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

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You Get What You Pay For: How Nordic Cities Are Financed[1]

Jorgen Lotz

Abstract
The Nordic countries are small, unitary, and have largely homogeneous populations. Municipalities are the most important agents in the decentralized public sector and the middle tier (the county level) is losing importance. The expenditure of Nordic local authorities exceeds that in Canada by 10 percent of GDP. The difference represents the effect of local income taxes. Large local expenditures are for kindergartens, primary schools, social welfare, care for the elderly, and culture. These welfare functions are not, however, local public goods; local governments serve mostly as agents for the delivery of national public services. This situation creates complicated problems of control. Amalgamations in several Nordic countries have been carried out to improve the capacity of local authorities to deliver services. Other approaches include joint production and contracting out. The local income tax is a big revenue-raiser, but has some undesirable side effects. Some Nordic countries have a company tax, but this tax raises questions of accountability and fairness, and has been phased out in several places. Nordic countries use methods of tax base equalization which transfer contributions from wealthy jurisdictions to poorer ones. Equalization also involves complicated efforts to deal with the special expenditure needs of cities.

Keywords: Denmark, Finland, Iceland, Norway, Sweden, decentralization, social welfare, municipal amalgamation, local income tax, tax base equalization
JEL codes: H2, H7, R1, R5

1.This paper is based on remarks made in Toronto in March 2008.

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

1. Introduction

The Nordic countries, which include Denmark, Finland, Iceland, Norway, and Sweden, are small, unitary, and homogeneous. Their public sectors are large and decentralized, with municipalities being the most important agents. The middle tier is losing importance and perhaps disappearing. However, these countries also have pronounced regional policies that may not always be seen as fair to the cities. 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 depend on differences in the basic characteristics of societies.

The population of the Nordic region in total is 24 million. Sweden is the largest country, with nearly 9 million people. My own country, Denmark, has a population of 5.5 million. The biggest Nordic cities—the capitals—have only 1 or 2 million inhabitants.

Since the populations are homogeneous, it could be argued that decentralization is easier when people share the same cultural values. But it could also be asked: why decentralize 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.

1.1 What Nordic people pay for

These countries all have large public sectors. The tax-to-GDP ratios are among the highest in the OECD, close to 50 percent compared to a bit more than 30 percent in Canada. But Nordic citizens also get what they pay for: there is free education, free hospital care for everybody, free old age care equally available for all in need of it, and a place in a subsidized nursery or kindergarten guaranteed for any child who wants it.

The share of local government budgets in the total public sector is much higher in the Nordic countries than in other OECD countries. All individual welfare services are delegated to local authorities. Only policing is a central function.

Local environmental services are also municipal, although they have mostly been contracted out. Utilities may be publicly owned, but their functions are increasingly being performed by companies owned by public or private investors. Not long ago, the law required them to be financed strictly by cost-based fees, but to encourage competition, profits are now permitted except for water distribution and purification, where cost-based fees are still the rule.

A few functions, like urban public transport, require special organizations. In Denmark, for example, metropolitan transport is provided by a multi-regional organization, but rail service is still run by the central government.

Table 1 shows the high local government shares of the total work force in the Nordic countries compared with Canada.

Table 1
Local government share as a percentage of total national employment, 1999

Finland	Sweden	Denmark	Norway	Canada
21	26	25	24	7

Table 2
Local revenues as a percentage of GDP, 2002

Country	Local taxes	Grants	Total
Canada	2.9	3.0	5.9
Sweden	16.2	5.7	21.9
Denmark	16.5	5.5	22.0

Source: OECD 2006. Percent of GDP own calculation based on total tax to GDP in OECD 2003.

Decentralization is not only on the expenditure side. As Table 2 shows, much higher local tax revenues than in Canada are collected to finance these higher expenditure level.

1.2 The regional policy aspect

Like Toronto, Copenhagen was recently the subject of an OECD study. Both cities presented outlines stressing the same issues, including the importance of "quality of life." Both see themselves as being near the top of the league of "nice places to live." Both also complained that the central government does not understand 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 national growth and welfare. As a result, both felt that their special needs are not sufficiently reflected in the policies of the central government.

Many of their concerns relate to discretionary decisions on infrastructure investment made by the central government in the name of regional policy. Why build highways in thinly populated regions of the country when the traffic congestion is found in the cities? Why locate government institutions in remote regions? Why build regional universities and university hospitals in countries that are no bigger than a medium-sized Canadian province?

