

## **Chapter 2**

# **Fiscal federalism: International experiences and the Nordic response<sup>1</sup>**

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## **2.1 Introduction**

The standard theory of fiscal federalism prescribes major fiscal operations at the central government level. Given a benevolent planner at the center, the theory develops arguments for decentralization. Since the gain of decentralization relates to the heterogeneity of preferences for local public goods, the main tasks of government are assumed centralized. The optimal size structure of local governments is determined by the cost conditions and heterogeneity of preferences for local public goods. The expanded case for the local public sector adds arguments for the handling of individual redistributive welfare services (such as schooling and health care) at the local level. The fiscal federalism relevant for the Nordic countries represents an important role of decentralized government in the welfare state, and we will discuss the challenges that follow.

The alternative view of fiscal federalism is more decentralist in nature. The advantages of fiscal competition represent a case for decentralized government. Brennan and Buchanan (1980) suggested a competitive federalism where decentralization is a mechanism to control inefficient central government. In this setting, the role

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<sup>1</sup> We appreciate discussions with Antti Moisio.

of central government is less clear. The comprehensive literature about ‘Leviathan’ government is not explicit about the sources of government failure. Mobility and competition are relevant in the Nordic context also, but the dominating thinking has concentrated on the understanding of the public sector as an administrative system.

The new ‘second generation’ fiscal federalism theory introduces political and institutional conditions for the working of fiscal federalism (Oates, 2005, Boadway and Shah, 2009). This literature deals with issues of fiscal discipline and accountability and is of particular relevance for the Nordic model with a strong center. Recent collections of country studies by Rodden et al. (2003) and Dafflon (2002) discuss the concern for opportunistic behavior, excessive government and fiscal imbalance in federalist systems. They form the background of the “dangers of decentralization” discussed by Prud’homme (1995).

The Nordics struggle with the balancing of integration into the welfare state and local autonomy. The expansion of welfare services has increased the role of decentralized government, but has also increased the involvement of central government. Some argue that the welfare state aspects have threatened basic values of local self rule and democracy. Nordic governments have reformed their fiscal federalism to improve the conditions for the handling of expanded welfare services and to strengthen local accountability. The background and content of the reform process are discussed in this article.

## **2.2 Fiscal discipline and accountability**

As mentioned in the introduction, the conventional theory of fiscal federalism is really a theory about decentralized government. Decentralization of public goods accommodates preference heterogeneity, but must be traded off against the disadvantages associated with economies of scale and externalities. The theory designs well-functioning decentralized governments that can handle

the responsibilities with accountability. The workhorse Musgrave-Oates-Tiebout model (Musgrave, 1959, Oates, 1972, Tiebout, 1956) is based on four key assumptions: Local public goods, benefit taxation, mobility, and no spillovers. The strength of the local public sector is competition (Tiebout) and balancing of local benefits and costs (Oates' decentralization theorem). Local governments in this design are like Buchanan (1965) clubs established by the local population to solve common problems. Benefit taxation assures local accountability, and there is no case for central government financial controls.

The normative consequences of the standard model are well known and assign a strong role for the center. The distribution function and the stabilization function, using the terminology of Musgrave, must be centralized. In the allocation function, public goods should be centralized in areas with strong externalities and economies of scale and homogenous preferences across regions. The case for decentralization is really to realize allocation gains for local public goods. The subsidiarity principle, approved by the EU, argues that public goods should be organized at the lowest level appropriate.

The standard recipe assumes fiscal discipline and accountability in local units with high degree of autonomy. But in practice all countries struggle with the control of decentralized spending. It is important to understand the active involvement of central governments. Already the basic model allows for central government grants to internalize externalities between decentralized units. The early study by Boadway and Flatters (1982) shows how grants can correct for imperfections in mobility due to congestion. The desire to establish insurance against shocks also constitute an argument for grants (Persson and Tabellini, 1996). Even more important in practice are issues of tax design. Benefit taxation for local public goods is best achieved by property taxation. But property taxes hardly anywhere generate revenue above 2–3% of GDP. Other taxes are further away from the principle of benefit taxation and there are few 'good' local tax bases anyway. The central government therefore typically adds funds from broader tax bases like the value added tax and the income

tax. Although central government grants can be based on efficiency considerations, they imply central funding of locals and consequently vertical fiscal imbalance.

