FORSCHUNGSINSTITUT FÜR ÖFFENTLICHE VERWALTUNG

Gisela Färber / Nils Otter (Eds.)

# SPATIAL ASPECTS OF FEDERATIVE SYSTEMS

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**Spatial Aspects of Federative Systems**

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# SPATIAL ASPECTS OF FEDERATIVE SYSTEMS

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## Preface

This issue includes papers which were presented at the international workshop "Spatial Aspects of Federative Systems" held in cooperation with the Academy for Spatial Research and Planning (ARL, Hannover) at the Research Institute for Public Administration, Speyer, Federal Republic of Germany, from February, 23.rd-25.th 2005.

The literature on intergovernmental fiscal relations is still being rapidly expanding in recent years, in line with a worldwide trend toward decentralization. Problems related to decentralized government and the development of federal systems will therefore continue to be at the centre of the policy debate in most countries. This book presents a collection of essays which emphasizes the spatial aspects of federative systems, a topic that until the rise of the "New Economic Geography" had been relatively neglected in the fiscal federalism literature. There is considerable heterogeneity among countries in terms of geography, demography and of course, the way of organizing and financing decentralized jurisdictions. However, a number of the problems being faced are remarkably similar and a reading of the papers will reveal some important common aspects. Consequently, the papers presented here are dealing with topics such as spatial externalities and public goods, challenges and problems of agglomerations, the incidence of public budgets, the concept of competitive federalism, the politics of urban change and metropolitan government or demography and its consequences for political and fiscal federalism.

The workshop was designed to explore current and forthcoming research issues in federalism and spatial economics, and the participants discussed new aspects of spatial development and policy strategies. Given its coverage and focus, the workshop has proven especially useful to policymakers and academic scholars, who wish to know about future trends and problems in the evolution of federative systems and to draw relevant lessons for necessary reforms from these experiences.

We are very grateful to the institutions which have supported the workshop in particular the Academy for Spatial Research and Planning, Hannover, and the German Research Institute for Public Administration for financial support. We also appreciate the help of all the people in the back-office burdened by the work for the participants` welfare. In conclusion, we wish to express our deep gratitude to all those who participated in this workshop.

*Gisela Färber*,
Deutsche Hochschule für Verwaltungswissenschaften Speyer

*Nils Otter*,
Deutsches Forschungsinstitut für öffentliche Verwaltung Speyer

September, 2005

# Contents

# Spatial Challenges of Federative Systems: A German or an International Problem?

*René L. Frey*
Professor of economics emeritus, University of Basel, Switzerland

## 1. Introduction

The organizers of our conference on the «Spatial Aspects of Federative Systems» have asked me to treat three points in my keynote speech:

1. I shall summarize a report published last week by the Academy for Spatial Research and Planning ARL and edited by Gisela Färber: «Das föderative System in Deutschland: Bestandsaufnahme, Reformbedarf und Handlungsempfehlungen aus raumwissenschaftlicher Sicht», in English: «The Federative System in Germany. Survey, Reform Needs and Recommendations from a Spatial Point of View».
2. I shall evaluate the findings of this report, add further perspectives of the subject treated and answer the question mentioned in the subtitle of my contribution: Are the spatial challenges of federal systems, as presented in the report, a specific German or an international problem?
3. I shall give a scope of the other sessions of our conference: the patterns of spatial development, the governance in metropolitan areas, the institutional settings of competitive federalism, the interregional incidence of public budgets, the concept of fiscal equivalence and the demographic changes in federative systems.

I was not involved in the preparation of the stimulating ARL report. Coming from Switzerland and not being fully acquainted with the German political and federative system, I do not want to give wise recommendations to our German friends.

## 2. ARL Report «The Federative System in Germany»

There were two main reasons for appointing a working group by ARL. Firstly, the German federative system was and is criticized for not being efficient. It has to be reformed. Secondly, so far the spatial aspects have been neglected in all these discussions.

The ARL report consists of four main parts:

- The first part discusses the spatially relevant goals of federative systems.
- The second part analyses the spatial incidence of public expenditure and taxes, the intergovernmental transfer system, and the demographic changes.
- In the third part, some aspects of the spatial effects of decentralization in the public sector are treated, especially the regional effects of the policies with regard to universities and research, regional development, health, housing and agriculture.
- The fourth part presents some recommendations for reforming the federative system of Germany. They should serve as a contribution to the work of the Stoiber-Müntefering commission «Modernising the federative system in Germany», a commission which has proved a failure by December 2004.

If I have correctly understood the main results and messages, the ARL report can be summarized as follows – without attempting to attain completeness:

- A decentralization of competences to the Bundesländer and communities (municipalities) is necessary. It must be limited to regional and local public goods, however.
- Increasing the responsibility of the subnational jurisdictions on the expenditure side is not enough. It must be accompanied by a reform of the German tax system. The subnational jurisdictions must have a greater autonomy. In the last decades, the taxes have completely lost their function as price for the regionally and locally provided public services.
- The working group fears that an undifferentiated decentralization would make it even more difficult to reach equivalence of living conditions, as postulated by the German constitution, and to promote regional economic growth in all types of regions.
- There is not enough information about the regional incidence of the budgets. In order to control the regional effects of the federal budget its incidence should be periodically analyzed.
- The actual intergovernmental transfer system (Finanzausgleich) does not efficiently reduce the interregional disparities. It significantly destroys growth incentives. Most rich Bundesländer do not have an interest to increase taxable income. The poor Bundesländer, too, have not enough in-

centives to promote their economy, because they would not be able to significantly improve their financial situation.

- The German fiscal policy does not adequately take account of the demographic changes of the next decades, especially ageing and decline of the population.

**Table 1: Regional Disparities in OECD Countries (2001)**

| | *Share of most important region (% of national GDP)* | *Share of 5 most important regions, (% of national GDP)* | *Interregional coefficient of variation (GDP per capita)* |
|---|---|---|---|
| Ireland | 39.0 | 64.1 | 23.8 |
| Finland | 37.3 | 60.2 | 22.6 |
| Denmark | 32.8 | 51.8 | 27.3 |
| Norway | 30.0 | 53.1 | 33.0 |
| France | 29.5 | 39.5 | 45.2 |
| Austria | 29.1 | 51.8 | 30.6 |
| Sweden | 25.2 | 63.0 | 10.9 |
| Netherlands | 22.3 | 55.3 | 11.3 |
| Switzerland | 21.0 | 58.7 | 14.0 |
| Italy | 20.0 | 57.0 | 26.6 |
| Belgium | 20.0 | 46.6 | 23.1 |
| Canada | 18.5 | 45.1 | 14.1 |
| Great Britain | 17.2 | 26.1 | 45.9 |
| USA | 10.2 | 26.6 | 20.0 |
| **Germany** | **9.0** | **35.0** | **26.3** |
| OECD average | 25.4 | 50.2 | 31.0 |

Source: *Blöchliger* 2005, 115.

## 3. Evaluation of the ARL Report

There are many different notions of federalism. In order to prevent misunderstandings, I want to make clear what I understand by this term. Maybe my definition is typically Swiss, or American as in the mid 19th century Switzerland copied the American federative system. For me federalism is characterized by the following elements:

- Multi-level construction of public sector
- Separation of tasks according to the subsidiarity principle
- Autonomy of the lower level jurisdictions
- Competition among the jurisdictions in public services and taxes
- Cohesion as a task of the federal government
- Participation of the subnational jurisdictions in the decision-making process at the federal level.

Such a construction of the public sector has certain advantages. But it has disadvantages, too.

The *main advantages* of a federative system are efficiency and innovation because competition puts a pressure on the jurisdictions to perform better than their neighbors do. Voting by feet helps to reveal the preferences of the citizens and firms. They have not only the possibility to control government by «voice» (democratic voting) but also by «exit» (change of domicile). Benchmarking government performance is much easier. Last but not least, the principal-agent problem is less severe because the command-and-control chains are shorter.

Three *problems* often occur: difficulties to reach the optimal size and to benefit from economies of scale, distortions because of spillover effects and regional disparities because not all jurisdictions have the same capabilities to succeed with the interjurisdictional competition.

In order to guarantee that the advantages outweigh the disadvantages certain conditions must be met.

- The *distribution of the public tasks* among the different levels of government must be appropriate: local public goods to the communities, regional public goods to the Bundesländer, provinces etc., national public goods to the national government, and international public goods to supranational institutions. Of course, in the real world it is not always clear where the borderline between the four public good categories is to be drawn.

- The jurisdictions of the different levels must be fit for the *federative competition* – economically, financially, politically and socially. This will only be the case if the regional disparities have been reduced to an acceptable level. The analogy to the market economy is obvious: The market mechanism is only politically accepted if the government corrects income distribution by taxes and transfers.
- *Fiscal equivalence* must be realized. If there is a large divergence between the geographic circles benefiting from public services and those taking decisions and bearing the costs, the decisions are biased. Welfare losses result from such distortions.
- The federative competition may not be affected by *monopolistic interventions* of the central government or by *cartelization practices* of the politicians.

If these prerequisites for a good federative system are accepted as valid, Germany does not perform too well. Its federalism has gradually declined in the last decades. The ARL working group has detected the main differences between an ideal and the real federative system:

- lack of autonomy of the Bundesländer and the municipalities (especially as to the tax side)
- incomplete fiscal equivalence because of the externalization of costs
- disincentives in producing and supplying public services due to a far reaching fiscal equalization.

The trend towards *creeping centralization* is not only a German phenomenon. One explanation is that the lower level governments often try to transfer costly policies to the national level in order to get rid of financial problems. The federal administration, of course, likes to increase its scope. As it commissions the administrations of the lower level jurisdictions to supply public goods, it extends its delegation power to intervene into the lower level decision marking process. As a result, the sensitivity for regional diversities is lacking. One can even speak of a «normative power of the national average» in this context.

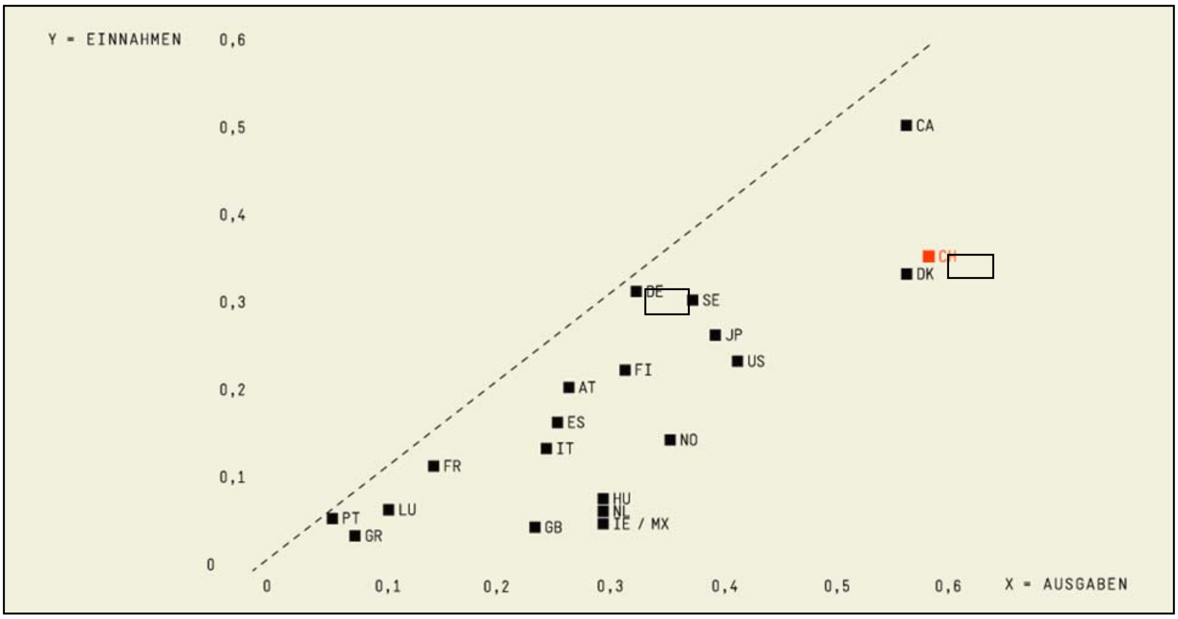
## 4. The New Fiscal Equalization System of Switzerland

Germany shows great difficulties in reforming its federative system. Remember the problems of the Stoiber-Müntefering commission. The same applies for Austria. A commission (Verfassungskonvent) appointed to prepare a new federal constitution failed with regard to the federative elements – at least so far. Switzerland, on the other hand, just made a great step in reforming its fiscal federalism. In November 2004, in a public plebiscite the citizens have approved the so-called «New Fiscal Equalization System» (Neuer Finanzausgleich) with a majority of 64 percent of the voters and an even larger majority of the cantons. The title of the reform program is rather clumsy: «Neugestaltung des Finanzausgleichs und der Aufgabenteilung zwischen Bund und Kantonen». I will therefore use the logogram NFES. The fact that it consists of a modification of 27 of the nearly 200 paragraphs of the Swiss federal constitution proves that the reform is far from marginal.

Why do I tell you all that? The NFES was developed to remedy certain shortcomings of the actual Swiss federalism. It does so in a very systematic way – at least from the point of view of economics and public finance. Some of these Swiss shortcomings can also be observed in the German federative system.

In order to understand the contents and the significance of the NFES it is necessary to explain the Swiss federative system first. Figure 1 compares the degree of decentralization of the OECD countries. There are three types of countries: very centralistic countries (Portugal, Greece, France), very federative countries (Switzerland, Canada and Denmark), and a large group of countries in between (among others Germany).

**Figure 1: Degree of Decentralization in OECD Countries (1999)**




Source: *Blöchliger* 2005, 41.

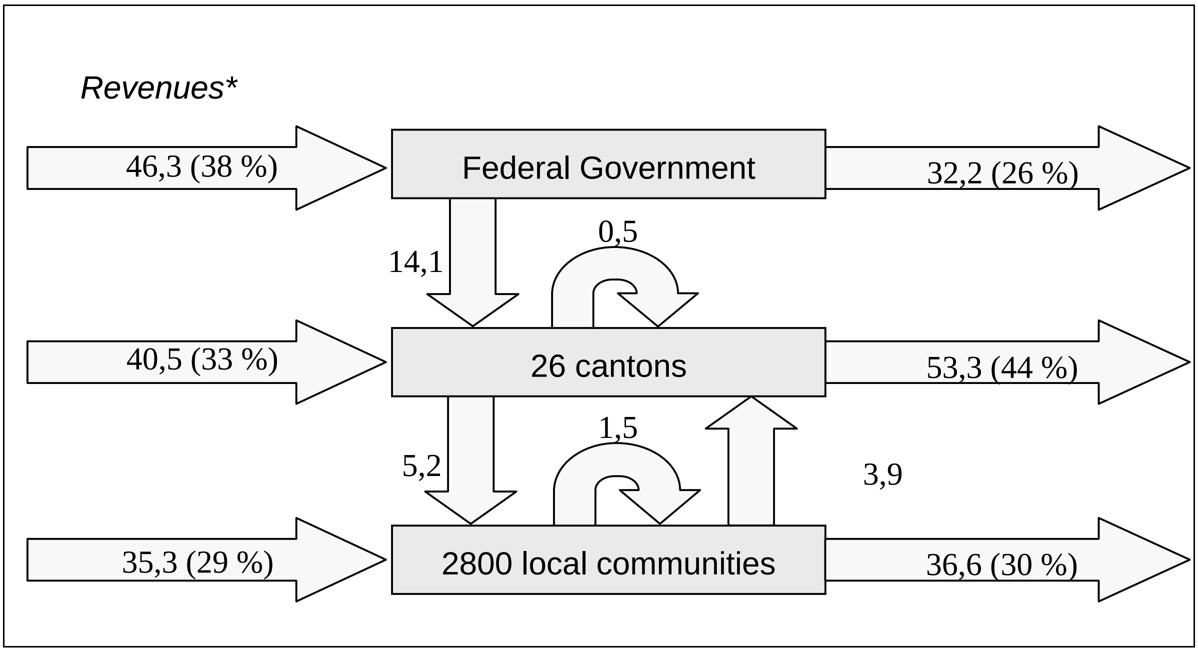
Figure 2 shows the revenue flows (left side) and the expenditure flows (right side) of the three levels of government in Switzerland. The federal government has only about 40 percent of all public revenues and even less, only about 25 percent, of total public expenditures, when looking at total financial flows from and to the private sector.

The cantons and local communities have a *large autonomy*. They have the right to decide on the rates of the income, property and profit taxes (see Table 2). Only the tax base is harmonized (uniform definition of income, property, profit; administrative matters; legal procedures etc.).

Switzerland is also *extremely fractioned* (see Table 3). The average canton counts 280.000 inhabitants. This is about 20 times less than the average jurisdiction of the same federative level in the EU (NUTS1). It is even smaller than the German districts (Kreise = NUTS3). The range goes from Zurich as the biggest canton with 1.3 million inhabitants to Appenzell-Innerrhoden with less than 15.000 inhabitants.

It is no surprise that the high cantonal and local autonomy in fiscal matters in combination with the small-scale political structure leads to an intense *tax competition*. For the left wing parties this is a political annoyance as it limits income redistribution. The other parties consider tax competition as a powerful instrument to control the growth of government and tax burden.

**Figure 2: Structure of Revenues and Expenditure, Switzerland, 1999 (bill. CHF)**




* incl. borrowing ** incl. payments to public enterprises

Source: Computed using «Öffentliche Finanzen der Schweiz 1999».

This table is not directly comparable with Figure 1 because of different criteria for distribution of financial flows to the three levels of government: here competence to decide on the tax rates.

Contrary to what might be expected, *no race to the bottom* has occurred so far. One explanation for this surprising phenomenon is that, in Switzerland, taxes are considered as prices for public services. The citizens of some cantons are satisfied with a low level if they have to pay low taxes. Others prefer more or better public services and are ready to accept higher taxes. A second reason is direct democracy: The citizens can vote on all tax questions (tax system and tax rates) at the ballot. The third reason for decentralization and fragmentation working fairly well is the intercantonal fiscal equalization system (Finanzausgleich). Within all 26 cantons, a similar equalization system reduces the disparities between the municipalities.

**Table 2: Swiss Tax System**

| | *Federal* | *Cantonal* | *Local* | *Harmonization* |
|---|---|---|---|---|
| Personal income tax | x | x | x | Tax base only |
| Property tax | | x | x | Tax base only |
| Corporation income tax | x | x | x | Tax base only |
| Inheritance and gift tax | | x | x | None |
| Value added tax | x | | | - |
| Excise taxes | x | | | - |

**Table 3: Average Size of Swiss Cantons Compared with Jurisdictions of the EU**

| | *Switzerland* | *European Community (1987)* | | |
|---|---|---|---|---|
| | *Cantons* | *NUTS1* | *NUTS2* | *NUTS3* |
| Number | 26 | 71 | 183 | 1044 |
| Population (mill.) | 0.28 | 4.9 | 1.8 | 0.4 |
| Surface (1000 km$^2$) | 1.6 | 35.6 | 13.3 | 2.8 |

NUTS = Nomenclature des Unités Territoriales Statistiques

Examples for Germany NUTS1 = Bundesländer
NUTS2 = Regierungsbezirke
NUTS3 = Kreise

At the beginning of the nineties, the federal government and cantons got the impression that the fiscal equalization system was no longer effective and efficient.

- It is *not effective* because the poor cantons have great difficulties to provide their inhabitants and firms with the public services nowadays considered as necessary. Although the Swiss constitution does not mention the «equivalence of living conditions», as the German constitution does, such a notion exists. The poor cantons, mainly small jurisdictions in the Alps, were able to force the federal government to take over part of the cantonal tasks. From an economic point of view, such a centralization of regional public goods would not have been necessary. Large cantons would be able to supply these goods without organizational and financial help of the federal government.
- The fiscal equalization system is *not efficient* because the actual equalization measures create large disincentives. Today, the federal transfers to the cantons are earmarked, except those based on tax revenue sharing. They depend on the costs of specific projects and the fiscal capacity of a canton. This provokes wrong incentives for the recipient leading to unnecessarily high costs for the procurement of public services.

In 1992, the federal government and the cantons decided to launch a far-reaching reform of the fiscal equalization system. After more than ten years the first step was successfully done: The federal constitution was changed, as mentioned before. In the next two to three years, several laws will have to be adapted to the new intergovernmental transfer concept.

There are five main elements of the *New Fiscal Equalization System* (NFES, see Table 4):

1. *Separation of tasks between the federal government and the cantons (Aufgabenentflechtung):* Public scopes with a total expenditure sum of 5 billion Swiss Francs are going to be assigned either to the federal or the cantonal level. (5 billion Francs are 3.3 bill. €, transposed to the size of Germany this would be equivalent to about 35 bill. €). The rationale is that the responsibility should be fixed to one jurisdiction only. Of course, there are some exceptions.
2. *Fiscal equalization in the strict sense:* The index to determine which cantons have a low fiscal capacity and need financial support and which cantons should bear the cost of the intercantonal income redistribution will be changed. Today, the arguments in the equation are: per-capita income, tax base, tax burden and percentage of mountain territory. In the future, the fiscal capacity will depend on three factors: taxable income and property of private persons, and taxable profits of firms.

**Table 4: Comparison of Existing and New Fiscal Equalization System in Switzerland**

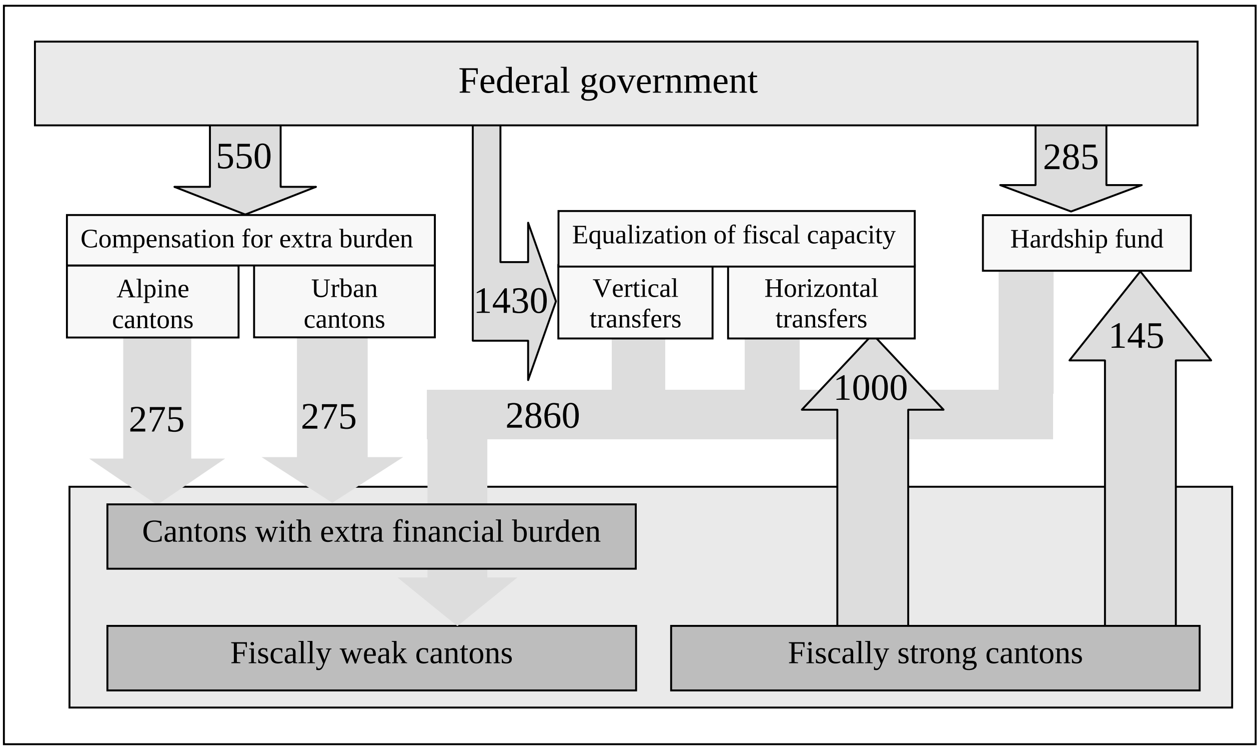
| | *Existing system* | *New system* |
|---|---|---|
| Main goals | Reduction of fiscal disparities<br>Incentives to spend cantonal money in accordance with national interest | Reduction of fiscal disparities<br>Promotion of vertical cooperation<br>Promotion of horizontal cooperation |
| Strategies to attain goals | Mixture (all instruments to attain all goals) | Separation (one instrument for each goal, according to Tinbergen Rule) |
| Factors of index of fiscal capacity | Per-capita income<br>Tax base<br>Tax burden<br>Mountain territory as percent of total surface of canton | Taxable income per capita (> 23.000 CHF)<br>Taxable property per capita<br>Taxable profits per capita |
| Instruments | Tax revenue sharing<br>Lump-sum transfers<br>Subsidies depending on costs and fiscal capacity | Tax revenue sharing<br>Compensation of extra fiscal burden<br>General lump-sum transfers<br>Task specific lump-sum transfers<br>Internalisation of spillovers |

1. *Compensation for extraordinary fiscal burden:* Fiscal capacity and fiscal needs will be separated. Cantons confronted with very high costs for providing specific public services will get federal transfers at free disposal. Two categories of cantons are defined to benefit from the special support:
   – Geographic-topographic: Alpine cantons with a low population density and costly topographic conditions
   – Sociodemographic: Urbanized cantons with a high percentage of persons depending on social welfare.
2. *Restructuring of the vertical transfers:* The federal government will no longer pay input subsidies depending on production costs and fiscal capacity of the recipient. In the future, the federal government will negotiate with its cantonal partners as to the public output desirable from the national point of view (e.g. in tertiary education, public transport, environmental protection). The federal authorities will sign contracts and pay lump-sum transfers for specific programs. The cantons will have much stronger incentives for optimization than under the actual regime, still taking into account national interests. Experts in public finance will realize that this new vertical transfer was influenced by the New Public Management concept developed in order to increase efficiency in the provision of public goods within jurisdictions.
3. *Internalization of spillovers:* In order to promote intercantonal cooperation, new instruments of compensation schemes are put at the disposition of the cantons belonging to the same metropolitan area. The federal government will be able to force free-riding cantons to join the functional regions in the case of tertiary education, health services, cultural institutions, public transport, etc. This will make urban public goods manageable at the cantonal (and even local) level even when spillovers exist.
4. *Hardship fund (Härteausgleich):* In order to make the NFES politically acceptable to a large majority of the cantons and voters the winners decided to compensate poor losing cantons.

Figure 3 shows how the NFES will work, which types of cantons will benefit and which types will bear the burden.

Economists will immediately recognize the rationale behind the construction of the New Fiscal Equalization System: the Tinbergen Rule, postulating that for each goal to attain a special instrument should be chosen. In other words, if one tries to attain many goals with one instrument only, it is most probable that welfare losses result. This shortcoming will be overcome in Switzerland. In Germany, I cannot see a similar endeavor at the moment.

**Figure 3: Financial Flows According to the New Fiscal Equalization System (provisional, mill. CHF)**




## 5. Fiscal Equalization and Regional Policy

The Tinbergen Rule can also be applied to policy coordination. Today in Switzerland, the reduction of the interregional disparities is the goal of two separate policies: fiscal equalization and regional policy. When the NFES will once be enacted and the total transfer volume increased by 50 percent, as planned, the question arises, what to do with regional policy? A group of experts was appointed by the federal government to answer this question and to develop a New Regional Policy. It considered the NFES – but not regional policy – as being very appropriate to reduce the intercantonal economic and fiscal disparities and suggested that regional policy should be strictly oriented to efficiency, economic growth and innovation. It should help those regions that already are internationally competitive or have a fair chance to become competitive. In the globalized world of today, only metropolitan regions of a certain size, having potent clusters and good transport connections to other metropolitan areas fulfill these conditions. The only thing regional policy can do in favor of poor, peripheral and rural regions is to tie them to the urban growth centers. This new concept is in line with what is being proposed in other European countries, too, especially in Germany.

The federal government was convinced that the New Regional Policy would go in the right direction and proposed a revised law (see Table 5). A formal consultation round showed, however, that most cantons, associations and lobby groups of the Alpine regions do not support it. They want to benefit from both the old and the new redistribution measures. The future will show whether economic rationality or politico-economic fighting will finally prove stronger.

**Table 5: Comparison of Existing and New Regional Policy in Switzerland**

| | *Existing policy* | *New policy as proposed* |
|---|---|---|
| Main goal | Reduction of regional disparities (regional redistribution) | Competitiveness of regions (efficiency, growth and innovation) |
| Perimeter | Alpine, poor, peripheral and rural regions | Entire country (incl. agglomerations and border regions) |
| Scale | Small scale regions with fixed boundaries | Large scale regions<br>Variable geometry |
| Points of departure | Location factors (infrastructure)<br>Diversification (jobs) | Value added and innovation<br>Sustainable development |
| Development | Top-down and bottom-up combined | Bottom-up (initiates by entrepreneurs and innovators) |
| Task of fed. government | Promotion of regional development programs and projects | Promotion of clusters and networks<br>Monitoring |
| Financing | Earmarked subsidies and loans for single projects | Lump-sum grants and loans for innovative concepts and programs |

The division of responsibilities between the NFES and the NRP leaves a critical question open: What about the future of the «hopeless» regions? Politicians favor transfers in order to stop out-migration. Economists, on the other hand, warn that the burden put on the rich regions by doing so could endanger their international competitiveness. They tend to opt for accepting migration. This strategy would open new chances for regions with bad prospects as to their economic future to develop other potentials (e.g. national parks).

The New Fiscal Equalization System is only a first steps to revitalize Swiss federalism. Other policies – agriculture, infrastructure, spatial planning etc. – must be adapted as well.

Even more important, however, will be the *reorganization of the cantons*. With two small exceptions, their borders were traced at the beginning of the $19^{th}$ century, either by Napoleon or the Vienna Congress of 1815. In the nearly 200 years since then, population and economy have grown enormously, migration has completely changed the regional structure of the country. Fiscal equivalence is not met any longer. This shortcoming especially applies for the metropolitan areas. Adapting the political borders to the borders of the regions where 80 percent of the population lives and works is an urgent issue. The problem is aggravated by the fact that in Switzerland – contrary to Germany and most other countries – the metropolitan areas do not only belong to several municipalities but also to up to seven jurisdictions of the NUTS1-level (cantons).

The obvious solution seems to consist of merging one or several cantons. Besides the fact that such a measure will not find political support in the near future, it has another severe disadvantage. From the point of view of fiscal equivalence, the borders of greater cantons will be wrong, too. They will not be optimal for all regional public goods. That is the reason why today hundreds of single purpose arrangements (Zweckverbände) exist. Their shortcoming is that they cannot be run according to democratic rules. Therefore, the discussions go in the direction of the FOCJ solution (Functional Overlapping Competing Jurisdictions), in another term «variable geometry».

## 6. A German or a General Problem?

In the next papers to be presented at this conference, several of the topics which I could only treat roughly, will be discussed in greater detail and from the point of view of different countries.

- *Spatial development:* Would federative reforms make it easier to attain the actual goals of spatial development? Or should these goals be adapted?
- *Governance in metropolitan areas:* How should they be organized to guarantee economic, environmental and social sustainability at the different levels of government?
- *Competitive federalism:* Should this element be strengthened? Or does the future belong to the cooperative federalism with a strong coordinative power of federal government?
- *Regional incidence of public budgets:* What are the effects of public expenditure and taxation of federal government on the regional level?
- *Fiscal equivalence:* Does it (still) provide a good guiding-line for structuring government competences in a federative setting?

- *Demographic change:* How will the ageing and a possible decline of the population affect regional development and the spatial structure of an economy?

I will come to an end. I have started with summarizing the German discussion on reforming its federative system. Then I have shown what is going on in Switzerland just now in this field. I want to conclude my reflections by systematically comparing the German and the Swiss case. Unfortunately, I cannot include other countries. I have not done multi-country comparative studies. Besides, I am convinced that there is not an international problem as such with regard to federalism. More or less, all countries are special cases due to history, attitudes of the citizens vis-à-vis the state and its tasks, and geographic or topographic peculiarities.

Table 6 gives a survey of the main differences between the German and the Swiss federative system. Although both countries are considered as federative, the differences are big. Since the nineteen-fifties, Germany has been developing away from the model as depicted in the (American) economic theory of fiscal federalism. Switzerland still is positioned much nearer to this model and, just now, is taking political steps in order to come even closer to it.

**Table 6: Comparison of German and Swiss Federative System**

| | *Germany* | *Switzerland* |
|---|---|---|
| | *Status quo* | |
| Autonomy of sub-national jurisdictions | Limited | Very great |
| Decentralization<br>- expenditure side<br>- tax side | <br>Average<br>Very low | <br>High<br>Very high |
| Political fragmentation | Low | Very high |
| Fiscal equalization system | High need to guarantee equivalence of living conditions and to reduce regional disparities | High need to guarantee existence of small cantons and to reduce regional disparities |

| | *Germany* | *Switzerland* |
|---|---|---|
| | *Status quo* | |
| Main problems | No fiscal equivalence: over-centralization<br>No tax prices<br>Disincentives because of excessive equalization<br>Distortions leading to inefficiency, low growth and threatened competitiveness | No fiscal equivalence: spill-overs in metropolitan areas («under»centralization)<br>Difficulties to benefit from economies of scale<br>Distortions leading to inefficiency, low growth and threatened competitiveness |
| *Reform process* | | |
| Realized | Reforms blocked so far | New fiscal equalization system NFES (at constitutional level) |
| Next steps | - | NFES to be implemented<br>Adaptation of regional policy and other spatially relevant policies |
| Further reform projects discussed | Increase of tax autonomy for Bundesländer and municipalities<br>Elimination of disincentives in fiscal equalization system | Reorganization of political structure of regional and local jurisdictions (FOCJ, variable geometry)<br>Tax harmonization |

In both countries, the main problems may be detected in a cumbersome political decision-making process. The only chance to make progress is the outside challenge of international competition. In this respect, Switzerland as a small and open economy has a slight advantage compared to Germany.

## Literature

*Blöchliger, Hansjörg* (2005): Baustelle Föderalismus, Zürich: Buchverlag der Neuen Zürcher Zeitung (Studie Avenir Suisse).

*Eichenberger, Reiner* (1994): The benefits of federalism and the risk of overcentralization, Kyklos Vol, 47, 403-420.

*Färber, Gisela* (Ed,): Das föderative System in Deutschland. Bestandsaufnahme, Reformbedarf und Handlungsempfehlungen aus raumwissenschaftlicher Sicht, Hannover: ARL.

*Flückiger, Hans/Frey, René L.* (Eds,) (2001): Eine neue Raumordnungspolitik für neue Räume, Zürich: ORL-Institut.

*Frey, Bruno S.* (1997): Ein neuer Föderalismus für Europa. Die Idee der FOCJ, Tübingen: Mohr.

*Frey, Bruno S./Eichenberger, Reiner* (1999): The New Democratic Federalism for Europe. Functional, Overlapping and Competing Jurisdictions, Cheltenham: Elgar.

*Frey, René L.* (1977): Zwischen Föderalismus und Zentralismus. Ein volkswirtschaftliches Konzept des schweizerischen Bundesstaates, Bern: Lang.

*Frey, René L./Schaltegger, Christoph A.* (2001): Ziel- und Wirkungsanalyse des Neuen Finanzausgleichs, Gutachten, Bern: EFV/FDK.

*Frey, René L./Spillmann, Andreas/Dafflon, Bernard/Jeanrenaud, Claude/ Meier, Alfred* (1994): Der Finanzausgleich zwischen Bund und Kantonen, Gutachten, Bern: EFV/FDK.

*Hirschman, Albert O.* (1970): Exit, Voice, and Loyalty. Responses to Decline in Firms, Organizations, and States, Cambridge: Cambridge University Press.

Konferenz der Kantonalen Finanzdirektoren (1992): Finanzausgleich und Orientierungsrahmen für die künftige Ausgestaltung des bundesstaatlichen Finanzausgleichs, Luzern: FDK.

*Oates, Wallace E.* (1972): Fiscal Federalism, New York: Harcourt.

*Olson, Mancur* (1969): The Principle of ‚Fiscal Equivalence': The Division of Responsibilities Among Different Levels of Government, American Economic Review Vol, 59, 479-487.

*Schaltegger, Christoph A./Frey, René L.* (2003): Finanzausgleich und Föderalismus: Zur Neugestaltung der föderalen Finanzbeziehungen am Beispiel der Schweiz, Perspektiven der Wirtschaftspolitik Vol, 4, 239-258.

Schweizerischer Bundesrat (2001): Botschaft zur Neugestaltung des Finanzausgleichs und der Aufgaben zwischen Bund und Kantonen (NFA) vom 14. November 2001.

*Wagschal, Uwe/Rentsch, Hans* (Eds,) (2002): Der Preis des Föderalismus, Zürich: Orell Füssli (Studie Avenir Suisse).

# The Spatial Development of Federative Systems in Europe. Economic, Political and Ideological Aspects

*Silvio Goglio*,
Dipartimento di Economia, Università di Trento, Italy

## Introduction

The conception of the state, both theoretical and in terms of the concrete functions which it performs, is not a stable *corpus*. The history of states has been a sequence of mutations which, the diversity of individual cases notwithstanding, have a number of underlying features in common. This evolution can be interpreted as a series of compromises between exigencies and conditions internal to states and exigencies and conditions external to them. Within the limits imposed by path dependence, each political-economic system must constantly adapt in order to survive, and if possible prosper, in its interactions with other systems, preserving the set of internal balances which give it a minimum of stability and constitute its individuality.[1]

In recent decades Europe has been traversed by demands for state institutional reforms. Some of these demands have been granted: greater regional autonomy has been introduced (sometimes as a result of fierce pressures) in centralized states like France, Italy, the United Kingdom and Spain, although it appears that the power of the central state in federal Germany is increasingly outweighing that of the *Länder*. At the same time, increasing numbers of national states are joining a larger economic and partially political aggregation (the European Union) unable simultaneously to assume a marked political and ideological character.

This (at times contradictory) institutional reformist dynamism evinces a widespread difficulty of the national state – as founded by nineteenth-century liberalism and modernized by twentieth-century Keynesianism and social democracy – to meet the new challenges raised by the international context. This difficulty takes tangible form in the state's inadequate response to new social and productive needs; in the inability of the social pacts that underpin

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1 These adaptations may sometimes be abrupt and obvious; on other occasions they may be more gradual and less evident, to the point that they escape the attention of non-expert observers.

its institutions and organization to grasp the potentialities and requirements of producers and reconcile them with the needs of the weakest members of society; and in the progressive curtailment of the state's role as the main ideological, political and economic frame of reference. Indeed, even the break-up of the Soviet Union and Yugoslavia can be related to the even greater difficulties faced by the socialist state institutions in meeting the new challenges raised by the world context.

There are two interconnected changes worldwide which require rethinking of the notion of the state and its functions. The first, summed up by the term 'globalization', is a complex process now adding a new spatial dimension to the national, regional and local ones. Although globalization expands markets and increases exchanges, not only economic but cultural and political, it transcends the concept of the internationalization of exchanges. It does so because it is driven not so much by the endeavour of individual states to establish economic relationships among themselves, as by the increasing irrelevance of their political and administrative boundaries and by the increasing denationalization, and hence mobility, of certain production factors. The second change consists in the greater opportunities afforded by the new technologies for the decentralized organization of production and administration. Economic and political networks can thus be enlarged and thickened, and the pace of innovation increased, with the consequence that the power of non-state actors is augmented. But the most striking effect of this second change is the 'global competition' now manifest not only among firms but also among territories which contend with each other to obtain jobs and investments, and thereby increase their income. The spatial extension of the relations constituting the division of labour has reduced the restraints on its further expansion, and the protection represented by national or local markets, where competition used to be more closely regulated, has weakened. Competition among territories hence derives from competition among transnational companies, with its impact on the local economic and organizational apparatus in its entirety. New opportunities have therefore arisen, but the risks and dangers have increased concomitantly, producing a divergence of interests among social actors according to the extent and type of their involvement (active or passive) in globalization, and with consequently different expectations *vis-à-vis* the state.

It is evident that these changes are altering relations among the reference political and economic units, weakening the aggregating force of traditional state forms while simultaneously strengthening the endogenous capacities of sub-national territories. As they do so, they give rise to problems that transcend the boundaries of any state and create a need for different levels of cooperation[2]. The diminished importance of national boundaries is accompanied by the fragmentation of the state and its powers. Whence derives the necessity to re-think the state's role within a broader system of governance where new mixtures of public and private power are created and de-nationalized sources of law increase in importance.

The aim of this paper is to contribute, from a mainly economic point of view, to comprehension of these dynamics by examining the main problems and offering solutions for them. The following topics will be addressed:

1. the territorial dimension of production;
2. the relationship between the economic and political organization of space;
3. the relationship between the political organization of space and the ideological support that it requires;
4. the possible direction of reform of the nation-state.

## 1. The territorial dimension of production

Globalization does not erase the territoriality of production; rather, it gives greater fluidity and mutability to it. Essential for the creation of wealth and competitiveness is the existence of production economies external to the firm, these being the advantages that accrue to the firm from belonging to a given system, or better a set of local, regional and national systems interacting in accordance with the principle of subsidiarity. The relationship among these levels – how, that is, the supply of public goods for the production of private goods is distributed among them (so-called 'vertical subsidiarity') – is unstable and depends on various factors of a technological, economic, cultural and geopolitical nature. In other words, a firm's external economies depend on its ability to embed itself in a network of relations comprising other firms, households, civil society and political organizations consonant with its needs. Globalization facilitates the choice and replacement of the networks in which firms operate. It consequently extends the range of possible combinations and gives greater dynamism to the equilibria among the various kinds of external economies.

2 An evidence of the new external power of sub-national entities is the increasing number of agreements of regional and cross border cooperation.

The smallest-scale network to which a producer belongs is the local system – or the economic district, to use Ohlin's expression[3]. This may be seen as an interdependency: a network of flows of production factors among firms, families and institutions. Production factors may be tangible or intangible (work, knowledge, financial capital, culture, organizational capacity, etc.), and they may have different degrees of mobility and territorial rootedness – features that globalization is profoundly affecting to produce a further dualism. Local systems may assume different forms according to the size of the firms that they comprise, the kind of relationship among these firms, and the commodities that they produce. Consequently, every given territory assumes a specific pattern of organization of production (or it assumes a specific shape as a local system) because at a given time this pattern is the one best able to conciliate economic requirements (internal, like income, and external, like demand) with local resources. However, the feature shared by all kinds of economic local systems is that they are mechanisms to produce and transfer knowledge, to reduce transaction costs, to combine production economies internal to firms with those deriving from territorial concentration[4].

Historically, economic and political-organizational dynamics have given rise to a dialectical equilibrium among diverse system economies: economies of scale internal to the firms' system, general external economies deriving from embeddedness in a state system, local external economies relative to a local system or an economic region, and transnational external economies deriving from membership of an economic federation like the EU. Between the last quarter of the 19th century and the 1950s, the consolidation and growing visibility of the first two (scale economies internal to the firms' system, and general external economies deriving from embeddedness in a state system) exalted, and sometimes overvalued, the economic role of states and overshadowed that of local systems and economic regions, although these had always performed a crucial role in the organization of production; it being taken for granted that they would be absorbed into the national economies and that the future of the economy would be dominated by the Fordist firm and state.

However, the current historical context tends to reduce the weight of Fordist economies increasingly neutralized by bureaucratization and by the scant flexibility of large firms and the state. As a consequence, local external economies automatically regain an importance and visibility already enhanced by the expansion of markets, by the new technologies and by the ease with

3 Cf. *Ohlin*, 1968.

4 For a wide and comprehensive review of literature about local development and local systems see the last chapter of *Becattini/Bellandi/Dei Ottati/Sforzi*, 2001.

which economic systems that traverse political boundaries can be created[5]. Greater opportunities to establish cooperative relations on a worldwide scale have opened up new prospects and favoured the replacement of less favourable accords: a process which has led to the restructuring of both relations within local systems – that is, among firms, and between these and the community – and complementarity relationships among local systems. The previous subsidiarity due to territorial contiguity has thus weakened, with effects that may undermine the cohesion of the community if it is unable to react innovatively. The economic regions have become broader and more variable, and their overlaps with administrative units have become less direct and less stable. Greater opportunities for interaction at a distance has led to superimposition on each point of the territory of networks with differing structures and extensions, so that the 'necessity' of integration among the various economies co-present in a given local setting has diminished.

## 2. The economic and political organization of space

Different complementarity relationships may arise among different local systems and induce their integration in larger systems that we may call economic regions[6]. A first possible kind of complementarity relationship among local systems is a decentralized and spontaneous one which engenders a 'natural' (in the economic sense) integration, mainly productive, based on the endowments of production factors. In other words, two systems are economically complementary when they can assist each other by supplying labour, knowledge (embedded in physical or human capital), financial capital and commodities, and when their factor endowments can work together by exploiting relative specialization and comparative advantage. The intensity of this complementarity is directly proportional to the expansion of markets, to technological progress in general and the improvement of transportation and communication systems in particular, to the increase in labour specialization, to the lowering of political and economic barriers, and to the circulation of ideas. Spontaneous, not sporadic but systemic, complementarity relationships among a group of local systems are made evident by a different intensity of inner trade and exchanges compared with external ones, and they naturally give rise to an economic region. As Bertil Ohlin[7] puts it: "Neighboring dis-

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5 Cf. *Becattini*, 1994.

6 The following scheme is taken from *Goglio*, 2001.

7 *Ohlin*, 1968, pp. 160-61. Similarly, *Alfred Marshall* (1923) defined as an 'economic nation' a territorial system characterized by the free circulation of ideas, individuals

tricts may be regarded as belonging to the same subregion if natural or transfer resources are similar, if labor and capital move easily between them, or if goods move freely between them but with greater difficulty to another group of districts".

The relationship of economic complementarity among local systems just outlined interacts with another kind of complementarity, of political and administrative origin, which ensues from the belonging of local systems to the same administrative region and/or state. Different possibilities arise. In the best of cases, political aggregation unites potentially complementary local systems, or economic regions, encouraging and favouring natural economic integration. In other cases, political aggregation may bring together local systems and economic regions which otherwise would have not followed this course. Productive integration among these territories will be more artificial, given the non-natural incentives by which it has been induced. In so far as it differs from more spontaneous integration, it will require redistributive policies to be kept in being. This makes the work of the state more difficult, for example in regard to the supply of public goods, given the greater heterogeneity of the needs that must be reconciled. In other words, because the superposition of economic systems and political systems does not result from a direct cost/benefit analysis conducted by economic actors, it will require a central apparatus of management, inducement and enforcement, and a strong ideological support, with high costs: the less the ideological support, the greater the economic inducements and the costs[8]. Low economic complementarity depends not only on the scarce integrability of factors, especially capital in the broad sense (physical, human and social), along the same production chain, but also on difficulties of transport and communication due to geographic barriers, and on better alternatives available elsewhere. Of course these conditions are not static; they may change.

If this framework is sound, we may conclude not only that political borders have in the past frequently hindered the economic complementarity of local systems unnaturally kept separate, but also that they have imposed economic integration where it has not been efficient, at least at the beginning of the process.[9] Local systems seek to integrate spontaneously when their factor endowments are complementary: if a political border hinders this process, a

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and capitals, by a strong sense of local belonging, by a scant desire to emigrate, by a prevalently endogenous source of industrial capital, and by a largely endogenous source of income.

8 Cf. *Goglio*, 1998.

9 The history of Italy in the second half of the nineteenth century is a significant example: cf. *Goglio*, 2001.

loosening of the constraints on exchange promotes cooperation. If there is no complementarity, policies designed to promote integration unnaturally and to reduce dualisms will give rise to high costs and yield uncertain results. To be stressed is that modern economic development requires the possibility of exchanges among local systems and economic regions, and their capacity to find a proper place within the restructuring of the international division of labour (or specialization) mainly based on localized knowledge. From this it follows that success springs from a dynamic capacity to respond to constantly changing demands from other regions, activating one's own tangible and intangible production factors and establishing proper linkages.

Two observations relate this scheme of things to current developments in Europe and the world. The first is that globalization, by accelerating the growth of networks of producers, increases the possibilities of development itself. But these networks do not necessarily expand contiguously, on neighbouring territories. On the contrary, globalization and technological progress increasingly create functional articulations among systems (nodes in the network) in what can be figuratively described as 'leopard spots'. It follows that changes in productive organization are assuming a greater role in redrawing the boundaries of territorial belonging and redistributive solidarity, inducing change – in both reality and perception – in the political and economic relations between local and aggregated systems. As globalization generates greater development, it creates new dualisms in the labour market, among firms, sectors, territories, and so on, which impact principally on the state system. In the most unbalanced of situations, this is a process which may assume turbulent, if not dramatic, forms. Development is in itself unbalanced, but what level of imbalance can a state absorb in exchange for greater development without jeopardizing its social cohesion? The second observation concerns the constant and rapid enlargement of the boundaries of the European Union. Given the scant economic complementarity of some areas comprised within those boundaries, their integration has sometimes been an artificial routeing of economic regions and their relations. This may increase the level of dualism within the Union, with effects increasingly difficult to control without ever greater financial effort.[10]

## 3. The political organization of space and its ideological support

Every state aggregation is based on a sense of identity and belonging which draws its strength *inter alia* from four components:

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10 The internal dualisms of Italy and Germany are good examples.

1. a spatial one: that is, its reference to a sufficiently compact and homogeneous territory;
2. a ideological one: that is, its sharing of a symbolic-cultural *corpus*;
3. a functional one proportional to the capacity to supply the public goods necessary for the system's efficiency and competitiveness;
4. a solidaristic one proportional to the capacity to supply the public goods necessary for the system's fairness and level of participation (the so called right of citizenship).

These four components obviously interact: they may reinforce one another or compensate for one another; but they may also come into conflict. The sense of identity and belonging and/or the dimension of the state aggregation may therefore be extended by technical progress (particularly in transport and communications), by the development of more complex ideologies able to incorporate greater heterogeneities through symbolic referents, and by a greater capacity to supply functional and solidaristic public goods.

This mechanism has plainly been at work in European history. The formation of the modern nation-state came about through the political aggregation of regions – not always ones that were economically complementary – with the parallel development of both an increasing supply of public goods, mainly driven by the exigencies of industrial development and social movements, and a supporting ideology which often made up for shortcomings in the delivery of public goods. In particular, nationalism was an explicit appeal to a vision of the community as founded on specific historical and geographical values embodied in the nation and not always rigorously proven. Generic and less rigorous nationalistic principles lent themselves better – and still do – than other ideologies (for example liberalism and socialism) to inter-class alliances which dampened the social problems created by economic development – especially those due to an inadequate delivery of efficiency and solidarity –by directing internal tensions towards the outside. Nationalism can therefore be viewed as a singular investment made in social capital, as a singular supply of public goods[11].

In the most recent decades in Europe, the spatial component of the sense of identity and belonging has diminished in importance. And the support ideology has made increasingly less reference to acritically nationalistic aspects. It has shifted instead to functionalist and solidaristic ones, doing so amongst other things because of the influence exerted by the growth of the European Union. The nationalist claims that still arise in Europe, mostly at sub-state le-

11 Cf. *Berlin*, 1979, and *Goglio*, 1998.

vel, can be divided in two classes. The first consists of reactions against state centralization and bureaucratization induced by the perceived inability of the current arrangement to meet the new challenges raised by international economic competition. The second consists of movements which are no more than manifestations of discontent at a local or sectoral level, without concrete programmes and based on a generic rejection of the modern forms of political governance, whether national or supranational: defensive reactions against threats, sometimes real sometimes imagined, fuelled by the combination of population movements at international level and the extremely rapid and drastic socio-economic changes that characterize our times.[12] A case apart is the resurgence of nationalism in the post-communist countries. This may in some cases be interpreted as the unwanted consequence of the socialist solution to the nationalist question, which was based on structural redistribution, and where the only true differences in terms of property were ethnic ones reinforced by the advent of ethnic groups as sub-parties.[13] However, not to be dismissed is the hypothesis that this is simply a post-colonial nationalism provoked by the instability of the economic and political equilibrium.

The dangers that may threaten the sense of identity and of belonging to a state aggregation do not derive solely from conflicts between the functional and solidarist components, and therefore from the diverse interests, needs and pressures of the social groups representing them. The material results of development have diffused short-term individual values, with dangerous repercussions on the other structures necessary for the functioning of society, and on social consensus. They have fostered the obsolescence of the previous system of aggregating values and ideologies, and weakened the identity-forming function of the state. The law in particular has become more fragmented, more subjective, oriented more to convenience than to morality, concerned more with immediate consequences and less with consistency and continuity.[14]

Globalization has amplified these dynamics, not only because it has created new dualisms within states, but also because it has favoured the decentralization and outsourcing of numerous public functions, increased the volatility of aggregations, and strengthened the weight of individual values with respect to collective and state ones. Collective action, and therefore the supply of public goods, are being privatized, and public goods are increasingly considered to be club goods. In particular, the transfer of numerous decisions from the public to the private sphere, the growing weight of non-state sources of rules formation, and the creation of mixed public/private power centres

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12 Cf. *Hobsbawm*, 1990.

13 Cf. *Ferrero*, 1995.

14 Cf. *Berman*, 1983.

mean that not only is power gradually shifting from the public domain to the private one – giving the latter greater influence over public choices – but the definition itself of what is public and what is private is changing.[15]

Globalization is therefore reducing the state's role as the referent for the law, rule making and democratic participation as traditionally defined, and it is eroding commitment to cooperative and solidaristic principles. Competition is becoming an ideology, thereby exacerbating inequalities and hampering the growth of a widely shared symbolic-cultural corpus. Yet neglect of cooperative and solidarist needs may give rise to levels of tension and instability dangerous to competitiveness itself. Aggregated systems without an adequate symbolic-ideological support run considerable risks: if the values underpinning an ideology cannot be assimilated and shared, the institutions that derive from them are unable to impose themselves effectively; heterogeneity evades control and the group's cohesive elements give way to centrifugal forces. Obsolete nationalistic ideologies, even ones restricted to limited territorial areas, may forcefully re-emerge when the symbolic apparatus connected with modernization and economic and cultural openness is unable to impose itself and collapses under the weight of change, and of the unresolved or unrelieved social problems to which it gives rise.

## 4. In which direction should the state be reformed?

Within the framework outlined thus far, the state must be able to participate in the governance of global competition, conciliating goals that are partially in conflict, at least in the short period, and acting on three main fronts: that of efficiency by increasing the competitiveness of the nation system and its components (firms and territories); that of the public interest by safeguarding the principles of fairness, participation and democratic choice; and that of territorial re-equilibrium by regulating competition among its territories (regions and local systems)[16]. Let us briefly consider how the first course of action may conflict with the other two, and what solutions can be envisaged.

One of the main dangers of globalization is that, in some sectors of global society, market values – individualism, competition, private interest – become a dominant ideology which is accepted acritically without being combined with a collective conception of the public interest. Thus the various structural dualisms described above are capped by an ideological dualism. As said, the-

15 Cf. *Aman*, 2003.

16 Relevant on this front is also the EU policy, carried out mainly through the so called Structural Funds.

se dualisms are implicit in all processes of development, which are inherently unbalanced, and they must be attenuated and brought under control if the onset of reactive (e.g. nationalistic) ideologies and movements is to be forestalled. This confronts the state with the difficult task of saving the global conception of the public interest by curbing both defensive corporative tendencies and selfish disaggregating impulses.

At the same time, the increasing delegation of public functions to the market jeopardizes democracy. It is by now evident that achieving more flexible and less costly public organization – and thus enhancing the system's competitiveness – through the outsourcing of tasks to the market is a valid solution, not only because there are fewer bureaucratic rigidities and greater incentives for efficiency, but also because democratic participation and decision-making are costly in themselves. On the other hand, the regulation that arises from global bodies (for example, the integrative processes that discipline competition) often originate outside state structures, although they then affect citizens by processes with little transparency and low levels of participation. Finally, the need for international and global laws to solve problems somewhat more than merely international gives rise to overlaps among private regulations which must find validation in state legislation. The state must therefore be able to interact with private organizations which do not have direct connections with a territorial referent. If we must perforce accept the principle that there exist multiple sources of legality, these must also abide by the democratic principles that underpin the state's lawfulness.

If we now consider the pressure exerted by the global economy on substate territorial entities to increase their efficiency and competitiveness, it is clear that the task of maintaining a more general identity which facilitates broader forms of cooperation inevitably falls to the state. Competition among substate territorial entities – based as it is on privatization, deregulation, reduced taxation and greater investments – cannot be allowed to conceal the need for more cooperative non-market instruments backed by appropriate incentives. Not only must the state be able to assist substate entities to compete efficiently, without excessively increasing the costs of those which are already competitive, it must impede the onset of forms of unfair competition among them. Required for this purpose is a standardization of the rules of the game in order that the latter does not grow to the extreme that it creates tensions and costs for present and future generations, with particular attention being paid to the environmental and social sustainability of development. Of course in accomplishing this task single states can not operate alone, and there is ample space and need for multilateral governance[17].

17 Once again significant is the role played by EU rule making.

Changes in the economic and geopolitical context and new participative needs therefore entail a renewal of the state which engenders new institutional and organizational structures able to resolve functional difficulties (of efficiency and competitiveness), of identity-formation, and of democratic participation. Because competition among territories increasingly puts local systems and economic regions in the front line, this renewal must necessarily involve decentralization, organizational and decision-making autonomy, and assumption of responsibility for one's own destiny at the local level. Peripheral restructuring must be combined with a parallel restructuring at central level intended to create a more flexible state structure founded on mechanisms more receptive to local needs for change and reorganization, but at the same time able to prevent the fossilization of the solutions achieved into 'definitive institutionalization'. In other words, what is required is a state able to incorporate and harmonize continuous local competitive reorganization. It is important to ensure that local autonomies do not turn into simple decentralization which merely multiplies bureaucratized administrative centres which, far from facilitating private initiatives, increase their costs; that it does not foster the onset or strengthening of local interest groups, faded copies of central interest groups and in competition with them; and that it does not proliferate redistributive power centres which inevitably weaken the production systems on which they parasitically feed.

This renewal entails transforming the nature of the state itself, and not merely altering some of its functions. This is not a matter of producing a state more open to the market, but rather of producing a state able to interact with the new global dimension. This radical modernization of the state apparatus will not be possible without the development and spread of a new culture which to a certain extent overturns some of the principles on which the present-day Western states are founded. This is not to propose a return to market values and to individualism freed from solidaristic and directive constraints; it is rather to propose integration of the misleading state/market antithesis with more careful valorization of resources comprised in communities no longer defined by geographical contiguity alone. Therefore required is not the individualistic ideology of the market, but rather a new worldwide ideology able to reconcile global competition with global cooperation: an ideology that can not be proposed, or imposed, through a top-down procedure, but that should emerge as the result of a process of general debate and accord among actors.

## References

*Aman, A. C., Jr.* (2003), Globalization, Democracy, and the Need for a New Administrative Law, in: Indiana Journal of Global Legal Studies, vol. 10, n. 1.

*Becattini, G.* (1994), Nazione economica e nazione politica nel pensiero di Marshall, in: Roggi, P. (ed.), Quale mercato per quale Europa. Nazione, mercato e grande Europa nel pensiero degli economisti dal XVIII sec. ad oggi, Milano, Angeli, pp. 271-280.

*Becattini, G./Bellandi, M./Dei Ottati, G./Sforzi, F.* (2001), Il caleidoscopio dello sviluppo locale. Trasformazioni economiche dell'Italia contemporanea, Rosenberg & Sellier, Torino.

*Berlin, I.* (1979), Nationalism: Past Neglect and Present Power, in: Berlin, I., Against the Current, Harmondsworth, Penguin Books, pp. 333-355.

*Berman, H. B.* (1983), Law and Revolution. The Formation of the Western Legal Tradition, Cambridge Mass., Harvard Univ. Press.

*Ferrero, M.* (1995), The Economics of Socialist Nationalism: Evidence and Theory, in: Breton, et alii, Nationalism and Rationality, Cambridge, Cambridge Univ. Press, pp. 204-244.

*Goglio, S.* (1998), Sistemi locali, nazione economica e nazione politica, Sviluppo locale, n. 8, pp. 47-74.

*Goglio, S.* (2001), Relazioni locali e sovralocali nell'industrializzazione italiana, in: Becattini, G./Bellandi, M./Dei Ottati, G./Sforzi, F., Il caleidoscopio dello sviluppo locale. Trasformazioni economiche dell'Italia contemporanea, Rosenberg & Sellier, Torino, 2001.

*Hobsbawm, E. J.* (1990), Nations e Nationalism since 1780.

*Marshall, A.* (1923), Industry and Commerce.

*Ohlin, B.* (1968), Interregional and International Trade, revised edition, Cambridge Mass., Harvard Univ. Press.

# Competitive Federalism – Understandings and Institutional Settings[1]

*Thomas Lenk*
*Karolina Kaiser*

## 1. Introduction

Decentralization and federalism are prevailing institutional settings in many countries around the world and many scholars have addressed the advantages and caveats of such structures since they came into existence. One of the most influential theories in the modern economic analysis of decentralization is the Tiebout hypothesis. Tiebout (1956) could show that in a federal setting consisting of a large number of jurisdictions, which autonomously decide on public goods and correspondingly on taxation, and where inhabitants can costlessly move to their most preferred jurisdiction, the outcome is pareto-efficient. This idealized setting, often referred to as the 'Tiebout-World' embodies the basic idea of competitive federalism. One of the most important features of such competitive federal structures is regional autonomy. Regions have the right to autonomously decide on structure and scope of public good provision with the public goods financed completely out of tax prices paid by residents of the region. Competition takes place by residents 'voting with their feet' the jurisdiction that best matches their preferences.

When we think of competitive federalism as one extreme on a scale of state organization, we find at the other end of the scale centralism, where no regional autonomy exists and regulatory and revenue competences are completely with the center. In the latter setting we find no regional differences in regulation, public goods and taxation.

In reality, a multitude of state designs can be observed, some of which are closer to the competitive type like the U.S. or Switzerland and some of which are closer to the unitary type like Austria or Germany. Although the notion provided initially with our idealized scale seems straightforward, in practice, it is a difficult task to determine the extent of decentralization of states due to the complexity of intergovernmental relations. A common measure of decentralization is the share of expenditures and revenues in subnational budgets.

1 The authors are deeply indebted to *François Vaillancourt* for invaluable comments.

More recent measurement concepts are more comprehensive, taking, for instance, into consideration if subnational jurisdictions have the power to decide on the composition and amount of expenditures and revenues.[2] These studies revealed that some states traditionally seen as strongly decentralized are actually more of the unitary type. One particular case in point is Germany where we find a substantial share of expenditures and revenues administered by subnational authorities while these expenditures and revenues are determined to a large extent by the center. This is in particular true for the revenue side, where we can observe the Länder to be pure collectors of tax revenues at the same time as tax bases, rates and appropriation principles are legislated by the center. Thus, Germany traditionally perceived as a strong federal system, has been revealed to be a 'hidden centralism'.[3] This finding and the recent German debate on reforming federalism make Germany a particular interesting country to study. Using the case of Germany, we identify in this paper institutional structures constituting impediments not only to federal competition but also to reforming federalism.

The remainder of the paper is organized as follows. We first (section 2) take a brief glance at the scientific debate on the effects of decentralization and if competition is regarded as a 'good thing' or a 'bad thing' in order to provide a base for the discussion of the German attempts to reform federalism. In section 3, we sketch out the institutional structures of German federalism revealing the major impediments to regional competition. In addition, we discuss reform proposals aiming at enhancing regional autonomy. While we can draw at the expenditure side on suggestions from a recent federalism commission appointed by the central and state governments, we have to refer at the revenue side on ideas from the scientific debate as revenues were excluded from discussion in the federalism commission. We analyze one of the proposals on regional tax autonomy in more detail – the option for the Länder of setting rebates and surcharges on their income tax liability, with the resulting revenue changes excluded from fiscal equalization. Despite the exclusion from equalization, we find that the transfer system has impact on the revenues from rebates and surcharges, making this instrument less valuable to the Länder. Our analysis shows the difficulty of reintroducing regional autonomy in a system of long-term grown deeply intertwined federal structures. Section 4 concludes the paper.

