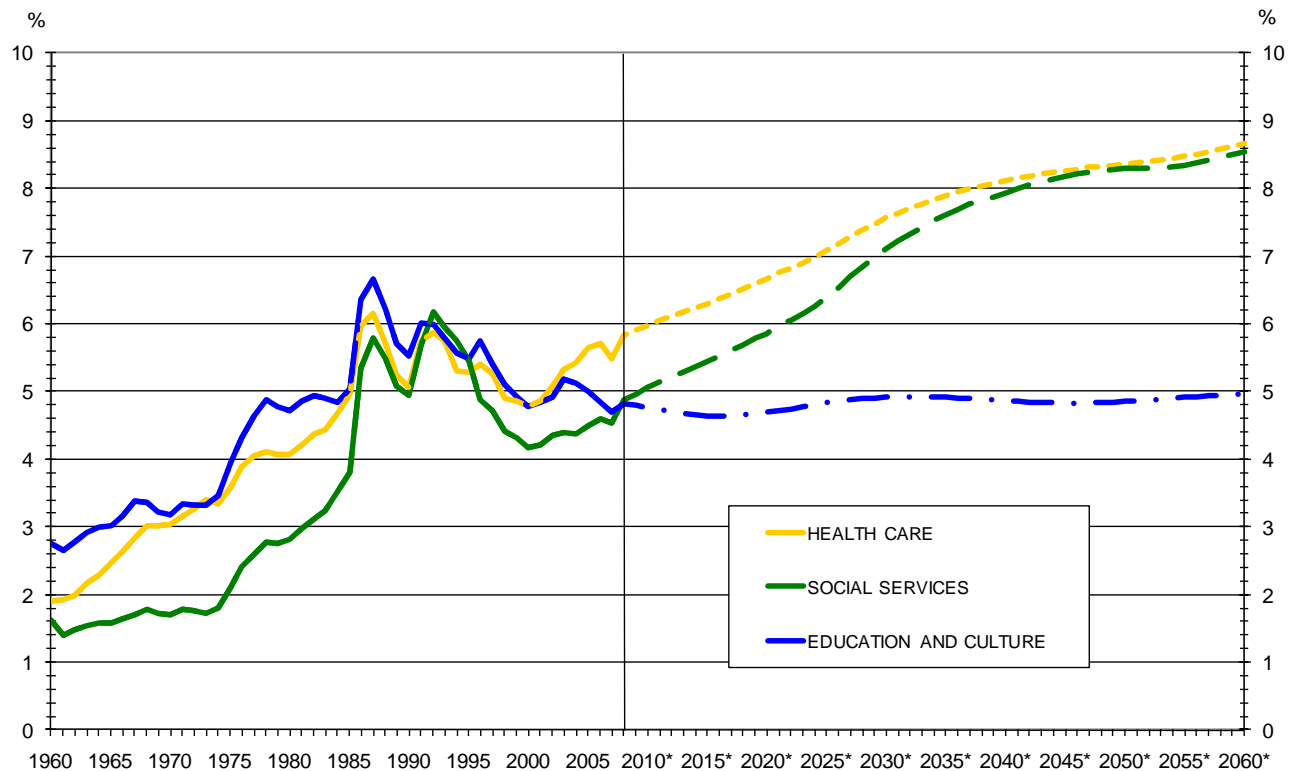


¹Per capita service expenditures by age groups from the year 2003 are assumed to apply during the forecast period.

Data sources: Project to restructure local government and services; Käär 1988; Statistics Finland, public sector and population forecast 2009

In figure 22, we show total expenditure related to provision of health, social services and education as a percentage of GDP, which is to remain constant after 2009 in order to show the pure impact of demographic change. This figure shows municipal expenditures on health and social services as a per cent of GDP growing until 2060, although the rate of growth declines somewhat after 2045. By contrast, for education the share does not grow but is expected to stay at the 2008 level. In 2008 municipal health expenditures were almost six per cent, and social and education expenditures both almost five per cent of GDP. In 2060 these shares are expected to grow to 8.5 per cent for health and social services, and stay at five per cent for education.

Figure 22 Municipal health, social service and education expenditure, 1960–2008 as % of GDP, and forecast to 2060 of the pure effects of changing population age structure on expenditures ¹



¹ GDP is assumed constant during 2009–2060 in this calculation. Per capita service expenditures by age group in the 2003 are assumed to apply during the forecast period.

Data sources: Project to restructure local government and services; Käär 1988; Statistics Finland, public sector and population forecast 2009

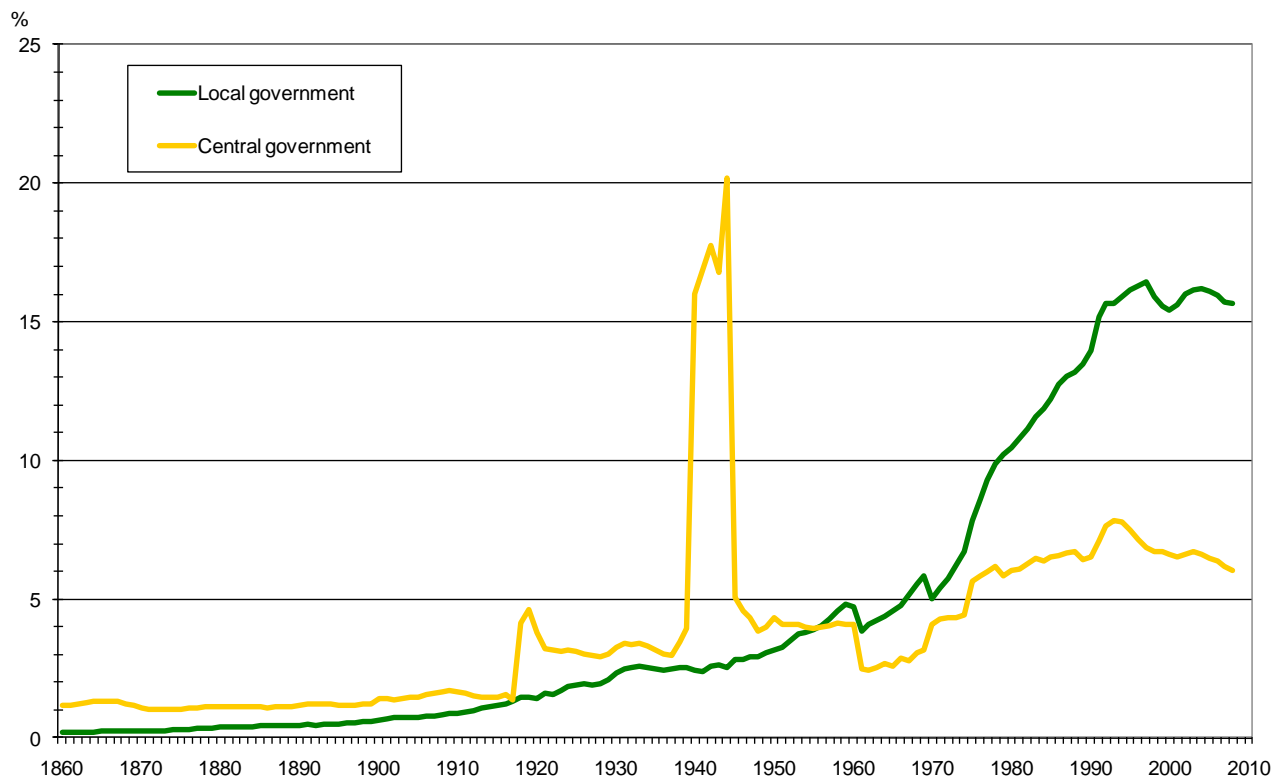
Figure 22 considers the impact of demographic change alone assuming that income level (GDP) and age-specific service expenditures are fixed at the level of year 2003. Except for education, the forecasted population size and age structure have a clear impact on both the expenditure level and the GDP share of other services (health and social) in the future, but this impact is not large compared to earlier growth. This is explained by the fact that the growth of basic service expenditure and its GDP share since the year 1960 were only due to demographic changes: the most important factor behind the growth was the growth of income. Basic public service expenditures will also increase due to income growth and service innovations. Income growth will further affect future unit costs of services if wages continue to increase more than productivity in labor intensive sectors like health and social services.

However, if we assume that GDP (and income level) grows in the future, but unlike in the past, with no impact on the demand for services and age specific expenditure by type of service (they would be at 2003 level), then the GDP share of basic services will be lower than the projections shown in figure 22. The higher the assumed GDP growth rate, the smaller the GDP share of basic service expenditure becomes. This can be seen in appendix 7, where the assumed future growth rates for GDP are 1.0 and 1.5 per cent per year.

4 MUNICIPAL EMPLOYEES

During the decades preceding Finnish independence in 1917, municipal employment represented a smaller share of total employment (measured in working hours) than the share of central government. Municipalities reached one per cent, the share of the central government, by the time of independence, but the establishment of state institutions caused a jump in the central government's share following independence. The growth of the municipal sector halted in 1930s but resumed after the Second World War. Figure 23 shows that the building of a basic service system of the Finnish welfare state, which relies on municipalities, led to a rapid growth of employment as measured by hours worked at the local government level starting in the 1970s. (Data for the 1960s estimated based on employment.) This growth halted only after the economic crisis of early 1990s. In 2008, the shares of municipalities and the central government in total employment are 16 and 6 per cent respectively.

Figure 23 Employment of local and central government, 1860-2008*, % of national employment (measured by hours worked)

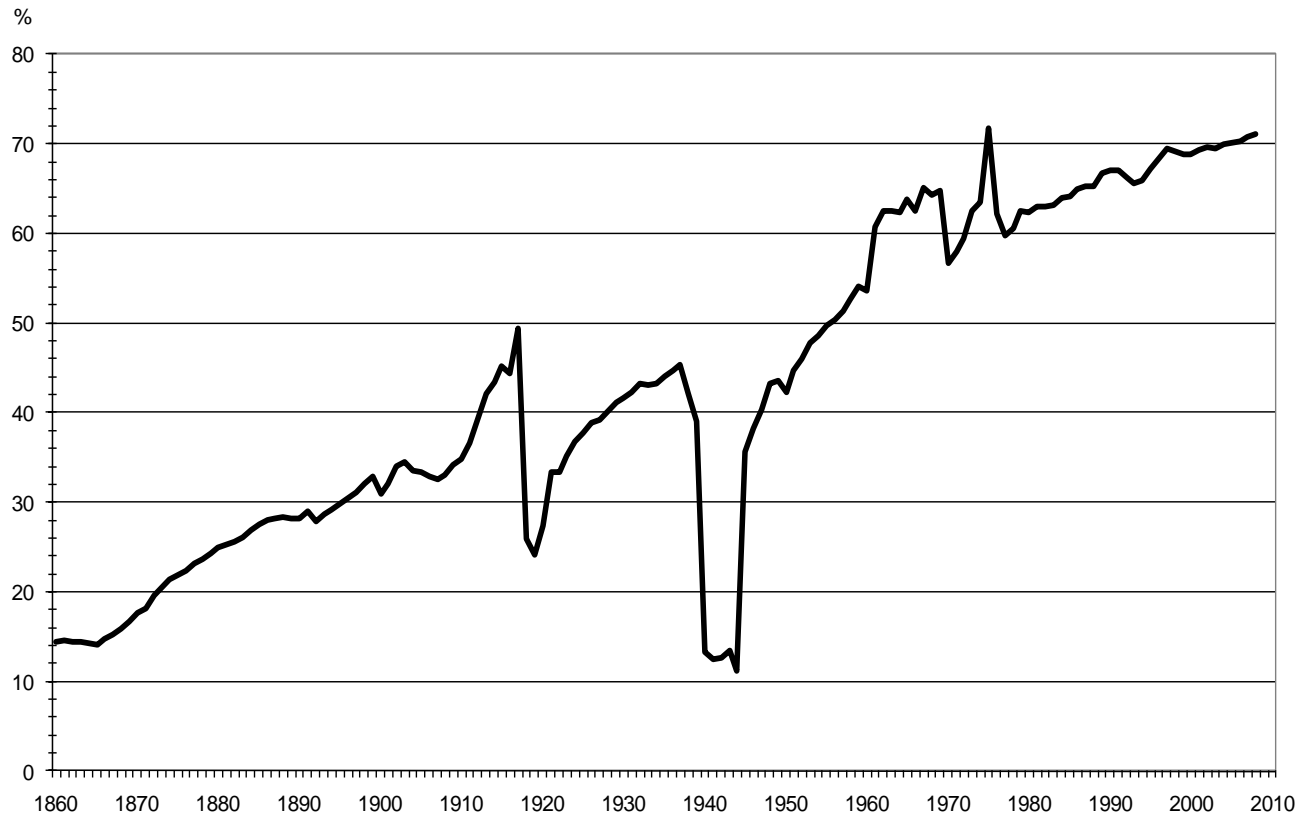


* Missing data for 1961-1969 have been estimated on the basis of the number of employees.

Source: Statistics Finland, National accounts (historical series)

The municipal share of public sector employment (measured by hours worked) has grown steadily over time. The only exceptions are the drops after independence and during the war years, and there is a peak up at the beginning of 1970s (figure 24). At the beginning of the 20th century the municipal share of total public sector employment was about 15 per cent, and in 2008 it was 70 per cent.

Figure 24 Local government employees as a per cent of public sector employees, 1860-2008*, estimated on the basis of hours worked

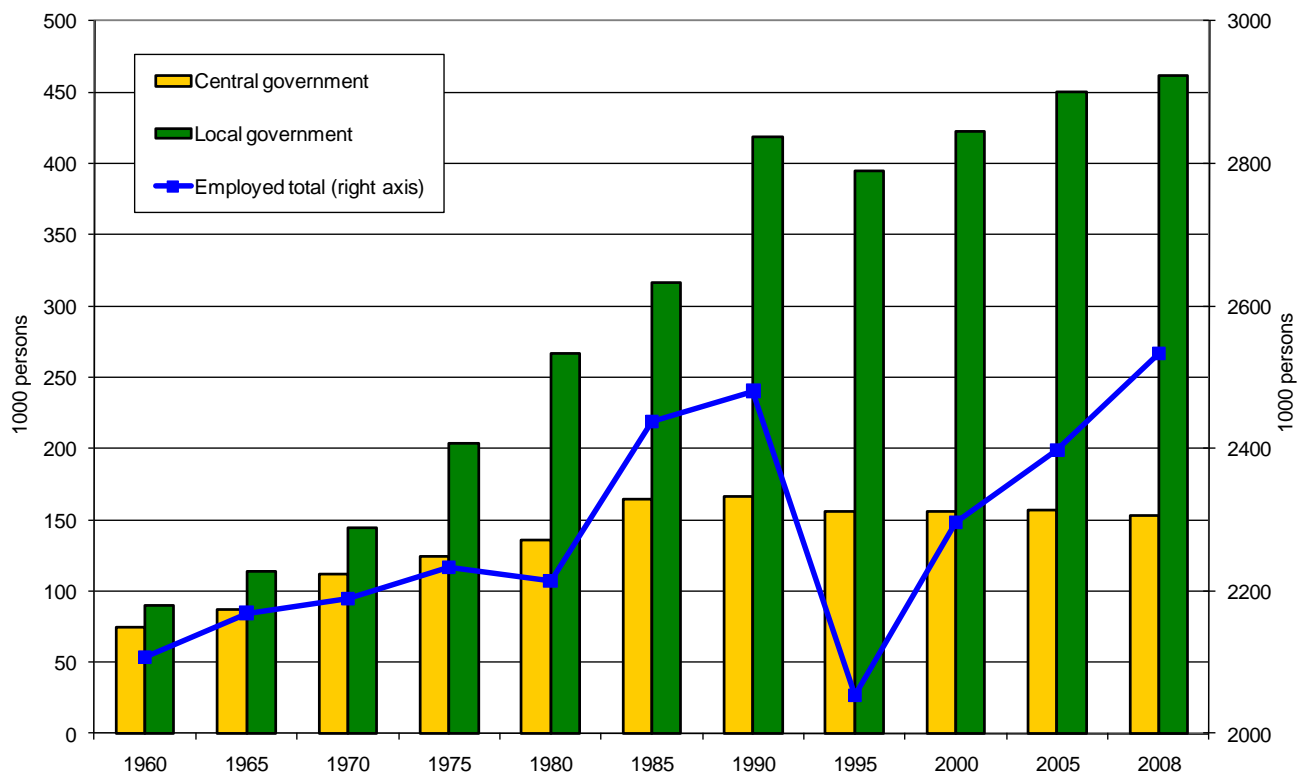


* Missing data for the years 1961-1969 estimated on the basis of the number of employees.
Source: Statistics Finland, National accounts (historical series)

The number of employees in municipalities and their joint organizations grew from about 100 000 to 450 000 from 1960 to 2008 (figure 25). During the first half of 1990s, employment in the municipal sector decreased by five per cent, but since then it has continued to grow. By contrast, total employment in Finland decreased by almost 20 per cent from 1990 to 1995. Furthermore, the 1990 level of total employment was reached again only a few years ago, whereas the 1990 employment level in municipalities was passed already before 2000.

The underlying reason for the growth of municipal employment is the growing demand for basic services, which the public sector has decided to provide. The Parliament has made laws that increased the supply of these services, offered funds to cover the costs, and made municipalities responsible for provision and production of basic services. As a result of these laws, new staff positions were created in municipalities. For instance, the social service law of 1950 ordered that municipalities with a population of over 4000 must establish a position for either a social service director or secretary.