In addition, central government funding of decentralized government spending is based on distributional concerns. Local governments have varying (private) income levels and their tax bases differ, and grants are introduced for tax equalization. In theory equalization can be arranged at the individual level, but in practice regional equalization is made through local governments. The desires for equalization from the center are broader when welfare service spending is decentralized. Equalization of spending is designed in complex grant systems taking into account factors affecting service demand such as the age composition of the population and local cost factors such as the settlement pattern and population size.

Vertical fiscal imbalance seems hard to avoid. Benefits are enjoyed at the local level, but are at least partly financed from a common pool of national resources. Careaga and Weingast (2000) call such revenue sharing for a “fiscal pact with the devil”. They put the attention to the political and institutional framework of fiscal federalism that can generate incentives for good or bad governance. The common pool problem implies a spending pressure towards central funds and also possibly strategic or opportunistic behavior, and consequently a bias to overspending. Interestingly, McKinnon and Nechyba (1997, p. 55) see more emphasis on equity as the major threat, even “the beginning of a slow collapse of the relatively successful US federal system into a unitary state”.

The essence of the common pool problem within nations is that the perceived costs of public services at the local or district level are lower than the actual costs. The services offered by the local public sector supply benefits to specific geographic areas, here called districts. While the benefits are concentrated, the financing is shared through central government taxation distributed out as grants. The benefits are fully internalized in each district, but these contribute only to a share of the financing. The districts consequently impose negative externalities on

each other. This understanding of overspending bias was suggested by Tullock (1959) and developed by Buchanan and Tullock (1962) and Weingast, Shepsle and Johnsen (1981) in the context of the US Congress. In the extreme case, each district's spending is financed out of a common pool of national tax revenues. As shown by Persson and Tabellini (1999, section 9), the common pool problem in this case can be described as the situation where each district sets the local service production with the tax rate determined residually.

The second generation fiscal federalism literature addresses design of political and fiscal institutions to internalize these externalities and to control overspending. The starting point is the universalism theory of collective behavior developed by Weingast (1979) assuming that all districts are represented in a national legislature. Under a "norm of universalism" all representatives are members of the winning coalition. The norm is a result of a fundamental uncertainty facing the representatives. Will they be in, or out, of the winning coalition? The uncertainty is removed under the norm of universalism. Compared to a winning coalition that includes less than all representatives, the benefit to each member of the coalition is reduced. However, a small but certain benefit may be preferred to a larger but uncertain benefit.

Weingast et al. (1981) have not developed a full political equilibrium, and more recent theoretical research has addressed the decision making within legislature when projects with concentrated benefits are financed by universal taxation [see Chari and Cole (1995) and Persson and Tabellini (1999)]. In the setting of a multi-party parliamentary system with proportional representation from districts, the parties will to some extent internalize the costs of decentralized spending, thereby limiting universalistic behavior and the negative consequences of centralized financing and vertical fiscal imbalances. But when the parties have their strongholds in different regions and have different marginal districts, they will not agree about the geographical distribution of funds. In this setting the party composition of the parliament is the crucial determinant of political strength to hold back the spending pressure.

The common pool challenge to fiscal discipline is not limited to situations with serious vertical fiscal imbalance. The key point is that indiscipline results when the center holds a soft budget constraint towards the locals and hands out (marginal) funds with discretion. The excess spending bias consequently is the result of lack of commitment to a hard budget constraint. The design of fiscal responsibilities, the working of the political system, and the commitment problems all influence the degree of internalization. The lessons made about the working of different political systems and fiscal restrictions in this respect offer some guidelines for the design of fiscal institutions.

The understanding above is first and for all relevant for the control and regulation of decentralized government. But it is also relevant for the discussion of local government size structure. The standard approach balances heterogeneity of preferences and costs of local public goods to define optimal size of local governments. The challenges of fiscal discipline and accountability introduce new factors in the equation. The local units should have financial strength based on own revenues to take economic responsibility for the costs and risks associated with service production. It is easier for central governments to hold hard budget constraints when decentralized government control large own revenue bases. The responsibility for welfare services also requires capacity and competence to operate advanced technology and knowledge and to develop the services. Presumably the optimal size of local units is larger in this setting.

### **2.3 Empirical evidence of common pool and vertical imbalance**

The understanding of the common pool problem in fiscal systems has been developed and investigated empirically in the context of the US Congress. Inman (1988) and Inman and Fitts (1990), analyzing federal grants and federal spending in the US, represent the first econometric studies of the universalistic model. They show the importance of majority-rule leadership in Congress and a strong president to set the

agenda and coordinate the national policy. This is the broad lesson for political design. An agenda-setter is needed to overcome the geographical interests.