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2 See for instance *Meloche/Vaillancourt/Yilmaz* (2004), *Stegarescu* (2004), *Rodden* (2004).

3 *Blankart* (1999) came earlier to this conclusion based on theoretical considerations on the behavior of the Länder.

# 2. Decentralization and Regional Competition – a 'good thing' or a 'bad thing'?

Early theoretical analyses of interregional competition point to the beneficial effects of decentralization from an allocative perspective. The initial work of Tiebout (1956) which pointed to the efficiency enhancing effects of regional competition was supplemented later by a variety of further theoretical contributions, among of which some of the most influential were the work of Olson (1969) and Oates (1972).

Olson (1969) referred to the so called 'principle of fiscal equivalence' which states that residents befitting from a public good or service should coincide with the residents paying the costs of this good or service. If fiscal equivalence is given, residents can directly compare (marginal) benefits and (marginal) costs when deciding on a public good, which leads to an efficient provision. A decentralized setting offers the opportunity to account better for fiscal equivalence than a centralized setting, since we find different levels of government, each of which should (ideally) account for the public goods or services whose circles of benefit are accordant to the size of the jurisdiction.

The beneficial characteristics of a decentralized setting were further supported by Oates' (1972) decentralization theorem. He showed that the allocation of public funds can be improved in a decentralized setting by adjusting the regional level of public good provision to local preferences, while in a centralized setting, a uniform public good provision leads in some regions to over- and in some regions to underprovision, given that preferences vary across the state. But Oates (1972) not only acknowledged beneficial effects of decentralization but also potential inefficiencies that may result at the expenditure side from spillover effects or economies of scale and at the revenue side from keeping taxes (too) low in order to attract business investment.

The latter notion was taken up by in the theoretical literature on tax competition starting with the influential work of Wilson (1986) and Zodrow/ Miezkowski (1986). Their models of tax competition show that (in a setting of non-identical regions) taxation of mobile capital distorts the relationship between marginal benefits and marginal costs. A rise in the tax rate causes a positive externality by capital leaving the region. As in the region only the benefits of own residents are considered and not benefits provided to other residents, the tax rate and public good levels are in result inefficiently low.

The initial tax competition models were followed by a vast literature on intergovernmental competition extending the analysis in various aspects involving also nontax instruments and yielding less straightforward results than the initial models – including also beneficial effects of tax competition.[4]

Another stream of literature extended the analysis to aspects of political economy. While in most of the tax competition models benevolent government behavior is assumed, which is formally expressed in the maximization of residents' utility, in this stream of literature, government officials are assumed to maximize the size of public budgets in order to increase their power and circles of influence. This hypothesis became famous as the so called 'leviathan hypothesis' formulated by Brennan and Buchanan (1980). Similar ideas are found earlier in the work of Niskanen (1971) in regard of bureaucrat behavior. Provided, these assumptions are true, competition may play an important role in the reduction of government waste and would therefore produce beneficial effects.

Sinn (1997) thinks about competition from a different perspective. He points to the reasons of government activity, one of which is the provision of goods and services for which competitive markets do not perform well. The reintroduction of competition in their provision by government competition is likely to reintroduce market failures.

The ideas laid out above represent only the tip of the iceberg of a large literature on competition, which comprises different strands of reasoning. Wilson (1999), who conducted a wide-ranging survey on theories of tax competition, differentiates between three strands of thought. While in Tiebout models government competition resembles competition in the private sector and has therefore desirable efficiency properties, tax competition models rest often on assumptions on government competition that negate the efficiency properties of the standard competitive model. A third approach – the political approach – takes a middle position. It is similar to the Tiebout approach by acknowledging the efficiency enhancing nature of government competition, but also departs from the Tiebout view by taking into consideration that the efficiency enhancing incentives – similar to the profit incentives facing competitive firms – operate in an environment characterized by market failures and make therefore a fully efficient equilibrium unattainable.

Wilson (1999, p. 289) concludes his analysis: '*As such, competition among governments has both good and bad aspects, the importance of which vary across the attributes of the goods and services that the governments provide*'. A similar answer on the question if competition among governments a good thing, is provided by Oates (2002, p. 386-87): *I find it hard to provide a definitive answer based on the existing literature. Instead, this is another of*

4 See *Wilson* (1999) for an extensive survey on theories of tax competition.

*those issues where the economist is likely to respond 'On the one hand, this … and on the other hand, that…'*

The conclusions of two of the most influential scholars in the field of intergovernmental competition let us infer that a judgment on the institutional design and the effects of decentralization is only possible case by case and depending on circumstances, which vary across regions and in time. When we think for example about Canada, we find large differences in provincial personal income tax rates (see Table 1) with Alberta the only state with a flat tax of 10 percent.

**Table 1: Provincial Personal Income Tax Rates, Canada, 2003**

| Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Québec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia |
|---|---|---|---|---|---|---|---|---|---|
| 10.57% - 18.02% | 9.80% - 16.70% | 9.77% - 16.67% | 9.68% - 17.84% | 16% - 24% | 6.05% - 11.16% | 10.90 % - 17.40 % | 11% - 15% | 10% - 10% | 6.05% - 16.70% |

Source: Finances of the Nation, 2003 Canadian Tax Foundation at www.ctf.ca

Alberta has the chance to do so because it is 'wealthy' in oil revenues. Thus, we can see that variances in resource endowments – a particular circumstance prevalent in Canada – influence regional tax policy. In the US, were nontax revenues are distributed rather uniform, such large differences in tax rates are not observable.

Another case in point is the region of Quebec in Canada. The characteristics of this region are very special:

- The majority (81.9%[5]) of Québec's population (7 125 000) in 2001 is of French mother tongue (francophones) while the rest of North America is English speaking.
- The majority (63.4%[6]) of francophones are unilingual i.e. only speak French. Of those deemed bilingual in the Census, a vast number cannot work in English
- Even truly bilingual francophones have a preference as shown by their inter-provincial migration rates[7] for remaining in Québec since living

5 2001 Census. % is for respondents with a single answer to the mother tongue question. Data at http://www12.statcan.ca/english/census01/products/standard/themes/ListProducts.cfm?Temporal=2001&APATH=3&THEME=41&FREE=0, table 1

6 2001 Census .% is for respondents with a single answer to the mother tongue question. Data at http://www12.statcan.ca/english/census01/products/standard/themes/ListProducts.cfm?Temporal=2001&APATH=3&THEME=41&FREE=0, table 9.

outside Québec increases the odds (0% in Québec, 24% outside[8]) of assimilation (Bird and Vaillancourt,2001)

Due to these regional peculiarities, making the labour force immobile, Québec has the chance to tax labour more than average North America while taxing profits less and offering more subsidies to businesses than other Canadian provinces.[9]

In Germany such regional differences in taxation as observed in Canada would likely to be perceived as a problem, since the Germans have a pronounced preference for equity, manifested in the German Constitution by the ‘principle of equivalent living conditions’. As we will see in the next section, where we analyze the Case of Germany in more detail, this principle played a significant role in the design of German federalism, which characterized by federal structures inhibiting intergovernmental competition.

## 3. The Case of Germany -Current Institutional Structures and Reform Proposals

One peculiar feature of German federalism is the dominance of the national government (Bund) in legislation. The Bund has not only exclusive legislative powers in fields assigned in most federations to the center (like defense or foreign affairs), it has also the right to take legislative action in an extensive catalogue of further public activities (e.g. taxation) which potentially could be legislated autonomously by the regions. National legislation in the latter areas requires one of the following preconditions to be fulfilled:

- the legislation is needed to ascertain *equivalent living conditions*
- the legislation is needed to ascertain *economic and legal uniformity* in the federation

These two principles concerned with regional equity are central to the German constitution and served in the past as a justification for the continuous extension of the legislative actions of the Bund, that nowadays is responsible

7 Which are 1/10th of those of Anglophones from Québec in the 1966-1986 period (*Vaillancourt* (1992).

8 Assimilation is defined as the % of francophones who no longer speak French at home.

9 See *Bird/Vaillancourt* (2001) for more information on the Québec’s tax system.

for the entire tax legislation (with marginal exceptions, see 3.2.1) and for a host of other public activities.

While the regions are endowed with little legislative autonomy, they are strongly involved in central legislation. About 2/3 of all laws have to be approved by the upper chamber of the parliament (representing the regions) before coming into action.

This and a variety of further intertwinements in decision-making, financing and revenue appropriation have turned German federalism in a cumbersome construction with many veto-players, sluggish negotiations and the inclination to keep the status-quo.

At the same time Germany is faced with a changing environment, brought about by a variety of developments, like globalization, increasing mobility of labor and capital as well as demographic change, putting pressure on the historically grown federal structures. The national government and the Länder appointed therefore in 2003 a federalism commission that was assigned to work out reform proposals on German federalism. The commission basically has been concerned with aspects of expenditure assignment and legislation, since tax appropriation was excluded from the beginning from negotiations. Although, finally, consensus could not been reached, the proposals of the commission are likely to be taken up again in the near future by a new committee as federalism reform is still a pressing political issue.

From the standpoint of fiscal federalism the commission has dealt only with half of the problem. While identifying various areas of public activity eligible for devolution from the center to regions, devolution of revenue autonomy was excluded from discussion. In contrast, theory would suggest, that an increase of regional autonomy over (marginal) spending should be accompanied by an increase of autonomy over (marginal) revenues. Therefore, we discuss ways of providing the Länder (at least partial) autonomy on taxes in Germany at the end of the section. One promising alternative is the allowance for regional surcharges and rebates on the income tax liability with exclusion of the resultant revenue changes from fiscal equalization. This proposal is of special interest, as it could be put into practice without altering the current law on fiscal equalization (which has been agreed to stay unchanged until 2019). In a technical analysis, we can show that revenue changes from rebates and surcharges are in part determined by the fiscal equalization system, which makes the instrument less valuable to the Länder. Our analysis reveals the difficulty of reintroducing autonomy into the German federal system.

## 3.1 Public Responsibilities

### *3.1.1 Current Institutional structures*

In Article 30 of the German Basic Law is stated that the federal states are responsible for public responsibilities. This general rule is circumscribed by various exceptions in all stages of the public regulatory activity, involving *legislation*, *execution* and *funding*.

*Legislation*

Following the general rule of Article 30 of the German Constitution, the federal states are in general responsible for legislation (article 70 basic law). We find three exceptions in the basic law.

First, the national government is assigned *exclusive legislative power* in several explicitly mentioned fields of public activity, for example in the areas of defense and foreign affairs (articles 71, 73 basic law).

Second, the national government has the right of *competitive legislation* in further explicitly stated fields of public activity (articles 72, 74, 74a basic law). Competitive legislation means, as long as the national government does not exercise its right, legislation of the federal states is in force. The national government launched competitive legislation in the fields of the salary and pensions of civil servants, commercial law, labor law and others.

Third, the German Constitution allows the national government to set a legal framework for some explicitly defined fields of public activity (article 75 basic law). The federal states provide detailed regulations within the national framework. *Framework legislation* exists for example for legal relationships with state and municipal civil servants and for higher education.

National legislative action in the areas of competitive and framework legislation requires that the legislation is needed to:

(1) ascertain equivalent living conditions or

(2) in order to preserve economic and legal unity in the federation.

In the past these prerequisites were interpreted mostly in advantage of the national government. In consequence, in the course of time evolved national regulations in most fields of competitive and framework legislation.

Besides the above mentioned regulatory activities, the national government sets rules jointly with state governments (articles 91a, 91b basic law). The *joint tasks* encompass the construction of university buildings and university hospitals, the improvement of the regional economic structure (91a basic law) as well as the facilitation of research activities and the planning of education policy (91 b basic law).

In addition the national government influences government activity in subnational jurisdictions by providing *grants* for important public investments, investments which help to prohibit a disturbance of the macroeconomic equilibrium, advance growth or reduce differences in the economic performance across the federation (article 104a (4) basic law).

Summing up, the German national government plays a dominant role in the design of major public responsibilities. The scope for regional autonomy and for variability in regulations and expenditure programs is compared to other federalist counties as the U.S. or Switzerland insignificant. The allocation of legislative powers reflects the importance of distributional goals in Germany, stressed by the constitutional principle of 'equivalent living conditions'.

*Execution*

The execution of public responsibilities is in general assigned to the federal states (articles 83, 84 basic law). In addition, some laws are executed by the federal states as a *mandate of the national government* (article 85 basic law). In the first case, the national government has the right to supervise the lawfulness of the actions of subnational governments. In the latter case, the supervision is extended to the assessment of the usefulness of subnational government actions, or to put it differently, the national government controls not only for the achievement of the public objective, but also for the correct execution of the regulation. Only few public responsibilities are executed completely by the national government, as for example national defense and foreign affairs (article 86 basic law).

We can conclude that, in contrast to the assignment of legislative powers, the execution of laws is basically localized with subnational governments.

*Funding*

The vertical separation of legislation and execution makes the assignment of funding competences a difficult task. In general two options are conceivable. Funding could be linked to the decision responsibility or to the execution responsibility. Both constructions imply a principal agent problem. If the jurisdiction, which regulates the public task, is responsible for the funding, the executing jurisdiction has no incentive to conduct the task effectively as it has not to bear the costs of its ineffectiveness. On the other hand, if the executing jurisdiction has the funding responsibility, the jurisdiction with the regulatory power has the opportunity to assign unfunded mandates to the executing jurisdictions without paying the costs of its decision. This raises the question which construction is better from an economic point of view. Huber (1999) analyzed this issue using a principal-agent-model and found that the linking of funding to the expenditure responsibility is the efficient solution.

This is what we find in the German Constitution. The basic rule states that the national government and the federal states have to cover separately the costs resulting from the execution of public responsibilities (article 104a (1) basic law). But there exist also some exceptions from this rule.

First, if the federal states administer mandates as agents of the national government, the national government covers the costs (article 104a (2) basic law).

Second, if national laws regulating the provision of payments to third parties, as the provision of housing allowances to citizens, are executed by the federal states, the national government may contribute partly or fully to the funding (article 104a (3) basic law).

Third, the national government may participate in the funding of the above mentioned important public investments by providing grants to subnational governments (article 104 a (4) basic law). This type of grants is currently used to further urban development, subsidized housing, seaports and for the improvement of municipal transport facilities.

In addition, the national government contributes with matching grants to the funding of joint tasks (articles 91a, 91 b basic law). The contribution rate amounts to 50 percent for the construction of university buildings and university hospitals and for the improvement of the regional economic structure. The funding of measures for the improvement of the agricultural structure and for the improvement of cost protection is borne by the national government with rates of 60 percent and 70 percent, respectively. The remaining joint tasks are co-financed with varying rates negotiated in discretionary agreements with the subnational governments.

Summing up, we can observe a deep intertwinement of all government levels in the execution of public responsibilities, prohibiting to a large extent competition among regions and leading to a variety of inefficiencies laid out in the following.

*Regional Participation in Central Legislation*

Joint decision making inside and outside the parliament is a commonplace in Germany. During the last decades the federal states forgave substantial legislative powers. Instead they participate substantially in national legislation, which is often a longsome procedure. The Lower House of German Parliament (Bundestag), representing the national government, needs for the passing of a bill, the approval of the Federal Council of Germany (Bundesrat), representing the federal states, in a multitude of cases. Approval is needed for bills containing regulations on law execution (article 84 basic law), for bills of competitive legislation (article 72 basic law), for joint tasks (article 91a basic law) and others. About two thirds of all bills are subject to approval. If the approval is rejected, the law is renegotiated in a conciliation committee. All in all the bicameral legislature turns out to be an inefficient procedure. It takes often months or even years to pass a bill. One prominent example is the law on immigration that needed four years of negotiation.[10] Furthermore there are many cumbersome negotiations between jurisdictions outside the parliament, as for example on the joint tasks of article 91b basic law.

The scope for autonomous decision making in the regions is further circumscribed by various other national encroachments. For example by the assignment of unfunded mandates to subnational governments and by the provision of matching grants. From the economic point of view co-financing is only efficiency-enhancing if it used to finance public goods with positive externalities. In Germany it is used to finance pure regional and local public goods, for example urban development or social housing.

To sum up, the institutional structures in Germany constitute a complex intertwinement of political responsibilities including a multitude of inefficiencies and leaving only little space for autonomous decisions for subnational governments.

### *3.1.2 Reform Proposals*

In 2003 was a commission appointed by the federal states and the national government (the federalism commission) in order to work out proposals for the modernization of German federalism. The negotiations in the commission broke down in December 2004 because the federal states and the national government could not reach a consensus on education policy. In this section, we take special reference to the ideas of the commission as it is likely that the negotiations are restarted in the near future and the proposals worked out have a chance to be put into practice.

*Reassignment of legislative powers*

One important prerequisite for increasing regional autonomy is a transparent assignment of legislative powers according to the subsidiarity principle. The national government is willing to forgive competencies in various fields of

10 See *Manow/Burkhart* (2004) for a detailed analysis of the duration of legislation in German bicameralism.

competitive and framework legislation in order to strengthen state legislation, for instance regional economic law or the regulation of salary and pensions of Länder civil servants. Autonomy over public salaries would substantially increase the discretion on subnational spending as personal costs belong to the most significant costs of public activity. At the moment the sates have limited influence on their personal costs. Due to having no autonomy over salaries of civil servants, the Länder can change these costs only be changing the number of civil servants. The latter is further restricted by strict regulations on the dismissal of civil servants making it virtually impossible to lay them off before they retire.

Another proposal for the restriction of national impingements into the state legislation is a stricter interpretation of the prerequisites for competitive and framework legislation in advance of the states.

*Reducing approval requirements in national legislation*

Joint decision making in the parliament could be reduced substantially by redefining the rules for the approval of bills. A substantial reduction of jointly passed bills could in particular be reached by the abolishment of the need to approve bills including regulations on law execution. Instead it has been proposed to introduce a new approval requirement for national laws including regulations which impose substantial costs on subnational governments. This new regulation reduced not only the number of bills subject to approval, but also provided a means of protection against unfunded mandates to regional governments.

*Reducing financial impingements*

Another important step for increasing regional autonomy and the effectiveness of public decision making is the abolition of joint financing in various fields, in particular if the subsidized public good or service is not accompanied by positive fiscal externalities.

Seitz (2003) calculated the financial consequences of a full abolition of joint financing. In his calculations the federal states were compensated for the lost funds with the average amount of received grants. As the amount of grants differs substantially between the East and the West German states, two separate averages were calculated. The results show that a substitution of the individually negotiated grants by uniform per capita grants would lead barely to redistribution.

Such a straightforward solution was not among the proposals of the federalism commission. Instead, it was reached consensus only on the abolition of the joint tasks ‘regional economic structure’, ‘agricultural structure’, ‘planning of education policy’ and ‘construction of university buildings’. Agreement was also reached on the cancellation of federal grants in the fields of 'social housing', 'urban development' and 'local traffic conditions'. But the design of compensation has not been settled.

Summing up, the reform proposals within the federalism commission aim altogether at reducing cumbersome and inefficient negotiation procedures and at the devolution of autonomy over spending, which could in turn strengthen regional autonomy and raise the potential for regulatory and expenditure competition.

## 3.2 Taxation

### *3.2.1 Current institutional Structures*

*Legislation*

Tax Legislation in Germany is almost completely centralized. The same prerequisites as necessary for competitive and framework legislation gave the national government the chance to attain the right for legislation of all taxes whose revenues it is accrued partially or completely. The national government decides both on tax bases and tax rates of all substantial taxes. One exception of this rule is that the municipalities are allowed to decide on the local business and land tax rates. If the revenue of one tax accrues to subnational governments partially or completely, tax legislation is subject to approval of the Federal Council of Germany (article 105 basic law).

*Tax collection*

While tax legislation is concentrated at the national level, tax collection is almost entirely executed at the state level. Only pure national taxes are collected by the national government (article 108 basic law).

*Assignment of Tax Revenues*

The most important sources of revenue are shared among national, state and local governments. The value added tax (VAT), the personal income tax (PIT) and the corporation tax, which account for about three quarters of total tax revenue are distributed in a joint revenue system. The taxes accrued separately are insignificant. Figure 1 provides an overview on the tax revenue assignment in Germany and depicts the shares of the jurisdictions in the joint taxes.

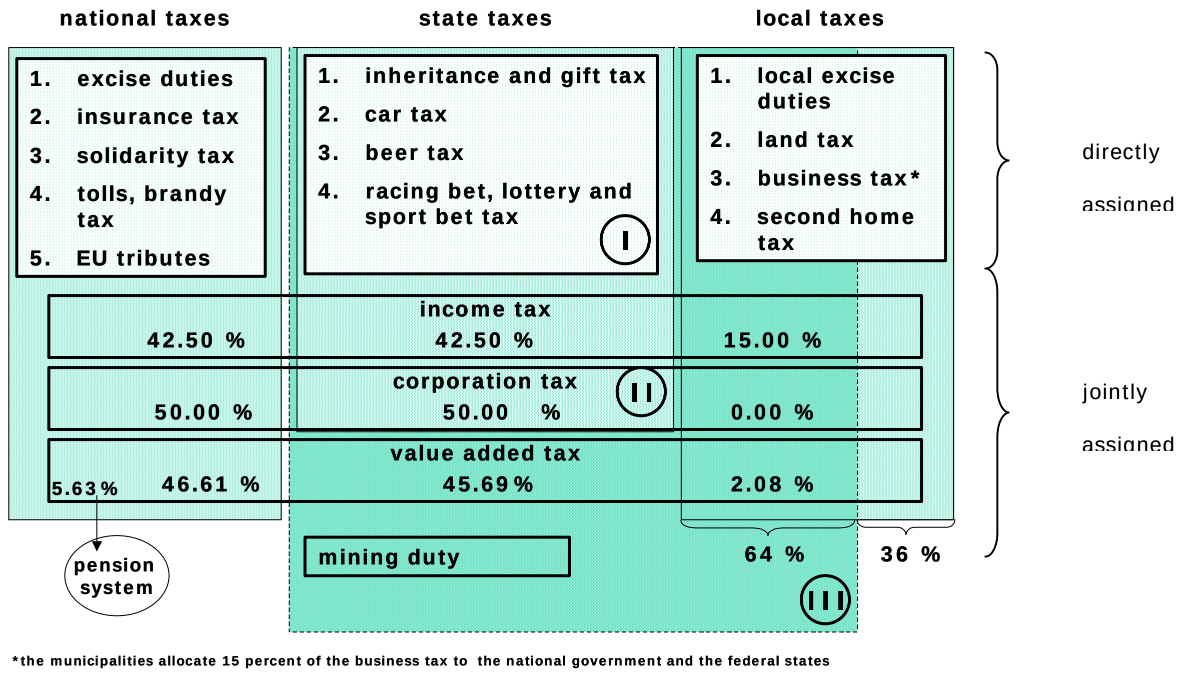


**Figure 1: Tax Assignment in Germany (Jan 2005)**

Assignment of joint taxes at the state level is subject to various rules. While the allocation of the income tax is based on residency, the allocation of the corporation tax is subject to plant location. Due to commuting the income tax revenue after allocation differs in some states from the revenue collected at source. This is particularly true for the city states of Hamburg and Bremen[11], which export substantial income tax revenue to the neighboring regions. When the initial tax assignment (described up to now) is completed, fiscal equalization takes place in three stages.

The first stage is the distribution of the VAT, which is the so called 'flexible element' of the German fiscal constitution. If the expenditure needs of the national and state governments change substantially, the VAT shares are adjustable by simple law. As a consequence, the (vertical) VAT shares change over time as opposed to the shares of the other joint taxes.

One part of the states' VAT is distributed based on fiscal capacity. When we talk about fiscal capacity of the states, we have to distinguish between three different state tax definitions (see figure 1). The first group of state taxes contains the separately accrued state taxes (indicated by 'I'). Group 'II' includes in addition the shared state taxes except the VAT and group 'III' adds the states' VAT, the mining duty and 64 percent of the municipal taxes to

11 See for example *Büttner/Schwager* (2003).

group ‘II’. States with below average state taxes II get fiscal capacity based VAT shares. The gap between the actual and the average tax receipts is filled according to the marginal transfer function depicted in figure 2. The deficit below 97 percent of the average is subsidized with a rate of 95 percent and the deficit between 97 and 100 percent of the average is subsidized with a declining rate between 95 and 60 percent. As the sum of VAT funds allocated in this scheme is restrained to 25 percent of the states total VAT, the shares are reduced with a linear rate if this cap is exceeded. The remaining VAT is assigned based on population.

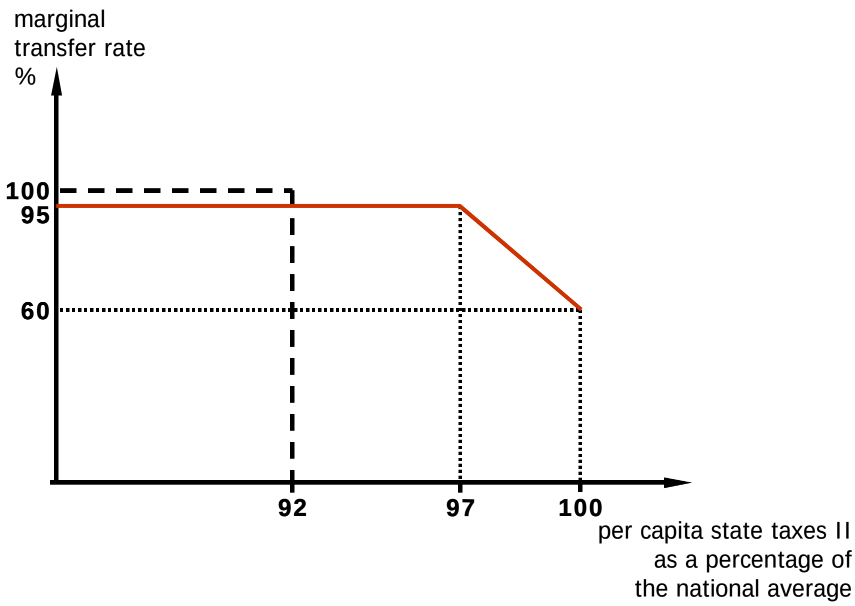


**Figure 2: The marginal transfer function for fiscal capacity based VAT shares**

At the second stage, a horizontal equalization transfer system is in place.[12] States with above average state taxes III donate fiscal equalization transfers out of their state taxes III to states with below average tax receipts. The average serves as a figure of fiscal need in the transfer scheme. Equalization contributions and receipts are calculated according to the marginal transfer function depicted in figure 3. Recipient states get the difference between their figure of fiscal capacity (state taxes III) and their figure of fiscal need subsidized with a marginal rate between 75 and 44 percent. According to the symmetrical transfer function, donor states have to pay likewise between 44 and 75 percent of their above average tax receipts into the system. While receipts of fiscal equalization are fixed in accordance to the amount calculated by the

12 The equalization scheme described in this paper is simplified. For a more detailed description see for example *Lenk/Kaiser* (2004).

transfer function, contributions are multiplied with a linear rate, such that the sum of contributions is adjusted to the sum of receipts.

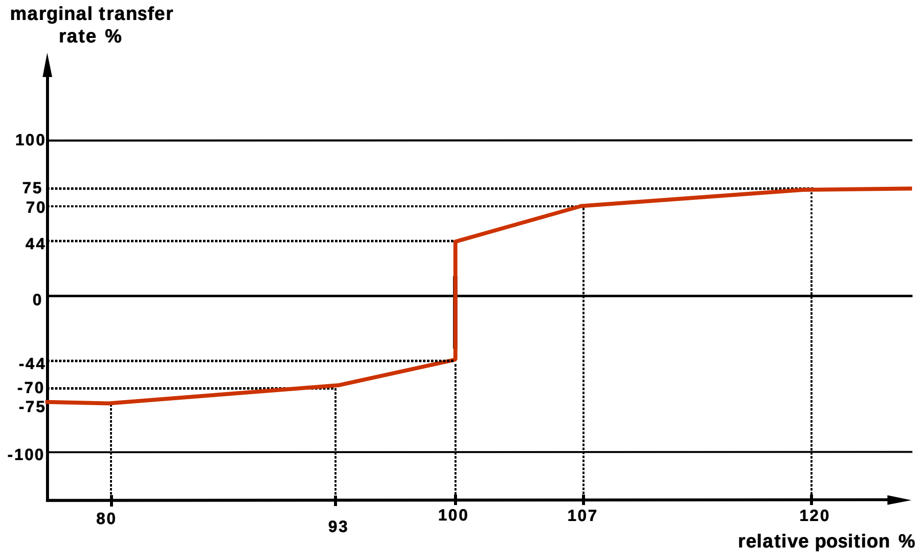


**Figure 3: The marginal transfer function of the horizontal equalization among the states[13]**

The third stage of fiscal equalization is made up of vertical transfers from the national government to the Länder. On the one hand it grants supplementary transfers to recipient states with a fiscal capacity which is after horizontal fiscal equalization still below 99.5 percent of the figure of fiscal need. The supplementary grants reduce the remaining gap to 99.5 percent with a rate of 77.5 percent.

On the other hand, the national government provides discretionary grants for two purposes. First, small states (measured by population) receive subsidies for the costs of their administration. Second, East German states get grants for their infrastructural backlog and insufficient fiscal capacity.

Summing up, the federal states have only little taxing powers. The tax bases and rates are determined by the national government, the federal states are basically responsible for tax collection. Revenue sharing and fiscal equalization dilute the relationship between collected and accrued taxes of the states. The states can influence their funds basically by deficits, fees and contributions which play quantitatively a minor role in financing expenditures.

13 The relative position of one state is the relation of fiscal capacity and fiscal need.

### *3.2.2 Reform proposals*

Reform proposals concerning constitutional rules on revenues were generally excluded at the outset of the negotiations in the federalism commission. Therefore we refer in this section basically to reform proposals made outside the commission.

Despite of the initial agreement, the national government and the federal states discussed within the commission to switch the collection responsibility and revenues of the insurance tax and the car tax. Both taxes are insubstantial. The allocation of the car tax to the national government would have the advantage to bring the policy on car taxation, fuel taxation and the road toll together. The federal states would be responsible for the fire protection tax and insurance tax. Both taxes are akin to each other and the insurance tax has the advantage of lower tax collection costs.

A further proposal, discussed in the federalism commission, is the transfer of legislature on separately accrued state taxes (group I in figure 1) to the federal states. As mentioned above, these taxes yield insignificant revenues and would hardly contribute to an increase of regional revenue autonomy. The federal states are in particular skeptical about the consequences of the devolution of the land purchase tax. Past experiences have shown that a regional land purchase tax led to a muddle of tax bases and rates. The legislation on this tax was therefore transferred to the national government in 1982.

The federal states regained substantial taxing powers only by participating in the regulation on the joint taxes. Although the federal states mentioned explicitly in the federalism commission, that they are at the moment against the introduction of revenue competition because of the large regional differences in the collected tax revenue, we would like to discuss this option in the sequel.

One way of allocating substantial revenue responsibilities to the federal states would be the change of joint taxes into separately accrued taxes, whereas the income tax could be accrued completely to the federal states and the VAT to the national government. Such a system was in place until 1954.[14] Lenk and Schneider (2001) discuss this reform proposal. The volume of revenues accrued currently to each of the two government levels would approximately remain the same. Both – national and state governments – would gain fiscal autonomy. But the scope for risk sharing would be reduced. An unexpected decrease in one tax base can currently be offset (at least partially) by the tax revenue of the other tax. In addition, the VAT could not anymore

14 See *Heilemann/von Loeffelholz* (1995) for a more detailed delineation of the development of the German federal system after World War Two.

serve as an institution of vertical flexibility within the German revenue system. Experiences with regional tax base autonomy in the U.S. and in Switzerland show that the complexity of the tax system as a whole and the tax administration effort could increase substantially. Therefore it seems to be more reasonable to give the regions the right for tax rate determination and to retain the definition of the tax base at the central level. From the standpoint of the theory of fiscal federalism the right of tax rate setting should be further restricted to linear rates as distributional goals should be pursued by the national government.[15]

Büttner and Schwager (2003) discuss the consequences of regional rebates and surcharges on the income liability of their residents. [16] This proposal is of particular interest as it requires little administrative effort and finds approval in the political debate.[17] The constitutional principle of 'equivalent living conditions' and the importance of distributional goals in Germany imply that the scope for regionally varying expenditure programs and for substantial differences in tax revenue is limited. For this reason Büttner and Schwager (2003) examine, which tax rebates and surcharges must be imposed on the regional income tax liabilities in order to reach revenues equal to the national average. They find that the city of Hamburg – the federal state with the highest income tax revenues per capita – could give its citizens a tax rebate of more than 30 percent. In contrast, the East German states (except Berlin) would have to impose a surcharge of more than 100 percent. The calculations show the large differences in income tax revenue collected in the German states, especially between East and West Germany. This is one peculiarity of the German system placing in conjunction with the principle of 'equivalent living conditions' major obstacles on the introduction of revenue autonomy.

If revenues from rebates and surcharges were subject to fiscal equalization, the Länder would be tempted to give rebates on the income tax liabilities at the expense of the community, since revenue losses from rebates would be compensated by higher transfers (recipient states) and lower contributions (donor states), respectively. In order to avoid such adverse incentives, the revenues brought about by rebates and surcharges should be excluded from fiscal equalization. In result, revenue changes from rebates and surcharges were fully accrued to the Länder while transfers stayed unchanged.

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15 See also *Feld* (1999) with further references.

16 For a detailed discussion of regional rebates and surcharges on the income tax liability see *Büttner/Schwager* (2003) and *Baretti* et al. (2000). For a discussion of rebates and surcharges on the income tax liability at the local level see *Büttner* (2002).

17 See Advisory Board to the Federal Ministry of Finance (1992, 1995).

At the second glance the effects are more complex. Baretti and others (2000) analyze the influence of income tax rebates and surcharges on the budgetary position of the Länder after fiscal equalization. The rebates and surcharges are restricted to +/-10 percent and excluded from fiscal equalization. In their calculation the rebates and surcharges can change the states' budgetary positions after fiscal equalization by between 0.7 and 5.3 percent. In addition, the calculations show that the variation coefficient of the states' per capita budgetary positions after fiscal equalization would increase if all donor states allowed for a rebate of 10 percent and the recipient states levied a surcharge of 10 percent on their income tax.

Büttner and Schwager (2003) analyze the role of a standardized rebate/surcharge rate used in the fiscal equalization system. Using a simplified transfer scheme with a linear transfer rate[18], Büttner and Schwager are concerned with the role of rebate and surcharge rate standardization, i.e. considering each states income tax revenues with a uniform (standardized) rebate or surcharge rate in the fiscal equalization system. Full exclusion of rebates and surcharges from fiscal equalization would result, if the standardized rate were set equal to zero. The authors show that the degree of equalization could be lowered by decreasing the standardized rebate/surcharge rate.

In the next section, we analyze further the effects of state income tax rebates and surcharges. We focus our analysis on fiscally induced migration and the role of the transfer system.

## 3.3 Increasing Regional Revenue Autonomy by Rebates and Surcharges on the Income Tax Liability – The role of the Transfer System

### *3.3.1 Introduction*

As we have mentioned in the previous section, revenues resulting from the regional rebate/surcharge policy are compensated by the highly equalizing transfer system, these revenues should be excluded from fiscal equalization. Such a system, at first glance, assures that the regions would fully account for revenue changes resulting from rebates and surcharges.

At a second stage regional income tax differentials are likely to bring about fiscally induced migration. Feld and Kirchgässner (2001) found empirical evidence for Switzerland (where income tax rates and bases differ across cantons) on the determination of residence and location decisions by fiscal considerations. Although the results of Feld and Kirchgässner are not applica-

18 The transfer rate determines the amount of transfers paid/received.

ble to the German states, fiscally induced migration is likely to take place in Germany too if tax rate differentials are brought about by non-uniform regional surcharges and rebates.

Thus regional policy makers have to take two opposing effects into consideration when deciding on their income tax policy. The imposition of a surcharge would bring about additional revenues, but at the same time revenues are likely to be lost due to out-migration of income tax revenues. The opposite goes for rebates. In consequence, it would be important for regional policy makers to be informed on the degree of mobility in order to implement the appropriate tax policy. If, for example, the income tax is highly mobile, it may be a better choice to allow for a rebate in order to increase regional revenues. On the other hand, surcharges may be the better choice if mobility is low.

In Germany no information on the potential fiscal migration is available due to uniform taxes across regions. As mentioned above, the empirical observations of Feld and Kirchgässner (2001) for Switzerland are also not transferable onto Germany as both states differ in many regards, for example in total size, size of regions and in the degree of mobility of the population.

In the following, we provide an approach to overcome this lack of information. The basic idea of the method is to calculate the rate of migration that just offsets the revenue gains and losses from regional rebates and surcharges. Once the "break-even-rate" is known, it might be easy to guess if the expected rate of migration is above or below this threshold when deciding on tax policy. In addition, we examine if the highly equalizing German transfer system has any effect on the break-even-migration. If so, we could contradict the common assumption that there is no relationship between regional tax policy and the transfer system if revenues from rebates and surcharges are excluded from equalization.

We will proceed as follows: first, we determine in a very simple model the break-even-rate of migration if no transfer system would exist. This rate will serve as a point of reference for our consecutive analysis. Second, we extend the model by introducing a simple system of equalizing transfers and compare the result with our rate of reference. If the break-even rate increases after introducing the transfer system, the latter would compensate for gains and losses in the base of regional rebates and surcharges (i.e. income tax liabilities). In contrast, if the break-even rate would be reduced, the transfer system would reinforce the revenue effects of migration, i.e. revenue losses would be accompanied by additional losses in transfers and revenue gains would bring about additional gains in transfers.

The third step of our analysis is to determine break-even-migration with different scenarios of rebates and surcharges in the current German transfer system in order to see if the results of our analysis are consistent with reality.

### *3.3.2 Break-Even-Migration in a System of Full Tax Autonomy*

At the outset of our analysis, we construct a very simple model of regional tax autonomy in order to determine the break-even-rate of migration. We assume the regions to have tax revenue from different sources, one of which is the income tax. Regional differences in tax revenues are not equaled out, as we assume that no transfer system is in place. The regions are allowed to impose surcharges or rebates on their liabilities from a federal uniform income tax.

If fiscally induced migration occurs, we assume the revenues of other than the income tax remain unchanged. In addition, we suppose the economy to be closed, i.e. that movements take place only inside the federation, but not across state borders.

The initial income tax liabilities of region i are given by: $L_i$. After regional surcharge and rebate rates ($z_i$) are set, income tax movements (with rate $y_i$)are supposed to take place without delay. In result, income tax revenues amount to:

$$(1) \quad L_i(1+z_i)(1+y_i)$$

In order to break even, the income tax revenues after rebates/surcharges and movements have to equal the initial income tax revenues:

$$(2) \quad L_i = L_i(1+z_i)(1+y_i)$$

From (2), we can determine the break-even-rate of migration:

$$(2a) \quad y_i^0 = \frac{-z_i}{1+z_i} \qquad\qquad -100\% < z < 100\%$$

If we assume the rebate/ surcharge rate to be in an broad range between -100 and +100 percent, we can see that $z_i$ and $y_i$ always have opposite signs and given that $z_i$ is in a smaller range between -10 and +10 percent, we can state that $z_i$ and $y_i$ are approximately equal in absolute value. For example if $z_i$=5%, $y_i$=-5.2% and if $z_i$=-5%, $y_i$=4.8%.

In the next section, we consider a simple transfer system and examine how $y_i$ is changed by fiscal equalization.

### *3.3.3 Break-Even-Migration in a System of Tax Sharing and Equalizing Grants*

We construct now a model of equalization among the regions that contains the basic elements of the German equalization system among the states and analyze if fiscal equalization has an impact on the break-even-share of migration.

We consider only two types of taxes – the income tax and the VAT. Both taxes taken together are representative for the German tax system since their revenues account approximately for ¾ of total tax revenues. We assume the VAT to be allocated before equalization based on population figures. This assumption roughly approximates the VAT-distribution in place. About 80% of VAT revenues are distributed solely on population figures and about 20% based on state fiscal capacity (see section 0), with the allocation of the latter also partly based on population. With the intention to resemble the German tax appropriation system, the income tax is split up in municipal and state shares. The Länder have the autonomy to impose surcharges or rebates on the state share of the income tax liability but not on the municipal share.

The regional (municipal and state) revenues from the income tax and the VAT, representing the figure of fiscal capacity, are then presumed to be subject to a simple equalization scheme. In accordance to the German fiscal equalization system, the number of inhabitants within a state serves as a measure for fiscal need. The figure of fiscal need is therefore calculated by multiplying the share of the population of one state in the total population with the sum of local and municipal income tax and VAT revenues across all states. The difference between the figure of fiscal need and the figure of fiscal capacity is supposed to be reduced with a linear transfer rate. Taken all assumptions into consideration, we obtain the following initial tax revenues:

$$(3)\quad L_i + G_i + e_i \sum_i U_i + \left[ e_i \sum_i (L_i + G_i + U_i) - \left( L_i + G_i + e_i \sum_i U_i \right) \right] t$$

where:

$L_i$ state income tax of state i

$G_i$ municipal income tax of state i

$\sum_i U_i$ sum of VAT revenues across all states

$e_i$ share of the population of state i in the total population

When we take into account the effects of rebates, surcharges and migration, we have to consider that migration of income taxes is linked to a movement of population, since income taxes are paid by inhabitants. Thus, we need an assumption on the change of the population figures that is brought about by a y-percent change of the income tax liability.

Unfortunately, in Germany are no official data collected on the connection between regional income tax movements and migration of inhabitants. Figures on regional population movement and on the income tax liability are available separately. It is not possible to isolate changes in regional income tax revenues that are caused by migration. Accordingly it is difficult to guess the relationship between the movement of inhabitants and income tax revenues. For reasons of simplicity, we therefore assume the figure of inhabitants to change at the same rate as the income tax liability. In other words, changes in the income tax liability are modeled by moving citizens who just pay the average income tax of the state under consideration. As in the previous section, we assume the economy to be closed, i.e. the total number of inhabitants and tax revenues are constant.

After setting regional surcharges and rebates and after movements have taken place, the revenues in region i amount to:

$$\text{(4)}\quad L_i(1+y_i)(1+z_i)+G_i(1+y_i)+e_i(1+y_i)\sum_i U_i$$
$$+\left[e_i(1+y_i)\sum_i(L_i+G_i+U_i)-\left((L_i+G_i)(1+y_i)+e_i(1+y_i)\sum_i U_i\right)\right]t$$

With the purpose of making the resultant rate of migration easier to overlook, we substitute the following variables by the hereby defined ratios:

$$u=\frac{\sum_i U_i}{\sum_i L_i+G_i+U_i}\qquad s=\frac{\sum_i L_i}{\sum_i L_i+G_i+U_i}\qquad g=\frac{\sum_i G_i}{\sum_i L_i+G_i+U_i}$$

$$l_i = \frac{L_i}{\sum_i L_i} = \frac{G_i}{\sum_i G_i} \qquad e_i = \frac{E_i}{\sum_i E_i} = \frac{U_i}{\sum_i U_i}$$

We obtain the following rate of migration:

$$(5) \quad y_i^T = \frac{-z_i \frac{s}{s+g}}{1 + z_i \frac{s}{s+g} + \frac{e_i}{l_i} q - t} \qquad q = \frac{u}{g+s} + t > 0$$

In comparison to the migration rate without transfer system, we can observe two changes:

First, the rate $z_i$ in the denominator and in the numerator is weighted by the ratio s/s+g, which reduces the absolute value of the migration rate. This reduction is caused by the splitting of the income tax in municipal and state shares. If we, for instance, assume $z_i$ to be a surcharge, y is negative, i.e. inhabitants and income taxes out migrate. While the outflow of state income tax can in part be compensated by the surcharge, this does not hold for the municipal share of income tax. Therefore the maximum migration rate is reduced.

The second change is the appearance of the factor ($q*e_i/l_i$-t) in the denominator of (5). Since the ratio of the states' total VAT to the total local and state income tax revenues is about 50:50, q is approximately 1+t. The transfer rate in the German equalization system is between 60 and 90 percent and $e_i/l_i$ ranges between 0.7 and 3.5. Such, that ($q*e_i/l_i$-t) can be assumed to be positive. In consequence, we find a second reduction in the absolute value of the break-even-migration rate.

Our analysis gives us an idea on how the transfer system does interrelate with the effects of fiscally induced migration. Because of the linkage of the transfers to the figures of inhabitants the out migration of income tax payers brings about additional losses in transfers. Likewise is the immigration of income tax payers accompanied by transfer profits. Revenues from surcharges and rebates are therefore set off more quickly than in a system of autonomous taxation without fiscal equalization.

### *3.3.4 Break-Even Rates of Migration in the German transfer system*

In this section, we analyze if the findings of our simple analysis are consistent with the German transfer system. When we try to determine break-even migration rates, we have to come up with a host of assumptions. For each of the

16 Länder are to be set rebates and surcharges, and since the sums of income tax (before surcharges and rebates) and inhabitants are kept constant, we need to decide where inhabitants and taxes leaving one state move to and from where they move in, respectively. Another important question is, whether the migration of all states takes place simultaneously or if only the movements of one state are considered while other things kept equal.

In regard to the last question, it seems closer to reality to assume simultaneous moving as it is unlikely that only one state will actively use its tax policy while the others do without rebates and surcharges. If so, we are faced with migration of taxes and inhabitants from 16 Länder to 16 Länder at the same time. In order to reduce this complexity, we suppose the 5 donor states and the 11 recipient states to act collectively. We consider four different scenarios:

| | Donor states set a… | Recipient states set a… |
|---|---|---|
| …surcharge of 5 percent. | migration from donor to recipient states | migration from recipient to donor states |
| …rebate of 5 percent. | migration from recipient to donor states | migration from donor to recipient states |

These four scenarios do by far not cover the full range of conceivable settings, but they serve represent all situations, in which on net taxes and inhabitants move from donor to recipient states and from recipient to donor states.

In each situation, we determine for the considered group of states one collective rate of migration for income tax revenues and inhabitants such that the sum of revenues after fiscal equalization equals the sum of revenues before rebates/surcharges and movements.

Like in our analysis the previous sections, we assume the income tax to move with the same rate as the population. To donor (recipient) states moving inhabitants are assumed to come from recipient (donor) states with each state loosing the same fraction of its population. Likewise the ‘immigration’ of income taxes is assumed to come from a proportional reduction of the income tax revenues of each state in the group loosing tax revenues. Out migration is constructed in the same manner.

In our simulation, we use 2002 data on regional tax revenues/ population figures and apply the current German transfer system. Table 2 depicts the resultant distribution of tax revenues prior to rebates, surcharges and migration.

## Table 2 Distribution of tax revenues prior to rebates, surcharges and migration

| | 1.000 | 1.000 € | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2002 state: | population | State taxes II | ..out of which income tax | municipal taxes | ..out of which income tax | VAT | mining duty | equalization transfers | supplementary transfers | total after equalization |
| NW | 18.060 | 24.120.971 | 14.505.617 | 8.179.251 | 3.276.563 | 11.369.974 | 359 | -1.587.892 | 0 | 42.082.663 |
| BY | 12.356 | 17.202.886 | 10.934.285 | 6.001.019 | 2.469.862 | 7.778.657 | 244 | -1.914.271 | 0 | 29.068.535 |
| BW | 10.631 | 14.444.119 | 9.594.289 | 5.494.063 | 2.167.181 | 6.692.762 | 133 | -1.626.928 | 0 | 25.004.149 |
| HE | 6.084 | 9.178.911 | 6.335.831 | 3.483.839 | 1.431.152 | 3.830.004 | 146 | -1.903.123 | 0 | 14.589.777 |
| HH | 1.726 | 3.292.712 | 2.035.523 | 1.235.219 | 459.789 | 1.086.617 | 222 | -190.875 | 0 | 5.423.895 |
| NI | 7.970 | 7.890.175 | 4.956.195 | 3.023.392 | 1.119.517 | 6.005.960 | 286.713 | 472.494 | 252.950 | 17.931.684 |
| SN | 4.366 | 1.488.204 | 888.045 | 793.777 | 200.594 | 5.983.057 | 1.623 | 1.080.300 | 400.772 | 9.747.732 |
| RP | 4.050 | 4.079.505 | 2.617.200 | 1.446.309 | 591.179 | 2.985.083 | 453 | 394.886 | 188.130 | 9.094.366 |
| ST | 2.565 | 866.402 | 522.612 | 458.578 | 118.049 | 3.522.460 | 514 | 656.081 | 241.563 | 5.745.598 |
| SH | 2.810 | 3.070.432 | 2.022.765 | 1.116.078 | 456.907 | 1.842.592 | 35.992 | 166.768 | 89.266 | 6.321.128 |
| TH | 2.402 | 811.880 | 495.893 | 417.062 | 112.014 | 3.298.286 | 2.550 | 607.885 | 224.225 | 5.361.889 |
| BB | 2.587 | 1.079.886 | 677.352 | 544.328 | 153.002 | 3.356.406 | 1.366 | 600.758 | 226.785 | 5.809.529 |
| MV | 1.753 | 573.871 | 335.644 | 308.040 | 75.816 | 2.424.517 | 1.193 | 467.863 | 170.627 | 3.946.111 |
| SL | 1.065 | 916.137 | 631.434 | 345.480 | 142.630 | 933.976 | 0 | 134.065 | 59.271 | 2.388.928 |
| BE | 3.389 | 3.142.370 | 2.315.053 | 1.219.679 | 522.930 | 2.756.658 | 0 | 2.288.111 | 720.994 | 10.127.812 |
| HB | 661 | 769.681 | 517.736 | 324.913 | 116.947 | 415.964 | 0 | 353.878 | 116.740 | 1.981.175 |
| sum donor | 48.856 | 68.239.599 | 43.405.545 | 24.393.391 | 9.804.547 | 30.758.013 | 1.104 | -7.223.090 | 0 | 116.169.018 |
| sum recipients | 33.618 | 24.688.543 | 15.979.930 | 9.997.635 | 3.609.584 | 33.524.957 | 330.404 | 7.223.090 | 2.691.324 | 78.455.952 |

Based on this data and our assumptions, we calculate the following break-even rates of migration.

## Table 3 Break-Even migration rates

| | Donor states set a… | Recipient states set a… |
|---|---|---|
| …surcharge of 5 percent. | y =-2.00% | y = -1.03% |
| …rebate of 5 percent. | y = 2.08% | y = 1.06% |

The results (Table 3) show that the absolute values of the maximum rates of migration are substantially smaller than in our situation of reference (autonomous system without transfers): -4.8 and 5.2 percent respectively. In addition, we find that recipient states face smaller rates of y than donor states. We can explain this result using our simple equalization model of section b). When we apply the 2002 data to calculate the parameters of the simple model, we obtain a well approximation of the results of the simulation with the real transfer system. Taking only the VAT and income taxes as source of income, we obtain:

$u=0.53$ $\qquad$ $g=0.10$ $\qquad$ $s=0.47$

In the donor states reside 60 percent of the population ($e_d=0.6$) and in the recipient states 40 percent ($e_r=0.4$). Likewise the income tax is distributed with shares $l_d=0.73$ and $l_r=0.27$. In addition, we have to consider, that donor and recipient states have different transfer rates of approximately $t_d=0.7$ and $t_r=0.9$. This is due to the fact, that recipient states are faced with more transfer elements. They receive in addition, to the transfers from equalization among the states supplementary transfers from the national government. Table 4 shows the results of the simple equalization model:

**Table 4: Break-even migration rates in the model of section b**

| | Donor states set a… | Recipient states set a… |
|---|---|---|
| …surcharge of 5 percent. | y =-2.45% | y = -1.45% |
| …rebate of 5 percent. | y = 2.58% | y = 1.49% |

The term (q*e/l-t) in equation (5) amounts to approximately 1.9 for recipient states and only to 0.6 for donor states. This gives an explanation for the differences in the break-even rates of migration for donors and recipients. Since the revenues of recipient states are determined to a higher extent by (basically) inhabitant based transfers, the in and out migration of income tax payers has a higher impact on their revenues than on the revenues of donor states. Thus, revenue changes from rebates and surcharges set off more quickly in recipient states by migrational effects.

### *d) Conclusion*

In this section, we analyzed the role of equalization transfers in regional tax policy in a system of partial regional revenue autonomy. In the considered system the regions have the power to influence their revenues by setting rebates and surcharges on their income tax liabilities. The revenue changes resulting from autonomous decisions on rebates and surcharges are excluded from fiscal equalization. In this system, at first glance, there seems to be no relationship between the transfer system and the autonomous tax revenues of the states. At second glance this assumption is disproved.

Regional tax differentials emerging after the implementation of rebates and surcharges are likely to bring about fiscally induced migration. Regional policy makers have to take the migrational effects into account when deciding on tax policy. Since no information on the potential fiscally induced migration exists for Germany, we calculate ‘break-even rates of migration’ in different settings. These rates represent the share of income tax payers that has to leave/or has move into the considered state in order to set off revenues from rebates and surcharges. Regional policy makers can use the information on break-even migration rates for deciding what policy instrument is more appropriate to achieve their objective. If for instance, policy aims at increasing tax revenues it may be a good choice to provide a rebate, if break-even migration rates are low. On the contrary, if substantial migration needs to occur for setting off the revenues from rebates and surcharges, it may be the better choice to impose a surcharge.

Our analysis reveals that the existence of a transfer system reduces the break-even migration rate substantially in comparison to a system of autonomous taxation. The reason for this observance is that the transfer system reinforces losses from out migration by additional losses of transfers and subsidizes immigration by additional profits in transfers.

## 4. Conclusion

Our paper deals with institutional settings of competitive federalism. At the outset of our analysis, we give a small survey of the theoretical work on intergovernmental competition. The literature suggests that no unequivocal judgment on the effects of competition is possible. The importance of 'good' and 'bad' aspects of competition rather varies across the attributes of goods and services that the governments provide. In addition, the judgment depends on regional and temporal circumstances, such as the preferences of inhabitants. This finding encouraged us to pick out the case of Germany for further considerations. The German system is characterized by strong central legislation, in particular at the revenue side. In this regard, Germany has little in common with an economic federal system, in which subnational entities can spend *on what they want how much they want*. Therefore some scholars see Germany as an administrative federation.[19] While German Landers have some amount of freedom on marginal spending, they have little freedom on marginal revenues since they derive almost all of their revenues from shared taxes. Hence, at best Germany is half a fiscal federation, compared to Canada, the USA or Switzerland and in that way similar to Australia.

On the other hand, the political strength of the Landers as a group, as expressed through the Bundesrat is remarkably high; thus from a political perspective, Germany is a strong federation or at least a state with strong representation of regional interest in central government policy making.

In the course of time, the institutional setting in Germany has contributed to turn the federal system into a cumbersome construction with many veto-players, sluggish negotiations and the inclination to keep the status-quo. This induced recently national and regional governments to discuss options for reforming German federalism. In contradiction to what theoretical literature suggests, the negotiations comprised an isolated discussion of ways to devo-

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19 *Färber* (2002).

lute expenditure legislation while revenues were excluded from the debate. The reason for the exclusion is rooted in the agreement that the current law on fiscal equalization is unchangeable until 2019.

We therefore, discuss the option of regional rebates and surcharges on the income tax liability as a possibility of supplementing the (limited) regional autonomy on spending by a limited autonomy on revenues. This proposal could be put into action without changing the equalization system. We show that, if income tax differentials caused fiscally induced migration, the transfer system would compared to an autonomous tax system reinforce revenue changes brought about by this migration. Comparatively little immigration of income tax payers could therefore compensate for losses from rebates, which is in turn likely to pose an incentive for regional decision makers to opt for rebates rather than for surcharges. This strategy, pursued by the majority of Länder, could bring about problems at a later stage, when fiscal crises occur and the national government along with the Länder not in fiscal crisis have to bailout the debt-ridden jurisdiction due to the 'principle of solidarity' – another constitutional principle shaping German federalism.

To sum up, our selected case demonstrates the difficulty of moving a historically grown institutional setting of cooperative federalism characterized by strong preferences for regional equality and obstreperousness to change closer to a system of the competitive style.

## References

Advisory Board to the Federal Ministry of Finance (Hrsg.) (1992): Gutachten zum Länderfinanzausgleich in der Bundesrepublik Deutschland, Schriftenreihe des Bundesministeriums der Finanzen, Bonn, No. 47.

Advisory Board to the Federal Ministry of Finance (Hrsg.) (1995): Einnameverteilung zwischen Bund und Ländern: Probleme und Lösungsmöglichkeiten, Schriftenreihe des Bundesministeriums der Finanzen, Bonn, No. 56.

*Baretti, Christian* et. al. (2000): Chancen und Grenzen föderalen Wettbewerbs, Ifo-Beiträge zur Wirtschaftsforschung, Bd. 1.

*Baretti, Christian/Huber, Bernd/Lichtblau, Karl* (2002): A Tax on Tax Revenue: The Incentive Effects of Equalizing Transfers: Evidence from Germany, in: International Tax and Public Finance 9, No. 6, pp. 631-649.

*Berthold, Norbert/Fricke, Holger/Drews, Stefan/Vehrkamp, Robert* (2003): Die Bundesländer im Standortwettbewerb, Bertelsmann Stiftung (Hrsg.).

*Bird, Richard/Vailllancourt, François* (2001): The Role of Intergovernmental Fiscal Arrangements in Maintaining an Effective State in Canada, in: Bird, R./Stauffer, T. (eds.) (2001): Intergovernmental Fiscal Relations in Fragmented Societies, Institut du fédéralisme Fribourg, pp. 189-230.

*Blankart, Charles Beat* (1999): Die schleichende Zentralisierung der Staatstätigkeit: Eine Fallstudie, in: Zeitschrift für Wirtschafts- und Sozialwissenschaften 119, p. 331-350.

Bundesrat (Hrsg.) (2004): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes im Ausgleichsjahr 2002, Drucksache 228/04, 24.03.2004.

Bundesrat (Hrsg.) (2003): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes im Ausgleichsjahr 2001, Drucksache 577/03, 13.08.2003.

Bundesrat (Hrsg.) (2002): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes im Ausgleichsjahr 2000, Drucksache 34/02, 17.01.2002.

Bundesrat (Hrsg.) (2001): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes im Ausgleichsjahr 1999, Drucksache 546/01 vom 06.07.2001.

Bundesrat (Hrsg.) (2000): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes im Ausgleichsjahr 1998, Drucksache 123/00, 24.02.2000.

Bundesrat (Hrsg.) (1999): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes im Ausgleichsjahr 1997, Drucksache 38/99, 21.01.1999.

Bundesrat (Hrsg.) (1998): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes zwischen Bund und Ländern im Ausgleichsjahr 1996, Drucksache 73/98, 21.01.1998.

Bundesrat (Hrsg.) (1997): Zweite Verordnung zur Durchführung des Finanzausgleichsgesetzes zwischen Bund und Ländern im Ausgleichsjahr 1995, Drucksache 403/97, 03.06.1997.

*Büttner, Thiess* (2002): Kommunale Zuschläge bei Einkommen- und Körperschaftsteuer, Reformoptionen und Konsequenzen, in: Finanzwissenschaftliches Forschungsinstitut, Kommunale Steuer- und Finanzreform, to be published.

*Büttner, Thiess* (2001): Local Business Taxation and Competition for Capital: The Choice of the Tax Rate, in: Regional Science and Urban Economics 31, pp. 215-245.

*Büttner, Thiess/ Schwager, Robert* (2003): Länderautonomie in der Einkommensteuer, Konsequenzen eines Zuschlagsmodells, in: Jahrbücher für Nationalökonomie und Statistik 223 (5), pp. 552-555.

*Färber, Gisela* (2002): Efficiency Problems of Administrative Federalism, FÖV Discussion Papers, No. 1.

*Heilemann, Ullrich/von Loeffelholz, Hans D.* (1995): Fiscal Federalism in the FRG: A Critical Account, in: Scharrer, Hans-Eckhart/Smith, Murray G./ Wavermann, Leonard (eds.): Regional Economic Integration and the Workings of a Federal System, Centre for International Studies, University of Toronto, 1995, pp. 65-87.

*Huber, Bernd* (1999): Reform der deutschen Finanzverfassung, Die Rolle des Konnexitätsprinzips, in: Hamburger Jahrbuch für Wirtschafts- und Gesellschaftspolitik 44, pp. 69-93.

*Inman, Robert P./Rubinfeld, Daniel L.* (1997): Rethinking Federalism, in: Journal of Economic Perspectives 11(4), pp. 43-64.

*Lachance, R./Vaillancourt, F.* (2001): Quebec's Tax on Income: Evolution, Status and Evaluation", in: Tax Competition and the Fiscal Union: Balancing Competition and Harmonization in Canada, D. Brown (ed.), and Kingston: Institute of Intergovernmental Relations, 2001, pp. 39-47.

*Lenk, Thomas/ Kaiser, Karolina* (2004): The Premium in the German Fiscal Equalization Scheme, Diskussionsbeiträge der Universität Leipzig (46).

*Lenk, Thomas* (2004): Mehr Wettbewerb im bundesstaatlichen Finanzausgleich? Eine allokative und distributive Wirkungsanalyse für das Jahr 2005 unter Berücksichtigung der Neuregelungen, in: Jahrbücher für Nationalökonomie und Statistik 224 (3), pp. 351-378.

*Manow, Philip/Burkhart, Simone* (2004): Kompromiss und Konflikt im parteipolitisierten Föderalismus der Bundesrepublik Deutschland, Max-Planck Institut für Gesellschaftsforschung, Köln.

*Meloche, Jean-Philippe/Vailllancourt, François/Yilmaz, Serdar* (2004): Decentralization and Fiscal Autonomy? What does really matter? Effects on Growth and Public Sector Size in European Transition Countries, World Bank Policy Research Paper 3254.

*Oates, Wallace* (2002): Fiscal and Regulatory Competition: Theory and Evidence, in: Perspektiven der Wirtschaftspolitik 3 (4), pp. 377-390.

*Oates, Wallace* (2001): Fiscal Competition or Harmonization? Some Reflections, in: National Tax Journal 54 (3), pp. 507-512.

*Oates, Wallace* (1989): Searching for Leviathan: An Empirical Study, in: American Economic Review 75 (4), pp. 748-757.

*Olson, Mancur* (1969): The Principle of Fiscal Equivalence: The Division of Responsibilities among different levels of government, in: American Economic Review 59 (2), pp. 479-487.

*Rodden, Jonathan* (2004): Comparative Federalism and Decentralization, On Meaning and Measurement, Comparative Politics, July 2004, p. 481-500.

*Sinn, Hans-Werner* (1997): The Selection Principle and Market Failure in Systems Competition, in: Journal of Public Economics 66, 247-274.

*Stegarescu, Dan* (2004): Public Sector Decentralization: Measurement Concepts and Recent International Trends, ZEW Discussion Paper, No. 04-74, 1-31., 193-212.

*Tiebout, Charles M.* (1956): A Pure Theory of Local Expenditures, in: The Journal of Political Economy (64), pp. 416-424.

*Vaillancourt, F.* (1992)"English and Anglophones in Québec: An Economic Perspective", in: Survival: Official Language Rights in Canada, C.D. Howe Institute, Toronto, pp. 63-94.

*Wilson, John D.* (1999): Theories of Tax Competition, in: National Tax Journal (52), pp. 269-304.

*Wilson, John D.* (1986): A Theory of Interregional Tax Competition, in: Journal of Urban Economics, 19 (3), pp. 296-315.

*Zodrow, George, R./Mieszkowski, Peter* (1986): Pigou, Tiebout, Property Taxation, and the Underprovision of Local Public Goods, in: Journal of Urban Economics 19 (3), pp. 356-370.

# Comments on Competitive Federalism – Understanding and Institutional Settings[1]

by *François Vaillancourt*[2]

The authors address two issues: competitive federalism and possible reforms of fiscal federalism in Germany. The following comments also in two parts are meant to further the discussion on each of these topics

## The Economic Effects of Competition among Regions

In this section we raise four points:

1. The authors state that the race to the bottom feared by some has not been observed. Recently however, one observes in the case of Canada one province, Alberta, setting its personal income tax rate at a flat rate of 10 % while others have progressive rates in the 6% (minimum) to 20%[3] (maximum) range as shown in Table 1. This is feasible for Alberta since it is awash in oil revenues. But this at least a partial race to the bottom. One may wonder if this lack of observed race to the bottom is not in good part due to the uniformity of non-tax revenue bases in sub national entities such as US states[4] and if an analysis of the world as a federation would lead to the same results.

