DRAFT (not for citation)

You Get What You Pay For: How Nordic Cities are Financed

by Jorgen Lotz

Toronto, March 2008

\[1\] The author has for 30 years held senior positions in Denmark working on the relationship between central and local governments. This presentation is most detailed on the case of Denmark, but there is a close contact and exchange of experiences between the Nordic ministries and the presentation also includes features from the other Nordic countries.
Overview

Section 1: The Nordics. The Nordic countries are small, unitary and homogeneous. The munici-
palities are the most important agents in the decentralised public sectors and the middle tier seems
to be losing importance and may be disappearing. There are pronounced regional policies that may
not always be seen as fair to the cities.

Section 2: Big and decentralised government. The expenditure of Nordic local authorities exceeds
those in Canada by 10 percent of GDP. The difference is financed by the Nordic local income tax.
The large expenditures are for kindergartens, primary schools, social welfare, care for the elderly,
and culture.

50 years ago a Danish professor described the growing role of local government as centralisation.
The new welfare functions were not local public goods; local governments serve mostly as agents
for the delivery of national public services. This creates complicated problems of control - and the
municipalities do not always accept this fact.

The administrative capacity of the municipalities needs to be improved to enable them to deliver
good quality. In 2005 a major Danish amalgamation reform was decided. Economies of scale were
used as an argument but amalgamations are more likely to result in higher levels of spending.

Section 3: Grants policy. Dialog between central and local government is important, most formal-
ised in the Danish system of annual negotiations on local tax rates, expenditure growth rates,
grants, and other policies. Compensation for local costs of new mandated functions is the rule.

Grants fill the expected gap in the local government sector. They cut the link between the economic
cycle and the finances of the local government sector. Several other features serve to secure stable
financing of the local welfare services.

Section 4: The Nordic local income tax. Differences in local tax rates have not lead to problems of
migration, and administration is simple. A maximum cap on the rates has, in Norway, resulted in
disappearance of local variation in rates. And the local PIT may create some problems for the cen-
tral government to control marginal income tax rates.

The company tax is not well suited to be a local tax.

Section 5: Equalisation of differences in local tax bases. With a local income tax the local equalisa-
tion of differences in tax bases needs to be quite powerful. Nordic countries do not let rich authori-
ties escape; they have to contribute. The risk of negative incentives for local authorities to develop
their own tax base is not seen as an important consideration.

Appendix: Equalisation of differences in local expenditure needs. The crucial issue, seen from a city
point of view, is that equalisation of expenditure needs is needed and that ways have to be found to
include urban social expenditure needs in the calculation of expenditure needs.
1. Introduction

Some Nordic characteristics

The “Nordic” countries include Denmark, Finland, Iceland, Norway and Sweden. They are extremes cases of decentralisation, and the organisation of local government reflects this.

There are lessons to be learned from country to country in the field of local government financing, but comparisons need to be made with care because some differences in systems depends on differences in the basic characteristics of societies.

Let me briefly describe some points where I think that such differences are relevant.

Firstly, the Nordic countries are small and homogeneous.

The population of the Nordic region is all together 24 million inhabitants; Sweden is the largest with nearly 9 million, and my own country, Denmark, has 5½ million inhabitants. The biggest Nordic cities – the capitals - have only 1-2 million inhabitants.

The populations are homogeneous, and it could be argued that decentralisation is easier when people share the same cultural values. But it could also be asked: why decentralise when the population is homogeneous? In the answer to this question lies the basic nature of the system of local government in the Nordic countries.

There also are differences in policy-making in big and small countries. Reforms that big countries may find difficult to implement are sometimes easier to handle in small countries, but in this respect Ontario may not be that large.

Secondly, they have a large public sector.

The tax to GDP ratios are among the highest in the OECD, around 50 per cent. That compares to 33 per cent in Canada. But the Nordic citizens also get what they pay for: There is free education, free choice of hospital for everybody without charge, the old age care is free and equally available for all in need of it, a place in subsidised nurseries and kindergarten is guaranteed for all who want it.

Thirdly, the share of local government budgets out of the total public sector is much higher in the Nordic countries than in other OECD countries. All the individual welfare services are delegated to local authorities, this includes also social policy for those who cannot look after themselves – only policing is a central function.

The traditional local environmental services are still municipal, though they have mostly been contracted out. Utilities may be publicly owned, but are increasingly being performed by companies owned by the public or private investors. Not long ago, the law required them to be financed strictly by cost-based fees. But in order to get more competition, profits are now permitted, except for water and water cleaning where cost-based fees are still the rule.

A few functions have required special organisation, like urban public transport. In Denmark, the metropolitan transport policy has been placed in a multi-regional organisation but rail service is still run by the central government.

Big government and high share of local delivery can be illustrated by a table (table 1) that will look unbelievable to some of you. It shows the proportion of the work force that is employed by local government.
Table 1: The local government share of national total employment, 1999

<table>
<thead>
<tr>
<th>Country</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>21</td>
</tr>
<tr>
<td>Sweden</td>
<td>26</td>
</tr>
<tr>
<td>Denmark</td>
<td>25</td>
</tr>
<tr>
<td>Norway</td>
<td>24</td>
</tr>
<tr>
<td>Canada</td>
<td>7</td>
</tr>
</tbody>
</table>

And the decentralisation is not only on the expenditure side. Much higher local tax revenues are collected to finance the higher expenditure level (table 2).

Table 2: Local revenues as a per cent of GDP, 2002

<table>
<thead>
<tr>
<th>Country</th>
<th>Local taxes</th>
<th>Grants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>2.9</td>
<td>3.0</td>
<td>5.9</td>
</tr>
<tr>
<td>Sweden</td>
<td>16.2</td>
<td>5.7</td>
<td>21.9</td>
</tr>
<tr>
<td>Denmark</td>
<td>16.5</td>
<td>5.5</td>
<td>22.0</td>
</tr>
</tbody>
</table>


The regional policy aspect

Like Toronto, Copenhagen city is just now being examined by the OECD Territorial services. Both cities have presented outlines stressing the same issues. Both stress the importance of “quality of life” and both see themselves as being in the top of the league of “nice places to live in”.