The available analyses relevant for European countries and political systems have mostly taken a broader view of the fiscal challenge. Perotti and Kontopoulos (2002) address fragmented fiscal policy in OECD countries and analyze the political side of the common pool problem as a relationship between the number of decision makers and the size of government. The size fragmentation is measured as number of parties in the ruling coalition and number of spending ministries. They follow an extensive empirical literature of the effects of political structure and political fragmentation started up by Roubini and Sachs (1989). The broad conclusion from this literature at the country level is that political fragmentation tends to lead to larger government size and that the common pool problem is an important background factor. Hallerberg and Hagen (1999) extend the analysis to electoral institutions, which is a background determinant of political fragmentation.

The relationship between decentralization of government and government size has been investigated in light of the hypothesis that competition leads to smaller government (Brennan and Buchanan, 1980). The empirical studies following Oates (1985) are not able to establish that decentralization holds back government size. Kirchgässner (2002) surveys the arguments and estimates. The hypothesis that decentralization implies common pool problems and generates larger government has been studied for Latin-American countries in a research project at the Inter-American Development Bank. The project emphasizes vertical fiscal imbalance and other aspects of intergovernmental relations that may give rise to soft budget constraints. Stein (1999) concludes that decentralization tends to produce larger governments, and in particular when vertical fiscal imbalance is high, central government grants are discretionary, and local borrowing autonomy is large. Interestingly, vertical fiscal imbalance here is a level effect and not limited to marginal funds.

Expansion of the local public sector over time has been studied in the same perspective. Borge and Rattsø (2002) analyze the fiscal federalism design in Norway in an econometric analysis of growth of local public spending during 1880–1990. The benefits of decentralized government spending are concentrated to each municipality and county, while the costs to a large extent are carried by general taxation and distributed as central government grants. The party fragmentation of the parliament is the main determinant of the political strength to internalize costs and thereby contribute to a socially efficient allocation in this system. Party fragmentation of parliament is measured by a Herfindahl index, and has a significant impact on decentralized spending growth. Two other indicators of political strength, capturing type and duration of government, are shown to have similar effects. Internalization of costs seems to be a serious challenge to the national political system under vertical fiscal imbalance. The asymmetry between decentralized spending and centralized financing contributes to public sector growth.

Experiences at the local government level offer broader databases for empirical testing. Direct tests of the relationship between districting and government spending are hard to do, since most political systems are more complex. Pettersson-Lidbom (2012) has shown that the size of the legislature affects the size of government. In his study of Swedish municipalities a higher number of legislators is associated with smaller size of government. City councils across US city governments come closer to theory and are analyzed by Baqir (1999). The size of the city councils is determined by their districting, and redistricting is not a very frequent event. The analysis of US cities confirms that larger city councils are associated with larger government expenditures per capita. The effects of districting are estimated in a demand model of city government spending, and the main result seems to be robust to alternative econometric approaches and alternative measures of spending. The quantitative effect is of economic interest, since adding one district on average raises per capita spending by 3%.

Outside the US district representation, empirical measures of the common pool problem is harder to find. An analysis of high school



spending by county governments in Norway gives some indirect evidence (Falch and Rattsø, 1999). The high schools offer benefits to each municipality such as employment and higher local tax revenues. Also the presence of a high school reduces student commuting and may increase enrollment. It follows that municipalities can obtain benefits from a common pool when the costs are shared within the county. In this study, the average population size of the municipality is a measure of the common pool effect. Many small municipalities are assumed to have the same effect as many districts. School spending is disaggregated to separate between the sources of variation in teacher-student ratio, non-wage spending per student, and student enrollment. In the estimated demand model of county level school spending, the average size of the municipality has a clear impact. Resource use per student goes up when the average population size of the municipalities is reduced. The municipalities seem to be successful in influencing the number and the location of high schools determined by the counties. The teacher-student ratio increases because smaller schools mean smaller classes, and non-wage spending increases because more schools mean more administration and maintenance per student.

The database on high school spending allows simultaneous analysis of the common pool effect and political institutions. While average size of municipalities measure spending pressure, political strength affects the ability to hold back the pressure. Political strength is measured by type of government *a la* Roubini and Sachs (1989), separating between majority and minority and one party versus coalition, and by a Herfindahl index of party fragmentation of the county councils. Falch and Rattsø (1999) apply interaction terms between municipality size and political strength, and the estimates show that spending pressure is most effective in counties with weak political leadership. The effect of municipality size on student enrollment is strong and depends critically on political strength. In weak county councils, smaller municipalities increase resource use per student at the cost of student enrollment, while strong county councils are able to increase student enrollment.