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1 These are a written up and more complete version of the oral comments presented at the conference. The author thanks *Karolina Kaiser* for her help in understanding German federalism.

2 Professor, economics department, Université de Montréal.

3 The reader will note that the maximum rate for Québec is 24%: but Québec taxpayer benefit from a unique Québec tax abatement of 16.5% of federal personal income tax. Corrected for this, the maximum tax rate is 20.04%.

4 The exception, Alaska, is not contiguous to the main 48 states and does not have a climate similar to them. Hence, lower taxes made possible by oil royalties are not as attractive as they could be.

Provincial Personal Income Tax Rates, Canada, 2003

| Newfound-land and Labrador | Prince Edward Island | Nova Scotia | New Bruns-wick | Qué-bec | Ontario | Manitoba | Saskat-chewan | Alberta | British Columbia |
|---|---|---|---|---|---|---|---|---|---|
| 10.57%- 18.02% | 9.80%- 16.70% | 9.77%- 16.67% | 9.68%- 17.84% | 16%- 24% | 6.05%- 11.16% | 10.90 %- 17.40 % | 11% - 15% | 10% - 10% | 6.05%- 16.70% |

Source: Finances of the Nation, 2003 Canadian Tax Foundation at www.ctf.ca

2. The authors note that one manifestation of this race to the bottom are business taxes being set too low. But is the use of lower taxes to attract more investments necessarily bad? Take the case of Québec which has an immobile labour force in the North American context. This is due to the facts[5] that:
   - The majority (81.9%[6]) of Québec's population (7 125 000) in 2001 is of French mother tongue (francophones) while the rest of North America is English speaking.
   - The majority (63.4%[7]) of francophones are unilingual i.e. only speak French. Of those deemed bilingual in the Census, a vast number cannot work in English
   - Even truly bilingual francophones have a preference as shown by their inter-provincial migration rates[8] for remaining in Québec since living outside Québec increases the odds (0% in Québec, 24% outside[9]) of assimilation (Bird/Vaillancourt, 2001).

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5 See *Bird/Vaillancourt* (2001) for more information on Québec's tax system.

6 2001 Census. % is for respondents with a single answer to the mother tongue question. Data at http://www12.statcan.ca/english/census01/products/standard/themes/ListProducts.cfm?Temporal=2001&APATH=3&THEME=41&FREE=0 table 1.

7 2001 Census .% is for respondents with a single answer to the mother tongue question. Data at http://www12.statcan.ca/english/census01/products/standard/themes/ListProducts.cfm?Temporal=2001&APATH=3&THEME=41&FREE=0 table 9.

8 Which are 1/10th of those of Anglophones from Québec in the 1966-1986 period (*Vaillancourt* (1992)…

9 Assimilation is defined as the % of francophones who no longer speak French at home.

The implicit policy of the Québec government has thus been to tax the immobile factor, labour, more than the average in North America while taxing profits (capital) less and offering more subsidies to businesses than other Canadian provinces. This attracts capital that helps improve the welfare of the immobile labour through higher employment and wages. Why should this be deplored if it is a democratic choice[10]?

3. The authors note the dangers of tax exporting .But why is tax exporting bad, at least from the exporter point of view? Why not enjoy a life of leisure paid for by others? Is this not what resource rich countries such as Brunei or Qatar do as a result of high oil and gas prices which in part result from the actions of the OPEC cartel?
4. Finally, the authors report the view of Sinn (1997) that activities selected for public responsibility have proven to be unsuitable for private markets. Given the variety of arrangements in the provision of services in Canada by provinces (electricity, alcohol, child care...) one would have to conclude that markets differ greatly over short distances to accept this. A more plausible view is that history explains existing arrangements even if changes in technology and so on would justify changes in provision mechanisms. On this Frey and Eichenberger (1996) seem to hold a more reasonable view

**The Case of Germany: Current Institutional Structures and Reform Proposals**

The authors both describe the German institutional structures and examine reform proposals. We limit ourselves to the discussion of tax reform. But first, is Germany a federation from a fiscal perspective? Or is simply an administrative federation (Faerber, 2002) with the execution of federal laws in the hands of Landers? One definition of an economic federal system is that subnational

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10 Similarly Québec francophones have approved a language law (bill 101 in 1977) that collectively prohibits them from attending English language schools; this reduces their individual earnings on the labour market but reduces the risk of assimilation in the short and medium term (the long term depends on fertility and immigration). This is a market barrier that reduces the efficiency of the North American labour market but is a democratic choice whose cost is mainly born by those who chose it (we say mainly since some federal transfers such as equalization and employment insurance are influenced by this choice and thus there is a partial subsidy from the rest of Canada)

entities can spend *on what they want how much they want.* This implies freedom on both marginal expenditures and marginal revenues. While German Landers have some amount of freedom on marginal spending, they have little freedom on marginal revenues since they derive almost all of their revenues from shared taxes. Hence, at best Germany is half a fiscal federation, compared to Canada, the USA or Switzerland and in that way similar to Australia.

On the other hand, the political strength of the Landers as a group, as expressed through the Bundesrat is remarkably high; thus from a political perspective, Germany is a strong federation or at least a state with strong representation of regional interest in central government policy making.

The authors first discuss the possibility of attributing either the personal income tax or the VAT to one level of government and the other to the other level. On this point, one should note that there is no obvious model. For example:

- In highly decentralized federations, Canada has both (central and provinces) levels of government access all three major fields of taxation – Personal Income Tax (PIT), Corporate Income Tax (CIT) and VAT/sales taxes –, Switzerland reserves the VAT for the central government and the United States sees only the states use sales taxes. In the later two countries, the PIT and CIT are used by both levels.
- In less decentralized federations, one sees that Belgian regions and Spanish autonomous communities have access to PIT while Australian states have no access to any of these three sources
- In practice, amongst decentralized federations, Canada shows more harmonization of personal income tax bases than the USA or Switzerland even though provinces can define their own base. In practice, only Québec does that because it is willing to incur the cost of collecting its own taxes. Other provinces have their personal income taxes collected free of charge by the federal government in exchange for using its definition of taxable income[11].
- While Great Britain and Spain allow for the use of different PIT tax rates on a regional basis, neither Scotland nor any of the autonomous communities have made use of this power. Flanders has begun to do so.

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11 See *Lachance/Vaillancourt* (2001) for a discussion of the history of this and of the differences in the tax base.

Hence, it is difficult to come to a conclusion as to what would work best in Germany. In general, more mobile sources should be allocated to the central government as shown below. Hence, one would suggest that differentiated VAT rates by Land could be considered as is done in Canada

| Mobility of base Low______ High | | | | |
|---|---|---|---|---|
| Tax base | Land | Consumption | Labour | Capital |
| Taxes | property | VAT+Excises | PIT+payroll | CIT |

The authors report briefly the results of existing studies of a scheme examine giving Landers the right to impose surcharges/rebates on the PIT. They point out the importance of integrating this correctly with the equalization system so as to avoid wrong incentives. Clearly in the German context, equalization can strongly impact on autonomous tax policy of Landers even if they were granted the powers discussed here.

The simulations assume an equal 10% surcharge in poor Landers and a varying rate of rebates in rich ones; the varying rates are set in such a manner as to have an aggregate amount of surcharges equal to the aggregate amount of rebates. This is a weakness of the analysis as in practice, poor Landers are unlikely to set equal surcharge rates while there is no reason to have rich Landers care about the total German tax burden in setting their rebates. Nonetheless, the simulations are interesting. One issue is that the impact of the reductions/increases in personal disposable income that could result, depending on labour income elasticities from higher/lower total personal income tax burdens are not examined[12]. This could result in an overall German wide lower VAT pie to be shared and also in lower Land tax revenues such as beer taxes or gambling taxes. Hence, the impacts are first round revenue impacts, unadjusted for changes in the economic behaviour of agents they create. How would such changes interact with the new premium model is also an interesting question[13]. One must wonder if there would not be an incentive to vary the time path of the levying of surcharges/rebates or of their collection so as to obtain a premium some years rather than never. Indeed could some Lands (poor ones?) not collude to facilitate reaching such a result?

12 Even if the overall burden of the income tax remains the same, changes in the regional distribution could have an impact on labor supply.

13 See *Lenk/Kaiser* (2004) for a description.

## References

*Bird R./Vaillancourt, F.* (2001), The Role of Intergovernmental Fiscal Arrangements in Maintaining an Effective State in Canada, in: R. Bird/T. Stauffer (Eds.), Intergovernmental Fiscal relations in Fragmented Societies, Fribourg: Institut du fédéralisme 2001, pp. 189-230.

*Färber, G.* (2002), Efficiency Problems of Administrative Federalism, FÖV Discussion Papers 1.

*Lachance, R./Vaillancourt, F.* (2001), Quebec's Tax on Income: Evolution, Status and Evaluation", in: Tax Competition and the Fiscal Union: Balancing Competition and Harmonization in Canada, D. Brown (ed.), Kingston: Institute of Intergovernmental Relations, 2001, 39-47.

*Lenk, T./Kaiser, K.* (2004) The Premium Model in the German Fiscal Equalization System, Discussion papers Leipzig.

*Vaillancourt, F.* (1992) English and Anglophones in Québec: An Economic Perspective, in: Survival: Official Language Rights in Canada, C.D. Howe Institute, Toronto, pp. 63-94.

# The Interregional Incidence of Public Budgets in Federations: Measurement Issues, Evidence from Canada, and Policy Relevance*

*François Vaillancourt*** and *Richard M. Bird****

> *The hallowed policy of siphoning money from the haves to the have-nots, so that everyone can be equal, has turned Canada into a permanently aggrieved nation, in which every region of the country is convinced that it is being brutally ripped off by every other region.*[1]

## Introduction

In this paper, we examine the issue of the incidence of central government budgets in federal countries. The sharing of national wealth between the constituent units of federations is a perennial bone of contention in every federal country. In Section 1 of the paper, we briefly review some basic issues related to the measurement of the interregional incidence. In Section 2, despite these concerns, we present some evidence on this question for Canada. Finally, in the last section of the paper, we consider the policy relevance of the issue. The presentation of evidence from Canada is appropriate for two reasons. First, it is the country best known by the two authors and thus the one for which they can best use data to illustrate the issues addressed in the first part of the paper. Second, there is a long tradition of Canadian studies on this topic that can thus be shared with European readers.

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** Professor, Département de sciences économiques, Université de Montréal.

*** Emeritus professor, Rotman School of Management, University of Toronto.

1 ‘Oh Danny Boy, pipe down’ *Margaret Wente*, *Globe and Mail* 6/01/2005, A15. ‘Danny Boy’ is *Danny Williams*, premier of Newfoundland and Labrador, who in late December 2004 took down the Canadian flag from provincial buildings to protest the lack of an agreement on the equalization of natural resource revenues. It went back up in mid-January 2005.

For such readers, it may be useful to begin with a brief overview of the importance of regional disparities in Canada. As Table 1 shows, the ratio between the highest and lowest provinces in terms of GDP per capita is 2 to 1 compared to about 1.5 to 1 for per capita personal income. Transfers thus play an important role in alleviating regional disparities. Moreover, although not shown here, similar figures for earlier years indicate that the ordering of provinces does not vary much over time. The top three provinces are usually Alberta, British Columbia and Ontario, with Ontario gaining on British Columbia in recent years. Then come Manitoba, Saskatchewan and Québec, which from time to time have exchanged places with one another, with the ranking of Saskatchewan being particularly subject to fluctuation reflecting the instability of agricultural and oil and gas income. Finally, the Atlantic provinces come at the end of the list, with Prince Edward Island and Newfoundland and Labrador generally with the lowest GDP per capita.

An interesting fact that emerges in Table 1 is that the average GDP per capita for Canada seems quite high when compared to the provincial numbers. In fact, only two or three provinces each year have per capita GDP higher than the national average. This results from two factors. First, the 'rich' provinces (Ontario, Alberta and British Columbia) represent a significant proportion (two thirds of GDP in 2001) of the Canadian economy, which pulls up the average whilst making most provinces relatively 'poor' – although it is important to remember that most Canadians (61% in 2001) live in relatively rich provinces. Second, oil and gas revenues are concentrated in one province, Alberta,[2] although this concentration is decreasing in recent years with the exploitation of offshore oil (Newfoundland) and gas (Nova Scotia) in the Atlantic region.

## 1. Measuring the Interregional Incidence of Public Budgets[3]

The question of the interregional incidence of public budgets is, of course, relevant in both unitary and federal countries. It is less discussed in unitary countries, however, perhaps in large part because the format in which central government budgets and accounts are presented generally provides less transparent information on the regional incidence of public spending. Projects may, for example, be listed by department without information as to where they are carried out, and salaries and other outlays may also be listed by

2 About 75% of petroleum and natural gas production in the early 2000s: see statistics on natural resources at http://www.nrcan.gc.ca/statistics/energy/default.html.

3 This section draws on *Bird* (forthcoming).

department without any indication as to where the civil servants, teachers, and so on work. This only means, however, that in this case it is more difficult to know where spending takes place than in a federal system: the intrinsic relevance of the issue may be the same in a unitary system, but its political salience is less, simply because it is less visible.[4]

**Table 1: GDP and personal income, Canadian provinces, 2001**

| | **Canada** | **Newfoundland** | **Prince Edward Island** | **Nova Scotia** | **New Brunswick** | **Québec** |
|---|---|---|---|---|---|---|
| GDP per capita | **34,912** | 26,060 | 24,626 | 26,423 | 26,699 | 30,835 |
| Personal income per capita | **27,756** | 21,835 | 22,367 | 24,487 | 24,028 | 25,901 |

| | **Canada** | **Ontario** | **Manitoba** | **Saskatchewan** | **Alberta** | **British Columbia** |
|---|---|---|---|---|---|---|
| GDP per capita | **34,912** | 37,063 | 30,508 | 32,538 | 49,048 | 31,835 |
| Personal income per capita | **27,756** | 29,919 | 25,826 | 23,517 | 30,518 | 26,587 |

Source: Personal income and GDP data from CANSIM II table 384-0013.

Note: CANSIM is an electronic database maintained by Statistics Canada and is available at http://cansim2.statcan.ca/.

To carry out this kind of work, one must first set the time period studied and the regions examined. The time period will usually be one year or a succession of years; it will not be a lifetime since regions in a sense live forever. Also, although it may not be optimal from a public policy perspective, budgets are set on a yearly basis and most discussion is thus carried on with respect to that period. The regions examined will depend both on the policy objectives of those carrying out the study and also, importantly, on the availability of data.

4 Although this will, of course, vary from country to country. For example, the work of the Agnelli Foundation in Italy on fiscal deficits and surpluses by region was an important part of the arguments put forward for transforming Italy into a federal state. In the UK, official estimates have been used with respect to assessing the appropriate degree of funding for Scotland and Wales and the English regions.

For example, historical regions or first-level sub-national entities are more likely to be studied than metropolitan areas.

What is meant by incidence in such studies? One can distinguish both a time and an impact dimension as set out in Table 2.

**Table 2: Dimensions of interregional incidence**

| Time/Impact | Monetary level | Real level | Welfare level |
|---|---|---|---|
| Short run | Immediate changes of disposable income due to expenditure and taxes | Immediate changes of goods and services due to expenditure and taxes | Subjective evaluation of short-run monetary and real effects |
| Medium run | Final resting place of expenditure and taxes after shifting | Changes of goods and services after shifting | Subjective evaluation of medium-run monetary and real effects |
| Long run | Final resting place of expenditure and taxes after all adjustments (e.g., migration, macro-economic effects) | Changes of goods and services after all adjustments | Subjective evaluation of long-run monetary and real effects |

Source: *Frey* (1984).

In this study, we discuss results linked to the boxes in Table 2 referring to the monetary level. Specifically:

- We examine the short-term incidence of spending in terms of monetary flows. We do not consider the much more complex question as to whether increased equalization payments to a region increase the welfare of its inhabitants.
- We also examine, to the extent feasible, the impact after the shifting of the tax burden.
- Finally, in the case of Canada, given the length of time that the federal expenditures have been in place, the stability, in terms of winners and losers, suggests that the results observed probably reflect long-term adjustments. For example, the population of Atlantic Canada (a winner) has adjusted and made the relevant private choices (with respect to location, education, and so on).

Although we have not attempted to do so here, it is also feasible to carry out empirical work that looks at both the real and welfare impacts of these policies. Whalley and Trela (1986) demonstrate this in a general equilibrium analysis for 1981 of the regional aspects of various Canadian policies using a six region (Atlantic, Québec, Ontario, Prairies, Alberta and British Columbia) model.

Of course, the interregional incidence of public budgets is only one aspect of the interregional dimension of federalism, even within a federal context. Two other major issues that are frequently discussed relate to wealth and opportunity, both of which are entangled with budgetary issues. Regions that have low incomes but high natural resource wealth that remains unexploited owing to distance, political instability, or some other reason may, for example, feel that they are short-changed by the current interregional incidence of public budgets, since the picture thus revealed does not recognize the fact that, as they see it, they will one day contribute more to the country more than they will take out of it. Similarly, regions whose resources are exhausted may feel equally short-changed by inadequate recognition of their past contributions. When both these factors come together, as in the case of Newfoundland and Labrador in Canada – the region to which the quotation from a recent newspaper column with which we began this paper was applied – it is not surprising to see the following response to that quotation in a reply written by the premier of the province:

> *While Ms Wente goes on at length to speak of federal moneys flowing to our vast and scenic welfare ghetto, she fails to mention the resources--human, cultural, and no less important, vast natural resources--that our province brought with us to this federation, such as our fishery, our forests, our farms, our clear hydroelectric resources, our iron ore, nickel, copper, cobalt, gold and other minerals and our oil and gas.*[5]

Of course, many regions around the world are 'rich' in natural resources but not rich in terms of per capita income (Newfoundland and Labrador has the second lowest per capita GDP in Canada, as shown in Table 1), for many different reasons.

Another 'wealth' issue relates to the sharing of public assets and debt. Aspects of this question were, for instance, much debated when the threat of secession by Québec was high in the early 1990s. Various suggestions were

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5 *We're mad as hell, Danny Williams*, Globe and Mail, 6/7/01/2005, A13. Note that Newfoundland joined Canada as its 10th province in 1949; it was previously a colony of the United Kingdom.

put forward as to how the debt, gross or net of physical and financial assets, should be shared between Québec and the rest of Canada (ROC). The share of debt to be assumed by Québec varied from 20 to 30% depending on the rule to be used – e.g., sharing on a per capita basis (whether before or after population movements linked to secession was not made clear in the discussion), on a share of GDP basis or on some measure of 'received benefits.'

It can be argued that one way rich regions of federation can contribute to the overall well-being of all citizens of the federation is by allowing free inward migration from other regions to partake in better economic opportunities, whatever their source. This is an example of what might be called an 'opportunity' issue. Of course, the benefits from such migration are more achievable if distances, both physical and cultural, are small. In federations that have different language groups located in different regions with different incomes, such as Belgium, Canada or Switzerland, for example, some groups may not benefit as much. In the United States and Australia, on the other hand, this is not an issue so that 'place prosperity' is relatively less relevant.[6] When mobility is curtailed, for whatever reason, the interregional incidence of public budgets will become a more important means of redistribution between groups originating from different parts of a country.

Turning to issues related more specifically to public budgets, budgets have of course both a spending and a revenue side. Spending includes purchases of goods and services, spending on wages and the related employment, and transfers to governments, individuals and firms. Revenues include revenues from taxes, both direct and indirect, fees, and so on. Many fiscally relevant issues are not adequately covered by examining budgets alone, however. For example, tax expenditures are both a form of spending and a tax reduction that may be not distributed across regions equally. Similarly, publicly mandated private spending through laws and regulations may replace both tax revenues and public spending, and again may not be distributed equally across regions. Yet, another example important in some federations is the extent to which the imposition of national rules on the pricing of natural resources reduces regional revenues from this source of wealth.

The issue of the interregional incidence of public budgets arises, in part, from the existence of fiscal imbalance. Some degree of fiscal imbalance seems inherent in countries with more than one level of government. As a rule, central governments tend to collect most taxes, while state and local governments are often responsible for more expenditures than they can finance from sources of revenue directly under their control. The resulting

6 One may wonder if the re-hispanisation of some southern states may not eventually make it more difficult for north-south mobility to continue unabated in the United States.

difference between expenditures and own source revenues at different levels of government is called ‘vertical fiscal imbalance.’ At the same time, some jurisdictions are invariably richer than others within each subnational level of government. The resulting difference in the resources available to governments at the same level is called ‘horizontal fiscal imbalance.’ Each is difficult to measure in an unambiguous way. [7]

Regional fiscal flow data are often used to show regional incidence differences and to measure the redistribution of income among regions that results from tax and expenditure policies. For example, a region is said to experience a favorable fiscal flow if its income (in reality, the income of its residents) is raised more by the impact of government spending than it is reduced by the taxes borne in the region. Fiscal flow data are not easy to obtain, and often require substantial effort to construct. It is thus perhaps understandable that once the hard work of estimating such flows has been accomplished, it is tempting to draw policy inferences from them. The temptation to do so should, however, generally be resisted, because such numbers, though certainly useful descriptively, may, unless care is taken, be highly misleading as a guide to policy.

On the expenditure side, for example, it should not simply be asserted that expenditures that take place in a particular geographic area actually benefit the residents of that area. For example:

- Are benefits equal to costs?
- How does one allocate the benefits of public goods?
- Are all benefits (as measured by the cost of the project) of an interstate highway received by those who live beside the road?
- Do the benefits of expenditures on public sector activities accrue to those who receive incomes as a result (such as teachers) or to those who receive the services provided (in this case students)?

Such questions, as a rule, do not have easy or obvious answers and they are even harder to answer in a regional context. A region is, in effect, a small, open economy that has important economic linkages with other regions. The central government may, for example, spend extensively in a certain region (directly or through transfers). The effects of that expenditure, however, may be felt throughout the economy as a result of the network of inter-regional trade and factor flows. Reliable data on such flows are rare. Even worse, spillovers from region to region of both expenditures (factor incomes paid out, for example) and benefits (services provided) may take place. Such spillovers

7 See *Bird/Tarasov* (2004) for some recent calculations for federal countries.

are diffuse, complex, and difficult to measure, even in principle, let alone in practice.

On the revenue side, flow analysis assumes, often implicitly, that taxes collected within a territory are paid by the residents of that territory. This assumption is often wrong. For example:

- Port cities do not pay – in the only economically meaningful sense of reduced private incomes for their residents – customs duties that are collected on shipments in transit to inland destinations.
- Those who live near a distillery that ships most of its product outside the jurisdiction do not pay the taxes the distillery remits to the government.
- Citizens of the region in which a company's headquarters is located do not pay all the taxes that the company pays.

Tax incidence analysis is no doubt arcane, but its intricacies and inherent problems cannot simply be neglected, as is too often the case in flow analysis. Moreover, the data needed to trace the real interregional effects of product (and perhaps factor) taxes are seldom, if ever, available, largely because good data on cross-border flows of either products or factors within national boundaries are seldom available.

Such problems do not mean that measuring geographic incidence is impossible in principle or practice, but they do imply that doing so meaningfully requires more detailed data than usually exist, as well as strong assumptions about issues that are inherently highly uncertain. One can certainly assign taxes and expenditures on a regional, or even a local, basis if one is willing to make such assumptions, but there are no universal rules that determine the appropriate assumptions for a particular country and time. The results of such analyses, even the most careful ones, are thus always suspect to some extent. More important, precisely because of its inherent subjectivity, flow analysis is all too subject to manipulation for political purposes.

To add to the problems, because of data limitations, many flow studies cover only part of the flow of intergovernmental revenues and expenditures. While understandable, this approach implicitly assumes that non-included flows have equal per capita effects everywhere, an assumption that is almost certain to be wrong. Ideally, one should also take into account the possibly offsetting regional effects of such "invisible" transfers as those through price controls and subsidies, tax expenditures and controlled credit allocations,[8] and a variety of non-fiscal public policies, such as regulation. To do so, however,

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8 See *Bird/Chen* (1998) for an attempt to take some of these factors into account in China, and *Rao/Singh* (2005), chap. 9, for a related analysis of 'implicit' transfers in India.

is so difficult a task, even in the most data-rich countries, that apparently no one has ever managed to do it. The picture painted of reality by even the best fiscal flow analysis is therefore inevitably partial and hence inherently flawed to an unknowable extent.

## 2. Evidence from Canada

Notwithstanding the difficulties just mentioned, we now turn to an examination of the case of Canada, leaving the question of the policy relevance of the data we present to the next section. We first present aggregate results for all federal revenues and expenditures for the ten Canadian provinces; we then turn to evidence on additional items not covered by such flows. Finally, we examine results for four specific federal programs and for federal employment before briefly concluding.

As indicated in the introduction, there is a long tradition of, if not research on, the debate in Canada on the regional incidence of federal expenditures and revenues, at least in a Québec-Canada context. The debate was initiated in 1964 by a question to the federal Minister of Finance from an Opposition Member of Parliament. Various studies were produced over the following ten years; they are summarized in a monograph by the CD Howe Institute (1977).[9] The results for 1961 show that the evaluation of the gains to Québec from federal expenditures in and federal revenues from that province ranged from +$199 million to -$139 million, depending on the study used. Perhaps not surprisingly, the federal government study showed a benefit and the provincial studies a loss. The main differences reflected the allocation of spending on the basis of where the money was spent or on the basis of population and whether the deficit was allocated by province or not.

### 2.1 The interregional incidence of public budgets in Canada: Aggregate flow results

We begin by examining the overall fiscal balance for Canada’s ten provinces. This is done using data from Statistics Canada made available annually in the Provincial Economic Accounts, which go back to 1961. The federal government collects revenue inside each province, and then spends through different programs and transfers in these provinces, while reallocating some of the resources collected. Table 3 (columns 1 and 2) shows federal revenues and

9 See also the account in *Leslie/Simeon* (1977).

federal expenditures by province for 2001. These data show that the federal government spends more, both directly and in transfers to provinces and individuals, in Québec, Manitoba, Saskatchewan and the four Atlantic provinces than the revenue it collects in those seven provinces, with the reverse being true for the remaining three provinces (column 3). Overall, the federal surplus is $9,764 million. This number, however, is not the surplus observed if one adds up the revenues and expenditures by province of columns 1 and 2 of Table 3: they sum respectively to $188,187 million and $173,341 million, for a surplus of $14,846 million.

This results from two factors:

- the omission from the discussion for simplicity of the three sparsely-populated northern territories in which revenues are collected and expenses incurred;
- and, more importantly, the omission of spending abroad, mainly on international aid but also on military and diplomatic activities. In the European context, transfers to the European Union budget would result in the same type of difference. This difference is a real transfer of resources from Canadian provinces to non-residents and hence no correction is appropriate.

This result might, however, to some extent, be an artefact of the overall budgetary position of the federal government if it is either in a deficit or a surplus position.

## Table 3: Federal revenues, expenses and surplus/deficit, Canadian provinces, 2001, current dollars millions)

| | Expenses | Revenues | Gross Net position | Deficit corrected Net position | Revenue corrected Net position | Expenditure corrected Net position | Debt corrected Net position | Gross Net position per capita | Deficit corrected Net position per capita | Revenue corrected Net position per capita | Expenditure corrected Net position per capita | Debt corrected Net position per capita |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| **Canada** | **179,558** | **189,322** | **-9,764** | **0** | **-9,535** | **-15,166** | **-14,963** | **-** | **-** | **-** | **-** | **-** |
| Newfoundland | 4,922 | 2,113 | 2,809 | 2,918 | 2,652 | 2,554 | 2,574 | 5,381 | 5,590 | 5,081 | 4,893 | 4,931 |
| Prince Edward Island | 1,414 | 683 | 731 | 766 | 702 | 546 | 698 | 5,349 | 5,605 | 5,136 | 3,995 | 5,107 |
| Nova Scotia | 8,945 | 4,467 | 4,478 | 4,708 | 4,257 | 2,438 | 4,210 | 4,803 | 5,049 | 4,566 | 2,615 | 4,515 |
| New Brunswick | 6,440 | 3,362 | 3,078 | 3,251 | 2,856 | 2,445 | 2,811 | 4,105 | 4,335 | 3,809 | 3,260 | 3,749 |
| Québec | 42,750 | 39,028 | 3,722 | 5,735 | 3,776 | 3,246 | 2,382 | 503 | 775 | 510 | 439 | 322 |
| Ontario | 58,976 | 83,552 | -24,576 | -20,267 | -23,087 | -23,942 | -22,179 | -2,066 | -1,703 | -1,940 | -2,012 | -1,864 |
| Manitoba | 8,629 | 5,616 | 3,013 | 3,303 | 2,683 | 2,725 | 2,704 | 2,617 | 2,869 | 2,330 | 2,367 | 2,349 |
| Saskatchewan | 6,931 | 4,847 | 2,084 | 2,334 | 1,856 | 2,434 | 1,809 | 2,084 | 2,334 | 1,856 | 2,434 | 1,809 |
| Alberta | 14,195 | 21,785 | -7,590 | -6,466 | -7,326 | -4,939 | -6,905 | -2,483 | -2,115 | -2,397 | -1,616 | -2,259 |
| British Columbia | 20,139 | 22,734 | -2,595 | -1,423 | -3,422 | -1,538 | -3,067 | -636 | -349 | -839 | -377 | -752 |

Source: Calculations by the authors using Statistics Canada provincial account data found in the CANSIM database.

Notes: (3) = (1) – (2); (4) = (3) + (9,764/189,322)*(2); (5): see Table A-1; (6): see Table A-2; (7): see Table A-2.

The Canada numbers differ from the -9,764 value of column (3) in columns (5) to (7). This is explained by two factors:

- first, the various variables used to allocate the tax burdens in the calculations creating column (5) are not allocated in the same way between the provinces and territories as the original values used in column (2). Hence, the total can differ and does so by 229 out of 9,764 or about 2%;
- second, the issue raised above also holds for the expenditure allocators used in creating columns (6) and (7). More importantly, since we use allocators internal to Canada to allocate expenditures, we cannot allocate expenditures outside Canada with them.

Recall, however, that the surplus taking into account only internal expenditures is 14,846, which is similar to the figures in columns (6): 15,166 and (7): 14,963.

To correct for this, in column 4 of Table 3, we add the province's share (measured by its share of the total revenue collected by the federal government) of the national deficit/surplus as revenue collected in the province, in effect, assuming that the federal budget is in equilibrium. Another way to make a similar correction would be to reduce/increase spending by province. The frequency of deficits in fiscal history, however, suggests that that it is easier for governments to adjust revenues through borrowing than to cut expenditures, so, since current borrowing can be seen as generating future revenue obligations, our calculation, in effect, simply transforms them into current revenues.[10] The results of this adjustment do not change the basic conclusions noted above: the Atlantic provinces, Québec, Manitoba and Saskatchewan receive more in spending than they pay in federal taxes.

The policy relevance of adjusting for the overall budgetary position is well illustrated by the 2005 request from the Ontario government,[11] "…for Ontario's fair share in federal funding by addressing the $23-billion gap between what the people and businesses of the province pay in taxes to the federal government, and what Ontario gets back to invest in programs… ." The first argument given to justify this request is that, "In 1995, the amount Ontarians gave the federal government for distribution in the rest of Canada was $2 billion. Ten years later, it is $23 billion - a 1,000 per cent increase." In 1995-1996, however, the federal government deficit was $30 billion while in 2003-2004, the surplus was $9 billion, a difference of $39 billion.[12] Ontario's' share (45% on a revenue basis) of this difference accounts for most ($18 billion) of the $21 billion difference between 1995 and 2005.

The discussion in Section 1 noted three types of revenues that were more likely to be misattributed to a given subnational jurisdiction and thus in need of corrections - customs revenues, excise revenues and corporate income tax revenues. In Table A-1, we examine the impact of reallocating these revenues

10 To illustrate, for Québec in 2001, its share of revenues collected was 20.6% (in millions, $39,028/$189,322 (from Column 2). Since the federal surplus in that year was $9,764 billion (from first line of Column 3), the calculated correction (increase) for Québec was then (0.206 x $9,764) or $2,013 million (rounded off), which is the difference between the Québec surpluses recorded in columns (3): 3,722 and (4): 5,735 of Table 3.

11 McGUINTY GOVERNMENT SEEKING FAIRNESS IN FEDERAL SPENDING. *Presentation To Federal Subcommittee Focuses On Explaining $23-Billion Gap,* March 11, 2005. See: http://www.gov.on.ca/FIN/english/media/2005/nre03-finimb.htm.

12 Fiscal reference tables, 2004, Table 1. See http://www.fin.gc.ca/frt/2004/frt04_1e.html#Table1.

as well as those of the Goods and Services Tax (the federal VAT in Canada). We find that:

- using the consumption of goods to allocate customs duties generates large percentage changes for Newfoundland and Prince Edward Island but small changes in dollar terms. The main impact is to reduce the share of Ontario by about $100 million, a result that reflects the location of Ontario as the main gateway for US imports;
- using the consumption of goods and services to allocate the GST does not in any significant way change the amounts by province;
- using the consumption of alcohol and tobacco to allocate the relevant excises mainly increases the revenues obtained in Québec;
- using the shares of wages and salaries and consumption, each with a weight of 50%, as allocators substantially increases the amount of corporate income tax allocated to the four Atlantic provinces and to Manitoba and Saskatchewan. With respect to this tax, one should note that CIT is collected from three kinds of businesses in Canada:
  - firms that operate in a single provincial jurisdiction;
  - firms that operate in multiple jurisdictions through subsidiaries and thus need not use a formula to allocate their taxable income between provinces;
  - firms that operate in multiple jurisdictions as a single corporate entity and thus need to use a formula to allocate their taxable income between provinces. The general formula is the sum of shares of payroll and shares of sales in a province divided by two. Specific formulas are used for transportation firms (passenger miles) and financial firms (assets).[13]

The last two columns of Table A-1 allow us to see the overall impact of making the four incidence corrections discussed above. Overall, the tax burden is shifted from Ontario to the four Atlantic Provinces and to Manitoba and Saskatchewan, reflecting the fact that production activities are more concentrated in Ontario than consumption, which is supported by transfers to individuals. Column 5 of Table 3 shows the consequence of accounting for this adjustment.

The discussion in Section 1 also raised questions about the allocation of expenditures across regions. Five major types of expenditures are

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13 See *Income shifting, investment and tax competition: Theory and evidence from provincial taxation in Canada*, by *Jack Mintz/Michael Smart*, http://www.bus.umich.edu/otpr/WP2001-15paper.pdf.

distinguished in the data: transfers to individuals, transfers to businesses, transfers to provincial and local governments, current expenditures on goods and services, and debt service. The first three items are straightforward in their location. In the case of transfers to provinces, one must note the asymmetric treatment of Québec whose residents receive a special federal personal income tax abatement to allow the provincial government to collect, through its provincial income tax, an amount that it would have otherwise received as a transfer.[14] This nets out since federal revenues are lower by an amount equal to the lower federal transfer payments to the province.

The remaining two items are more problematic. In the case of expenditures on goods and services, which includes salaries, the question of who benefits comes to the fore: salaries of top civil servants are paid mainly in Ontario since they are located in Ottawa, but their work is of use to all users of their departmental services, not only to those residing in Ontario. In the case of debt service, the convention used by Statistics Canada is to allocate it on a population basis. We present evidence in Table A-2 on allocating goods and services expenditures using shares of GDP and shares of population. We add up transfers, expenditures on goods and services allocated on a GDP basis and debt service to calculate column 6 of Table 3. We also remove debt service from expenditures using only the original goods and services and transfers expenditures by province and reducing the revenues of provinces by the national share of revenues (21.9%) required for debt service, in order to calculate column 7 of Table 3.

To conclude, we calculate the per capita net position for each province using the original numbers and the four adjusted approaches discussed above and report the results in columns 8-12 of Table 3. We find that different approaches have little impact on the results. The two top gainers in per capita terms are Newfoundland and PEI, followed by Nova Scotia and New Brunswick, then Manitoba and Saskatchewan and finally Québec.

### 2.2 The interregional incidence of public budgets in Canada: Some missing items

In the discussion in Section 1, the following issues were also raised:

- the distribution of tax expenditures;
- the impact of price and other regulations;
- the impact of mandated spending.

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14 See *Bird/Vaillancourt* (2002) for more details.

We address these issues in turn below.

### *2.2.1 Tax expenditures*

Table 4 presents information on the top five personal income tax expenditures in Canada in 2001. These are associated with:

- **The child tax benefit**: The Canada Child Tax Benefit (CTB) is a tax-free monthly payment made to eligible families to help them with the cost of raising children under age 18. The CTB may include the National Child Benefit Supplement (NCBS), a monthly benefit for low-income families with children, and the Child Disability Benefit (CDB), a monthly benefit providing financial assistance for qualified families caring for children with severe and prolonged mental or physical impairments.[15] The amount reported in the tax expenditure data is the total amount paid.
- **Registered pension plans (RPP)**. RPPs are private pension plans maintained by employers for the benefits of their employees. Two tax expenditures are associated with them: 1) contributions to these plans are deductible from personal income in the calculation of taxable income, and 2) the income earned by these plans is not taxable, either in the hands of the plan or of the contributor.
- **Registered retirement savings plans**. RRSPs are private pension plans maintained by individuals, self employed or salaried, for their own benefits. Again, two tax expenditures are associated with them: 1) contributions to these plans are deductible from personal income in the calculation of taxable income, and 2) the income earned by these plans is not taxable, either in the hands of the plan or of the contributor.

It is interesting to note that, strictly speaking, the drop in the stock markets in 2001 transformed two of these expenditures, the non-taxation of the income of registered pension plans and of registered retirement savings plans into 'tax revenues'. We thus use the five-year average value of these two tax expenditures. Also note that it is preferable to conduct the analysis in terms of combined pension expenditures, since the provincial distribution of each type reflects the industrial structure (e.g., RRSPs are relatively more used by self-employed farmers in Saskatchewan and fishers in PEI and RRPs relatively more by salaried auto workers in Ontario).

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15 See http://www.cra-arc.gc.ca/benefits/childbenefit-e.html for more details.

Since we only have a national total for the value of tax expenditures, we calculate the distribution and value of tax expenditures using information on the amount received as a Child Tax Benefit (CTB) and on the deduction claimed for the two pension-related expenditures. For the pension amounts, we multiply the amounts for each province by the average federal personal income tax rate (net federal tax/taxable income) to account for the fact that the value of these tax expenditures depends on both the amount claimed and on the tax rate. We assume that the benefits of past contributions (untaxed income) are distributed according to current contributions. Table 4 shows that the CTB is somewhat more valuable in poorer provinces reflecting the fact that its value depends on both the number of children and the income of a family. Pension-related tax expenditures whose value increases with individual income are more valuable in provinces that are net contributors in Table 3. That said, the per capita amounts are smaller than the gains reported in Table 3 except for those reported there for Québec.

**Table 4: Provincial distribution and per capita amounts of five federal tax expenditures, Canada, 2001**

| Province | Child tax benefits | Registered Pension Plan contributions and exempt income | Registered Retirement Savings Plan contributions and exempt income | Combined pension benefits | Child tax benefits, per capita $ | Combined pension benefits, per capita$ |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total amount (000000$) | 7,370 | 10,000 (6,225+3,775) | 11,635 (4,575+6,070) | 21,635 | | |
| Newfoundland | 1.9% | 0.8% | 1.6% | 1.0% | 257 | 398 |
| Prince Edward Island | 0.5% | 0.2% | 0.4% | 0.3% | 266 | 400 |
| Nova Scotia | 3.2% | 1.7% | 2.8% | 2.0% | 243 | 475 |
| New Brunswick | 2.6% | 1.2% | 2.2% | 1.4% | 246 | 407 |
| Québec | 23.5% | 20.7% | 21.7% | 21.1% | 223 | 618 |
| Ontario | 35.3% | 45.2% | 37.6% | 43.2% | 208 | 785 |
| Manitoba | 4.7% | 2.6% | 4.1% | 3.0% | 285 | 556 |
| Saskatchewan | 4.4% | 2.2% | 3.9% | 2.6% | 310 | 553 |
| Alberta | 10.4% | 12.6% | 11.3% | 12.4% | 239 | 880 |
| British Columbia | 12.9% | 12.8% | 12.4% | 13.1% | 223 | 694 |

Source: Calculations by the authors using Total Amounts, Tax Expenditures and Evaluations, 2004, http://www.fin.gc.ca/taxexp/2004/taxexp04_2e.html#Table%201.

Notes: Distribution of retirement-related amounts: annual contributions for 2001 in Income Statistics, Table 2 (items C25 and C26), http://www.cra-arc.gc.ca/agency/stats/gb01/pst/final/tabhtml-e.html.
Distribution of Child Benefits: Welfare Statistics, http://www11.sdc.gc.ca/en/cs/sp/socpol/publications/statistics/9999-002455/tab107e.shtml.

But how should one interpret these numbers? One possibility is to add them to either the expenditures reported in Table 3 (e.g., for the CTB) or to tax revenues in Table 3 (e.g., for pension-related tax expenditures). The first approach would give us a more complete measure of federal spending by region. The second approach would allow us to compute what the tax burden would have been without a particular tax expenditure[16] and to see its impact by province. These issues obviously need more reflexion; we thus do not carry out such calculations.

Corporate tax expenditures may also have a regional dimension. Leblanc and Vaillancourt (1995), for instance, found that Alberta was the major gainer from such expenditures as a result of the generous tax treatment of natural resources.

### *2.2.2 Price and quantity regulations*

We begin by an example of quantity regulations then turn to one of price regulations and finish with a mixed one.

**Quantity**

While rare, a recent example with interregional aspects is the allocation of fishing quotas in the Gulf of St Lawrence between five provinces. PEI initiated a lawsuit in February 2005 against the federal government, arguing that the "allocation (of fishing quotas) of a number of species, including northern and gulf shrimp, snow crab and bluefin tuna does not take into account the application of the criteria of adjacency, historic dependence and economic viability."[17]

**Price**

The most important program of price regulation in Canada was the control of oil and gas prices from 1973 until the mid-eighties, when market prices collapsed below the controlled price. Following the first oil price shock of October 1973, the federal government froze the Canadian oil price below the world price. This was achieved by imposing an oil export charge on exports to the United States that raised the price of these exports to the world price and

16 This is correct for any one tax expenditure but incorrect for all tax expenditures, since each item is valued in isolation even though in reality there are important interactive elements that need to be taken into account before any meaningful aggregates can be derived. Unfortunately, it is impossible to do this so far.

17 See http://www.gov.pe.ca/news/getrelease.php3?number=4006.

then using the revenue from this levy to finance an oil import compensation program that paid subsidies to refiners of imported oils, located mainly in eastern Canada. Hence western Canadian producers, principally Alberta, subsidized eastern consumers. While the domestic price gradually rose towards the international price in the 1970s, the second oil price shock of 1979 intervened. As a result, a National Energy Policy (NEP) was introduced in 1980 with a similar aim of ensuring a lower price in Canada no higher than 85% of the world price.

Details of these two policies are found in Whalley and Trela (1986), who calculated the gains and losses associated with removing energy price controls using both a partial and general equilibrium approach, as reported in Table 5. The size of the costs imposed on Alberta by NEP are indicated by the importance of the estimated gains from removing this policy, which are "larger by many order of magnitudes than the interregional effects of any other policy changes …the interregional effects induced by the NEP were so large that they dominated the interregional effects from the other polic(ies)," Whalley and Trela (1986, p. 152). Of course, such gains to Alberta did not necessarily mean equivalent losses to others, since removing domestic oil and gas price regulations created a general welfare gain to Canadians everywhere as a distortion affecting economic choices was removed. The collapse of the world price for oil in the mid-eighties effectively ended the NEP. Presumably, the distribution of the gains then attained must have been similar to those simulated in Table 5, although their exact level is not known because the oil price was different then from the one used in the simulations.

**Table 5: Simulated impact of removal of national energy policy, Canada, 1981**

| Regions | Partial equilibrium results ($ million) | General equilibrium results ($ million) |
|---|---|---|
| Atlantic | -256 | -1,017 |
| Québec | -2,048 | -2,356 |
| Ontario | -3,633 | -2,129 |
| Prairies | -56 | 1,484 |
| Alberta | 8,440 | 11,722 |
| British Columbia | -712 | -383 |
| **Canada** | **1,677** | **7,304** |

Source: *Whalley/Trela* (1986), tables 5-8 and 5-9.

Note: Partial equilibrium effects are the sum of oil and natural gas effects.

### Price and quantity

We now turn to an example of perhaps greater interest in the context of Europe[18] drawn from the agricultural sector, that of milk. There are various provincial quotas in the agricultural sector but the most costly one in Canada from a consumer is the milk quota system.

Milk policy in Canada distinguishes between fluid milk (40% of production) and industrial milk (60%).[19] Fluid milk is regulated by provincial marketing boards in Canada while industrial milk is under the responsibility of the Canadian Dairy Commission (CDC), a federal body which sets:

- the production quotas (Market Sharing Quotas, MSQ) by province - these are then allocated to producers according to provincial rules;
- the support price for butter and skim milk powder, which is used by provincial agencies to determine the price paid by processors (dairies);

18 Given the importance of the Common Agricultural Policy in the European context.

19 Information in this section is drawn form the 2001-2002 Annual Report of the Canadian Dairy Commission, see http://www.cdc-ccl.gc.ca/DCPCDC/app/filerepository/F07A78FA8140457DA6F12D3E0F876E6A.pdf.

- until 2001-2002,[20] the CDC was responsible for paying a subsidy to producers. This subsidy was abolished in the 1995 federal budget over a five-year period (declining from $141 million in 1996-1997 to $16 million in 2001-2002). Prices paid to producers were increased to compensate. This is an example of a government direct income transfer being shifted from general tax revenues distributed through the budget -- and thus captured in the accounts used to construct Table 3 above -- to a mandated consumer-financed (through higher regulated prices ) interregional transfer no longer reflected in Table 3.

A recent analysis of this program shows that it is the largest farm support program in Canada, accounting for 70% of all such programs, and its value (as calculated by the OECD Consumer Support Estimate) is about $2.5 billion per year.[21]

Table 6 presents information on the regional distribution of milk production, milk production quotas and milk consumption in Canada. It clearly shows that Québec and PEI are net beneficiaries of that program. Québec gains $207 million from this program while Ontario loses $45 million and British Columbia loses $50 million.

### *2.2.3 Mandated expenditures*

‘Mandated’ expenditures are the most difficult to analyze, since the national costs of such expenditures, let alone their regional distribution, are so hard to measure. In Canada, until recently, there have been no major unfunded private mandates. One issue now emerging, however, is the regional implications of implementing the Kyoto agreement which Canada ratified in 2002. The federal government is committed to a reduction of 270 megatonnes of greenhouse gas (GHG) emissions by 2012.[22] The program announced

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20 The dairy year runs from August 1 to July 31.

21 *The Politics of Milk in Canada* by *W. T. Stanbury*, Fraser Institute, Digital Publication, see http://www.fraserinstitute.ca/admin/books/files/Milk.pdf.

22 See *Moving Forward on Climate Change: A Plan for Honouring our Kyoto Commitment*, Environment Canada, 2005, at http://www.climatechange.gc.ca/kyoto_commitments/. Information below is culled from various parts of the document.

**Table 6: Provincial impacts of milk policy in Canada, 2001-2002**

| Provinces | Industrial milk and cream production (000 kg of butterfat) | Market sharing quota (% MSQ) | Milk consumption (%) | Payment by consumer ($ million) | Amounts received by producers ($ million) |
|---|---|---|---|---|---|
| **Canada** | **169,969** | **100** | **100** | **2,500** | |
| Newfoundland | 57 | 0,1 | 0.4 | 10 | 2,5 |
| Prince Edward Island | 3,088 | 1,9 | 1.3 | 33 | 47,5 |
| Nova Scotia | 2,332 | 1,2 | 2.3 | 58 | 30 |
| New Brunswick | 2,158 | 1,3 | 1.8 | 45 | 32,5 |
| Québec | 81,835 | 46,6 | 38.3 | 958 | 1165 |
| Ontario | 50,420 | 31,5 | 33.3 | 833 | 787,5 |
| Manitoba | 6,394 | 3,5 | 3.9 | 98 | 87,5 |
| Saskatchewan | 5,516 | 2,7 | 2.8 | 70 | 67,5 |
| Alberta | 9,400 | 6,1 | 8.1 | 203 | 152,5 |
| British Columbia | 8,769 | 5,1 | 7.8 | 195 | 127,5 |

Source: Production: Canadian Dairy Commission, Annual Report, 2001-2002, p. 14, p.16, http://www.cdc-ccl.gc.ca/DCPCDC/app/filerepository/F07A78FA8140457DA6F12D3E0F876E6A.pdf.

Consumption: http://dairyinfo.gc.ca/pdf_files/ff2002_f.pdf.

in April 2005 has various elements. Ranked in terms of expected GHG reductions, the third largest new element of the program involves mandated private expenditures, to be incurred by so-called Large Final Emitters (LFE). The LFE sector - oil and gas, thermal electricity, mining and manufacturing - is supposed to reduce emission by 36 megatonnes (or about 14% of the total target). To do so, they have various options: adopt upgrades to achieve in-house reductions; purchase emission reductions from other LFEs; invest in domestic offset credits; or purchase international credits (provided that these represent verified emission reductions). Taken together, the federal government estimates that these options will allow the 700 plus large final emitters across Canada to achieve the mandated reductions. The Government of Canada is to put into place regulations to allow for compliance monitoring and emissions trading.

Energy-rich Alberta, which uses vast amounts of energy to produce energy, particularly in the case of the oil sands (which require large amounts of natural gas for extraction activities) fears that it could face a disproportionate burden from such requirements. On the other hand, Québec, which uses hydroelectricity more than most other provinces as an energy source, argues that since it starts from a lower level of emissions, it should not have to cut back as much as other provinces. Most studies project a larger cost for Alberta than elsewhere. Table 7 presents evidence on emissions by province. It helps explain why, as in the case of the NEP, Alberta is seen as the most important loser - the converse result from its position as a net gainer from the abolition of the NEP as shown in Table 5. It should be noted, however, that as yet we have no basis for assessing the territorial impact of the various programs intended to achieve the other 86% of the GHG reduction target. In particular, the two largest - the Climate Fund (75-115 megatonnes of GHG) and the Partnership Fund (55-85 megatonnes of GHG) - both involve the spending of federal funds on respectively the purchase of both domestic and foreign GHG reductions and the support of various provincial and interprovincial initiatives such as an East-West electricity grid.

**Table 7: Emissions, Canadian provinces, 2010 (projected), millions of tons**

| **Province/ Emissions** | **NL** | **PEI** | **NB** | **NS** | **QC** | **ON** | **MB** | **SK** | **AB** | **BC** |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 14 | 2 | 21 | 23 | 99 | 215 | 26 | 69 | 260 | 74 |
| Per capita | 26.8 | 14.6 | 22.5 | 30.7 | 13.4 | 18.1 | 22.6 | 69.0 | 85.1 | 18.1 |

Source: *The Economic Impacts of Kyoto* by Analysis and Modeling Group at http://www.nccp.ca/NCCP/national_stakeholders/pdf/BKII_2_d_Bkgrnd_Deck_Analytic.pdf.

Notes: NL: Newfoundland; PEI: Prince Edward Island; NB: New Brunswick; NS: Nova Scotia; QC: Québec; ON: Ontario; MB: Manitoba; SK: Saskatchewan; AB: Alberta; BC: British Columbia.

## 2.3 The interregional incidence of public budgets in Canada: Specific federal programs

We now turn to an examination of some specific programs: four federal transfer programs, two to provinces and two to individuals, as well as direct federal employment, to see if the answer suggested in Section 2.1 by calculating gross fiscal balances is supported by a finer analysis. We begin by describing the transfer programs briefly, and then analyze their interregional incidence.

### *2.3.1 Federal transfers to provinces*

There were two major federal provincial transfer programs in Canada in 2001. We first present the explicit equalization transfers, then the Canadian health and social transfers (CHST).[23]

**Equalization**

In 1982, the principle[24] of equalization was included in the Constitution as follows:

> *Parliament and the government of Canada are committed to the principle of making equalisation payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation (The 1982 Canada Constitution Act, Section 36(2)).*[25]

Equalization in Canada is a vertical program; it is entirely funded by the federal government from general revenues. Until 2004, there was no set

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23 In addition, there are a number of 'small transfers' (*Vaillancourt*, 2000). These transfers are conditional grants for specific items such as social housing, agricultural income support and crop insurance, second language schooling (French or English), legal aid access and so on. Each small transfer is subject to specific cost-sharing and other conditions.

24 The practice was introduced in 1957 by a federal program.

25 Enacted as Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11, which came into force on April 17, 1982. This was the final legal intervention by the United Kingdom Parliament in the constitutional history of Canada. (The first one created the country in 1867 (30 & 31 Victoria, c. 3. (U.K.).)

amount by province.[26] In 2001, the year for which we analyze the program, the total payment to a province was established by summing the deficiencies and gains associated with various taxes and revenue sources, using what is known as the Representative Tax System approach (RTS).

In 2001, 33 distinct revenue sources were included in the equalization program and most types of provincial (and some local) revenues were taken into account.[27] The three major taxes in determining equalization payments were, in decreasing order, the personal income tax, property taxes and sales taxes.[28] The standard used in the formula is the average capacity from each source for the five so-called representative provinces (Québec, Ontario, Manitoba, Saskatchewan and British Columbia). The equalization payment for a given revenue source is equal to the difference between the per capita revenue yield that a particular province would obtain using the average provincial tax rate (defined as taxes collected/tax base) and the average per capita revenue yield in the five 'representative' provinces.[29] Hence, the following is calculated for each of the 33 income sources:

$$\begin{array}{c} \text{Equalization} \\ \text{right} \\ \text{province j} \end{array} = \left[ \left( \begin{array}{c} \text{Fiscal capacity} \\ \text{representative} \\ \text{provinces} \end{array} - \begin{array}{c} \text{Fiscal} \\ \text{capacity} \\ \text{province j} \end{array} \right) * \begin{array}{c} \text{Average} \\ \text{tax rate} \end{array} \right] * \begin{array}{c} \text{Population} \\ \text{province j} \end{array}$$

The sum of equalization rights for each of the 33 sources gives the equalization payment the province j is entitled to receive for a given year. Provinces that have a negative amount at the end of this calculation do not need to pay; they simply do not receive any equalization.

26 An explicit amount of equalization payments has been set at $10 billion (average of the last five years) for 2004-2005 with no province receiving less than the amount (a total of $9.5 billion) projected in the federal estimates for that year. See *A New Framework for Equalization and Territorial Formula Financing,* at http://www.fin.gc.ca/toce/2004/eq_tff-e.html.

27 The measurement of capacity is not always straightforward but discussion of such arcane details is beyond the purview of this paper.

28 Property taxes are levied mainly by municipalities, school boards and provinces, but all are treated as provincial revenues since municipalities are legal creatures of the provinces, while school boards are regulated and funded by them, even when constitutionally protected.

29 In practice, some of the revenue sources are replaced by various proxy measures.

**Canadian health and social transfer (CHST)**

The CHST was the largest federal cash transfer to the provinces.[30] It was established in 1996, when two former transfers, Established Programs Financing (EPF) and the Canada Assistance Plan (CAP), were merged. The CHST payment to a province depended on the level of the per capita transfer set at the federal level, provincial population and the value of 'tax points' transferred to provinces in 1977, as shown in Figure 1. In 1977, all provinces saw a reduction in federal PIT and cash transfers and an increase in provincial PIT to make up for the reduced transfers. Thus "tax points" refer to the tax room (measured as a percentage of taxable income) vacated by the federal government for the provinces.

**Figure 1: Canada health and social transfer**

The calculation of funding under the CHST is as follows: The federal government determines the cash component of the transfer by subtracting the total value of tax points from total CHST entitlements (the sum of cash and tax points). The 2002-03 calculation is as follows:

| | |
|---|---|
| | *TOTAL CASH TRANSFER* |
| + | *TOTAL VALUE OF TAX POINTS* |
| = | *TOTAL ENTITLEMENTS AVAILABLE TO PROVINCES* |
| x | *POPULATION WEIGHT OF PROVINCE j* |
| = | *TOTAL ENTITLEMENTS TO PROVINCE j* |
| - | *VALUE OF TAX POINTS IN PROVINCE j* |
| = | ***CASH TRANSFER TO PROVINCE j*** |

NOTE: The tax points consist of 13.5% (30% in the case of Québec due to opting-out agreed to in 1966) of the basic federal PIT and 1.0% of taxable corporate income.

30 It was divided in April 2004 into the Canada Health Transfer and the Canada Social Transfer.

### *2.3.2 Federal transfers to individuals*

We now turn to the two most important federal transfers to individuals.[31]

**Employment Insurance**

In Canada, although Employment Insurance (EI) premiums (payroll taxes) exist, employment insurance is really funded from the general revenues of the federal government, because the federal government absorbs any deficit (or surplus) between the premiums paid by workers and companies and the benefits received by recipients. Premiums are not risk-rated: they are invariant with the industry, occupation or place of work of the employee. Importantly from our perspective, there are different minimum requirements for eligibility by region. A worker in a low unemployment region needs to work more hours within the qualifying period (last 52 weeks) in order to qualify to receive benefits than does one in a high unemployment region. The maximum number of weeks of benefits one is eligible for also varies between regions, from a low of 36 to a high of 45.

**Old Age Security**

Finally, Old Age Security is also funded from general revenues. Three types of benefits are paid: Basic Old Age Security, available to all Canadian residents aged 65 and over who have lived in Canada at least 10 years after the age of 18; Guaranteed Income Supplement (GIS), available to poor recipients of basic OAS; and Spousal Allowance, payable to spouses (aged 60-64) of GIS recipients.

Table 8 shows the provincial distribution of the four programs presented above, including the value of the opting-out amount for Québec.[32] The main findings are that in the case of Atlantic provinces the program shares are relatively higher for all four programs than all four ‘share indicators’ shown in the table, although CHST and Old Age Pension shares are fairly close to the population shares. Equalization and employment benefits shares, however, are much higher than population shares for these provinces. In contrast, in central Canada, shares for Ontario are lower than shares for Québec. In western Canada, the two most easterly provinces of that region are net recipients and the two most westerly ones net payers.

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31 Workers’ compensation and welfare are provincial responsibilities.

32 In 1966, Québec decided to opt out of certain programs and received a supplementary 16.5 personal income tax points transfer to finance these programs on its own. This means that the cash portion of the CHST transfer is smaller for this province.

**Table 8: Canada, 2001, distribution between provinces of four federal transfers to governments and individuals and population, GDP and income shares**

| | Program shares | | | | Comparator shares | | | |
|---|---|---|---|---|---|---|---|---|
| | **Equalization** | **CHST** | **Employment benefits** | **Old Age Pension** | **Population shares** | **GDP shares** | **Personal income shares** | **Federal revenue shares** |
| **Canada $ million (actual population)** | **10,318** | **15,453** | **8,863** | **23,228** | **31,082,000** | **1,085,141** | **862,710** | **171,988** |
| Newfoundland | 10.41% | 1.94% | 7.09% | 2.08% | 1.72% | 1.28% | 1.35% | 1.12% |
| Prince Edward Island | 2.52% | 0.48% | 1.59% | 0.54% | 0.45% | 0.32% | 0.36% | 0.35% |
| Nova Scotia | 12.85% | 3.32% | 5.51% | 3.55% | 3.03% | 2.30% | 2.68% | 2.40% |
| New Brunswick | 11.65% | 2.64% | 5.81% | 2.93% | 2.44% | 1.86% | 2.11% | 1.80% |
| Québec | 45.74% | 26.94% | 30.97% | 26.80% | 23.84% | 21.06% | 22.25% | 20.53% |
| Ontario | 0,0%- | 33.03% | 24.87% | 35.24% | 38.20% | 40.55% | 41.18% | 44.00% |
| Manitoba | 11.70% | 4.01% | 2.97% | 4.23% | 3.70% | 3.23% | 3.44% | 3.10% |
| Saskatchewan | 3.86% | 3.43% | 2.40% | 4.09% | 3.27% | 3.05% | 2.77% | 2.70% |
| Alberta | 0,0% | 8.94% | 6.68% | 7.74% | 9.86% | 13.85% | 10.84% | 11.31% |
| British Columbia | 1.28% | 15.27% | 11.61% | 12.79% | 13.18% | 12.02% | 12.62% | 12.29% |

Source: Various tables, *Vaillancourt/Rault* (2003) and calculations by the authors.

Note: Data for Old Age Pensions relate to 1999-2000.

Another way to look at the information in Table 8 is by program. As mentioned above, on the whole, shares for CHST and old age pensions (OAP) are close to population shares for all provinces. These results are not surprising. In the case of CHST, payments are made on a per capita basis, with a correction for differences in the yield of tax points. This correction means, for example, that Québec, a poorer province, receives more cash transfers than Ontario, a richer province with higher yielding tax points.[33] In the case of OAP, pensions are the same for all eligible recipients, wherever they may

33 The factor mentioned in the previous note also plays a role, of course.

reside. However, since Alberta receives the largest share of internal migrants in Canada, it has a relatively younger population and hence shows the largest relative difference between its population and OAP shares.

The differences between program shares and comparator shares are much larger with respect to equalization and employment insurance. Again, these results are not surprising: these two programs either aim directly to make poor provinces better off - equalization - or are designed in such a way as to make more generous transfers to residents of poorer provinces - employment insurance. Table 9 shows that the gains in Atlantic Canada and Québec are accentuated if the premium financing of EI is taken into account.

**Table 9: Provincial gainers and losers from employment insurance, Canada, 2001**

| Provinces | Benefits | Premiums | Transfer |
|---|---|---|---|
| Newfoundland | 7.09% | 1.41% | 380,997.4 |
| Prince Edward Island | 1.59% | 0.39% | 72,278.4 |
| Nova Scotia | 5.51% | 2.71% | 12,052.8 |
| New Brunswick | 5.81% | 2.25% | 119,193.8 |
| Québec | 30.97% | 24.58% | -1,566,883.2 |
| Ontario | 24.87% | 39.48% | -4,721,780.6 |
| Manitoba | 2.97% | 3.52% | -354,948.8 |
| Saskatchewan | 2.40% | 2.79% | -277,166.6 |
| Alberta | 6.68% | 10.41% | -1,234,856.4 |
| British Columbia | 11.61% | 12.02% | -1,079,953.2 |
| **Canada** | **8,863,147** | **17,540,904** | **-** |

Source: *Vaillancourt/Rault* (2003), Table 6.

### *2.3.3 Federal employment*

Another type of expenditure that may vary across provinces is obviously direct federal expenditure on wages and salaries, examined in Table 10.

**Table 10: Provincial shares of federal employment and total employment, Canada, 2001**

| Provinces | Federal employment | | Total employment | |
|---|---|---|---|---|
| | Jobs % of Can. | Salaries % of Can. | Jobs % of Can. | Salaries % of Can. |
| Newfoundland | 2.00% | 1.89% | 1.40% | 1.15% |
| Prince Edward Island | 1.02% | 0.88% | 0.44% | 0.32% |
| Nova Scotia | 6.49% | 6.51% | 2.81% | 2.39% |
| New Brunswick | 3.88% | 3.52% | 2.22% | 1.94% |
| Québec | 20.76% | 18.94% | 23.05% | 21.48% |
| Ontario | 39.96% | 42.04% | 39.56% | 42.96% |
| Manitoba | 4.53% | 4.12% | 3.70% | 3.12% |
| Saskatchewan | 2.66% | 2.50% | 3.13% | 2.42% |
| Alberta | 7.15% | 6.97% | 10.82% | 11.45% |
| British Columbia | 10.06% | 10.36% | 12.88% | 12.29% |
| Canada(# of employees and salaries in million of $) | 357 308 | 15 660 | 15 077 000 | 568 864 |

Source: *Vaillancourt/Rault* (2002).