And they both complain of the lack of understanding that cities are the engines of growth for the national economy, and that the competitiveness of the cities of a nation is an important condition for future growth and welfare. They both find that their special needs are not reflected enough in the policies of the central government.

Perhaps most of their concerns relate to the discretionary decisions by the central government made under the cover of regional policy concern. Why build highways in the thinly populated regions of the country when the traffic congestion is found in the cities? Why the policy of locating government institutions across the province? Why build regional universities and university hospitals in countries no bigger than a medium Canadian province?

This has to do with regional priorities for investment in infrastructure. Several reasons could be envisaged why cities are not always fairly treated:

One is the regional divisions in Parliament. The rural parts of the country have sometimes disproportionate representation.

Another reason is the fear of national Parliaments to lose power to the big cities. This is not necessarily because the cities are run by political opposition parties. The dislike is there even when they are governed from the same political party, in spite of the fact that the parties at the local elections are mainly the same as they are in the national elections.

For such reasons, even quite sensible proposals from big cities, like for reducing pollution, or improving traffic regulation, are turned down.

The criticism from the cities is not only aimed at regional policies; it has sometimes been also of the design of local government equalisation. There is a current discussion of whether indicators of ex-
penditure needs fully describe the city needs. But also the question of equalisation of tax base differences has been criticised, though this argument may be overdone. I shall come back to this later.

In countries like Sweden, Finland and Norway, with thinly populated Northern areas, equalisation policies often aim at making the public service in the Northern regions more attractive than in the cities. The national policy is to make people stay living there in spite of harsh natural conditions. In Norway and Finland these very desolate regions threatened by depopulation border on Russia.

2. The local government function

In the Nordic countries the size of the local government economy is larger than in Canada by more than 10 per cent of GDP; the Nordics spend much more on health and social policy purposes than Canadian local governments do (table 3).

Table 3: Measures of decentralisation, Nordic countries compared to other OECD countries, recent years

<table>
<thead>
<tr>
<th></th>
<th>Average OECD non-Nordic countries</th>
<th>Canada 2006</th>
<th>Nordic* average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local govt. expenditure, per cent of GDP</td>
<td>9.2</td>
<td>7.4</td>
<td>19.1</td>
</tr>
<tr>
<td>Local welfare expenditure, per cent of GDP**</td>
<td>4.2</td>
<td>3.6</td>
<td>12.3</td>
</tr>
<tr>
<td>Local current revenue (taxes, fees and grants), per cent of GDP</td>
<td>9.0</td>
<td>7.4</td>
<td>19.7</td>
</tr>
<tr>
<td>Local income tax revenue, per cent of GDP</td>
<td>1.3</td>
<td>0.0</td>
<td>10.6</td>
</tr>
</tbody>
</table>

*Denmark (data before 2005 reform), Finland, Iceland, Norway, and Sweden.

This extra spending is financed in the Nordic countries by revenue from the local income tax yielding a little more than 10 percent of GDP.

Governance

The Nordic local councils are elected for a four year period and the councils elect their mayor. There are strict central rules protecting the minority parties and guaranteeing openness. The size of the local governments has over the years been increasing, sometimes by individual amalgamations, sometimes by more comprehensive reforms. Table 4 shows the population size.

The middle tier – the counties

There is, in some of the Nordic countries, still a middle tier (the counties). They are local authorities with a larger population than the municipalities.

Through the first half of the 20th century, the middle tier was an agent of the centre, and its role was to supervise the municipalities. Not any longer. Today they play no role in supervising the municipalities.
They have their own functions, most importantly health and hospitals, complicated social care, and a role in public transport, planning, and environmental protection.

They seem today to be disliked by the Nordic Parliaments and efforts are being made slowly to empty them of functions.

They have recently been abandoned in Norway.

In Denmark they were in 2007 replaced with fewer and larger regions but without their own taxation rights and with much limited functions. Copenhagen city with this reform lost their middle tier functions (their hospitals), some of its planning functions were lifted up in the new Capital region, and the public transport was placed in a regional agency.

This may sound familiar to you as I have been told that Toronto consolidated its two tier structure in 1998 so it is now a one-tier city with about 2.5 million people.

**The municipalities**

The municipal functions include kindergartens, primary schools, social welfare, old age care, care for the disabled. Many central efforts are made to strengthen central control with educational policies and standards, and also standards for old age care.

**Table 4: Average size of local authorities in Nordic countries 1/1 2000**

<table>
<thead>
<tr>
<th>Average size</th>
<th>Finland</th>
<th>Sweden</th>
<th>Denmark before 2006</th>
<th>Denmark as of 2006</th>
<th>Norway</th>
<th>Iceland</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipalities</td>
<td>11,400</td>
<td>30,700</td>
<td>19,500</td>
<td>54,000</td>
<td>10,300</td>
<td>2,200</td>
<td>6,900</td>
</tr>
<tr>
<td>Counties</td>
<td>None</td>
<td>422,000</td>
<td>355,000</td>
<td>1,100,000</td>
<td>235,700</td>
<td>None</td>
<td>?</td>
</tr>
<tr>
<td>National population</td>
<td>5,146,000</td>
<td>8,861,000</td>
<td>5,330,000</td>
<td>5,330,000</td>
<td>4,478,500</td>
<td>278,700</td>
<td>31,610,000</td>
</tr>
</tbody>
</table>

But the local priorities are made by the municipal councils – and from the point of view of the Ministry of Finance this is good. There are allocation gains from allowing some variation in the standards of buildings, teaching materials and old age care.

But also the municipalities are being challenged.

In the name of free choice and competition efforts are seen to find other actors and to bypass the local authorities, for example by:

- decentralisation from municipalities to their institutions
- tendering out
- introduction of entitlements to public services
- limitations on the allowed differences in local service inputs, or
- introduction of free choice for the citizens to choose supplier.
The role of local government is these days exposed to turbulent strategies for more central control or more competition to improve efficiency and the quality of services.

*Prof. Philip: Decentralization of the welfare services - or centralisation of municipalities?*

I shall now turn to the question of why the Nordic countries have decentralised in spite of very homogenous populations.