We conclude that multiple layers of government represent a challenge for fiscal discipline. The intergovernmental relations vary across countries with different assignments of responsibilities, different sources of financing, and different economic and political autonomies at the levels involved. The empirical literature indicates that countries share common problems of central government control of decentralized government. The institutional responses in particular have been developed to control deficits and debt.

## **2.4 Intertemporal imbalances and deficits**

Oversized government can be understood as the result of the static common pool problem discussed above. The associated concern for stabilization and deficit bias requires an extension into dynamics and mobility. The essence of the fiscal federalist model is that households and firms can move between jurisdictions. The competition for households and firms and the threat of exit are important disciplining devices on fiscal performance.

The main worry is fiscal decentralization as a source of fiscal crisis. Excessive local deficits and debts may generate overall fiscal imbalance and with high social costs. The issues are clearly relevant for the present day understanding of fiscal balance in the US and in the Euro area. In our context, the mobility of households represents an incentive for deficit financing. If local governments borrow to finance current spending, the costs are shifted to future taxpayers. Households may see this as an attractive financing alternative, because they can move out before the bill is paid. Capitalization will work to constraint the mobility mechanism. At best, private credit markets will evaluate the creditworthiness of the local governments and stop the borrowing spree in due time. The problem here is the possible mechanisms of soft budget constraint for the central government. The central government can hardly be passive when local governments default and financial markets and local taxpayers suffer. The expectation of central government bailout will encourage

further local deficits and debt. It should be noticed that such deficits may appear in complicated ways like pension underfunding.

Inman (2003) clarifies the conditions for ‘deficit-shifting’ and studies more closely the exceptions to the US success of fiscal discipline, notably the recession in the 1930’s and more recent big city crises (like New York City, Washington DC, Philadelphia and Miami). He identifies institutions promoting fiscal discipline, in particular powerful presidents, constitutional balanced budget rules, and fiscal oversight boards. His major conclusion is that “this tradition of refusing to provide significant national fiscal relief to governments in distress continues to this day”.

The deficit bias of decentralized government inherent in fiscal federalism necessitates institutional restrictions on local behavior to avoid moral hazard. All countries with decentralized government have put restrictions on the locals, although in various forms and strength. Balanced budget rules and limits to borrowing are the two main instruments of control. Recent country studies of constraints and their performance are offered by Ter-Minassian (1997) and Dafflon (2002). Country studies of bailout mechanisms and experiences are collected in Fernandez-Arias et al. (2003) and Rodden et al. (2003). In principle, fiscal discipline can be taken care of by market constraints, political constraints or administrative constraints. Private credit and property markets can discipline local governments only when the locals have full economic autonomy and provide the credit market with full information about their economic situation. US states and Canadian provinces seem to be the only decentralized units where market discipline plays an important part. We are then left to the combination of political structure and administrative regulations to secure discipline in more integrated public sectors.

Most of the empirical literature analyzes aggregate measures of fiscal imbalance in cross-country studies. Alesina and Perotti (1995) summarize the fiscal consequences of a variety of aspects of the political system in OECD countries. The main conclusion is that political fragmentation is associated with fiscal deficits. Weak

governments lead to deficits as well as government oversize because they are unable to internalize costs. The effects of intergovernmental fiscal relations on fiscal balance are less clear. Mello (2000) relates both central and local government fiscal balance to measures of tax autonomy and vertical fiscal imbalance in a cross-country study. Local tax autonomy (local taxes high share of local revenue) tend to worsen fiscal positions both for the locals and the central government, and the consequences of vertical imbalance (grants high share of local revenue) are mixed. Interestingly, restrictions can be understood as the result of the intergovernmental relations. Von Hagen and Eichengreen (1996) test the relationship between vertical fiscal imbalance and borrowing restrictions in a dataset of 45 countries. They find econometric evidence that centralized financing is associated with borrowing controls. They also find that countries with borrowing restrictions have higher government debt. The understanding is that the fiscal pressure against the center is higher when the center controls the funds.