Figure 25 Number of employed (employees + self-employed) in Finland, 1960-2008, 1000 persons



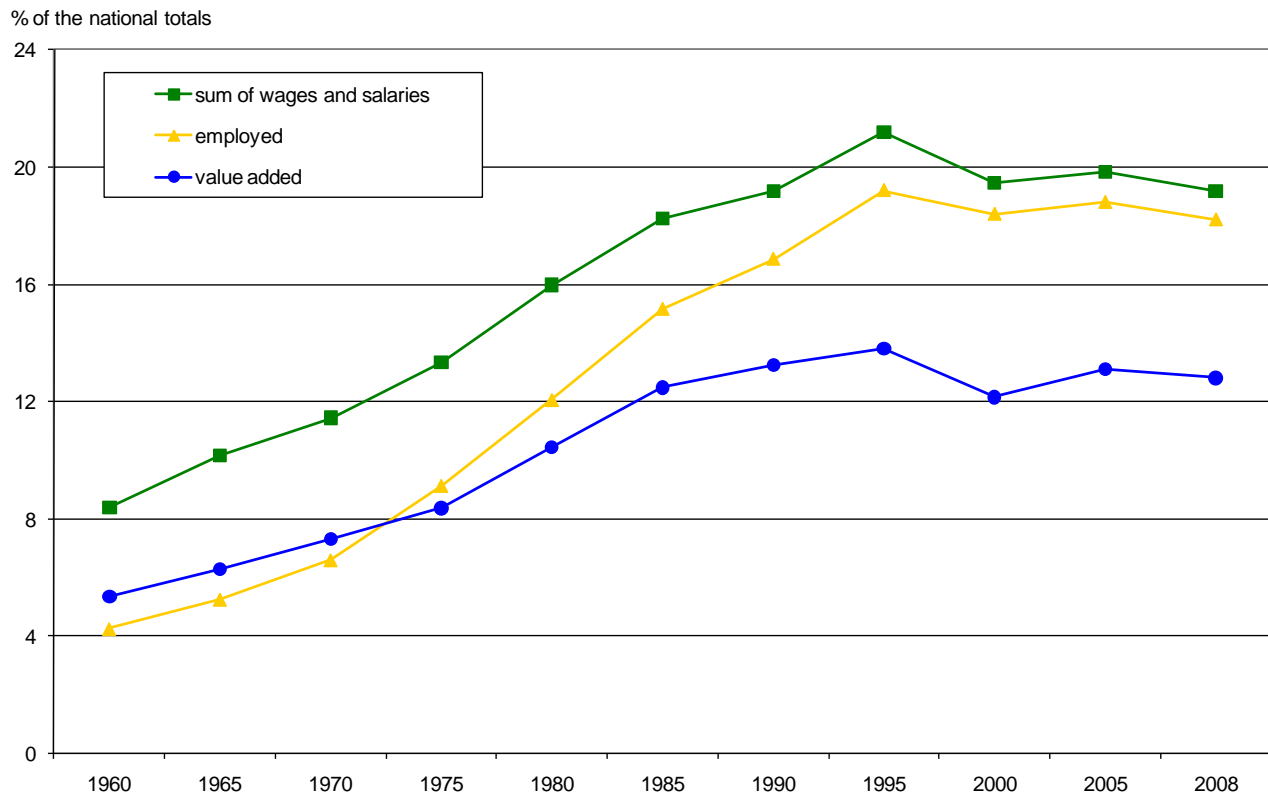
Source: Turkkila 1984 & Statistics Finland, National accounts

The municipal sector is one of the largest employers in Finland; almost one employed person in five works in the local government. Municipal employees are older on average than the entire working population: in 2008 the average age of full-time monthly paid municipal employees was 45 years (Commission for Local Authority Employers).

The municipal share of total employment grew faster than the municipal sector's share of total wages or value added during the period from 1960 to 2008 (figure 26). In 1970 the Municipal Delegation for Collective Bargaining was established in order to set wage norms and unify wage formation. This has caused a partial convergence between the total wages and employment shares of the municipal sector since the 1970s.

The municipal share of total wages is, however, smaller than the municipal share of employment. The reason for this is the large number low paid jobs in the public service sector, and there is also a difference in wages and salaries between the private and the public sector.

Figure 26 Total wages and salaries, value added and employees of local government, 1960-2008, % of the national totals

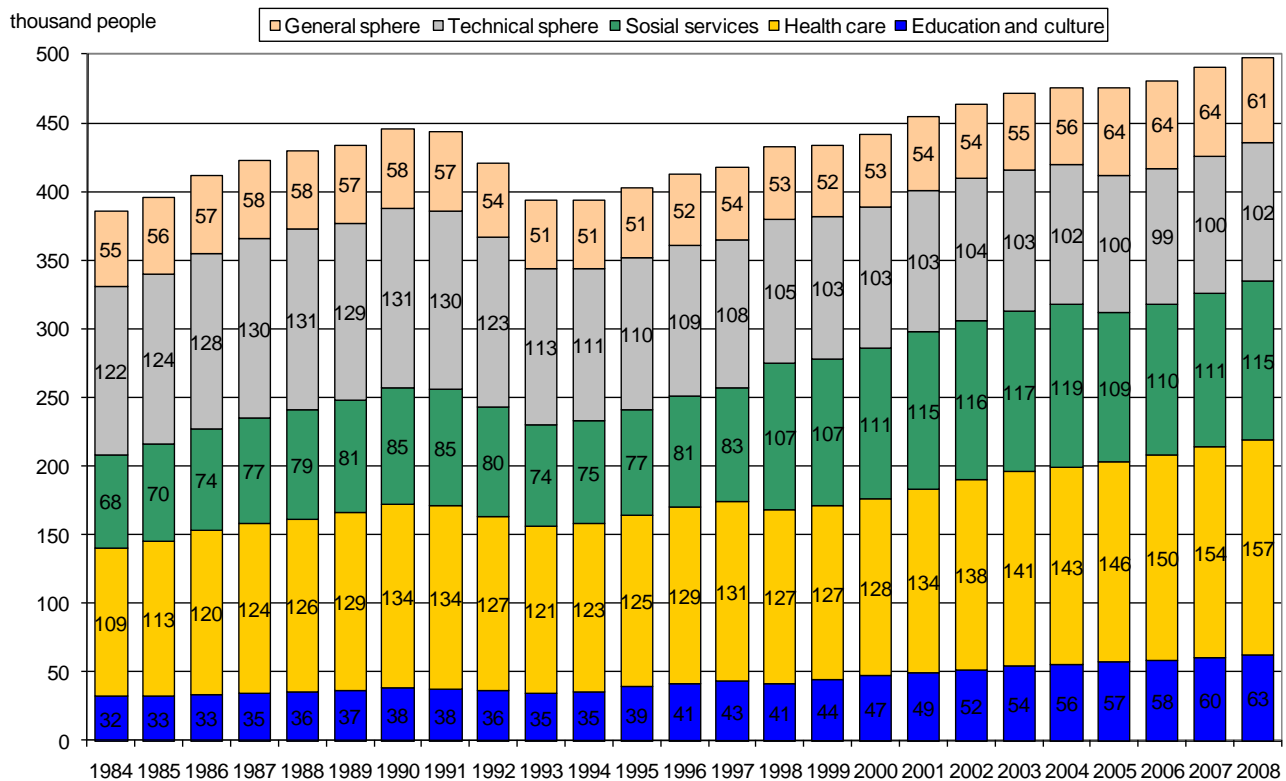


Source: Turkkila 1984; Käär 1988 & Statistics Finland, National accounts

In all sectors of municipal authority except for the technical sector the numbers of employees have increased since the 1960s, however their employment shares have varied over time (figures 27A and 27B). The employment shares of social services, health and education have grown steadily, whereas the

technical sector and general sector have correspondingly declined. Especially, in the technical sector the change has been remarkable as its share has decreased by 10 percentage points during the last 15 years.

Figure 27A Number of local government employees* by subsector, 1984–2008, thousands

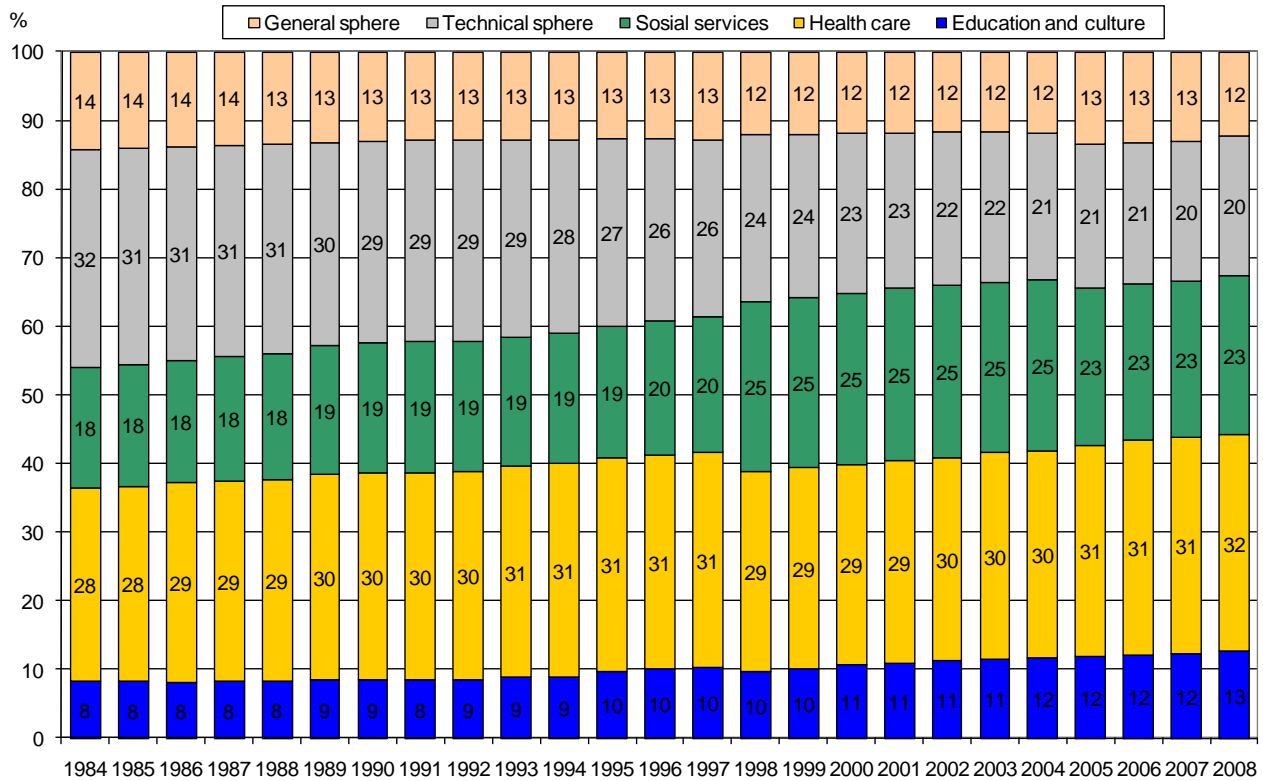


* Employees insured by the Local Government Pensions Institution, includes part time and temporary employees; subsectors are formed on the basis of professions.

Source: The Local Government Pensions Institution (KEVA)

Municipal employment includes in addition to permanent employees, also all part time and temporary workers who have been insured on the basis of the municipal pension law (KuEL), which covers about 90 per cent of municipal employees. A large share of teachers in comprehensive schools and high schools are covered by the state pension law, but otherwise KuEL covers all municipal employees.

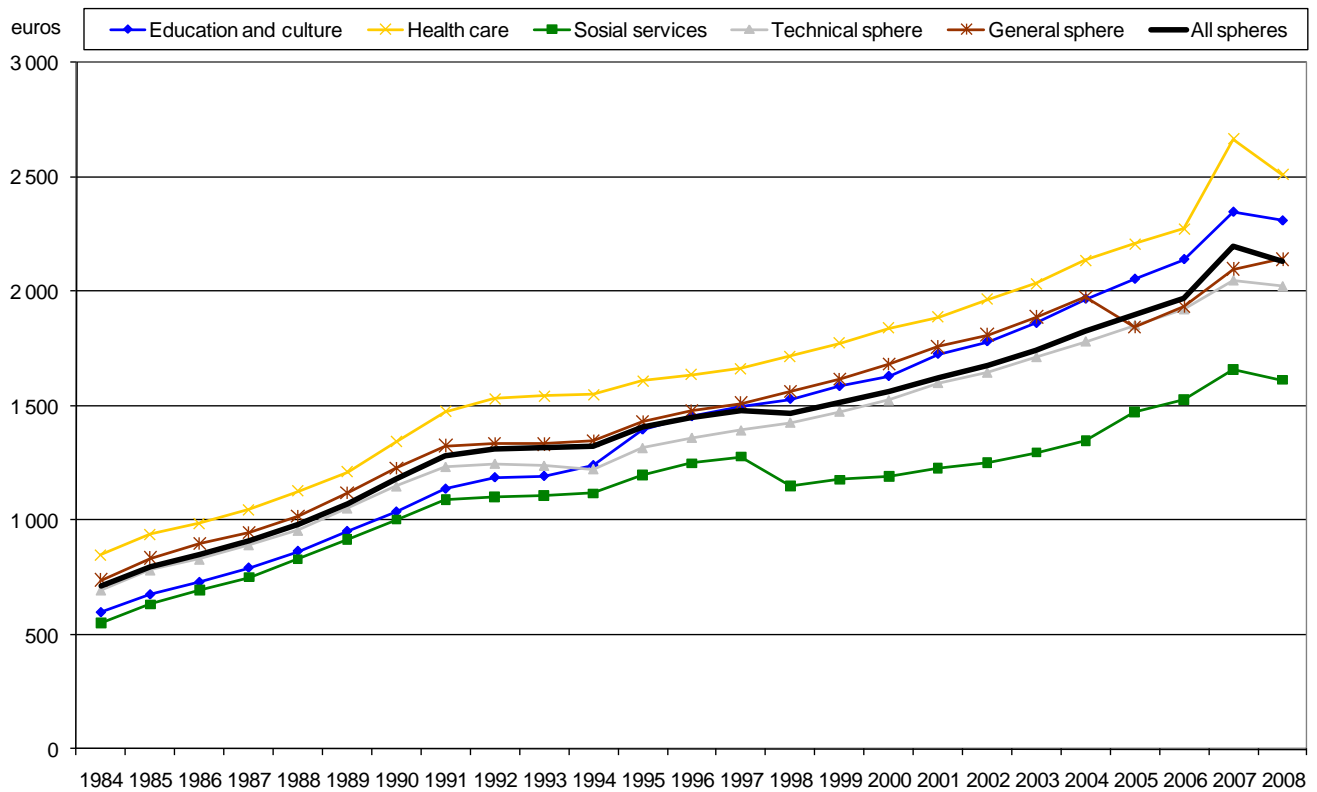
Figure 27B Shares of local government employees* by subsector 1984–2008, as per cent of all municipal employees



* Employees insured by the Local Government Pensions Institution, includes part time and temporary employees; subsectors are formed on the basis of professions.
Source: The Local Government Pensions Institution (KEVA)

Average monthly wages and salaries have grown in all sectors of municipal authority, but average pay in the social service sector has grown more slowly than in other spheres especially since 1997 (figure 28). In 2009, the average monthly pay was lowest in the social service sector (1600 €/month) and clearly higher in the health sector (2500 €/month) and in education (2300 €/month).

Figure 28 Average monthly earnings of local government employees* by subsector, 1984–2008, euros



*Employees insured by the Local Government Pensions Institution, including part time and temporary employees; subsectors are formed on the basis of professions.

Source: The Local Government Pensions Institution (KEVA)

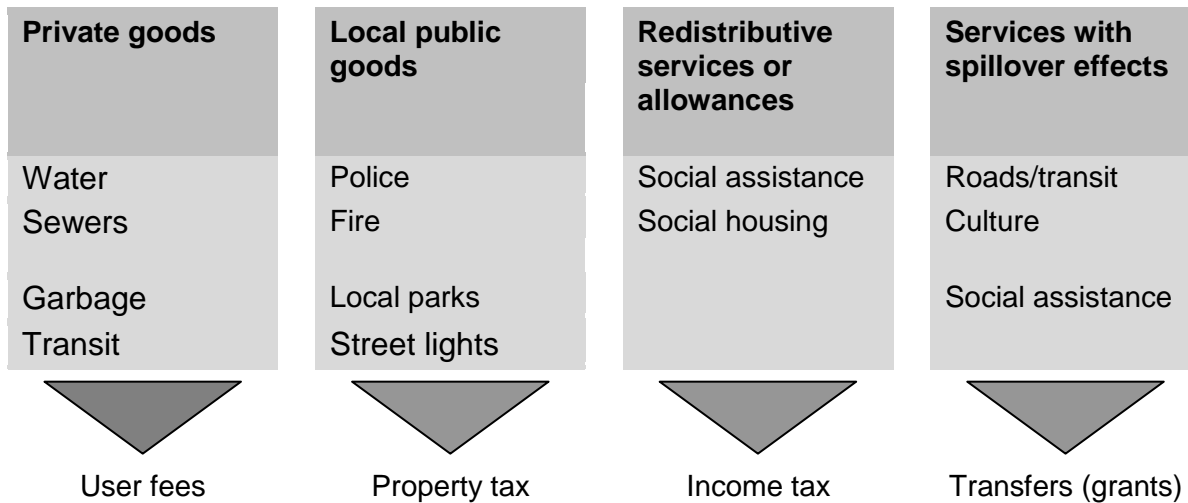
5 REVENUE STRUCTURE OF MUNICIPALITIES

Revenues of municipalities include tax revenue, grants, user charges and sales revenue and other income. This basic structure of revenues dates from the end of 19th century (see appendix 6, table 2). The relative shares and composition of different revenue has varied with the responsibilities of municipalities, and the revenues needed to provide the related services. As early as the end of 19th century municipal responsibilities included education and health services in addition to local public goods like fire protection (see appendix 6, table 1). At that time municipal revenues consisted of various taxes (on land, income, dogs, dances) and fees (poll fees, estate inventory fees, fees for recording discharge of debts); in addition municipalities received grants from the central government (appendix 6, tables 2 and 4). It is worth remembering that the revenue structures of cities and rural municipalities have always been somewhat different. Cities much more than rural municipalities have received revenue from their utilities (appendix 6, table 3).