There are several reasons why cities may not always be fairly treated. One is the regional divisions in Parliament, since rural areas sometimes are disproportionately represented. Another reason is that national Parliaments may fear losing power to the big cities. This is not necessarily because the cities are run by political opposition parties, since the suspicion is there even when both cities and the country are governed by the same political party and even though the parties at local elections are mainly the same as those represented in national elections. For these reasons, even quite sensible proposals from big cities, such as reducing pollution or improving traffic regulation, are often turned down.

Criticism from the cities is sometimes aimed not only at regional policies, but at the design of local government equalization. In some countries, it is questionable as to whether indicators of expenditure needs fully describe city needs. The equalization of tax base differences has also been criticized, although this argument may be overstated, as discussed later.

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

2. Local government functions

In the Nordic countries, the size of the local government economy is larger than that of Canada by more than 10 percent of GDP, largely because local governments spend much more on health and social policy purposes than Canadian local governments do (see Table 3).

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

Nordic local councils are elected for a four-year period. Councils elect their mayor. There are strict central rules protecting minority parties and guaranteeing openness. The size of local governments has increased over time, sometimes by individual amalgamations, sometimes by more comprehensive reforms. Table 4 shows the average population size of the two levels of local government—the counties and municipalities.

Some Nordic countries still have a middle tier (the counties). For the first half of the 20th century, the middle tier was an agent of the central government, and its role was to supervise the municipalities. This is no longer true: counties play no

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

	Average OECD non-Nordic countries	Canada 2006	Nordic* average
Local govt. expenditure, percent of GDP	9.2	17.4	19.1
Local welfare expenditure, percent of GDP**	4.2	3.6	12.3
Local current revenue (taxes, fees and grants), percent of GDP	9.0	7.4	19.7
Local income tax revenue, percent of GDP	1.3	0.0	10.6

**Denmark (data before 2005 reform), Finland, Iceland, Norway, and Sweden.*
*** Education, health, old age care, and other social services.*
Source: OECD (2002) and IMF (2002). Canada: information obtained from Enid Slack

Table 4
Average size of local authorities in Nordic countries

Average size	Finland	Sweden	Denmark before 2006	Denmark as of 2006	Norway	Iceland	Canada
Municipalities	11,400	30,700	19,500	54,000	10,300	2,200	6,900
Counties	—	422,000	355,000	1,100,000	235,700	—	*
National population	5,146,000	8,861,000	5,330,000	5,330,000	4,478,500	278,700	31,610,000

**Canada does have some counties, but their constitution and powers differ across the country.*

role today in supervising municipalities. However, they have their own functions, most importantly health and hospitals, complicated social care, and a role in public transport, planning, and environmental protection. Counties seem today out of favour with the Nordic Parliaments, and efforts are being made slowly to deprive them of functions. They have recently been abandoned in Norway. In Denmark in 2007 they were replaced with fewer and larger regions, but without their own taxation rights and with much more limited functions. Copenhagen lost its middle-tier functions (hospitals), some of its planning functions were transferred to the new Capital region, and public transport was made the responsibility of a regional agency.

Municipal functions include kindergartens, primary schools, social welfare, old age care, and care of the disabled. Efforts have been made to strengthen central government control with educational policies and standards, and also standards for old age care. But local priorities are established by municipal councils. The Ministry of Finance favours this policy, because there are allocation gains from allowing some variation in standards for buildings, teaching materials, and old age care.

However, municipalities are being challenged. In the name of free choice and competition, efforts are being made to find other actors and to bypass the local authorities by, for example:

- decentralization of functions from municipalities to their institutions;
- contracting out;
- introduction of criteria for citizens' rights to some public services;
- limitations on the allowed differences in local service inputs;
- introduction of free choice for the citizens to choose suppliers.

The role of local government is these days exposed to conflicting strategies for more central control or for more competition to improve efficiency and the quality of services.

2.1 Decentralization of welfare services or centralization of municipalities?

I shall now turn to the question of why the Nordic countries have pursued decentralization policies in spite of their homogenous populations. 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 United States after the Second World War. He went to Harvard and was there inspired to look at the long-term trends in local government functions in the United States, the United Kingdom, Denmark, and Sweden from 1850 to 1950 (Philip 1954).

He found very similar trends to those already described. The traditional "local public goods" such as street lighting, waste removal, and building permits played an ever-decreasing role in the agenda of municipal councils. They had been displaced by social welfare services. This process he described as a period of centralization. His argument was that the traditional functions for local governments—local public goods like water supply, streets, building permits, and street lighting—had been displaced by mandates to deliver an increasing number of national welfare goods.