Table 10 shows a relatively high number of federal employees in Nova Scotia and indeed a higher share of federal employees relative to their share of private employment) in all four Atlantic provinces, as well as Ontario and Manitoba, and a higher share of federal salaries in Ontario relative to federal employment. The high share of federal employment in Nova Scotia reflects the importance of naval installations in this coastal province, which, in turn, reflects both the history (first French colony to be conquered by the British) and the geography (Halifax, its capital, is an excellent natural harbour) of the region. Ontario's share of employment is due to the presence of the national capital, Ottawa, within its boundaries, while the presence of senior employees in the capital probably explains the higher salary share of Ontario.[34] The main conclusion one can draw from this analysis is that the last part of the preceding section on the relative gains of Atlantic Canada and Québec is supported by more detailed analysis of federal transfers and employment.

34 A similar result may be observed in the private sector, with head offices of large Canadian firms located mainly in Toronto, Ontario.

### 2.4 What do the numbers tell us?

The overall conclusion from this brief review of some Canadian numbers is that it is not that difficult to measure the interregional incidence of public budgets in terms of fiscal flows for Canada as a whole (2.1), to examine the soundness of these results while varying assumptions on the incidence of taxes and spending, to complement these results by analyzing at least some missing items (2.2) and to support these results by more detailed analysis of specific programs and expenditures (2.3). All in all, the numbers presented above are probably fairly good for two distinct reasons. The first is the nature of the financial arrangements in place in Canada and the second is the nature of the institutions that produce the numbers. With respect to the first of these factors, the combination of the relatively low share of the federal government in overall public spending, the relatively low share in 2001 of taxes whose incidence is uncertain (i.e., that may be collected in one region but paid by residents of another) in federal government revenues,[35] and the relatively low share of national 'public goods' (defense, foreign aid, etc.) in 2001 is striking. As Table 11 shows, however, matters were very different in, say, 1961. As for the second factor, the aggregate numbers are produced by an independent statistical agency (Statistics Canada) that no one suspects of political manipulation, and different independent analysts have obtained similar results.

## 3. Policy Relevance

In the conference program, the theme of the session for which this paper was prepared is The Interregional Incidence of Public Budgets in Federations - Increasing Importance for Multi-level Political Decision-Making. We thus finally turn to the issue of the relevance of numbers such as those presented in the preceding section. Although we shall not discuss this issue in detail, it may well be true that the interregional incidence question will become more important over time for a number of reasons. One such reason is simply as a result of the increasing openness of economies, federal or not. In many countries, the present regional political equilibrium implicitly rests on a pact between have and have-not regions, with the former gaining from a union with the latter by serving their markets, while the latter benefit by obtaining some of the tax revenues thus gained by the have regions through various implicit and explicit transfers. Such pacts become less viable in a more open setting.

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35 Of course, some caution is necessary here. Even the personal income tax is not necessarily 'paid' in an economically relevant sense by the person who pays it over to the government: see, for example, the recent analysis by *Kubik* (2004).

The ‘have’ regions see their capacity to serve the have-not markets decline as international imports become cheaper and more available. They may also become less interested in those markets as international exports become more important to their economy.

**Table 11: Share of main expenses and revenue sources in total, Canada, federal government, 1961, 1981 and 2001, and importance of the federal government in all governments**

| | % Personal Income tax in total federal revenues | % Corporate Income tax in total federal revenues | % Sales, excise taxes and duties in total federal revenues (% duties) | % National defense in total federal expenditures | % Transfers to individuals in total federal expenditures | % Transfers to other governments in total federal expenditures | % Federal outlay in total government outlay |
|---|---|---|---|---|---|---|---|
| 1961 | 31.7 | 20.1 | 34.1 (8.3) | 21.8 | 21.5 | 8.6 | 62.1 |
| 1981 | 39.9 | 13.5 | 26.3 (5.7) | 7.5 | 21.1 | 17.2 | 48.7 |
| 2001 | 46.3 | 14.1 | 21.6 (1.8) | 6.1 | 23.3 | 16.2 | 40.6 |

Source: Fiscal Reference tables, October 2004, at http://www.fin.gc.ca/toce/2004/frt_e.html.

Table 12, for example, shows the relative importance of international exports with respect to domestic exports for Canadian provinces just before the signing of NAFTA (1993) and six years later (1999). The two richest provinces, Alberta and Ontario, show a large increase in the importance of international exports and a small drop in the importance of provincial exports, which would presumably make payments to poorer provinces as a means of securing markets less relevant. The opening up of economies promoted by the WTO and regional or bilateral trade pacts may thus tend to reduce at least one possible economic motivation for interregional transfers. Of course, to the extent freer trade increases the economic opportunities of poorer regions and countries, there may be a more than offsetting gain.

**Table 12: Share of international and inter-provincial exports in provincial GDP, Canadian provinces, 1992 and 1999**

| Provinces | International X/GDP, 1992 (1) | Interprovincial X/GDP, 1992 (2) | International X/GDP, 1999 (3) | Inter-provincial X/GDP, 1999 (4) |
|---|---|---|---|---|
| **Canada** | **27.17** | **19.16** | **43.25** | **19.74** |
| Newfoundland | 18.50 | 10.29 | na | na |
| Prince Edward Island | 14.07 | 29.90 | na | na |
| Nova Scotia | 16.81 | 19.15 | 22.93 | 22.43 |
| New Brunswick | 25.55 | 26.30 | 33.55 | 31.10 |
| Québec | 20.56 | 19.38 | 35.45 | 19.79 |
| Ontario | 30.75 | 19.03 | 50.88 | 18.96 |
| Manitoba | 19.32 | 25.16 | 28.05 | 31.43 |
| Saskatchewan | 28.31 | 22.64 | 38.34 | 25.34 |
| Alberta | 26.65 | 23.26 | 35.12 | 22.89 |
| British Columbia | 23.86 | 12.90 | 31.50 | 13.08 |

Source: Statistics Canada, CANSIM II matrices, 386-0001, for export data and 384-0013 for GDP.

Leaving aside the issue of whether the relevance of such numbers is increasing or not, and making the somewhat improbable assumption that the methodology of a flow study is beyond question, what do the results mean? Usually, such studies are interpreted as showing that one region is paying too much or too little or receiving too much or too little. The usual policy recommendation drawn from such analysis is that this imbalance should be corrected, for instance, by allowing the generating regions to keep more of what they produce in terms of revenue. Attractive as such a conclusion may be to those regions, it is illogical. The aggregation of people into territorial units has little to do with the factors determining the allocation of most flows.

Suppose, for example, that each region were joined to one of its neighbors, that absolutely nothing else changed, and that fiscal flows were then re-estimated. The results would, of course, be quite different, generally with less measured inequality in the regional balance of revenues and expenditures, even though the reality has not changed. To illustrate, take this example to its limits and unify all territories into one. All regional differences have now been eliminated because there are no regions, but nothing has changed in reality because, by assumption, all spending and taxing is continuing in exactly the same way as before.

All this tells us is that even the best indicators are not, and cannot be, a substitute for analysis. Numbers are powerful. Good numbers, properly used, may illuminate reality and may not only permit meaningful assessment of certain aspects of performance, but may also suggest new and promising lines of inquiry. Measurement and quantification have long been essential ingredients in the development and application of scientific thought. Unfortunately, even good numbers may be misunderstood and misinterpreted, and bad numbers may all too easily pass for good ones among those who do not take the time to understand what the numbers can and do measure, and, equally important, what they cannot show. However, just because the unwary might cut themselves with sharp tools is no reason not to sharpen one's analytical tools as best as possible. Only careful study and appreciation of what can be measured, and with what degree of reliability, will advance knowledge of the world and how it works.

Despite the inherent limitations and risks of any conceivable set of regional fiscal indicators, it is thus still worth trying to improve those we have. Even the best such indicators will never provide a certain or clear guideline telling any country what to do, but they may, if done well, be helpful in understanding how a country or a subnational government is doing relative to others in roughly similar circumstances. Providing a base case against which to assess performance is no mean achievement in the complex and ongoing task of assessing how well particular governments are doing. In particular, as shown in this paper, it is always relevant and often important both to analyze specific programs in order to both complement and test the reliability of analyses of general fiscal flows and to consider changes over time.

## References

*Bird, Richard M.* (forthcoming), "Fiscal Flows, Fiscal Balance and Fiscal Sustainability," in: R. M. Bird/F. Vaillancourt (eds.), Perspectives on Intergovernmental Finance, Washington: World Bank Institute.

*Bird, Richard M./Chen, Duanjie* (1998), "Intergovernmental Fiscal Relations in China in International Perspective," in: Donald J. S. Brean (ed.), Taxation in Modern China, London: Routledge, pp. 151-85.

*Bird, Richard M./Tarasov, Andrey* (2004), "Closing the Gap: Fiscal Imbalances and Intergovernmental Transfers in Developed Federations," in: Environment and Policy C: Government and Policy, 22: 77-102.

*Bird, Richard M./Vaillancourt, François* (2002), Changing with the Times: Success, Failure and Inertia in Canadain Federal Arrangements, CRDPR Working Paper 151, Stanford, CA: Stanford University.

CD Howe Institute (1977), Pourquoi des bilans différents à propos des dépenses et des recettes fédérales au Québec, Montréal: Accent Québec.

*Frey, René L.* (1984), "Die Inzidenzanalyse: Ansatz und Probleme der Erfassung von Spillovers," in: René L. Frey/Ernst A. Brugger (eds.), Infrastruktur, Spillovers und Regionalpolitik. Methode und praktische Anwendung der Inzidenzanalyse in der Schweiz, Diessenhofen: Verlag Rüegger, pp. 37-55.

*Kubik, Jeffrey* (2004), "The Incidence of Personal Income Taxation: Evidence from the Tax Reform Act of 1986," in: Journal of Public Economics, 88: 1567-88.

*Leblanc, Michel/François Vaillancourt* (1995), "Les milliards de dollars non imposables: le coût des dépenses fiscales," in: Policy Options Politiques 16(1): 18-23.

*Leslie, Peter/Simeon, Richard* (1977), "The Battle of the Balance Sheets," in: Richard Simeon (ed.), Must Canada Fail?, Montréal: McGill-Queen's University Press, pp. 242-58.

*Rao, M. Govinda/Singh, Nirvikar* (2005), Political Economy of Federalism in India, New Delhi: Oxford University Press.

*Vaillancourt, François* (2000), "Federal-Provincial Small Transfer Programs in Canada, 1957-1998: Importance, Composition and Evaluation," in: Harvey Lazar (ed.), Canada: The State of the Federation 1999/2000, Kingston: IIGR, Queen's University, 189-212.

*Vaillancourt, François/Rault, Stéphanie* (2002), "Fiscal Equalisation and Economic Development Policy within Federations", Forum of Federations Conference, October.

*Vaillancourt, François/Rault, Stéphanie* (2003), "The Regional Dimension of Federal Intergovernmental and Interpersonal Transfers in Canada, 1981-2001," in: Regional and Federal Studies 13(4): 130-152.

*Whalley, John/Trela, Irene* (1986), Regional Aspects of Confederation, Toronto: University of Toronto Press.

**Table A-1: Federal revenues, Canadian provinces, 2001, current dollars (millions), varying assumptions**

| Provinces | Customs duties at point of collection | Customs duties as % of consumption of goods | GST at point of collection | GST as % of consumption, goods and services | Excise duties at point of collection | Excise duties as per consumption of alcohol and tobacco + point of collection for fuel | Corporate Income tax at point of collection | Corporate Income tax 50% wages and salaries + 50% consumption of goods and services | Original sum of four items | Revised sum of four items |
|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| **Canada** | **2,971** | **2,961** | **28,759** | **28,658** | **8,097** | **8,084** | **24,584** | **24,479** | **64,411** | **64,182** |
| Newfoundland | 37 | 48 | 393 | 406 | 137 | 120 | 166 | 316 | 733 | 890 |
| Prince Edward Island | 6 | 12 | 111 | 110 | 43 | 38 | 57 | 86 | 217 | 246 |
| Nova Scotia | 70 | 87 | 757 | 794 | 260 | 242 | 447 | 633 | 1,534 | 1,755 |
| New Brunswick | 50 | 70 | 584 | 603 | 208 | 205 | 301 | 487 | 1,143 | 1,365 |
| Québec | 680 | 704 | 6,080 | 6,295 | 1,866 | 2,018 | 5,767 | 5,322 | 14,393 | 14,339 |
| Ontario | 1,265 | 1,149 | 11,717 | 11,545 | 2,958 | 2,925 | 11,343 | 10,174 | 27,283 | 25,794 |
| Manitoba | 94 | 102 | 884 | 1000 | 293 | 277 | 587 | 810 | 1,858 | 2,188 |
| Saskatchewan | 85 | 89 | 801 | 858 | 308 | 278 | 472 | 668 | 1,666 | 1,894 |
| Alberta | 318 | 324 | 3,347 | 3,113 | 996 | 979 | 2,812 | 2,792 | 7,473 | 7,209 |
| British Columbia | 361 | 375 | 3,987 | 3,933 | 994 | 982 | 2,314 | 3,192 | 7,656 | 8,483 |

Source: Calculations by the authors using Statistics Canada provincial account data found in the CANSIM database.

**Table A-2: Federal expenses, Canadian provinces, 2001, current dollars (millions), varying assumptions**

| Provinces | All transfers | Current spending in national accounts | Current spending share of GDP | Current spending share of population | Debt service in national accounts (= population shares) | Expenditures corrected |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (1) + (3) + (5) |
| **Canada** | **94,286** | **38,718** | **38,531** | **38,594** | **41,339** | **174,156 -** |
| Newfoundland | 3,473 | 751 | 496 | 651 | 698 | 4,667 |
| Prince Edward Island | 925 | 306 | 121 | 171 | 183 | 1,229 |
| Nova Scotia | 4,748 | 2,951 | 911 | 1,164 | 1,246 | 6,905 |
| New Brunswick | 4,078 | 1,359 | 726 | 936 | 1,003 | 5,807 |
| Québec | 24,253 | 8,608 | 8,132 | 9,232 | 9,889 | 42,274 |
| Ontario | 27,870 | 15,201 | 15,835 | 14,850 | 15,905 | 59,610 |
| Manitoba | 5,568 | 1,522 | 1,234 | 1,437 | 1,539 | 8,341 |
| Saskatchewan | 4,770 | 824 | 1,174 | 1,248 | 1,337 | 7,281 |
| Alberta | 7,474 | 2,634 | 5,285 | 3,815 | 4,087 | 16,846 |
| British Columbia | 11,127 | 3,560 | 4,617 | 5,090 | 5,452 | 21,196 |

Source: Calculations by the authors using Statistics Canada Provincial Account data found in the CANSIM database.

# Comments on the Interregional Incidence of Public Budgets in Federations: Measurement Issues, Evidence from Canada, and Policy Relevance

by *Giancarlo Pola*

The Authors examine the short (and medium) term incidence of the central budget in terms of monetary flows, though rightly recognizing that “ the interregional incidence of public budgets is only one aspect of the interregional dimension of federalism”, as there are important related issues as: i) future , versus past, regional economic upswings coming from natural resources , and ii) the question of the allocation of public assets and debt; and so on. They also abstain (in their own words) from judging whether increased equalization payments to a region increase the welfare of its inhabitants.

It is difficult for a commentator not to agree on the premises of the paper when they say that “the issue of the interregional incidence of public budgets arises, in part, from the existence of fiscal imbalance”, which is inherent in countries with more than one level of government (among which the imbalance is “vertical”) and many regions at the same level (and here there can be “horizontal” imbalances).

The Authors, however, seem to be a little too pessimistic when they warn the researcher to “resist the temptation” to draw conclusions from the figures of interregional fiscal and expenditure flows (quite often elaborated with blood and tears). It is true that there are many preliminary questions to be raised about the economics of public expenditure and taxation (such as: where do benefits of expenditure end up? what is the tax incidence in the specific case examined? etc) but others could think the *caveats* do not distort the global results, as they help interpreting them. In this case, the first global result is that the Atlantic provinces of Canada (Quebec, Manitoba and Saskatchewan) “receive more in spending than they pay in federal taxes”. Such a global result is confirmed also after several methodological corrections in the allocation of flows have been brought in.

The general initial picture is modified, but not basically contradicted, by three further (intelligent) corrections, such as: i) the amount of tax expenditure by province, ii) the effects of regulations, iii) the mandated expenditures (i.e. the cost of inducing firms to comply with national or international obligations, such as Kyoto agreements). Also, continuing in their search for an answer to the initial question (is the initial global result supported by a finer analysis?) the Authors examine three specific programs: i) the federal transfers to provinces (among which are the equalization flows), ii) the federal transfers to individuals and iii) the federal employment; ending up in recognizing that their previous analysis "on the relative gains of Atlantic Canada and Quebec is supported by more detailed analysis of federal transfers and employment". At the end of the story, the Authors seem relieved and happy to announce that "it is not that difficult to measure the interregional incidence of public budgets in terms of fiscal flows for Canada as a whole".

The real problem is – admittedly – the policy relevance of the above results: should anything be done to correct the situation, or is it better to leave things as they stand, given the reciprocal convenience of the status quo for losers and gainers, as explained by the Authors? Rightly, however, they point to the increasing weakening of such silent pacts with the increasing opening of the regional economies to international trade.

The Authors dispel the idea of making "territorial justice", i.e. of correcting the discovered unbalances among *regions* (by simultaneously decreasing the positive fiscal residua for the losers, and increasing the negative ones for the gainers) as "illogical", because *individuals*, not more or less artificially drawn geographical jurisdictions, remain the target of public expenditure. To prove this statement they use the following "sophism": assuming global unification of all regions in one country, this will eliminate *numerical differences* because there are no regions, but not the problem, as everything goes on (all spending and taxing is continuing in exactly the same way) as before…

While I would agree on the statement that numbers and indicators must always be taken cautiously, I would be more positive on the usefulness of adopting historically traced boundaries to start reasoning, and then go deeper to see if there are *enclaves*, within those *territories*, where minorities of *people* risk being mistreated by blind or grossly conceived equalization policies.

Over and above the doctrinal interest, for an Italian commentator the paper by Vaillancourt and Bird has the merit of addressing a topic that is quite familiar to a European audience, and to an Italian audience in particular. In all European countries, more than in the U.S. or in Japan, public expenditure represents a significant proportion of the income of the countries concerned: on average, around 40%, including social security. Government funds are raised from compulsory taxes and contributions across the regions of the countries concerned and are redistributed in expenditures across the regions. One can speak, in Europe exactly as in Canada, of "budget induced" interregional transfer of resources within each given country, a transfer normally more applied *to areas* of a country *than to people.* According to recent studies, these explicit or implicit net transfers are highest in Germany post-unification, Italy and Spain.

Concentrating the attention on Italy: in recent years the overall amount of resources distributed by central budgets across its 20 regions totals to some 500 billion Euro, of which almost 200 are represented by interests paid on the national debt (the territorial distribution of such item of expenditure according to population seems to many highly controversial, as it totally reverses the traditional placement of Lombardy and other rich territories from “ expenditure donors” to “ expenditure receivers”). Curiously enough, Italian “receivers” are often endowed with natural beauties and resources as in Canada: traditionally, the regions with the lowest tax yield compared with the expenditure (in per capita terms) have been the mountain-blessed Val d’Aosta and Trentino Alto Adige (two “special” Regions; at the other extreme there has been the industrialized Lombardia). Together with the “special Regions”, the gainers from central redistribution are the Southern “ordinary” Regions. As seen, not necessarily gainers are poor: Val d’Aosta is a classical example of this (unpalatable, for many people) contradiction.

There are certainly problems in interpreting the figures dealing with Italy’s regional distribution of fiscal residua, as is pointed out by Vaillancourt and Bird for Canada’s case; however, few would deny the reasonable realism of the results which myself and other Italian colleagues obtained a few years ago, after a research similar to the one commented here. The result was that *Italy’s central budget has expressed throughout the decades a real economic redistributive policy*, thanks to which Southern regions have achieved a level of income that is higher than the one which was warranted by the local productive forces alone. At the same time we added that the productive base of the South in the more strategic sectors of the economy has not significantly increased in those years, as the increased expenditure flows that have gone to those areas have, in fact, favoured more the growth of the more local sectors (not only the public administration, but also the construction, trade and other service activities) than that of the more competitive sectors. This – according to a dominant view – has favoured the “endogeneization” of most of the multiplier effects of expenditure, *but has seriously endangered the growth chances of the Southern territories,* as the upswing is more and more assured by the behaviour of sectors competing in world wide markets rather than in local markets: exports, more than external subsidies, are again the leading factor of growth for regions (and here the conclusions are quite close to those of Vaillancourt/Bird).

Of course, many issues remain open when trying to interpret the figures: for example, in the Italian case, as in the Spanish (and, more recently, in the German one as well) there have been hints of negative effects of too “generous” policies towards the poorest regions. After Sala-I-Martin’s studies, the beneficial effects of central budgets on interregional convergence are no longer taken for granted, so as to suggest slogans such as “bread today, hunger tomorrow”. Investment expenditures in the rich regions must not be cut to favour the weak ones: such a redistribution policy could be the wrong instrument for regional income redistribution due to its negative long run effects on global welfare and national growth.

And, finally, the most important question of all for Italians: what would a country case like the Canadian one, where federalism is already well established, suggest to a newcomer of federalism like Italy in matter of interregional redistribution of the central budget? Here, again, most Italians would be happy to hear (from sound analysts such as Vaillancourt/Bird) that the Canadian example dispels any fear that a (hypothetical) reduction of central redistribution of resources tied to Italy’s envisaged “federalization” would worsen the chances of a reduction of the regional dispersion of the country’s income.

# Governing the mega-region: governance and networks across London and the South East of England[1]

*Peter John*, Government, International Politics and Philosophy,
The University of Manchester, Oxford Road, Manchester M13 9PL,
Peter.John@manchester.ac.uk
*Adam Tickell*, School of Geographical Sciences, University of Bristol,
University Road, Bristol BS8 1SS, A.Tickell@bristol.ac.uk
*Steven Musson*, School of Geography, Birkbeck, University of London,
Malet Street, London WC1E 7HX, S.Musson@bbk.ac.uk

## Abstract

This paper examines the political power of the mega-region of London and the South East of England. The mega-region is economically competitive with others parts western Europe, but its continued level of prosperity also depends on favourable policy outputs and outcomes, such as efficient public and private transport networks, flexible housing markets, favourable allocations of local government finance and extensive central government investment. The need to secure favourable public decisions forms a spatial political interest, but London and the South East does not have developed political institutions and cultures to represent these preferences. There is thus a classic problem in political economy of how economic interests assert power when the immediate channels of political influence are not readily available. Such traditional political economy concerns largely co-exist with the dilemmas of contemporary governance – how is cooperation possible across government boundaries when interests differ. Such co-operation is all the more difficult in the fragmented political and economic geography of the London and the South East. After setting out these background and theoretical concerns, this article examines contacts between policy-makers in London and the South East of England, then explores the case studies of the Thames Gateway, Crossrail, airport location and public finance, and concludes that central government policy has

1 The research for this article draws on three-year ESRC project investigating the political geography of the South East region, which is based on analysis of secondary records, finance data and interviews with over 40 policy-makers in local and central government organizations in London and the South East.

become more regionalised through the emergence of coalitions within the central state.

In the absence of strong linguistic and cultural identities, sub-national political territories need not correspond with the historical geographies of place. Although the boundaries of local government may be based on identifiable spatial units and draw some legitimacy from being the primary unit of democracy, it is entirely contingent whether the spaces below the nation state, such as regions, are more than administrative constructions. Such conditions often operate in less prosperous areas where there is an incentive for local political actors to unite behind regional institutions to lobby for their share of deprivation-orientated aid programmes. Local state authority officers and politicians focus on the regional political institutions and interest groups compete to gain a share of the spatially targeted resources they control and administer.

There need be no such logic in prosperous regions as social and economic change can promote a private-centred political culture and de-privilege primordial loyalties, creating a weak base for the representation of regional identities. There is no pressing need or demand for urban and regional economic aid. Moreover, the spread of economic activity need not respect traditional political boundaries. Yet economic accumulation in prosperous places depends just as much on state policies as in deprived areas. Public and private actors have an incentive to bend the ears of national policy-makers as the imperative is to ensure the state assists economic expansion, facilitates competition with other prosperous regions and fashions policy instruments to support and maintain economic growth.[2] How state policies respond to such spatially concentrated policy demands and functional pressures when political organisation is weak is the problem this article explores, using the case of the London and the South East of England.

The argument is that London and the South East is an economic 'mega-region', larger than any existing administrative region in England. Drawing on research in South East Asia, the hypothesis is that this mega-region, while itself encapsulating a range of political and territorial tensions, should hold an intrinsic position of power in national policy-making. While core central state institutions, including HM Treasury, the Department for Trade and Industry and the Bank of England, do not explicitly prioritise the mega-regional economy, their concern for national economic competitiveness may mean that fiscal, interest rate and competition policies are attentive to the economic priorities of London and the South East. The proposition that a prosperous London and South East economy is a necessary prerequisite for a viable national

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2 *Peter John/Steven Musson/Adam Tickell*, 'England's problem region: regionalism in the South East', Regional Studies, Vol. 36, No 7, pp. 733-741.

economy is an idea that remains influential in central government circles. Indeed, the lack of a strong and coordinated voice that can articulate a regional perspective that can effectively counter this economic rationality for London and the South East serves paradoxically to enhance the perceived importance of this part of the economy in national policy development.

Policies for prosperous regions, particularly those framed in terms of the 'national interest' in the form of major planning decisions, infrastructure investments and public spending commitments, may be seen to reflect the power of the London and South East mega-region's economic interests. These may be articulated through their representations to formal political institutions, but they are more effectively represented outside them in informal networks, the 'anticipated reactions' of policy-makers who internalise the private sector's needs or believe there are the negative consequences of not following them,[3] and in the routines and standard operating procedures of the state. The direct influence of business is expressed through a variety of mechanisms, including direct lobbying by organisations such as the Confederation of British Industry and the Institute of Directors, and through the personal networks of prominent members of the business community. The indirect links may be fostered by the perceptions of the strategies of business by policy-makers and the role of the media in highlighting dangers to business interests. The location of the political capital, the concentration of national media and the circulation of the rest of the elite may create an unselfconscious bias in elite culture in favour of policies that favour London and the South East at the expense of other regions.[4]

The relationship between the business and political communities in the mega-region is a dynamic one. The Labour party's concordat with business, which produced some business-friendly policies in the first term of office, needs to be seen in conjunction with its dependence on more traditional Labour interests of trades unions and 'unreformed' grassroots activists. These were the bedrock of support for English regionalism during the long periods of Conservative dominance during the 1980s and early 1990s, and their influence ensured that Tony Blair remained locked into this policy commitment after becoming leader of the Labour Party in 1994. As New Labour has moved away from its traditional policies and advocated new public management measures, such as the Private Finance Initiative (PFI), Public Private Partnerships (PPPs) and Foundation hospitals, regional government has increasingly

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3 See *Charles Lindblom*, Politics and Markets, (Transaction Books, 1977) for the classic neo-pluralist statement.

4. *Ash Amin/Doreen Massey/Nigel Thrift*, Decentering the Nation A radical approach to regional inequality (Catalyst, 2003).

been associated with ‘old Labour’ and with the Deputy Prime Minister, John Prescott. Thus the Office of the Deputy Prime Minister (ODPM), created in 2002, gathered together the regional coordination functions and has vigorously attempted to push ahead a regional agenda in tandem with regional elites, with the aim of introducing elected assemblies with substantial oversight powers. Given that such lobbies have developed over many years, do more weakly articulated spaces lose out in spite of their apparent importance to national economic policy? While this paper’s first premise is that political power follows prosperous economic interests in spatially concentrated locations, its second acknowledges that such arguments may not always come to play and that making policy for prosperous areas may involve complex trade-offs across a range of policy sectors and places.[5] And just to show how quickly the balance of arguments and power about territorial issues can shift, the ODPM has not been able to muster much support for elected regional governments as it had hoped to hold referendums on the introduction of elected regional government in the three northern English regions (Yorkshire and the Humber, the North West and the North East), but only the North East poll was held on 4 November 2004, which failed by a massive popular majority (78: 22). At the time of writing, the project of English political devolution stalled in the wake of this striking result.

## London and the South East as a mega-region

London and South East of England is the core of the UK economy, accounting for 26 per cent of the national population and producing 33 per cent of national GVA.[6] The mega-region dominates national employment in the financial services industry and is an international centre for research and development activities. Accounts of this economic dominance have tended to stress London as a world or global city,[7] in particular focusing on the financial, legal and corporate networks of international power concentrated in the City of London.[8] However, this reduction of the economy of London and the South

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5 See *M. Smith*, American Business and Political Power (Chicago University Press, 2000) for an account of the political impact of economic power that is analogous with the argument presented here.

6 Economic Trends, May 2004.

7 E.g *M. Castells*, The Rise of the Network Society Vol. 1: The Information Age. (Blackwell, 1996).

8 *Ian Gordan/Susan Fainstein/Mike Harloe*, (Eds.) Divided Cities: New York and London in the Contemporary World (Blackwell, 1992); *Beaverstock, J. V./Smith, R.*

East to a small district of the capital fails to capture fully the nature of economic activity in the mega-region, which is based on a metropolitan core but extends over a large, dense economic area. Mega-regions (more commonly referred to as mega-urban regions (MURs) or extended metropolitan regions) have been identified in South East Asia.[9] The mega-region concept is gaining increasing currency within Europe, in particular in the European Spatial Development Perspective document.[10] The mega-region extends its influence into the surrounding rural areas, sometimes located up to 100km from the urban core, though London and the South East is larger than this, with economic influence spreading some 240 km from the urban core, making it bigger than other comparable regions.[11]

A number of key, but intractable policy problems demand central government intervention in the mega-region. One is the housing market, which saw rapid rises in prices in the 1990s with knock-on costs for labour costs and for attracting skilled workers to the region; it also has an effect on the quality of public services upon which business depends, such as the National Health Service and education. The other is public and road transport. London and the South East are heavily congested, with existing infrastructure operating at or close to its maximum capacity. As such, the key political issue for the mega-region is more effective planning: for the growth in housing demand, both social and private housing; for investment in public transport and roads, particularly links in and out of London; for improved public services to support the private sector economy; and for skills training and the labour force.

However, the economy of the South East mega-region is large and internationally connected, making meaningful interventions by domestic policy-makers highly difficult. It would seem that the vast size of the mega-region contributes to its economic importance, but also to potential political weak-

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*G./Taylor, P. J.*, The Global Capacity of a World City: A Relational Study of London' in E. Kofman/G. Youngs (Eds), Globalization: Theory and Practice, 2nd ed. (Continuum, 2003).

9. *T. G. McGee*, The emergence of desakota regions in Asia: expanding the hypothesis, in: N. Ginsberg/B. Koppel/T. McGee (Eds.), The Extended Metropolis: Settlement Transition in Asia, University of Hawaii Press, 1991; *T. G. McGee/I. Robinson*, The New Southeast Asia: Managing the Mega-urban Regions, University of British Columbia Press, 1995; *T. G. McGee* (1997), Globalisation, urbanisation and the emergence of global sub-regions, in: T. G. McGee/R. F. Watters (Eds.), Asia Pacific. New Geographies of the Pacific Rim, London: Hurst.

10 *O. B. Jensen/T. Richardson*, 'Nested visions: new rationalities of space in European spatial planning'. Regional Studies, Vol. 35 (2001), pp. 703-717.

11 *Nick Buck/Ian Gordan/Peter Hall/Mike Harloe/Mark Kleinman,* Working Capital, Routledge, 2002.

ness as the viable political spaces that enable effective institutional formation in smaller regions cannot easily be replicated. The importance of short-run economic objectives, the weak identification of the public with the mega-region and strong, competing sub-regional political actors, including large county councils and unitary authorities, militate against the emergence of a strong political voice.

The economic power of London and the South East has not been reflected in the creation of a clear institutional space. Instead it is London that has had held the attention of policy-makers throughout the 20th century. And again London gained special focus in 2000 through the creation of the Mayor and the Greater London Authority. The new London government does not have the power or inclination to give leadership to the mega-region. The spatial focus of the Greater London Authority (GLA) is clearly on the capital rather than on the mega-region.[12] *The London Plan*, the mayor's Spatial Development Strategy launched in June 2002, concentrates on the planning, housing, transport and economic development issues with respect to London and limits any discussion of the wider regional context in which the strategy must operate. The plan incorporates the government's regional planning guidance for the South East and the mayor indicated that he would work with other local authorities, but the Association of London Government response to the plan indicates that any form of pan-regional thinking on the part of the GLA is limited.[13]

While the spatial focus of the GLA is very clearly bounded, an analysis of the London economy shows its interdependence with the economic space of the wider region. In 2000, 21 per cent of the London workforce commuted into the city.[14] Furthermore, the population growth predictions for London have prompted a house-building programme that includes sites across the South East. As Travers writes: 'London as an urban economy is far larger than the London central business district, larger even than the administrative boundary of the GLA, and on some measures, larger than the South East region'.[15] The economy of London does not operate in isolation from that of South East, nor does it simply pull in labour from a series of satellite com-

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12 *K. West/K. Scanlon/A. Thornley/Y. Rydin,* The Greater London Authority: problems of strategy integration, Policy and Politics Vol. 31 (2003), pp. 479-496; *David Sweeting*, How strong is the Mayor of London?, Policy and Politics, Vol. 31 (2003): 465-78.

13 Association of London Government *Draft London Plan – ALG Views*. (Association of London Government, 2002), paragraphs 60-63.

14 *Buck* et al., Working Capital 2002, p. 18.

15 *Tony Travers,* The Politics of London (Palgrave, 2003), p. 138.

muter towns. Rather, London can be seen as the metropolitan core of a wider regional economy into which it is functionally but not politically embedded.

Central government is a key player in the city politics of London, to an extent that can scarcely be imagined elsewhere in the UK. Successful projects, like the London Eye, Tate Modern and the Jubilee Line extension, owe more to selective initiative and central government intervention than to the efforts of local and regional government.[16] To an extent these political relationships are structurally inscribed; the power of the Mayor is tightly constrained and a strong role is retained both by the London boroughs and central government.[17] Such structural weakness may explain why the GLA has focused on London-wide issues, but it also emphasises the way in which the complex, fragmented urban space is not completely defined by the formal boundaries of the metropolis. The GLA must also work with a powerful and increasingly co-ordinated business lobby in London. On key political issues including the Crossrail rail development scheme and the creation of airport capacity in London and the South East, business interests have sought to engage directly in the policy development process. As such, the GLA is faced by a set of market and political pressures unique to any devolved regional authority in the UK. In some respects, given the local pressures that it faces, it is unsurprising that a wider and more complex set of mega-regional political issues have not been addressed.

Beyond Greater London, the boundaries of the mega-region become less clear. Allen et al. argued that the economic geography of South East England is like a 'doily', with some parts of the region being closely interconnected while others, even though close to the metropolitan core of the region, are in fact excluded.[18] There is the wave of prosperity that has radiated out from the west, the north and the south-west, whilst Kent has been left behind, which gives rises to different sorts of interests that compete with each other for different policies. Places like Milton Keynes are growth poles on their own with very different opportunities and problems to the rest of the mega-region. Perhaps because of this diversity, business does not lobby hard for spatial concerns, which contrasts with longstanding attempts by at least sections of business in the North West and North East. In London business is focused on

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16 *Tony Travers*, Editorial: London – better government, Public Policy and Management October and December, p. 5.

17 *David Sweeting*, Leadership in urban governance: the mayor of London, Local Government Studies, 28(2002), 3-20; 'How strong is the Mayor of London?'; *Tony Travers*, Decentralization London-style: The GLA and London governance, Regional Studies, 36(2002), p. 781.

18 *J. Allen/Doreen Massey/A. Cochrane*, Rethinking the Region, Routledge, 1998.

planning in London, the regulation of the financial sector or a range of national level issues. It tends not to look at the wider mega-region as a source of its prosperity. More fundamentally, the region is fragmented into sub-regions and tends to have weak contacts with the central regional actors. A leader of a county council said that there is 'no recognisable South East region'; while another interviewee said 'we are "bolted" as doughnut round London and that is the only thing we have in common'. The South East region also appeared to be politically and economically fragmented,[19] lacking a clear set of issues around which the new region could be constructed, without the internal cohesiveness that could bind the new institutions of regional government together.[20]

In spite of the fragmentation, it is natural that policy-makers from the relevant bodies in London and the South East interact across a range of functional concerns. While it is unsurprising that such contacts have been developed at some level, the more fundamental issue is whether this indicates a pattern of governance that addresses the wider strategic issues facing the mega-region. SERPLAN, the South East Regional Planning Conference and the government's regional planning guidance document for the South East, RPG9, gave a coherent strategic leadership on a range of planning issues across the South East. A more informal approach has been adopted, where the Government Office for London (GOL), the boroughs and the LPAC defined areas of strategic importance for London, which failed to connect meaningfully to the GLA's *London Plan*.[21] The point here is that mega-regional planning used to be organised on a formal basis through SERPLAN and RPG9, but these arrangements have now moved to a more informal footing involving overlapping areas of responsibility in a range of institutions within London and *ad hoc* relations between London and other areas of the mega-region.

Because of the GLA's awareness of the link between London and the adjoining regions, it set up an advisory interregional forum of five members with planning responsibilities from London and five from the linking regions. The body has considered a range of issues, such as housing, where there are areas of agreement and disagreement between both sets of actors. In the Lon-

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19 See *Steven Musson/Adam Tickell/Peter John*, Filling the missing links in regional research: Government offices for the regions and English devolution. Devolution working paper available from http://www.bbk.ac.uk/geog, 2003.

20 See also *Peter John* (1997), Sub-national partnerships and European integration: the difficult case of London and the South East, in: Jonathan Bradbury/John Mawson (eds.), Regionalism and European Integration, London: Jessica Kingsley.

21 *Ben Pimlott/Nirmala Rao*, Governing London, Oxford University Press, 2002, p. 149.

don plan, for example, there is an assumption that the numbers of jobs will exceed the housing available, which implies that the gap will be met from an increase in long-range commuting, which both sides see as undesirable, and have started to monitor and manage. But the main stance is the South East's attempt to prevent housing growth in its own areas, which is being driven by the London economy. There have been disagreements in forum's deliberations over matters, such as airport location. By common agreement, the forum could work better and operate more to resolve substantive issues. In the words of an ALG document, 'is not able to grapple effectively with … [vital issues] …and needs considerable strengthening'.[22]

South East actors sometimes find the London leaders unsympathetic to their concerns. One reported that 'Their strategy is for them, and they would probably say that ours is for ours'. London decision-makers are not interested in their concerns. One South East political leader wanted to talk to Ken Livingstone about the problem of public service recruitment, but was sent a replacement who started the meeting by saying, 'remind me why I am here'. London decision-makers do not report strong relationships outside the forum outside the functional relationships of housing and particular planning issues.

## Governing the mega-region

Has the central government become the government of the mega-region? We argue that, because no one organisation can represent the interests of the mega-region and because the structure of regional government is fragmented, it falls to central government to move policy forward. In any case, given the scope and scale of the key issues for the economy, there is no way that London and South East actors are going to be able to put forward mega-regional strategies. Mega-regional government, as far as London and the South East is concerned, is more about central government deciding matters and pushing them though, rather than the existing regional players organising themselves as an effective regional lobby group. Central government is also the only body with the capacity and resources to promote large projects, including guaranteeing project finance and using legislative power to ensure effective planning. In any case, as Syrett and Baldock argue, central government departments still maintain day-to-day control of many policy issues in London, making the regional-central government conflation apparent from the begin-

22 Association of London Government, *Draft London Plan – ALG Views*, paragraph 63.

ning.[23] As the economic core of the UK economy, it is likely that the needs of London and the South East would remain a strong influence on central government policy irrespective of whether any regional political institution could identify and articulate a clear interest. London and the South East may be able to get the political outcomes that are desired without really trying because it is systematically 'lucky';[24] for it is the place that simultaneously generates wealth, decides elections, and is where the political elite live.

While the argument that central government plays a pivotal role in the government of the mega-region is relatively uncontroversial, the precise nature of departmental involvement is less straightforward to identify. The Regional Coordination Unit (RCU) was established in 2000, then moved into the ODPM in 2002; it provides a single contact point between the central government and regional institutions. The ODPM with its planning responsibilities, its regional remit and its responsibility for the regeneration and redistribution agenda, appears to be the natural lead department in many respects, though a wide range of other departments, including the Department for Transport, the Department for Trade and Industry, are also heavily involved in mega-region projects. We explore the role of central government in the mega-region with respect to four high profile projects: the Thames Gateway regeneration project; the Crossrail rail link project; public finance allocations; and the development of new airport capacity.

## Cast study 1: Thames Gateway

In 2003 ODPM enhanced its mega-regional planning role through the announcement of a £22bn plan to provide affordable housing. In this John Prescott announced the plan to build 200,000 new homes in the South East, to relieve the economic pressures of rising house prices and their impact on labour markets and effective provision of public services. The ODPM plan centred on the Thames Gateway area to the east of London and on Ashford, Milton Keynes and the Stanstead-Cambridge corridor. The plan has drawn regional politicians into a wider policy debate. Sandy Bruce-Lockhart, leader of Kent County Council, which is part of the Thames Gateway area, has campaigned for other public services to accompany these investments, such as schools, roads and leisure facilities. London policy-makers approve of these ideas because they address in the round the overall problem of the region by providing

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23 *S. Syrett/R. Baldock* (2003): Reshaping London's economic governance. The role of the London Development Agency, European Urban and Regional Studies, 10, 69-86.

24 *Keith Dowding*, Power, Open University Press, 1996.

for affordable housing and easing pressures on the housing market. When seen against the more modest investment of £500m for regeneration the north, it appears the central government is prepared to make a high level of investment to help solve social and economic problems in London and the South East.

The Thames Gateway, the UK's largest 'brown field' regeneration site, was first identified in the 1995 South East Regional Planning Framework as an area of substantial growth potential. It extends for 40 miles, on either side of the River Thames, from Tower Bridge to the North Sea. The Thames Gateway area covers three English regions: London, East of England and the South East, two county council areas: Essex and Kent, and 14 local authorities. The additional involvement of central government and the GLA and the establishment of Urban Development Corporations in some areas make for an institutionally complex, functionally and spatially overlapping, management structure.

The formal objectives of the Thames Gateway development were defined in the government's regional planning guidance document RPG 9. They included improving economic performance to enhance London's position as a major world city, maximising opportunities for new economic activity and jobs, working with the market to build on existing economic and community strengths; and encouraging a sustainable pattern of development by making the fullest possible use of the many vacant, derelict and under-used sites. At a more practical level, the project serves two important functions in the mega-region. Firstly, it relieves pressure on overheated housing and labour markets of London and provides an alternative growth area to the highly congested belt to the west of the city, between Heathrow and Gatwick. Secondly, it promotes the physical and economic regeneration of areas of Kent and Essex, such as Dartford and Thurrock, which are amongst the most deprived parts of England. Plans for the regeneration of the Gateway area are undoubtedly ambitious. They include the construction of 200,000 new homes, including a new town at Rochester Riverside, 300,000 new jobs and a series of economic growth areas, described by one developer as "mini-Canary Wharfs", all by 2031. In addition, the Thames Gateway development is associated with a range of other projects of strategic importance for the mega-region. These including the construction of a runway at Stansted and possibly Heathrow, the Crossrail development (on both of which see below), and the London 2012 Olympic Games bid, which is centred on the Thames Gateway area.

Development on such a scale does not come cheaply, particularly since much of the formerly industrial brown-field land needs to be cleared and prepared before new building can take place. Central government allocated £450 million for 2002-2005; however Kent County Council anticipates that at least

£10 billion will be required to carry out the proposed work in Kent over the next 20 years. Of pressing concern for policy-makers is the long-term financial viability of the project. Although public money will undoubtedly lever in resources from the private sector, in particular from property development companies who are already heavily involved in the strategic management of the Thames Gateway, concerns remain that insufficient funds will be made available. Cash shortages in central government departments have already led to delays in infrastructure building and environmental improvements. As a consequence, house building is already running at 25 per cent below projected levels.

Although the Thames Gateway is promoted by central government as a coherent geographical entity united by a single strategic vision, in reality there are at least three distinct areas: London, Kent and Essex, each with its own management structure and set of public-private partnerships. As one member of the Thames Gateway Kent board said in a research interview: “Basically what you have [in the Thames Gateway] are three separate areas, and things are different in all of them. In Kent, you have the County Council and one developer for the whole area, but in Essex the county [County Council] is working with three, four different [development] partners”. Although a limited degree of co-ordination for the whole of the Thames Gateway area has been provided by a joint operating committee including the chairmen and chief executives of the three Regional Development Agencies involved and representatives from the three area management boards, real strategic oversight is provided directly from central government. The Office of the Deputy Prime Minister, through its regional agents the Government Offices, is closely involved in setting targets for house-building, and effectively controls the purse-strings for the whole area.[25] House building is the *raison d’être* of the Thames Gateway project, which is seen to offer the best solution to the chronic shortage of affordable accommodation in London. Furthermore, a cabinet committee, chaired by the prime minister, provides inter-departmental co-ordination at ministerial level to ensure that rapid and effective progress is made.

Public policy in the Thames Gateway seeks to create an infrastructure framework to facilitate private sector investment. In some senses, it can be seen as an extension of the logic of the London economy, as firms relocate to custom developed sites and new housing developments on the underdeveloped eastern fringes of the city. However, the grand scale of the Thames Gateway project, which seeks to connect London’s economy to deprived areas of the mega-region, creates a far more complex set of institutional relations that have influence far beyond London, Kent and Essex. The high pro-

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25 See *Steven Musson/Adam Tickell/Peter John*, Filling the missing links.

file Thames Gateway project dominates national housing budget allocations, even though similar problems of affordable housing stock exist across the whole of southern England. Furthermore, the interests of London, in particular relating to key worker housing, have tended to dominate the rest of the Thames Gateway. As such, the project can be seen as development for London, rather than the creation of new, sustainable communities in deprived areas of Kent and Essex. The economic imperatives of London, defined by central government and articulated through the Thames Gateway project, are projected beyond the city into the surrounding mega-region.

## Case study 2: Crossrail

One of the key transport problems in London is the lack of an effective link across the capital, linking Heathrow and the prosperous west of the city to the growth poles of Docklands and the Thames Gateway that were discussed above. It is the particular historical legacy of London while journeys into and out of the heart of the city are relatively easy others such as those around or directly across London are more difficult both by car and public transport. One solution is to create two new rail lines across the capital. The first line would connect Heathrow, Ealing and the Great Western Mainline in the west to Stratford, south Essex and north Kent. A second, less developed proposal is for a north-south line linking Clapham Junction with Kings Cross to supersede the existing Thameslink service. Whilst the project is led by the infrastructure demands of London, parts of the South East, East of England and even the South West regions would also benefit. Once in place, it would be an important driver of economic development, closely integrated with other development projects such as the Thames Gateway, Heathrow Terminal 5 and the London Olympic bid centred on the Lea Valley in the east of the city.

Although the benefits of a high capacity rail link such as Crossrail are recognised by all parties, the project has been plagued by political indecision and by fierce local disputes over its route. Although first proposed in the early 1990s, a combination of funding shortages and more general problems on the UK rail network prevented work on Crossrail from commencing. Furthermore, the pro-Crossrail lobby, including the Mayor of London, the London, South East and East of England regions and the CBI, was unable to agree a common approach, thus weakening their political impact.[26] The failure of all parties to agree a final route and station stops for Crossrail served to accentu-

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26 *S. Glaister/Tony Travers,* Crossing London: overcoming the obstacles to Crossrail, Public Policy and Management, October and December 2001, 11-17.

ate these problems. As such, the South East England Development Agency supported an east-west route from Ashford to Aylesbury, with limited central London station stops, while the Mayor of London strongly favoured a shorter route from Heathrow to Stratford with many more central London station stops. The project is integral to the city's 2012 Olympic bid, but has drawn local and state politicians into a fierce argument over its financial backing.

As with other projects that do not directly map onto one local authorities' interest, central government has become the key actor in Crossrail. The project is jointly funded by Transport for London and the Strategic Rail Authority, although the Department for Transport has retained overall strategic control. Earlier ambitious plans for a wider mega-regional link have eventually given way to a to a more London focused proposal, with many more central London stations than initially proposed. In July 2003, under pressure from influential business interests including Canary Wharf and an all party group of 100 MPs, central government decided that the east-west Crossrail should go ahead in line with the GLA's wishes. However, the project continues to be plagued by political arguments that demonstrate the complexity of mega-regional government. Although the route of Crossrail has been finalised, central government has yet to outline funding arrangements. The GLA has been unable to lobby the Department for Transport for a decision, to the consternation of business leaders in London, 80 of whom wrote to the Secretary of State for Transport to offer financial assistance in moving the project forward.[27] Although Crossrail is central to strategic regional planning in the mega-region, decisions relating to the project are taken by central government. Regional government is dependent on courting influential business interests to gain political leverage, rather than defining its strategic agenda.

## Case study 3: Public Finance

The geographical distribution of public finance in the United Kingdom illustrates the role of the state in arbitrating between regions. By virtue of a historically contingent series of assessments and formulae, an uneven pattern of sub-national spending has emerged.[28] These differences in public expenditure are frequently determined by measures of economic and social need, including those from the Indices of Multiple Deprivation and the Labour Force Survey in the Regional Development Agency funding model (LDA 2004). How-

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27 Financial Times 18 May 2004.

28 *Iain McLean/A. McMillan*: The distribution of public expenditure across the UK regions, Fiscal Studies, 24(1)(2003), 45-71.

ever, such subjective assessments inevitably involve political judgements on overall spending priorities. It no surprise that, through the RDAs, northern regions of England argue for the continued redistribution of resources from the more prosperous London and South East to aid economic development. Their counterparts in the south argue that the wealth they create should, in a larger part at least, be reinvested in the UK's 'growth engine'.[29]

Regional institutions and powerful county council leaders, such as Bruce-Lockhart, articulate an increasingly sophisticated South Eastern perspective on the distribution of public finance in the UK. They argue that aggregate data masks areas of significant deprivation and that the central government priority of tackling areas of economic underperformance fails to invest required resources in areas of economic success. This has, as yet, been met with little public sympathy from ministers, although it is often difficult to identify a single central government position on regional funding because individual departments tend pursue their own regional interests. As such, RDAs are the responsibility of the Department for Trade and Industry, while the Departments of Health and Education and Skills also manage their own regional activities. Even so, the creation of the ODPM has strengthened the regional agenda in government by bringing together many of the regional coordination activities, including the Regional Coordination Unit (RCU) in 2002. The RCU was originally created within the Cabinet Office as a single point of contact between central government and the regions in 2000. Its relocation point to a wider, although not all embracing process of consolidation. Significantly, the Deputy Prime Minister has a strong personal commitment to regional government. There appears to be an increasing political will and capability to redistribute resources in a way that favours northern regions.

The main mechanism for distributing resources, the Standard Spending Assessment (SSA), was created by the Conservatives, and benefited them politically.[30] It makes sense for the Labour controlled central government to reward its supporters in the north, but there are limits to the extent to which this can be achieved overtly. The Labour Party has a political interest in keeping resources in marginal seats in the south, in avoiding cuts in public services, and in maintaining the link between sustained economic growth and electoral success. In addition, business interests such as those of the City of London

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29 See, for example, SEEDA [South East England Development Agency] (2002): Working for England's World Class Region. Regional Economic Strategy for South East England, December 2002.

30 *Peter John/Hugh Ward*, Political manipulation in a majoritarian democracy: central government targeting of public funds to English local authorities, in space and across time, British Journal of Politics and International Relations, 3 (2001), 308-39.

remain integral to overall national economic performance. In the light of these issues, it was not surprising the Labour government elected in 1997 did not address the distribution of central government grants to local government. Following its re-election in 2001, the Labour government proposed a resource equalisation strategy that shifted resources away from the south,[31] and abolished the SSA in favour a new system Formula Spending Shares in 2003/04. In the short term, the effects of these changes are limited. However, in time the South East region will lose resources to northern regions. London did much better which may reflect its greater political significance.[32] Overall it looked like the power of the regional baronies was eventually exercised through Prescott in the ODPM.

Although an analysis of the geographical effects of the SSA indicates a shift in emphasis from south to north in the Labour government's second term, it does not represent all aspects of government expenditure. Local authorities accounted for 25 per cent of Total Managed Expenditure in 2001/2002; central government, in particular HM Treasury, dominates all aspects of finance in the UK state. A large proportion of expenditure is accounted for by claimant-led transfer payments including unemployment and sickness benefit. Given the requirements of the mega-region for investment in housing and infrastructure, specific capital investment is a particularly relevant measure of spending. Only 4 per cent of local authority spending in 2001/2002 was in the form of gross capital investment. Increasingly, central government has sought to engage the private sector in capital investment schemes through the Private Finance Initiative (PFI). London and the South East region accounted for 57.8 per cent of all PFI spending up to April 2004.[33] It is apparent that, although transfer payments and local authority expenditure increasingly favour northern regions, central government plays a strategic role in financing projects in the mega-region through centrally controlled sources of partnership capital.

The ODPM has to deal with the strategic issues of the London mega-region, as it is responsible for planning and housing, which entails public spending commitments as well as regional planning guidance. It also has to recognise the demand for services, which entail public spending commit-

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31 *McLean/McMillan*: The distribution of public expenditure across the UK regions.

32 Association of Local Government, London Needs Fair Funding: the 2003/4 Local Government Finance Settlement – a Representation by the Association of London Government. Published by the Association of London Government, 59½ Southwark Street, London SE1 0AL, January 2003.

33 As calculated from HM Treasury estimates of regional breakdown of expenditure, http://www.hm-treasury.gov.uk.

ments. In a similar way, public spending on road transport is mainly directed to the South East because of the need to reduce congestion. One of the problems faced by the ODPM was the political controversy of moving funds away from London and the South East, where investment in public services was required to support economic growth. However, a more fundamental conflict has emerged at the heart of government. HM Treasury, supported by ODPM, aim to promote more widespread economic development across the UK and to reduce the pressure on the South East housing market. Meanwhile, the Prime Minister and Cabinet Office are more defensive, perhaps realising the way in which London and the South East voters play a pivotal role in electing a Labour government. As such, the question of public funding in the mega-region has emerged as a key political issue.

## Case study 4: Airport Capacity

Essential for the smooth running of the mega-region, and its international connectivity, are efficient airports. The main UK hub airport, Heathrow (the world's 4th largest, in terms of passenger numbers, in 2001) and the UK's second hub, Gatwick, are within easy reach of central London. Furthermore, two nationally important airports, Luton and Stanstead, are also located in the London mega-region, while the smaller London City airport is located in the heart of the city. These make air travel to and from the mega-region easy, and have positive spin-offs for the economy in the form of an airport-related service industries industry. However, the global expansion of air travel is problematic for London, which must balance an immediate crisis of airport capacity with longer term economic and environmental imperatives.

While the economic benefits of increasing airport capacity can be measured for the mega-region, and indeed the UK as a whole, the costs of air travel tend to be felt at a more local scale. As well as the obvious issues of air pollution and noise, surface traffic congestion is also a major problem particularly around Heathrow and Gatwick, as is the development pressure of associated businesses ranging from international corporations to long-stay car parking. Airports frequently bring local and county authorities, which deal with the costs of such developments, into conflict with central government, which actively seeks the economic benefits. The question of how to increase airport capacity is a key issue for the UK economy and for the localities involved.

A number of options to increase the London region's airport capacity have been considered by central government. These include a 5th Terminal at Heathrow, which faced protests from Buckinghamshire County Council over surface traffic and the local labour market impact of construction work, a second runway at Gatwick, and a new airport in Kent, possibly at Cliffe in the Thames Gateway area. A second runway at Gatwick would be particularly controversial. West Sussex County Council drew up a memorandum of understanding with BAA Gatwick (the operator) in 1979, following the construction of the airport's second terminal. It was agreed that a second runway would not be built at Gatwick before 2019. Although the Future of Air Transport White Paper published in December 2003,[34] reiterated the government's commitment to this agreement, widespread tensions between local and national political interests prevail.

From the UK perspective, developments at Gatwick were at most a minor detail. Central government was already firmly committed to finding a London-region solution to the problem of airport capacity, even though other regional airports such as Manchester, Birmingham and Glasgow have actively campaigned for an increased share of air traffic. The Future of Air Transport White Paper is dominated by the issue of the London mega-region. In his introduction, the Secretary of State notes that: "In the South East, there are particular environmental concerns about expansion at the main London airports, but balanced against this is the importance of these airports to the South East and to the UK's prosperity. Failure to provide some additional capacity could have substantial repercussions for the country as a whole, as well as for us individually".[35] Reflecting these concerns, the long-term airport strategy for London is a compromise. While the option of developing a new hub airport has been shelved, new runways will be built at Stansted, Luton, Heathrow and, eventually, at Gatwick.

The airports issue provides two key insights into the politics of the London mega-region. Firstly, it shows that, in issues of national importance, central government plays the key role in taking and enforcing decisions. Although the major London's airports are all located outside the city, local political interests and environmental concerns are secondary to the economic requirements of the London mega-region as a whole, and the related economic 'good' of the UK. Secondly it shows that, in spite of local opposition and campaigns from other regional airports, the need for increased airport capacity in the UK will be met from within the London mega-region, initially at Stansted and subsequently by runways at Heathrow, Luton and Gatwick. While the Air Transport White Paper recognises the demand for airport development in other parts of the UK, the primacy of the London mega-region

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34 Department for Transport,: The Future of Air Transport (CM6046), The Stationary Office, 2003.

35 Department for Transport, The Future of Air Transport, p. 8.

and in particular the role of Heathrow as an international air hub remains unchallenged.

## Conclusion

This article has sought to introduce an alternative perspective to understanding regional policy and institution building in economically developed states. Much analysis of regions examines the process of identification and region building and the parallel loosening of the powers of the central state. Deprived regions are the focus, with their need for regeneration strategies and institutions. This paper focuses on the centrality of prosperity as a driver of regional policy, in that prosperous places have different policy needs than deprived regions, particularly for measures to provide for growth in the form of social and private housing, planning, transport, and government action to relieve the costs of growth in the form of congestion, rising house prices and labour shortages. The working hypothesis was that the power of business and the wish central politicians have to sustain growth, would mean that regional policy and other policy instruments would be tailed to the interests of London and the South East. While socio-democratic governments have an interest in listening to the voices of the periphery, and remedy spending needs and lobbying with public resources, they also respond to the demands of wealth generation and the state's role in promoting it. We argued that the space in the UK that should have the attention of policy-makers is the vast mega-region of London and the South East, which is comparable with those in Europe and Asia.

We investigated our hypothesis with interviews with the leading players in London and the South East and examined a series of case studies of projects and policy issues. We did not find a massive influence of mega-regional actors on decision-making, mainly because the geography and existing institutions created particular interests in London, and that the South East itself is fragmented into smaller counties and sub-regions, each with its own set of problems, which means that London focused on its own issues and the South East's voice tended not to be heard. On the distribution of public finance, the South East lost though London kept its share. The Crossrail project seemed to be able to unite the mega-region but in the end became a London-based solution. A new airport could not emerge as an option amid the cacophony of local interests.

But it would be wrong to say that the tension in state policy between growth and spatial equity was resolved in favour of the latter principle. In the absence of a coherent regional strategy from the sub-national players, some actors in central government made decisions for London and the South East. The ODPM had to plan for growth in its Sustainable Communities Plan and London Gateway is a major area of expansion. In some parts of the central state, politicians and bureaucrats seek to operate as the mega-regional authority for London and the South East; though at the same time a Labour government needs to listen to the voices of poorer regions. Such activity requires government expenditure, which more than compensates for resources diverted to the north.

The massive advantage London and the South East has, with high levels of public expenditure in defence, science and infrastructure projects, remains. Even though not all projects follow the interests of prosperous regions, regionally targeted policies reflect the complex balance of economic and political interests across the national space, and the fractionalisation of the state when responding to them. The fragmentation of regional interests is matched by an equally disorganised and conflicting set of politicians and bureaucrats in central government. In the post-1997 world, rather than political devolution, it is the English central state that has become regionalised.

## Acknowledgement

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# Comments on Governing the Mega-Region: Governance and Networks Across London and the South-East of England

Dr. *Kira Baranova*
German University for Public Administration Speyer
Chair for Economics and Public Finance

## "Governing the Mega-Region II: Capital Cities"

### Introduction and a selection of definitions

I wish to start with some additional observations concerning the mega-regions.

In my opinion, **the most important** observation is that these regions do not exist as administrative and political units. There are many patterns regarding the government of a political unit – a jurisdiction. These patterns can vary for jurisdictions of different sizes according to country, region or locality – and of course they are not always perfect. But they do exist!

But now we are speaking of something that does not exist! The geographers tell us that these cross-border regions do exist due to the different parts of different jurisdictions belonging together; however from the economic point of view they do not exist because they cannot be identified as political units. Not being political jurisdictions, they have neither power nor money (neither political or governmental bodies nor budget). Without budget rights and financial responsibilities, the self-government mechanism does not work. There is no legal mechanism to govern such a region.

**The question is: "How should they be governed?"** It is an old question important for many countries with different governmental structures.

"Mega-region" is a very general definition for certain large cross-border geographical units.[1] Cross-border regions could exist, not only within the political boundaries of a country (BostWash in the USA) but also between different countries (Saar-Lor-Lux in the EU). They can also be classified according to their spatial configuration into unipolar, bipolar or non- polar

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1 The definition of a Mega-urban region (or an extended metropolitan area) has been introduced for some regions in USA, West Europe, Japan and more recently in Pacific Asia.

types.[2] This spatial configuration could be very important in respect of the government.

A special case of a *unipolar* mega-region could be a large region around "former industrial" capital cities (such as London, Paris, Berlin or Moscow). Peter John and co-authors identify London and the South East of England as a mega-region "..which is based on a metropolitan core but extend over a large, dense economic area" (John et al., p. 95) instead of London alone as *a global (world) city* due to its dominant role in terms of population and the economic power of England (p. 95). In my opinion, an even better example of such a region could be *Ill-de-France* in France.

**Therefore, my second observation** deals with the special case of a *unipolar* mega-region built around an "old" capital city. The sub-regions within a mega-region of this type do not wish to cooperate because they are extremely unequal. They are more unequal than the sub-regions in any other case: the capital city dominates the other areas. The economic, social and cultural disproportion between the city and other parts of the metropolitan area could be so large that co-operation between them is made impossible. They could be geographical neighbours, but at the same time belong time to different social "worlds" *(Paris and its suburbs).*

On the contrary, if the sub-regions resemble each other and/or if they are relatively equal, the possibility that they will cooperate freely with each other is considerably higher, according to the principle of: *"qui ressemble s'assemble"*. But usually the sub-units of a "normal" jurisdiction do not wish to cooperate either. However, this cooperation could be necessary in the case of so-called *spillovers*[3]. Within an administrative unit there are certain legal possibilities to "internationalize" these spillovers, e.g. by using the mechanism of fiscal equalization. This means that the localities with so-called "central functions" should receive equalization transfers from the upper level within a legal equalization scheme.

What is the difference between a mega-region and a "normal" jurisdiction of large size?

**In the case of cross-border units there is no legal mechanism available to solve this problem due to the sub-regions belonging to different political jurisdictions.**

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2 *McGee, T.G./W. Yao-Lin*: La formation des mégapoles en Asie, in: Mappemonde 4/1992, p. 2-3.

3 *Musgrave R.A./P.B. Musgrave*, Public Finance in Theory and Practice, 2. Ed., McGraw-Hill 1976, p. 626 – 627.

The only possible solution for sub-regions is *to cooperate freely*. However, they usually do not wish to do so, as I have shown below.

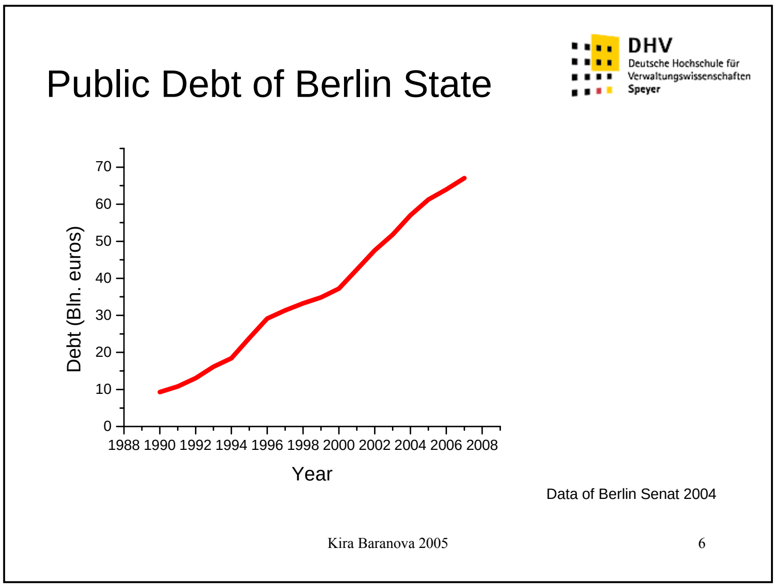
This is also the case of London as *Peter John* has shown us. His solution for this problem is a centralization decision. I believe that this is a very “British” solution, but not the only one possible.