In the international literature on public finance the tasks of municipalities are seen as rather limited, and this assumption is reflected in recommendations on how to finance local governments. This becomes evident for instance in the guidelines for municipal finance put forth by UN-Habitat (2009), which are summarized in figure 29. These guidelines advocate financing private goods with user charges, local public goods with the property tax, and redistributive services and allowances (assistance) with an income tax. If services have spillover effects across municipalities, grants from central or other higher level of government are proper tools of financing. The philosophy underlying figure 29 includes the benefit principle (those who benefits pay), the avoidance of redistributive tasks at the municipal level, and stability of responsibilities (expenditure needs) and forms of finance (revenue sources). The last aim stems from the view that stabilization policy, unstable demands and forms of finance are better suited to central government than to lower levels of government such as municipalities.

In Finland the tasks of municipalities are broader than envisioned by UN-Habitat, and accordingly, the revenue needs of municipalities are also greater. This is reflected in the actual revenue sources of municipal government, which do not conform to the guidelines in figure 29.

Figure 29 Different financing tools for different types of services



Source: UN-Habitat (2009) and Loikkanen (2009)

In Finland the central government decides upon the types of taxation and tax bases of municipalities, and municipalities determine the tax rates. Since the 1993 tax reform, municipal tax revenues have consisted of revenues from the local income tax and corporate income and property taxes. In the reform the local income tax was restricted to a tax on earned income, excluding capital income. However at the same time, municipalities began to get a share of corporate income tax revenues, which are sensitive to business cycle effects (as they are based on profits). In 1993 a property tax was introduced for the first time, although the conventional public finance view (reflected in UN-habitat) has long regarded this as a suitable type of tax for local governments because it generates a stable flow of revenue and fulfills the benefit principle for local public goods. This is motivated by capitalization effects, or the expectation that the quality and availability of services in an area lead to high (low) property values and in turn to high (low) revenues from property taxes. Municipalities can decide upon the local (earned) income tax rate freely, but for property taxes, the central government determines ranges within which municipalities can choose separate rates for taxes on land and structures.

The share of municipal revenues from taxes has varied over time. In the 1970s, the share of tax revenues reached 57 per cent, higher than any time going back to the early 20th century, but thereafter, it declined to about 40 per cent (figure 30A). Starting in 1993 the share of tax revenue increased again from 43 to 58 per cent, but since 2001 the trend has been declining again (figure 30B).

A transfer system in the form of state grants to municipalities has existed in Finland since the 1860s (Soikkanen 1966). In the early stages of the system, grants were the same for all municipalities and were intended to enhance municipal service provision. Unlike today, their aim was not to equalize economic conditions across municipalities, but to provide specific services. The central government covered for instance part of the salary costs of elementary school teachers and municipal medical doctors, and the costs of establishing and running hospitals and mental hospitals.

After the beginning of 20th century state grants were scaled according to municipality type with rural municipalities receiving relatively larger grants than towns and cities (Oulasvirta 1996). During the 1960s a new fiscal classification was introduced according to which municipalities received service sector specific matching grants, which are proportional to expenditures. This was a considerable improvement relative to the classification based solely on type of municipality since the varying economic circumstances of municipalities could be taken into account better than previously. This fiscal classification system of sector-specific matching grants was in effect until 1993. It was gradually replaced by lump-sum type grants, which did not depend on actual municipal expenditures but on calculated service needs and the costs of producing various services. With this change in grant system, the central government gave up the mission of using economic incentives to guide municipalities (by varying subsidy rates of matching grants) in their choices between service sectors. All sectors (except education) are now on the same line, including those which previously received grants and those which did not get grants at all, in the sense that expansion or contraction of services (or related expenditure) do not affect the amount of lump-sum grant. The new system creates an incentive for cost efficiency, because reduced costs of service provision do not diminish the grant.

The fundamental change in the grant system has in principle increased the independence of municipalities in decision making. However, the service norm policy of central government has become more stringent and citizens' subjective rights to receive various services have been extended. For instance the subjective right for daycare was enacted in 1996 and since the turn of the millennium all six year-old children have the right to get half-day pre-school education (Kallio 2010). Furthermore, in health care there is a service guarantee, introduced in 2005, according to which non-emergency service needs must be dealt with within predetermined time limits. Due to more stringent norms and

increases in subjective rights, the increase in the autonomy of municipalities under the lump-sum grant system has been partly in appearance only.

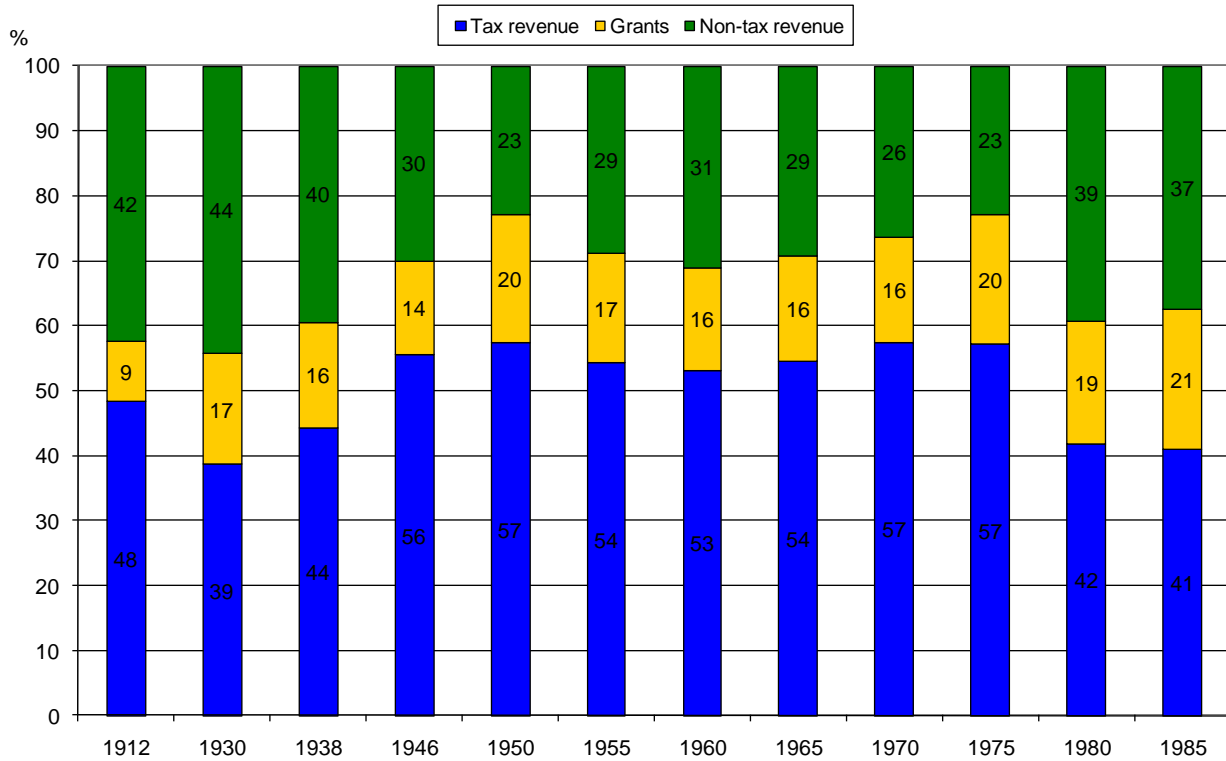
Historically the significance of grants in the revenue structure of local governments has varied inversely with tax revenues. From 1912 to 1985 grants varied between 9 and 21 per cent of total revenue of municipalities (figure 30A). During the economic crisis of the early 1990s, the share of grants was high, exceeding 30 per cent but declined to 20 per cent at the turn of the millennium. Thereafter, the share of grants in total revenue expanded to 26 per cent in 2008.

Business income including revenue from user charges and other forms of sales varied considerably between 1912 and 1985 (from a high of 44 % in 1930 to 23 % in 1950 and 1975). Since the 1990s their share has been rather stable, around 20 per cent of total revenue. In recent years the trend in municipal finance has been towards greater reliance on grants, user charges and other forms of business income as the share of tax revenue has declined. The reasons for the relative decline in tax revenues are related to population ageing and migration.

The current structure of taxation in rural municipalities originated with the Act of 1865, but the local income tax was established as the basis of municipal taxation only in 1898 (Nykänen 1994). Local government was, however, the first level of government where income taxation was established. At the central government level income taxation was permanently established only in 1919. After independence in 1917 two important reforms were also made to the law concerning local taxation. One was a law on compulsory reporting of income for the purposes of local taxation, enacted in 1919, and another law, adopted in 1922, redefined the obligation to pay local taxes, reduced the exempted amount of income in local income taxation, and renewed the taxation of land and forestry and the obligation to notify about taxable income.

Figure 30 Revenue structure of local government sector A) 1912–1985 and B) 1990–2008

A) Source: Oulasvirta (1996)



B) Source: The Association of Finnish Local and Regional Authorities & Statistics Finland

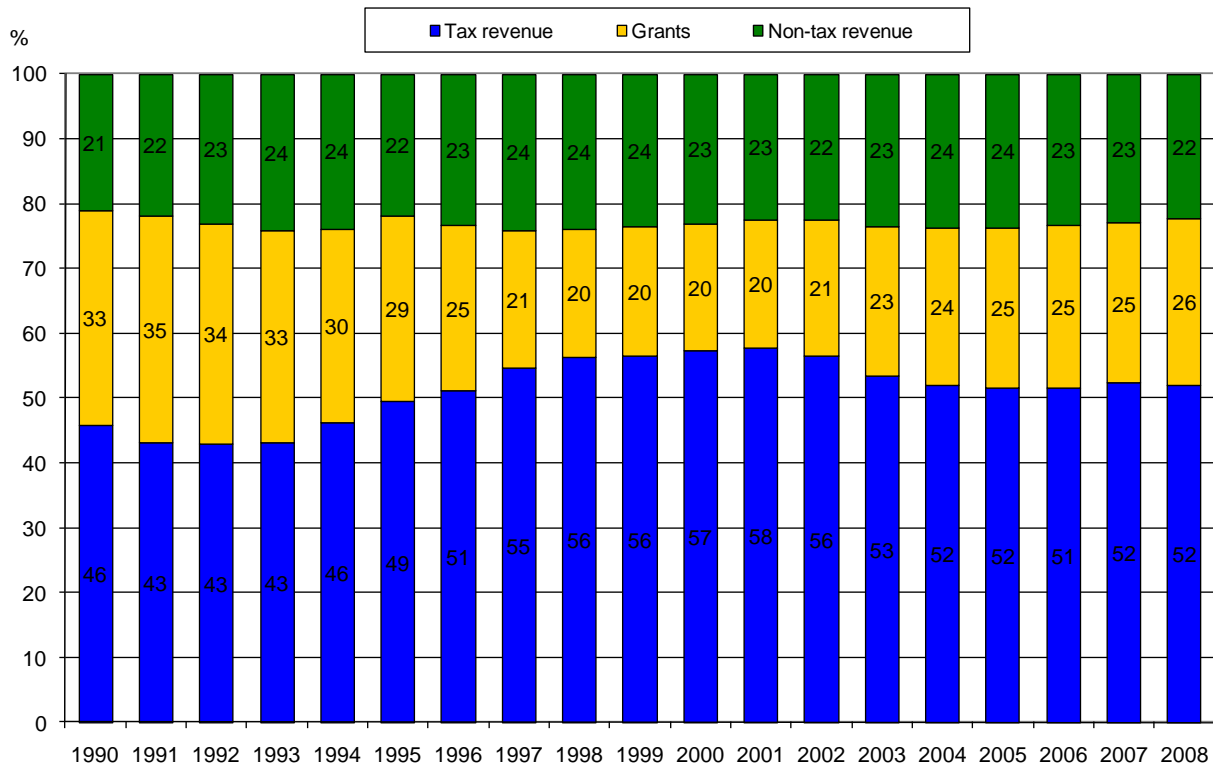


Table 3 Tax revenue of local governments by tax type, 1975–2009, per cent of total tax revenue

	1975	1980	1985	1990	1995	2000	2005	2009
Personal income tax	89.9	92.6	91.1	90.7	85.2	74.1	86.7	87.6
Corporate income tax	9.9	7.2	7.9	8.3	10.2	21.5	8.1	6.7
Social security fees	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1
Property taxes	0.0	0.0	1.0	0.9	4.5	4.2	5.1	5.5
Taxes on goods and services	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0

Source: Statistics Finland, public sector statistics

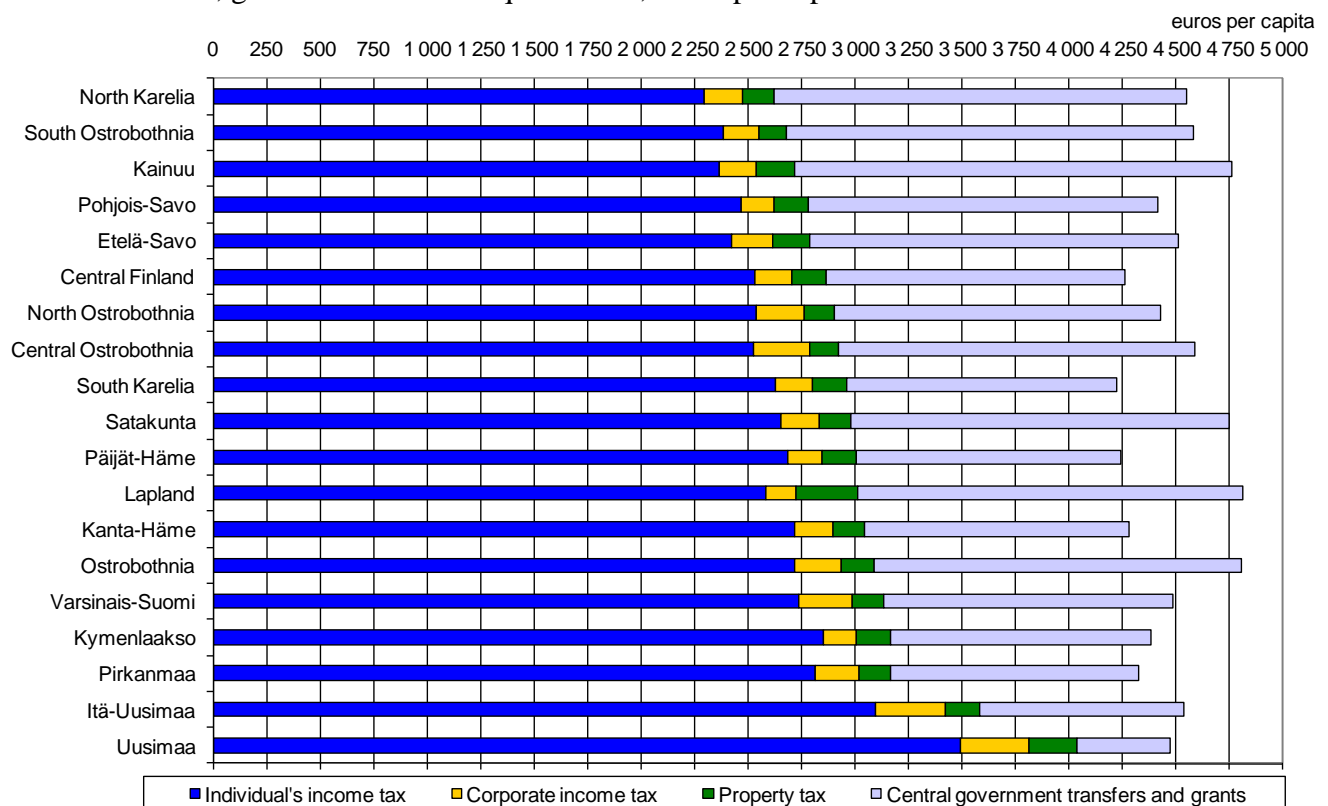
The importance of different forms of local taxation has varied over time since the mid-1970s. Taxation of personal income has remained the most important form of local tax, even though its share has decreased somewhat from its top level (table 3). Prior to the 1993 tax reform the local corporate income tax had been rather stable. After the reform, business cycles affected the revenue from this source, and also the share that municipalities receive, which is shown in Table 3. In the boom year of 2000, the proceeds to municipalities from corporate income taxation were high, and the share of this source in total tax revenue was more than double other years in the table. The introduction of property taxation in 1993 has created revenue from this source, which reached 5 per cent of all local tax revenue.