This same trend has continued since 1950 in the Nordic countries. Our municipalities find it hard to accept that schools, old age care, and the like are not really *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 studies of the quality and costs for services delivered by local branches of national services compared with the same services delivered by local elected councils. By continuing the transfer of new mandates to local authorities, however, the national political majority has demonstrated its conviction that decentralization of the delivery of these services has resulted in more consumer-friendly and flexible delivery than the alternative of centrally organized delivery.

However, it can be difficult to decentralize delivery of functions so closely related to national redistribution. Nordic local authorities provide redistributive services, and redistribution is a national concern, especially when populations are homogeneous and have quite similar and strongly egalitarian preferences. Hence there is an ongoing discussion with local authorities on how best to ensure that local authorities live up to the national aspiration for service quality.

Local authorities tend to argue that one should only control the outcome (do the school children learn to become good citizens?), while Parliament tends to concentrate on the harmonization of inputs (is the ratio of children to teachers low enough everywhere?). If the local arguments were followed, it would take many years before Parliament could act to correct local service failures. But political problems arise because the press often finds examples of what they present as service failures, the mayors involved sometimes complain that the problems arise because grants are too small, and the central government expects mayors to take responsibility for allocations within their own budgets.

Some of my Scandinavian colleagues feel 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 busy delivering central redistribution services. Then you tend to see local government provision of welfare services more as an administrative convenience rather than as part of a system based on welfare economic principles. This has been described as a "European view," which differs from the teachings of well-known American professors such as Tiebout, Musgrave, and Oates (Rattsoe 1998).

2.2 Amalgamations—a Danish reform

There is considerable concern in the Nordic countries about how to improve the capacity of local authorities to deliver better-quality services. One way is to increase the size of small municipalities. Amalgamation reforms are rare and usually politically unpopular. A famous example was a Greek amalgamation reform about 20 years ago that cost the government its political tenure. Ontario, Canada, went through an equally unpopular reform in the 1990s. On the other hand, devolution in the United Kingdom led to a popular amalgamation reform in Scotland.

The successful Danish amalgamation reform in 2006 reduced the number of municipalities from 273 to 98. The Danish reform was basically based on voluntary amalgamations, although the word "voluntary" may need to be qualified. The government aimed at a minimum municipal size of 30,000 inhabitants. The alternative offered to small municipalities that did not want to amalgamate was to enter into binding agreements with other municipalities for certain functions. They would have to take what the neighbouring municipalities offered and pay the price they asked. And, although the government said amalgamation was voluntary, municipalities knew that if they refused, the government had majority support in Parliament for the reform. Very few municipalities chose the binding agreement option.

The minister in charge of the reform has received many foreign visitors who asked how he accomplished these amalgamations. He explains that the way he planned the process was decisive. He first created general support for the idea that the delivery of a number of central and county services would improve if these services 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. And then he disclosed the new distribution of functions, the related revisions of the equalization systems with appropriate dampers to reduce the annual fluctuations, and the financial consequences showing who would gain and who would lose only *after* the amalgamations had occurred.

2.3 Amalgamation policies in the other Nordic countries

Amalgamations may occur as a slow trickle of individual mergers. For 15 years, Finland offered financial incentives encouraging mergers that has resulted in a slow stream of voluntary amalgamations. Iceland has been through a long process of amalgamation, but 40 percent of the municipalities still have fewer than 200 inhabitants. And Sweden has had a slow but continuing process of voluntary amalgamations, but is now considering a new approach.

Table 5
Optimal municipal size, some Danish empirical results

	"Optimal" municipal size, total	Administration	Primary Schools
Indenrigsministeriet (2000) and Møller & Mau (2001)	18,000–25,000	18,000	50,000–75,000
Houlberg (2000)	30,000–35,000	30,000–50,000	100,000
Finansieringsudvalget (2004)	35,000–45,000	*	*

Source: Lotz (2006).

2.4 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 variations in municipal spending with municipal size in Denmark. Table 5 shows the resulting optimal "firm-size" of some of these studies.

Empirical tests of economies of scale in local government functions are difficult to make. The effects may be difficult to find in the spending data, because if they exist, they may have been already exploited by cooperation or contracting out. Moreover, for reasons of data availability, most tests have been 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.

Recently, however, some Danish "plant-specific studies" have been published comparing the spending of municipal institutions with their size, as measured by number of users. These studies find weaker economies of scale than the studies of firm-specific effects did. For example, it was shown that there may be some economies in the size of elementary schools, but big municipalities do not have proportionally more large schools than the small ones.

Economies of scale may not be the only factors affected 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 of the effects over a ten-year period of a large number of municipal amalgamations in the 1970s suggested that amalgamations in the long run resulted in higher growth rates of spending than for municipalities of the same size that had not amalgamated (Moisi and Usitalo 2006).