As said,

This process was described by a Danish professor who, nearly 60 years ago, was one of the first scholars to be allowed to travel to the U.S. after the Second World War. He went to Harvard and was there inspired to look at the long term trend in local government functions in U.S., UK, Denmark and Sweden from 1850 to 1950.

He found very similar trends. The traditional "local public goods" like street lighting, waste removal and building permits played a constantly smaller relative role in the agenda of municipal councils. They were displaced by the new social welfare services. This process he described as a period of centralisation. His argument was that the traditional functions for local governments – the real local public goods like water supply, streets, building permits and street lighting – had been relatively displaced by mandates to deliver an increasing number of not really local, but rather national welfare goods.

Time has shown that this trend has continued since 1950 in the Nordic countries. This is a fact that our municipalities find hard to accept; they do not like to face that their schools, old age care, and the like are not local government goods. But national Parliamentary actions tell us again and again that they are national public goods.

How does it work? It is difficult to find comparative studies of quality and costs for these services delivered by, on the one hand, local branches of national organised services or, on the other, by local elected councils. The political majority, however, has by continuing the transfer of new mandates to local authorities demonstrated their conviction that decentralisation of the delivery of all these services has resulted in more consumer friendly and flexible delivery than the alternative centrally organised delivery.

But it is not unproblematic to decentralise delivery of these functions so closely related to national redistribution. Nordic local authorities provide redistributing services, and redistribution is a national concern. The populations are homogeneous and have quite similar and strongly egalitarian preferences.

So there is an ongoing discussion with the local authorities on how best to ensure that local authorities live up to the national aspiration for service quality – the local side says that we should only control the outcome (do the school children learn to become good citizens?) while Parliaments tend to concentrate on harmonisation of inputs (is the ratio of children to teachers low enough everywhere?). If the local arguments were followed, however, it would take many years before Parliament could act to correct local service failures. The political problem is that the press often finds examples of what they present as service failures; the mayor involved sometimes complains that the problems arise because the grants are too small, while the government expects that mayors will take responsibility for the allocation within their own budgets.

---

Some Scandinavian colleagues have felt that the international literature on fiscal federalism has not been helpful in describing the Nordic reality. The perspective changes when local governments are not homogeneous clubs concentrating on local public goods, but are homogeneous and busily delivering central redistribution services. Then you tend to see local government provision of welfare services more as an administrative convenience rather than based on welfare economic principles. This has been described as a “European view”, different from the teachings of the famous American professors like Tiebout, Musgrave and Oates\(^3\).

**Amalgamations – a Danish reform in 2005**

There is considerable concern in the Nordic countries to improve the capacity of local authorities to deliver better quality services. One way is to increase the size of the small municipalities.

Amalgamation reforms are rare and usually politically unpopular. A famous example was the Greek amalgamation reform about 20 years ago that cost the government its life. Ontario had an unpopular reform in the 1990’s. But the devolution in the U.K. led to a popular amalgamation reform in Scotland.

A successful recent European reform was the Danish amalgamation reform decided in 2005. It reduced as of 2006 the number of municipalities from 273 to 98.

The Danish reform was basically based on voluntary amalgamations, though the word “voluntary” in this connection may need to be qualified.

The government aimed at a minimum size of 30,000 inhabitants. The alternative, offered to small municipalities that did not want to amalgamate, was, instead, to enter binding agreements with other municipalities for a number of functions. They would have to take what the neighbouring municipalities offered and pay the price they asked. And, though the government said it was voluntary, they knew well if they refused that the government had a majority support in Parliament for the reform. Very few municipalities chose the solution based on binding agreements.

The minister in charge of the reform has received many foreign visitors who asked how he did it. The minister explains that the way he had planned the process was decisive.

He first created a general support for the idea that the delivery of a number of central and county services would become much better if they could be delivered by municipalities, and he also promised gains from economies of scale.

After that, he was able to get legislation passed saying that in order to delegate the new functions to the municipalities, the minimum desirable size would be 30,000 inhabitants. As said, this could be done by amalgamations or by entering into binding agreements.

And finally, when the amalgamations were in place, he disclosed the new distribution of functions, the related revisions of the equalisation systems with appropriate dampers to reduce the annual fluctuations, and the financial consequences showing who would gain and who would lose.

**Amalgamation policies in the other Nordic countries**

Instead of taking place as reforms, amalgamations may be a slow trickle of singular mergers. Finland has for already 15 years had a system of financial incentives without any result, and the

incentives have been increased as of 2001, resulting in some voluntary amalgamations. Iceland has been through a long process of amalgamation, but still 40 per cent of the municipalities have less than 200 inhabitants. And Sweden has been in a slow but continuing process of voluntary amalgamations, but is now considering taking a new look at the situation.

Economies of scale?

An argument for reform used by the Danish government was that there were savings to be made because of economies of scale for local authorities.

The reform spurred a number of studies comparing variation in municipal spending with municipal size in Denmark. Table 5 shows the resulting optimal “firm-size” of some of these studies.

Table 5: Optimal municipal size, some Danish empirical results

<table>
<thead>
<tr>
<th>Source</th>
<th>“Optimal” municipal size, total</th>
<th>Administration</th>
<th>Primary Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Interior (2000) and Møller et.al (2001)</td>
<td>18-25.000</td>
<td>18.000</td>
<td>50.000-75.000</td>
</tr>
<tr>
<td>Houlberg (2000)</td>
<td>30-35.000</td>
<td>30.000-50.000</td>
<td>100.000</td>
</tr>
<tr>
<td>Committee on Local Government Finances (2004)</td>
<td>35-45.000</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>


Empirical tests of economies of scale in local government functions are difficult to make.

Firstly, the effects may be difficult to find in the spending data because, if they exist, chances are that they have been already exploited by co-operation or tendering out.

Secondly, most tests have, for reasons of data availability, been of so called “firm-specific studies”, comparing the total municipal spending on one function with the size of municipalities. What such studies actually tell us is not clear - except in the case of expenditure on administration where “firm” and “plant” are identical.

But recently some Danish “plant-specific studies” have been published comparing the spending of municipal institutions with their size measured as number of users.

These studies find weaker economies of scale than did the studies of firm-specific effects. For example, it was shown that there may be some economies in the size of elementary schools, but that big municipalities do not have proportionally more large schools than the small ones.