Since 1993 there has been a system that equalizes the revenue bases of municipalities as part of the central government grant system. The transfers to recipient municipalities are fully financed by equalization charges on donor municipalities. Through this system, the tax base of low income municipalities is now increased to 90 per cent of the average per capita level calculated at average rates. Before the equalization system, from end of the 1970s to 1992, there was a system financed by the central government that made supplementary transfers to municipalities based on their population density⁷.

⁷ Transfers, which supplemented tax revenue, were given to municipalities in which per capita tax revenues were below a certain level determined by population density. If density was below 1.0 persons per square kilometer, the critical level was 80 % of average taxable income of all municipalities. The critical level was 76 %, if density was 1.0-1.9 and 73 % if density was 2.0-6.9. For other municipalities it was 70 %. (Laki kuntien yleisestä valtionosuudesta ja rahoitusavustuksista 1273/1988)

As a joint effect of the systems of grant and equalization, per capita total revenue does not vary greatly across municipalities in different parts of Finland, even though there are large differences in local tax bases. This is the fiscal basis for relatively equal provision and access to basic services throughout the country. This can be seen in figure 31, which displays the revenue base of municipalities in 2008 by regions with taxation, grants and tax base equalization taken into account. On the basis of per capita taxable income, the most prosperous regions are Uusimaa and Itä-Uusimaa, and the least prosperous ones are the North Karelia (Pohjois-Karjala), South Ostrobothnia (Etelä-Pohjanmaa), Kainuu and Savo regions. When grants and tax base equalization have been taken into account, the differences across regions are reduced, and the regions with highest revenue base are now Kainuu, Satakunta, Lapland (Lappi) and Ostrobothnia (Pohjanmaa).

Figure 31 Average revenue base of local governments in NUTS3 regions in 2008, including local taxation, grants and tax base equalization, euros per capita

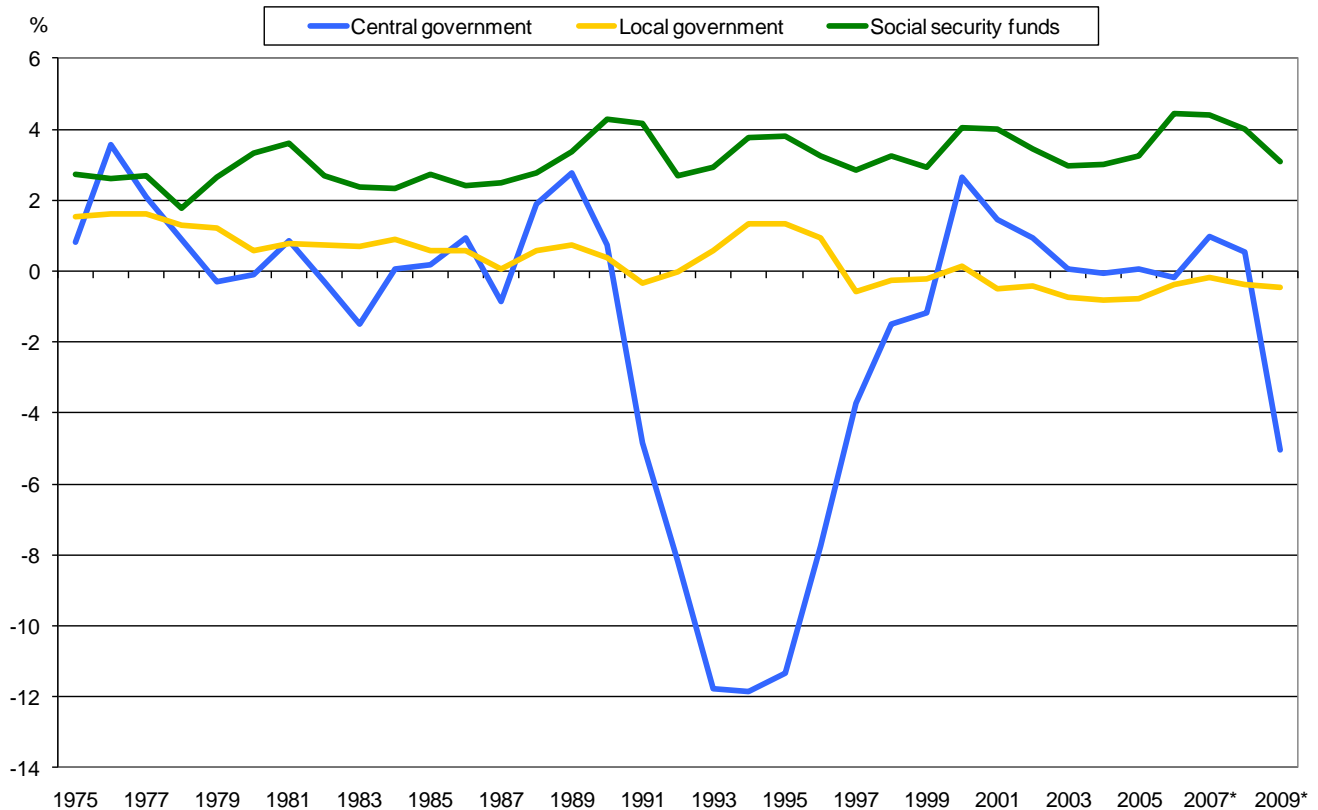


Source: The Association of Finnish Local and Regional Authorities

6 MUNICIPAL GOVERNMENT FINANCES AND INDEBTEDNESS

Changes in the fiscal balance (surpluses and deficits) of the public sector mainly originate at the central government level, which at the same time is affected by business cycles and tries to smooth them. The fiscal balance of central government has fluctuated a lot since the 1970s. During the economic crisis of the early 1990s net lending by the central government was negative, and the state borrowed money from other sectors of the economy. During the past decade the central government has run a surplus. Social security funds have been in substantial surplus mainly due to the increase in employee pension fund (Talouden rakenteet 2009).

Figure 32 Net lending of the public sector, 1975-2009*, % of GDP



* Information on the years 2007–2009 based on projections

Source: Statistics Finland, National accounts

The local government sector, measured by net lending, has been relatively balanced during the last 35 years, but one can notice a slight deterioration in the trend over time (figure 32)⁸. Net lending by municipalities and their joint organizations relative to GDP was positive through the end of the 1990s, meaning that they could finance other sectors. Thereafter net lending turned negative, and its lowest level was reached during the slump at the beginning of the millennium. Surprisingly, net lending was at its highest level during the economic crisis years of early 1990s, when the central government's deficit rose and its debt soared to record highs.

Figure 33 Gross debt of the public sector in 1975-2009*, % of GDP



* Information on the years 2007–2009 based on projections by Statistics Finland

*Information on the years 2010–2014 based on projections by Ministry of Finance

Source: Statistics Finland, Public sector; Ministry of Finance, Basic Public Services Budget Review 2011

⁸ Net lending of an economic agent or sector measures the amount of money that these units have for financing purposes (when net lending is positive) or, the amount that they need to borrow from other units (when net lending is negative). Deficits lead to the need to borrow from other units, and surpluses enable lending to other units.

The gross debt of the local government sector was in the range of 3 to 5 per cent of GDP in Finland from 1975 until recently (figure 33). The gross debt graph includes projections of Statistics Finland for 2007-2009 and Ministry of Finance for 2010-2014. According to these projections the local government debt to GDP ratio is expected to reach 7 per cent in near future.

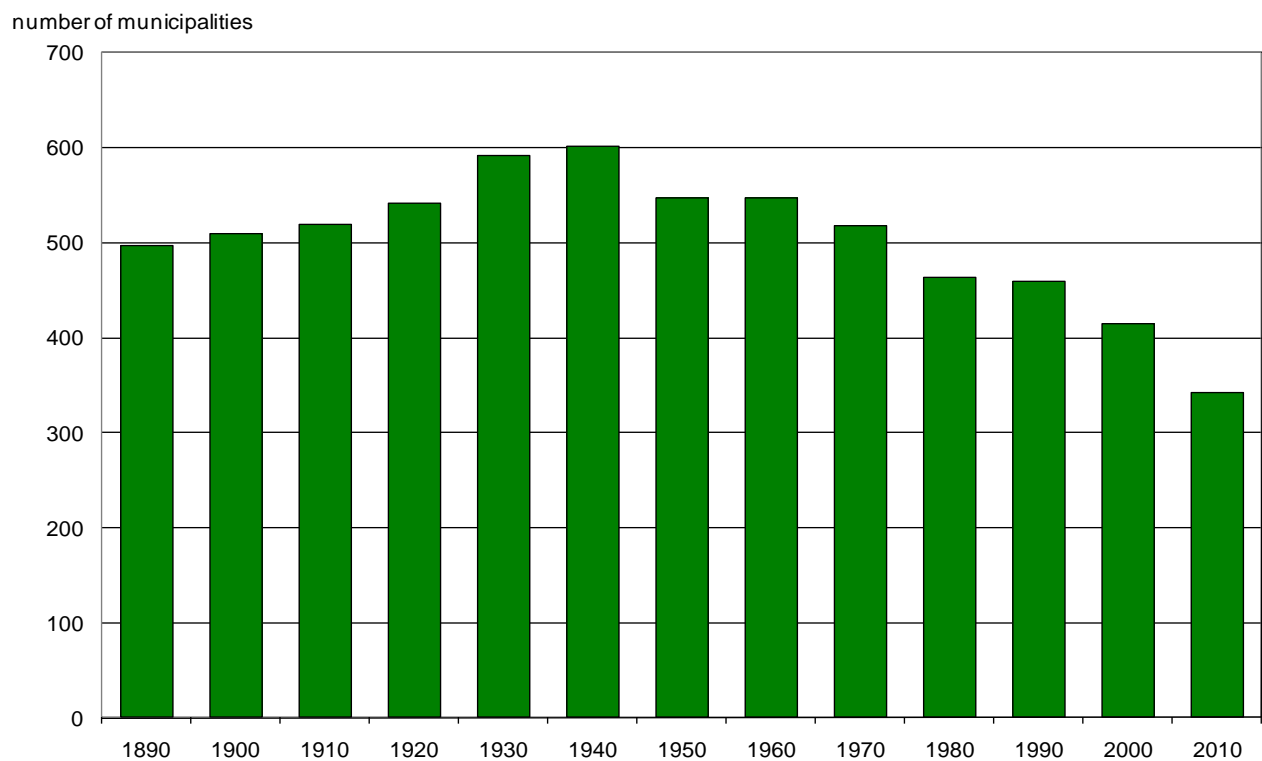
In 1975 the gross debt of the central government was comparable in size to that of municipalities and their joint organizations, but it grew and became many times greater than combined municipal debt by the mid-1980s. Thereafter the indebtedness of central government declined in the boom that followed liberalization of financial markets in the late 1980s, but it soared during the depression of the early 1990s, increasing from 10 per cent to 53 per cent of GDP in a few years. By 2008 central government debt had been brought down to the 30 per cent level of GDP but in 2009 it again increased.

7 TERRITORIAL ORGANIZATION OF MUNICIPALITIES AND SERVICE PROVISION

7.1 Municipal division

The division of the territory of Finland into municipalities is based on the cities and parishes that existed at the end of 19th century. At the beginning of 20th century, small municipality size was favored in Finland to limit the length of routine trips, especially to church, and to follow the model of other mainly Nordic and Central European countries (Soikkanen 1966). As a result, the number of municipalities in the year 1890 was about 500 and had increased to 600 by 1940 (figure 34).

Figure 34 Number of municipalities, 1890–2010

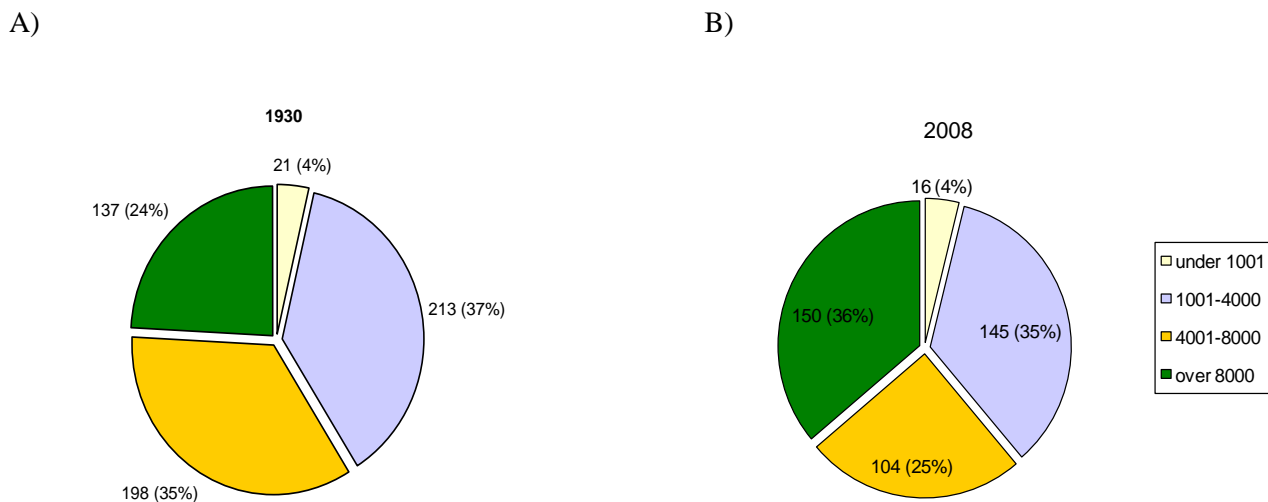


Source: The Association of Finnish Local and Regional Authorities & Statistics Finland

During the post war years, views on the ideal size of municipalities changed. People began to talk about the problem of small municipalities, and the problem could be overcome by merging smaller municipalities. Large municipalities were favored because of the increased responsibilities of municipalities and the desire to fulfill responsibilities efficiently. For instance, elementary school had to become a regular day school by 1970 (Soikkanen 1966). Since the 1950s the number of municipalities in Finland, as in other European countries, has decreased steadily. In part this development was due to the loss of territory to the Soviet Union in the war and in part to societal changes and mergers of municipalities especially after the turn of the millennium. As of the beginning of 2010, there are only 342 municipalities.

The effects of changes in Finnish society and the structure of municipalities, including population growth, urbanization and new preference for larger municipalities, can be seen when one looks at the distribution of municipalities by population size. In 1930 about 35 per cent of municipalities had a population of 4001-8000 people, and only 24 per cent had over 8000 people. In the year 2008, the respective shares were 25 and 36 per cent (figure 35).

Figure 35 Number of municipalities by population size groups, A) in 1930 and B) in 2008



Source: Kaukovalta 1940; Suomen kaupunkilaitoksen historia, tilasto-osa; Statistics Finland, Population statistics

Within both municipalities and functional urban regions (NUTS3 level), Finnish settlements are scattered, and service networks consist either of multiple service stations, or alternatively, residents need to travel long distances to obtain services. A sprawled network of basic services is hard to administer, and the challenge increases when the spatial structure is in transition. In the ongoing reform of the municipal and service structure, one of the challenges lies in the fact that it is easier to change municipal borders than settlement structures and the spatial profile of demands for service. This is not only a problem in rural municipalities but also affects the Capital City region, which has been found to be sprawled in international comparison (EEA 2006).