Studies of fiscal restrictions at the local government level are hard to do since most countries have common rules for all local governments. There is no variation in regulations to take advantage from. The European case studies edited by Dafflon (2002) show that countries apply different forms of restrictions to budget balance and borrowing. All allow for administrative discretion at the central government level, and all struggle with local authorities attempting to get around the restrictions (typically off-budget activities). Restrictions seem to work although they are imperfect. The episodes of local fiscal crisis experienced, notably in Italy and Spain in the late 1970s, motivated an overhaul of the fiscal controls. Central government interventions and bailouts were followed by institutional reforms to avoid future repetitions. Many contributors to Dafflon's volume report that the EMU process has been helpful in arranging sustainable balances.

More extensive econometric studies of the consequences of budget balance requirements and borrowing limitations are made for the US states. The US states with their relative homogeneity and institutional variation offer an attractive database for the investigation of fiscal

restrictions. The states generally have balanced budget requirements and limitations on debt, but in different forms. Von Hagen (1991) did an innovative study of how these rules affect state indebtedness. The motivation for his study was the discussion about European monetary integration and the use of fiscal restraint. The US case represents an opportunity to investigate how fiscal restraints in a monetary union are functioning. His main conclusion is that fiscal restraints ‘do little to reduce the likelihood of extreme outcomes in fiscal performance’ and thus that they cannot be expected to be effective in a European monetary union.

Poterba (1997) summarizes the many studies available about US states and classifies three main types of regulations: Required submission of a balanced budget; required legislative decision of a balanced budget allowing for actual deficits; combining a balanced budget from the legislature with a prohibition to carry forward the deficit. The empirical analyses apply an index of the stringency of the state’s balanced budget requirements. Most contributions estimate broad models of economic and political variables affecting spending and revenue behaviour. The analysts agree that the most restrictive fiscal limits do reduce the state indebtedness and also reduce the borrowing costs for a given deficit. The lessons above indicate that national restrictions only work when they are part of a well-functioning and robust political decision making system.

## **2.5 The Nordic model of administrative federalism**

The Nordic countries have developed a model of fiscal federalism characterised by local responsibility for welfare services, local tax financing through an income tax, and extensive equalization systems. Overview and discussion are offered in Rattsø (1998).

The background for the development of a Nordic model is the building of the welfare state after World War II. Key elements in the building of the welfare state were expansion of education, health care, and social services and with the same service standards throughout the

country. Local governments were given responsibility for provision of most welfare services.

The assigned role of local governments in welfare services was not grounded in the theory of fiscal federalism emphasizing heterogeneous demand for local public goods. It was rather understood as administrative delegation from an overburdened central state. Compared to central government agencies, provision through local governments were considered to have advantages in terms of efficiency and democratic control. The efficiency argument was to some extent related to localization of institutions and the importance of welfare services for community development. The Nordic model consequently has been named as administrative federalism rather than fiscal federalism. In the context of Brueckner's (2009) theory of decentralization it can be called partial decentralization.

The choice of using the local governments in the building of the welfare state had important implications for the design of intergovernmental relations. First, the expansion of welfare services was accompanied by an increase in central government grants. Second, tax and spending needs equalization became more important with the increased responsibility for welfare services. Third, legal regulation and earmarking were used to achieve the detailed objectives of each service. The increased central government control and involvement led to less local autonomy by increasing the dependence on grant financing and reducing the importance of tax financing (increased vertical fiscal imbalances), and by reducing local discretion in the allocation of resources across services.

There was a growing concern that the local government structure was not well suited for the new responsibilities. The local governments were too small to exploit economies of scale and to develop attractive environments for highly skilled workers. National amalgamation reforms were carried out in Sweden, Norway, and Denmark. Sweden led the way by a reform in 1952 that reduced the number of municipalities from nearly 2,500 to just above 1,000 (Dahlberg 2010). During the period 1962–74 the number of municipalities was

further reduced to 278. In Norway an amalgamation reform was carried out in the early 1960s, reducing the number of municipalities from nearly 750 to around 450 (Borge 2010). In Denmark more than 1,000 parish municipalities and 80 towns were merged into 275 municipalities in 1970 (Blom-Hansen 2010). Finland is the only Nordic country without a national merger reform. However, the number of municipalities was reduced from nearly 560 in 1945 to 460 in 1990 through voluntary mergers.

The rising level of national control was also of concern. This motivated reforms to promote local democracy, local accountability, and efficiency by giving local governments more discretion in the allocation of resources between service sectors. The reforms attempted to reduce mandating and regulation in general and in grant systems earmarked grants were replaced by general grants based on objective criteria. The movement to general purpose grants, also called block grants, was gradually introduced in Denmark in the 1970s. Later a block grant system was implemented in Norway in 1986 and in Finland and Sweden in 1993.