Here I illustrate this phenomenon using the examples of two other large capital cities: Berlin and Moscow.

**Case-study I: Berlin**

Following reunification in 1990, united Berlin became the capital city of Germany with a population of 3.40m inhabitants and an area of 892 sq. km. As in the case of Hamburg and Bremen, Berlin has become a state-city: a city which enjoys the status of a “community” and a “state” at the same time.

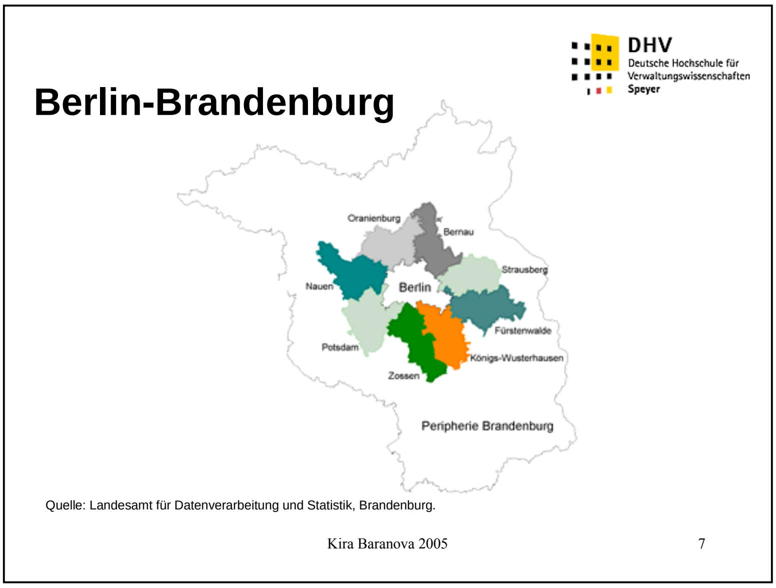
As a result of the reunification of East and West Berlin and the huge modernization of infrastructure during the last decade, reunified Berlin has now massed an immense ***public debt*** (approximately 60 billion € in 2004, whilst at the same time the budget volume being only 20 billion €). The increase of this debt was extremely dramatic (see graph below).




This immense debt is on the one hand a result of the false financial policy surrounding the Berlin’s reunification, and on the other hand a result of unrealistic expectations of large economic growth and population increase in the New Berlin region. These economic growth predictions were made solely on the grounds that Berlin would become the capital of a united Germany!

In comparison to some other “old” European capital cities (such as Paris and London), Berlin demonstrates some unique features. In the past, Berlin dominated the less developed, agriculturally based East Germany entirely. Following World War II - and for differing reasons - neither West Berlin nor East Berlin possessed any large industry[4]. More then 50% of West Berlin's budget was directly financed by the federal budget of West Germany. Following reunification, a decision was made to abolish all financial subsidies for Berlin. At the same time, the industry in East Berlin was completely run down; unemployment increased dramatically. It was situation in which Berlin found itself when it became the capital of reunited Germany.

**A "Belt of Prosperous Suburbs":**
**The Berlin-Brandenburg cross-border region**




Both rapid economic growth and an increase of population failed to develop. In fact, during the last decade Berlin lost population to its suburbs which belong to the neighbouring region (Brandenburg) and is known as a **"belt of prosperous suburbs**"[5] (see graph below). This region now amounts to 249 communities with approximately 1 million inhabitants.

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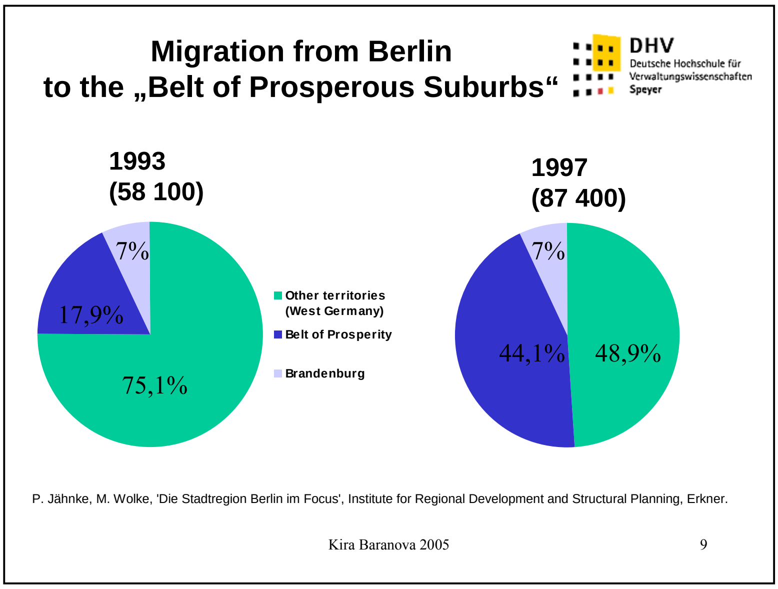
4 The only big enterprise (and taxpayer) of Berlin was and is now the pharmaceutical concern "Schering AG".

5 Speckgürtel – German.




First of all there were wealthy inhabitants and new enterprises that went to the Berlin-Brandenburg cross-border region. The main reason being the prices of land as well as the business and property taxes which are much lower in Brandenburg than in Berlin. Recent publications in the German press reflect the rapid growth of this region.[6]

In economic terms, Berlin loses its already small (due to historical reasons) tax base to Brandenburg.[7] At the same time, the number of social support recipients has steadily increased due to the inflow of a large number of migrants from the republics of the former Soviet Union.

To summarize, the German capital has developed an enormous public debt with few possibilities available to reduce it. A very small tax base and very high social expenditure. Confronted with this situation, Berlin must seek possible solutions for its problems; one of them being the fusion of Berlin and Brandenburg.

Berlin's problems have a spatial dimension and the solution should also be of a spatial nature.

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6 „Der Berliner Speckgürtel legt zu“, in: Die Welt, 05.05.2004; „Speckgürtel ohne Ende“, in: die Tageszeitung, 28.2.2003.

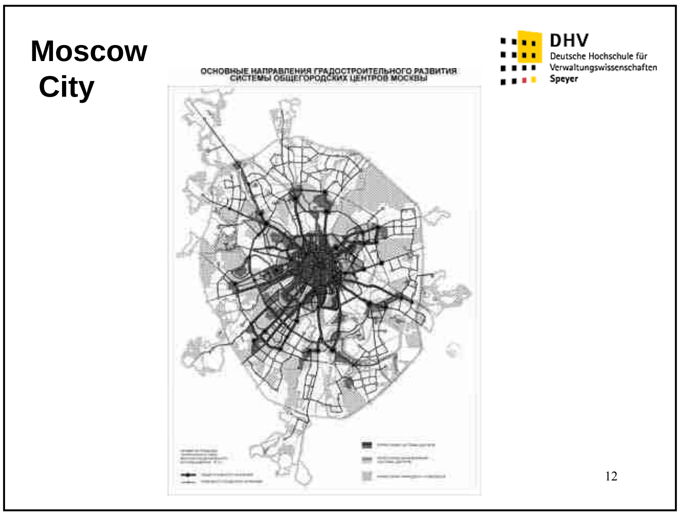
7 The same situation is presented by Bremen and Lower Saxony, and Hamburg and Schleswig-Holstein.

## Case-study II: Moscow

Moscow has the same status as Berlin: it is a city-state with its own legal bodies and financial responsibilities. The large region around the city – Moscow Region *(Moskovskaya Oblast*[8]*)* – which includes the suburbs of other regions of the Russian Federation with its own governmental bodies and financial responsibilities.

Moscow is much larger than Berlin in terms of the size of population (10.40m and 3.40m), whilst at the same time having a comparable geographical area (1081 sq km and 892 sq km). From our perspective, this means that Moscow, in comparison to Berlin, could suffer from a shortage of space. Indeed, the Russian capital, being the most dynamic region in Russia, continually attracts new investors and migrants[9]. The prices of property are also very high coupled with limited availability. What happens in Moscow?

Here just one illustration of the topic of "cooperation" between unequal sub-regions (Moscow and the Moscow Region) within a unipolar mega-region. In recent years, Moscow city has continually expended its area into the surrounding Moscow region.




8 Московская область – Russian.

9 As opposed to Moscow, Berlin has sufficient vacant space to attract potential investors and migrants. However, it failed to do this.

## Summary

Allow me to summarize. *Peter John* says that is difficult to govern London and the South East region. As a consequence, the mega-region should be directly governed from the central level. In other words he proposes a centralized decision. I am not sure that it is the best solution; however I am certain that this option is not the solely possible decision. In particular, the textbook from *Horst Zimmermann* entitled "Local finance" describes *seven* possibilities to solve this problem.[10] The "first best" solution is when the jurisdictions cooperate freely; however they usually do not wish to do so, particularly not if the mega-region has a unipolar configuration. On the contrary, and from the public finance perspective, an assumption of functions by the upper level (in other words: the centralization solution) should be chosen in the last instance only if the others solutions are no longer possible.

In my opinion, the decision of governing a mega-region is always a *balance* between centralization and decentralization solution. Here I fully agree with Peter *John* - it is a very difficult balance!

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10 *Zimmermann, Horst*: Kommunalfinanzen, Baden-Baden: Nomos 1999, pp.80-83.

## References:

*John, Peter; Tickell, Adam & Steven Musson*, Governing the Mega-Region: Governance and Networks Across London and the South East of England, in: *New Political Economy*, March 2005, 93 – 108.

*McGee, T.G. & W. Yao-Lin*: La formation des mégapoles en Asie, in: *Mappemonde* 4/1992, p. 2-3.

*Musgrave R.A. & P.B. Musgrave*, Public Finance in Theory and Practice, 2. Ed., McGraw-Hill 1976.

*Zimmermann, H.*, Kommunalfinanzen – Eine Einführung in die finanzwissenschaftliche Analyse der kommunalen Finanzwirtschaft, Baden-Baden: Nomos 1999.

# Fiscal Equivalence and the Increasing Dispersion/Divergence of Public Goods Claims – Do We Need a New Interpretation?

*Lars P. Feld*[*]

## 1. Introduction

Whenever problems of fiscal federalism, or more generally of decentralized decision-making on as well as provision and financing of public goods are discussed, the *principle of fiscal equivalence* provides for a yardstick to assess the efficiency of particular arrangements. The principle requires that the jurisdiction deciding on the level of public services should comprise the consumers of that good and those that bear the costs as taxpayers (Olson 1969). It is thus similar to the *correspondence principle* (Oates 1972) which requires a correspondence of those groups of taxpayers and consumers. If these principles hold, the *decentralization theorem* obtains according to which a decentralized provision and financing of public goods at the lowest possible level is efficient in a world of highly mobile individuals with different preferences (Oates 1972, p. 30). In such a Tiebout (1956) world, different jurisdictions offer different tax rates and different levels of public services to mobile factors of production. Public services are thus competitively provided and financed on a decentralized level. Citizens can choose their location or residence in a jurisdiction whose public sector supply best fits their preferences. Individuals and firms *vote by feet* and thereby reveal their preferences for public goods. Public goods and services are provided to citizens at particular tax prices. Because this leads to an efficient provision of public services (under conditions of fiscal equivalence), fiscal competition between jurisdictions is beneficial.

There are further advantages of competitive fiscal systems. Decentralized provision and financing of public services allows to use decentralized information to the largest possible extent. The closer a government is to the

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people, the better it is informed about their wishes and demands. Decentrally dispersed knowledge about public problem solutions can thus be used more efficiently (Kerber 1998). Finally, the frustration of citizens about public policy solutions is minimized, the more decentralized public goods‘ provision is (Zimmermann 1999). Finding median preferences across the national population necessarily involves less differentiation among individuals. Decentralization allows to taylor public goods and services such that those who want to have higher levels of public goods can move to the jurisdiction providing those. Citizens are willing to pay more for that offer and could thus be charged higher tax prices. Similarly those who want to have less can move to jurisdictions with lower levels of public services. The migration process leads to more homogeneous jurisdictions and to lower frustration costs. In general, these arguments hold for competition between national, regional or local jurisdictions as well as for labor and capital alike.

The principle of fiscal equivalence does however establish that these beneficial outcomes of decentralized provision and financing of public goods can *only* be expected if the consumers of a public good correspond to those paying the costs of provision and those politically taking the decision of public good provision and financing. Only in this case, the sum of the marginal willingnesses to pay for public goods corresponds to the marginal tax prices. Whenever the principle of fiscal equivalence is violated, decentralized provision and financing of public goods may lead to inefficiencies. This could be the case if there are externalities of any kind or economies of scale in consumption. In addition, equity issues may pose problems for a competitive provision and financing of public services.

On the basis of these considerations, far-reaching policy solutions have been developed. A prominent example in many countries is the design of fiscal equalization or grants systems. In the U.S., for example, federal grants are supposedly designed to internalize regional externalities. In Switzerland, the old and the new system of fiscal equalization are at least partly based on such arguments. In the case of Germany, regional externalities and scale economies provide for the most prominent arguments for population weighting in the system of horizontal fiscal equalization. Arguments of scale economies and regional externalities figured prominently in the rationale for the grand revision of the German fiscal constitution in 1969 (Troeger Commission 1966). Economies of scale in the provision of public goods provided for *the* argument for community mergers in Germany in the 1970s (Wagener 1969) and they are very prominent in recent proposals for a merger of Swiss cantons (Rentsch et al. 2004). However, only recently attempts to assess the empirical validity of the externalities’ and scale economies’ arguments in fiscal federalism have been undertaken. Moreover, alternatives to policies conducted in the past could also only recently be discussed on a sound empirical basis.

It is thus time for a critical assessment as to the importance of the classical efficiency arguments in fiscal federalism. In this paper, the principle of fiscal equivalence as a guideline for the design of federalism is discussed with a particular emphasis on empirical results and on positive explanations for particular policies. The evidence that is considered in this paper is necessarily selective. However, by focusing on Switzerland and the U.S. as countries with systems of highly competitive federalism, fiscal equivalence as a policy guideline could most easily be assessed. Starting with the main theoretical arguments on distortions in fiscal federalism, the analysis is extended to the effectiveness of income redistribution and to regional economic growth (*Section 2*). In *Section 3*, policy alternatives to solve potential efficiency or equity problems are presented by considering Coase bargaining solutions as well as B.S. Frey and Eichenberger's (1999) FOCJ in addition to grants and jurisdictional mergers. In *Section 4*, the empirical evidence on the importance of the principle of fiscal equivalence is summarized. Finally, concluding remarks and policy implications follow in *Section 5*.

## 2. Some Theoretical Thoughts on Violations of Fiscal Equivalence

In this section, competitive fiscal structures are assumed to be those in which jurisdictions provide and finance their public goods in a decentralized fashion. Aside the beneficial impact of competitive fiscal structures in a federation which are discussed in the introduction, the main problems that could emerge in such systems are usually grouped according to the Musgravian distinction between allocation and distribution branches. In this section, this strategy is followed although the respective other view is additionally adopted as an alternative perspective. Moreover, political economy problems need to be considered.

### 2.1 Potential Allocative Distortions

Assume that the jurisdictions in the following examples have a decentralized power to provide public services and finance them by local (or regional) taxes. They are thus part of competitive fiscal systems. Interjurisdictional externalities might result in such a setting in the form of regional or fiscal externalities. Regional externalities are comprised of positive or negative benefit spillovers as well as cost spillovers (Break 1967). *Positive benefit spillovers* come up for example if inhabitants of Quickborn, a small village in

Niedersachsen, visit the opera house in Hamburg, but do not contribute according to their marginal willingness to pay. This happens because entrance fees seldom cover the marginal costs of cultural services. Fees are regularly supplemented by subsidies from general taxes. Inhabitants in the suburbs only pay the fees, but do not pay taxes in Hamburg if taxation follows the residence principle. They could thus attend opera performances at relatively lower cost than the inhabitants of Hamburg such that congestion externalities arise. *Negative benefit spillovers* may exist in the case of pollution and can be exemplified respectively. *Cost spillovers* exist in the case of tax exporting, for example if corporations whose shares are widely distributed pay a local business tax in a particular jurisdiction. Because the company's shareholders will not participate to the same extent in the political process at the local level when not all of them live in the same place, a government has incentives to raise local business taxes above shareholders' willingness to pay. The costs of public services are externalized because a part of the tax burden is paid by residents from other jurisdictions providing incentives for inefficiently high levels of public services or for excessive taxation (Huizinga and Nielsen 1997). What is exemplified for the local level could easily be transferred to the regional level, in particular if city states, cantons or Lander are considered.

Spillovers could however also have distributive consequences, for example when a poor central city provides public services from which mainly commuters from the rich suburbs benefit. Neenan (1970, 1981) and Greene, Neenan and Scott (1977) argue that the central city subsidizes the suburbs, but this could well be the other way round (Bradford and Oates 1974) for example in the case of children from the central city visiting schools in the suburbs gaining from a higher quality of public education because of favorable peer group effects. Spillovers can thus have an impact on the spatial structure of jurisdictions. Schweizer (1985, 1986) shows how population density in the central city is negatively affected by regional externalities, a process that has become known as suburbanization or as the '*flight to the suburbs*'.

*Fiscal externalities* work in the opposite direction of tax exporting. They may arise from strategic tax competition for mobile capital (see already Oates 1972). Frankfurt is for example in tax competition with Bad Homburg. If Bad Homburg drops the local business tax rate, it attracts firms. This relocation reduces the tax burden of the residents in Bad Homburg because provision costs can be distributed among more taxpayers. However, the relocation increases the tax burden of residents in Frankfurt because less taxpayers have to finance a given amount of public services. If both jurisdictions do not consider the changes in tax burdens in each jurisdiction when deciding about the level of public services, fiscal externalities arise (Zodrow and

Mieszkowski 1986, Wilson 1986). This argument does not hold to the same extent if public infrastructure is becoming an additional parameter for relocation decisions. Infrastructure is then adjusted in the fiscal competition game such that fiscal externalities might finally vanish (Keen and Marchand 1997, Borck 2004, Wildasin 2004). It has also been broadly discussed to what extent the distortions from fiscal competition are more severe under asymmetry conditions, e.g. if relatively smaller jurisdictions compete with relatively larger ones. No clear-cut results have emerged however (Bucovetsky 1991, Arnold 2001, Eggert and Kolmar 2001, Stöwhase 2004, Marceau and Mongrain 2004).

Sandler and Shelton (1972) as well as Greene (1975) already argue that cost spillovers should be analyzed together with benefit spillovers. Wiegard (1980) and Arnott and Grieson (1981) integrate both potential distortions of a decentralized provision and financing of public goods. According to their analysis, both externalities could compensate for each other such that the net effect of cost and benefit spillovers on the efficiency of public good provision is theoretically indeterminate. Moreover, cost or benefit spillovers on the one hand and fiscal externalities on the other hand might also compensate for each other adding to the indeterminacy of the allocative analysis (Bjorvatn and Schjelderup 2002, Noiset 2003).

An inefficient provision of public services could particularly result if *economies of scale* (non-rivalness) in consumption exist, i.e. when the government provides public goods in the Samuelsonian sense (Sinn 2003). Fiscal competition enforces the benefit principle of taxation such that mobile production factors can only be charged the marginal costs of their use of public goods. Mobile taxpayers do however not contribute to cover the high inframarginal (fixed) costs of public infrastructure. If this is not to lead to an inefficiently low level of public services, the fixed costs must be covered by immobile taxpayers (Fuest 1995, Sinn 2003). This can lead to an undesired income distribution. Wellisch (2000, pp. 27) argues that inefficiencies due to economies of scale in consumption arise because jurisdictions lack a sufficiently differentiated number of tax instruments. If jurisdictions have a tax on personal and corporate income as well as a land tax, an optimal provision and financing of public services may result. While the first two taxes internalize marginal congestion costs, the land tax covers the inframarginal costs of the provision of public goods in the Samuelsonian sense.

## 2.2 Redistribution Problems

As these remarks on the most prominent allocative distortions of competitive fiscal systems indicate, distributive concerns pose more important problems than fiscal or regional externalities. Aside the indirect effects mentioned before, the direct effects of fiscal competition on income redistribution are supposedly more severe. Assume that Frankfurt could levy a personal income tax which has a higher progressivity of income taxes and in addition pays higher levels of social welfare than Bad Homburg. Income redistribution is hence more pronounced in Frankfurt than in Bad Homburg. This provides incentives for welfare recipients from Bad Homburg to move to Frankfurt because they can expect higher transfer payments. High income earners from Frankfurt – ceteris paribus – follow the incentive to move to Bad Homburg. These migration incentives impede decentralized income redistribution (Stigler 1957, Sinn 2003). Sinn (2003) argues that this outcome is inefficient because the *welfare state* can be seen as providing citizens with an insurance against privately uninsurable risks. Correcting this market failure via the welfare state leads to Pareto improvements for citizens. Fiscal competition could hence lead to a particular kind of inefficiency.

There do not exist many arguments against this reasoning. It is frequently heard that high income and wealthy people have incentives to voluntarily contribute to the social welfare state in order to obtain social peace (Buchanan 1975). The voluntary income redistribution is the higher the more decentralized the organization of income redistribution is, because recipients are known to or can be more easily identified by contributors (Pauly 1973). Many observers question however whether the funds obtained from voluntary contributions to income redistribution suffice to secure a minimum income of the poor.

Fiscal competition thus supposedly leads to a more unequal distribution of income. A variant of such arguments aims at explaining the impact of fiscal competition on the structure of public spending (Wildasin 2004) or of public revenue (Huber and Runkel 2004). If fiscal competition reduces the ability of governments to redistribute income in an economy, then the fiscal instruments most prominently used for income redistribution should become less important in the government budget. With respect to public spending, this means a shift from social transfers to infrastructural spending from which firms supposedly benefit more heavily. In the case of revenue, it could be expected that the government more strongly relies on fees and user charges than on broad-based taxes. The choice of tax structure mainly depends on the elasticity of the respective tax bases such that the tax burden shifts from capital to labor taxes.

In the political discussion, a frequently heard argument focuses on regional instead of personal income positions. It is contended that fiscal competition results in a situation of poor regions becoming poorer and rich regions becoming richer. The more ‘good’ taxpayers reside in a region, the lower the tax burden needs to be to finance a ‘necessary’ amount of infrastructure. Poor regions however need to increase the tax burden to finance such a ‘necessary’ amount of infrastructure. Fiscal competition then perpetuates income differentials and exacerbates the convergence problems of the periphery. In a neoclassical world, such an outcome is implausible because mobile capital would move to the poor jurisdiction which is the one with a relatively higher marginal productivity of capital. Permanent differences in growth performances will however prevail if agglomeration economies in central regions exist. The competition between interregionally active firms induces a concentration of industrial activities in economic centers because of an interaction between economies of scale in production, agglomeration economies and diseconomies, and transport costs. Economic activity is more concentrated in the center while the periphery has below average economic activity.

Ludema and Wooton (2000), Kind, Knarvik and Schjelderup (2000), Brakman, Garretsen and Van Marrewijk (2002) and Baldwin and Krugman (2004) analyze the impact of fiscal competition on the economic development of central and peripheral regions under the conditions emphasized by the theory of the *new economic geography*. Agglomeration economies allow the economic centers to a particular extent to levy relatively higher taxes than the periphery without inducing firms to relocate to the low tax periphery. Agglomeration economies partially compensate for the tax advantages in the periphery. The latter therefore has no alternative to an aggressive tax policy that compensates location disadvantages. Such a strong decrease of tax rates is necessary to compensate for agglomeration advantages of the center. Fiscal harmonization would then be harmful because it would exacerbate the resource differences between center and periphery and easily lead to demands for higher fiscal equalization.

### 2.3 Political Economy Issues

Summarizing these considerations, it is theoretically open whether a decentralized provision and financing of public services which leads to fiscal competition actually involves inefficiencies in the provision and financing of public services. It is also contested whether a regional kind of income redistribution is actually needed to cope with problems of regional economic development. It is much more evident that personal income redistribution is under threat if it is conducted in a decentralized system of competitive fiscal systems. This is still not the end of the story in theoretical terms. The state does not always do what it ought to. Political actors follow their own self-interest and seek to get rents from the political process. In a such a world, fiscal competition is clearly beneficial in particular as a restraint to excessive income redistribution. If a government attempts at securing private rents by increasing taxes, taxpayers can avoid excessive taxation by migrating to jurisdictions with lower tax burdens. The government cannot increase the tax burden of the mobile factor above the level of migration costs (Brennan and Buchanan 1980). It therefore has to take the interests of the mobile factors into account. Wilson (2005) shows that the competition for mobile capital between self-interested governments leads to a strengthening of the positive relation between tax revenue and public inputs. Fiscal harmonization would be counter-productive because it would facilitate the exploitation of tax bases for *Leviathan* governments.

In addition, fiscal competition enables citizens to comparatively evaluate the performances of representatives and thereby reduce the information asymmetries in political markets (‚*yardstick competition*‘). For example, Bavarian voters can compare the performance of their regional government to that of the Hessian government. If Hesse has a relatively high level or quality of public services under otherwise same conditions, but offers them at lower tax prices than Bavaria, Bavarian voters have incentives to punish the Bavarian government at the next election day. The Bavarian government will anticipate this threat in its decision to increase tax rates. Fiscal competition does hence not only work through the migration mechanism, but also improves citizens’ ability to exert voice in the political process (Besley and Case 1995, Bordignon, Cerniglia and Revelli 2003, Salmon 2003, Reulier 2004). The government is forced to provide public services at relatively lower costs and at the level desired by citizens.

## 3. Policy Solutions for Efficiency and Equity Problems

Though the outcome of the theoretical analysis is ambiguous and it is not sufficiently established that competitive systems of federalism actually need corrections by changes in governance designs, the most often used policy mechanisms are aiming at correcting potential market failures of fiscal competition. The simple and old-fashioned argument of economies of scale is frequently used to suggest *mergers of jurisdictions*. As mentioned above, Wagener (1969) developed such a proposal during the discussions on the reform of the German fiscal constitution in the end of the 1960’s. He even presented the optimal size of jurisdictions for a given kind and quality of public services. Blankart (1996) concedes that such jurisdictional mergers evolve if cost savings due to economies of scale can be reaped. The supposed cost savings were also the driving force in the last wave of community mergers in Germany. Indeed, the 'cost of smallness' provide for arguments of regional mergers in Germany in the recent debate about the reform of German federalism (and in Switzerland in their recent federalism debate). From a macroeconomic perspective, according to the analysis by Alesina and Spolaore (2003), economies of scale are seen as a major centripetal determinant of the size of nations. The argument is simply that due to economies of scale in consumption average costs are the lower for pure public goods, the more taxpayers contribute financially.

It can also be theoretically shown that jurisdictional mergers are a means to internalize congestion externalities when spillovers are present. Hochman, Pines and Thisse (1995) as well as Wellisch (2000, Chap. 6) obtain an optimal structure of local jurisdictions along these lines of thought. They consider congestion externalities of local public goods which are financed by land taxes, transport costs, the optimal allocation of land, and the optimal population size of a jurisdiction. In addition to the principle of fiscal equivalence, the optimal structure of local jurisdictions requires that each unit of land is exclusively taxed by a single jurisdiction. On the basis of these models, it could be plausibly argued that only large agglomerations which provide all different kinds of local public goods come close to an efficient Tiebout-equilibrium. This is pointing to the usefulness of mergers between central cities and suburbs.

If such a redrawing of jurisdictional boundaries appears too far-reaching, perhaps because of local or regional cultural identities, the internalization of regional and fiscal externalities as well as a compensation for the costs of smallness could be accomplished by systems of *horizontal and/or vertical fiscal equalization*. Wildasin (1989) and DePater and Myers (1994) show that grants work as Pigovian subsidies and are thus able to internalize externalities.

Of course, these two policy options have their drawbacks as well. As just mentioned, a merger of jurisdictions to realize cost savings is countered by the centrifugal force of diverging preferences for public goods, called local or regional cultural identities before. A fundamental rationale for decentralized provision and financing of public goods consists in *preference heterogeneity* of citizens. From the sober economic point of view it seems pretty unexciting that some people prefer a higher school quality, usually the families with kids, while others prefer pensioners residences. Thinking of ethnic conflicts, the heterogeneity argument gains however political importance. In many countries with inter-ethnic violence, federalism is considered as a solution for political tensions. Indeed, Alesina and Spolaore (2003) and Alesina in a whole sequence of papers, have explored this issue more thoroughly. The conclusion from these analyses is clear-cut: Jurisdictional mergers are the last policy option that is reasonably chosen to correct market failures of decentralized provision and financing of public goods.

The German experience with local mergers in the 1970s provides an illustration of the mechanisms that are in place in the absence of violent conflicts. Intended as a means for administrative cost savings, it has finally become evident that the policy failed in that respect (Engelhardt et al 1986). Administrative costs did not decline after the local mergers, but increased. The reasons are numerous, but three of them stand out. First, German labor laws prevented a quick reduction of the size of local administrations. Lay-offs in the German public sector are nearly impossible if an employee works only a few years in the public sector. This even holds for normal public employees without considering civil servants. Second, some public goods are not worth providing in small communities because the scale of use would be too low. After the merger of local communities, the quality and level of public good provision improved perhaps. Third, while the small independent communities had to finance their public goods largely themselves before the merger, they could start lobbying the public administration afterwards. Politically, such *inter-communal lobbying* could be accomplished because the political parties with seats in the local councils aimed at representing the different parts of the merged community on their party lists. Like in pork-barrel politics of majoritarian electoral systems, these representatives engaged in log-rolling arrangements to get as much out of the budget for their small local district as possible. After a while, each small part of the larger merged community wanted to have a cultural center (‚Bürgerhaus‘), each local soccer club a modern soccer arena with a grass field. And so on. The lobbying activities resulted in an exploitation of the local fiscal commons and were further facilitated by the fact the larger merged community could partly externalize the cost of public goods provision to the regional and federal level via participation in joint taxation and fiscal equalization systems.

The systems of fiscal equalization that are in place in Germany add to the wrong incentives and provide for *soft budget constraints* of the regional and local jurisdictions. In these systems, lobbying activities are not restricted to the inter-administrative type. In particular at the regional level, industrial interest groups join the tournament. Structural economic problems that are due to region specific shocks are often cushioned by paying subsidies to the firms that are in trouble. A regional government could do this by keeping in mind the potential bail-out by other regional jurisdictions or the federal level. In systems of joint taxation without the need to particularly raise tax rates in a particular jurisdiction to provide particular regional public goods, the incentives to externalize the cost of policy responses to lobbying activities are very important. Fiscal equalization systems as well as mergers do not solve problems of decentralized provision and financing of public services. They create some of them.

In addition, it could be well argued that less intervention at the sub-federal level will serve the same purpose as jurisdictional mergers and intergovernmental grants. Boadway (1982) criticizes that fiscal externalities at least partly rest on myopic decision-making at the local level which is unacceptable when central decision-making is assumed to be highly rational. Myers (1990) follows this criticism and shows that fiscal externalities provide incentives for internalization via *voluntary transfers* if a transfer instrument is available to the local jurisdictions. Krelove (1992) interprets tax exporting as such a transfer instrument. If transfers are feasible, the resulting equilibrium in fiscal competition is efficient. Mansoorian and Myers (1993) show that the incentives to provide voluntary transfers are reduced if individual non-pecuniary costs exist due to attachment to home. Still, fiscal competition leads to better outcomes than a centralized solution because the competing jurisdictions can negotiate about the size of the transfer payment. Myers and Papageorgiou (1997) generalize this result to a whole class of mobility costs and show that the incentives for voluntary transfers are the smaller, the larger the mobility costs. Wellisch (2000) establishes that the same incentives as for fiscal externalities obtain in the case of spillovers. That a *Coasian bargaining solution* is suited to lead to an internalization of externalities is well known in public finance. It is also prominent in the theory of fiscal federalism (Inman and Rubinfeld 1997). In contrast to traditional arguments against the Coasian solution, it might be realistic for negotiations between sub-federal jurisdictions due to the supposedly small number of bargaining partners that are involved. The difference between the coordination obtaining from such a decentralized process and a centralized solution is found in the allocation of the political initiative. It remains decentralized in the Coasian bargaining solution while it is not if the federal government is involved.

It is only a small step from Coasian bargaining solutions and resulting systems of cooperative federalism to the more radical concept of *FOCJ (Functional Overlapping Competing Jurisdictions)* developed by B.S. Frey and Eichenberger (1999) and Casella and B.S. Frey (1992). They suggest to have one separate jurisdiction for each public good that is provided. Depending on the technological and geographical characteristics of different public goods a system of overlapping jurisdictions with a flexible and highly decentralized structure results that follows the functional characteristics of public goods. Their proposal differs from the well-known special districts in the U.S. or the German ‚Zweckverbände', but also from the cooperative federalism result of the Coasian bargaining solution in that they want these administrative units to become jurisdictions in the political sense such that the decisions taken in each jurisdiction are democratically controlled. In their proposal this is a direct democratic control and each person is citizen of different jurisdictions. While this proposal does not have the disadvantage of a lack of democratic control, it does have other disadvantages for example the negligence of economies of scope or the problem of decentralized income redistribution. Nevertheless, it might provide a viable alternative to traditional policies of community mergers and fiscal equalization.

## 4. Empirical Evidence on the Importance of Fiscal Equivalence

Given these theoretical arguments on decentralized provision and financing of public goods which lead to competitive fiscal systems and the policy proposals for coping with potential inefficiencies, the question emerges what the outcomes of fiscal competition actually are and whether the traditional policies, fiscal equalization and jurisdictional mergers, provide solutions to efficiency and equity problems. The answer could only be provided empirically. The most extensive evidence on fiscal competition exists for the U.S. and for Switzerland. In particular, evidence from Switzerland is considered because in this country the sub-federal jurisdictions heavily rely on income taxes to finance public services, while the sales tax is the most important revenue source of the U.S. states and the property tax that of the U.S. local jurisdictions. Personal and corporate income tax differentials between the Swiss cantons and local jurisdictions are very important such that a strong fiscal competition can emerge. For example, someone living in the canton and the city of Zurich who earns a million SFr taxable income per year pays more than three times the amount of taxes to the canton and the local jurisdiction of Zurich than in the community of Freienbach in the canton of Schwyz which is only half an hour away from Zurich.

Fiscal competition exists if two conditions are met: First, taxes and public spending play a significant role in the choice of location of industry and/or of residence of individuals (*mobility hypothesis*). If there is no fiscally induced mobility, neither beneficial nor detrimental effects of fiscal competition can result. Second, governments actually use fiscal instruments to attract firms or individuals. If no strategic tax setting can be observed, a race to the bottom cannot develop (*strategy hypothesis*). The impact of fiscal competition is empirically analyzed in tests of the *efficiency hypothesis*, the *redistribution hypothesis* and the *growth hypothesis*. Finally, the question as to what drives fiscal equalization systems is discussed.

## 4.1 Fiscally Induced Mobility

The mobility hypothesis could be empirically tested for firms and for individuals. Evidence corroborating the importance of taxes for location choice is found for federal states mainly drawing on studies for the U.S. (Newman and Sullivan 1988, Bartik 1991, Wasylenko 1991, Feld 2000). Hines (1996) also presents evidence that multinationals locate in U.S. states with lower taxes. Feld and Kirchgässner (2003) study the impact of personal and corporate income taxes on the distribution of firms between the Swiss cantons and on cantonal employment. They report significant negative effects of taxes on the number of small and medium sized firms in different classes of rates of return in 1981/82 and 1991/92 and on cantonal employment between 1985 and 1997. The higher taxes, the lower is the number of firms and employment. These effects hold ceteris paribus, i.e. by controlling several other factors that might influence location decisions like wage levels, public infrastructural spending and so on. Together with the evidence on international fiscal competition (Feld 2005), this is strong evidence that location decisions are affected by taxes.

Support for the mobility hypothesis is also found with respect to migration and residence choice of individuals. Lower taxes or higher levels of public services attract individuals – ceteris paribus. Many empirical studies exist for regional or local migration and the impact of fiscal policy on residence choice. These studies have also been performed mainly by using U.S. data and they broadly support the *mobility hypothesis* (see Feld 2000 for a survey). They find that tax rate differentials and differences in public services across U.S. states and local jurisdictions – *ceteris paribus* – influence individual residence choices. Welfare payments mainly affect migration of the poor. However, many studies also provide evidence that labor market conditions or the housing market are quantitatively more important than fiscal policy. In addition, the attraction of jurisdictions with favorable public or private infrastructure (in particular health and education) as well as a good quality of the natural environment (parks and other recreation facilities) should not be underestimated. The differences in tax rates and public services at the state or local levels moreover capitalize in housing prices (see Feld and Kirchgässner 1997 and again Feld 2000 for surveys on the U.S. studies). Higher taxes induce – *ceteris paribus* – lower housing prices, while a higher level of public services is associated with higher housing prices. The tax burden is shifted to the immobile factor land.

Similar evidence on fiscally induced migration is found for Switzerland. R.L. Frey (1981) reports only a small or no impact of income tax rate differentials on migration between and within Swiss cantons. Feld (2000) finds stronger effects for cantonal immigration between 1980 and 1990, but the results are not very robust to the inclusion of additional influences on migration. Liebig and Sousa-Poza (2004) analyze microdata from the first three waves of the Swiss Household Panel (1999-2001) and find no significant influence of the individual income tax burden on migration. Of the 3678 observations of this data set only 285 household have however moved to a different jurisdictions in the period under consideration, such that the results are based on a relatively narrow data base (for microdata). Schmidheiny (2003) uses a more comprehensive data base and develops a very careful model of migration decisions. In his study for both cantons of Basel and the canton of Solothurn in 1997 all households who recently moved are included. In total, the data set contains 7872 households. Schmidheiny (2003) reports a highly significant and quantitatively important impact of income taxes on household migration. The effect is bigger for high income than for low income people.

In an alternative approach, the impact of income taxes and public services on the distribution of taxpayers in different income classes across the Swiss cantons and local jurisdictions has been investigated. Kirchgässner and Pommerehne (1996) in a cross section study for the Swiss cantons in 1987, Pommerehne, Kirchgässner and Feld (1996), Feld (1999, 2000, 2000a), Feld and Kirchgässner (2001) in cross section analyses for the Swiss cantons and for 137 Swiss cities and communities for 1990 as well as Feld and Frey (2000) in a panel data analysis for the cantons between 1981/82 and 1993/94 report a strong impact of income taxes on the distribution of taxpayers. The impact of income tax rate differentials is quantitatively more important in higher than in lower income classes. Tax competition appears to be more intense at the local than at the cantonal level and more important for self-employed than for dependent workers and for retirees. These results on the impact of public finance for the regional distribution of taxpayers are corroborated by the Swiss studies on capitalization of tax rate differentials in housing prices. Feld and Kirchgässner (1997), Hilber (1998) and Feld (2000) report that the higher income taxes, the lower are dwelling rents of apartments and housing prices. The income tax burden of high income taxpayers is capitalized more strongly than that of low income people. Welfare payments do not play any role. All in all, there is strong evidence from the regional level that fiscally induced migration and residence choice takes place. The *mobility hypothesis* can thus not be rejected.

### 4.2 Strategic Fiscal Policy

Fiscally induced migration is a necessary condition for the existence of fiscal competition. A sufficient condition is the *strategy hypothesis*: Jurisdictions actually engage in strategic tax setting. How strategic tax setting emerges can be illustrated by the following example: In his tax policy, the Bernese finance minister has to consider several requirements many of which are derived from Bernese legislation or from federal law, and others stem from the influence of interest groups on tax policy. In addition, he has to consider the interjurisdictional development in order to make the canton Berne attractive for investments and locations of firms. If the canton of Lucerne decreases its tax rate on individual and personal income, the Bernese finance minister has to take that into account when announcing the next tax reform. Jurisdictions apparently look at what happens in other jurisdictions. They identify their competitors and react to their tax rate changes. According to the *strategy hypothesis*, the correlation between the changes of tax rates in different jurisdictions should be positive, i.e. if a canton reduces individual and corporate income tax rates, another canton also reduces these rates.

Evidence on such a strategic tax setting exists, like for the location choice of firms, at all government levels. The first studies have again been conducted for the U.S. states and local jurisdictions (Ladd 1992, Case 1993, Brueckner and Saavedra 2001), but there is meanwhile also evidence on strategic tax setting in Canada (Brett and Pinske 2000 for municipalities and Hayashi and Boadway 2000 for provinces), Belgian communities (Heyndels and Vuchelen 1998), German local jurisdictions (Büttner 1999, 2001), French regions and départements (Feld, Josselin and Rocaboy 2003, Leprince, Madiès and Paty 2003, Reulier 2004), Italian cities (Bordignon, Cerniglia and Revelli 2003), Spanish local jurisdictions (Solé-Ollé 2003) and Swiss cantons (Feld and Reulier 2001). Most of these studies focus on income, business and property taxation. They find that a reduction of the average tax rates of competitors induces a reduction of tax rates of an observed jurisdiction. Comparable evidence is presented by Figlio, Kolpin and Reid (1999) and Saavedra (2000) on welfare payments in the U.S. Again, reductions in welfare payments in competitor jurisdictions on average induce a reduction of welfare payments in an observed jurisdiction. Moreover, Fredriksson and Millimet (2002) provide evidence on strategic interaction in environmental policy. Brueckner (2003) provides a survey of these studies.

On the basis of this evidence, the *strategy hypothesis* cannot be rejected. Fiscal competition exists at the local and regional level at different intensities concerning different production factors. It is most intense at the local level in countries with local or regional fiscal autonomy. At the regional level, the intensity is lower compared with the local level. The evidence provides strong support for the existence of fiscal competition for firms and individual taxpayers and hence for corporate and individual income taxes as well as property taxes (the latter in particular in the U.S.).

### 4.3 The Efficiency of Public Goods' Provision

If fiscal competition exists, the question emerges whether it leads to an efficient or inefficient provision and financing of public goods. Is there a measurable violation of the principle of fiscal equivalence? To measure economic efficiency in the provision of public goods is however not easy. Public services are efficiently provided if the marginal cost of provision is equal to the sum of marginal rates of substitution of users. Though it is not impossible, finding out the marginal cost of provision is difficult, because most statistics on the public sector contain information on expenditure and not on cost. The real difficulty emerges however on the demand side. Consumers have incentives to hide their true willingness to pay for public services in order to get a free ride when they expect to pay actually. Consequently, direct evidence on the impact of fiscal competition on the efficiency of public goods' provision is relatively scarce.

A first step to approach the difficulties of analyzing allocative efficiency could be a look on the potential distortions that have been discussed. Theoretically, externalities of fiscal competition are focused. In an early study for the U.S., McLure (1967) estimates cost spillovers of 25 percent of overall tax revenue of the U.S. states. Mühlemann (1972) provides estimation results for Swiss local jurisdictions in the 1960s and reports that suburbs contribute only 2.6 percent of the total costs of public services provided by the central cities. Büttner (2003) finds relatively important fiscal externalities for small communities in Germany. Murdoch, Sandler and Sargent (1997) provide evidence on the importance of negative benefit spillovers (sulfur and $NO_x$ emissions) for 25 European states. However, as Sørensen (2000, 2004) in his simulation study shows for plausible parameters, these fiscal and regional externalities can easily compensate for each other, such that public goods can be efficiently provided. Parry (2003) corroborates this analysis and also reports relatively low welfare costs of tax competition even excluding tax exporting. Hence the importance of externalities can be questioned.

The evidence on the existence and size of fiscal and regional externalities could be mixed because the jurisdictions involved successfully negotiate with each other. This conjecture is supported by econometric evidence from two cases of spillovers. Pommerehne, Feld and Hart (1994), with evidence on local cross-border pollution, and Pommerehne and Krebs (1991), with evidence on spillovers of public services in the canton of Zurich, illustrate how regional externalities are successfully internalized in Coase-like bargaining processes. Swiss federalism is in general characterized by specific inter-jurisdictional compensations for spillovers. Although this leads to high transaction costs it also induces incentive compatibility of public goods' provision. Indeed, Schaltegger (2003) does not find any significant benefit spillovers between Swiss cantons in a panel study for the years 1980 to 1998 using a more comprehensive and systematic research design.

In addition, there is a broad discussion in the literature on the impact of fiscal competition on the size of government. According to Brennan and Buchanan (1980), fiscal competition is a means to restrict Leviathan behavior of governments: *„The potential for fiscal exploitation varies inversely with the number of competing governmental units in the inclusive territory.“* (p. 185). Most studies attempt at testing this hypothesis by looking at the impact of fiscal decentralization on public spending or revenue. There is mixed evidence on this impact of fiscal decentralization however. Only the more recent studies by Shadbegian (1999) for the U.S., Schaltegger (2001) and Kirchgässner (2002) for Switzerland and Rodden (2003) in a cross-country study provide unambiguous support for such a relationship.

Feld, Kirchgässner and Schaltegger (2003) focus more closely on the transmission channels by which fiscal decentralization in federal states might affect the size of government. They find that a more intense tax competition leads to lower public revenue. Fragmentation of a canton in its communities does not have any consistent impact neither on total revenue nor on the tax structure, while tax exporting significantly increases total revenue. Moreover, tax competition shifts the revenue structure from broad-based taxes to user charges and fees. Tax competition thus leads to a stronger enforcement of the *benefit principle of taxation*. Kirchgässner and Feld (2004) provide evidence for the same data set that again tax competition induces lower spending. This impact is quantitatively important: The estimated reduction of spending for the canton which stands most strongly in tax competition compared to that which is the least affected by tax competition amounts to SFr 2,114.- per capita and year. Most interestingly, the fragmentation of a canton does not have any significant impact on total cantonal spending or on administrative spending. The simplest argument for community mergers is not covered by the evidence for Switzerland: Although there might be arguments for jurisdictional mergers in some cantons and local settings, there is no significant effect of fragmentation on spending or administrative spending in Switzerland on average. In addition, the Swiss system of vertical grants increases spending, particularly administrative spending.

The first direct evidence on the efficiency hypothesis stems from a study by Bergstrom, Roberts, Rubinfeld and Shapiro (1988) who directly estimate the equality of marginal costs of provision of public services and the sum of individual marginal willingnesses to pay for public education (that is financed by property taxes in the U.S.). The demand for public services is estimated on the basis of individual survey data. In addition, aggregate data on local jurisdictions is used to assess marginal costs. The authors present evidence that the *efficiency hypothesis* according to which fiscal competition leads to an efficient decentralized provision of public goods cannot be rejected. Hoxby (2000) develops a less ambitious test by comparing the relative efficiency of education in jurisdictions with a higher and those with a lower intensity of fiscal competition. She presents evidence that the performance of students per input unit is increased by fiscal competition although it leads to significantly less spending per student. Fiscal competition hence appears to increase the efficiency of public education. There is also evidence for Switzerland that fiscal decentralization is associated with a higher individual satisfaction of citizens with their lives in general (Frey and Stutzer 2000, 2002).

All in all, this evidence speaks in favor of fiscal competition. The *efficiency hypothesis* cannot be rejected on the basis of this evidence. There is no convincing evidence on fiscal or regional externalities, and economies of scale in provision do not provide strong grounds for jurisdictional mergers.

## 4.4 Income Redistribution

From the survey on theoretical studies it has become evident that the impact of fiscal competition on decentralized income redistribution could be expected as being more detrimental than the potential allocative distortions. What is therefore surprising is the evidence on the *redistribution hypothesis* in its strong version according to which fiscal competition leads to a collapse of the welfare state. Remember that the supposed mechanism is a fiscally induced migration of the poor to jurisdictions with high transfers and the rich to jurisdictions with low income taxes – keeping all other factors constant that might attract migrants. As discussed in *Section 4.1*, this fiscally induced migration takes place in the U.S. and, to a lesser extent with respect to welfare payments at least, also in Switzerland. There is additional evidence on strategic tax setting in both countries. There is however no evidence that the welfare state in both countries has collapsed – given national redistribution preferences. This is particularly interesting for Switzerland because of its more pronounced income redistribution.

Feld, Kirchgässner and Schaltegger (2003) analyze the impact of tax competition between Swiss cantons on their revenue structure and report evidence that tax competition shifts revenue from broad based taxes to user charges and fees as hypothesized by the theoretical literature. These results are in line with more recent evidence by Winner (2004) on the impact of tax competition on tax structure. For 23 OECD countries and the time period 1965 to 2000, he finds that capital mobility shifts the tax burden from capital taxation to labor taxes. The less mobile tax base has to bear a higher tax burden. According to the results of Feld, Fischer and Kirchgässner (2003) for the Swiss cantons, welfare spending is however not affected by tax competition such that no unambiguous results are found for the spending structure.

On the basis of data from 1977, Kirchgässner and Pommerehne (1996) present evidence for Switzerland that two thirds of public income redistribution (without considering social security in that analysis) were conducted by sub-federal jurisdictions. The income distribution was not significantly more unequal in Switzerland in 1977 than in Germany in the beginning of the seventies. Since the seventies, the Swiss income distribution has become more unequal than in other European countries. This development can be attributed to the fact that the ten percent of the population with the highest incomes have more than proportionally gained from income growth between 1977 and 1992. Still, excluding social security, the Swiss public sector redistributes as much income in 1992 as in the end of the seventies. The share of sub-federal jurisdictions from this amount of income redistribution has even increased during the same period (Feld 2000, 2000a). In addition, cantons and local jurisdictions have relied more strongly on taxes than on spending to accomplish income redistribution. Although Feld, Fischer and Kirchgässner (2003) find some evidence that tax competition between cantons is leading to less income redistribution, this effect is not robust to the primary distribution of income. The strong *redistribution hypothesis* must therefore be rejected for Switzerland.

It should be noted that the most important differences between fiscal competition in federal states on the one hand and international fiscal competition on the other hand must be attributed to the distribution branch. The Swiss cantons and local jurisdictions as well as the U.S. states and local jurisdictions are embedded in a federal system where much income redistribution is undertaken by the federal level. The public acceptance of the effects of fiscal competition on the income distribution thus hinges on the fact that there is some redistribution of income at the federal level. In Switzerland, the progressive federal income tax, the source tax on interest income and the pay-as-you-go part of the Swiss pension system are centralized and have a strong redistributive impact. Similarly, the U.S. federal income tax is most important for income redistribution.

In addition, both countries had strong residence requirements for longer time periods. As it is well documented by the U.S. studies on migration and welfare (Moffitt 1992), residential requirements could be crucial for decentralized redistribution to work. Until 1969, the U.S. states imposed residence requirements on potential welfare recipients according to which they could only obtain welfare payments in a state if they had worked at least two years in the same state in which they applied for social welfare. The residence requirement was declared unconstitutional by the Supreme Court in that year. Evidence for a harmful welfare migration has been provided only for the period after that Supreme Court decision. After the social welfare reform of 1996, residence requirements have been reintroduced again. In Switzerland, a citizenship principle existed until 1979 according to which the places of citizenship were responsible for social welfare of their citizens. Citizenship has been inherited. If the place of residence of a welfare recipient was different from the place of citizenship, he could be forced to move back in the place of citizenship or obtained lower transfer payments than he would have received at the place of residence. Finally the Swiss political decision-making process plays a role for income redistribution. Since Swiss cantons to differing degrees enable voters to participate directly in fiscal decision-making by referenda on tax rates, spending or budget deficits, and because institutional competition of direct with representative democratic cantons induces the latter to deviate not too much from basic redistributive concerns, fiscal competition in Switzerland may not lead to a collapse of the welfare state as well. Actually, tax competition is less pronounced in cantons with a tax referendum than in those without one (Feld 1997).

## 4.5 Regional Economic Development

Finally, income redistribution problems could also emerge from fiscal competition in a regional perspective although the theoretical arguments are again ambiguous. The impact of fiscal competition on regional economic growth is even less intensively studied than that on efficiency or income redistribution. There is a more recent literature mainly with cross-country evidence, but also with evidence on Chinese provinces, German or U.S. states that attempts at analyzing whether fiscal decentralization has a positive or negative impact on economic growth. The main disadvantage of the empirical approach in those studies is that fiscal decentralization is almost exclusively measured by the share of spending (or revenue) of lower level jurisdictions from total spending (or revenue). This share is not measuring fiscal autonomy. It could easily be the case that sub-federal jurisdictions spend a relatively large share, but are forced to do so by federal mandates or do not raise funds autonomously to finance that spending such that they depend on the federal government. This holds for example for Mexico (Feld 2003). It is thus not surprising that the existing studies do not find any clear-cut evidence on this relationship (Feld, Zimmermann and Döring 2003). There is one paper in which the impact of tax competition on regional economic performance is analyzed. Feld, Kirchgässner and Schaltegger (2004) present evidence for the Swiss cantons from 1980 to 1998 that tax competition has not been harmful to economic performance of the cantons. In addition, no evidence on the importance of economies of scale for economic performance is found in that study. The arguments for a merger of cantons are thus also not supported by the evidence from this paper.

### 4.6 What Drives Government Grants and Jurisdictional Mergers?

Thinking about the evidence for Switzerland up to now, it becomes obvious that the role of intergovernmental grants is almost not discussed up to now. It is only mentioned that grants increase total cantonal spending as well as cantonal administrative spending. The (old) Swiss system of intergovernmental grants is not comparable to the German system. It consists of a complex system of mainly vertical transfers from the federal government to the 26 cantons. There is no horizontal equalization system in Switzerland, but only specific horizontal inter-cantonal payments for particular services. However, the vertical transfers have a strong horizontally equalizing impact since rich cantons bear most of the financial burden of the system. The system of intergovernmental grants has four main 'pillars': The federal contributions to the cantons, the cantonal share of federal revenues, the cantonal share of the gains from the central bank and cantonal contributions to the federal social security system. 30% of the highly progressive federal income tax is directly redistributed to the cantons according to income (17%) and to financial prosperity of the canton (13%). The federal source tax on capital income is distributed in a similar fashion to the cantons, but instead of financial prosperity the population is taken into account. Both grants are lump-sum and only the first component is not following fiscal equalization criteria. The remaining 70% of the revenue from the federal income tax are used to fund matching grants.

Due to endogeneity problems, matching grants are usually not considered in the Swiss studies surveyed above. Matching grants require a co-financing by a canton and thus necessarily influence the spending and revenue decisions of the cantons by definition. There is however a significantly negative effect of lump-sum grants on income tax rates. Matching grants have been used in several specifications in the Swiss analyses of fiscally induced mobility, but no robust impact of grants on residence choice could be established. In a recent paper, Feld and Schaltegger (2002) analyze which factors determine matching grants which are paid to the cantons by the federal government. Tax competition does not have any significant impact on the size of matching grants received. However, regional income distribution is an important determinant of matching grants. The higher cantonal income, the lower are the matching grants received. Also legal determinants, like an index of mountainous regions which is however also a proxy for cantonal income, are highly significantly positive. In addition, lobbying by interest groups plays a role. The most robust influence is found for the cantonal bureaucracy. The larger the cantonal administration, the higher are matching grants. It has been the regional distribution of income as well as political economics that has driven the Swiss fiscal equalization system. Efficiency considerations have not played a major role.

There is also first evidence on the reasons for mergers of local communities in Switzerland (Dafflon 2003). According to his case study of the canton of Fribourg which experienced 32 mergers in recent times, local mergers occured, first, because a small community had difficulties to fill all the political positions with individuals. Second, the adminstrative tasks became to burdensome for the few officials in the small communities. Third, there are fiscal reasons like high local public debts that could be externalized by local mergers. This case study thus on the one hand points to political economy problems and on the other hand underlines the economies of scale that might be reaped in merging local administrations.

## 5. Conclusions

Starting from the principle of fiscal equivalence, potential violations that might occur in the form of regional or fiscal externalities or economies of scale in consumption have been considered in this paper. In addition, the problems for personal and regional income distribution emerging in competitive fiscal federalism as well as political economics issues have been discussed. It turns out that the principle of fiscal equivalence does not provide such an uncontested and clear-cut guideline for the design of fiscal federalism as is usually thought. If violations of the principle of fiscal equivalence were empirically important, traditional policies like jurisdictional mergers or fiscal equalization systems could reduce inefficiencies. There are however alternative policies, like the Coasian bargaining solution or the FOCJ concept, that have the potential to cope with distortions.

In a survey of the empirical evidence, it turns out however that violations of the principle of fiscal equivalence are empirically not as important as presumed by theoretical analyses and policy proposals based on theoretical arguments. In most of the studies, neither fiscal externalities nor spillovers nor economies of scale in consumption have a significant impact on fiscal policies in federations. In particular, the evidence for Switzerland is quite consistent. By using data for almost the same time period for cantons or local jurisdictions, the existence of fiscally induced mobility and strategic tax setting could be established. Fiscal competition in Switzerland is thus an important phenomenon. These results are meanwhile corroborated by analyses with different study designs. The Swiss fiscal competition has however not led to any strong, measurable inefficiencies. Indeed, more important problems for fiscal competition exist in the distribution branch. With respect to regional economic development, tax competition appears to be rather beneficial however. Most strikingly, the old system of fiscal equalization in Switzerland mainly follows regional redistribution goals and is influenced by intergovernmental lobbying. Violations of the principle of fiscal equivalence are obviously internalized heavily by decentralized action of the jurisdictions involved.

It appears as if the Swiss system is designed in a relatively rational way. Nevertheless, there are many inefficiencies left. Those emerging from the old system of fiscal equalization will be changed as soon as the new system is established. In addition, the responsibility of the different jurisdictions for different policies will be more clearly assigned. What is meanwhile criticized is the huge amount of arenas for cooperation between Swiss jurisdictions, the so called concordates. These are resulting from the Coasian bargaining solution emphasized above. In a recent study, Blöchliger (2005) suggests to establish a new regional layer of government in Switzerland that provides for a kind of functional overlapping jurisdiction. The metropolitan regions are designed according to agglomeration economies (measured by commuter flows) such that the metropolitan region of Zurich comprises 11 different cantons. It is highly contested whether a new layer of government actually serves the purpose of coordinating spillovers and fiscal externalities sufficiently because it will certainly involve additional administrative costs and lobbying problems. The concordates have partly done a good job in coordination terms. The main problem of the concordates is however that the decisions are not democratically controlled. Just like in the EU, a cantonal representative in these negotiations can bring a coordination result back home and insist that it cannot be changed anymore because it has been such a difficult compromise to reach that result. Often, citizens do not have many options to prevent the establishment of such policies. If democratic control is the problem of the concordates, the direct policy solution would be a referendum on compromises reached in the concordates by the electorates of the cantons involved. This would impose democratic control and save the flexibility of the FOCJ concept that B.S. Frey and Eichenberger (1999) have intended.

The analysis in this paper also indicates that fears about the impact of fiscal competition in federalism are misplaced. Federative systems are capable of coping with potential distortions such that fiscal competition finally enhances the efficiency of the system and increases economic growth. Fiscal competition needs to be accompanied however by clever institutions that cope with the distributive concerns which does not necessarily mean a pure centralization of the welfare state. In addition, fiscal equalization systems should be mainly seen as a device to redistribute income. The complications introduced on the rationale of the principle of fiscal equivalence are unnecessary. Finally, jurisdictional mergers do neither appear necessary nor sufficient to obtain efficient outcomes in fiscal federalism. Is this the request for a new interpretation of the principle of fiscal equivalence? Not really, the flexible decentralized solutions to cope with distortions in fiscal federalism have always been there. Speaking of a new interpretation is perhaps misleading. What is needed are new creative, flexible policies.

## References

*Alesina, A./Spolaore, E.* (2003), The Size of Nations, MIT Press, Cambridge.

*Arnold, V.* (2001), Asymmetric Competition and Coordination in International Capital Income Taxation, in: Finanzarchiv 58, 430-448.

*Arnott, R. J./Grieson, R. E.* (1981), Optimal Fiscal Policy for a State or Local Government, in: Journal of Urban Economics 9, 23-48.

*Baldwin, R. E./Krugman, P.* (2004), Agglomeration, Integration and Tax Harmonization, in: European Economic Review 48, 1-23.

*Bartik, T. J.* (1991), The Effects of Property Taxes and Other Local Public Policies on the Intrametropolitan Pattern of Business Location, in: H. W. Herzog, Jr./A. M. Schlottmann (eds.), Industry Location and Public Policy, University of Tennessee Press, Knoxville, 57-80.

*Bergstrom, Th. C./Roberts, J. A./Rubinfeld, D. L./Shapiro, P.* (1988), A Test for Efficiency in the Supply of Public Education, in: Journal of Public Economics 35, 289-307.

*Besley, T./Case, A. C.* (1995), Incumbent Behavior: Vote-Seeking, Tax-Setting, and Yardstick Competition, in: American Economic Review 85, 25-45.

*Bjorvatn, K./Schjelderup, G.* (2002), Tax Competition and International Public Goods, in: International Tax and Public Finance 9, 111-120.

*Blankart, Ch. B.* (1996), Comment on Lars P. Feld and Gebhard Kirchgässner: The Economic Meaning of Subsidiarity, in: R. Holzmann (ed.), Maastricht: Monetary Constitution Without a Fiscal Constitution?, Nomos, Baden-Baden, 227-230.

*Blöchliger, H.* (2005), Baustelle Föderalismus. Metropolitanregionen versus Kantone: Untersuchungen und Vorschläge für eine Revitalisierung der Schweiz, Verlag NZZ, Zürich.

*Boadway, R.* (1982), On the Method of Taxation and the Provision of Local Public Goods: Comment, in: American Economic Review 72, 846-851.

*Borck, R.* (2004), Fiscal Competition, Capital-Skill Complementarity, and the Composition of Public Spending, Unpublished Manuscript, DIW Berlin.

*Bordignon, M./Cerniglia, F./Revelli, F.* (2003), In Search of Yardstick Competition: A Spatial Analysis of Italian Municipality Property Tax Setting, in: Journal of Urban Economics 54, 199-217.

*Bradford, D. F./Oates, W. E.* (1974), Suburban Exploitation of Central Cities and Governmental Structure, in: H. Hochman/G. Peterson (eds.), Redistribution through Public Choice, Columbia University Press, New York, 43-90.

*Brakman, S./Garretsen, H./Van Marrewijk, C. (*2002), Locational Competition and Agglomeration: The Role of Government Spending, CESifo Working Paper No. 775, Munich.

*Break, G.* (1967), Intergovernmental Fiscal Relations in the United States, Brookings Institution, Washington, D.C.

*Brennan, G./Buchanan, J. M.* (1980), The Power to Tax: Analytical Foundations of a Fiscal Constitution, Cambridge University Press, Cambridge.

*Brett, C./Pinske, J.* (2000), The Determinants of Municipal Tax Rates in British Columbia, Canadian Journal of Economics 33, 695-714.

*Brueckner, J. K.* (2003), Strategic Interaction among Governments: An Overview of Empirical Studies, in: International Regional Science Review 26, 175-188.

*Brueckner, J. K./Saavedra, L. A.* (2001), Do Local Governments Engage in Strategic Property Tax Competition?, in: National Tax Journal 54, 203-229.

*Buchanan, J. M.* (1975), The Limits of Liberty, University of Chicago Press, Chicago.

*Bucovetsky, S.* (1991), Asymmetric Tax Competition, in: Journal of Urban Economics 30, 167-181.

*Büttner, T.* (1999), Determinants of Tax Rates in Local Capital Income Taxation: A Theoretical Model and Evidence from Germany, in: Finanzarchiv N.F. 56, 363-388.

*Büttner, T.* (2001), Local Business Taxation and Competition for Capital: The Choice of the Tax Rate, in: Regional Science and Urban Economics 31, 215-245.

*Büttner, T.* (2003), Tax Base Effects and Fiscal Externalities of Local Capital Taxation: Evidence from a Panel of German Jurisdictions, in: Journal of Urban Economics 54, 110-128.

*Case, A. C.* (1993), Interstate Tax Competition after TRA86, in: Journal of Policy Analysis and Management 12, 136-148.