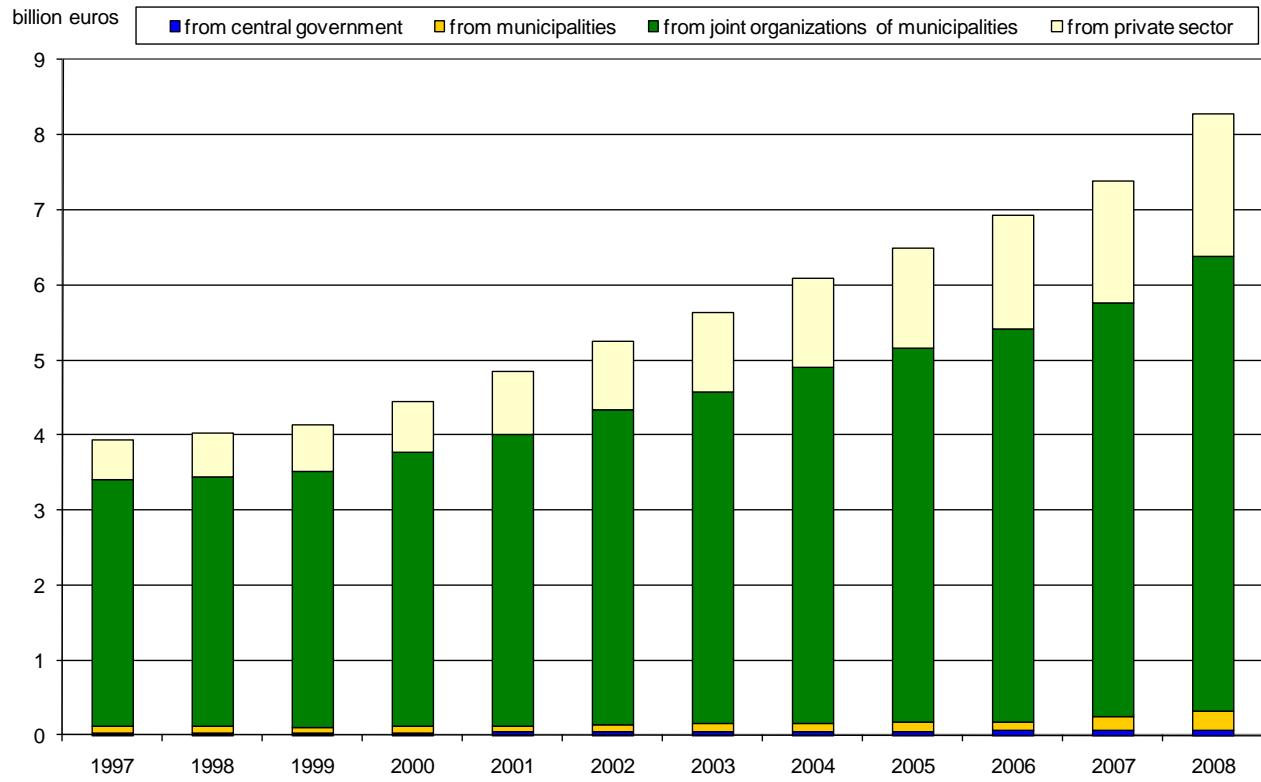
The structure of settlements is in part determined by municipalities, since one of the main municipal functions is decisions on land use implemented through the zoning monopoly. More attention has been paid to zoning recently, since productivity of the private sector has been found to depend on the density of both employment and population (The World Bank 2009). In other words, proximity matters also within urban and other types of settlements. One of the key challenges of municipalities is to enhance productivity in basic service sectors, and from a spatial point of view, part of their responsibility is to use land and zoning policies to promote productivity. They determine the service network structure and the possibilities for productivity gains within their borders.

7.2 Organization of service provision

Data on the organization of basic service provision exists only for the last 15 years. These data describe the extent to which municipalities produce services themselves or buy them from other municipalities or their joint organizations and to what extent they buy services from the private sector. Municipal production can in turn be carried out by municipal organizations, public utilities or municipal joint stock companies.

The value of services outsourced by municipalities has grown especially during the last ten years from about four to eight billion euro (figure 36). Most of outsourced services are bought from municipal joint organizations or the private sector. Only 3-4 per cent of services are bought from the central government or other municipalities.

Figure 36 Purchase of services by the local government sector, 1997–2008, billion euros



Source: The Association of Finnish Local and Regional Authorities & Statistics Finland, public sector

After the turn of the millennium, utilization of private service producers has increased more at the expense of services from municipal joint organizations. In 1997, purchases from municipal joint organizations accounted for 84 per cent and the private sector 13 per cent of the total value of outsourcing. The respective shares in 2008 were 73 per cent and 23 per cent (figure 37A).

Since 2000 increases in municipal operating expenditures have led to increases in the share of outsourcing from 22 to 26 per cent of expenditures (figure 37B). The share of purchases from the private sector also increased from 3 to 6 per cent of operating expenditures whereas the shares of other sources have remained relatively stable. Most outsourced services are purchased from municipal joint organizations, and their share of municipal operating expenditures is almost 20 per cent. The combined share of central government and other municipalities is about one per cent of municipalities' operating expenditures.

Changes in the organization of municipal service provision have important implications for competition. Mergers of municipalities decrease competition between them if residents of a particular location can no longer compare and choose among the tax and service packages of competing nearby municipalities. Lack of competition can affect the orientation and efficiency (unit costs) of municipal service provision negatively. The existence of many supply sources and competent use of market mechanisms in each sector can compensate for the lack of competition among municipalities, enhance efficiency and the residents' influence on provision of individual basic services. It must be pointed out that transforming previous municipal monopolies into private monopolies is not an effective solution, since what is needed is genuine competition in procurement of services.

Diversification of supply sources for services provided by municipalities, as well as a level playing field for competition, both require that uniform cost accounting and book keeping principles and practices are used by all providers. This topic is dealt with in appendix 5.

The organization of municipal service provision has so far been dealt with at aggregate level, but it can also be considered by service sectors, as in figure 38. This shows that the share of private provision has increased considerably in social and health service provision. This is the case especially for social services, where the growth of private sector provision has been even faster than in health care, and it has occurred at the expense of public production. For instance in 1995, the share of private firms and organizations in the total value of service provision was about 19 per cent in both social services and health care, but the corresponding shares in 2006 were 29 for social services and only 23 per cent for health care. Private service production for municipalities differs between the two sectors in that there are more business firms in health care, whereas non-profit (third sector) organizations are more important for providers of social services.

Figure 37A Purchases of services by the local government sector, 1997–2008, % of total purchases

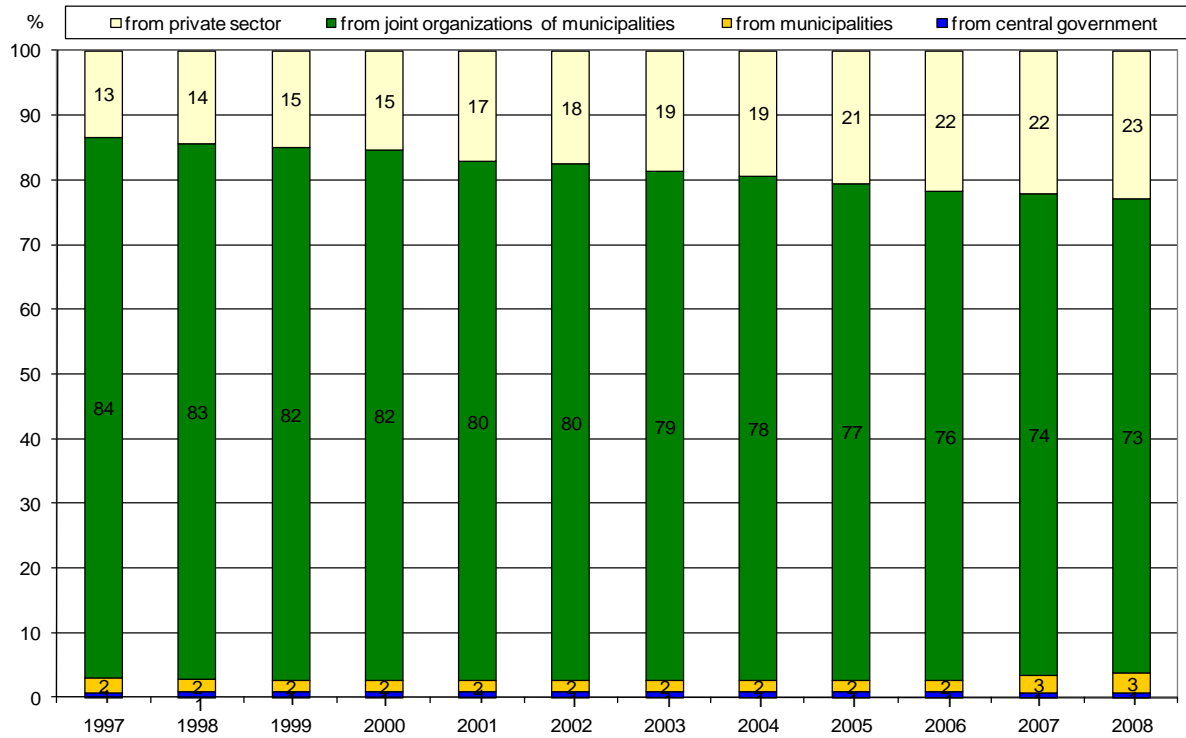
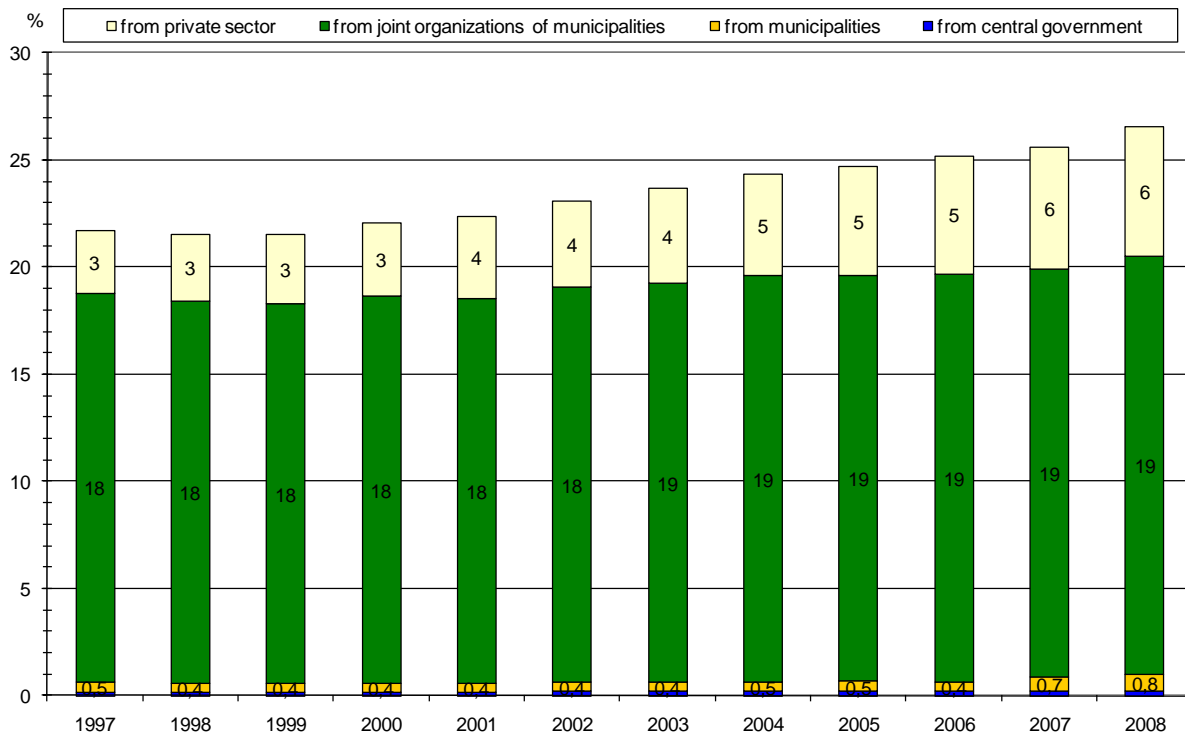


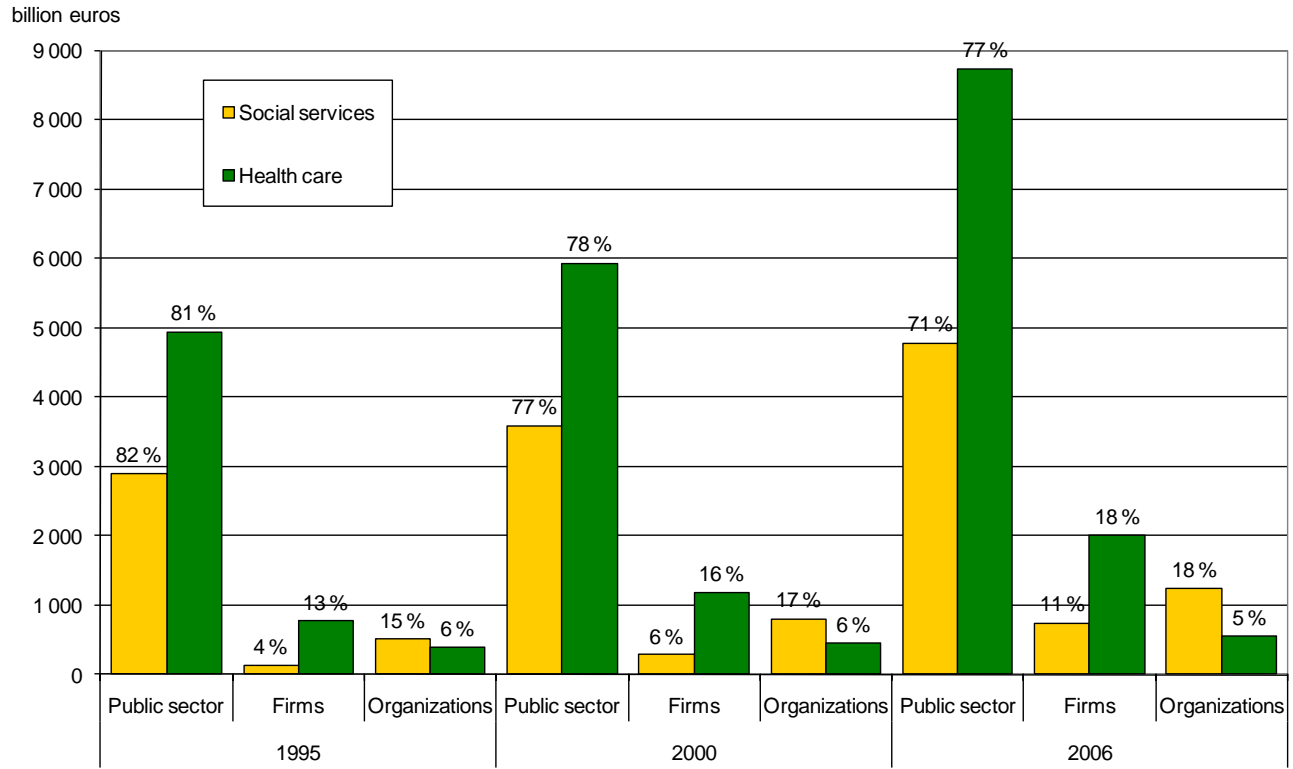
Figure 37B Purchase of services by the local government sector, 1997–2008, % of operating expenditures



Source: The Association of Finnish Local and Regional Authorities & Statistics Finland, public sector

Although there are more business firms in health care than in social services, the number of social service firms has been growing more rapidly (Kallio 2010). For instance in 1997, there were less than 2000 producers of social services in Finland, but in 2005 the number was about 3500. Over the same period, the number of health service firms grew from 2300 to 3000.

Figure 38 Output (value) of social and health services by sector (billion euros), and their share of total output (per cent) in 1995, 2000 and 2006.



Source: Kallio (2010)

Recent changes in the structure of service production have increased the shares of both for profit firms and non-profit organizations in municipal service provision. In this connection, it is worth noting that at the end of the 19th century many services were initially produced by the church or the private sector but later gradually they became municipal activities. Now, a few steps back have been taken.

8 TRENDS IN PRODUCTIVITY IN THE MUNICIPAL SERVICE SECTOR, 1975–2008⁹

As measured by the SNA (system of national accounts), the growth of total productivity in the production of municipal services has been modest. During the period 1975 to 2008 productivity grew by 0.1 per cent per year and varied little between decades. Similar results are obtained with improved measures of output that are not solely based inputs.

Between 1975 and 2008 municipal total output increased on average by 2.8 per cent per year and the use of inputs, including wages and salaries, the use of intermediate goods and services and depreciation of fixed capital increased on average by 2.5 per cent per year.

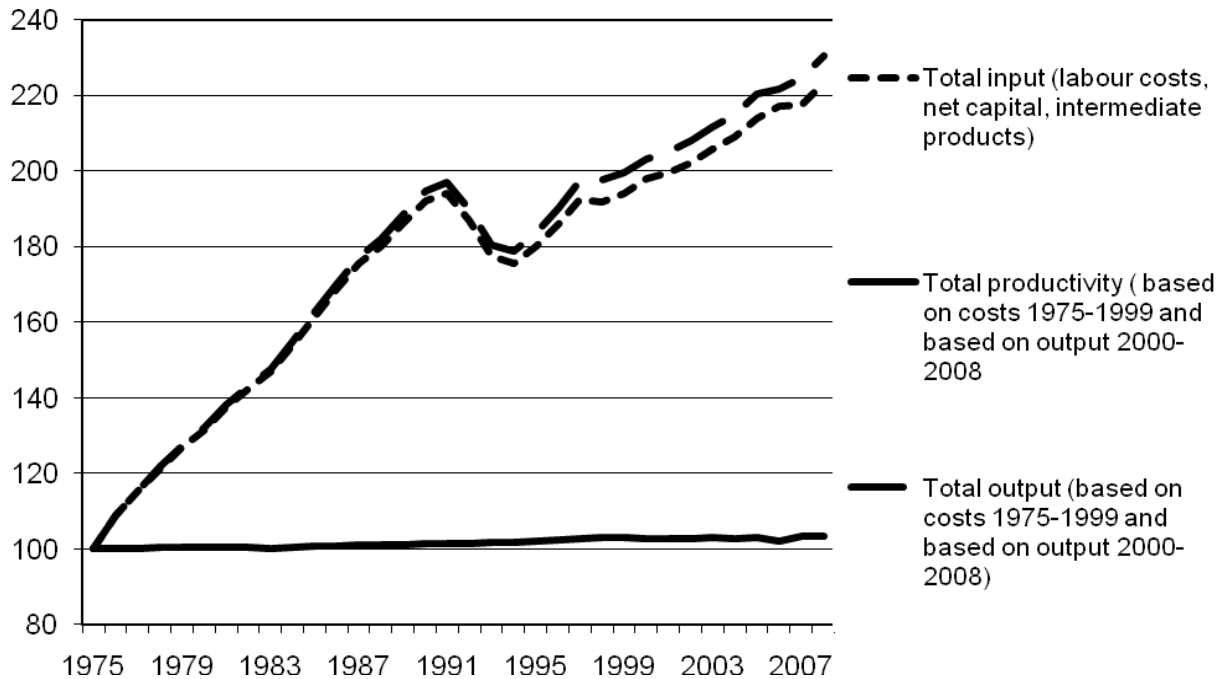
In all, total production of municipalities increased 2.3 fold and total use of inputs increased 2.2 fold over the period (figure 39).