The Nordic model is best understood as a mixed model that attempts at combining local democracy with an agency role in welfare services. However, the extent of national regulations varies somewhat across the countries. In terms of local tax financing and tax discretion Norway stands out as the least decentralized country. Local taxes amount to around 40% of revenues and in practice there is little tax discretion. Formally the local governments can choose tax rates within an interval, but since 1980 each and every local government has used the maximum rate in income and wealth taxation. In practice tax discretion is limited to the property tax. The property tax is a voluntary tax where the tax rate varies across municipalities. They can also decide whether to tax property or not and the type of property to be taxed. However, the property tax only amounts for 5–10% of municipal tax revenues. In the other Nordic countries there is less central regulation of local tax rates. In Denmark, Finland, and Sweden the central governments do not impose maximum tax rates in the income tax, and there is considerable variation in tax rates across

local governments. However, both in Denmark and Sweden the central government has temporarily taken actions to avoid local tax increases. Sweden had a tax freeze in the early 1990s and in Denmark the local tax level has been a key topic in the annual negotiations between the Danish central governments and Local Government Denmark. Blom-Hansen (2012) argues that local tax discretion in Denmark is de facto abolished after the municipal reform of 2007. The temporary adjustment rules certainly reduced the local discretion, and it will be interesting to observe how the tax setting will evolve over time in the new system.

There is also considerable variation across the Nordic countries when it comes to handling fiscal discipline by balanced budget rules and limitations on borrowing. In this dimension Denmark has the strictest regulations. In general local borrowing is forbidden, but with permanent exemptions for investments in certain areas such as public utilities. Norway has a balanced-budget-rule where the main requirement is operational budget balance. In the budget, current revenues must cover current expenditures, interest repayments, and regular instalments of debt repayment. Actual deficits are allowed to be carried over, but as main rule they must be “repaid” within two years. If a deficit is not “repaid” within two years, the local government is listed in a register (ROBEK) and will be subject to budget and borrowing control. Similar BBRs are in place in Finland and Sweden, but with no sanctions for violating the BBR.

It is tempting to speculate whether there is a relationship between local tax discretion and fiscal rules, at least when comparing Norway to Finland and Sweden. More tax discretion in Sweden and Finland may reduce the need for tight monitoring of BBRs as the local governments have an instrument to raise revenues in times of fiscal distress. In Norway tighter regulation of the BBR may be necessary to avoid large fiscal crisis where the only way out is central government bail-out.

To sum up, we think the central regulations of local governments in the Nordic countries first are foremost must be understood on the



background of decentralized responsibility for welfare services. Tax and expenditure needs equalization, substantial grant financing, and detailed regulation of the services are necessary to achieve equal access to welfare services. Moreover, the local public sector makes up a large part of the total economy. National regulation of local taxes are to some extent necessary to control the overall tax level and balanced-budget-rules are in place to avoid bail-outs and to control the overall fiscal balance of the public sector.

## **2.6 Fiscal competition in the Nordic countries**

The literature on fiscal federalism emphasizes competition between local governments as an important disciplinary device. However, competition has not played an important role in the Nordic model as the main disciplinary devices are the design of local political institutions and central government regulation and control. If anything, competition is seen as a threat to the Nordic model. Söderström (1998) argues that a competition problem arises when local governments are financed by income tax. With a local income tax communities with wealthy inhabitants will be able to provide good services even with low tax rates. A threat for these wealthy communities is immigration of poor individuals that will erode the tax base and the good services. Consequently, local governments may engage in competition to avoid immigration of poor people. From a national perspective this competition is largely unproductive since the poor have to reside somewhere. Söderström (1998) makes the point that the competition problem is solved by extensive tax equalization.

In the last decade a growing empirical literature has focused on fiscal interactions or competition among local governments. This literature investigates whether the fiscal decisions of one local government is affected by the fiscal decisions of its neighbours. Several studies from the Nordic countries have appeared, analysing tax welfare benefits, tax setting, and efficiency.

Welfare competition is analysed by Fiva and Rattsø (2006) and Dahlberg and Edmark (2008) using Norwegian and Swedish data respectively. The two studies analyse welfare benefits to individuals and households not captured by the national social insurance systems. Welfare benefit is a transfer program administered at the local government level. A key issue is whether there is strategic interaction among local governments in the setting of benefit levels. Do local governments react on the welfare benefit levels in neighbouring jurisdiction when setting their own benefit levels? Dahlberg and Edmark (2008) find strong evidence of a positive reaction. A municipality decreases its benefit level by around SEK 40 when the neighbouring municipalities decrease their benefit level by SEK 100. Fiva and Rattsø (2006) document similar effects for Norway.