*Casella, A./Frey, B. S.* (1992), Federalism and Clubs: Towards an Economic Theory of Overlapping Political Jurisdictions, in: European Economic Review 36, 639-646.

*Dafflon, B.* (2003), Analyse socio-économique de trente-deux fusions de communes dans le canton de Fribourg, Unpublished Manuscript, University of Fribourg i. Ue.

*DePater, J. A./Myers, G. M.* (1994), Strategic Capital Tax Competition: A Pecuniary Externality and a Corrective Device, in: Journal of Urban Economics 36, 66-78.

*Eggert, W./Kolmar, M.* (2001), The Rich Country's Curse, Unpublished Manuscript, University of Constance.

*Engelhardt, G./Brockmann, G./Rosenfeld, M./Thiede, W.* (1986), Finanzwirtschaftliche Folgen kommunaler Gebiets- und Verwaltungsreformen – Problembereiche und Hypothesen im Überblick, Die kommunale Gebietsreform Vol. III, Nomos, Baden-Baden.

*Feld, L. P.* (1997), Exit, Voice and Income Taxes: The Loyalty of Voters, in: European Journal of Political Economy 13, 455-478.

*Feld, L. P.* (1999), Allocative and Distributive Effects of Tax Competition: An Empirical Analysis for Switzerland, in: Aussenwirtschaft 54, 503-528.

*Feld, L. P.* (2000), Steuerwettbewerb und seine Auswirkungen auf Allokation und Distribution: Ein Überblick und eine empirische Analyse für die Schweiz, Mohr Siebeck, Tübingen.

*Feld, L. P.* (2000a), Tax Competition and Income Redistribution: An Empirical Analysis for Switzerland, in: Public Choice 105, 125-164.

*Feld, L. P.* (2003), Fiscal Federalism and Political Decision Structures, in: R. Blindenbacher/A. Koller (ed.), Federalism in a Changing World – Learning from Each Other: Scientific Background, Proceedings and Plenaries of the International Conference on Federalism 2002, McGill-Queens University Press, Montreal et al., 461-470.

*Feld, L. P.* (2005), On Tax Competition: The (Un-)Expected Advantages of Decentralized Fiscal Autonomy, forthcoming in: Friedrich A. von Hayek Institut (ed.), Austrian Economics Today II: Reforms for a Competitive Economy, FAZ Buch, Frankfurt.

*Feld, L. P./Frey, B. S.* (2000), Die Auswirkungen des kantonalen Steuerwettbewerbs auf den Kanton Zürich: Möglichkeiten einer rationalen Reform, Consulting Report to the Cantonal Tax Administration of the Canton of Zurich, December 2000.

*Feld, L. P./Kirchgässner, G.* (1997), Die Kapitalisierung von Steuern und öffentlichen Leistungen in den Mietzinsen: Eine empirische Überprüfung der Tiebout-Hypothese für die Schweiz, in: H. Schmid/T. Slembeck (eds.), Finanz- und Wirtschaftspolitik in Theorie und Praxis, Haupt, Bern et al., 64-92.

*Feld, L. P./Kirchgässner, G.* (2001), Income Tax Competition at the State and Local Level in Switzerland, in: Regional Science and Urban Economics 31, 181-213.

*Feld, L. P./Kirchgässner, G.* (2003), The Impact of Corporate and Personal Income Taxes on the Location of Firms and on Employment: Some Panel Evidence for the Swiss Cantons, in: Journal of Public Economics 87, 129-155.

*Feld, L. P./Reulier, E.* (2001), Strategic Tax Competition in Switzerland: Evidence from a Panel of the Swiss Cantons, Unpublished Manuscript, University of St. Gallen.

*Feld, L. P./Schaltegger, C. A.* (2002), Wähler, Interessengruppen und Finanzausgleich: Die Politische Ökonomie vertikaler Finanztransfers, in: Konjunkturpolitik 48, 93-122.

*Feld, L. P./Fischer, J./Kirchgässner, G.* (2003), The Effect of Direct Democracy on Income Redistribution: Evidence for Switzerland, Unpublished Manuscript, Philipps-University Marburg.

*Feld, L. P./Josselin, J.-M./Rocaboy, Y.* (2003), Tax Mimicking Among Regional Jurisdictions, in: A. Marciano/J.-M. Josselin (eds.), From Economic to Legal Competition: New Perspectives on Law and Institutions in Europe, Edward Elgar, Cheltenham, 105-119.

*Feld, L. P./Kirchgässner, G./Schaltegger, Ch. A.* (2003), Decentralized Taxation and the Size of Government: Evidence from Swiss State and Local Governments, CESifo Working Paper No. 1087.

*Feld, L. P./Kirchgässner, G./Schaltegger, Ch. A.* (2004), Fiscal Federalism and Economic Performance: Evidence from Swiss Cantons, Unpublished Manuscript, Philipps-University of Marburg.

*Feld, L. P./Zimmermann, H./Döring, Th. (*2003), Föderalismus, Dezentralität und Wirtschaftswachstum, in: Vierteljahreshefte zur Wirtschaftsforschung 72, 361-377.

*Figlio, D. N./Kolpin, V. W./Reid, W. E.* (1999), Do States Play Welfare Games?, in: Journal of Urban Economics 46, 437-454.

*Fredriksson, P. G./Millimet, D. L.* (2002), Strategic Interaction and the Determination of Environmental Policy across U.S. States', in: Journal of Urban Economics 51, 101-122.

*Frey, B. S./Eichenberger, R.* (1999), A New Democratic Federalism for Europe. Functional, Overlapping and Competing Jurisdictions, Edward Elgar, Cheltenham.

*Frey, B. S./Stutzer, A.* (2000), Happiness, Economy and Institutions, in: Economic Journal 110, 818-838.

*Frey, B. S./Stutzer, A.* (2002), Happiness and Economics, Princeton University Press, Princeton/Oxford.

*Frey, R. L.* (1981), Bestimmungsfaktoren der inter- und intraregionalen Wanderungen, Eine ökonometrische Untersuchung für die Schweiz und die Region Basel, in: R. L. Frey (ed.), Von der Land- zur Stadtflucht, Bestimmungsfaktoren der Bevölkerungswanderungen in der Region Basel, Lang, Bern/Frankfurt, 13-52.

*Fuest, C.* (1995), Eine Fiskalverfassung für die Europäische Union, Untersuchungen zur Wirtschaftspolitik 100, Institut für Wirtschaftspolitik an der Universität zu Köln, Köln.

*Greene, K. V.* (1975), Fiscal Federalism, Spillovers, and the Export of Taxes: A Comment, in: Kyklos 28, 412-418.

Greene, K. V./Neenan, W. B./Scott, C. D. (1977), Fiscal Interactions in a Metropolitan Area, Lexington Books, Toronto.

*Hayashi, M./Boadway, R.* (2000), An Empirical Analysis of Intergovernmental Tax Interaction: The Case of Business Income Taxes in Canada, in: Canadian Journal of Economics 34, 481-503.

*Heyndels, B./Vuchelen, J.* (1998), Tax Mimicking among Belgian Municipalities, in: National Tax Journal 51, 89-101.

*Hilber, Ch.* (1998), Auswirkungen staatlicher Massnahmen auf die Bodenpreise: Eine theoretische und empirische Analyse der Kapitalisierung, Rüegger, Chur and Zürich.

*Hines, J. R.* (1996), Altered States: Taxes and the Location of Foreign Direct Investment in America, in: American Economic Review 86, 1076-1094.

*Hochman, O./Pines, D./Thisse, J.–F.* (1995), On the Optimal Structure of Local Governments, in: American Economic Review 85, 1224-1240.

*Hoxby, C. M.* (2000), Does Competition among Public Schools Benefit Students and Taxpayers?, in: American Economic Review 90, 1209-1238.

*Huber, B./Runkel, M.* (2004), Tax Competition, Excludable Public Goods and User Charges, Unpublished Manuscript, LMU München.

*Huizinga, H./Nielsen, S. B.* (1997), Capital Income and Profit Taxation with Foreign Ownership of Firms, in: Journal of International Economics 42, 149-165.

*Inman, R. P./Rubinfeld, D. L.* (1997), The Political Economy of Federalism, in: D. C. Mueller (ed.), Perspectives on Public Choice: A Handbook, Cambridge University Press, Cambridge, 73-105.

*Keen, M./Marchand, M.* (1997), Fiscal Competition and the Pattern of Public Spending, in: Journal of Public Economics 66, S. 33-53.

*Kerber, W.* (1998), Zum Problem einer Wettbewerbsordnung für den Systemwettbewerb, in: Jahrbuch für Neue Politische Ökonomie 17, 199-230.

*Kind, H. J./Knarvik, K. H. M./Schjelderup, G.* (2000), Competing for Capital in a Lumpy World, in: Journal of Public Economics 78, 253-274.

*Kirchgässner, G.* (2002), Föderalismus und Staatsquote, in: U. Wagschal/ H. Rentsch (eds.), Der Preis des Föderalismus, Orell Füssli, Zürich, 71-91.

*Kirchgässner, G./Feld, L. P.* (2004), Föderalismus und Staatsquote, in: Jahrbuch für Föderalismus 5, 67-87.

*Kirchgässner. G./Pommerehne, W. W.* (1996), Tax Harmonization and Tax Competition in the European Union: Lessons from Switzerland, in: Journal of Public Economics 60, 351-371.

*Krelove, R.* (1992), Efficient Tax Exporting, in: Canadian Journal of Economics 25, 145-155.

*Ladd, H. F.* (1992), Mimicking of Local Tax Burdens among Neighboring Counties, in: Public Finance Quarterly 20, 450-467.

*Leprince, M./Madiès, T./Paty, S.* (2003), Interactions fiscales horizontales et verticales: Un test sur données départementales, Unpublished Manuscript, University of Lille.

*Liebig, T./Sousa-Poza, A.* (2004), The Influence of the Tax Burden on Migration: Evidence from Switzerland, Unpublished Manuscript, University of St. Gallen.

*Ludema, R. D./Wooton, I.* (2000), Economic Geography and the Fiscal Effects of Economic Integration, in: Journal of International Economics 52, 331-357.

*Mansoorian, A./Myers, G. M.* (1993), Attachment to Home and Efficient Purchases of Population in a Fiscal Externality Economy, in: Journal of Public Economics 52, 117-132.

*Marceau, N./Mongrain, S.* (2004), Almost Efficient Tax Competition, Unpublished Manuscript, Université du Québec, Montréal.

*McLure, Ch. E.* (1967), The Interstate Exporting of State and Local Taxes: Estimates for 1962, in: National Tax Journal 20, 49-77.

*Moffitt, R.* (1992), Incentive Effects of the U.S. Welfare System: A Review, in: Journal of Economic Literature 30, 1-61.

*Mühlemann, E. R.* (1972), Der Lastenausgleich im Kanton Zürich, Dissertation, Universität Zürich, Zürich.

*Murdoch, J. C./Sandler, T./Sargent, K.* (1997), A Tale of Two Collectives: Sulphur and Nitrogen Oxides Emission Reduction in Europe, in: Economica 64, 281-301.

*Myers, G. M.* (1990), Optimality, Free Mobility, and the Regional Authority in a Federation, in: Journal of Public Economics 43, 107-121.

*Myers, G. M./Papageorgiou, Y. Y.* (1997), Efficient Nash Equilibria in a Federal Economy with Migration Costs, in: Regional Science and Urban Economics 27, 345-371.

*Neenan, W. B.* (1970), Suburban-Central City Exploitation Thesis: One City's Tale, in: National Tax Journal 23, 117-139.

*Neenan, W. B.* (1981), Local Public Economics, Markham, New York.

*Newman, R. J./Sullivan, D. H.* (1988), Econometric Analysis of Business Tax Impacts on Industrial Location: What Do We Know, and How Do We Know It?, in: Journal of Urban Economics 23, 215-234.

*Noiset, L.* (2003), Is It Tax Competition or Tax Exporting, in: Journal of Urban Economics 54, 639-647.

*Oates, W. E.* (1972), Fiscal Federalism, Harcourt/Brace/Jovanovich, New York.

*Olson, M.* (1969), The Principle of 'Fiscal Equivalence': The Division of Responsibilities among Different Levels of Government, in: American Economic Review 59 (2), 479-487.

*Parry, I. W. H.* (2003), How Large Are the Welfare Costs of Tax Competition?, in: Journal or Urban Economics 54, 39-60.

*Pauly, M. V.* (1973), Income Redistribution as a Local Public Good, in: Journal of Public Economics 2, 35-58.

*Pommerehne, W. W./Krebs, S.* (1991), Fiscal Interaction of Central Cities and Suburbs: The Case of Zurich, in: Urban Studies 28, 783-801.

*Pommerehne, W. W./Feld, L. P./Hart, A.* (1994), Voluntary Provision of a Public Good: Results from a Real World Experiment, in: Kyklos 47, 505-518.

*Pommerehne, W. W./Kirchgässner, G./Feld, L. P.* (1996), Tax Harmonization and Tax Competition at State-Local Levels: Lessons from Switzerland, in: G. Pola/R. Levaggi/G. France (eds.), Developments in Local Government Finance: Theory and Policy, Edward Elgar, Cheltenham, 292-330.

*Rentsch, H./Flückiger, S./Held, T./Heiniger, Y./Straubhaar, T.* (2004), Ökonomik der Reform. Wege zu mehr Wachstum in der Schweiz, Orell Füssli, Zürich.

*Reulier, E.* (2004), Choix fiscaux et interactions stratégique, Ph.D. Thesis, Université de Rennes 1, France.

*Rodden, J.* (2003), Reviving Leviathan: Fiscal Federalism and the Growth of Government, in: International Organization 57, 695-729.

*Saavedra, L. A.* (2000), A Model of Welfare Competition with Evidence from AFDC, in: Journal of Urban Economics 47, 248-279.

*Salmon, P.* (2003), Assigning Powers in the European Union in the Light of Yardstick Competition among Governments, in: Jahrbuch für Neue Politische Ökonomie 22, 197-216.

*Sandler, T. M./Shelton, R. B.* (1972), Fiscal Federalism, Spillovers and the Export of Taxes, in: Kyklos 25, 736-753.

*Schaltegger, Ch. A.* (2001), The Effects of Federalism and Democracy on the Size of Government: Evidence from Swiss Sub-national Jurisdictions, in: ifo Studien 47, 145-162.

*Schaltegger, Ch. A.* (2003), Zum Problem räumlicher Nutzen-Spillover zentralörtlicher Leistungen: Einige empirische Ergebnisse aus dem Schweizer Föderalismus, in: Jahrbücher für Nationalökonomie und Statistik 223, 159-175.

*Schmidheiny, K.* (2003), Income Segregation and Local Progressive Taxation: Empirical Evidence from Switzerland, HWWA Discussion Paper No. 248, Hamburg.

*Schweizer, U.* (1985), Fiscal Federalism, Spillovers and Residential Choice, in: Papers of the Regional Science Association 56, 59-69.

*Schweizer, U.* (1986), Suburbanisierung als Folge fiskalischer Inäquivalenz, in: Schweizerische Zeitschrift für Volkswirtschaft und Statistik 122, 1-15.

*Shadbegian, R. J.* (1999), Fiscal Federalism, Collusion, and Government Size: Evidence from the States, in: Public Finance Review 27, 262-281.

*Sinn, H.-W.* (2003), The New Systems Competition, Blackwell, Oxford.

*Solé-Ollé, A.* (2003), Electoral Accountability and Tax Mimicking: The Effects of Electoral Margins, Coalition Government and Ideology, in: European Journal of Political Economy 19, 685-713.

*Sørensen, P. B.* (2000), The Case for International Tax Coordination Reconsidered, in: Economic Policy 31, 431-472.

*Sørensen, P. B.* (2004), International Tax Coordination: Regionalism versus Globalism, in: Journal of Public Economics 88, 1187-1214.

*Stigler, G. J.* (1957), The Tenable Range of Functions of Local Government, in: U.S. Congress, Joint Economic Committee (ed.), Federal Expenditure Policy for Economic Growth and Stability, Washington, D.C., 213-219.

*Stöwhase, S.* (2004), Asymmetric Capital Tax Competition with Profit Shifting, Unpublished Manuscript, LMU München.

*Tiebout, Ch. M.* (1956), A Pure Theory of Local Expenditures, in: Journal of Political Economy 64, 416-424.

Troeger Commission (1966), Gutachten über die Finanzreform in der Bundesrepublik Deutschland, Stuttgart.

*Wagener, F.* (1969), Neubau der Verwaltung, 2. Aufl., Berlin 1974.

*Wasylenko, M. J.* (1991), Empirical Evidence on Interregional Business Location Decisions and the Role of Fiscal Incentives in Economic Development, in: H. W. Herzog, Jr./A. M. Schlottmann (eds.), Industry Location and Public Policy, University of Tennessee Press, Knoxville, 13-30.

*Wellisch, D.* (2000), Theory of Public Finance in a Federal State, Cambridge University Press, Cambridge.

*Wiegard, W.* (1980), Distortionary Taxation in a Federal Economy, in: Zeitschrift für Nationalökonomie/Journal of Economics 40, 183-206.

*Wildasin, D. E.* (1989), Interjurisdictional Capital Mobility: Fiscal Externality and a Corrective Subsidy, in: Journal of Urban Economics 25, 193-212.

*Wildasin, D.* (2004), Competitive Fiscal Structures, Unpublished Manuscript University of Kentucky, Lexington.

*Wilson, J. D.* (1986), A Theory of Interregional Tax Competition, in: Journal of Urban Economics 19, 296-315.

*Wilson, J. D.* (2005), Welfare Improving Competition for Mobile Capital, in: Journal of Urban Economics 57, 1-18.

*Winner, H.* (2004), Has Tax Competition Emerged in OECD Countries? Evidence from Panel Data, forthcoming in: International Tax and Public Finance.

*Zimmermann, H.* (1999), Kommunalfinanzen: Eine Einführung in die finanzwissenschaftliche Analyse der kommunalen Finanzwirtschaft, Nomos, Baden-Baden.

*Zodrow, G. R./Mieszkowski, P.* (1986), Pigou, Tiebout, Property Taxation, and the Underprovision of Local Public Goods, in: Journal of Urban Economics 19, 356-370.

# Discussion of the contribution "Fiscal Equivalence and the Increasing Dispersion/Divergence of Public Goods Claims – Do We Need a New Interpretation?"

*Lorenz Blume*, Department of Economic Policy, University of Kassel

The paper is a brilliant piece of work, a profound survey of the relevant literature with clear cut policy implications, which I would sum up as follows:

– Nation states should implement competitive federalism. The economic advantages of competitive federalism (reducing state failure and fostering policy innovations) outperform possible disadvantages (spatial inequalities or race to the bottom) as the empirical evidence from Switzerland and the US shows. Fiscal autonomy in taxes and spendings of local jurisdictions is therefore overall welfare enhancing.

– There is no sign of a lack of centralisation in the provision of local public goods in countries with strong competitive federalisms like Switzerland and the US. Therefore states should abstain from federal grants to the local level and elements like inhabitant weighting in horizontal fiscal equalisation systems with the object of helping local jurisdictions to internalise spatial externalities in the provision of local public goods.

The paper has the character of a meta-survey and a lot of aspects are dealt with: Spatial externalities and economies of scale in the provision of local public goods, allocative and distributional aspects of competitive federalism and even the effects of decentralisation on national growth. And this variety of topics addressed directly leads me to my first comment, which is definitly no major point, but nevertheless: I sometimes find it hard to follow the main line of argumentation.

The paper starts with a discussion of Olson's principle of fiscal equivalence and the title of the paper even asks, if we do need a new interpretation of this basic principle of public finance. The paper then "turns" to the object of competitive federalism and an in-depth discussion of its various allocative and distributional aspects. Due to this organisation of the paper the reader gets the impression that the author intends to show (as the main topic of the paper) that the paradigm of competitive federalism is a challenge to the principle of fiscal equivalence. But from my point of view there is no inherent contradiction between the principle of fiscal equivalence and competitive federalism (and neither do I think that this is the main line of argumentation in the paper). It could well be that spatial externalities are properly internalised and interjurisdictional competition is at work, e.g. on the level of well defined functional urban regions but not on the level below, i.e. between core and periphery. This, by the way, is also the conclusion of the last two sentences of the paper: “Speaking of a new interpretation is perhaps misleading. What is needed are new creative, flexible policies”. Why not pose this “what instruments do we need”-question more explicitly and prominently in the introduction instead of the “do we need a new interpretation”-question? This at least would have helped me to more clearly identify the central topic of the paper, which is of course highly relevant from an economic policies point of view: What instruments do we need to internalize regional externalities?

– Do we need jurisdictional mergers?
– Do we need federal grants and fiscal equalization systems designed to internalize fiscal externalities?
– Do we need FOCJ?
– Do we need intervention from the federal authorities at all or is a solution via negotiations between local jurisdictions more efficient?

The paper argues that neither fiscal equalisation systems nor mergers are promising instruments to internalise regional externalities. This leads me to my second comment. I frankly find the argument that fiscal and regional externalities can easily compensate for each other not a strong one. That spatial externalities neutralise each other and that therefore no active internalisation of externalities is needed is at best a random result. From my point of view there is evidence that most of the regional externalities are benefits for the suburbs and losses for the core. There is of course some leeway for negotiations between suburbs and the core agglomeration on transfer payments to the core. Intraregional cooperation has characteristics of a win-win situation at least in the long-run, because the suburbs will also loose if “their” core agglomeration economically declines. But in the short-run the suburban politicians face a prisoners’ dilemma from the new economic policy perspective. If they agree to a horizontal fiscal equalisation system between core and periphery that internalises some of the regional externalities by transfer payments from the suburbs to the core they may reduce their chance to get reelected. There are a lot of examples in German city regions where this kind of “Kirchturmpolitik” (short-run self-interested policies) hinders horizontal negotiations among neighbouring jurisdictions on the proper internalisation of spatial externalities.

I do not believe that this should not be the case in Switzerland. The empirical evidence provided in the paper for the absence of any lack of centralisation in Switzerland (i.e. not properly realised economies of scale in the provision of local public goods) does not fully convince me. The central study cited with regard to this topic uses the fragmentation of a canton as proxy for the realisation of economies of scale in the provision of public goods. The argument is that if a canton is more fragmented then public spending must be higher in the canton according to the undercentralisation hypothesis. The study proves that this is not the case and concludes that the undercentralisation hypothesis must be falsified. From my point of view cantonal fragmentation is not a good proxy for economies of scale. Buchanan originally proposed this variable as a proxy for intraregional competition and expected it to lower (!) public spending. If we now find no relation between cantonal fragmentation and public spending this may be because both forces are at work, higher interjurisdictional competition decreases the spending and the undercentralisation of public goods increases it. A benchmark analysis we conducted at the University of Kassel shows that there is indeed a problem of realising economies of scale in the provision of regional public goods if jurisdictional borders separate an economically integrated city region at least in Germany. If we compare the aggregated spending of the city regions Hildesheim, Main-Kinzig, Paderborn, Reutlingen and Siegen-Wittgenstein with the city region of Kassel we find that the spendings in Kassel for exactly the same public services are on average 11-26 % higher than in the other regions.

**Table: Benchmark analysis, administrative spendings in Euro per inhabitant of central city and Landkreis (sum of city of Kassel and Kreis Kassel = 100)**

| Public Service | Kassel | Hildes-heim | Main-Kinzig | Pader-born | Reut-lingen | Siegen | *Median* |
|---|---|---|---|---|---|---|---|
| General Administration | 100 | 97 | 80 | 87 | 90 | 84 | *87* |
| Administration of Schools | 100 | 98 | 73 | 87 | 68 | 90 | *87* |
| Volkshochschule | 100 | 100 | 116 | 86 | 61 | 111 | *74** |
| Social Administration | 100 | 91 | 90 | 89 | 87 | 88 | *89* |
| Health Administration | 100 | 87 | 81 | 85 | k.A. | 80 | *83* |

* The mean is calculated only for the jurisdictions Paderborn und Reutlingen with only one collectively provided Volkshochschule ("Peoples' Academy"). In Hildesheim, Main-Kinzig and Siegen there are two separeted academies like in the city region of Kassel.

Quelle: Der Gemeindehaushalt 9/2003.

And the main and obvious reason for this is that the city region of Kassel is separated in two jurisdictions "Kassel Land" and "Kassel Stadt" while the other city regions are single jurisdictions. These results at least indicate that jurisdictional mergers (like actually announced in the German Bundesland Schleswig-Holstein for the year 2008) might help to better realise economies of scale in the provision of local public goods.

Apart from these two comments I fully agree with the arguments purported in the paper especially with regard to the economic advantages of decentralisation. I really enjoyed reading it and as I said in the beginning it is a brilliant contribution to the conference.

# Demographic Change and Federal Systems

*Christian Leuprecht* and Nicolette O'Conner**

## Introduction

This investigation examines the relationship between demographic change and federal systems. It makes a case for demographic change as a salient spatial aspect of federative systems. The argument is premised on two propositions. The first proposition holds that federal systems face a similar bifurcation of demographic trends at the level of substates: the population of a substate may be ageing either more or less rapidly, may be more hetero- or more homogeneous, and more urban or rural. The second proposition holds that these demographic trends converge: younger populations also tend to be more heterogeneous and more urban whereas older populations tend to be more homogeneous and more rural. What is the impact of this emerging dialectic between units that are either younger, more diverse, and more urban, or aging more rapidly while remaining homogeneous and more rural on decentralization and operational asymmetry?

The impact of this dialectic is a function of the nature and structural constraints of the federal system in question.[1] At the same time, however, these cohorts tend to exhibit different policy preferences. Ostensibly, older populations are concerned about health care and pensions. Younger populations, by contrast, are concerned about education and job prospects, that is, their future

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* Department of Political Science and Economics, Royal Military College of Canada and Institute of Intergovernmental Relations, School of Policy Studies, and Department of Political Studies, Queen's University, leuprecht-c@rmc.ca, leuprech@post.queensu.ca.

* Department of Political Science and Economics, Royal Military College of Canada and Institute of Intergovernmental Relations, School of Policy Studies, and Department of Political Studies, Queen's University, leuprecht-c@rmc.ca, leuprech@post.queensu.ca.

1 *Mancur Olson*, The Principle of Fiscal Equivalence: The Division of Responsibilities among different levels of government, American Economic Review 59 (1969): 479-487; *Wallace E. Oates*, Fiscal Federalism, New York: Harcourt, Brace, Jovanovich, 1972. See also *Charles M. Tiebout*, A Pure Theory of Local Expenditures, The Journal of Political Economy 64 (1956): 416-424.

and prosperity is a function of innovation and competitiveness. If these priorities translate into electoral preferences, one would expect substates with populations that are aging more rapidly, that are more homogeneous, and more rural to champion redistributive policy priorities while substates with populations that are aging less rapidly, are more heterogeneous, and more rural might be expected to champion policies aimed at innovation and improving competitiveness. Moreover, as the proportion of older people rises among the national population, not only will the policy priorities of substates diverge along demographic lines, but so will the policy priorities between the federal government and the substates with younger, heterogeneous, urban populations. It follows that, as a result of differentiating demographic trends, levels of government are decoupling horizontally as well as vertically, that is, between the federal and the sub-state levels as well as among sub-state governments.

Territorial and institutional imperatives of the state are in the process of being "rescaled"[2] upward and downward, from the national to the city-regional and supranational levels (and outwards towards private or semi-private agencies).[3] This system is characterized by

> continuous negotiation among nested governments at several territorial tiers – supranational, national, regional, and local – as a result of the broad process of institutional creation and decisional reallocation that has pulled some previously centralized functions of the state up to the supranational level and some down to the local/regional level.[4]

This development has increased policy responsibilities at substate and transnational levels of government, the proliferation of city-regional and supranational institutions, and a number of bilateral and multilateral initiatives originating with these levels of government without being mediated by the na-

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2 *Neil Brenner*, State territorial restructuring and the production of spatial scale: urban and regional planning in the FRG, 1960-1990, Political Geography 16(4): 273-306.

3 *Gary Marks*, An Actor-Centred Approach to Multi-Level Governance, Regional and Federal Studies 6(2): 20-38; *Roger Keil*, Globalization makes states: perspectives of local governance in the age of the world city, Review of International Political Economy 5(4): 616-646; *Patrick Le Galès/Alan Harding*, Cities and States in Europe, West European Politics 21(3): 120-145; *Gary Marks/Lisbet Hooghe*, Unraveling the Central State. But How? Types of Multi-level Governance, American Political Science Review 97:2 (June 2003), pp. 233-243.

4 *Gary Marks*, Structural Policy and Multilevel Governance in the EC, in: Alan Cafruny/Glenda Rosenthal (eds.), The State of the European Community, New York: Lynne Rienner, 1993, pp. 391-410.

tional government.[5] As a result, the formation of political interests is becoming increasingly regionalized and globalized.[6] In federal states and those subjected to decentralization[7], where the political left-right spectrum is grounded in the socio-economic and religious conflicts of the nineteenth and twentieth centuries,[8] competition between parties has been on the wane.[9] Instead, party-political conflicts and consciousness are re-orienting along territorial and institutional cleavages.[10] As the salience of traditional cleavages wanes as a determinant of party systems, they are displaced by institutional conflicts -- especially conflicts between the different levels of government and among sub-state units -- which emerge as increasingly important determinants in the for-

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5 *Susan E. Clarke/Gary L. Gaile*, The Work of Cities, Minneapolis: University of Minnesota Press, 1998.

6 *Philip G. Cerny*, Globalization and the Changing Logic of Collective Action, International Organization 49(4) Autumn 1995: 595-625; *Juan J. Linz/Alfred C. Stepan*, Problems of Democratic Transition and Consolidation: southern Europe, South America, and post-communist Europe, Baltimore: Johns Hopkins University Press, 1996; *Gary Marks/Jane Salk/Leonard Ray/François Nielsen*. Conflict, Cracks and Conflicts: Regional Mobilization in the European Union. Comparative Political Studies 29 (1996), 2:164-92; *William, Wallace*. Regional Integration: The West European Experience. Washington: The Brookings Institution, 1994; *George Ross*, The European Community and Social Policy: Regional Blocs and a Humane Social Order, Studies in Political Economy 40 (1993):41-72; *James A. Caporaso*, The European Union: Dilemmas of Regional Integration, Boulder, CO: Westview Press, 2000; *Gary Marks/Ivan Llamazares*, Multi-level Governance in Southern Europe: European Integration and Regional Mobilization, in: P. Nikiforos Diamandouros/Richard Gunther/Gianfranco Pasquino (eds.), The Changing Functions of the State in the New Southern Europe, Baltimore: Johns Hopkins University Press (forthcoming); *Gary Marks*, Territorial Identities in the European Union, in: Jeffrey J. Anderson (ed.), Regional Integration and Democracy: Expanding on the European Experience, Boulder, CO.: Rowman & Littlefield, 1999, pp. 69-91.

7 For an elucidation of the term's meaning see *Jonathan Rodden*, Comparative Federalism and Decentralization: On Meaning and Measurement, Comparative Politics 36.4 (2004): 481-500.

8 *Seymour Martin Lipset/Stein Rokkan* (eds.), Cleavage structures, party systems, and voter alignments: an introduction, in: Party systems and voter alignments. Cross-national perspectives, New York: Free Press, 1967; *Arend Lijphart*, Democracy in plural societies: A comparative exploration, New Haven, CT: Yale University Press, pp. 59-80.

9 *Richard S. Katz/Peter Mair* (eds.), How parties organize: change and adaptation in party organizations in Western democracies, Thousand Oaks, CA: 1994; *Peter Mair/W. Müller/F. Plasser* (eds.), Parteien auf komplexen Wählermärkten. Reaktionsstrategien politischer Parteien in Westeuropa, Wien: ZAP, 1999.

10 *Michael Keating*, The new regionalism in Western Europe: Territorial restructuring and political change, Northampton, MA: Edward Elgar, 1998.

mation of party systems.[11] As the logic of negotiation that underpins the competition among political parties shifts from national to regional and institutional cleavages,[12] bipolar party systems are supplanted by more complex structures.[13]

Underlying this shift is a change in the political market where parties offer products that are consumed by voters. Political parties are generally thought to represent certain constituencies in society. Strategic support by constituencies thus plays a key role in the competition for political power.[14] It has long been argued that subnational governments are better able to allocate resources according to the preferences of their voters than national governments.[15] A shift from socio-economic to territorial constituencies thus unshackles parties from the clientelism of national social milieus and allows them instead to flog their political goods to prospective voters on socio-economically unencumbered political markets.[16] As a result, fault-lines surface that had hitherto been marginalized, notably ethno-cultural and centre-periphery cleavages, are coming to the fore.[17]

As the following observation by Manuel Castells illustrates, one commonly invoked explanation of this horizontal and vertical decoupling of levels of government is globalization:

> The global economy emerging from information-based production and competition is characterized by its *interdependence*, its *asymmetry*, its *regionalization*, its *increasing diversification within each*

11 *Klaus Detterbeck/Wolfgang Renzsch*, Regionalisierung der politischen Willensbildung: Parteien und Parteiensysteme in föderalen oder regionalisierten Staaten, in: Europäisches Zentrum für Föderalismusforschung Tübingen (ed.), Jahrbuch des Föderalismus 2004: Föderalismus, Subsidiarität und Regionen in Europa, Baden-Baden: Nomos Verlag, 88-106.

12 *Gerhard Lehmbruch*. Parteienwettbewerb im Bundesstaat. Regelsysteme und Spannungslagen im Institutionengefüge der Bundesrepublik Deutschland, 3rd ed., Wiesbaden: Opladen, 2000.

13 *Ladrech, Robert*, Social Democratic Parties and EC Integration. European Journal of Political Research 24 (1993).

14 *Franz Urban Pappi*, Zur Theorie des Parteienwettbewerbs, in: Markus Klein et al. (eds.), 50 Jahre empirische Wahlforschung in Deutschland, Wiesbaden: Opladen, 2000, pp. 85-105.

15 *Wallace Oates*, Fiscal Federalism, New York: Harcourt Brace Jovanovich, 1972.

16 *Anthony Downs*, An economic theory of democracy, New York: Harper, 1957.

17 *John Coakley* (ed.), The Territorial Management of Ethnic Conflict, Portland, OR: Frank Cass Publishers, 2003.

> *region*, its *selective inclusiveness*, its *exclusionary segmentation*, and, as a result of all these features, an extraordinarily *variable geometry* that tends to dissolve historical economic geography.[18]

Growing regional integration is thus a pivotal dynamic in the shift from the traditional national-national interface to the regional-international.[19]

This investigation posits demographic change as a complementary explanation for the territorial coincidence of ethno-cultural and economics dynamics and the concomitant horizontal and vertical decoupling of levels of government. From a neo-institutionalist perspective, a political system's institutional structure constrains political actors by establishing decision-making procedures (in the creation of which the actors themselves have had a hand), determines the distribution of the resources or power, and influences the actors' thought processes. Political institutions thus define a "structure of political opportunity"[20] upon which political action is contingent.[21] It follows that demographic shifts, if they are indeed truncating federal governance, should manifest themselves politically in the form of a shift in political strategy from national interests and common bonds to sub-state interests and regional priorities. The investigation subjects this hypothesis to empirical scrutiny by comparing Canada and Germany.

If measured as a function of the proportion of public expenditure by each level of government, the claim that Canada should be located on the more decentralized end of the federal spectrum is uncontroversial.[22] The claim that Germany is more centralized a federation than Canada – to the point where it has been called a "unitary federal state"[23] -- is equally uncontroversial. Most federal systems are "dual", "jurisdictional", or "legislative" in the sense that

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18 *Manuel Castells*, The Rise of the Network Society, Cambridge, MA: Blackwell Publishers, 1996, p. 106, emphasis in original.

19 *John Newhouse*, Europe's Rising Regionalism, Foreign Affairs 76(1) and Europe Adrift, New York: Pantheon, 1997; *William, Wallace*, Regional Integration: The West European Experience, Washington: The Brookings Institution, 1994.

20 *Joseph A. Schlesinger*, On the theory of party organization, Journal of Politics 46 (1985): 369-400.

21 *R. K. Carty*, Three Canadian Party Systems: An Interpretation of the Development of National Politics, in: George Perlin (ed.), Party Democracy in Canada, Scarborough: Prentice-Hall, 1988, p. 29.

22 *Jacques Timbre Melitz/Frédéric Zumer*, Redistribution régionale et stabilisation par le gouvernement central: Nouvelles estimations pour le Canada, la France, le Royaume-Uni et le Etats-Unis, Economie Internationale 75 (1998): 3 -32.

23 *Konrad Hesse*, Der unitarische Bundesstaat, Karlsruhe: Verlag C. Müller, 1962.

the division of powers is according to areas of policy. The German system, by contrast, is “functional” or “administrative” in the sense that the legislative jurisdiction is vested with the federal and Länder governments but the implementation is the responsibility of the Länder only.[24] Federalism, then, is a process – not merely a division of power between levels of government – for distributing and redistributing authority.

Canada is a multination and quintessentially intergovernmental federation – that is, a system of governance marked by arrangements between the federal and sub-federal governments – while Germany is more classic, traditional federation in the Madisonian sense whose governance has traditionally been more intragovernmental – an arrangement whereby the interests of the sub-federal units are institutionalized at the federal level and differences are thus worked out within the federal institutions rather than between them. Canadian federalism, for instance, is marked by the absence of an “institutional machinery for affecting the authoritative resolution of conflict between [the levels of government] … and an effective forum for open regional advocacy and brokerage within our institutions at the federal level of government.”[25]

The demographic variables are the same everywhere: Fertility and mortality – which produce natural increase -- and migration – the intervening variable. What has changed is the demographic composition to which they give rise. Declining fertility, greater longevity, and migration – inter- as well as intra-national – are having a marked impact on demographic composition. Lower fertility compounded by greater longevity has raised the specter of rapidly aging populations. From 1950 to 2000, the median age in Western Europe rose from 34.5 years to 39. For 2050, that figure is projected at 48.5. That is, the population in Western Europe will age twice as rapidly over the next 50 years as it has over the last 50 years. In 1950, only about 10 percent of Western Europe’s population was over 65. Today that figure is over 16 percent and is projected to rise to 29 percent by 2050. That development, in turn, is projected to cause the dependency ratio to increase by half, from about 50 today to 75.5 by 2050. Over the past 50 years, by contrast, Western Europe’s dependency ratio has remained fairly constant because the onset of fertility decline precedes the onset of greater longevity. Now consider that not only is an increasingly proportion of population growth in industrialized de-

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24 *Wolfgang Renzsch*, Föderalismus, in: Peter Massing (ed.), Das Demokratiemodell der Bundesrepublik Deutschland, Schwalbach: Wochenschau Verlag, 1996, pp. 37-54; *William M. Chandler*, Federalism and Political Parties, in: Harman Bakvis/William M. Chandler (eds.), Federalism and the Role of the State, Toronto: University of Toronto Press, pp. 149-170.

25 *Donald Smiley*, The federal condition in Canada, Toronto: McGraw-Hill, 1987, 85.

mocracies due to immigration but also that, by virtue of having larger families, immigrants make an increasingly important contribution to fertility in liberal democracies.

When today's mature liberal-democratic federations were founded, their populations were younger, more homogeneous, and more rural than they are today. Their institutions of governance, however, notably the way federal arrangements are institutionalized, have not changed a great deal. What are the political implications of these demographic developments, in particular their impact on governance, on *democratic* governance, and, most importantly, for *liberal-democratic* governance? What challenges might these developments pose for a system of governance where sovereignty is vested with the people, a system that prides itself on self-actualization and values freedom, and liberal democracy's subsidiary values, equality and justice? How have liberal-democratic federations been coping with the demographic imperatives of our time and, given that the demographic changes they have witnessed over recent decades are only the tip of the proverbial iceberg, how well prepared are they to cope with the impending demographic changes? Notwithstanding the similar nature of the shift in demographic foundations in unitary and federal countries alike, demographic differentiation at the substate level has a different impact on governance in federations because there sovereignty is divided between two distinct and constitutionally entrenched levels of government. Provided that regional interest is partially a function of demographic structure, the political interests represented by substate governments will differ.

This investigation is confined to examining the relationship between demographic change and federal systems. This relationship need not necessarily be framed in the context of liberal democracy for not even half the world's federal countries qualify as mature liberal democracies. Still, mature liberal-democratic federations differ from developing countries on at least one salient point: Liberal democracies are also welfare states. Since the welfare state and the federal state have been shown to have a reciprocal influence on one another,[26] the relationship between demographic change and federal systems taken up in this paper is really a triangular relationship which has the welfare state is its third element. If different models of federalism have distinctive implications for the welfare state and if, as Paul Pierson goes on to argue, dif-

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26 *Duane Swank*, Global Capital, Political Institutions, and Policy Change in Developed Welfare States, Cambridge: Cambridge University Press, 2002, chapter 2 and Political Institutions and Welfare State Restructuring: The Impact of Institutions on Social Policy Change in Developed Countries, in: Paul Pierson (ed.), The New Politics of the Welfare State, Oxford: Oxford University Press, 2001, pp. 197-237; *Jonathan Rodden*, The Dilemma of Fiscal Federalism: Grants and Fiscal Performance around the World, American Journal of Political Science 46.3 (July 2002): 670-687.

ferent models can co-exist within the same federation, then it follows that demographic change, if it can be shown to affect federal systems, is also likely to have an effect on the welfare state and the prospects for its reformation.[27]

## Demographic change and Canadian federalism

The investigation's premise is that demographic change is precipitating system-internal differentiation in federations. In other words, demographic change is causing territorial cleavages to fester.

Figure 1 shows the change in the demographic distribution across Canadian territory over the years. It shows a clear territorial cleavage for population growth between East and West. Quebec, Ontario, Alberta and British Columbia have experienced significant growth in their populations from 1981 to 2001. On the other hand, the populations of Manitoba and Saskatchewan have increased only slightly and those of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick negligibly.

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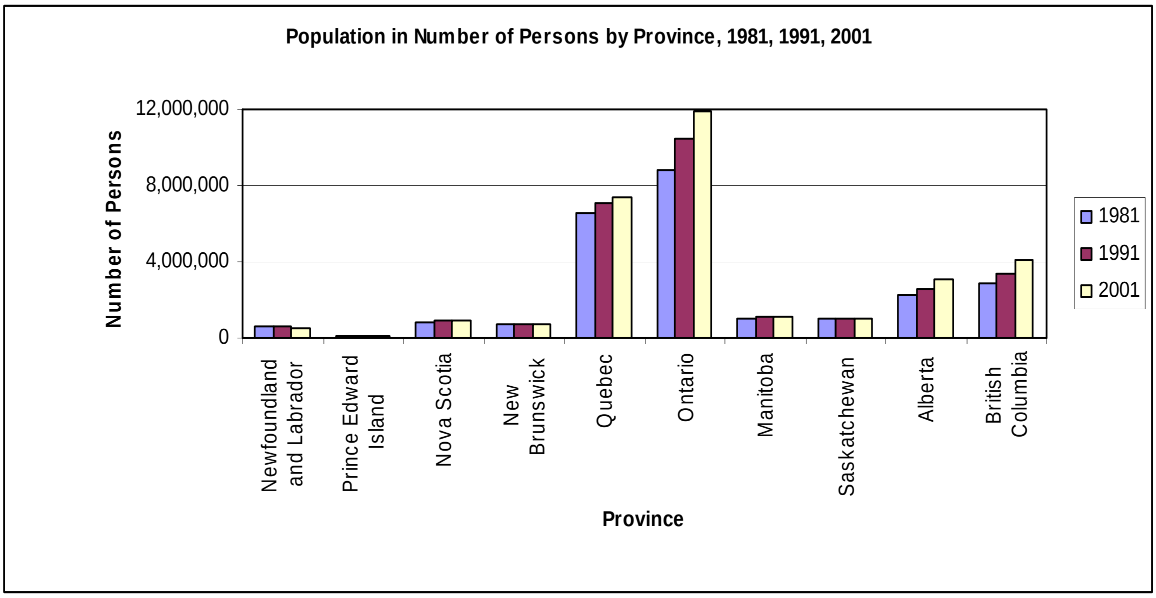
27 *Paul Pierson*, Fragmented Welfare States: Federal Institutions and the Development of Social Policy, Governance 8(4) October 1995: 449-78; *Keith Banting*, Canada: Nation-Building in a Federal Welfare State, in: Herbert Obinger/Stephan Leibfried/Frank Castles (eds.), Federalism and Social Policy: New World and European Experiences, Cambridge: Cambridge University Press, 2005.

**Figure 1**




Statistics Canada. CANSIM II. CANSIM Table No. 051-00011,2. Estimates of Population, by Age Group and Sex, Canada, Provinces and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005.

Table 1 shows just how remarkable an impact on median age such differential growth for provinces whose populations are growing more rapidly also tend to have younger populations. Alberta, for instance, has not just seen its population grow substantially compared to many other provinces, at 35 it also has the youngest age structure of any province. The Atlantic provinces and Quebec had populations older than the Canadian average. Only a decade ago, the median age of the four Atlantic provinces was lower than the Canadian median.

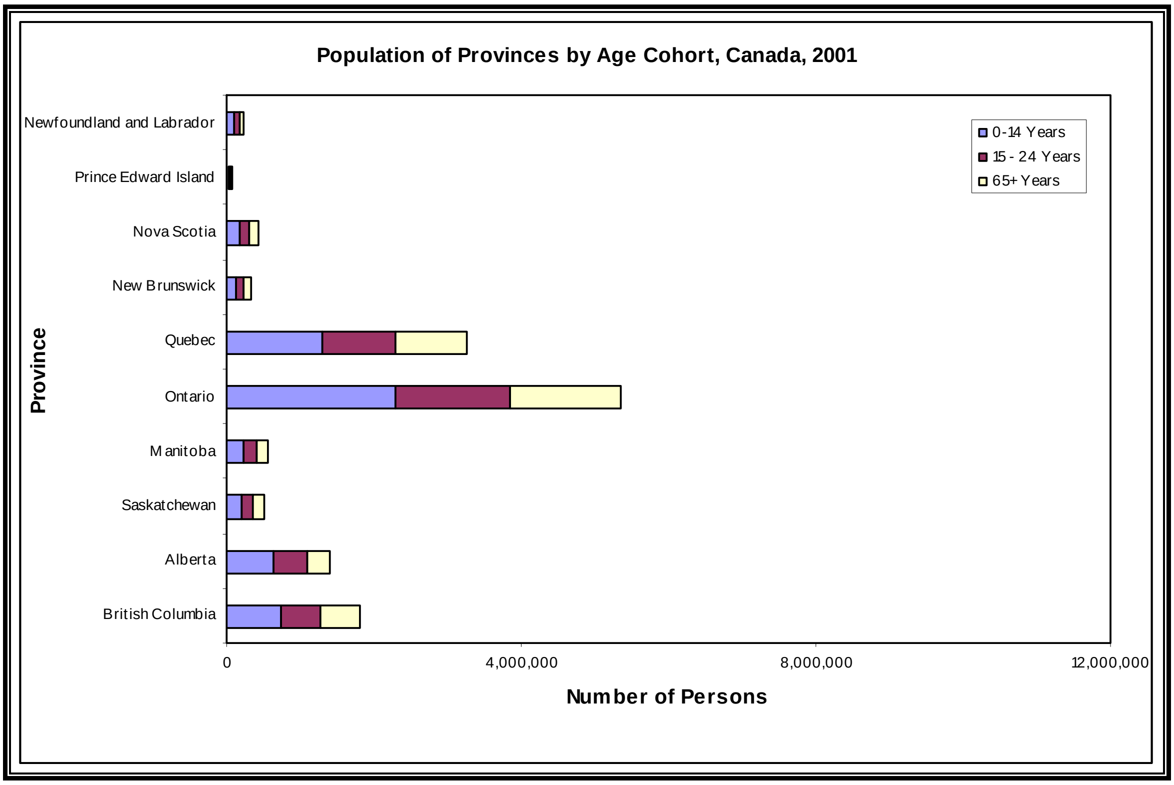
**Table 1**

| Median Age and Change in Median Age, Provinces and Territories, 1996 and 2001 | | | |
|---|---|---|---|
| | **1996** | **2001** | **Change** |
| Canada | 35.3 | 37.6 | 2.3 |
| Newfoundland and Labrador | 34.2 | 38.4 | 4.2 |
| Prince Edward Island | 34.7 | 37.7 | 3.0 |
| Nova Scotia | 35.8 | 38.8 | 3.0 |
| New Brunswick | 35.5 | 38.6 | 3.1 |
| Quebec | 36.2 | 38.8 | 2.6 |
| Ontario | 35.2 | 37.2 | 2.0 |
| Manitoba | 34.7 | 36.8 | 2.1 |
| Saskatchewan | 34.4 | 36.7 | 2.3 |
| Alberta | 33.4 | 35.0 | 1.6 |
| British Columbia | 35.9 | 38.4 | 2.5 |
| Yukon Territory | 32.7 | 36.1 | 3.4 |
| Northwest Territories | 28.1 | 30.1 | 2.0 |
| Nunavut | 21.4 | 22.1 | 0.7 |

Sources: Statistics Canada, "Age and Sex for Population, for Canada, Provinces, Territories, Census Metropolitan Areas and Census Agglomerations," 1996 Census and 2001Census, (Ottawa: Ministry of Industry). Available online: www.statcan.ca. Accessed February 2005.

Figure 2 disaggregates provincial populations by age cohorts. Ontario, Quebec, Alberta and British Columbia, by virtue of their larger populations, have a greater proportion of youth between the ages of 0 and 24 years than the remaining provinces.

**Figure 2**




Source: Statistics Canada. CANSIM II. CANSIM Table No. 051-00011,2. Estimates of Population, by Age Group and Sex, Canada, Provinces and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005.

Breaking down the populations further only reinforces the inter-provincial differentials in age structure. Table 2 demonstrates that almost half of Alberta's population is under 35. Lagging not far behind, Ontario, Manitoba, and Saskatchewan are also youthful in their demographic composition. Manitoba and Saskatchewan meanwhile have experienced a substantial growth in the proportions of their respective Aboriginal population which both rose from 13 to 19 percent from 1996 to 2001. Still, the percentages of older Canadians living in each of these Prairie provinces, as well as in the Atlantic provinces, are higher than in Alberta and Ontario.

**Table 2**

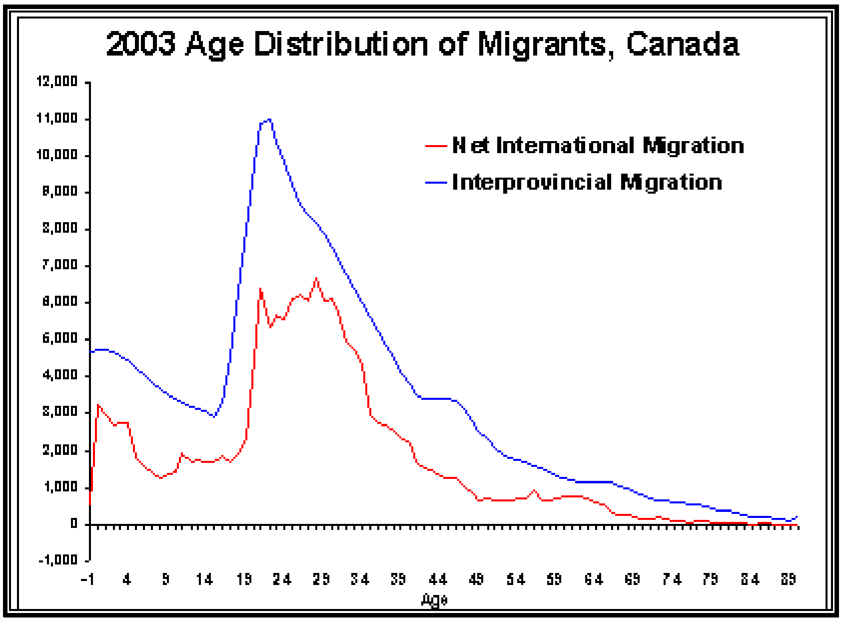
| Number of Persons in Each Age Cohort as a Percentage of Provincial Population, Canada, 2001 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Province | **0-14 Years** | 15 - 24 Years | 25 - 34 Years | **15-34 Years** | **0 – 34 Years** | 35 - 44 Years | 45 - 54 Years | **35 - 54 Years** | 55 - 64 Years | 65+ Years | **55 + Years** |
| British Columbia | **17.72** | 13.39 | 14.10 | **27.49** | **45.21** | 17.06 | 15.10 | **32.16** | 9.45 | 13.19 | **22.64** |
| Alberta | **20.50** | 14.96 | 14.99 | **29.95** | **50.45** | 17.45 | 13.95 | **31.39** | 8.00 | 10.16 | **18.16** |
| Saskatchewan | **20.96** | 15.01 | 12.20 | **27.21** | **48.17** | 15.26 | 13.22 | **28.48** | 8.54 | 14.80 | **23.34** |
| Manitoba | **20.72** | 13.89 | 13.64 | **27.53** | **48.25** | 15.69 | 13.66 | **29.35** | 8.85 | 13.55 | **22.40** |
| Ontario | **19.19** | 13.16 | 14.56 | **27.72** | **46.91** | 17.30 | 14.02 | **31.32** | 9.18 | 12.59 | **21.77** |
| Quebec | **17.64** | 13.30 | 13.21 | **26.51** | **44.15** | 17.25 | 15.15 | **32.40** | 10.40 | 13.05 | **23.45** |
| New Brunswick | **17.54** | 13.59 | 13.59 | **27.18** | **44.72** | 16.82 | 15.30 | **32.12** | 9.88 | 13.28 | **23.16** |
| Nova Scotia | **17.80** | 13.41 | 13.56 | **26.97** | **44.77** | 16.81 | 14.97 | **31.78** | 9.97 | 13.48 | **23.45** |
| Prince Edward Island | **19.52** | 14.13 | 12.39 | **26.52** | **46.04** | 15.77 | 14.80 | **30.57** | 9.76 | 13.63 | **23.39** |
| Newfoundland and Labrador | **16.93** | 14.49 | 13.95 | **28.44** | **45.37** | 16.72 | 15.96 | **32.68** | 10.02 | 11.92 | **21.94** |

Source: Statistics Canada. CANSIM II. CANSIM Table No. 051-00011,2. Estimates of Population, by Age Group and Sex, Canada, Provinces and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005.

The aggregates for Manitoba and Saskatchewan are a function of the disproportionate amount of young and old people in those provinces. The results for Prince Edward Island are a function of the rapidly growing proportion of the older population.

Immigration and interprovincial migration are intervening variables that mediate a population’s age structure by accelerating or decelerating the rate at which a population is aging. In 2003, net international migration accounted for more population movement in Canada than did interprovincial migration, as figure 3 demonstrates.

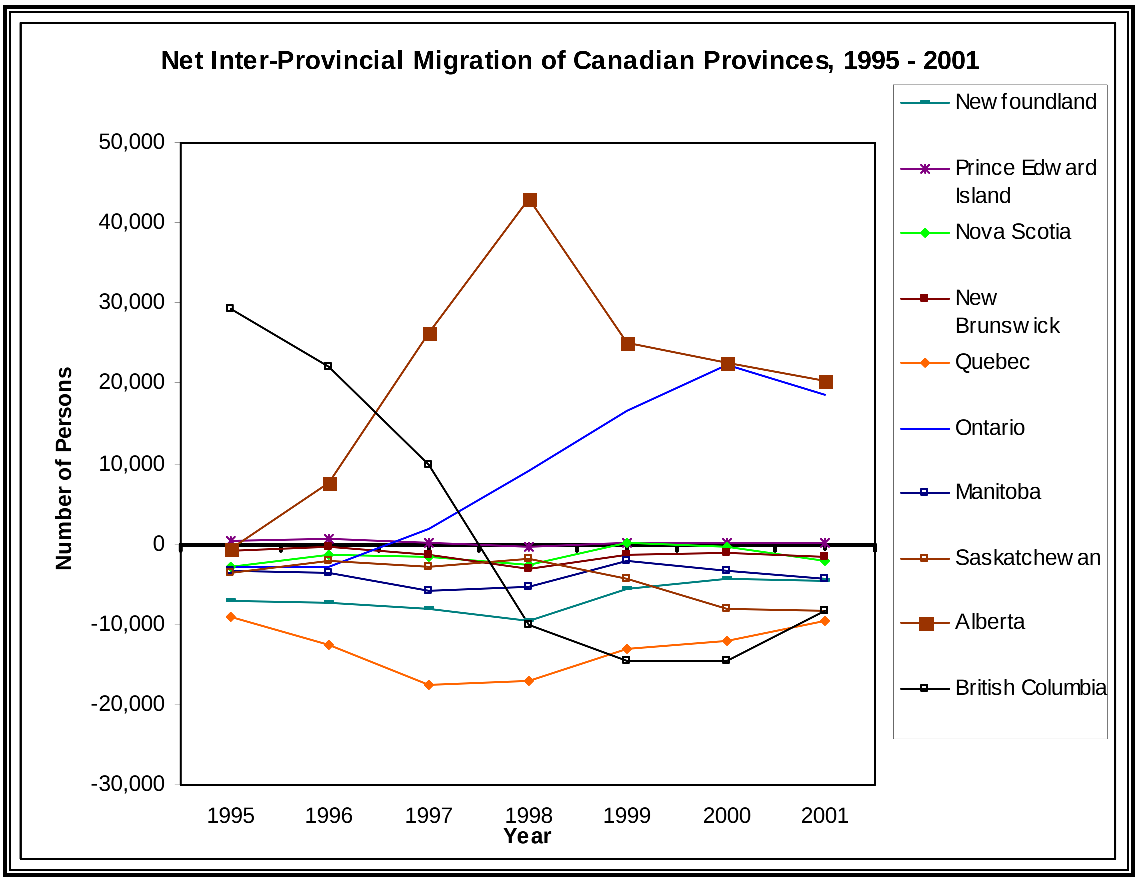
**Figure 3**




Source: Statistics Canada and Ontario Ministry of Finance.

A closer examination of net interprovincial migration trends from 1995 to 2001 shows influxes of positive net migration in Alberta and Ontario, reaching their respective maximums in 1998 and 2000. Yet, net migration has been in decline in Ontario and Alberta 2001. This graph also shows close, if not below, zero net interprovincial migration and among the Atlantic provinces since 2000. Quebec has been experiencing the lowest net migration among all the provinces. Net migration in British Columbia was in a slump from 1995 to 2000 but has been on the mend since 2001.

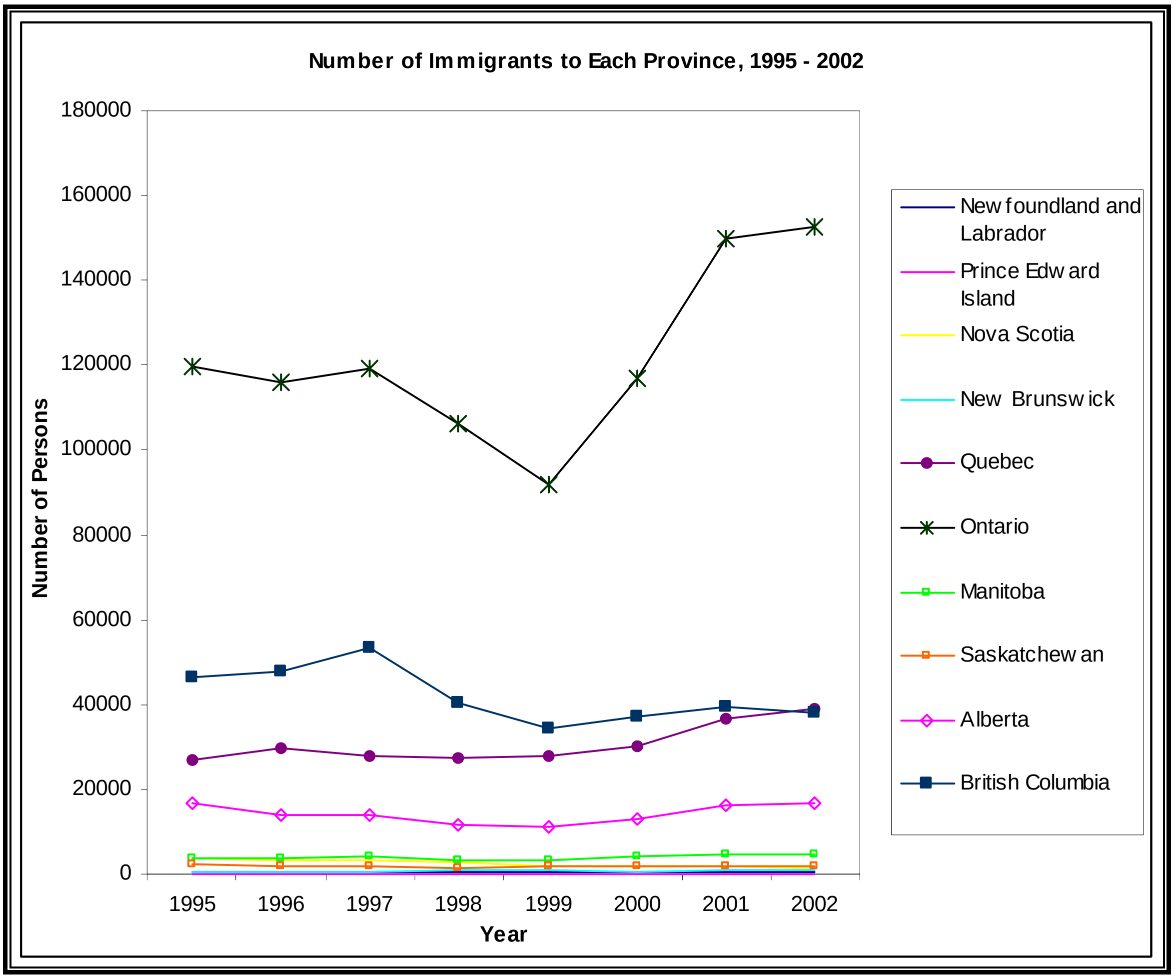
**Figure 4**




Note: "Interprovincial Migration is the movement from one province or territory to another involving a permanent change in residence. A person who takes up residence in another province or territory is an out-migrant with reference to the province or territory of origin, and an in-migrant with reference to the province or territory of destination. Net Interprovincial Migration is the difference between number of in-migrants and the number of out-migrants." Source: Statistics Canada. CANSIM II. CANSIM Table No. 051-00121,2,3. Interprovincial Migrants, by Age Group and Sex, Canada, Provinces and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005.

A similar trend emerges among the provinces when we consider immigration in Canada. There were high numbers of international migrants to Ontario, British Columbia, Quebec and Alberta from 1995 to 2002. Once again, in contrast to the trends in Ontario and Alberta, the Atlantic and Prairie provinces experienced significantly less international migration during the same time period.

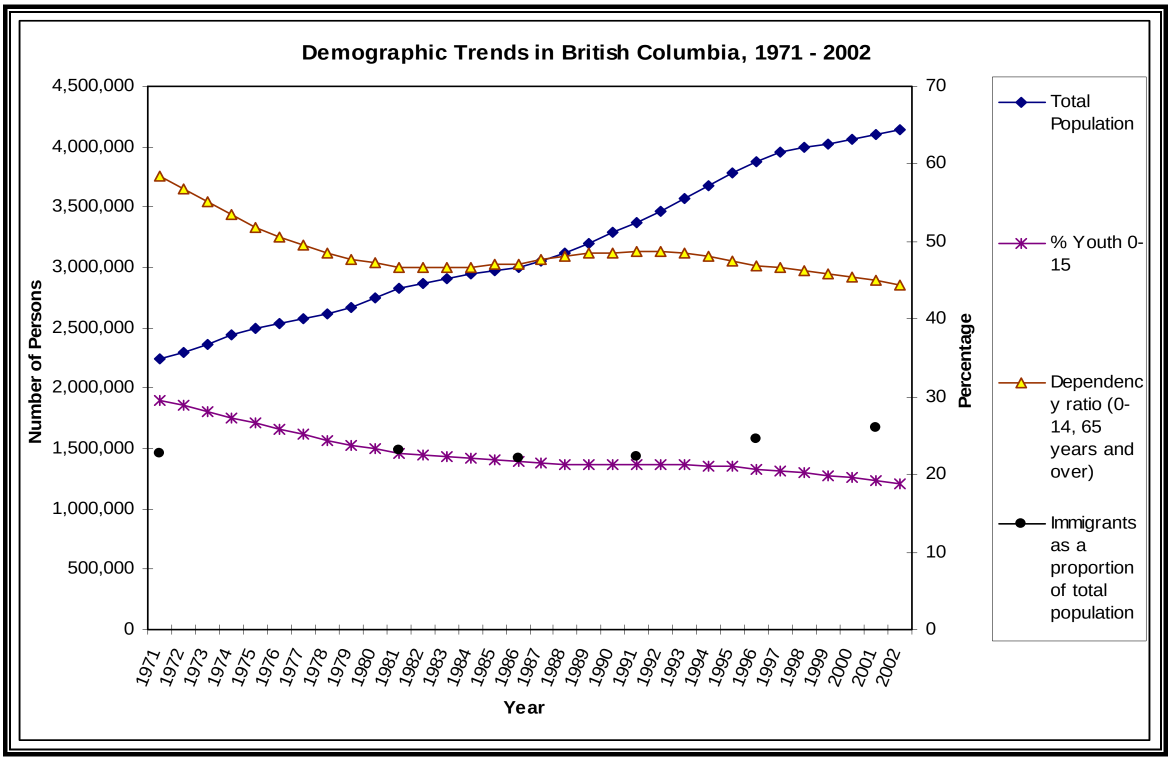
**Figure 5**




Source: Statistics Canada. CANSIM II. CANSIM Table No. 051-00111. International Migrants, by Age Group and Sex, Canada, Provinces, and Territories, Annual (Persons). E-Stat. Last updated 5 November 2005. Last accessed February 2005.