Total factor productivity (TFP, *total productivity* for short) measures the ratio of output to input (or more precisely the ratio of a weighted sum of outputs to a weighted sum of inputs). Total productivity increases when greater output is obtained with a given use of inputs. Another approach is to look at costs, in which case the aim is to produce a given output at the lowest possible cost. This approach can lead to paying insufficient attention to improvements in the quality of services or coverage of increased service needs through increases in productivity.

Public goods (and goods with positive external effects) are not customarily produced on market-based terms because their producers have to pay the costs while the benefits are widely spread. In these cases, productivity from the view-point of society exceeds measured benefits to producers. When the measures of productivity do not include all such benefits, total benefits are underestimated. However, productivity from the view-point of the whole society must be taken into account when decisions are made concerning the volume and quality of service provision when these have external effects.

⁹ This section has been written by Pekka Tiainen and it is based on Tiainen (2010).

Figure 39 Total input, total output and total productivity of municipal service production at fixed prices, excluding socio-economic impacts, 1975–2008 (1975=100)*



* Törnqvist-Jorgenson index

Source: Pekka Tiainen on the basis of National accounts

In addition to a measurement of productivity, a measurement of efficiency is needed to account for benefits that are important from the view-point of societal goals, costs and disadvantages to others, as well as positive and negative external effects. Cost-benefit analysis is used to evaluate the impacts of these effects. When the concept of productivity is extended to measure societal productivity, it is difficult in practice to distinguish from efficiency. There is, however, a conceptual difference between social productivity and efficiency, because the measurement of productivity is based on the ratio of output to input at the level of production unit. In the analysis of societal productivity, the concept of output is enlarged to cover also outputs that benefit other people or firms but not the producer.

Measures based on the concept of total productivity are needed because limiting the analysis of productivity to labor leads to neglect of efficiency in the use of capital and joint use of inputs. As a result, actions aiming at improving productivity tend to concentrate on rationalization of personnel, only. Because of the difficulty of measuring outputs of public services, general interest and various policy actions tend to concentrate on costs, however.

In order to determine total productivity, one must separately consider the productivity of labor and capital, as well as the significance of intermediate goods. When the productivity of labor is measured by gross value added divided by the sum of wages and salaries, this leads to an estimate of 0.2 per cent growth in labor productivity per year during 1975-2008. This is the result of increasing capital intensity and its depreciation, which has raised gross value added more than labor inputs. If the output measures were better (covering all benefits), this would further increase the gross value added and the productivity of municipalities. When gross value added by municipalities is calculated per working hour, labor productivity has decreased by 0.4 per cent per year. The difference is due to the fact that the real cost of labor has grown more slowly than working hours in the local government sector.

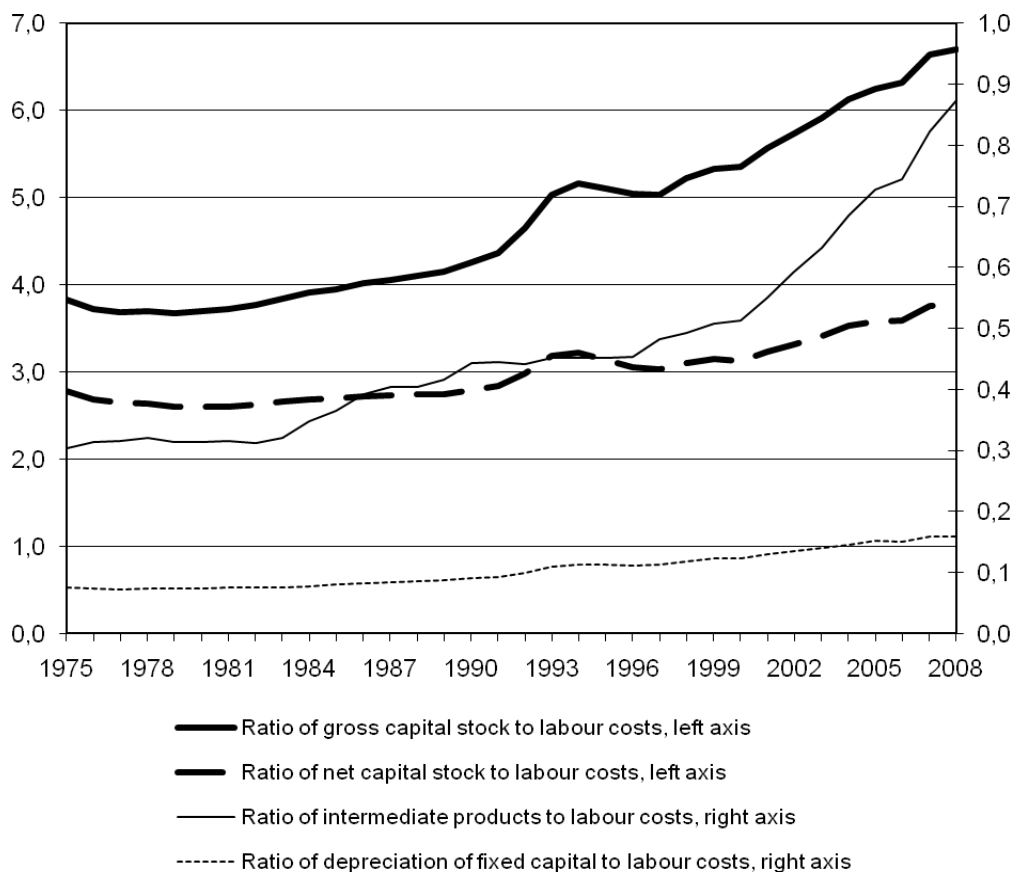
Real labor costs per employee have decreased as the number of people working in municipalities and their joint organizations doubled between 1975 and 2008, and the additional personnel have predominantly been employed in medium and low wage jobs. Thus, although the average real wages and salaries have increased for all, the structural change of municipal personnel has moderated the trend in average earnings and reduced their growth in real terms. Earnings are also affected by the fact that some well paid municipal employees get additional pay by working simultaneously also in the private sector. Furthermore, selective outsourcing affects earnings since the most profitable services are easiest to outsource.

In the study of factors affecting productivity, it is important to consider the productivity of labor and capital and their ratio, capital intensity (ratio of capital to labor), since this avoids problems related to the measurement of output. When the productivity of labor increases, and the productivity of capital decreases, it is termed extensive growth. When the productivity of labor and capital both increase, it is called intensive. The growth or decline of capital intensity in the latter case depends on which component increases more. In the local government sector the productivity of capital decreased by 0.7 per cent per year between 1975 and 2008. When output is divided by the sum up capital depreciation and use of intermediate goods, one gets the productivity of fixed capital, which decreased by 1.8 per cent per year (figure 40). This illustrates that a key question for municipal productivity is the growth of capital intensity in service provision. The same phenomenon also becomes evident when one considers the sum of capital and intermediate goods and its ratio to real labor earnings. This ratio increased,

implying that capital intensity increased, and in this case also the productivity of capital decreased, implying that growth is extensive.

One must point out, however, that municipal activities are so labor intensive that despite the fact that the productivity of capital decreases, the share of capital depreciation and intermediate goods in value added is low relative to the industrial sectors of the economy. Nevertheless, the ratio of net (gross) capital stock to labor earnings is almost four (almost seven) and (both) increase over time. Finally, the ratio of gross to net capital stock has been growing, which indicates that there is an accumulation of undepreciated capital that has lost its ability to generate value added.

Figure 40 Ratio of fixed capital to earned income in municipal service production, 1975–2008, 2000 prices



Source: Compiled by Pekka Tiainen on the basis of National Accounts data.

When one looks for ways to increase productivity in the future, the following are key factors are worth considering. The price of capital decreased relative to the price of labor by 35 per cent between 1975 and 2008, or about one per cent per year. The relative decrease is somewhat smaller, less than one third, if wage costs are calculated without employers' social security fees, because these fees have grown faster than wages and salaries. This will happen also in the future.

The foregoing analysis highlights a key factor for future efforts to enhance productivity, namely, how the productivity of capital can be increased and the growth of capital stock controlled in a situation where the number of aging people and the demand for basic services both increase. Critical questions include: how to decrease the slack in the use of different facilities at all hours and throughout the year, how to use facilities more appropriately and more efficiently, and can new procedures improve the use of facilities and equipment. Working time arrangements and organizational reforms offer possibilities in this respect.

An important direction for improved productivity lies in the direction offered by increasing the share of outpatient treatment and reforming service structures to maintain the aging population in their own homes by providing in-home services. To make this possible, new information and health care technology as well as near-by and mobile service facilities can be utilized. These developments are especially important because the boom in demand for services from the aging population will last for the next 20 to 30 years. When capital costs can be economized, it allows for more services provided by personnel. In addition, it is important to tap the private and the third sectors. Possibilities include the flexibility that use of private services can supply, reliance on independent initiatives, co-operation between actors, care services of relatives and possibilities in using third sector services.

9 STATISTICAL OVERVIEW OF THE FINNISH PUBLIC SECTOR SINCE INDEPENDENCE¹⁰

The summary at the beginning of this report condenses the key findings of this study. Here, some key statistics are added to our description of the development of the public sector in Finland. A few indicators are available from the beginning of the 20th century and when Finland became independent in 1917, but most start from 1970.

According to historical statistics, the public sectors in European countries were still small at the beginning of the 20th century. Public expenditure was around 10 per cent of GDP at that time (Lybeck-Henrikson 1988) in Finland as in other countries. In a table compiled by Tuomo Mäki from different sources, public expenditure was 13 per cent of GDP in 1913, 15 per cent in 1929, 16 per cent in 1938 and 23 per cent in 1950 (Mäki 1995).

Regarding the role of municipalities, Riitta Hjerppe (1988) writes (in Finnish) “In early 20th century the share of total local government expenditure in GDP was 4-6 per cent, and the share of total local and central government expenditure in GDP was 12-13 per cent”. Since those times, the share of the public sector has increased 4 to 5-fold (table 4, column 1). These figures indicate that during the first decades of the 20th century, central government played a larger role in terms of expenditure than did municipalities. This ranking has not changed, but the share of local government in public expenditure has increased over time, exceeding 40 per cent in the 1980s, after which there has been some decline (column 2). As for public consumption expenditure, its share of GDP has almost tripled from the 1920s to the present (column 3). The local government share in public consumption (column 4) was 42 per cent in 1920 and it has since risen over time to almost 70 per cent. This reflects the decentralization of basic service provision to municipalities.

Consistent data on public investment is only available since the mid 1970s. At that time, the share of public investment in GDP was 4 per cent, but thereafter it has decreased being only about 2 per cent in 2006. The local government share in public investment has increased at the same time from 55 to 67 per cent.

¹⁰ This section was not in the original Finnish report. It has been added to the English version.

Measured by employment as well, the public sector of Finland was small in the years immediately following independence in 1917. In 1920, only five per cent of employed people worked in the public sector, and just one quarter of them were employees of the local governments (column 7). In 1970s, the share of public employment was about 11 per cent and grew to about 25 per cent in 2006. The local share of all government employees was 56 per cent in 1970, but grew to almost 75 per cent in 2006 (column 8). Again, this indicates that decentralized and labour intensive service provision is a key feature of the Finnish system of local government.

Table 4 Size of the public sector in Finland, 1920 – 2006

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1920	..	..	8	42	..	..	5	27
1950	23	29	12	49	..	..	8	42
1970	32	38	14	57	..	..	12	56
1975	38	39	17	62	4	55	14	62
1980	39	41	18	65	4	58	18	66
1985	45	41	20	66	4	61	20	59
1990	47	40	21	68	4	61	22	72
1995	59	33	24	65	3	46	26	72
2006	49	35	20	69	2	67	25	74

Explanations:

(1) public expenditure/GDP

(2) local government expenditure as a share of public expenditure

(3) public consumption expenditure/GDP

(4) local government consumption expenditure as a share of public consumption expenditure

(5) public investments/GDP

(6) local government investments as a share of public investments

(7) public sector employees as a share of all employed persons

(8) local government employees as a share of public sector employees.

Source: Mäki (1995), Parkkinen (1995), Talouden rakenteet/VATT, Statistics Finland/National accounts (historical series)

Table 5 summarizes the current situation in terms of the contents of public expenditure by level of government and the type of expenditure. In terms of GDP shares, consumption expenditure (services) and social transfers are almost equal (21.5 % and 20.0 %). There is, however, a clear division of labor in providing public services and redistributing income through social transfers. Local government's

share of GDP related to services (consumption expenditure) is almost 14 per cent, while the joint share of central government and social security funds is less than eight per cent. For social transfers (redistribution), the opposite is the case. Central government and social security funds have a combined share of about 19 per cent of GDP, whereas the local government's share of social transfers is just one per cent.

Table 5 Expenditure of the public sector in Finland in 2007, per cent of GDP

	Public sector	Central government	Social security funds	Local government
Expenditure	46.6	25.3	4.6	16.7
consumption expenditure	21.5	6.2	1.5	13.8
social transfers	20.0	15.9	3.0	1.1
investments	2.4	0.7	0.2	1.5
subsidies to business and industry	1.3	1.2	-	0.1
interest	1.5	1.3	-	0.2

Source: Statistics Finland, National accounts

Also, for promoting the business sector, the central government distributes about ten times more subsidies to businesses and industries than do local governments. Finally, debt service is primarily handled by the central government. This is reflected in expenditures on interest, for which the central government's share is 1.3 per cent of GDP, more than five times the share of local governments.

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APPENDICES

APPENDIX 1 CONCEPTS

Value added in non-market production is calculated by adding up the compensation of employees, consumption of fixed capital and possible taxes on production and imports.

Gross debt (the EMU debt) comprises promissory note loans, bonds and debentures, short-term securities, other short-term loans and cash received by general government from other sectors of the national economy or from the rest of the world.

The Geary-Khamis dollar (or international dollar) is a hypothetical unit of currency that has the same purchasing power that the U.S. dollar had in the United States at a given point in time.

Total expenditure includes intermediate consumption, compensation of employees, subsidies, property expenditure, social benefits, current transfers, capital transfers, investments and net acquisition of land and other assets.

Consumption expenditure by municipalities includes the costs of producing goods and services. They include e.g. income transfers, repair and maintenance costs as well as the difference between purchase and sales of goods and services. Consumption expenditure by municipalities includes e.g. government financed school, health, social and administration services.

Natural population growth is the difference of the number of live births and deaths.

Internal migration means the change in the place of residence that involves a permanent change of domicile. Usually, internal migration is meant to refer the migration between municipalities/sub-regions/regions, where municipality/sub-region/region boundary is crossed.

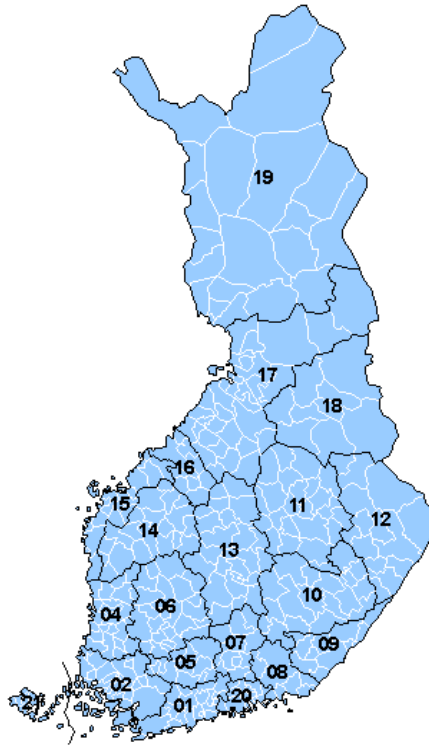
Net lending of an economic agent or sector measures the amount of money that these units have for financing purposes (when net lending is positive) or, the amount that they need to borrow from other units (when net lending is negative). Deficits lead to the need to borrow from other units, and surpluses enable lending to other units.

Net migration is the difference of immigration and emigration.

(Municipal) sum of wages means the sum of gross salaries that are paid by municipalities.