All in all, the 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 and have not already been exploited, merging municipalities will suffer from other and stronger opposite effects.

2.5 Alternatives to amalgamations

As an alternative to amalgamation, *joint production* by several small local authorities is also being used. Finland is the extreme example, in that it has no middle tier and associations of municipalities run hospitals. The Danish Committee that prepared the amalgamation reform in 2005 compared the advantages and drawbacks of cooperation compared to those of amalgamations and concluded that amalgamations were preferred, because municipal cooperation dilutes political responsibility for service delivery.

Contracting out may also be an alternative to amalgamation. International surveys suggest savings of 20 to 30 percent from tendering out functions to the private sector. A recent Danish survey of savings from cleaning in schools covered the cleaning policies in 1081 primary schools (Christoffersen and Paldam 2001). The study measured the plant-specific economies of scale for three groups of schools with different declared standards of cleaning (making it possible to control for the quality of the cleaning). The results were that when cleaning was organized by the individual schools, economies of scale were absent, when it was organized centrally by the municipality there were savings of 10 percent, but where it was contracted out, the savings were 30 percent, and for the biggest schools as high as 40 percent. In spite of these savings, tendering out is not easy to sell. It meets resistance from employees and local politicians often shy away from conflicts with them.

Recently, a Danish newspaper published an opinion survey showing that only 25 percent of the population believed that there were savings to be made and 29 percent even thought that the service would decline. Of course, one should remember that in Denmark, 25 percent of the workforce is employed by local government!

3. Grants policies

3. 1 Negotiations with local government associations

In Denmark, grants to local government have for more than 25 years been negotiated in formal, annual discussions between ministers from the central government and the chairs 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 television news with interviews with ministers and top local politicians.

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

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

But there is more to this system than the control of local tax rates and spending. The discussions cover a wide range 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 criticize. This is important in a country with proportional representative democracy, where governments more often than not are minority governments.

During the year, between the annual agreements, all new legislation proposed by government that has consequences for local government functions must also be discussed with the local associations, a point to which I shall return. The involvement of municipal expertise in the drafting of new legislation improves the quality of new legislation with respect to the ease of administration at the local level.

Though a formalized system for negotiations like that in Denmark does not exist in the other Nordic countries, dialogue and cooperation with associations of local authorities is a common feature. The Nordic model is thus generally built on a continuing dialogue between the central and the local levels. The formalized system of dialogue with annual negotiations in Denmark has contributed to better governance and better legislation on the public sector.

3.2 Countercyclical grants

Gap filling and soft budget constraints are to be avoided for individual local authorities. But it is another thing when the annual grants in Denmark fill the gap in the local-sector budgets between the overall level of spending that the government sees as necessary and the tax revenue that can be expected without raising local taxes. This means that grants are countercyclical, in that the local government sector is protected from the foreseeable effects of the economic cycles. But this guarantee is for the local sector as a whole, and is not extended to the individual local authorities.

Many additional mechanisms 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 increases 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 in Denmark is based on collections two years earlier.

3.3 Unfunded mandates for local authorities

Cyclically neutral grants-financing for the planned level of local spending implies that the central government must compensate also for local expenditure caused by new legislation, by delegating existing functions, or by changes in financing.[2] In Sweden this is normally the case. The Swedish grants system has been designed in such a way that a "neutral" grant distributed per inhabitant is available for the purpose.

In Denmark a different approach is used. The law requires that a minister who proposes legislation with economic consequences for local authorities must 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 he or 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 throughout the year and usually result in changes in the draft legislation, so that the local association agrees that the cost estimate is realistic, although it rarely results in the ministry paying more than planned.

This system sounds reasonable, but it has proved to be a source of much local dissatisfaction because, although the government compensates the municipal sector as a whole by increasing general grants, some municipalities always complain that the compensation is not distributed fairly to those who bear the more expensive consequences of new mandates. From the central government's point of view, however, such demands are impossible to satisfy, owing to the asymmetry of information. The central government has no way of knowing the financial circumstances of each single municipality, and obviously it cannot ask the local authorities, since no local authority would have an incentive to reveal its true costs if it knew that its compensation depended on this information.

According to Slack and Bird (2006), Canadian cities have unfunded functions and restricted taxation rights. In contrast, Nordic cities have fully grants-funded local functions and—in most cases—free taxation rights. In both cases, the central government is criticized, although in the Nordic countries, both sides find advantages in compensation for new functions, so that the local governments have some protection against unfunded new functions. In Denmark, the Ministry of Finance likes this system, because it prevents line ministers from proposing new and popular measures without having to find the financing. In contrast, the Danish Ministry of Social Affairs dislikes this rule, because every time it finds that local authorities are not living up to their intentions of social legislation and the Ministry wants to give instructions on how the law is to be interpreted, the local authorities claim compensation.