Thirdly, economies of scale may not be the only force released by amalgamations. Others – like more professional staff with a desire to improve quality, or political harmonization to the standards of the most expensive municipality - work in the opposite direction.
A recent Finnish study\(^4\) of the effects over a period of ten years of a large number of municipal amalgamations in the 1970s suggested that amalgamations in the \textit{long run} resulted in higher growth rates of spending than for municipalities of the same size who had not amalgamated.

All in all, the \textbf{conclusion} seems to be that economies of scale cannot be used as an argument for amalgamations. They are difficult to explain, difficult to quantify, and if they exist, merging municipalities will suffer from other and stronger opposite effects.

\textit{Alternatives to amalgamations}

As an alternative to amalgamation, \textit{joint production} by several small local authorities is also being used.

Finland is the extreme example with no middle tier and associations of municipalities running hospitals.

The Danish Committee that prepared the amalgamation reform of 2005 compared the advantages and drawbacks of co-operation compared to those of amalgamations. It concluded that amalgamations were to be preferred because municipal co-operation dilutes the political responsibility for the service delivery.

\textit{Tendering out} may in some cases be an alternative to amalgamation.

International surveys suggest savings of 20-30 per cent from tendering out functions to the private sector.

A recent Danish survey of savings from cleaning in schools covered the cleaning policies in 1,081 primary schools\(^5\). The study measured the plant specific economies of scale for schools for three groups of schools with different declared standards of cleaning. This way it was possible in the study to control for the quality of the cleaning.

\begin{itemize}
  \item Where cleaning was organised by the individual schools, economies of scale were absent.
  \item Where organised centrally by the municipality, there were savings of 10 per cent.
  \item But where tendered out, the savings were 30 per cent - for the biggest schools even 40 per cent.
\end{itemize}

In spite of these savings tendering out is not easy to sell. Tendering out meets resistance from the employees, and local politicians often shy away from conflicts with them.

Recently a Danish newspaper brought an opinion survey showing that
\begin{itemize}
  \item only 25 per cent of the population believed that there were savings to be made and
  \item 29 per cent even thought that the service would decline.
\end{itemize}

Remember that in Denmark 25 per cent of the workforce is employed by local government!

---

\(^4\) Moisi, Antti and Usitalo, Roope (2006): "The impact of municipal mergers on local public expenditure in Finland" (unpublished) antti.moisio@vatt.fi

3. Grants policies

Negotiations with the local government associations

In Denmark, grants to local government have, for more than 25 years been negotiated in formal, annual negotiations between ministers from the central government and the chairmanships of the local government associations. Each year in the spring there are intensive negotiations, and when they are concluded the results are presented on primetime TV news with interviews with ministers and top local politicians.

The main element in the agreements is that the government agrees to seek approval in Parliament of the size of grants that the parties have agreed upon, and that the local associations agree to recommend to their members to keep tax rates and size of expenditure increases within the limits set out in the agreement for the local sector seen as a whole. The recommendations by the association is not binding for the individual authorities; the idea is that some will raise taxes and some reduce them, but that the end result should be no tax increases for the sector as a whole.

This system has worked well, in particular during the first decade, though it has perhaps since then not always been the best known system to control local spending and taxation. Success has depended on discipline among the members of the associations, and on the political strength and credibility of the central government Minister of Finance to deliver sanctions if an agreement is broken.

But there are other reasons than the control of local tax rates and spending why this system of annual agreements is interesting for both parties. They cover a wide field of subjects, and they have become a convenient alternative for the government to negotiations in parliament.

Experience has shown that an agreement with the local association on a government proposal is difficult for the opposition in Parliament to criticise. This is important in a country with proportional representative democracy where governments more often than not are minority governments.

And during the year, between the annual agreements, all new legislation proposed by government that has consequences for local government functions has to be discussed with the local associations. I shall come back to this in a few minutes. This involvement of municipal expertise in the drafting of new legislation improves the quality of new legislation with respect to ease of administration at the local level.

Though a formalised system for negotiations like the Danish does not exist in the other Nordic countries, dialogue and co-operation with the associations of local authorities is a common feature.

In conclusion: The Nordic model builds generally on dialogue between the central and the local level. Denmark has the most formalised system of dialogue, with annual negotiations. It has contributed to better governance and better legislation in the public sector.

Countercyclical grants

Gap filling and soft budget constraints are to be avoided for the individual authority. But it is another thing when the annual grants fill the gap in the local sector budgets between an over all level of spending that the government sees as necessary and the tax revenue they can expect without raising local taxes.

This means that the grants become counter-cyclical; the local government sector becomes protected from the foreseeable effects of the economic cycles. But note that this guarantee is for the local sector as a whole and is not extended to the individual local authorities.
And there are many additional mechanisms to protect local authorities against unforeseen economic cycles:

- The Danish government guarantees that extra grants are given during the year if local spending on social transfers increase more than predicted.
- In both Sweden and Denmark the income tax revenue transferred to the local authorities during the budget year is not what has been collected but what has been voted in the individual local budgets – with full reconciliation in a following year.
- The local share of the company tax transferred to the local authorities is, in Denmark, based on collections two years earlier.

**Unfunded mandates for local authorities**

It follows from the intention of cyclical, neutral grant-financing for the planned level of local spending that the central government must compensate also for local expenditure caused by new legislation, by delegation of existing functions, or by changes in the financing.

In Sweden, this is normally the case. The Swedish grant system has been designed in such a way that a “neutral” grant distributed per inhabitant is available for the purpose.

In Denmark, it is required by law that a minister who proposes legislation with economic consequences for local authorities needs to negotiate the estimate of the costs involved with the Local Government Associations.

The amount will be deducted from the budget of the minister (or added if she has proposed legislation that makes local savings possible) and transferred to the local sector as a similar increase in the general grants.

These negotiations take place during the year and usually result in such changes in the draft legislation that the local association agrees that the cost estimate is realistic (it rarely results in the ministry paying more than planned).

This sounds very good, but it is actually a source of much local dissatisfaction. The government compensates the municipal sector as a whole by increasing the general grants. But there are always some municipalities complaining that the compensation is not distributed fairly to those who bear the relatively more expensive consequences of new mandates.