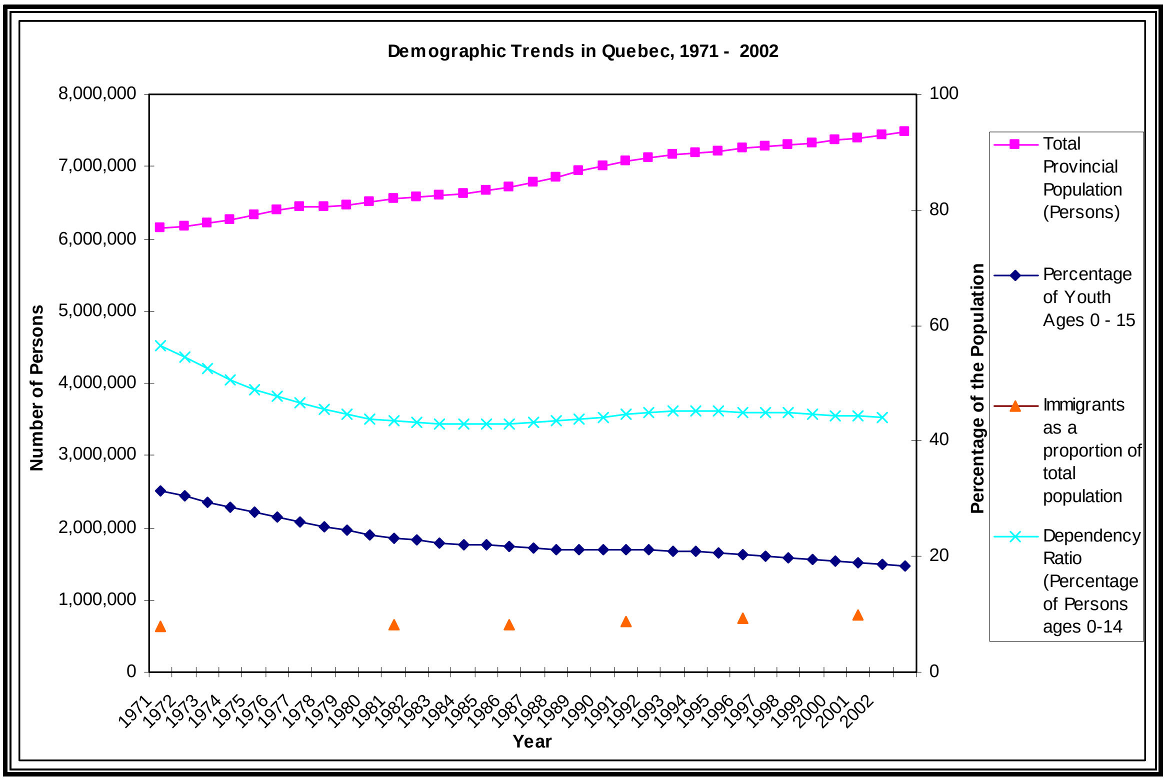
The influx of older migrants from elsewhere in the country has exacerbated population aging in British Columbia. The pace of aging, however, is mitigated by offshore immigration (see Figure 6: Demographic Trends in British Columbia, 1971 - 2002). That observation is consistent with a broader trend: In provinces whose population is growing, the increase tends to be distributed equitably among all age groups. As a result, the median age remains fairly constant. Conversely, in provinces whose population is growing at below-average rates, the lacklustre performance tends to hold for all age groups. Owing to low immigration compounded by a decline in the proportion of youth, the populations of Quebec and the Atlantic provinces are expected to age more rapidly than the rest of the Canadian population (see Figure 7: Demographic Trends in Quebec, 1971 - 2002).

**Figure 6**




Sources: Statistics Canada. CANSIM II. CANSIM Table No. 051-00011,2. Estimates of Population, by Age Group and Sex, Canada, Provinces and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005; Statistics Canada. CANSIM II. CANSIM Table No. 051-00111. International Migrants, by Age Group and Sex, Canada, Provinces, and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005.; Dependency Ratio: researcher's calculation.

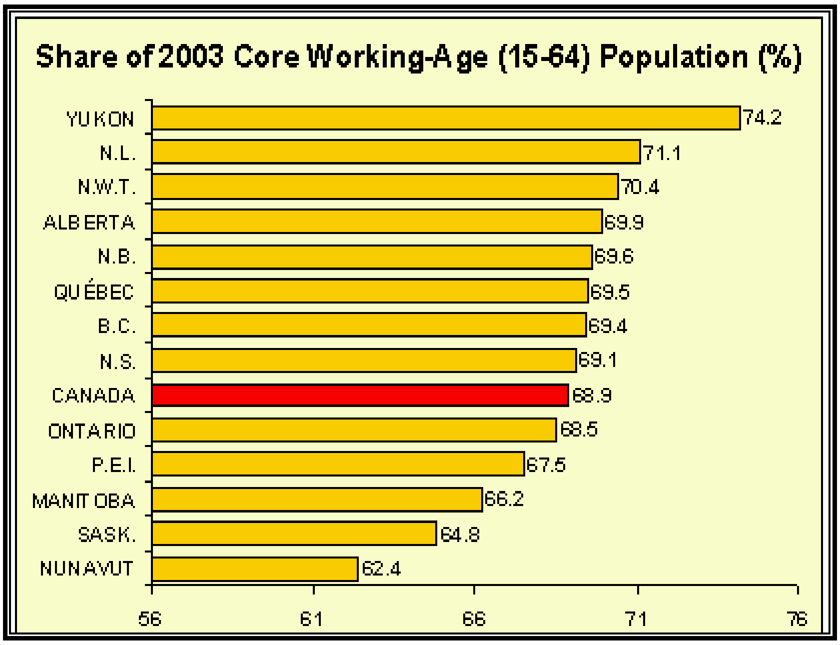
**Figure 7**




Sources: Statistics Canada. CANSIM II. CANSIM Table No. 051-00011,2. Estimates of Population, by Age Group and Sex, Canada, Provinces and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005; Statistics Canada. CANSIM II. CANSIM Table No. 051-00111. International Migrants, by Age Group and Sex, Canada, Provinces, and Territories, Annual (Persons). E-Stat. Last updated 5 November 2003. Last accessed February 2005.; Dependency Ratio: researcher's calculation.

Ontario's growing population is a function of inter-provincial and international migration. In 2002-2003, Ontario attracted 59 percent of net international migration to Canada. Twenty-three percent of interprovincial migrants headed to Alberta. The core working-age population (15-64) rose in all provinces, with Ontario (1.5 percent) and Alberta (1.7 percent) recording the fastest growth. Within this group, the number of people aged 18-24 in Ontario grew 2.4 percent in 2002-03 to 1.2 million. The resulting distribution in the share of the core working-age population thus favours settler provinces:

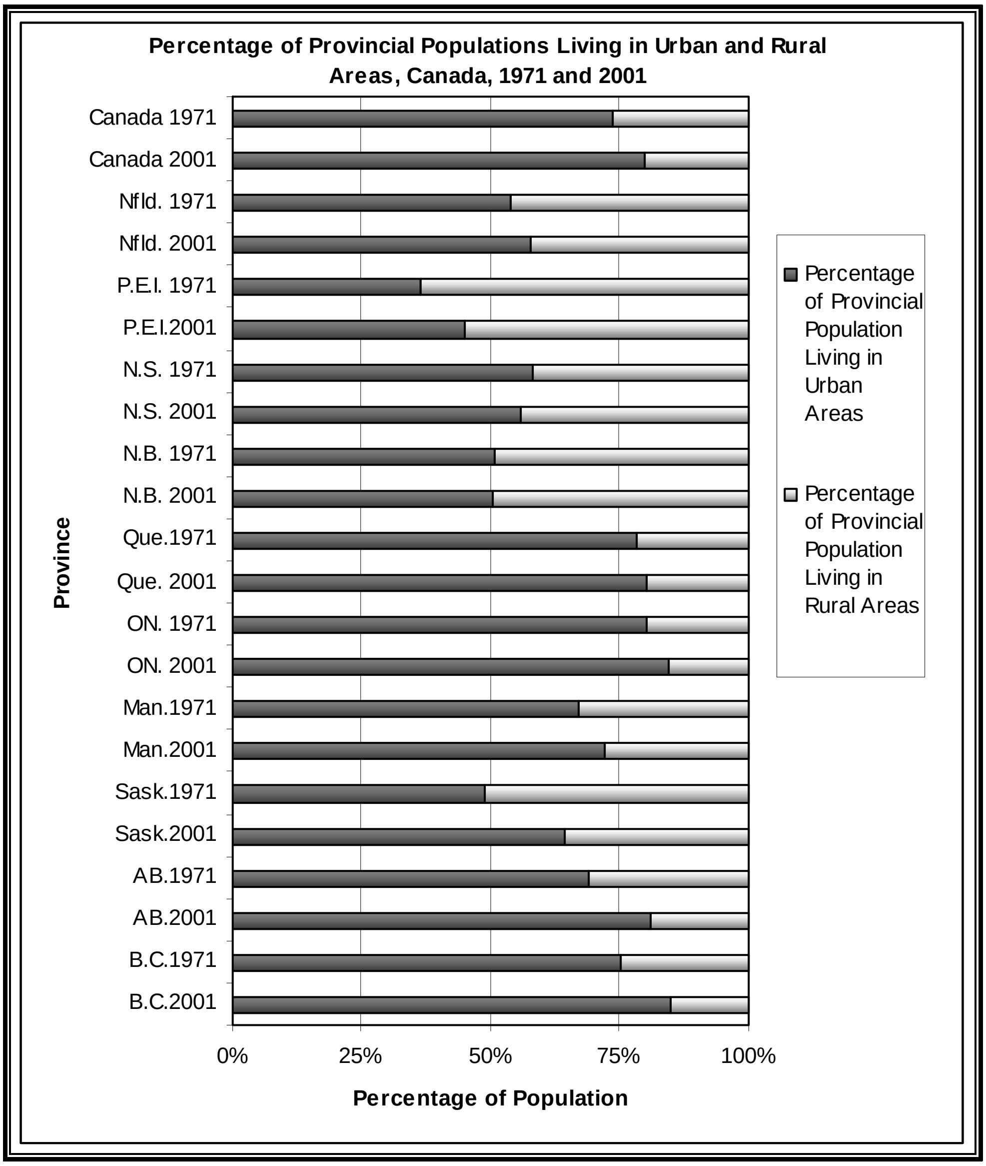
**Figure 8**




Source: Statistics Canada and Ontario Ministry of Finance.

As a result, Ontario's urban areas have burgeoned. Figure 9 disaggregates provincial populations by their urban and rural proportions. The percentage of provincial populations living in urban areas has increased across the board since 1971. While Prince Edward Island has maintained its rural character over the last three decades, New Brunswick has maintained an equal distribution of population between its urban and rural areas. In general, the proportion of rural proportions is higher in the Atlantic provinces. Whereas over a quarter of Manitobans still live in rural areas, Saskatchewan's population has become slightly more urban since 1971. Ontario and British Columbia are heavily urban; over 84 percent of their populations live in urban areas.

**Figure 9**




Sources: Statistics Canada. Census 1971. (Cat. No. 92-709) (Ottawa: Information Canada, 1973); Statistics Canada. "A National Overview." 2001 Census of Canada (Cat. No. 93-360-XPB) (Ottawa: Industry Canada, 2002).

The territorial differentiation to which demographic change is giving rise is compounded by socio-economic trends. The convergence of demographic and economic patterns is particularly noteworthy. As table 3 shows, in 2001 only two provinces had real GDP per capita exceeding the national average ($30669.88): Alberta ($42487.35) and Ontario ($32712.12).

**Table 3**

| **Real Gross Domestic Produce (GDP) Per Capita, Provinces, Canada, (1992 Dollars), 1981 and 2001** | | | |
|---|---|---|---|
| | 1981 Real GDP Per Capita (Dollars) | 2001 Real GDP Per Capita (Dollars) | Percentage Change (%) |
| B.C. | 26903.34 | 27658.65 | 2.81 |
| AB. | 38471.02 | 42487.34 | 10.44 |
| SASK. | 25684.46 | 28844.71 | 12.30 |
| MAN. | 21216.89 | 26386.39 | 24.37 |
| ON. | 24936.99 | 32712.12 | 31.18 |
| QUE. | 20700.71 | 27013.66 | 30.50 |
| N.B. | 14741.95 | 23797.12 | 61.42 |
| N.S. | 15503.06 | 23753.44 | 53.22 |
| P.E.I. | 13706.87 | 21837.05 | 59.31 |
| NFLD. | 14473.80 | 26593.43 | 83.74 |
| CANADA | 24351.21 | 30669.88 | 25.95 |

Sources: Researcher's calculations using Statistics Canada, Table 41: Provincial accounts GDP at market prices by province (millions of dollars), Canadian Economic Observer: Historical Statistical Supplement, Catalogue No. 11-210 (Ottawa, ON: Ministry of Industry, 2004), p. 1; Statistics Canada. CANSIM II. CANSIM Label P100000. CPI, 1996b Class, CDA, 1992=100, Monthly/All Items: Consumer Price Indexes for Canada, Monthly, 1996 Classification, (1992=100 unless otherwise specified). Annual. CHASS. Last updated 1 June 2002. Last accessed date 14 July 2004.

The Maritime provinces were the taillight; they have been largely shut out from immigration as well as inter-provincial migration. Yet, as table 3 shows, real GDP per capita in those provinces has risen significantly – over 50 percent in the Atlantic provinces - in comparison to those provinces where immigrants tend to settle: Ontario (31.18 percent), Alberta (10. 44 percent) and British Columbia (2.81 percent). Over the same period, however, Alberta's real GDP per capita continued to exceed the national average by 130 percent between 1981 and 2001. Alberta, of course, has the youngest age structure of any Canadian province and is on the receiving and relative to the size of its population, received the largest share of inter-provincial migration.

The relationship between demographic change and economic growth thus appears somewhat indeterminate. Yet, it also appears that without the requisite population base and immigration, it is possible for an economy to grow, but difficult to make real inroads in closing the gap to the national average. The Canadian experience seems to suggest, then, that demographic change may have at least a moderate impact on economic growth in sub-national territories over the long term.

Unemployment data tell a similar tale. The Atlantic provinces consistently register the highest unemployment in the country. With fewer economic opportunities, their youth are more likely to migrate elsewhere – and, with economic opportunity a prime push-pull factor for migrants, they would not be particularly inclined to settle in the East for they would not be maximizing one of their primary goals for migrating in the first place. Conversely, Alberta tends to have the lowest rates of unemployment. British Columbia's exceptionalism notwithstanding, rates of unemployment tend to be noticeably lower from Ontario westward.

**Table 4**

**Unemployment Rates, Provinces, Canada**

**1981, 1991, 2001**

| Year | Canada | NFLD. | P.E.I. | N.S. | N.B. | QUE. | ON. | MAN. | SASK. | AB. | B.C. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1981 | 7.6 | 13.3 | 11.3 | 9.9 | 11.6 | 10.5 | 6.5 | 5.9 | 4.5 | 3.9 | 6.8 |
| 1991 | 10.3 | 18 | 16.7 | 12.1 | 12.8 | 12.1 | 9.5 | 8.6 | 7.4 | 8.1 | 10.1 |
| 2001 | 7.2 | 16.1 | 11.9 | 9.7 | 11.2 | 8.7 | 6.3 | 5 | 5.8 | 4.6 | 7.7 |

Source: Statistics Canada, "Unemployment Rates - Provincial Labour Force Estimates," Labour Force Information, Catalogue No. 71-001. (Ottawa, ON: Ministry of Industry, 2003-2004) in Statistics Canada, Canadian Economic Observer: Historical Statistical Supplement, Catalogue No. 11-210 (Ottawa: Ministry of Industry, 2004), p. 115.

To some extent, at least, demographic change and economic growth in Canada's sub-national territories appear to converge. While growth per se does not appear to be linked directly to immigration, its absence appears to hamper economic growth as younger people leave the area in search of economic opportunity elsewhere and immigrants opt to settle in areas where their economic prospects are better and they have ethnic kin.

Canada's political economy of regionalism has had the effect of reinforcing territorial inequalities at the cost of class inequalities.[28] Complemented by

28 *Janine Brodie*, The Political Economy of Canadian Regionalism, Toronto: Harcourt Brace Janovich, 1990.

migration, the political economy of regionalism has also caused political culture to parse along regional lines. Owing to a "two-way mutual interaction" between institutional structures and party democracy in federal or regionalized states, the structures of political opportunity are reflected in and motivate the action of political parties.[29] In the Canadian system this is manifest in (1) the importance of brokerage politics among the parties who have governed the country at the federal level – notably the Liberal Party of Canada and, to a lesser extent, the Progressive Conservatives – (2) the rise of regionally-based parties, such as the CCF/NDP, Social Credit, the Bloc Québécois, and Reform/Alliance, and (3) the de-coupling of political frames of reference in the form of bifurcated party systems at the federal and provincial levels.[30]

The third point is of particular interest for it is highlights the dialectical relationship between federalism and party systems.[31] One of the most remarkable aspects of Canadian politics over recent decades has been the growing alienation between federal and provincial parties and governments which has served to reify provincial identities. The Alberta Agenda, for instance, floated in 2001 by Stephen Harper, Tom Flanagan, Ted Morton, Rainer Knopff, Andrew Crooks, and Ken Boessenkool – colloquially known as the "firewall memo" – aimed at minimizing federal influence over Alberta by having the province opt out of everything from the RCMP (and instead create its own provincial force as in the case of Ontario and Quebec) to the Canada Pension Plan (and create an Alberta Pension Plan modeled on the Quebec Pension Plan.) Alberta, of course, has the youngest age structure of any provincial population in Canada. Yet, Alberta's forays for greater decentralization seem to be executive driven. That is, they do not emanate from the electorate. Instead, the interests of provincial governments – such as spiraling healthcare costs with insufficient federal cost-sharing -- appear to be their catalyst.

Contrast the Alberta example where demography appears to be driving the interests of the provincial government which then lobbies the federal government to decentralize programs with the Employment Insurance example

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29 *Ronald L. Watts*. The interaction of political parties and federal institutions, in: Rudolf Hrbek (ed.), Political parties and federalism: An international comparison, Baden-Baden, 1999.

30 *Richard Johnston*, Federal and Provincial Voting: Contemporary Patterns and Historical Evolution, in: David Elkins/Richard Simeon (eds.), Small Worlds: Provinces and parties in Canadian political life, Toronto, Methuen, 1980; *Hugh Thorburn/Alan Whitehorn*, Party Politics in Canada, 8th ed., Scarborough: PearsonEd, 2001.

31 See *Chandler, op. cit.* and *Herman Bakvis*, Political Parties, Party Government and Interstate Federalism in Canada, in: Campbell Sharman (ed.), Parties and Federalism in Australia and Canada, Canberra: Federalism Research Centre, Australian National University, 1994, pp.1-22.

where demography proved to be a salient determinant of electoral attitudes which subsequently prompted the federal government to rescind an implicitly decentralizing policy. Deep cuts to the program in 1995 resulted in considerable electoral casualties for the Liberal Party of Canada throughout the Maritimes in 1997. Yet, the thrust originated not with provincial governments which, due to the cuts, had to shoulder a greater social-assistance burden, but with the electorate. Benefits were promptly restored to the point where the program is considerably more generous in Atlantic Canada and Quebec than in the rest of the country.[32]

The populations of Ontario, British Columbia, Alberta, and to a lesser extent Quebec represent an ever-growing proportion of the country's population. Alberta and, to a lesser extent, British Columbia, have long been disaffected by the dynamics of Canada's federal system. The same holds true for a Quebec that, by virtue of the prevailing demographic trends, rightly sees its society as increasingly distinct. On the one hand, their political track-record in the federation complemented by their growing demographic alienation from the rest of the country, save Ontario, does not bode well for federal relations. On the other hand, the territorial, decentralized, and intergovernmental nature of Canada's federal system appears to lend itself well to the asymmetric challenges raised by increased internal differentiation ensuing from demographic change.

## Demographic change and German federalism

The demographic dynamics in the German federation are similar to Canada's. Owing to the systems' different structure, however, they play themselves out differently. After Russia, Germany is Europe's most populous country, consisting of sixteen subnational units, or Länder. The eleven Länder of old Germany tend to be larger than the five new Länder in the East.[33] Demographic trends reveal distinct cleavages between the western and eastern Länder: The

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32 *Gerard W. Boychuk/Keith G. Banting*, Converging and Diverging Paradoxes: National and Sub-National Variation in Income Maintenance Programs in Canada and the United States, in: Richard G. Harris (ed.), North American Linkages: Opportunities and Challenges for Canada, Calgary: University of Calgary Press, 2004.

33 The city-states of Hamburg and Bremen and the small western Länder of Saarland and Schleswig-Holstein have smaller populations than any of the five new Länder. This is not only due to reasons that will be explored below but also due to the size of these Länder in comparison to some of the larger eastern Länder. For instance, Sachsen, the largest and most populous of the eastern Länder, is larger than Rheinland-Pfalz.

populations of the western Länder tend to be more youthful, more heterogenous, and more urban then the populations of the new Länder. And, as table 5 shows, while the proportion of the population residing in the western Länder is on the rise, the population living in the eastern Länder has declined since reunification.

**Table 5**

| Population of Western an d Eastern Lands in Persons and as a Percentage of Total German Population 1990 and 2002 | | | | |
|---|---|---|---|---|
| | Total Number of Persons, 1990 | Population as a Percentage of Total Population (%) | Total Number of Persons, 2002 | Population as a Percentage of Total Population (%) |
| Western Total | 65001400 | 81.51 | 68204200 | 83.23 |
| Eastern Total | 14751900 | 18.48 | 13742900 | 16.78 |

Source: Federal Statistical Office and the Statistical Offices of the Länder (Germany), "Zu- und Fortzüge nach Nationalität (über die Kreisgrenzen) - Jahressumme - regionale Tiefe: Bundesländer Wanderungsstatistik. 1995 to 2001." Genesis Database, (Statistische Ämter des Bundes und der Länder (2005). Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last accessed: 14 January 2005.

Between 1990 and 2001, nine of the eleven western Länder saw their populations increase between 4.0 and 7.9 percent. Berlin, Bremen and the Saarland buck this trend. Their populations declined by -1.3, -3.2 and -0.6 percent, respectively. With the exception of a slight increase in Brandenburg's population (+ 0.6 percent) the populations of the eastern Länder declined during the same period. The attrition of over 10 percent of its population over the last decade challenges Sachsen-Anhalt's future status as a heavily populated eastern province.

**Table 6**

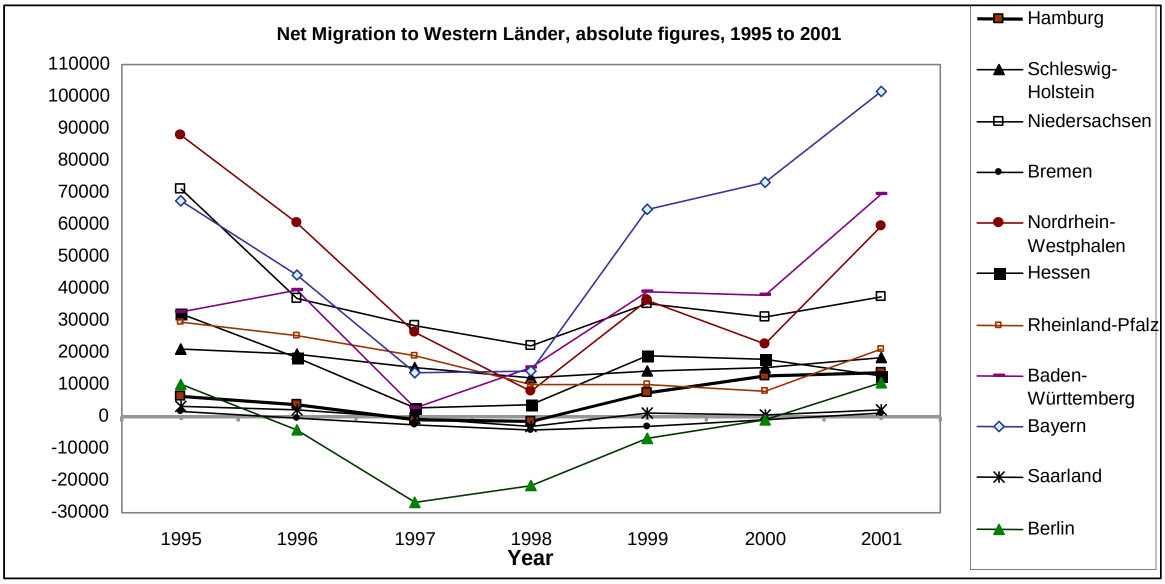
| Percentage Change (Growth/Decline) in the Population of each Länder from 1990 to 2001 (%) | |
|---|---|
| Western (Old) Länder | |
| Baden-Württemberg | + 7.9 |
| Bayern | +7.7 |
| Berlin | -1.3 |
| Bremen | -3.2 |
| Hamburg | +4.0 |
| Hessen | +5.5 |
| Niedersachsen | +7.7 |
| Nordrhein-Westfalen | +4.0 |
| Rheinland-Pfalz | +7.6 |
| Saarland | -0.6 |
| Schleswig-Holstein | +6.8 |
| Eastern (New) Länder | |
| Brandenburg | +0.6 |
| Mecklenburg-Vorpommern | -8.5 |
| Sachsen | -0.8 |
| Sachsen-Anhalt | -10.2 |
| Thüringen | -7.7 |

Sources: Researcher's calculation based on Federal Statistical Office and the Statistical Offices of the Länder (Germany), "Zu- und Fortzüge nach Nationalität (über die Kreisgrenzen) – Jahressumme – regionale Tiefe: Bundesländer Wanderungsstatistik. 1995 to 2001." Genesis Database, (Statistische Ämter des Bundes und der Länder (2005). Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last accessed 14 January 2005.

There are no significant differences in the age structure among the populations of the various Länder. The 0-14 cohort makes up 11 to 13 percent of the population of each Land. Still, the western Länder are more youthful. In 2001 and 2002, nearly 60 percent of the 0-14 cohort lived in Nordrhein-Westphalen (21.89 percent), Bayern (14.98 percent), Baden-Württenburg (12.8 percent), and Niedersachsen (9.66 percent). Only 5 percent of German youth lived in Sachsen, 3 percent in each of Brandenburg and Sachsen-Anhalt and at 2 percent in each of Mecklenburg-Vorpommern and Thüringen.

In part, the differential distribution of youth is a function of immigrants. As in Canada, international and domestic migrants tend to settle in urban areas. Figures 10 and Figure 11 show that although Berlin, Bremen and the Saarland been subject to a net migration loss during the late 1990s, the influx of migrants has continually risen since 1997. The remaining western Länder also saw a decline in net migration decline but not to the same extent. Exceptional annual losses in Nordrhein-Westphalen and Hessen notwithstanding, net migration has been positive throughout the western Länder.

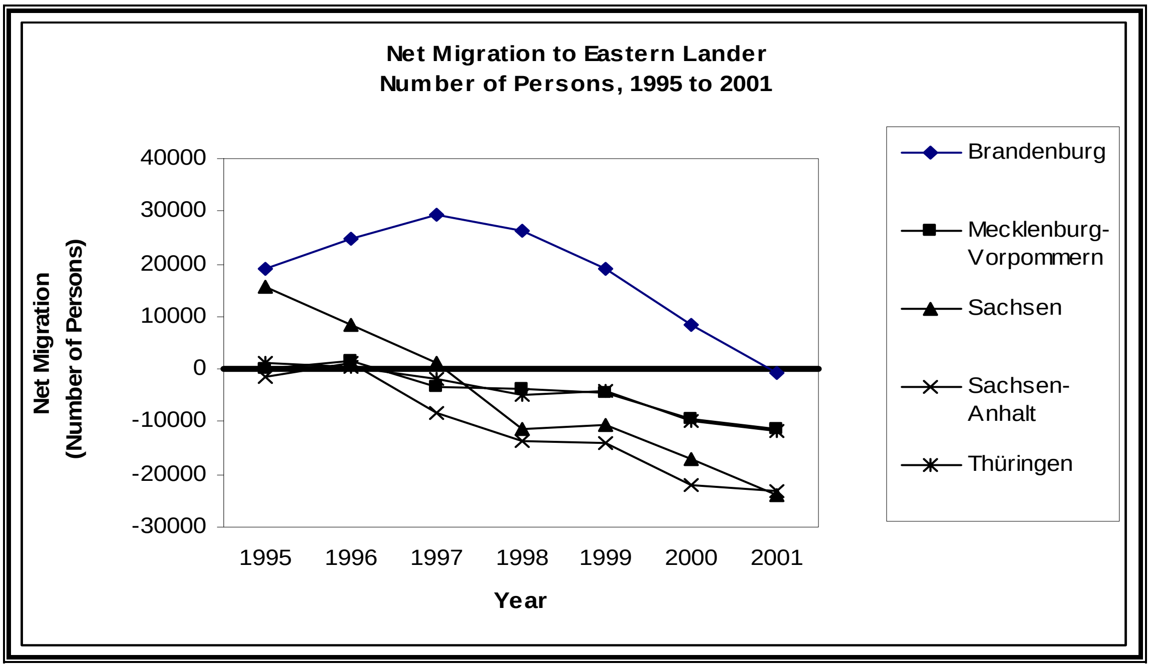
**Figure 10**




Source: Federal Statistical Office and the Statistical Offices of the Länder (Germany, “Zu- und Fortzüge nach Nationalität (über die Kreisgrenzen) - Jahressumme - regionale Tiefe: Bundesländer Wanderungsstatistik. 1995 to 2001.” Genesis Database, Statistische Ämter des Bundes und der Länder (2005). Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last accessed 14 January 2005.

In the eastern Länder net migration decline from 1995 to 2001 (with the exception of Brandenburg where there was a slight increase in net migration in 1997).

**Figure 11**




Source: Federal Statistical Office and the Statistical Offices of the Länder (Germany), "Zu- und Fortzüge nach Nationalität (über die Kreisgrenzen) - Jahressumme - regionale Tiefe: Bundesländer Wanderungsstatistik. 1995 to 2001." Genesis Database, (Statistische Ämter des Bundes und der Länder (2005). Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last accessed 14 January 2005.

Yet another set of differentiating demographic trends between the western and eastern Länder can be discerned when we consider who is migrating and who is leaving particular sub-national areas. Annual time series data from 1995 to 2001 tracking the number of Germans and the number of foreigners migrating to each Land, contrast the positive net migration and the resulting increase in the population of western Länder with the migratory trends in the eastern Länder. A net gain of foreigners over time throughout the eastern Länder is offset by even greater out-migration of Germans. The net result is a declining population. Brandenburg is the exception but the exception is likely a function of a spill-over effect of a population influx to Berlin.

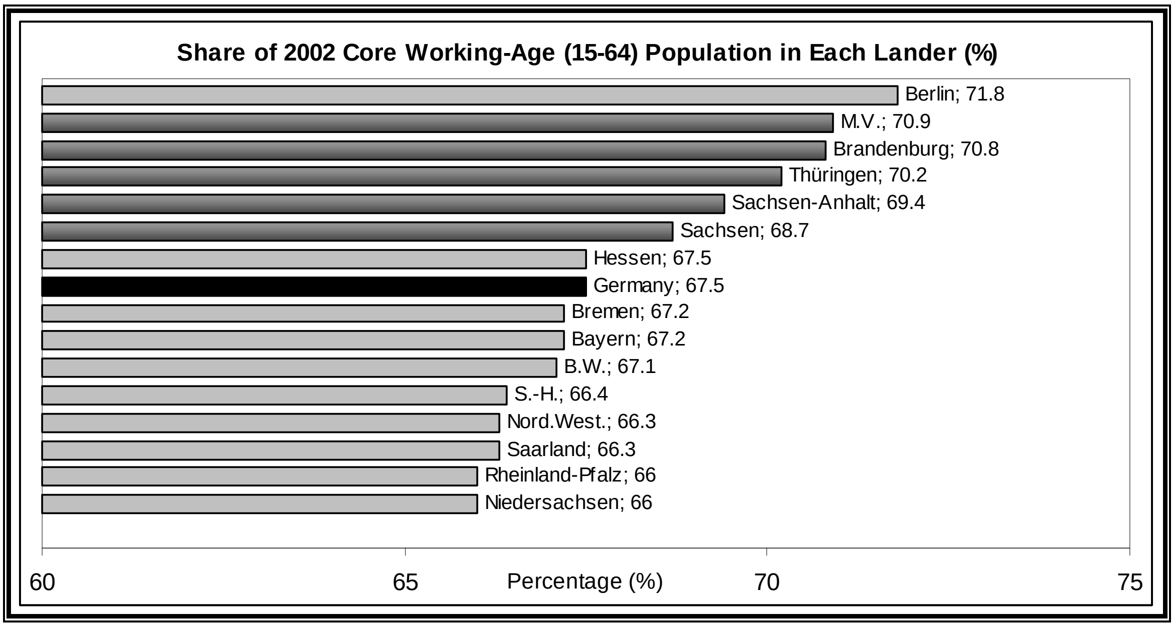
**Table 7**

| Migration of Germans and Foreigners to Eastern Länder, Number of Persons, 1995 to 2001 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Eastern Länder | Migrant Population | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Brandenburg | Germans | 16195 | 20553 | 28933 | 25056 | 17998 | 7170 | -3205 |
| | Foreigners | 3007 | 4328 | 303 | 1209 | 922 | 1205 | 2532 |
| | Total Net Migration | 19202 | 24881 | 29236 | 26265 | 18920 | 8375 | -673 |
| Mecklenburg-Vorpommern | Germans | -4900 | 605 | -1618 | -4402 | -6243 | -10920 | -12690 |
| | Foreigners | 5098 | 1061 | -1885 | 665 | 1745 | 1442 | 1244 |
| | Total Net Migration | 198 | 1666 | -3503 | -3737 | -4498 | -9478 | -11446 |
| Sachsen | Germans | -268 | 1521 | -1083 | -9605 | -13805 | -18264 | -27554 |
| | Foreigners | 15736 | 7003 | 2180 | -1641 | 3143 | 1371 | 3790 |
| | Total Net Migration | 15468 | 8524 | 1097 | -11246 | -10662 | -16893 | -23764 |
| Sachsen-Anhalt | Germans | -4906 | -2301 | -6927 | -13815 | -16308 | -21789 | -25656 |
| | Foreigners | 3572 | 3480 | -1305 | 113 | 2438 | -121 | 2455 |
| | Total Net Migration | -1334 | 1179 | -8232 | -13702 | -13870 | -21910 | -23201 |
| Thüringen | Germans | -1636 | -3086 | -3851 | -6907 | -7576 | -10962 | -14241 |
| | Foreigners | 2892 | 3660 | 2101 | 1993 | 3483 | 989 | 2522 |
| | Total Net Migration | 1256 | 574 | -1750 | -4914 | -4093 | -9973 | -11719 |

Source: Federal Statistical Office and the Statistical Offices of the Länder (Germany, "Zu- und Fortzüge nach Nationalität (über die Kreisgrenzen) - Jahressumme - regionale Tiefe: Bundesländer Wanderungsstatistik. 1995 to 2001." Genesis Database, Statistische Ämter des Bundes und der Länder (2005). Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last accessed 14 January 2005.

The immigration foreigners to the eastern Länder may also explain why the proportion of the working-age population in these areas of the country is higher than in the western Länder (see figure 12). In 2002, the proportion of the working-age population in the western Länder either reflected or fell below the German average. At 71.8 percent, Berlin's working-age population was the exception. In the eastern Länder, by contrast, the proportion of the working age population was higher than in the west, falling in-between Hessen and Berlin. Even the national average falls below that of the eastern Länder.

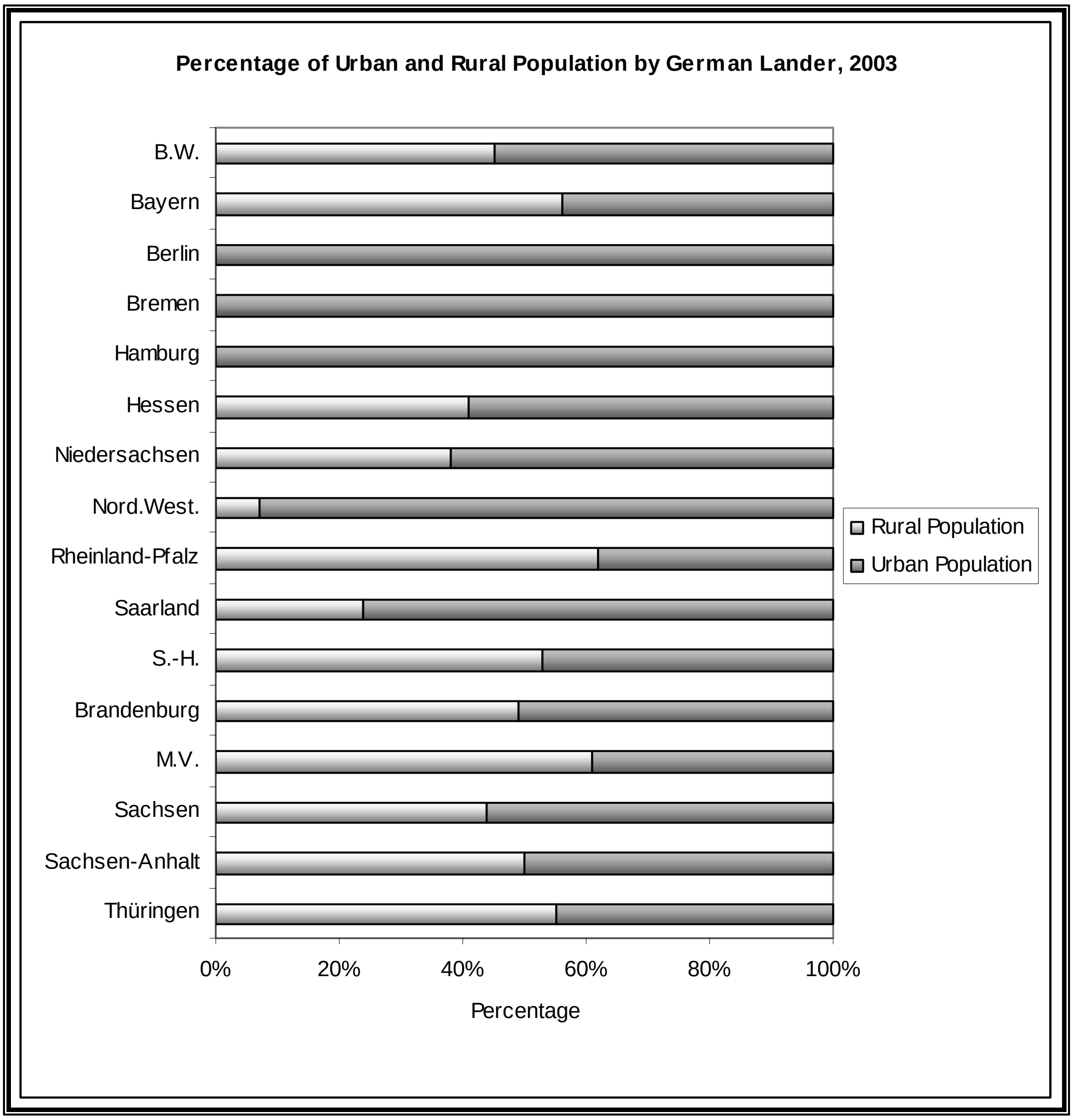
**Figure 12**




Source: Federal Statistical Office and the Statistical Offices of the Länder (Germany), "Tabelle: Temporär Bevölkerungsstand: Bevölkerung nach Geschlecht und Altersgruppen - Stichtag 31.12. - regionale Tiefe: Bundesländer Fortschreibung des Bevölkerungsstandes Bevölkerungsstand (Anzahl)." Genesis Database. Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last updated 13 December 2002. Available at www.statistik-portal.de/Statistik-Portal/en/en_GenesisUebersicht.asp. Last accessed: 14 January 2005.

One possible explanation for this aberration is that a high proportion of foreigners settling in the eastern Länder are of working age. With the passing of time, however, these foreigners may follow in the footsteps of their German counterparts and head west. These phenomena are indicative of the growing urbanization of the western Länder while the eastern Länder remain more rural. The three city-states aside, over half of the population of five other western Länder also lives in urban areas.

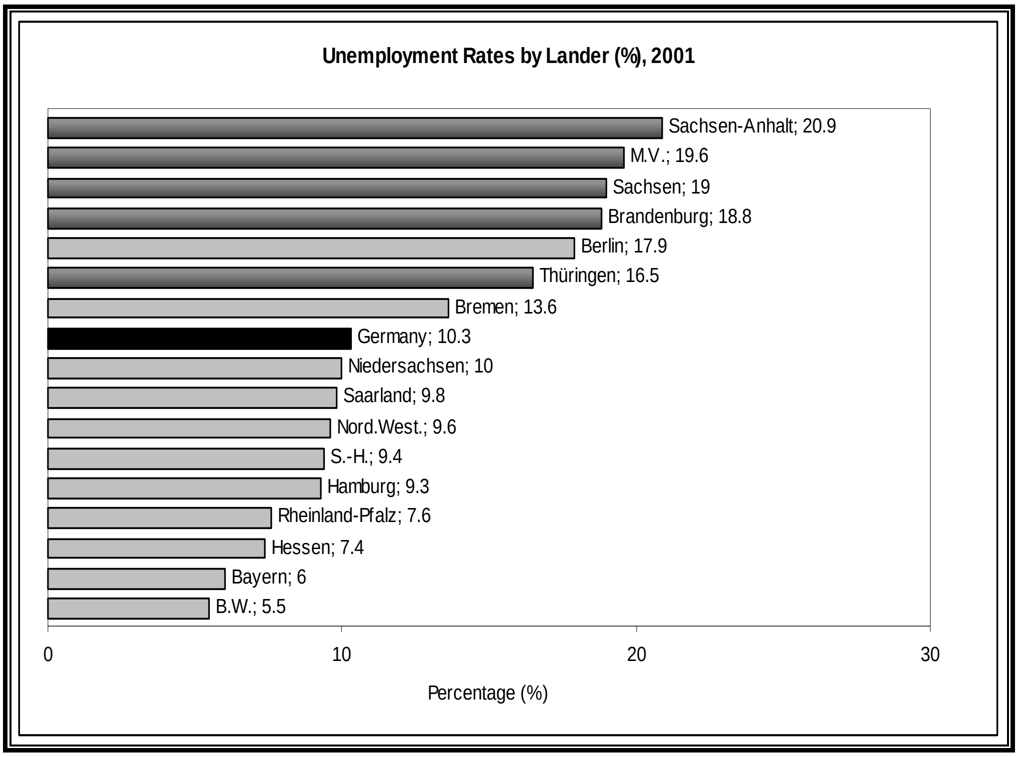
**Figure 13**




Source: Researcher's calculations based on *Thomas Brinkhoff*, City Population: Germany. Available at www.citypopulation.de/cities.html. Last updated 16 November 2004. Last accessed February 2005.

High unemployment in the eastern Länder further substantiates the hypothesis of the eventual westward movement of present-day eastern inhabitants. In 2001, the unemployment rates of the five eastern Länder ranged from 16.5 percent in Thuringen to more than double the German average (10.3 percent) in Sachsen-Anhalt at 20.9 percent.

**Figure 14**




Source: Federal Statistics Office of Germany, German Länder 2003. (Wiesbaden, Germany: Statistisches Bundesamt, 2003). Available at www.destatis.de.

As table 8 shows, unemployment correlates with GDP.

**Table 8**

| **Länder** | **GDP, EUR mn., 2001** | **GDP per person engaged in economic activity, EUR, 2001** |
|---|---|---|
| Germany | 2,063,000 | 53,207 |
| Baden-Wurttemberg | 302,542 | 56,726 |
| Bayern | 357,327 | 56,739 |
| Berlin | 75,728 | 48,615 |
| Bremen | 22,389 | 57,681 |
| Hamburg | 73,539 | 70,208 |
| Hessen | 185,435 | 61,419 |
| Niedersachsen | 179,368 | 51,529 |
| Nor drhein-Westphalen | 459,571 | 55,044 |
| Rheieland-Pfalz | 91,789 | 52,047 |
| Saarland | 24,539 | 48,355 |
| Schlesweig-Holstein | 62,975 | 51,234 |
| Brandenburg | 42,333 | 40,803 |
| Mecklenberg-Vorpormmern | 28,932 | 39,581 |
| Sachsen | 74,332 | 38,298 |
| Sachsen-Anhalt | 42,305 | 40,937 |
| Thüringen | 39,896 | 37,770 |

Source: Federal Statistics Office of Germany, German Länder 2003. (Wiesbaden, Germany: Statistisches Bundesamt, 2003). Available at www.destatis.de.

The territorial convergence of demographic and socio-economic trends is already having political reverberations, notably in the parsing of the party system. Its high degree of integration notwithstanding[34] – the "iron fist of oligar-

34 The terminology used here is based primarily on Smiley's ideal types of integrated" and confederal" party systems (see *Smiley*, *op. cit.*, 103-104. German (and most European) parties and party systems can be described as ideal types of integration.

chy", Michels' famed study of the German social-democratic party,[35] comes to mind -- even the German party system has been subject to some bifurcation[36] from the outset: The CSU. Since 1949 it has run Conservative candidates in Bavaria -- at the level of Land as well as Bund – while its CDU partner runs Conservative candidates in the remainder of the remaining 10 – now 15 -- Länder. The CSU, then, is confined to one sub-national territory.

Reunification exacerbated socio-economic and cultural territorial cleavages in a country whose party system had hitherto been fairly homogeneous.[37] The PDS – the phoenix that rose from the GDR's ashes – capitalized on this phenomenon. It has truncated the traditional integration of the new party system by introducing a party whose power base transcends one particular Land but remains confined to a particular region of the country.[38] Welfare-state expectations, for instance, are considerably higher in East Germany.[39]

Denationalization, in terms of decoupling regional frames of references from national ones, is as prominent at the federal as at the substate level. As a matter of fact, the data show that the actual "dissimilarity" is most obvious not at the federal level – which makes sense for Germany since its electoral system rewards parties with broad appeal – but at the substate level.[40] Not only have elections gained in prominence at the level of the individual Länder but they have also started to exhibit a regional logic that diverges from national politics to an unprecedented extent.[41]

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35 *Robert Michels*, Political parties: a sociological study of the oligarchic tendencies of modern democracy, New York: Hearst's international library, 1915.

36 See *Carty, op. cit.*

37 *Charlie Jeffrey*, Party politics and territorial representation in the Federal Republic of Germany, in: Joanne B. Brzinski (ed.), Compounded representation in West European federations, Special issues of West European Politics 22: 130-166.

38 *Dan Hough*. The fall and rise of the PDS in Eastern Germany, Birmingham: Birmingham University Press, 2001.

39 *Ulrich Eith*, Zur Ausprägung des politischen Wettbewerbs in entwickelten Demokratien, in: Ulrich Eith/Gerd Mielke (eds.), Zwischen gesellschaftlichen Konflikten und dem Handel politischer Eliten, Gesellschaftliche Konflikte und Parteiensysteme: Länder und Regionalstudien, Wiesbaden: Opladen, 2001.

40 *Daniel Hough/Charlie Jeffrey*, Wahlverhalten und Parteienwettbewerb in regionalisierten Staaten, in: Europäisches Zentrum für Föderalismusforschung Tübingen (ed.), Jahrbuch des Föderalismus 2004: Föderalismus, Subsidiarität und Regionen in Europa, Baden-Baden: Nomos Verlag, pp. 58-65.

41 *Daniel Hough/Charlie Jeffrey*, Landtagswahlen: Bundestestwahlen oder Regionalwahlen, Zeitschrift für Parlamentsfragen 34:1 (2003): 79-94.

Indicative of this propensity is the reform of the SPD in Northrhine-Westphalia (NRWSPD) -- which became effective in 2002 – was partially a response to the higher welfare-state expectations advocated by the PDS. The NRWSPD counters the welfare-state agenda with an innovation-based one intended to advance the economic prosperity and competitiveness of one of Germany's largest and most important substates. These developments provide evidence of the advent of more competitive federal relations. In light of the bifurcation of the party system, political parties' capacity to play an integrative role in intragovernmental structures is diminished. Instead, with the NRWSPD and the PDS, we witness the emergence of a more competitive federal system.[42] More competitiveness within German's federal system is also giving rise to more asymmetry: Arthur Benz has found that what was once a "unitary federal system" is becoming increasingly asymmetric.[43] The moderate but growing popularity of the NPD in East Germany – and of reactionary parties throughout Europe, buttresses this claim.

## Conclusion

In their classic study of party systems, Lipset and Rokkan treat the conflict between the periphery and the centre as a by-product of modernization and the rise of the nation-state.[44] They reflected the "typical reaction of peripheral regions, linguistic minorities, and culturally endangered populations to the centralizing, uniform, 'rationalizing' pressures of the machinery of the nation-

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42 *Charlie Jeffrey*, Party politics and territorial representation in the Federal Republic of Germany, in: Joanne B. Brzinski (ed.), Compounded representation in West European federations, Special issues of West European Politics 22: 130-166; *Roland Sturm*, Party competition and the federal system: the Lehmbruch hypothesis revisited, in: Charlie Jeffrey (ed.), Recasting German federalism: the legacies of unification, London and New York: Pinter, 1999, pp. 197-216; *Wolfgang Renzsch*, Bundesstaat oder Parteienstaat: Überlegungen zu Entscheidungsprozessen im Spannungsfeld von föderaler Konsensbildung und parlamentarischem Wettbewerb in Deutschland, in: Everhard Holtman/Helmut Voelzkow (eds.), Zwischen Wettbewerbs- und Verhandlungsdemokratie, Wiesbaden: Opladen, 2000; 53-78; *Klaus Detterbeck*/*Wolfgang Renzsch*, Politischer Wettbewerb im deutschen Föderalismus, in: Europäisches Zentrum für Föderalismusforschung Tübingen (ed.), Jahrbuch des Föderalismus 2002: Föderalismus, Subsidiarität und Regionen in Europa, Baden-Baden: Nomos Verlag, pp. 69-81.

43 *Benz, Arthur*. From Unitary to Asymmetric Federalism in Germany: Taking Stock after 50 Years Publius 29.4 (September 22 1999): 55.

44 *Lipset/Rokkan, op. cit.*

state."[45] That is what one might term the "irritating anachronism" of "bastions of primordial local culture".[46] Yet, there is another side to this coin: The growing political consciousness and mobilization of regions that are demographically, economically, and even culturally distinct. Since the 1990s, these two regionalisms have been undermining the integrative capacity of catch-all parties which hitherto had hegemonized the electorate nationally. The ensuing bifurcation of party systems has been theorized as the dealignment thesis.[47] The party system is thus subject to "denationalization".

Concomitantly, the advent of the "Europe of regions" has opened up a new space of political activity beyond the nation-state.[48] The decline in the integrative capacity of the state is thus complemented by a rise of communities of solidarity at the regional level. The aggregate effect of this territorialization of politics and its preoccupation with regional interests is that national parties suffer a deficit their capacity to mobilize in such areas.[49]

In effect, regional consciousness and political mobilization are on the rise.[50] In 1991, a study counted 44 regional parties across Europe.[51] In 1996, another study found that 33 of 118 European regions had regional parties and that in 14 regions, there were more than two regional parties.[52] The decoupling of national from subnational frames of political reference is hastened by the trend towards subsidiarity. Spain, Belgium, Italy, the United Kingdom,

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45 *Peter Flora/Stein Kühnle/Derek Unwin*, State Formation, Nation-Building, and Mass Politics in Europe: The Theory of Stein Rokkan, Oxford: Oxford University Press, 1999, p. 282.

46 *Stein Rokkan/Derek Unwin*, The Politics of Territorial Identity, Beverly Hills: Sage Publications, 1982, p. 1; Idem, 283-284.

47 *Stefano Bartolini/Peter Mair*, Identity, Competition, and Electoral Volatility, Cambridge: Cambridge University Press, 1990.

48 *John Loughlin*, Representing Regions in Europe: The Committee of the Regions, Regional and Federal Studies 6(2): 147-165.

49 *Yves Mény/Vincent Wrights*, eds. Centre-Periphery Relations in Western Europe, Boston: Allen & Unwin, 1985, 5.

50 *Gary Marks/Jane Salk/Leonard Ray/François Nielsen*. 1996. Conflict, Cracks and Conflicts: Regional Mobilization in the European Union. Comparative Political Studies 29, 2:164-92; *Ross, George*, 1993. The European Community and Social Policy: Regional Blocs and a Humane Social Order. Studies in Political Economy. 40: 41-72.

51 *Jan-Erik Lane/David McKay/Kenneth Newton*, Oxford: Political Data Handbook OECD Countries, 1991.

52 *Derek J. Hearl/Ian Budge/Bernard Pearson*, Distinctiveness of Regional Voting: A Comparative Analysis Across the European Community (1979-1993), Electoral Studies 15(2) 1996: 167-182.

and Poland are all extending the constitutional powers of their regions. In France, Sweden and most of the new EU states in central and Eastern Europe further decentralization is being debated. Several federal states, such as Germany, Austria, the United States, Canada, and Australia are debating reforms that would enhance the competencies of their substates.

At present, the German and Canadian federations are subject to being restructured. Although the *Kommission zur Modernisierung der Bundesstaatlichen Ordnung* – inter-governmental commission on federal disentanglement – has failed to resolve the gridlock on structural reform, in the aftermath of the Bertelsmann-Kommission on "Verfassungspolitik & Regierungsfähigkeit," the requisite momentum for reform is there.[53] In essence, the commission's propositions further substantiate the analysis presenting in this paper. They make the case not necessarily for greater decentralization per se but for consolidating sovereign decision-making power at the substate level. The process, however, recently collapsed over the apparent reluctance on the part of the federal government to relinquish certain competencies (with regard to education).

The decentralizing and territorializing dynamic is also evident in other federations, most notably in Switzerland. Concomitantly, the American and Australian federations are actually becoming more centralized. This observation calls for a nuanced accounting of internal demographic trends in these countries. That is the subject of another paper. From the observation one may, however, infer that one should not be too quick to posit a "strong" case for a causal relationship between demographic differentiation and decentralization. At the same time, the more general coincidence of demographic change and federal dynamics suggests a correlation between the two. Demographic change may thus be posited as a salient spatial aspect of federative systems.

A demographic convergence is crystallizing in federal systems. The populations of substates either tend to age less rapidly, are more heterogeneous,

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53 For documentation arising out of the Kommission zur Modernisierung der Bundesstaatlichen Ordnung see http://www3.bundesrat.de/Site/Inhalt/DE/1_20Aktuelles/1.1_20Bundesstaatskommission/6._20Dokumente/6.2_20Kommissions-Drucksachen/index,templateId=renderUnterseiteKomplett.html. See also documentation by the preceding independent initiative launched by the Bertelsmann-Kommission Verfassungspolitik & Regierungsfähigkeit," ed., Redistribution of Powers Between the Federal Level and the States, Gütersloh: Verlag Bertelsmann Stiftung, 2001; Institutionelle Entflechtung der Zweiten Kammern, Gütersloh: Verlag Bertelsmann Stiftung, 2002. See also *Norbert Berthold*, Mehr Effizienz und Gerechtigkeit: Wege zur Entflechtung des Sozialstaates, Arbeitspaper 15/2003, Sankt Augustin: Konrad-Adenauer-Stiftung, 2003.

and more urban, or they tend to age more rapidly, are more homogeneous, and more rural. These demographic trends exhibit a propensity for clustering not just along substate but along regional lines. What is more, they also coincide with different political interests and cultures. The younger, more heterogeneous, more urban areas also tend to be more prosperous and thus more inclined to champion innovation-based policies that leave more liberty to the substate. By contrast, the older, more homogeneous, more rural areas tend to champion more social-democratic, redistributive policies.

The demographic differentiation within federal systems is thus coinciding with economic and, to some extent, ideological and political-culture differentiation. It is also coinciding with some larger trends that are pervading western democracies, such as decentralization as well as increased regional consciousness and political mobilization – at the sub-national as well as at the trans-national level. The effects of demographic differentiation are thus being compounded by a host of other trends.

Demographic change, then, ought not to be regarded as a variable introducing new dynamics of differentiation into federal systems. Instead, they bolster the trends towards greater regionalization that have been observed in other domains, such as economic, culture, political action and mobilization, decision- and policy-making, and so forth. This coincidence of demographic trends with other trends to some extent verifies the demographic findings. Far from contravening observations in other domains, they confirm them. In other words, the coincidence of these trends is no accident. Rather, it stresses the salience of these developments.

The demographic analysis also reinforces the implications of regionalization and decentralization for federal governance that the literature has already ascertained. Demographic differentiation is accelerating the horizontal and vertical decoupling of governments. It is likely to render federal relations less cooperative and more competitive, less intra- and more inter-governmental. The contestation is likely to be most evidence in the area of social policy where controversy will rage over different interests and visions. Substates that are aging more rapidly will be trying to stem the move away from a more centralist, redistributive, social-democratic conception while substates that are aging less rapidly will advocate a more liberal asymmetric federation. In the long run, these developments are likely to impose considerable constraints on government intervention. Furthermore, structural reform is likely to result in more asymmetric relations because that will increasingly be the only way to get the various interests onto the same page. What is more, substates facing similar trends are likely to band together and champion their causes and interests not only at the national but at the supra-national level. This “denationalization” of the state is likely to test federalism’s integrative capacity at the expense of its redistributive capacity. Cleavages between substates and regions are thus likely to widen further.

# Demographic Change and Federal Systems: Some preliminary results for Germany[1]

*Helmut Seitz*, *Dirk Freigang* and *Gerhard Kempkes*

*Abstract*

*The paper examines the effects of demographic change on federal, state and local government expenditures in Germany. Public spending is decomposed into almost 30 categories (functions) and simple estimates of age cost profiles are derived. Using population forecasts and assuming time-invariant age cost profiles we estimate the effects of the ageing of the Germany society on the level and structure of expenditures at the three layers of governments. Our results show that subnational governments - state and local governments - can expect demographic savings whereas the federal government will live to see a worsening of its fiscal stance. Thus one should expect that significant vertical expenditure imbalances will arise that - if institutional settings are left unchanged - will ask for an adjustment of revenue distribution within the federation.*

*JEL classification: J1,H1,H7.*

*Zusammenfassung*

*Demographischer Wandel in föderalen Systemen:*
*Evidenz für die Bundesrepublik Deutschland*

*Der Beitrag untersucht die Frage, welche Auswirkungen von den demographischen Veränderungen in Deutschland auf das föderale Finanzgefüge ausgehen werden. Die öffentlichen Ausgaben des Bundes, der Länder und der Gemeinden werden nach ca. 30 Funktionen untergliedert und für jeden Aufgabenbereich werden einfache Altersstrukturkostenprofile bestimmt. Ausgehend von diesen Angaben und Bevölkerungsprognosen wird berechnet, wie sich die Ausgaben auf den drei Ebenen bis zum Jahr 2030 entwickeln werden. Die Ergebnisse zeigen, dass die Länder- und Gemeindehaushalte mit demo-*

1 The present paper has been prepared within the research project DFG-Schwerpunktprogramm 1142 “Institutionelle Gestaltung föderaler Systeme: Theorie und Empirie” financed by the German Research Foundation.

*graphisch induzierten Ersparnissen rechnen können, während der Bundeshaushalt erheblich zusätzlich belastet wird. Diese vertikalen fiskalischen Ungleichgewichte werden eine Umverteilung des Steueraufkommens zugunsten des Bundes erforderlich machen, sofern es keine anderweitigen institutionellen Anpassungen geben wird.*

## 1. Introduction

Germany, as well as most other industrialized countries faces pronounced demographic challenges in the next decades: An ageing society, a low reproduction rate, a declining population and workforce as well as significant redistributions of population within and across regions. These demographic changes will have considerable effects on the economy and virtually all policy areas. In recent years, a substantial body of "demo-economics" literature has developed and addresses issues such as the construction of a sustainable old-age pension system[2], the impact of ageing on health expenditures, the labour market[3] (productivity, labour market participation etc.) and economic growth as well as public sector budgets in general.

The present paper is devoted to an examination of the fiscal consequences of demographic changes in federal systems, a subject that has been rarely discussed.[4] Notable exceptions are the study of the Conference Board of Canada (2002) and the theoretical work of Echevarría (1995). Most studies that address fiscal issues take a look at the budget of the central government or the total government sector. However, in federal systems repercussions of demographics on public expenditures and revenues can divert significantly across the different levels of governments. In addition, at the subnational government level, the regional dimension of demographic change has to be taken into account. However, the latter subject is not touched in the subsequent discussion and we confine our examination to the central government level as well as the aggregate state and local government level. Contrary to the OECD practice the social security system is *not* included in our definition of the public sector.

The purpose of the paper is to present preliminary results on the impact of demographic change upon the level and structure of expenditures by level of

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2 See for example *Börsch-Supan* (1999), *Dang* (2001) or *Turner* et al. (1998).

3 See for example *Börsch-Supan* (1996), *Faruqee* (2002) or *Leibfritz* et al. (1995).

4 However, *Färber* (1988) presented a discussion of the budgetary impact of demographic changes for the former West Germany already 20 years ago.

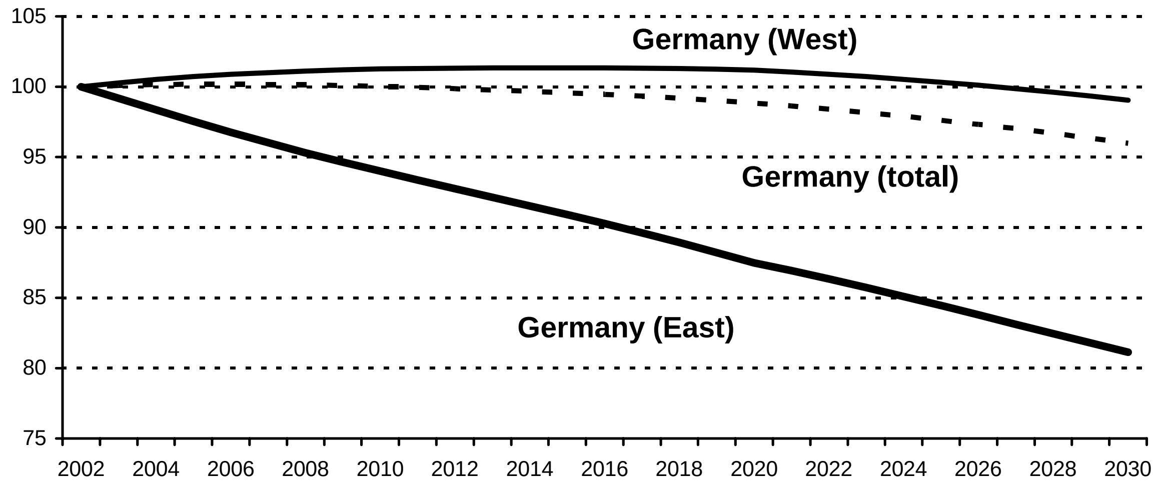
government as well as potential vertical fiscal imbalances across the different layers of government in Germany. Our results are preliminary because we do not take into account the revenue side and the evidence presented rests upon rather simplifying assumptions.[5] We start in section 2 with a brief discussion of the most important demographic facts in Germany. Section 3 outlines the fiscal federalism system in Germany and methodical issues are discussed in section 4. In section 5 we construct very simple age cost profiles by government functions and develop estimates of potential vertical fiscal expenditure imbalances induced by demographic changes. A final section summarizes our results and outlines prospects for further research.