As discussed in the previous section, the property tax is a voluntary tax for Norwegian municipalities. Fiva and Rattsø (2007) analyse whether fiscal interactions are important for the discrete decision to have property tax. They find that the probability of having a property tax increases significantly if the neighbouring jurisdictions also use the property tax. Edmark and Ågren (2008) perform a similar analysis on the local income tax in Sweden. As Fiva and Rattsø, they document positive spatial interactions. An average cut of 1 percentage points in neighbouring jurisdictions is correlated with a decrease of about 0.74 percentage points in own taxes.

A recent Finnish study by Lyytikäinen (2012) uses a clever strategy to identify spatial interactions in property taxation. In Finland the municipalities can choose property tax rates within an interval and in 2000 the lower bounds of the intervals were increased. As a consequence, many municipalities were forced to increase their tax rates. When the forced increase in the tax rates of neighbouring municipalities are used as instruments, there is no evidence of spatial interaction in property tax rates. However, when the standard estimation methods are applied, positive spatial interactions cannot be rejected. This suggests that the standard methods may have a tendency to overestimate the degree of interdependence in tax rates.

A possible interpretation of spatial interactions in tax setting is that voters evaluate incumbents by comparing the performance of their own local government with the performance of the neighbours. Good performance relatively to the neighbours acts as a signal of a competent incumbent. Revelli and Tovmo (2007) represent an interesting twist by analysing spatial interactions in performance. They utilize an efficiency indicator that is calculated and published annually by a government commission set up to monitor local public finances in Norway. It appears that the degree of efficiency is positively correlated across neighbours. Moreover, when exploiting survey information it comes out that significant spatial correlation only occurs for those local governments that compare their own service provision to those in nearby communities.

The above mentioned studies provide clear evidence of spatial interactions and competition among local governments. But is this competition for good or for bad? In general there are two competing theoretical frameworks; mobility of households or tax bases or yardstick competition. The typical prediction from the former framework is that competition among local governments leads to a race-to-the-bottom, either in welfare benefit levels or tax rates. Yardstick competition (or performance comparison as discussed above) is seen as a more productive type of competition that may improve policy outcomes. The studies of welfare competition are probably best understood as competition to avoid immigration of welfare recipients and thereby evidence of a race-to-the-bottom. However, Fiva and Rattsø (2006) point out that the spatial interactions do not necessarily imply too low benefit levels, since the grant financing of the local governments may generate overall excessive spending. At the other end, spatial correlation in efficiency as documented by Revelli and Tovmo (2007) is best understood as productive yardstick competition. The interpretation of the tax interactions is less clear. Edmark and Ågren (2008) find some weak evidence of unproductive tax competition, while Fiva and Rattsø (2007) argue that their results should be understood as evidence as yardstick competition since the property tax base is relatively immobile. Lyytikäinen (2012) acknowledges

that his identify strategy may not be very relevant for detecting yardstick competition.

## **2.7 The future of the Nordic model**

The ongoing reform process since the 1980s has mainly dealt with the control of local governments, partly in terms of reduced regulation and mandating and consolidation of grants, and partly as a more robust regulatory system related to deficits and debt. More recently municipal mergers and local government structure have returned to the policy agenda. Denmark implemented a major reform in 2007 where the previous 271 municipalities were merged into 98 new large municipalities and the 14 counties were merged into 5 new regions. The other countries have a heated discussion of local government structure, but the structure has not changed much the last decades. A possible exception is Finland where the number of municipalities is significantly reduced through voluntary mergers the recent years.

The local government structure cannot be determined independently of the tasks assigned to local governments. This co-determination of structure and tasks was very explicit in the recent Danish reform. Along with the amalgamation reform a number of functions were transferred from the old counties to the municipalities. The most important functions were specialized social services and selected health care services. Later, in 2009, the employment policy was unified and placed with the municipalities. Another example of the close link between structure and tasks is the hospital reform in Norway. The hospitals had “grown out” of the counties due to increased specialization. When the structure did not adapt to changing conditions, the final outcome was a national take-over.