In any case, it is difficult for the Ministry of Finance to ensure 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. Usually eight to ten cases a year remain unresolved and have to be taken up in the annual

2. Such compensation is offered in nearly all European countries, see Lotz (2008).

negotiations between the Minister of Finance and the local association. In these negotiations, a solution is always found, often through agreeing on an unspecified lump sum increase in grants to cover all outstanding questions.

One might wonder why such compensation is paid to local authorities when they have their own taxation power. Shouldn't local governments have to pay for their own spending, and would it not result in more efficient solutions if they had to finance their spending themselves? Doesn't the equalization system solve the problem? One might even expect that local authorities would prefer to live without grants and the central control they bring with them.

Actually, one year, Danish counties did say that they did not want the grants. They were prepared to increase their own taxation, let the central government keep the grant money, and reduce its tax rates correspondingly. The Ministry of Finance found this proposal most unhelpful; the central government needs to pay grants, since grants are the best way to control local behaviour.

Grants thus serve three key functions. First, they are used to smooth out cyclical movements in the local finances. Second, they serve to compensate—not perfectly and in a much criticised way—for the costs of new functions delegated to the local level. And third, they are used by the central government as instruments of control.

4. Tax policy—the local income tax

When discussing which tax instruments local governments should use, the first decision to make is whether the system of "own taxes," whereby each local authority is free to set its own tax rate, is seen as an advantage or a problem. The advantage of accountability is that local tax increases have to be defended by better service to the local electorate or else be seen as result of poor local management. If the central government does not believe in local accountability, it may prefer grant financing. When this factor is combined with local mistrust of the central government, one can see why tax sharing in several countries is preferred by both sides to annually decided grants.

Tax sharing occurs when a percentage share of the central government revenue from, for example, income taxes or indirect taxes is transferred to local authorities—often not to those in which they were collected. 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. This approach does not allow for funding of new mandates and seems mostly to be a defence used by local authorities who do not trust the central government. It does not require regular dialogue or negotiations between the levels.

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

Table 6
Types of taxes used as own local taxes, percent of total OECD local tax revenues including tax sharing revenues

Type of tax	Percent of OECD total local tax revenues
Taxes on income, profits, and capital gains	28.9
Taxes on property	26.3
Taxes on use of goods and activities	3.9
Sales taxes, taxes on production, etc.	2.5
Other taxes (mostly business taxes)	3.6

For details see OECD (2006), Table 5.

The international experiences relating to the choice of own local tax source are summed up in Table 6.

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 United States.

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 property cycles and the frequency of property assessments and does not match the local need for revenue. The political experience seems to be that the property tax is too visible and too much disliked to be used widely. The international experiences seems to be that it has a revenue limitation of about 3 percent of GDP.

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

4.1 The Nordic local income tax system

The Nordic countries allow local authorities to impose an income tax with a rate of their own choice under the so-called "piggyback" 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 Figure 1). The costs of tax administration for such a local income tax are small, because it is based on the national income assessments; 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 wish (see Figure 2). The variation in local tax rates has been declining over time. The variation in Denmark is now up to 5 percent points. The same variation is seen in Sweden (variation in 2007 from 28.9 to 34.2 percent). The variation in Finland is