APPENDIX 2A REGIONAL (NUTS3) DIVISION OF FINLAND IN 2009

- 01 Uusimaa
- 20 Itä-Uusimaa
- 02 Varsinais-Suomi
- 04 Satakunta
- 05 Kanta-Häme
- 06 Pirkanmaa
- 07 Päijät-Häme
- 08 Kymenlaakso
- 09 South Karelia
- 10 Etelä-Savo
- 11 Pohjois-Savo
- 12 North Karelia
- 13 Central Finland
- 14 South Ostrobothnia
- 15 Ostrobothnia
- 16 Central Ostrobothnia
- 17 North Ostrobothnia
- 18 Kainuu
- 19 Lapland
- 21 Åland Islands



Source: Statistics Finland

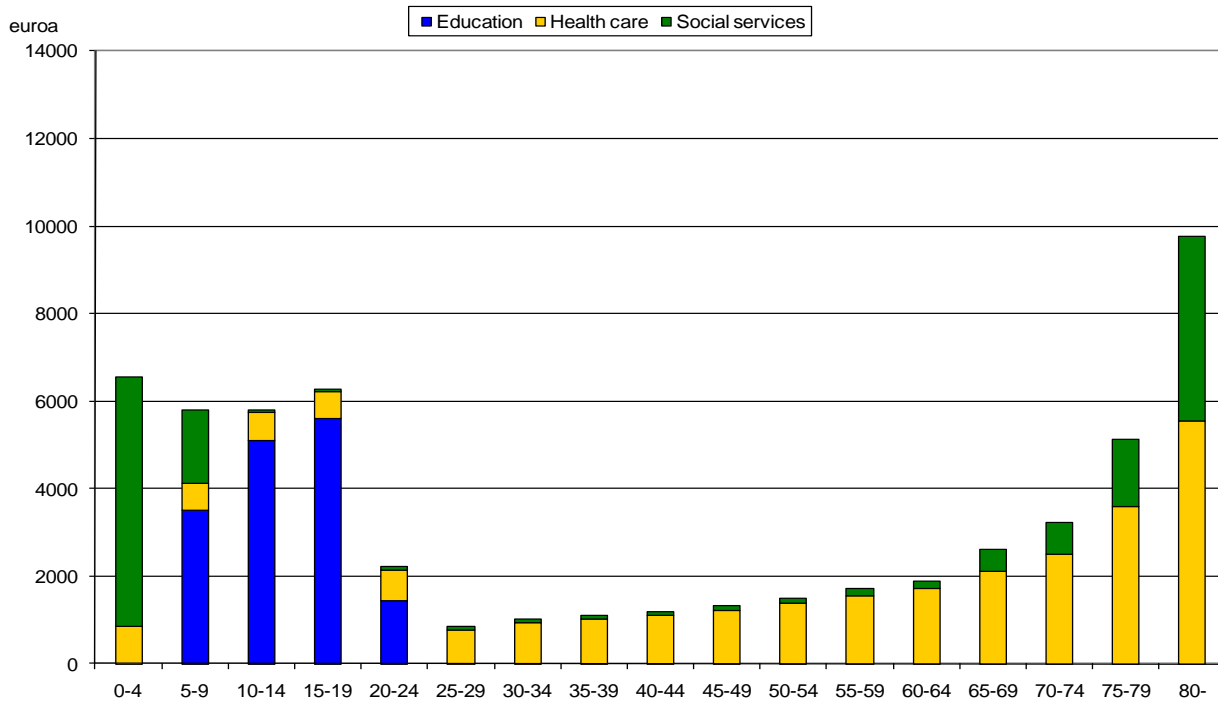
APPENDIX 2B NUTS 3 REGIONS IN THE FOUR MAJOR NUTS2 REGIONS

Southern Finland (incl. Åland Islands)	Western Finland	Eastern Finland	Northern Finland
01 Uusimaa	04 Satakunta	10 Etelä-Savo	16 Central Ostrobothnia (Keski-Pohjanmaa)
20 Itä-Uusimaa	06 Pirkanmaa	11 Pohjois-Savo	17 North Ostrobothnia (Pohjois-Pohjanmaa)
02 Varsinais-Suomi	13 Central Finland (Keski-Suomi)	12 North Karelia (Pohjois-Karjala)	19 Lapland (Lappi)
05 Kanta-Häme	14 South Ostrobothnia (Etelä-Pohjanmaa)	18 Kainuu	
07 Päijät-Häme	15 Ostrobothnia (Pohjanmaa)		
08 Kymenlaakso			
09 South Karelia (Etelä-Karjala)			
21 Åland Islands (Ahvenanmaa)			

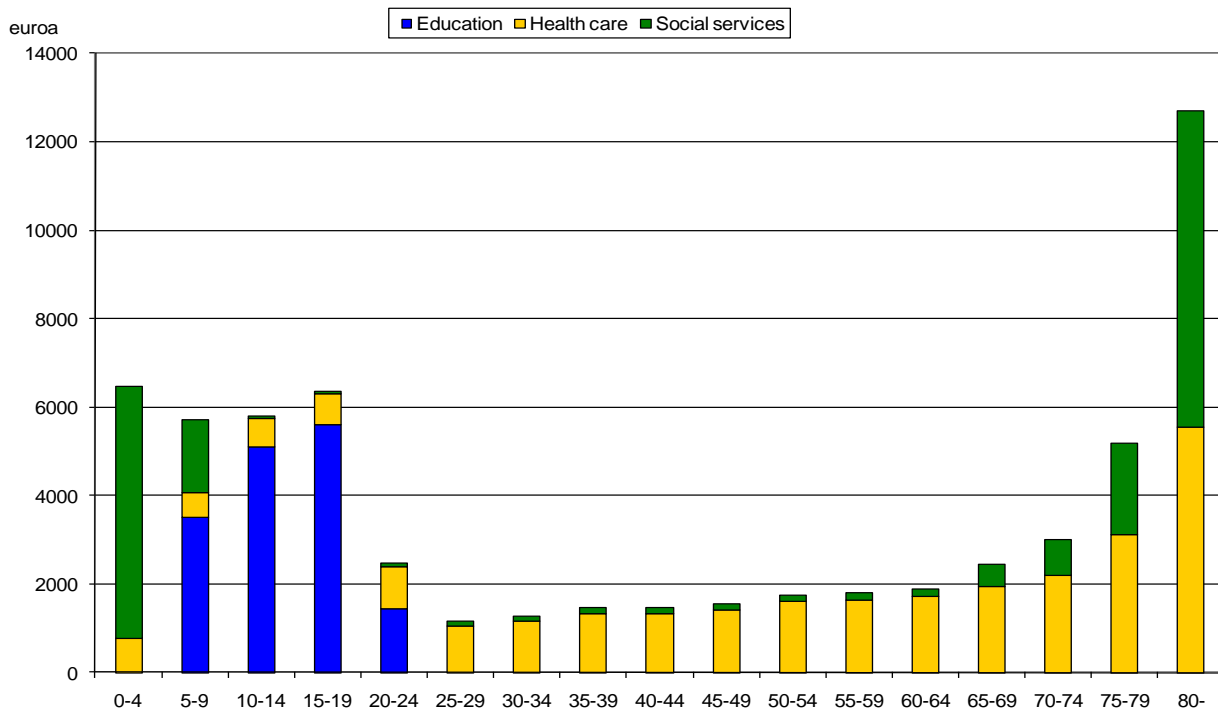
Source: Statistics Finland

APPENDIX 3 MUNICIPAL HEALTH, SOCIAL SERVICE AND EDUCATION EXPENDITURE PER CAPITA BY AGE GROUP FOR A) MEN AND B) WOMEN

A) Men



B) Women



Source: Project to restructure local government and services

APPENDIX 4 FINNISH MUNICIPALITIES IN INTERNATIONAL COMPARISON (TABLES AND FIGURES)

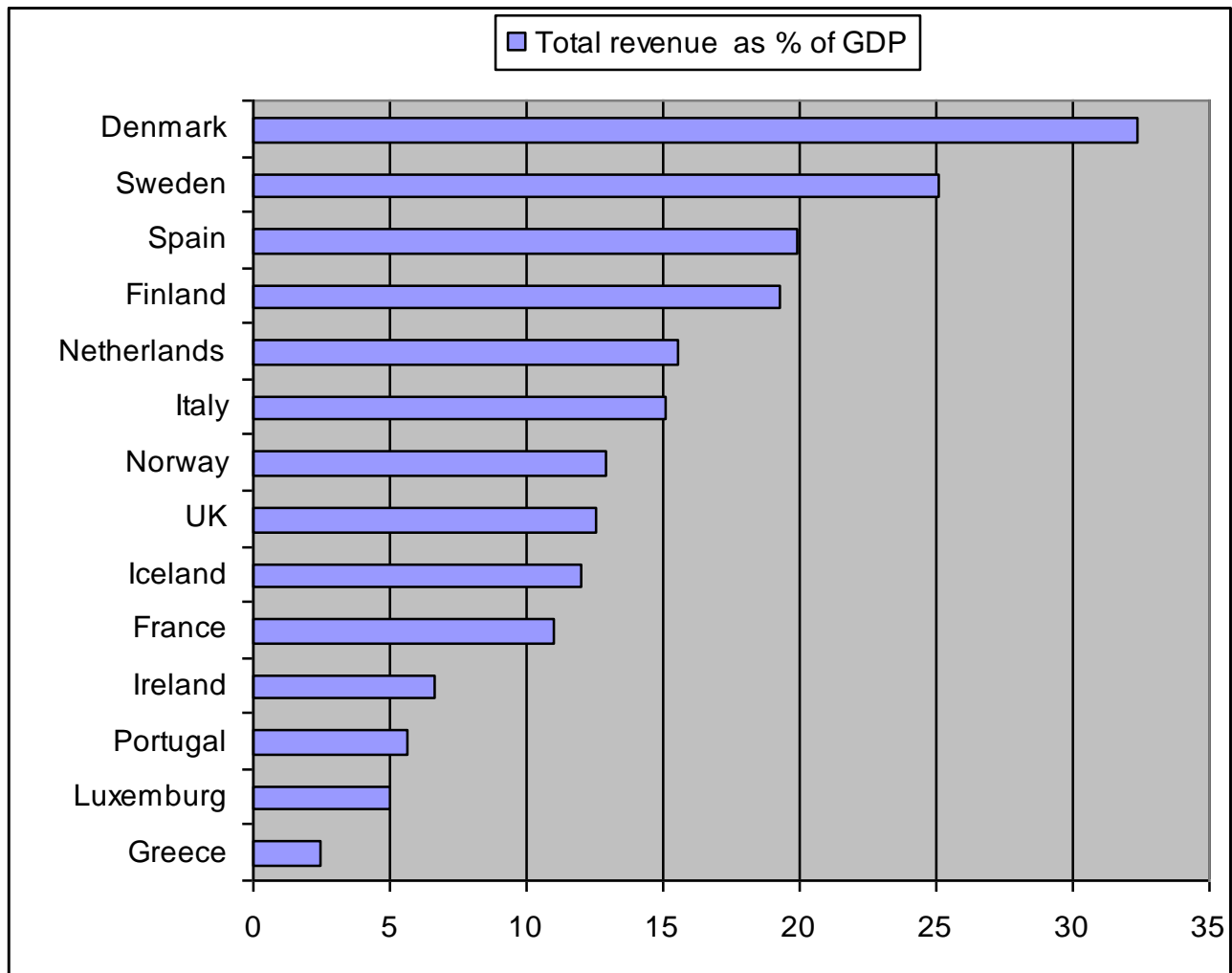
Table 1 Sub-national government structure in some European countries in 2009

Country	Regional or state governments	Intermediate regional government	Local government
Unitary countries			
Denmark		5 counties*	98 kommuner
Finland			348 kuntaa
France	26 regions	100 departements	36.682 communes
Ireland		8 counties	114 municipalities
Italy	20 regions	103 provinces	8.102 comuni
Greece		54 prefectures	1.034 municipalities
Luxemburg			116 communes
Netherlands		12 provinces	441 gemeenten
Norway		19 fylkeskommuner	430 kommuner
Portugal	2 auton.regions		308 municipalities
Spain	17 regions	50 provinces	8.115 municipalities
Sweden		20 counties	290 kommuner
UK	3 regions	28 counties	406 districts
Federal countries			
Austria	9 länder		2.357 gemeinde
Belgium	6 regions	10 provinces	589 communes
Germany	16 länder	301 kreise	12.339 gemeinde
Switzerland	26 cantons		2.740 municipalities

¹ The governments included should have both elected bodies and own revenue sources.

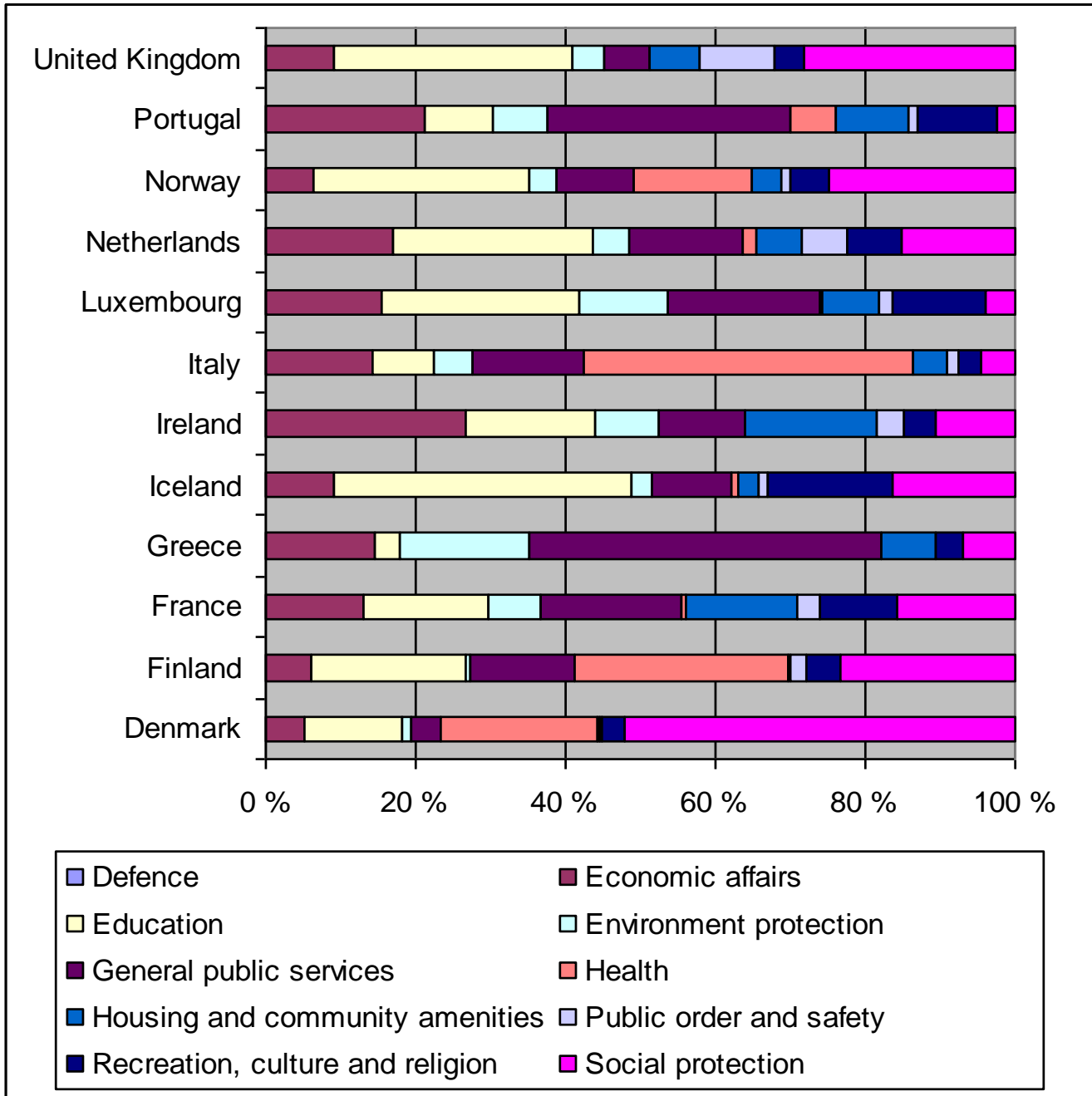
* Danish counties do not have own tax revenues.

Figure 1 Size of sub-national government measured by total revenue as % of GDP, unitary countries



Source: CEMR-Dexia: EU sub-national governments - 2008 key figures.

Figure 2 Expenditure structure of local government, % of outlays, unitary countries, 2007



Source: IMF Government finance statistics 2008

Table 2 Revenue structure of sub-national (local and regional) government in some unitary countries (per cent of total operating revenue), and sub-national local government revenue as per cent of GDP, 2005.