However, from the central government point of view, this demand is, because of asymmetry of information, impossible to meet. The central government has no way of knowing the financial circumstances for each single municipality. And it cannot ask the local authorities; no local authority would have incentives to reveal the true costs if they know that their compensation depends on what they say.

All this sounds like the opposite of what I have seen described by Richard Bird and Enid Slack\(^6\) for the Canadian cities. According to them, Canada has unfunded functions and restricted taxation rights, while the Nordics have fully grant-funded local functions and free taxation rights. One thing we have in common: in both cases the government is criticised.

But, after all, in the Nordic countries both sides find advantages in compensation for new functions:

---

For the local governments, this rule gives some protection against unfunded new functions that their politicians would have to finance.

And, in the Danish case, the Ministry of Finance likes it because it prevents line ministers from proposing new popular measures without having to find the financing. For example: The Danish Ministry of Social Affairs dislikes this rule. They say that every time they catch local authorities in not living up to the intentions of the social legislation and they want to give instructions on how the law is to be interpreted, the local authorities claim compensation.

And it must be admitted that it is difficult for the MOF to insist that all ministries follow the rule all the time. Sometimes a ministry fails to reach agreement with the local association on the costs of new legislation. Up to 8-10 cases remain unresolved and have to be taken up in the annual negotiations between the Minister of Finance and the local association where a solution is always found, often by agreeing on an unspecified lump sum increase in grants to cover all outstanding questions.

You may ask: why pay these compensations to local authorities when they have their own taxation power? Isn’t it the idea of local government that they have to pay for their own spending, and would it not result in more efficient solutions if they had to finance it themselves? Doesn’t the equalisation system solve the problems?

You might even expect that local authorities would prefer to live without grants and all the central control they bring with them?

Actually, one year the Danish counties said that they did not want the grants. They were prepared to increase their own taxation and let the central government keep their grant money to reduce their tax rates correspondingly. The MOF found this proposal most unhelpful and this attitude showed how much the central government needs to pay grants because grants are their best instrument of control.

In conclusion grants are used to smooth out cyclical movements in local finances. Grants serve to compensate - in a not perfect and much criticised way - for the costs of new functions delegated to the local level. But grants are also needed by the centre as instruments of central control.

4. Tax policy – the local income tax

When discussing which tax instruments can be allowed for local government to use, the first decision to make is whether “own taxes”, where each local authority is free to set their own tax rate, is seen as an advantage. The advantage of accountability is that local tax increases have to be defended by better service to the local electorate or risk being seen as a result of poor local management, while tax reductions would be seen as a sign of better management – or cuts in service. If a government does not believe in local accountability, it may prefer grant financing. Add to this local mistrust in the centre and there is an explanation why tax sharing may be preferred to annually decided grants.

Tax sharing Tax sharing is a per cent share of the central government revenue of, for example, income taxes or indirect taxes transferred to local authorities. Often the funds are not even transferred to the authority where they are collected. Whether tax sharing schemes are based on sales taxes, on income taxes or something else has little more than narrow political interest (in the effects for particular local authorities).

Looking at the economic effects of tax sharing it seems to be a rather unwieldy kind of grant. The size of such grants depends on the revenue of certain central taxes and is outside macroeconomic control by the centre, it does not allow for funding of new mandates, and seems mostly to be a de-
fence used by local authorities who do not trust the centre. It does not require dialogue and negotiations between the levels.

*Own taxation* then would be the choice in cases where there are dialogue and negotiations between the centre and the local sector, and where the value of accountability is appreciated.

The international experience as to choice of own local tax source are summed up in *table 6.*

**Table 6: Types of taxes used as own local taxes, per cent of total OECD local tax revenues including tax sharing revenues**

<table>
<thead>
<tr>
<th>Type of tax</th>
<th>Per cent of OECD total local tax revenues.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxes on income, profits and capital gains</td>
<td>28.9</td>
</tr>
<tr>
<td>Taxes on property</td>
<td>26.3</td>
</tr>
<tr>
<td>Taxes on use of goods and perform activities</td>
<td>3.9</td>
</tr>
<tr>
<td>Sales taxes, taxes on production etc.</td>
<td>2.5</td>
</tr>
<tr>
<td>Other taxes (mostly business taxes)</td>
<td>3.6</td>
</tr>
</tbody>
</table>

For details see OECD Network on Fiscal relations Across Levels of Government Working paper No. 2. OECD 2006. (This table is from table 5 in the OECD document.)

The table shows that the big local taxes are taxes on income and property. The use of sales taxes as own tax revenues is very rare and seems mainly to be used by some cities in the U.S.

The *property tax* has, from an economic point of view, few distorting effects. As a local tax source it has the disadvantage that the revenue depends on the property cycles and the frequency of property assessments and does not follow the local need for revenue. The political experience seems to have been that the property tax is too visible and is too much disliked to be used widely; the international experience seems to be that it has a revenue limitation of no more than about 3 percent of GDP.

A *local income tax* has unlimited revenue potential. The income tax has the advantage as a local tax that it expands automatically with the growth in the economy. But the income tax has undesirable incentive effects for the supply of labour. Local tax powers need some control.

**The Nordic local income tax (PIT) system**

The Nordic countries allow local authorities to impose an income tax with a rate of their own choice. It is a so-called "piggy-back" system.

The local authority votes a flat tax rate to be applied to the personal taxable income assessed for national income tax purposes. The local flat rate is added on the national progressive rates (see *graph 1*).

The costs of tax administration for such a local income tax are small because it is added on the existing central government income tax; the only extra requirement is that the residence of the taxpayers needs to be established.
The municipalities are free to set their own tax rate as they want to do it (see graph 2).

The variation in local tax rates has been declining. In Denmark, the variation is now of up to 5 percentage points. The same variation is seen in Sweden (variation in 2007 from 28.9 to 34.2 percent).

The variation in Finland is of the same magnitude, but with thinner “tails”. A recent OECD country report noted that a relatively large number of Finnish municipalities set their income tax rates between 18 and 19 percent. The OECD explained the more narrow distribution of tax rates in Finland as a result of a tacit agreement not to use the individual income tax to compete for good taxpayers.