Figure 1: Income tax in Denmark, 2007

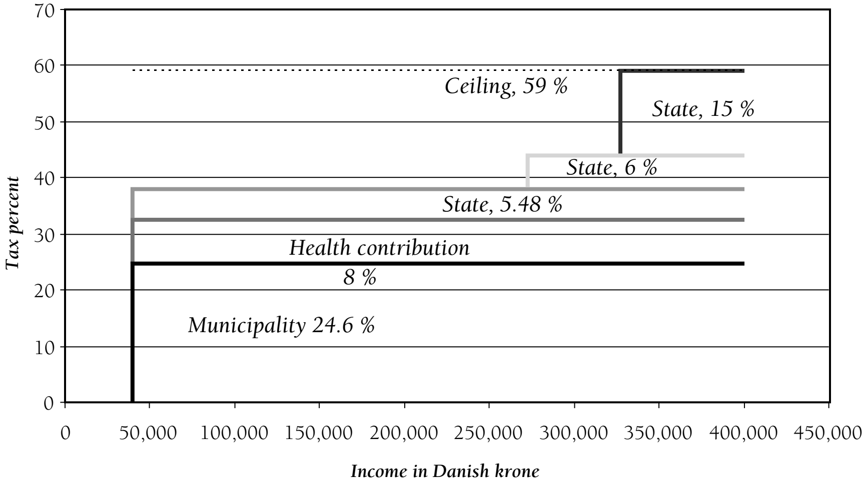
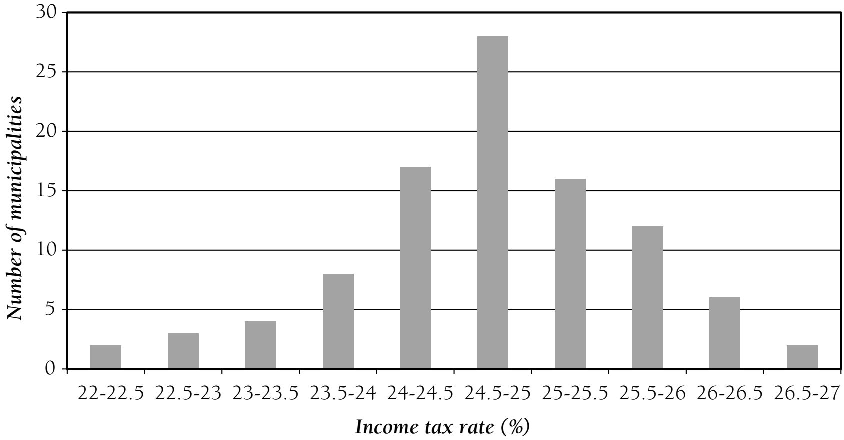


Figure 2: Municipal income tax rate, Denmark, 2007



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

4.2 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. This is why “tax mimicking” is seen: municipalities do not like to get too much out of line compared with their neighbours, and when questioned, officials mention the risk that higher tax rates will lead to loss of good taxpayers. Still, differences of up to five percentage points in the income tax rate exist and no concern is expressed about effects of migration in such a way to make the income tax unsuitable as a local tax.

Nordic people are no 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 in the region. One explanation may be that the range of variation is reduced by the strong Nordic systems of equalization of differences in local tax capacity and expenditure needs. Another could be that local tax differences are to some degree capitalized in property values, which would reduce the incentive to move. Third, 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.

4.3 A maximum limit for local tax rates?

One risk to be considered is that local authorities may be tempted to use the income tax for excessive local tax increases. Although this problem has not (yet) surfaced in Sweden, in Denmark it has resulted in a formalized system of negotiations. In Norway, the answer was 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, because local authorities fear that if they lower the tax rate, they are sending the message that they have enough money, and they will therefore lose their share of 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 without such limits or you do it as a tax-sharing arrangement—and, as has been argued, the latter option is probably inferior to not doing it at all.

4.4 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.” When the modern local income tax was introduced 100 years ago, 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 taxpayers, but with the local authorities, which began to fight legal battles over who had the right to the revenue from companies with operations in more than one municipality, such as branches of banks or gasoline stations.

Since it is difficult to make any clear benefit-type arguments for a local company tax, 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 a 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 make fluctuations foreseeable in the local budget process. And finally, considering the high degree of Nordic equalization of differences in tax capacity, it is simply awkward to maintain local municipal access to such an unevenly distributed revenue source.

For these reasons, the local tax on company income was abandoned in Norway and Sweden and both Denmark and Finland have recently cut the local share. However, in 2003 the Norwegian government decided to re-establish a tax-sharing system for company taxation, arguing that doing so would provide incentives for municipalities to attract business.

4.5 How to transfer the revenue to the local authorities?

Income tax is withheld by employers from their employees' payroll. To whom the employers forward this money has important consequences—one of these details in which the devil can hide. In Denmark and Sweden, the employers transfer the revenue to the central government, and the government then transfers the revenues for the local authorities to each authority each month. But the amount transferred is not the actual amount collected from the taxpayers. Instead, each local authority receives the revenue it has voted in its budget and reconciliations are made in subsequent years.

In Sweden, the local authorities must use in their budgeting the central government estimate of the growth in taxable incomes forecast for the coming year. However, in Denmark, local authorities are free to base their budgets on their own local expectations of growth in taxable incomes for the following year. In both countries, the immediate relationship between the economic cycle and the local revenues has been broken to protect local authorities against unforeseen cyclical swings.

In Norway, employers transfer revenues to the municipalities, who keep a share for themselves and forward the rest to the central government. This means that in Norway the local authorities bear the risk of cyclical swings. It has been empirically demonstrated that Danish local authorities react in an asymmetric way to external shocks (Rattsoe and Tovmo 1998). When there is an upswing, they increase spending. When the cycle is downward, they increase taxes. Since in Norway local authorities cannot increase taxes, they complain that they cannot afford to deliver services. Often their demands are heard and they are compensated for this "loss," so that at times there has been 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 of this change.