The future of the Nordic model of federalism is closely linked to the future organization of the welfare services, and in our view two alternatives stand out. The first alternative is based on continued, and possibly strengthened, local government responsibility for welfare services (a renewed model of administrative federalism), while the

other is based on local governments concentrating on local services (a Nordic model of fiscal federalism).

The first alternative can be seen as a continuation of the current Nordic model of administrative federalism. However, it is necessary to acknowledge that the welfare services, and in particular the social services, have become more specialized and require more competent personnel. Moreover, better communications has led to drastic reduction in travelling time. These developments call for a new round of municipal mergers to exploit economies of scale and to build solid groups of specialists. The municipalities will then be up to the task of maintaining existing functions and take on new ones. Denmark is the role model in this respect, and the other countries can follow the Danish model. A national reform on municipal mergers is required, especially in Norway and Finland.

A renewed model of administrative federalism has several advantages. First, larger and stronger municipalities facilitate continued decentralization in the provision of public services. Second, with larger municipalities the variation in tax bases and spending needs will be reduced. The financing can to a larger extent be based on local taxes and the municipalities can be less dependent on central government grants. Third, larger municipalities with increased responsibilities and more tax financing may strengthen local democracy and accountability and increase the political power of the municipal tier.

A renewed model of administrative federalism will strengthen the capacity of the local public sector to take responsibility of welfare services. It is still an open question how welfare services will be organized in the future and how the local public sector fits in. In particular this is discussed regarding the responsibility of hospitals. The model may be combined with municipal cooperation (as in Finland), regional governments with a few functions (Denmark), or national responsibility for some services currently provided by local governments (Norway). It can also be argued that the new

municipalities may be “too large” for some services, thereby reducing decentralization gains and productive competition.

For hospitals a possible solution could be to separate the role of purchaser and the role of producer. The municipalities could concentrate on purchasing specialized health service on behalf of their citizens, while state agencies take care of production. This solution can be interpreted as an extended version of recent models in Denmark and Norway where the municipalities are co-financing the use of hospital services. A main argument for these models is to give the municipalities a more coherent responsibility for health care and to provide incentives for preventive actions. Even if the municipalities are to concentrate on the purchasing role, there is need for larger municipalities (in Finland and Norway) in order to limit the financial risk associated with year-to-year variation in the use of hospital services. However, the most critical issues in the evaluation of this model is whether it is possible to be a competent purchaser of specialized health care without being involved in the production.

The second alternative is to develop a Nordic model of fiscal federalism where the burden of welfare services is lifted off the shoulders of the local public sector. Local governments can concentrate on local public goods and other services where national goals of equality are less pronounced. The need for large municipalities is reduced, and in many urban areas break-up of municipalities may be warranted. Larger decentralization gains and more productive competition may be enjoyed for the remaining local services. Moreover, the need for tax and spending needs equalization is reduced when redistributive welfare services are no longer a local responsibility. The financing can rely more on local taxes and the dependence on central government grants will be reduced. Local democracy and accountability will benefit from having a portfolio of tasks with less central government regulation, but the scaled down municipal tier will have less political power.

The main challenge of a Nordic model of fiscal federalism is what to do with the welfare services that are lifted off the shoulders of the local governments. The natural response is that these services must be provided by the central government, and a new system of governance must be set up for each of these services. A positive effect of such centralization is that the emphasis on equalization can be increased compared to the present provision through local governments. On the negative side adjustment to local conditions and preferences will be further reduced. A central government organization of welfare services may create new bureaucracy and inefficiency. The experiences with central government nationalization of hospitals in Norway indicate that this concern should be taken into account.

Another common issue in the Nordic countries is the organization of local governments in metropolitan areas. The trend is that a larger share of the population resides in the larger cities and as a consequence commuting areas stretch beyond the borders of the central city. It is an argument for a unified metropolitan government in order to handle services with substantial spillovers such as infrastructure, roads and public transport. As in the general discussion of municipal structure, a possible disadvantage is that a unified metropolitan government may be “too” large for some services.

Overall we expect that the local public sector in the Nordic countries will survive as a large part of the public sector and within a system of administrative delegation from central government. Local governments will continue to be the main service producers of the welfare state. The conclusion holds as long as broad privatization of welfare services is out of the question and central government is not seen as an efficient organizer of local schools, care for the elderly and primary health services. In this case mergers between municipalities will be part of the package. Larger local governments will be necessary to carry welfare services that are getting more and more advanced and to have the revenue base needed to take the bulk of the responsibility for financing and risk. Fiscal discipline and accountability will still be challenges that the central government must handle.

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