**Do tax differences lead to migration?**

Economic theory would predict that such differences in income tax rates would induce migration and creation of tax havens.

Some “tax mimicking” is seen; municipalities do not like to get too much out of line compared to their neighbours, and they will mention the risk for the longer run that higher tax rates will lead to loss of good taxpayers. But still, these differences of up to five per cent in the income tax rate exist and there is no concern expressed about effects of migration in such a way as to make the income tax unsuitable as a local tax.
There seem to be no reason to expect that Nordic people are less mobile than people in other parts of the world. They spend hours commuting daily to and from work. But there may be several reasons why tax-induced migration is not an issue.

- One explanation may be that the range of variation is much reduced by the strong Nordic systems of equalisation of differences in local tax capacity and expenditure needs (this will be discussed later).
- Another could be that local tax differences are, to some degree, capitalised in property values that will reduce incentives to move.
- Thirdly, there may be a perceived correspondence between taxes and service levels, so that high taxes are seen as a sign of high quality public services.

**A maximum limit for local tax rates?**

There is a risk to be considered that local authorities may be tempted to use the income tax for excessive local tax increases.

While this concern has not (yet) been felt in Sweden, it has, in Denmark, lead to the formalised system of negotiations.

In Norway, the answer has been the introduction, many years ago, of a maximum for the local tax rate. The result has been that all Norwegian municipalities apply the capped rate. The explanation for this result is that the local authorities fear that, if they lower the tax rate, they are sending the message that they have enough money, and they may lose their share of the central discretionary grants.
The situation is somewhat similar in Iceland.

The lesson from Norway is that, if you want to use the income tax as an own local tax, you either do it unlimited or you do it as a tax sharing arrangement – and, as has been argued, the latter is probably inferior to not doing it at all.

**Local income tax for companies?**

In general, the Nordic local income tax rates apply to personal income only. This includes the flat rate tax on capital income in the Nordic “dual income tax system”.

100 years ago, when the local income tax was introduced, it applied also to company income, but when companies moved their headquarters to low tax authorities, the local tax was changed into a shared tax.

But tax sharing created other problems, not with the taxpayers, but with the local authorities who began to fight legal battles over who had the right to the revenue from companies with operations in more than one municipality - like branches of banks or gasoline stations.

It is difficult to see any clear benefit type arguments for a local company tax, so it is difficult to design rules for a “fair” distribution of the revenue shares. The local services for companies are few. And apart from roads, they are mostly paid for directly with fees and charges.

A local company tax also scores low from an accountability point of view. Out-of-town investors have no local voting rights, and local voters will have every reason to tax them instead of paying the tax themselves.

The revenue from the company tax is subject to strong cyclical shocks and in Denmark the revenue share is for this reason paid to the local authorities with a three year lag to at least make fluctuations foreseeable in the local budget process.

And finally, considering the high degree of Nordic equalisation of differences in tax capacity, it looks awkward to maintain the right for municipalities to such an unevenly distributed revenue source.

Consequently, the local tax on company income was abandoned in Norway and Sweden. Both Denmark and Finland have recently cut the local share. But in 2003, the Norwegian government decided to re-establish a tax sharing system for company taxation. The political argument was the incentive for the municipalities to attract business.

**How to transfer the revenue to the local authorities?**

The tax collection is through withholding by the employers. To whom the employers forward the taxes has important consequences – one of these details where the devil can hide.

**Transfer mechanism in Sweden and Denmark**

In Denmark and Sweden, the employers transfer the revenue to the central government, and the government then transfers the revenue for the local authorities to each authority in monthly amounts.

But the amount is not the actual amounts collected from the taxpayers. Each local authority instead receives the revenue they have voted in their budgets with reconciliations to be made in subsequent years.
In Sweden the local authorities must use in their budgeting the central government estimate of the growth in taxable incomes foreseen for the coming year.

In Denmark the local authorities are free to base their budgets on their own local expectation of the growth in taxable incomes for the following year.

In both countries the immediate relationship between the economic cycle and the local revenues is broken so as to protect the local authorities against unforeseen cyclical swings.

Transfer mechanism in Norway

In Norway, the employers transfer the revenues to the municipalities; they keep their share for themselves and forward only the central share.

This means that, in Norway, the local authorities bear the risk of cyclical swings.

It has been empirically demonstrated that the local authorities react in an asymmetric way to external shocks\(^7\). When there is an upswing, they can increase spending. When the cycles change, they increase taxes. In Norway, they cannot increase taxes and instead they complain that they cannot afford their service delivery, and often their demands are heard and they are compensated for this “loss”. This has in periods caused stronger growth in local spending in Norway that in the other Nordic countries.

Proposals have been made to change the system to that of one of the other Scandinavian countries, but the local authorities have managed so far to prevent parliamentary approval.

Can local taxation be controlled - accountability or irresponsibility?

A powerful local source of taxation has several advantages.

Seen from the central government point of view, it deprives the local councils of the possibility of blaming the central government for failing delivery of local services because of lack of funds made available to them.

Furthermore, from a MOF point of view, a combination of small ex ante vertical imbalances and free local taxation rights may be seen as a recipe for obtaining better local efficiency.

The own local income tax is fiercely defended by the local authorities in the Nordic countries. They argue that their own taxation rights result in accountability, making the behaviour of the local authorities more responsible.

But there are risks as well.

In some cases the local councils do not see tax increases as very undesirable when the alternative is to confront the employees’ organisations and make savings on the expenditure side.

In Sweden, the local income tax rate (municipal and county) has increased over 12 years from 1995 to 2007 by 1 percentage point (from 30.5 to 31.6); in Denmark, the local income tax rate increased by close to 3 percentage points from 1995 to 2008.

While there has been as yet no concern about the increases in the local income tax rates in Sweden, there is concern in Denmark. The Danish government introduced, in 2002, a “tax freeze”, meaning

---

that the average local tax rate is not allowed to increase. If it does increase, the central government will have to neutralise the effects by reducing the central income tax rate correspondingly.

The Danish agreements with the local government associations not to increase tax rates is, these days, in a minor crisis. A large number of the members of the local government associations seem to have lost respect for the collective agreements made by their association.