4.6 Can local taxation be controlled: accountability or irresponsibility?

A powerful local source of taxation has several advantages. Seen from the central government's point of view, it deprives local councils of the chance to blame the government for their own failure to deliver local services because of lack of funds made available to them. Furthermore, the Ministry of Finance sees a combination of small ex ante vertical imbalances and free local taxation rights as a recipe for obtaining better local efficiency. In addition, the local income tax is, where it exists, fiercely defended by local authorities in Nordic countries. They argue that their own taxation rights result in accountability and hence make local authorities more responsible.

But there are risks as well. In some cases, local councils do not see tax increases as undesirable when the alternative is to confront employees' organizations and save on expenditures. 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 percent 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. In 2002 the Danish government introduced a "tax freeze," meaning that the average local tax rate is not allowed to increase. If it does increase, the central government must neutralize the effects by reducing the central income tax rate correspondingly. The Danish agreements with the local government associations not to increase tax rates appears recently to be in a minor crisis, because many members of the local government associations seem to have lost respect for the collective agreements made by their association.

4.7 Must local taxation rights lead to high public expenditure?

Some observers 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 (Tanzi 2001) or because local governments are closer to the people and more aware of their needs (Stein 1998). It is undeniable that the Nordic countries with powerful own local taxation and decentralized welfare services are also high-tax countries. But in the OECD there are also high-tax countries with limited or no local taxation powers (Austria, the Netherlands, Norway, and France). And Switzerland is a decentralized country with own local taxation and a small public sector.

This kind of comparison does not support the idea that local taxation powers necessarily lead to high levels of taxation. The risk of local irresponsibility needs to be faced and there are many instruments that can be used to control local authorities. Independent academics and the OECD have put forward an interesting solution for Denmark. They propose a system of tradeable permits for tax increases. This proposal has so far failed to gain political support, as it is seen as too radical and untried—and perhaps a bit too effective for political comfort.

4.8 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 percent of GDP.

- Income taxes have undesirable side effects and the central government needs to have some control over the total level of the marginal tax rates.
- Maximum limits on local tax rates tend to result in the disappearance of variation in the rates.
- Variations in local income tax rates have been declining over time, although variations of up to 5 percentage points remain, but tax-induced migration has not been noted. Several explanations are offered why this is so.
- The local taxation of companies is administratively complicated and difficult to defend from a benefit taxation point of view.
- It has been found desirable to put a damper on the cyclical local revenue fluctuations in order to avoid sharp changes in the tax rates from unforeseen cyclical swings in the local tax base.

5. Local government tax base equalization

There are considerable differences between municipalities in tax base per capita. In Denmark, the poorest municipality has a tax base 24 percent below the national average (in Sweden the number is 21 percent) and the richest is 100 percent above the average (in Sweden it is 174 percent). With such differences in the tax base, it is obvious that strong local government equalization is needed.

Equalization in Nordic countries is 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 benchmark for paying equalization grants, such authorities have to pay a contribution to the state. This system is much disliked by the rich municipalities and, although originally it was financially neutral for the central government, now only a few very rich municipalities contribute. This “Robin Hood” feature creates more complete equalization than in countries that leave rich jurisdictions untouched.

Table 7 indicates the design of this feature by comparing equalization systems on the revenue side in the Nordic countries.

5.1 The incentive argument against equalization

Rich authorities often manage to sell the theory that a high degree of equalization removes the incentive for a local authority to “develop its own tax base.” The argument was used by the Norwegian government in 2003 when it reintroduced the local share of the company tax that it had abandoned in 1999. In a Swedish government report (Söderström 1994), this argument was thoroughly analysed. The report argued that local politicians want to be re-elected, and that 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 the local “own tax base” seems to be at most a marginal consideration when assessing the advantages and disadvantages of equalization.

5.2 On the equalization 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 equalization. This need arises if the functions delegated to local

Table 7
Revenue equalization in the Nordic countries, recent years

Subsidies (poor municipalities receive)		
	Rate of subsidy	**Bracket, up to**
Sweden	95%	-115%
Norway	90%	-110%
Denmark	85% 45%	-90% 90–100%*
Finland	100%	90%
Contributions (rich municipalities have to pay)		
	Rate of contribution	**Bracket, from**
Sweden	85%	115% (from 2006)
Norway	50%	134% (from 2004)
Denmark	85%	120%* (from 2006)
Finland	40%	90%

Note: Subsidies and contributions are in percent of municipal tax revenue. Brackets are in percent of national average income tax base for.
** Approximation.*

authorities have redistributive effects, for example, from the median taxpayer to families with school-aged children or to elderly citizens. When this is the case, the citizens in local authorities with many children or elderly will suffer from horizontal inequality. Then the idea of local taxation as "benefit taxation" does not work without equalizing for the differences in expenditure needs.