Country	Taxes	Grants	User charges and other revenue	Total revenue as % of GDP
Netherlands	9.8	66.6	23.6	15.6
Spain	80.5	0.0	19.5	13.4
Ireland	9.4	54.3	36.3	6.9
UK	13.6	69.2	17.2	12.8
Italy	46.0	40.4	13.5	14.8
Greece	11.2	3.2	85.6	2.0
Luxemburg	33.8	44.9	21.4	5.2
Norway	45.3	36.7	18.0	12.8
Portugal	36.9	46.1	17.0	5.6
France	45.7	28.2	26.1	11.1
Sweden	63.6	20.4	16.0	25.7
Finland	47.7	28.3	24.0	19.1
Denmark	52.8	37.4	9.8	31.5

Source: OECD Revenue Statistics 2007

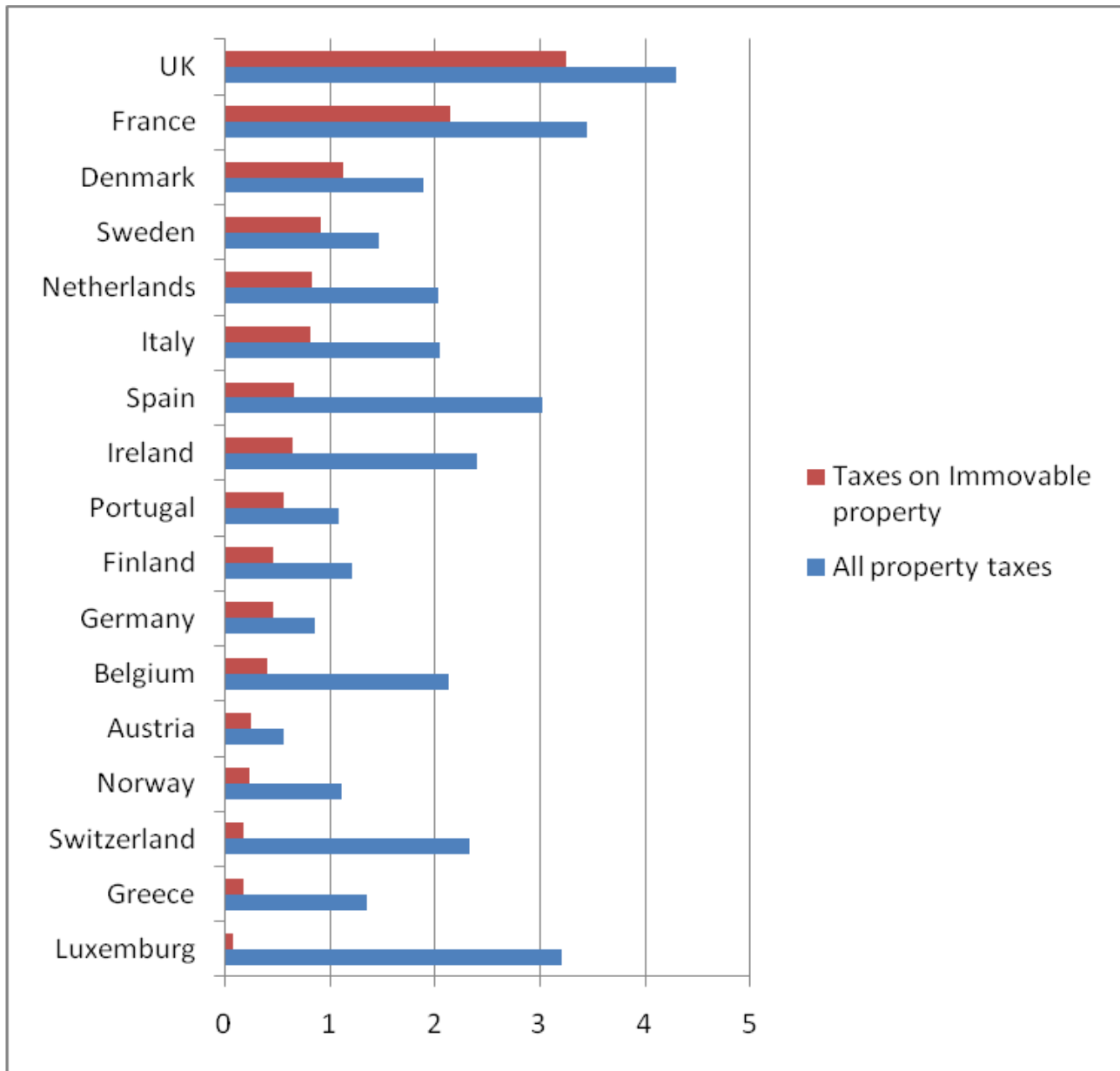
Table 3 Sources of tax revenues of sub-national (local and regional) government in some unitary countries, 2005, per cent of total tax revenue

Country	Individuals' income	Corporate profits	Property tax ¹	General taxes	Specific goods and services	Taxes on use of goods	Other taxes
Netherlands	-	-	55.6	-	1.6	42.8	-
Spain	23.3	1.8	27.5	24.3	16.0	5.8	1.1
Ireland	-	-	100.0	-	-	-	-
UK	-	-	100.0	-	-	-	-
Italy	17.4	1.7	13.9	4.8	12.8	7.7	41.6
Greece	-	-	66.6	3.7	25.7	3.9	-
Luxemburg	-	91.1	7.0	-	1.4	0.2	0.4
Norway	88.9	-	9.1	-	-	2.0	-
Portugal	7.7	16.1	44.6	17.5	9.0	3.9	1.1
France	-	-	51.4	-	13.8	2.8	31.9
Sweden	100.0	-	-	-	-	-	-
Finland	86.7	8.1	5.1	-	0.0	0.0	0.2
Denmark	90.9	2.3	6.8	-	0.1	-	-

¹ Includes taxes on immobile property and other forms of property taxes

Source: OECD Revenue Statistics 2007

Figure 3 Revenue from taxation of immovable property and taxation of all forms of property taxes in 2005, per cent of GDP



Source: OECD Revenue Statistics 2007, country tables

APPENDIX 5 ON NEEDS TO DEVELOP MUNICIPAL BOOKKEEPING¹¹

Municipal bookkeeping was reformed last time in the year 1997, when a performance-based bookkeeping system was substituted for the previous cash based bookkeeping. Among the most important changes were the assessment of fixed capital assets and making depreciations according to plan, provisions to cumulated wages and salaries and related secondary expenses with promissory notes, treatment of loans as long term debt, treatment of cumulated interest expenses as debt and dissolution of several reserves.

One of the biggest challenges of public administration is the development of a working cost accounting system. Previously such a system was not needed to any greater extent. Nowadays, with municipal companies and service centers, productization and pricing would require reliable information on costs, but this is lacking. Often costs only include personnel costs with secondary expenses, whereas costs related to premises, cleaning and maintenance, capital expenses like interest expenses and depreciation, are omitted. This kind of cost accounting leads to a situation where own costs seem to be much smaller than costs of other service providers. This state of affairs is confronted significantly in pricing of health and social services, in which the costs of own health centers are lower than the costs of limited companies producing the same services. Deficient information on costs of own service production leads to mistakes in decision making.

Municipal bookkeeping has, however, developed and there are competent bookkeepers in local government. The establishment of service centers in municipalities has become common during last decades and it has concentrated know-how, improved communication and offers a standby system which was not possible earlier.

It is not question of bookkeeping only, however, but also the functioning of internal control matters. The efficiency of personnel in their work and their procurements should be inspected and inefficient and expensive solutions should lead to interventions. A key challenge is the lack of transparency in the personnel costs and the labor input used in municipal activities. Often the publication of economic

¹¹ This text is based on a more detailed account by Leif-Erik Forsberg “On needs to develop municipal bookkeeping” (in Finnish, date April 26, 2010).

reports and efficiency measures is limited to financial statements and budgets, and information on efficiency in the use of personnel and other related measures is not available. Indicators concerning personnel are, however, especially important, because municipalities need to compete to get skilful labor force and think of their image as employers. Indeed, personnel reports are becoming more usual and they give additional information. Furthermore, municipal companies of local governments and their joint organizations lead to more transparency because they price their services. Use of competition in the choice of the supplier of services enhances cost awareness and fosters in improving cost efficiency.

The reward systems in public sector are in an early stage of development and as such they do not give sufficient incentives to achieve binding objectives. Certainly, within the multi-sector municipalities, it is not easy to find a single and fair reward system, which takes into account the special features of various municipal spheres of authority

Nowadays, in many municipalities there are service centers, where bookkeeping, accounting, payroll computation and preparation of financial statements have been concentrated. There are several ongoing projects aiming at increasing efficiency of municipalities, among others establishment of an IT-center and other service centers which operate over municipal borders in the sphere of local government. The coming years will show whether these projects succeed to come in operation.

One issue is whether municipalities should dispense with their heavy practices related to budgets and financial statements and replace them with lighter practices which are similar to those applied in private business firms? Should municipalities concentrate more on control activities like cost accounting, keeping up profitability and on the development of measures for efficiency, productivity and effectiveness?

APPENDIX 6 HISTORICAL INFORMATION ON EXPENDITURE AND REVENUE
STRUCTURES OF CITIES AND RURAL MUNICIPALITIES

Table 1 Budget of Ruskeala¹ municipality in the year 1876

Elementary school charge	80 pennis per person
For bridge and other needs	400 mk
To person who vaccinates	700 mk
To prison guard	62 mk
Fire help	1400 mk
Construction of chaplaincy	400 mk
Vine fund of the church	25 pennis per person
Charge from leeches and crofters	120 pennis per man and 60 pennis per woman
Medicine money	10 pennis per person
Money for killing beasts	6 pennis from all who have livestock
Money for bell ringing	5 pennis per person
Money for cottage of parish	1400 mk
Money for church building	600 mk

¹ Ruskeala municipality belonged to the former Province of Viipuri and was a part of the area lost to the Soviet Union after World War II.

Source: Kaukovalta (1940)

Table 2 Revenue sources of rural municipalities in 1910, per cent

Income type	%
Income taxes	37.0
Land taxes	18.7
Poll charges	4.3
Estate inventory charges	0.2
Other taxes	0.9
Miscellaneous charges	0.5
Interest income	1.9
Down payments of loans given by the municipality and reimbursements	2.4
Income from real estate	2.6
Grants	15.0
Other income	3.1
Borrowing during the year	13.1
In all	100.0

Source: Nykänen (1994)

Table 3 Revenue sources of cities in 1910, per cent

Income type	%
Income taxes	24.8
Person and estate inventory charges and other taxes	2.5
Transportation charges	10.5
Income from land and lakes	4.9
Income from municipal companies	14.1
Grants	4.2
Other income	19.3
Borrowing during the year	19.9
In all	100.0

Source: Suomen tilastollinen vuosikirja 1923

Table 4 Tax revenues by type of tax in rural municipalities in the year 1891¹, per cent

Taxes	%
Land tax	29.9
Smoke tax	1.3
Other land tax	0.6
Poll tax	14.9
Income tax	43.2
Other personal taxes	6.6
Business and trade tax	2.5
Inheritance tax, dance tax and dog tax and some other small tax forms in all	1.0
In all	100.0

¹ In 1891 tax revenue from these sources covered 62.6 per cent of all revenues of rural municipalities
Source: Nykänen (1994)

Table 5 Tax revenue by type of tax base in cities in 1938 and 1960, per cent

Tax base	1938	1960
Property income	10.1	5.0
Trade and business income	24.9	19.7
Wages and salaries	64.6	75.3
In all	100.0	100.0

Source: Suomen kaupunkilaitoksen historia 3

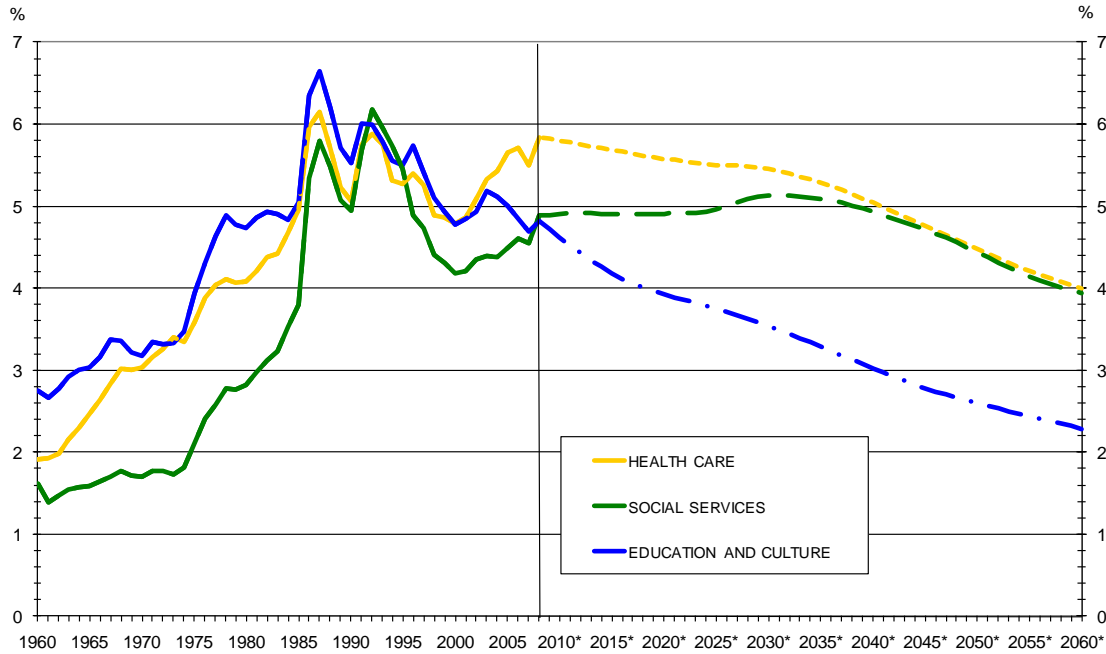
Table 6 Expenditure and revenue of cities, towns and rural municipalities in 1938 and 1960, per cent
(Suomen taloushistoria 3)

EXPENDITURE	1938			1960		
	Cities	Towns	Rural municipalities	Cities	Towns	Rural municipalities
General administration	-	-	3	-	-	5
Law, order and safety	5	2	2	4	2	2
Health	8	6	5	10	8	10
Social tasks	10	15	19	12	11	14
Education and culture	11	19	33	14	21	33
Public works	11	15	2	14	16	7
Real estate	-	-	6	-	-	7
Financing costs	22	9	8	5	6	6
Capital costs	23	24	21	23	22	18
Other expenditure	11	10	1	18	14	0,03
In all	100	100	100	100	100	100
REVENUE	Cities	Towns	Rural municipalities	Cities	Towns	Rural municipalities
Grants ¹			26			27
Property	10	9	7	7	6	9
Surplus of harbours	4	-	-	4	-	-
Surplus of municipal companies	8	-	-	5	-	-
Financial revenue	39	55	49	58	67	51
- share of taxes and charges ¹	34	52	45	49	59	49
Capital income	25	14	13	13	10	9
- share of borrowing	17	-	5	5	-	5
Health	-	2	-	-	2	-
Social tasks	-	4	-	-	3	-
Education and culture	-	9	-	-	9	-
Other revenue	13	6	6	13	3	3
In all	100	100	100	100	100	100

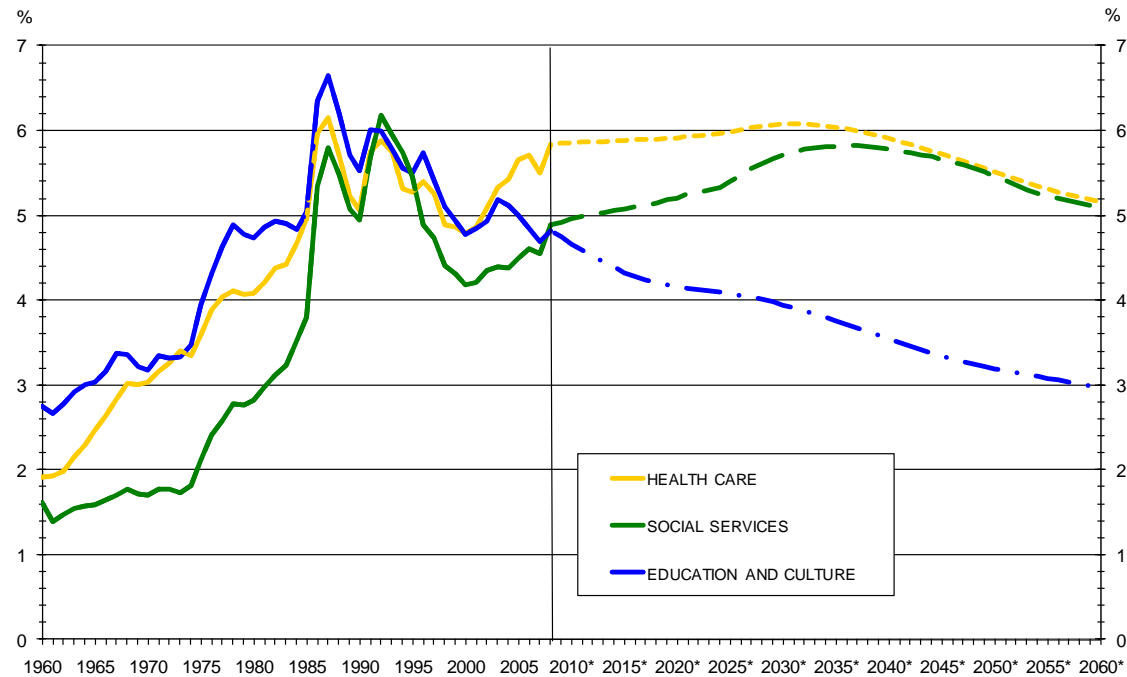
¹ In 1938 and 1960 also cities and towns received grants, but this information is missing. It is known, however, that the share of grants in the revenues of cities and towns was much smaller than in case of rural municipalities. On the basis of another source (Suomen kaupunkilaitoksen historia, osa 3) grants were 6 per cent of total revenues in cities both in 1938 and 1960, and in towns, the respective shares were twice the share of cities.

APPENDIX 7 MUNICIPAL HEALTH, SOCIAL SERVICE AND EDUCATION EXPENDITURE 1960–2008 AS % OF GDP, AND A FORECAST OF THE PURE IMPACT OF CHANGING AGE STRUCTURE OF POPULATION ON RESPECTIVE GROUPS AS % OF GDP FOR 2009–2060

A) Assumed growth rate of GDP is 1.5 % per year from 2009 to 2060



B) Assumed growth rate of GDP is 1 % per year from 2009 to 2060



Data sources: Project to restructure local government and services; Käär 1988; Statistics Finland, public sector and population forecast 2009