**Need local taxation rights to lead to high public expenditure?**

Why is it so difficult? Some have concluded that there may be an economic law that own local taxation must result in big government, either because local governments are more incompetent and corrupt than central governments (Vito Tanzi\(^8\)) or because local governments are closer to the people and more aware of their needs (Ernesto Stein\(^9\)).

It is an undeniable fact that the Nordic countries with powerful own local taxation and decentralised welfare services are also high-tax countries.

**But** in the OECD, there are also high tax countries with very limited if any local taxation powers (Austria, Netherlands, Norway, and France).

And Switzerland is an example of a decentralised country with own local taxation and a small public sector.

This kind of comparison does not support the idea that local taxation powers need to lead to high levels of taxation. The risk of local irresponsibility needs to be faced and there are many instruments that can be used.

Independent academics and the OECD have put an interesting solution forward for the case of Denmark. They propose a system of tradable permits to tax-increases. This proposal has so far failed to gain political support, being seen as too radical and untried - and perhaps a bit too effective for political comfort?

**Conclusions on the Nordic local income tax**

The experiences on the use of local income taxation have been that:

- The local income tax is a big revenue raiser yielding local revenues of up to 15 per cent of GDP.
- Income taxes have undesirable side effects and the central government needs to have some control of the total level of the marginal tax rates.
- Maximum limits on local tax rates tend to result in disappearance of variation in rates.
- The variation in local income tax rates has been declining over time but is up to 5 per cent, but tax induced migration has not been noted. There are several explanations why this is so.
- Local taxation of companies is administratively complicated and is difficult to defend from a benefit taxation view.
- It has been found desirable to put a damper on the cyclical local revenue fluctuations cycle in order to avoid unforeseen cyclical swings in local tax revenues.

---


5. Local government tax base equalisation

There are considerable differences between municipalities in the tax base per capita. In Denmark, the poorest municipality has a tax base 24 per cent below the national average (in Sweden 21 per cent) and the richest is 100 per cent above the average (in Sweden 174 per cent).

With such differences in the tax base it is obvious that strong local government equalisation is needed.

This equalisation is, in the Nordic countries, done in such a way that the rich authorities do not escape. When the tax base for an authority is higher than the level used as a benchmark for paying equalisation grants, such authorities have to pay a contribution to the state. This system is much disliked by the rich municipalities and, while originally financial neutral for the centre, now only a few very rich municipalities contribute.

This “Robin Hood”-feature creates more complete equalisation than in countries that leave the rich authorities untouched. But the major reason for its use in the Nordic countries is that it permits grants to be used for general financial adjustments between the state and municipalities.

The design of this feature is described in *(table 7)* comparing equalisation systems on the revenue side in the Nordic countries

**Table 7: Subsidies, contributions (per cent of municipal potential tax revenue), and brackets (per cent of national average income tax base) for revenue equalization in the Nordic countries, recent year**

**Subsidies** (poor municipalities receive):

<table>
<thead>
<tr>
<th></th>
<th>Rate of subsidy</th>
<th>Bracket, up to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>95 pct.</td>
<td>-115 pct.</td>
</tr>
<tr>
<td>Norway</td>
<td>90 pct.</td>
<td>-110 pct.</td>
</tr>
<tr>
<td>Denmark</td>
<td>85 pct. 45 pct.</td>
<td>-90 pct. 90 -100 pct. *</td>
</tr>
<tr>
<td>Finland</td>
<td>100 pct.</td>
<td>90 pct.</td>
</tr>
</tbody>
</table>

**Contributions** (rich municipalities have to pay):

<table>
<thead>
<tr>
<th></th>
<th>Rate of contribution</th>
<th>Bracket, from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>85 pct.</td>
<td>115 pct. (from 2006)</td>
</tr>
<tr>
<td>Norway</td>
<td>50 pct.</td>
<td>134 pct. (from 2004)</td>
</tr>
<tr>
<td>Denmark</td>
<td>85 pct.</td>
<td>120 pct.* (from 2006)</td>
</tr>
<tr>
<td>Finland</td>
<td>40 pct.</td>
<td>90 pct.</td>
</tr>
</tbody>
</table>

* Approximation
The incentive argument against equalisation

Rich authorities often manage to sell the theory that a high degree of equalisation removes the incentives for local authorities to "develop their own tax base".

The argument was used by the Norwegian government when, in 2003, it re-introduced a local share of the company tax that it had abandoned in 1999.

In a Swedish government report¹⁰ this argument was thoroughly analysed.

It argued that local politicians want to be re-elected, and the best way to secure re-election is to create activity and local income. This was seen as a much more potent incentive than whether or not new business activity contributes directly to the coffers of the local authority.

The incentive to develop own tax base can only be a marginal argument when comparing advantages to disadvantages of equalisation.

---

¹⁰ Söderström, Lars (1994) "Utjämning och kommunala incitament" Bilaga 8 to Betänkningande från beredningen för statsbidrag och utjämning i kommunsektorn. SOU 1994:144
APPENDIX

On equalisation of differences in local expenditure needs

As a general statement, even when there is no significant use of own taxation there may be a need for equalisation.

This need arises if the functions delegated to local authorities have redistributive effects like from the median taxpayer to families with school children or to elderly citizens. When this is the case the citizens in local authorities with relatively many children or elderly will suffer from horizontal inequality. Then the idea of local taxation as “benefit taxation” does not work without equalising for the differences in expenditure needs.

Even with many functions with distributive effects like in the Nordic countries, differences in expenditure needs per capita are smaller than the differences in tax base. In Denmark the highest need per capita is 14 per cent above the national average and the lowest 14 per cent below. The official measures of needs gives cities somewhat higher expenditure needs than average (Copenhagen +4 pct.) but questions as to whether this takes sufficient account of the social problems of the cities is discussed.

Equalisation of differences in expenditure needs can be done in one of two ways: either using earmarked, often matching, grants or using general equalisation grants based on measures of objective criteria for expenditure needs.

OECD data for 2004 suggests, for Canada, an extensive use of earmarked - though not matching - grants (table 8).