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

Equalization of differences in expenditure needs can be done in one of two ways, *either* using earmarked, often matching, grants *or* using general equalization 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 (see Table 8).

5.3 Equalization based on objective criteria

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 criticized for giving local authorities an incentive to spend more than needed and for distorting local priorities. In Denmark, as in other countries, numerous

Table 8
Grant revenues of local governments by type of grant, percentage of total grant revenue, 2004

Country	Earmarked grants					Non-earmarked		Total
	Matching	Non-matching capital	Non-matching current or both	Discretionary Current	Discretionary Capital	General purpose	Discretionary	
Canada	-	4.3	91.4	-	-	4.3	-	100.0
Sweden	-	-	-	0.7	28.1	71.3	-	100.0
Denmark	37.9	-	0.8	4.9	0.1	56.2	-	100.0

Source: OECD (2006)

examples could be described of unintended and undesirable effects of these grants. They fostered large bureaucracies, and there was no coordination.

The member governments of the Council of Europe's *Charter of Local Self-Government* (1985) have committed themselves to the following principle: "As far as possible, grants to local authorities shall not be earmarked 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 has turned out to be difficult 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 cities. Matching grants are powerful equalizers for differences in spending needs, and the complexity of all these needs was not fully realized when the general grants were distributed according to unsophisticated demographic criteria, since 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 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.

5.4 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 compared with 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 (see Table 9).

Table 9 shows how countries have included different "umbrella-variables" that describe the special expenditure needs of the cities, such as housing conditions, unemployment and low income, or education and health status, all based on

Table 9
Expenditure needs criteria in equalization systems in Denmark, Norway and the Netherlands, 2007

Denmark Expenditure needs criteria	Weight %	Norway Expenditure needs criteria	Weight %	Netherlands Expenditure needs criteria	Weight %
Age groups:		Basic subsidy	2.5	Inhabitants	23
0–6	9.8	Age groups		Dwellings	14
7–16	21.2	0–15	2.3	Age group 0–19 years	10
17–19	1.1	6–15	30.8	Local regional functions	9
20–24	2.0	16–66	12.0	High density	9
25–34	5.4	67–79	8.5	Low-income individuals	5
35–39	2.9	80–89	13.3	Social cash benefits	5
40–64	11.7	90 years or more	4.9	Social support	5
65–74	4.2	16–59 years divorced	3.8	Minorities	4
75–84	5.6	16–59 years unemployed	1.1	Regional functions	3
85 years or more	4.8	Commuting time	1.5	Pupils secondary education	3
Commuting time	1.4	Travel distance I	1.0	Selected physical features	17
20–59 years unemployed > 5%*	5.4	Travel distance II	1.1	Population characteristics	7
24–49 without vocational training*	5.2	Mortality	2.5	Tax capacity	–20
Rented dwelling*	1.5	Single 67 years or more	2.5	Other	6
Psychiatric patients*	1.5	Immigrants	0.5		
Families in certain types of dwellings*	4.5	16 years or more mentally handicapped	6.6		
Children of poorly educated parents*	4.5	Less than 16 years mentally handicapped	0.4		
Single more than 65 years old*	0.7	Degree of urbanization	4.2		
Low income individuals*	3.0	Rural districts	0		
Handicapped*	1.5				
Immigrants and descendants*	0.7				
Number of living years lost*	0.7				
Decline in populations numbers*	0.7				

Source: Mau (2007).

statistical estimates. In Canada the share of Aboriginals would perhaps be an appropriate criterion. These regression analyses can yield significant results for the chosen variables, but they rarely explain more than half of the variation in local expenditure per inhabitant. Some observers—especially in Sweden—believe that this is too little.

Another common criticism is the so-called "chicken-and-egg" problem, that is, that spending patterns used as dependent variables are products of the grants distribution in previous years. While recognizing this problem, the use of regression analysis is generally standard in the design of equalization systems in many countries, but value judgements cannot be avoided. Copenhagen city has a tax base that is 4 percent higher than the national average, and expenditure needs—according to the official measures—are also 4 percent higher. Altogether, Copenhagen receives 10 percent of the total municipal grants and has 10 percent of the total population. This ratio is enough for the government to defend its policy, and too much for the cities to criticize it convincingly.

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