Table 8: Grant revenues of local governments by type of grant as a per cent of total grant revenue, 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>Earmarked grants</th>
<th>Non-earmarked</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Matching</td>
<td>Non-match. capital</td>
<td>Non-match. current or both</td>
</tr>
<tr>
<td>Canada</td>
<td>-</td>
<td>4.3</td>
<td>91.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Denmark</td>
<td>37.9</td>
<td>-</td>
<td>.8</td>
</tr>
</tbody>
</table>

Equalisation based on objective criteria

However, since the 1970s, there has been a strong movement in many countries away from using earmarked grants. Earmarked grants, and in particular the matching version, were criticised for giving incentives to spend more than needed and for distorting local priorities. In Denmark, as in other countries, numerous examples could be described of unintended and undesirable effects of these often many grants. They fostered large bureaucracies, and there was no co-ordination.

The member governments of the Council of Europe’s “Charter of Local Self-Government” (1985) have committed themselves to: “As far as possible, grants to local authorities shall not be ear-
marked for the financing of specific projects. The provision of grants shall not remove the basic freedom of local authorities to exercise policy discretion within their own jurisdiction.”

However, in many cases it turned out to be not without problems to replace earmarked matching grants with the use of general objective criteria measuring local government expenditure needs.

In Denmark, this policy resulted in considerable financial problems for the cities. The problem was that matching grants are powerful equalisers for differences in spending needs, and the complexity of all these needs were not fully realised when the general grants became distributed according to unsophisticated demographic criteria. This way some of the compensation for the special city-type social problems disappeared.

The search for better criteria for social policy needs became vital for the cities. Copenhagen city succeeded, after some years of economic hardship, in convincing the government of this problem, and the government introduced, as proposed by Copenhagen, the so-called social “umbrella-variables” in the measure of expenditure needs.

**The needs of the cities and the calculation of expenditure needs**

The problems of finding acceptable objective criteria for measuring expenditure needs that also capture the special social policy needs of the cities are formidable.

The standard procedure for selection of the needs criteria and the determination of their weight in calculating expenditure needs is based on empirical studies of their significance when regressed against the variation in local expenditure per capita.

The measures of needs have become quite complicated as demonstrated by the criteria used in the Danish, Norwegian, and Dutch measures of expenditure needs (table 9).

The table reveals how countries have included different “umbrella-variables” that they find describe the special expenditure needs of the cities, be it criteria for housing conditions, unemployment and low income, education and health status, all based on statistical estimates. In Canada the share of aboriginals would be an obvious criterion.

These regression analyses can yield highly significant results for the chosen variables, but they rarely explain more than half of the variation in local expenditure per inhabitant. Some observers – in particular in Sweden - believe that this is too little.

Another common criticism is the so-called “chicken and egg” problem, that the spending patterns used as dependent variables are products of the grants distribution in previous years.

While recognising this, the use of regression analysis is generally standard in the design of equalisation systems in many countries, but it is recognised that value judgements cannot be avoided. Copenhagen city has a tax base 4 per cent higher than the national average, and expenditure needs – according to the official measures - are also 4 per cent higher. All together Copenhagen receives 10 per cent of the total municipal grants and has 10 percent of the total population. This is enough for the government to defend it, and too much for the cities to criticise convincingly.
Table 9: Expenditure needs criteria in equalization systems in Denmark, Norway and The Netherlands, 2007

<table>
<thead>
<tr>
<th>Denmark Expenditure needs criteria</th>
<th>DK Weight Pct.</th>
<th>Norway Expenditure needs criteria</th>
<th>N Weight pct.</th>
<th>Netherlands Expenditure needs criteria</th>
<th>NL Weight pct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age groups:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-6</td>
<td>9,8</td>
<td></td>
<td>2,5</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>7-16</td>
<td>21,2</td>
<td>Basic subsidy</td>
<td>6-15</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>17-19</td>
<td>1,1</td>
<td>Age groups</td>
<td>16-66</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>20-24</td>
<td>2,0</td>
<td>0-15</td>
<td>67-79</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>25-34</td>
<td>5,4</td>
<td>6-15</td>
<td>80-89</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>35-39</td>
<td>2,9</td>
<td>16-66</td>
<td>90 years or more</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>40-64</td>
<td>11,7</td>
<td>67-79</td>
<td>16-59 years divorced</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>65-74</td>
<td>4,2</td>
<td>80-89</td>
<td>16-59 years unemployed</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>75-84</td>
<td>5,6</td>
<td>90 years or more</td>
<td>1-4</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>85 years or more</td>
<td>4,8</td>
<td>16-59 years divorced</td>
<td>3,8</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Commuting time</td>
<td>1,4</td>
<td>16-59 years unemployed</td>
<td>1,1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>20-59 years unemployed &gt; 5%*</td>
<td>5,4</td>
<td>Commuting time</td>
<td>1,5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>24-49 without vocational training*</td>
<td>5,2</td>
<td>Travel distance I</td>
<td>1,0</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Rented dwelling*</td>
<td>1,5</td>
<td>Travel distance II</td>
<td>1,1</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Psychiatric patients*</td>
<td>1,5</td>
<td>Mortality</td>
<td>2,5</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Families in certain types of dwellings*</td>
<td>4,5</td>
<td>Immigrants</td>
<td>0,5</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Children of poorly educated parent*</td>
<td>4,5</td>
<td>16 years or more mentally handicapped</td>
<td>6,6</td>
<td>Selected physical features</td>
<td>17</td>
</tr>
<tr>
<td>Single more than 65 years old*</td>
<td>0,7</td>
<td>Less than 16 years mentally handicapped</td>
<td>0,4</td>
<td>Population characteristics</td>
<td>7</td>
</tr>
<tr>
<td>Low income individuals*</td>
<td>3,0</td>
<td>Degree of urbanization</td>
<td>4,2</td>
<td>Tax capacity</td>
<td>-20</td>
</tr>
<tr>
<td>Handicapped*</td>
<td>1,5</td>
<td>Rural districts</td>
<td>0,5</td>
<td>Other</td>
<td>6</td>
</tr>
<tr>
<td>Immigrants and descendants*</td>
<td>0,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of living years lost*</td>
<td>0,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decline in populations numbers*</td>
<td>0,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>