## 2. Demographic change in Germany

Looking at demographics in Germany one observes marked differences between East and West Germany. There are two main reasons for the east-west differential: After the fall of the iron curtain in 1989 the birth rate in East Germany dropped to a dramatically low rate of about 0.75 in the early nineties. In recent years fertility has started to converge to the West German average of about 1.45. In addition, due to the poor economic performance of the East German economy there are rather strong east-west migration-flows. Hence, the East German population declined by about 7.5% in the period 1991 - 2003 whereas the population size in West Germany increased by about 5.9%. Low birth rates and high out-migration especially of younger persons considerably speed up the ageing process in East Germany. Consequently, the average age of the East German population will exceed that in West Germany by about 5 years in 2030.

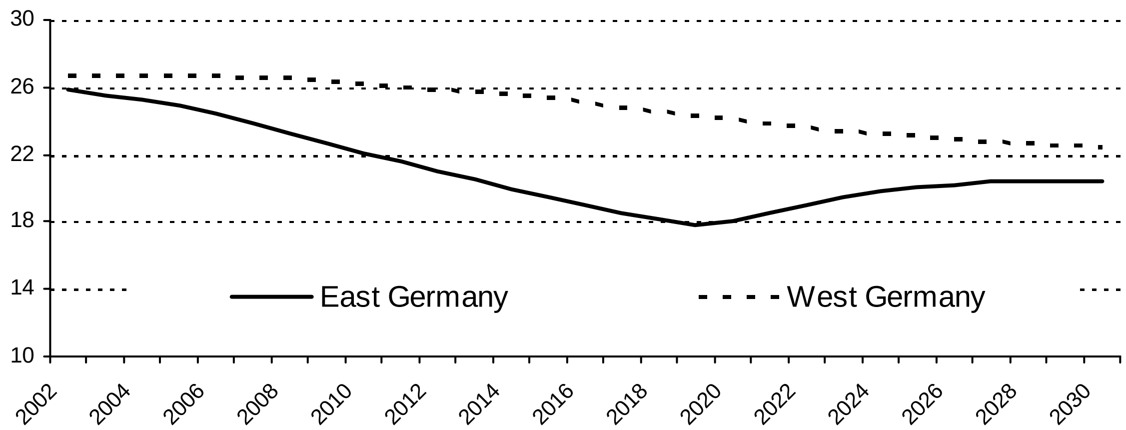
5 Recently we started a research project on the issues discussed in this paper and future research will relax many of our simplifying assumptions.

**Figure 1: Population size in Germany 2002 - 2030: Normalized series: 2002 = 100**




Source: Calculated from data supplied by the Federal Statistical Office of Germany.

**Figure 2: Population aged 5 - 29 in East and West Germany as a share of total population**




Source: Calculated from data supplied by the Federal Statistical Office of Germany.

According to the population forecast[6] of the Federal Statistical Office of Germany total population in Germany will decline by about 4% in the period 2002 - 2030, see **figure 1**. In West Germany (excluding Berlin), a more or less stable population is expected in this period and until the year 2020 there will even be a slight increase. However, for the period after 2030 the population size in West Germany is forecasted to drop significantly. In East Germany (excluding Berlin), the population size will decline by more than 10% until 2020 and in the year 2030 the population size will be almost 20% lower than in 2002. In the next step we look at the three most important age cohorts: The young generation, 5-29, the elderly, 65+, and the work force, 15-65. The share of the age cohort 5-29 which demands the services of the education system (schools and universities) will decrease from about 26% in 2002 to about 18% in East Germany and to about 24% in West Germany in 2020 (**figure 2**). However, in the years after 2020 there will be an east-west convergence process and the share of this age group will approach a level of about 21% in both parts of the country.

The share of the elderly, 65+, is currently about 17% in East and West Germany. For the reasons mentioned above, the share of the elderly will increase considerably stronger in East Germany than in West Germany. In 2030 about 33% of the East German and about 27% of the West German population will at least be 65 years old, see **figure 3**. The most dramatic changes will be observed for the very old (80+), whose share will increase from about 3.9% in 2002 to 7.3% in 2030 and to about 12.1% in 2050. There are also marked differences between East and West Germany with respect to the working age cohort, 15-65. Currently, in East Germany this age group amounts to a share of about 70% of the total population and slightly exceeds that in West Germany (67%). Up to the year 2030 this share will decline to about 56% in East Germany and to about 61% in West Germany, see **figure 4**.[7] The main reasons for the demographic developments in Germany sketched above are the low total fertility rate, defined as the average number of children per women, and the increase in life expectancy. The total fertility

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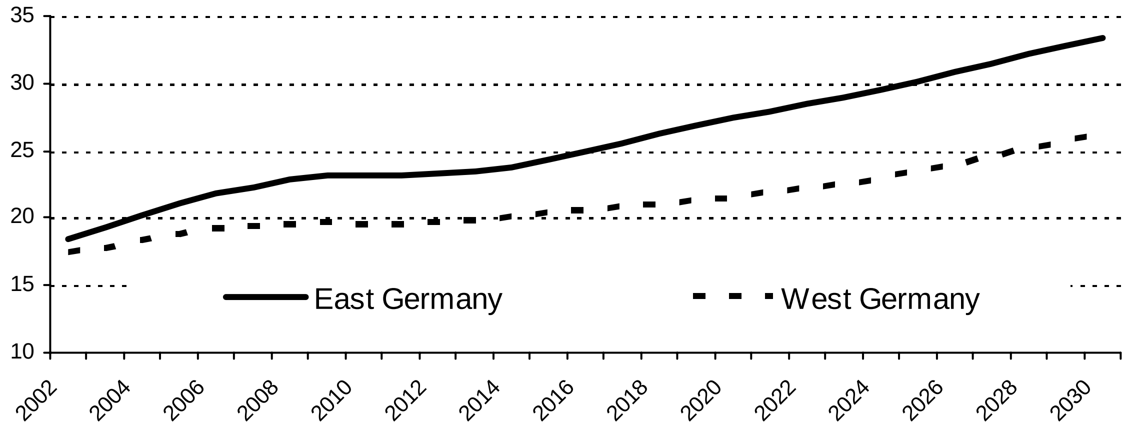
6 The data on future demographic developments used in this report are derived from the "10th Coordinated Population Projection" (variant 5) of the Federal Statistical Office of Germany.

7 As a matter of course, both the share of the elderly, 65+, as well as the share of the labor force, depend upon the working or retirement age. One should expect that in the next decades the retirement age will increase significantly. In addition, one has to consider that the age cohort 15-65 is not a good estimator of the active labor force because of changes in the unemployment rate. (Female) labor market participation rate as well as changes in the length of the education period affect the potential labor force estimates.

rate declined from about 2.3 in the 60ties to about 1.45 at the turn of the century. In the EU, only Spain, Greece and Italy have lower fertility rates. On the other hand, life expectancy (of new-borns) in Germany is forecasted to increase from 74.8/80.8 (male/female) in 2000 to about 80/85 (male/female) in 2030.[8]

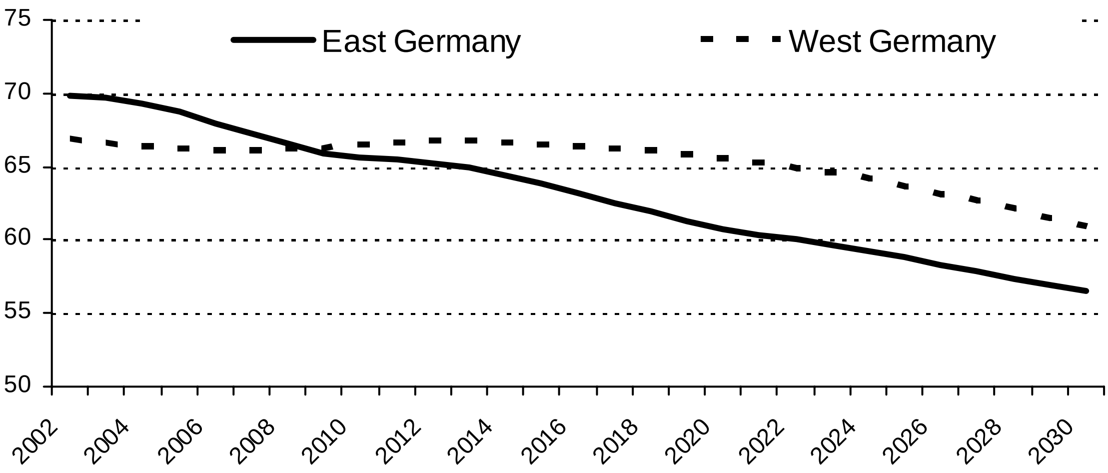
**Figure 3: Population aged (65+) in East and West Germany as a share of total population**




Source: Calculated from data supplied by the Federal Statistical Office of Germany.

8 For more details on population forecasts in Germany see: Federal Statistical Office of Germany (2003).

**Figure 4: Work force (15 - 65) in East and West Germany as a share of total population**




Source: Calculated from data supplied by the Federal Statistical Office of Germany.

## 3. The fiscal federalism system in Germany in a nutshell

For our subsequent investigation some knowledge about fiscal federalism in Germany is necessary. The Federal Republic of Germany (FRG) consists of three levels of government: federal (Bund), state (Laender) and local (Gemeindeebene). The German constitution (Grundgesetz) defines the responsibilities of the different levels of government. Local governments are responsible in particular for local utilities and services such as water supply, sewage and waste disposal, the construction and maintenance of local roads, etc. As to education the local government sector is completely responsible for pre-primary education (kindergarten) and the construction as well as maintenance of school infrastructures (school buildings). In addition, local governments provide supplementary welfare benefits, especially social assistance benefits. These expenditures increased considerably in the past 25 years. However, in 2005 a labour market reform was implemented ("Hartz IV reform") which decreases local social assistance expenditures significantly because supplementary benefits to unemployed - financed by the federal government - as well as social assistance benefits for persons at working age - financed up to 2004 by local governments - are consolidated in a new tax financed welfare system at the federal level. The constitution guarantees communities the right to manage their own affairs independently. However, in practice this independence is quite restricted because the local governments rely heavily on grant financing from state governments and the vast majority of expenditures is mandatory and regulated by standards. The states are responsible for cultural affairs, school education (teachers), university education, the administration of justice as well as police. In housing and health services, both subnational government levels are involved. The federal government is responsible for foreign affairs, defence and supplementary benefits to unemployed persons. Moreover, the federal government provides considerable amounts of conditional as well as unconditional grants and transfers to the state level.

The main characteristics of the fiscal federalism structure in Germany can shortly be summarized as follows:

- There is a predominance of joint taxes. In 2003 about 68% of all tax revenues belonged to this type of taxes. About 20% of tax revenues accrued to the federal government only, about 4% to state government and about 8% to the local government sector.
- Subnational governments have a rather low power to set taxes. State governments are even more restricted than local governments. However, the federal government has to pass a law by voting in the Upper Chamber (Bundesrat) if it intends to change tax rates of joint taxes or tax rates of taxes that are earmarked to the states and the states participate in the legislation process. Thus, the states can jointly influence tax policy but none of the states can fix tax rates individually. In addition, the states and the federal government negotiate the distribution of tax revenues out of shared taxes between levels of government.
- At the state level there is a pronounced fiscal equalization system in which financially strong states make equalization payments to financially weak states. The federal government provides complementary federal grants (Bundesergänzungszuweisungen) to financially weak states. The strong equalization system brings about a rather weak correlation between state economic performance and per capita state revenues.
- Intergovernmental transfers are of considerable importance both between the federal and state government sector as well as between state governments and the local government sector. The rather high transfer intensity in Germany results in a severe loss of transparency of the flow of public resources.
- Finally, co-financing of tasks is quite common in Germany and consequently there is no clear division of (political and financial) responsibilities of the different layers of government.

**Table 1** presents data on the transfer system in Germany for the year 2001. Contrary to our definition of the government sector - federal, state and local government sector - we also include the social security system in the table because of its significant dependency on federal transfers. At the state level, about 16% of all expenditures are financed by other levels of governments, of which the federal government is the most important donor. In East Germany this share is close to 40% and in West Germany about 12%. Local governments cover about 34% of their expenditures out of grants (from state governments) and here too we observe marked differences between East (almost 60%) and West (about 28%) Germany. About 17% of expenditures of the social security system are transfers out of the federal budget.

Table 4 also reports the share of expenditures at the various levels of government that are spent as transfers to other levels of government. The federal government's share is almost 50%, the bulk of which are transfers to the social security system (about 55%) and to the state governments (about 30%). In West Germany about 20% of state expenditures are intergovernmental transfers, in East Germany this share amounts to about 35%, most of which are targeted towards the local government sector. In part B of the table we show the most important sources of revenues: Taxes and social security contributions (B.1) and transfers from other levels of governments (B.2). At the federal government level almost 90% of all revenues come out of taxes. At the state level this ratio is about 76% in West Germany and less than 50% in East Germany. Local governments in West Germany collect about 38% of their revenues out of taxes, whereas in East Germany this share is well below 20%.

**Table 1: Key-Data on intergovernmental fiscal relations in Germany in 2001**

| | Federal | state | local | social sec. |
|---|---|---|---|---|
| A.1 Share of expenditures financed by transfers from other levels of government | | | | |
| total | 1,4 | 16,2 | 33,7 | 17,1 |
| West Germany | | 12,0 | 28,4 | |
| East Germany | | 39,5 | 59,4 | |
| A.2 Transfers to other levels of government as a share of total expenditures | | | | |
| total | 47,1 | 21,6 | 5,0 | 0 |
| West Germany | | 19,7 | 5,5 | |
| East Germany | | 35,2 | 2,3 | |
| B.1 Share of revenues out of taxes, social security contributions etc. | | | | |
| total | 87,1 | 71,8 | 34,1 | 81,3 |
| West Germany | | 76,4 | 37,8 | |
| East Germany | | 49,5 | 16,1 | |
| B.2 Share of revenues out of transfers from other levels of government | | | | |
| total | 1,5 | 18,0 | 34,6 | 17,2 |
| West Germany | | 13,4 | 29,3 | |
| East Germany | | 41,2 | 60,3 | |

Source: Calculated from data supplied by the Federal Statistical Office of Germany.

Thus, the figures in table 1 reveal the close fiscal interrelations between the different layers of governments at both the revenue and expenditure side of the budget. It is not difficult to imagine that these strong interdependencies make the political system in Germany rather sensitive to log-rolling and pork-barrel policies, create inefficiencies and inflexibilities. In addition, the properties of the fiscal federalism system in Germany have important implications for the discussion of the impact of demographic change:

- On the revenue side the predominance of shared taxes and the strong fiscal equalization system result in a "smoothing effect", i.e. differences in tax revenue capacity induced by demographics are smoothed away.
- The strong financial interrelations between the different levels of governments on the expenditure side contribute to some "risk sharing" of the

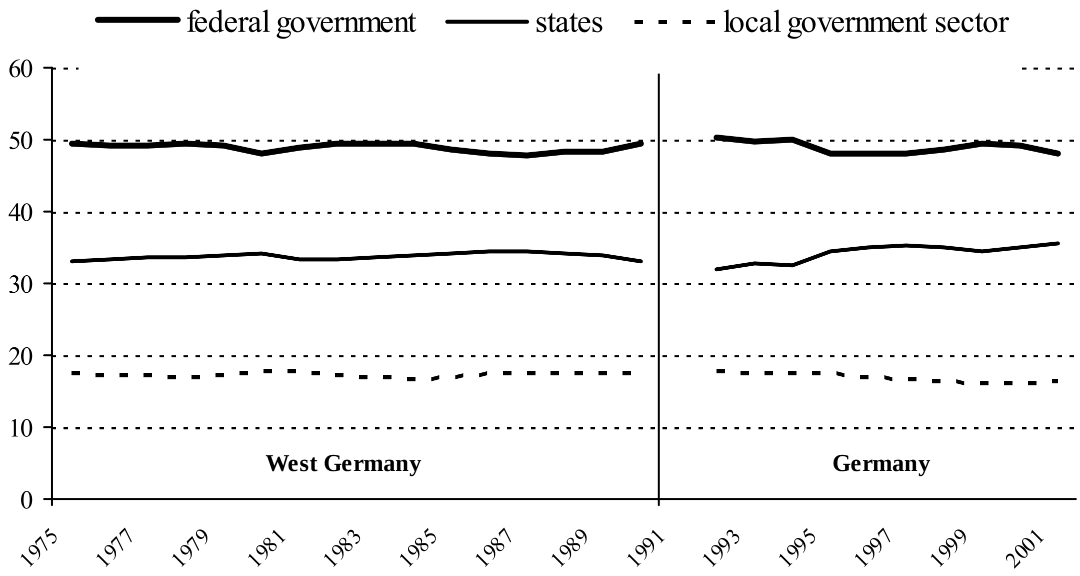
effects of demographic changes, too. However, the smoothing effect is considerably lower than on the revenue side.

We finally take a short look at the distribution of expenditures across levels of governments. Because of the importance of intergovernmental transfers the expenditures of the various government levels cannot simply be added. Therefore, we use *net expenditures (“Nettoausgaben”)* defined as total expenditures minus transfers received from other levels of governments. Thus, we can aggregate spending across the different layers of government. **Figure 5** presents data on the (net) expenditure shares[9] of the three layers of government[10] in Germany before and after unification. The federal government sector accounts for about 50% of total net government expenditures. This share has not changed systematically since 1975. Expenditures of state governments amount to about 35% of total expenditures. In the 1990s there has been an upward trend of this share whereas the share of local government expenditures slightly decreased. The main reason for this decline of local government’s expenditure share is the strong drop in infrastructure spending in recent years. The increase of the spending share at the state level is mainly due to the rise in pension payments for retired public servants and interest payments.

9 In 1997 there was a change in the statistical report on government expenditures in Germany. Up to the year 1997 (public) hospitals were included in the fiscal data whereas after 1997 hospitals have been taken out of the public budgets. Only transfer payments to hospitals - most of which are earmarked to investment expenditures and some transfers to university hospitals – have been included in the data since 1998. We estimated state and local government sector spending before the year 1997 excluding hospitals in order to make the time series comparable.

10 The federal government share also includes transfers to the EU as well as various special funds. The local government sector also includes special purpose local governments most of which are responsible for providing general community services such as waste disposal etc.

**Figure 5: (Net) spending shares of the federal, state and local government sector in Germany 1975 - 2001**




Source: Calculated from data supplied by the Federal Statistical Office of Germany.

In **table 2** we report the importance of the different functions for public spending at the federal, state and local government sector. At the federal level the two most important spending categories are welfare (38%) and transfers to other levels of government (30%). The next important government function is defence (10%). Only about 4% of federal expenditures are spent on education. At the state level, spending on education has the highest share (about 30%) and the second most important spending category are transfers to local governments (about 28%). Public order (police) as well as social welfare account for about 10% of state expenditures. Public administration (esp. state ministries) consumes about 6% of total expenditures. All other government functions are of rather small importance. At the local level, spending on social welfare amounts to about 30% of expenditures. Most of these expenditures are means-tested social assistance benefits. About 20% of local government resources are spent on community development and housing as well as education.

**Table 2: Net expenditures by category as a share of total net expenditures at the federal, state and local government sector in Germany in fiscal year 2001**

| | | Federal | State | Local |
|---|---|---|---|---|
| 1 | General public services/administration | 4,7 | 6,1 | 15,0 |
| 2 | Defence | 9,2 | 0,0 | 0,0 |
| 3 | Public order & safety | 0,9 | 10,4 | 6,1 |
| 3.1 | police, etc. | 0,8 | 5,7 | 6,1 |
| 3.2 | jurisdiction, prisons, etc. | 0,1 | 4,7 | 0,0 |
| 4 | Education and Research | 3,9 | 29,8 | 19,6 |
| 4.1 | schools, etc. | 0,0 | 19,3 | 16,9 |
| 4.2 | universities, etc. | 0,8 | 8,1 | 0,0 |
| 4.3 | other education | 0,5 | 1,2 | 2,5 |
| 4.4 | research outside universities | 2,5 | 1,3 | 0,2 |
| 5 | Health and environmental protection | 0,3 | 2,1 | 2,2 |
| 6 | Social Security & Welfare | 38,2 | 9,7 | 30,3 |
| 7 | Housing & community amenities | 0,7 | 2,4 | 18,5 |
| 8 | Recreational, cultural & religious affairs | 0,2 | 2,2 | 8,9 |
| 9 | Fuel & energy | 4,2 | 3,4 | 1,8 |
| 10 | Agriculture, forestry, fishing & hunting | 0,5 | 1,7 | 0,2 |
| 11 | Transportation & communication | 3,7 | 2,8 | 7,2 |
| 12 | Other economic affairs | 3,6 | 1,8 | 5,0 |
| 13 | Other functions (esp. interjurisdictional transfers) | 30,0 | 27,5 | -14,9 |
| | **Total** | 100,0 | 100,0 | 100,0 |

Source: Calculated from data provided by the Federal Statistical Office of Germany.

It should be noted that spending on health out of public budgets is of only minor importance at the federal, state and local public sector in Germany.[11] Pub-

11 In 2001 total health expenditures in Germany amounted to about 227 bn Euro (about 11% of GDP). The bulk of these expenditures were covered out of social security

lic health expenditures are financed out of social security contributes. However, at the state and local government sector health related expenditures arise because the public sector provides investment grants for hospital buildings and homes for the elderly and the disbabled. In addition, there are means-tested social assistance benefits for handicapped and elderly persons ("Hilfe zur Pflege").[12]

**Table 3** reports the distribution of net expenditures by function across the three layers of government. We will only comment on the most notable facts. In public order and safety, the bulk of expenditures accrues at the state government level. In the education system, spending by the federal government is of only minor importance whereas the states account for about 70% of education expenditures. 2/3 of welfare spending are borne the federal government which provides massive transfers to support the unemployed as well as the public pension system. Thus, from table 3 we can conclude that subnational governments are in charge of public services targeted to the younger generation (education) whereas expenditures of the federal government are biased towards the elderly. Consequently, one should expect that the demographic changes will increase the fiscal burden of the federal government whereas the subnational government sector might profit from the declining share of the younger generation.

**Table 3: Share of net expenditures by function of the federal, state and local government sector in Germany in fiscal year 2001**

| | | Federal | State | Local |
|---|---|---|---|---|
| 1 | General public services/administration | 30,6% | 32,7% | 36,7% |
| 2 | Defence | 100,0% | 0,0% | 0,0% |
| 3 | Public order & safety | 8,0% | 72,3% | 19,6% |
| 3.1 | police, etc. | 10,5% | 59,9% | 29,6% |
| 3.2 | jurisdiction, prisons, etc. | 3,1% | 96,9% | 0,0% |
| 4 | Education and Research | 11,0% | 68,4% | 20,6% |
| 4.1 | schools, etc. | 0,2% | 71,1% | 28,7% |
| 4.2 | universities, etc. | 10,7% | 89,3% | 0,0% |
| 4.3 | other education | 22,2% | 39,1% | 38,6% |

contributions whereas only about 8.1% of total health expenditures were financed out of the budgets of federal, state and local governments.

12 However, these expenditures are covered in item 6 in table 2 (social welfare).

| | | Federal | State | Local |
|---|---|---|---|---|
| 4.4 | research outside universities | 69,8% | 28,2% | 2,1% |
| 5 | Health and environmental protection | 11,0% | 59,3% | 29,6% |
| 6 | Social Security & Welfare | 66,6% | 13,7% | 19,7% |
| 7 | Housing & community amenities | 7,2% | 20,7% | 72,2% |
| 8 | Recreational, cultural & religious affairs | 3,8% | 33,6% | 62,6% |
| 9 | Fuel & energy | 54,8% | 36,3% | 8,9% |
| 10 | Agriculture, forestry, fishing & hunting | 25,8% | 70,4% | 3,8% |
| 11 | Transportation & communication | 42,6% | 26,3% | 31,0% |
| 12 | Other economic affairs | 52,1% | 20,9% | 27,0% |
| 13 | Other functions (esp. interjurisdictional transfers) | 64,2% | 47,7% | -11,9% |
| | **Total** | 45,8% | 37,1% | 17,1% |

Source: Calculated from data provided by the Federal Statistical Office of Germany.

## 4. Some methodical issues

Before we turn to our empirical investigation we examine some methodical issues that arise if the effects of demographic change on public budgets are examined. Total public expenditures can be written as:

(1) $$E_t = \sum_{j=1}^{J} E_{j,t} .$$

$E_{j,t}$ denotes expenditures in spending category j in period t. A decomposition of expenditures by age groups can be achieved by using the *age cost profile* concept and rewriting public expenditures as:

(2) $$E_t = \sum_{j=1}^{J} \sum_{x=1}^{\bar{x}} N(x,t) e(x,j,t) .$$

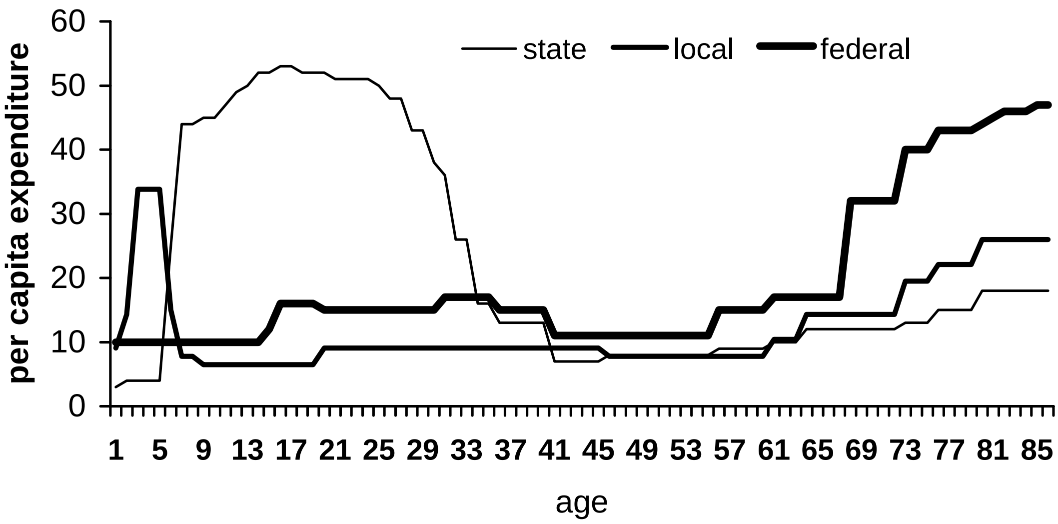
$N(x,t)$ denotes the population of the age x ($\bar{x}$ is the maximum age) in period t und $N_t = \Sigma_x N(x)$ total population. The variable $e(x,j,t)$ is the age cost profile which provides information on per capita spending on citizens aged x for the public good j (such as education, health, etc.) in period t. If the public good j is not age-specific (such as defence) the entries in $e(x,j,t)$ are identical across all age groups. A corresponding *age revenue profile* can be constructed for taxes, user fees, social security contributions etc. In addition, one can also add other socio-demographic dimensions or construct multi-dimensional categorizations such as age and gender cohorts, membership to different ethnic groups (natives vs. immigrants), or types of households etc. If we had information about the age cost profiles of the various public sector spending categories as well as population forecasts - differentiated by age – we would be able to forecast the impact of demographic change on public expenditures. This would be a very simple exercise if we assumed that the age cost profile were time-invariant, that is $e(x,j,t) = e(x,j,t+\tau) = e(x,j)$, for $\tau > 0$.

As a matter of course, one should expect that age cost profiles differ considerably across various spending categories (functions). Spending on education for example is primarily targeted at the young whereas health expenditures are higher for the elderly than for the young. In some categories a clear differentiation according to age groups might be very difficult or even impossible, as for instance in general public service provision or in public order and safety. In addition, the cost of providing services to a specific age group is affected by the behaviour of other age groups. Kindergarten services are a good example for the latter. The "demand" for kindergarten services does not only depend on the number and age structure of the kids but also on social norms in societies, the female labour market participation rate etc. This means that the cost of providing kindergarten services can increase despite a drop in birth rates if for example female labour participation rates increase.[13] As a matter of course, numerous other factors affect age cost profiles. Thus for example, the efficiency of the public sector as well as input prices are important determinants of the cost of public service provision. Finally, one has to take into account that age cost profiles are hard to compare across different countries because public and private service provisions differ considerably. In Germany private universities as well as private schools are still of minor importance whereas in other countries, such as the US, private institutions in the education system are of far greater importance. Even stronger distinctions can be observed with respect to the financing of health care and the pension systems across countries.

13 In fact, the demand for kindergarten services should be considered a "derived" demand.

In federal systems different layers of government perform different tasks and therefore the aggregate age cost profiles vary across the layers of government. Consequently, spending of the different levels of government should have a quite varying sensitivity with respect to demographic change. **Figure 6** presents stylized age cost profiles aggregated across all spending categories for the three layers of government taking into account the division of tasks in Germany. State and local government age cost profiles are expected to have a peak for younger cohorts due to the responsibility for education whereas the age cost profile of the federal government is expected to be biased towards the elderly.

**Figure 6: Stylized age cost profiles: per capita expenditure of the specific age groups across all government functions by level of government for Germany**




Source: *Seitz* (2004).

We already mentioned that in Germany 2/3 of tax revenues come out of taxes and thus, the corresponding age revenue profiles should not be that much different across the layers of government in Germany. In addition, the fiscal equalization systems at the state and local government level as well as the high volume of interjurisdictional fiscal transfers should work towards a marked convergence of age revenue profiles across the three levels of governments. For the latter reason we restrain from considering age revenue profiles in this study.

A final issue that has to be discussed is the stability of age cost and revenue profiles across time. One should not expect that these are time-invariant.[14] Thus for example, in the past we observed health care price indices to rise considerably faster than the average price level. This tendency - despite many policy actions to curb costs in the health sector - might well continue in the future resulting in a relative increase of the cost of servicing the elderly. In addition, the resources devoted to specific age groups (public education, cultural activities etc.) are decided upon in a political process of voting and the ageing process can result in a shift of political majorities that ask for different bundles of public goods. Finally, cohort behaviour changes over time, that means, that identical age cohorts at different times have different demands for public goods. Education is an good example: 20 years ago a smaller share of the young population attended universities and thus the demand for education of this cohort for this type of public services has been significantly lower than for the current living cohort in this age group. However, none of these and related issues are addressed in the present paper.

**Table 4: Assumptions on age cost profile indicators by government function**

| age group<br>Public functions and expenditures | 0-6 | 6-20 | 20-28 | 28-65 | 65-80 | 80-100 |
|---|---|---|---|---|---|---|
| 1. General public services/administration | 1 | 1 | 1 | 1 | 1 | 1 |
| 2. Foreign affairs | 1 | 1 | 1 | 1 | 1 | 1 |
| 3. Defence | 1 | 1 | 1 | 1 | 1 | 1 |
| 4. Public order & safety | 0 | 1 | 1 | 1 | 0.5 | 0.5 |
| 5. Jurisdiction & prison | 0 | 1 | 1 | 1 | 0.5 | 0 |
| 6. Schools | 0 | 1 | 0 | 0 | 0 | 0 |
| 7. Kindergarten | 1 | 0 | 0 | 0 | 0 | 0 |
| 8. Universities | 0 | 0 | 1 | 0 | 0 | 0 |
| 9. Financial support to students | 0 | 1 | 1 | 0 | 0 | 0 |
| 10. All other education | 0 | 1 | 1 | 0 | 0 | 0 |
| 11. Research outside universities | 0 | 0 | 1 | 1 | 0 | 0 |

14 See *Franco*/*Munzi* (1997).

| age group<br>Public functions and expenditures | 0-6 | 6-20 | 20-28 | 28-65 | 65-80 | 80-100 |
|---|---|---|---|---|---|---|
| 12. Culture | 0.2 | 1 | 1 | 1 | 1 | 0.2 |
| 13. Health and environmental protection | 0 | 1 | 1 | 1 | 0.5 | 0.5 |
| 14. Housing & community amenities | 0.2 | 0.2 | 1 | 1 | 0.2 | 0.2 |
| 15. Agriculture, forestry & fishing | 0 | 0 | 1 | 1 | 0 | 0 |
| 16. Fuel & energy & water | 0.2 | 1 | 1 | 1 | 0.2 | 0.2 |
| 17. Transportation & communication | 0.5 | 1 | 1 | 1 | 0.5 | 0.2 |
| 18. Economic enterprises | 1 | 1 | 1 | 1 | 1 | 1 |
| 19. Public property management | 1 | 1 | 1 | 1 | 1 | 1 |
| 20. Intergovernmental transfers etc. | 1 | 1 | 1 | 1 | 1 | 1 |
| 21. Pensions for retired public servants | 0 | 0 | 0 | 0 | 1 | 1 |
| 22. Administration of social welfare | 1 | 1 | 1 | 1 | 1 | 1 |
| 23. Transfers to the pension system | 0 | 0 | 0 | 0 | 1 | 1 |
| 24. Unemployment etc. | 0 | 0 | 1 | 1 | 0.5 | 0.2 |
| 25. Social assistance | 1 | 1 | 1 | 1 | 1 | 1 |
| 26. Youth welfare | 0.2 | 1 | 0.5 | 0 | 0 | 0 |
| 27. Support for mothers | 1 | 1 | 0 | 0 | 0 | 0 |
| 28. Other social welfare | 1 | 1 | 1 | 1 | 1 | 1 |
| 29. Labour market policy and support for the unemployed | 0 | 0 | 1 | 1 | 0 | 0 |

## 5. Some preliminary estimates on the effects of demographic change on public expenditures by level of government in Germany

In this section we use a simple simulation technique to derive estimates of the effects of demographic change on public expenditures at the various levels of government in Germany subject to the following assumptions:

1. The population is divided into six age groups.
2. Age cost profiles are assumed not to change in the period 2001 to 2030.

3. The public expenditure structure is perfectly and instantly adjusted[15] to changes in the age composition as well as the size of the population.
4. Price effects (wage and price inflation) as well as real growth are disregarded.
5. "Estimates" of age cost profiles are derived from data for the fiscal year 2001 as explained below.
6. We assume that the distribution of tasks between the different levels of governments as well as the legal and institutional settings do not change in the period 2001 to 2030.

In the education system, assumption 3 implies for example that the total volume of education expenditures is adjusted proportionally to any change in the number of school-aged person leaving per capita spending for the relevant age group unchanged. Disregarding price and real growth effects (assumption 4) means that our estimates compare the level and structure of public expenditures in the year 2001 to that level and structure of public expenditures that would prevail if the number and age structure of the population in 2001 were identical to that forecasted for the year 2030. Thus, we conduct a comparative static experiment isolating the effects of demographic change. Under this set of simplifying assumptions it is rather easy to compare the structure and the volume of public expenditures by level of government in the year 2030 to that of 2001 and to examine the question whether vertical fiscal expenditure imbalances arise out of demographic changes.

After discussing our assumptions we now turn to the derivation of highly stylized age cost profiles. All relevant assumptions about the "demand" for public services by the various age groups are reported in **table 4**. The entries in the table constitute a matrix of age-cost profile *indicators* which can be written as I(j,x). The index j = 1, ..J (J = 29) denotes the government function and the index x = 1, ..X (X = 6) is the age category. *Per capita* expenditure on a representative member of age group x in function j at the government level f is calculated as:

$$(3)\quad e(X,j,f)=\frac{E_j^f}{\sum_{x=1}^{6} I(j,x)N8x)}I(j,x).$$

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15 In a short-run or medium-run perspective the assumption of immediate adjustment is rather unrealistic because of indivisibilities as well as resistance to adjustment by public servants and other interest groups. For empirical evidence in the education system see *Poterba* (1998), *Baum/Seitz* (2003), *Kempkes/Seitz* (2004).

$E_j^f$ denotes expenditure of the government level f (f = federal, state, local) in government function j in fiscal year 2001. A "0" entry in table 4 means that the specific age group does not consume the public good provided within the specific government function. The entries in table 4 have been derived by examining the public services provided in the various age groups and are based upon "subjective" judgements as well as empirical facts[16]. Note that the matrix I(j,x) is identical across government levels but age cost profiles differ because the government sectors spend different amounts of money in the various categories. In a second step we calculate *aggregate age expenditure shares* for the different levels of government, f:

$$(4) \quad \varepsilon(x, f) = \frac{\sum_{j=1}^{J} e(x, j, f) N(x)}{\sum_{j=1}^{J} E_j^f}.$$

ε(x,f) denotes the share of expenditures at government level f[17] devoted to age group x.[18] It is important to note the differences between age cost profiles and age expenditure shares. Whereas age cost profiles provide information about per capita spending per person at some specific age, the age expenditure shares provide information about the share of public expenditures spent on a specific age group.[19]

**Figure 7** presents estimates of per capita spending on each age group aggregated across all government functions by level of government in 2001 in Germany.[20] The highest per capita expenditures we get at the the federal level for the elderly due to the massive transfer payments of the federal government to the public pension system. State and local government spending on the other side is biased towards the younger generation. The main reason for this

16 For instance, we collected data on the age structure of students, social assistance recipients, people imprisoned, etc. See *Seitz* (2004) for detailed evidence. In our future work we will discuss the rationale of the entries in table 4 in more detail.

17 By construction expenditure shares within *each* spending categories are identical across the three layers of government.

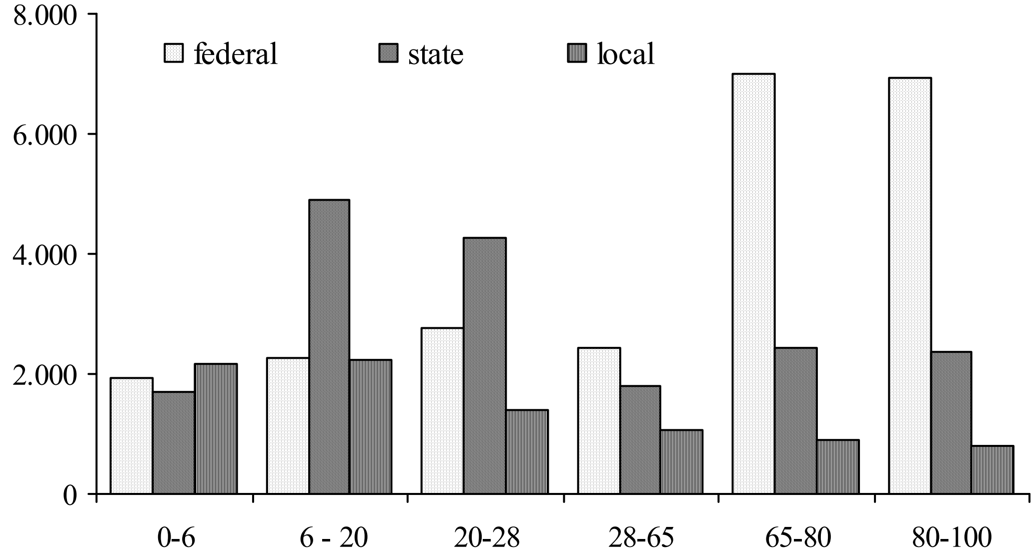
18 In equation (3) and (4) we suppressed the time index t for the sake of convenience.

19 Recall, that in our definition the social security system is not part of the government sector and therefore social security spending is not included in the list of functions covered in table 4.

20 By assumption, these are identical to the age cost profiles in 2030!

is the fact that responsibility for the education system - including kindergarten - rests upon states and local governments.[21]

**Figure 7: Net spending per capita of the relevant age group across all government functions in Euro in 2001 by level of government in Germany**




Source: Own calculations based on assumptions as set out in table 4 and data on net expenditures provided by the Federal Statistical Office.

In a next step we forecast expenditures in 2030 at each level of government using the age cost profiles derived above and population forecasts. The resulting age expenditure shares are presented in **figure 8a** (federal), **8b** (state) and **8c** (local). We can see that the share of expenditures devoted to the younger generation drops significantly for all levels of government whereas spending shares on the elderly increase. Taking into account our discussion above as well as the trend towards the ageing of the society this result is as a matter of course no surprise. However, the crucial questions are, whether these changes result in an increase in total expenditures and whether this process is accompanied by vertical fiscal expenditure imbalances.

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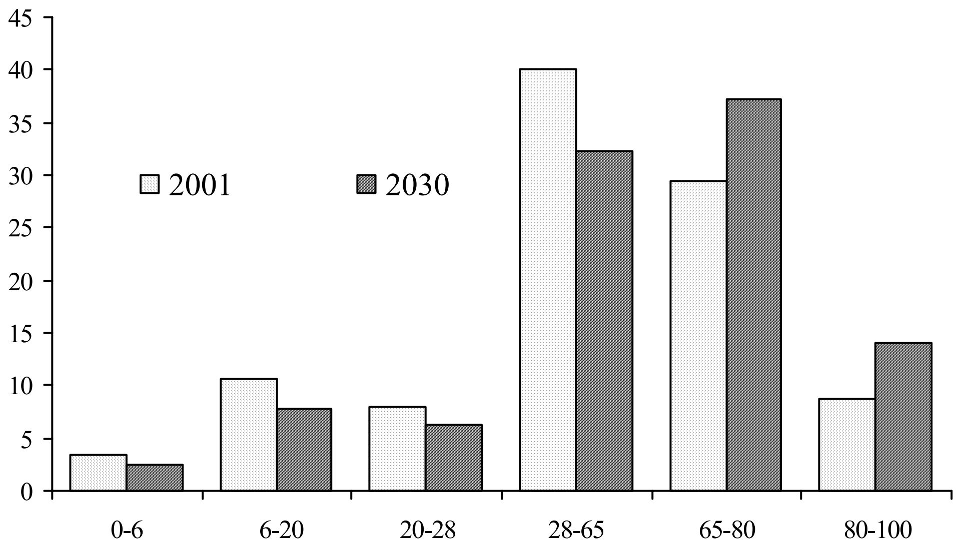
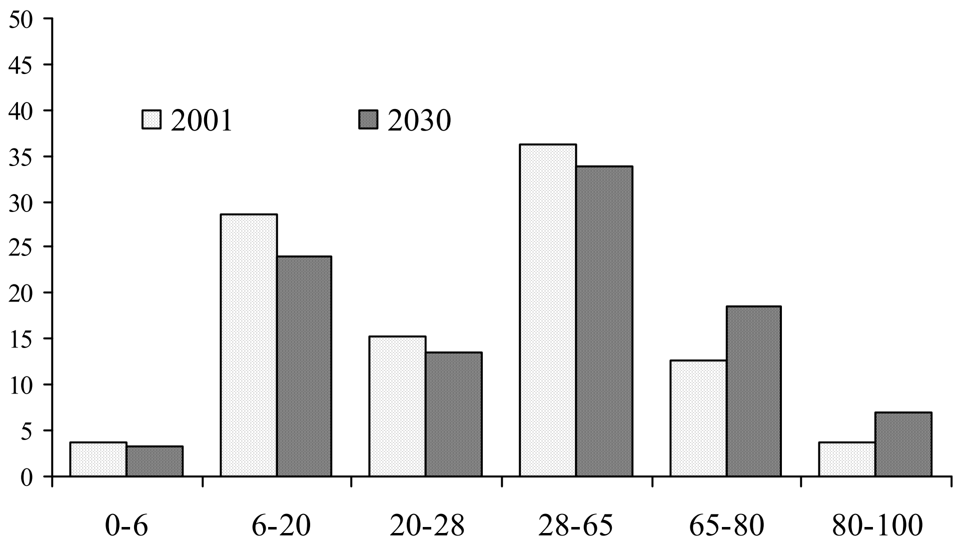
21 At the current stage of our research we implicitly assume that the retirement behaviour of public servants is identical to that of the total population. In future research we will refine our method by looking at the age structure of public servants more precisely (see for example *Fester/Thum*, 2003). Pensions to public servants are of considerable importance in Germany and amounted to about 2.1% of spending at the federal level, 7.4% at the state level and 4.0% at the local government sector in 2001.

**Figure 8a: Age specific expenditure shares across all government functions at the federal government level in 2001 and 2030**



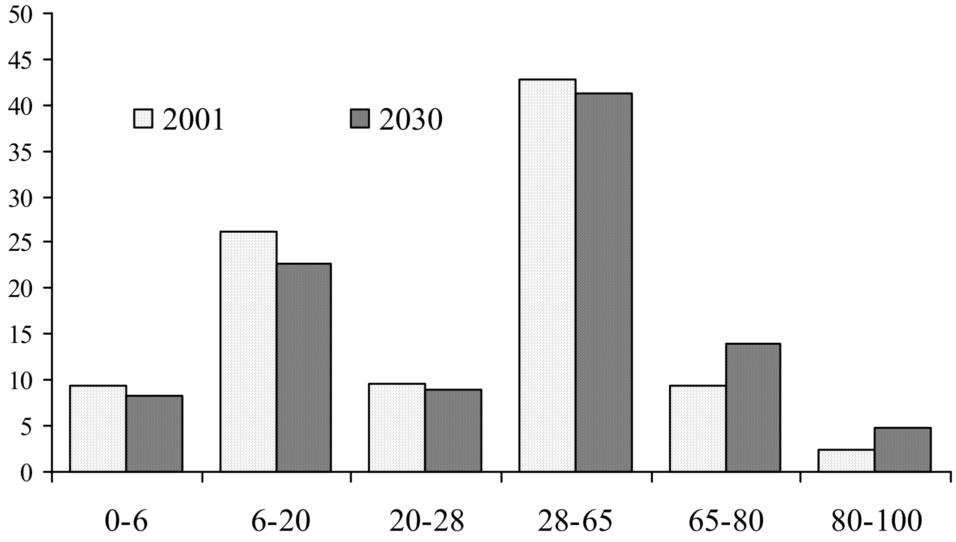

Source: Own calculations based on assumptions as set out in table 4 and data on net expenditures provided by the Federal Statistical Office.

**Figure 8b: Age specific expenditure shares across all government functions at the state government level in 2001 and 2030**




Source: Own calculations based on assumptions as set out in table 4 and data on net expenditures provided by the Federal Statistical Office.

**Figure 8c: Age specific expenditure shares across all government functions at the local government level in 2001 and 2030**




Source: Own calculations based on assumptions as set out in table 4 and data on net expenditures provided by the Federal Statistical Office.

Therefore, in a final step we calculate the impact of demographic change on expenditures by level of government in the period 2001-2030. The results are reported in **table 5**. The *level* of total government expenditure is likely to increase by about 2.7% with rather dramatic differences across government levels. Whereas total federal expenditures will increase by about 11%, state and local level expenditures will decline by 3.7% and 6.7% respectively. Because the population declines in the period 2001 to 2030, per capita spending of the federal government will grow even slightly stronger and per capita spending at the subnational level will decline by less than the volume of expenditure.

**Table 5: Changes in expenditures by level of government induced by demographic change in the period 2001 - 2030 assuming time-invariant age cost profiles**

| | total expenditure growth | total per capita expenditure growth |
|---|---:|---:|
| Federal government | 11,41% | 13,18% |
| State Government Sector | -3,65% | -2,12% |
| Local Government Sector | -6,66% | -4,93% |
| Total Government Sector (without social security) | 2,72% | 4,36% |

Source: Own calculations based on assumptions as set out in table 4 and data on net expenditures provided by the Federal Statistical Office.

As a matter of course, the different expenditure growth rates reported in table 5 have considerable effects upon the distribution of expenditures across the three levels of government, see **Table 6**. In the year 2001 the federal government accounted for about 45.7% of total public net expenditures. This share will increase to about 49.6% in 2030. In the same period, the state expenditure share will decrease by about 2.2 percentage points and by about 1.5 percentage points at the local level. The reason for the strong negative impact on state government spending is the drop in both the share and the number of younger people that demand (expensive) education services, which are mainly accounted for by the state government sector. On the other hand, the federal budget seems to bear the main fiscal burden of demographic change and will get under fiscal pressure as the number and share of the elderly increases. The reason for this is the fact that in the future - taking the current legal and institutional framework as given - larger amounts of federal money will have to be spent on supplementary transfers to the public pension system.

**Table 6: Total net expenditure shares in 2001 and 2030 by government level in Germany**

| | 2001 | 2030 |
|---|---:|---:|
| federal government | 45,7% | 49,6% |
| state governments | 37,0% | 34,8% |
| local governments | 17,2% | 15,7% |

Source: Own calculations based on assumptions as set out in table 4 and data on net expenditures provided by the Federal Statistical Office.

Thus, our simulation results suggest that demographic change will result in significant vertical fiscal imbalances in Germany "favouring" the subnational government sector. As there are no "automatic" adjustment mechanisms that bring about a corresponding change in the distribution of tax revenues across the three layers of government, the federal budget will live to see a deterioration of its fiscal stance as a result of the ageing process in Germany.

## 6. Conclusions and prospects for further research

The paper discussed the fiscal consequences of demographic change in a federal system taking Germany as an example. Using a very simple technique we derived estimates of the likely impact of the ageing of the society on federal, state and local government expenditures. The revenue side has been completely disregarded because of the peculiarities of the German system of revenue distribution across the various levels of government. Our preliminary results suggest that the federal government will have to bear the main fiscal burden of demographic change whereas subnational governments can realize demographic savings, if expenditures are adjusted to the changing size and age structure of the population. Most of the savings arise in the education system because of the decline of the relevant age group. This result is in sharp contrast to a recent study of the EU Economic Policy Committee (2003). The reason for these different results is the fact that the EU-study assumes an increase in per pupil/student expenditure in Germany due to an increasing share of young people attending university in the next decades.[22] In addition our results suggest that in the near future significant vertical imbalances will occur in Germany. These imbalances ask - if our estimates are at least qualitatively correct - for an adjustment of revenue distribution in the federal system or stiff policy measures to curb the impact of the costs of ageing upon the federal budget. It is interesting to note, that a recent study for Canada, see Conference Board of Canada (2002), arrived at quite different conclusions. This study predicts that ageing will put pressure on provinces and will contribute to an improvement of the fiscal stance of the federal government. The main reason for the differences between Canada and Germany seems to be that the Canadian Provinces are responsible for providing tax financed health care. Thus the federal distribution of the fiscal burden of demographic change can be quite different across federal countries due to varying institutional frameworks.

22 However, the arguments in this study are by no means convincing because the well developed vocational training system in Germany is not properly taken into account.

Our procedure rests upon rather mechanical forecasts of the effect of demographic change on public spending. Future research has to develop more refined methods. Accounting for cohort effects appears to be one of the most important factors in our opinion. Future cohorts might have different preferences than cohorts currently living (see for example the increase in the demand for education) and the size of the cohorts might affect cohort behaviour. An increase in the share of the elderly for example increases the per capita cost of providing services to the elderly for the working-age cohort which might result in downward pressure on the supply of per capita public services for the elderly. For education the reverse effect should apply. In addition, public choice aspects have to be incorporated. One should expect that intergenerational conflicts might arise because the political power of the elderly increases relatively to that of younger cohorts and this should have an impact on the provision of public services. Endogenous policy responses should also be modelled. Fiscal pressure created by demographic change will induce changes in policy such as reducing service levels, increasing private contributions to cover cost, changing the financing of the social welfare system, etc. Finally, all feedback-effects of changing demographics upon the economy (prices, employment, growth, etc.) have been completely neglected by us. Thus, a lot of important issues remain for further research.

Without doubt, our very simple simulation model has considerable deficiencies. Due to rather restrictive and simplifying assumptions our results should be considered as preliminary estimates of the likely effects of demographic change on spending in the German federal system. However, due to the division of tasks among the different layers of government one should expect that at least the qualitative main conclusion - increased spending pressure at the federal level and the possibility to achieve expenditure savings at the subnational level - should hold even under a set of more realistic assumptions.

## References

*Baum, B/Seitz, H.* (2003): Demographie und öffentliche Bildungsausgaben in Deutschland: Eine empirische Untersuchung für die westdeutschen Flächenländer, in: Vierteljahreshefte für Wirtschaftsforschung, 2/2003, 205-219.

*Börsch-Supan, A.* (1996): The Impact of Population Aging on Savings, Investment and Growth in the OECD area, in: OECD (ed.), Future Global Capital Shortages: Real Threat or Pure Fiction?, Paris, OECD, 103-141.

*Börsch-Supan, A.* (1999): A Model under Siege: A Case Study of the German Retirement Insurance System, in: The Economic Journal, Vol. 110, No. 461, F24-F45.

Conference Board of Canada (2002): Fiscal Prospects for the Federal and Provincial/Territorial Governments: Economic Performance and Trends. Ottawa: Conference Board of Canada.

*Dang, T. T.,* et al. (2001): Fiscal Implications of Ageing: Projections of Age-Related Spending, OECD Economic Department Working Paper, No. 305, ECO/WKP(2001)31.

*Echevarría, C. A.* (1995): On Age Distribution of Population Government Expenditure and Fiscal Federalism, in: Journal of Population Economics (1995)8, 301-313.

EU Economic Policy Committee (ed. 2003): Budgetary challenges posed by ageing population: the impact on public spending on education. EPC/ECFIN/435 final, 2003.

*Faruqee, H.* (2002): Population Ageing and its Macroeconomic Implications: Framework for Analysis, IMF Working Paper, No. 02/16.

*Färber, G.* (1988): Probleme der Finanzpolitik bei schrumpfender Bevölkerung, Frankfurt/Main: Campus Verlag.

Federal Statistical Office of Germany (2003): Population of Germany Today and Tomorrow, Wiesbaden: Statistisches Bundesamt.

*Fester, T./Thum, M.* (2003): Die Pensionslasten – Eine Bedrohung der zukünftigen Handlungsfähigkeit der Länder, in: ifo Schnelldienst 23/2003, 3-9.

*Franco, D./Munzi, T.* (1997): Ageing and fiscal policies in the European Union, in: European Commission Directorate-General For Economic And

Financial Affairs (ed. 1997): The welfare state in Europe: Challenges and reforms, European Economy, Reports and Studies No.4, 239-388.

*Kempkes, G./Seitz, H.* (2004): Auswirkungen des demographischen Wandels auf die Bildungsausgaben: Eine empirische Analyse der Ausgaben im Schulbereich auf der Länder- und Gemeindeebene. Forthcoming 2005 in a conference volume edited by the German Federal Statistical Office.

*Leibfritz, W./Roseveare, D./Fore, D./Wurzel, E.* (1995): Ageing Population, Pension Systems, and Government Budgets: How do they affect savings?, OECD Economic Department Working Paper, No. 156.

*Poterba, J. M.* (1997): Demographic Structure and the Political Economy of Public Education. In: Journal of Policy Analysis and Management, 16, (1), 48-66.

*Seitz, H.* (2004): Die Auswirkungen des Bevölkerungsrückgangs auf die Finanzsituation des Freistaates Sachsen und seiner Kommunen, in: G. Milbradt/J. Meier (ed.): Die demographische Herausforderung – Sachsens Zukunft gestalten, Verlag Bertelsmann Stiftung, 20-43.

*Turner, D.* et al. (1998): The Macroeconomics Implications of Ageing in a Global Context, OECD Economics Department Working Paper, No. 193, ECO/WKO(98)6.

## Spatial Aspects of Federative Systems – Final Discussion

***Gisela Färber*:** In the end of our conference we have two opportunities, first to discuss the papers concludingly and then shift over to the final discussion about future research under our subject, the spatial aspects of federative systems, particularly in that demographic change related to federative questions. I wish to address my call for discussion particularly to the young people who have unfortunately been a bit quiet in the conference, well the older are not so shy to tell something which the younger might have been expressing at least as well as the older ones, but particular with regard to the demographic change subject, we are interested in what the young people think, whether we have need for research and what are the questions involved then.

***Sandra Renn:*** Demographic change can be mitigated by an increase in technical progress and productivity as we know, which both, strongly depend on investment in human capital. However, I think, that the politicians of the federal government level are more interested in growth than politicians of lower tiers, and in some way one can see growth as a public good. On the other hand the Länder governments are responsible for education and therefore the investment in human capital. Many authors stress that the quality of our education system, on the other hand, will have to rise, when you see at, for example, most recently the results of the OECD-Pisa study. It's quite lightly that this will lead, or will have to lead, to a higher expenditure per child or per student, ceterus paribus. Even though the number of children and the number of pupils will decline, the expenditure per student or per pupil should have to rise when we want to have a better quality and then, perhaps, a better human capital. But, as I mentioned, the Länder governments might not be interested in that because this is the first and the best field where they can realise savings. Moreover, the Länder governments will also experience budgetary stress mainlydue to increases in the pension payments for their own former public officers. This problem is particuliary on the Länder level the hardest budgetary problem in the next years. All levels of governments will have that increase but strongest at the Länder level. So, I think, it's quite likely that the politicians of the Länder Governments will decide rather self-oriented and not for growth of human capital investments which will lead to growth for all of us. At present, we can see it in the problems, Edelgard Bulmahn, the Federal Minister of Science has with the Länder. Now these problems are not due to demographic change, but the Länder do actually act very self-oriented with respect to that. So, I think, it's quite likely that these problems, will continue in the future, too, eventhough for other reasons as it is today. Thank you.

***Silvie Stiller***: Just a comment on that. Because one side of the medal is that you have higher cost per capita, et ceteris paribus. But, of course, one has the possibility to shorten the time of education. We don't need thirteen years schooling before going to university. May be twelve years are enough. And if we shorten the time period of education, we have another positive effect. In the cause of demographic change we have to support the stabilization of labor supply. And, may be, there are some compensating effects resulting from a new education policy. It might be interesting to discuss that.

***Gunnar Schwarting***: I would like to make some remarks on the paper of ***Christian Leuprecht***. I beg your pardon that I will argue from a very practical viewpoint. Let me first tell the story of this state, of Rhineland-Palatinate. It started in 1950 with 3 million people and now has reached about 4 million. The people here have to realize that it's going down. This is not easy. Second: we are now discussing a new program for the state's development. One of the paradigms is the decentralized centralization, just to put the resources in growth poles and things like that. But no one knows what to do with the rest, with the desert, if we can speak of desert in this wonderful country. But there are some regions even in this country, which are very sparely populated. And on the other hand, we have no idea what to do with suburbia, which, I think, will continue to stay in vampire economy, i.e. live from the blood of their neighbour cities. Third: we were talking yesterday about equalization or equal/comparable conditions of living in Germany. What we do have, is a very, very strong discussion about same tariffs for energy, letters or telephone all over the country. And we have for it a specific legal construct. This is, I try to translate, the regulation of universal services. And fourth, you mentioned grading up of secondary education, why not do it on the national level instead of the state level. I have the feeling, we have a discussion just opposite in Germany, going down from federal to state, but also, if you look to the state of Baden-Württemberg, from the state to the local level. These might be some aspects from our viewpoint to your very interesting ideas you mentioned for Canada and for Germany.

***Horst Zimmermann***: First a remark on ***Christian Leuprecht's*** paper on the same issue which ***Gunnar Schwarting*** mentioned as his last point. It is not convincing for me that with this change in demographics and the different developments in the various provinces you should think of centralizing higher education. But I argue for a different reason. I think we agree that we should strengthen the growth engines of our countries. Your growth engine is Ontario plus one or two other provinces. These growth engines must be able to retain as much of their net-value-added for their own purposes, be they private (reinvestment), be they public (investment in their future growth). If you centralize higher education, you will have a strong equalizing effect, because the other provinces will look, whether possibly Ontario has three universities and they have only one each, so there should be another one for each of them. I know that from Germany because we have had this effect in the so-called Common tasks (“Gemeinschaftsaufgabe”). If you think of growth engines and how to strengthen them, I would not take this very strong element up to the federal level. That will have an equalizing effect, which will be at the expense of Ontario.

My second point relates to Germany. We talked about it briefly outside and I think we agreed. The big problem is in East Germany and it is tremendous, the figures show something which has never occurred in Germany, and we have to handle it somehow. In the year 2030, the share of the population in West Germany will be 80 % of total population. Of course there will be pockets of problems, like in Rheinland-Pfalz, but they will be very mild problems compared with, e. g., Uckermark in East Germany. But I go away from this conference, due to the two papers, being very relaxed as a West German and as a German in general. If 80 % of the population is in a situation in the year 2030, where we will have adjusted slowly to the upcoming demographic problems and have done something about certain pockets, that means that for 80 % of the population the situation can be handled. So we should concentrate on solving the problems in East Germany, which are tremendous, and then look very quietly into the future of West Germany.

***Gisela Färber***: With regard to education there are the same problems in Canada as are here in Germany. People at labor are mobile and in Canada there are public subsidies for education, incorporated in human capital and labor force, public subsidies move from state to state and from municipality to municipality. In Germany an important amount of education finance, for preschool, primary education, kindergartens, is subsidized by local governments and there are, from my point of view, important distortions because of the capacities, what the jurisdictions provide, the quality of these education services. In Germany the public schools, which a Swedish researcher recently mentioned, have been conserved as cloister schools from the middle age, when not a full-day education system in schools was required, but only within these morning hours, which are pressed between the prayers. That status of “antiques” is to be related with the finance regimes. Some reforms have been starting for German universities where it will be allowed to introduce fees, it is no longer prohibited by the federal law, the constitutional courts meet the verdict. There has been developed some ways of competition, and the competition in the education system among the states will increase due to its important locational and economic growth factors. My question is, what consequences of all these developments come there for financing education! Should we do it more privately, or do we need higher subsidies, and if yes, what type of subsidies. It's the big open question for the next years in many countries, the economic competitiveness will depend on how we solve that problem of education finance. Second, for ***Helmut Seitz***, you mentioned that the other expenditures, particularly fiscal equalization, granted from federal budget, are not so sensitive for demographic change. I have a different opinion because you didn't mention the horizontal outcomes of demographic change. That was not your focus, that's true. But if you look to the regional patterns that demographic change will have, not only might have, there will be fundamental changes for the need of equalization. Until now we do not know what are the incentives for governments and people from fiscal equalization. But all systems of fiscal equalization in Germany on the state level and on the local level are based on the size of population. Secondly, if you have a divergence of fiscal capacity, which only comes from aging population, because older people pay lower taxes than younger people, than the active population, and you have that divergence of aging between East Germany and at least West Germany in total on the level of the different *Länder*, then, under the regime of fiscal equalization you will have an additional need for fiscal equalization grants. This will give a higher share in federal money in the fiscal equalization scheme which will increase the level of political conflict. The question is what the politics will negotiate in that context, how fiscal equalization scheme in Germany will be and whether from that side there will, in the nearer future, be real incentives to undertake fundamental reforms of fiscal equalization scheme.

***Helmut Seitz***: Okay, just the last issue. I examined this for one state in detail. As a matter of course, there is a population size effect that is suspected to be due to these transfer issues, but not an age structure effect, as I also mentioned in the presentation. The age structure is virtually of no importance. In addition, we should not forget that we recently also changed the tax system by introducing taxation of pensions. So, in the next 25 years we will see a changing structure of the tax revenue profile. It will move towards the elderly, because we tax pensions in the future. (***Gisela Färber***: ***Sandra Renn*** is writing her dissertation on that and she has the opposite results). But this is the result of a study that has been carried out by the DIW in Berlin. Despite the fact that the age structure changes considerably this has not a quantitative important effect upon tax revenues! Next let me go to the comments made by ***Horst Zimmermann***. I fully agree that there is no need to panic. I believe we can manage everything, that we can also manage demographic change. But, I think, a very important aim of such studies is to arise attention, in policy and public discussion. Otherwise, people would be rather ignored about this. As a matter of course, we have to a make a distinction if you refer to east/west differences. If you look at the population forecasts by age structure, after 2030 there will be a convergence of the age structure between East and West Germany. I think also my chart on the share of the younger generation already disclosed this trend towards conversion. What will be different is the development of the pure population size. So, in East Germany we will really have regions, where virtually nobody lives. May be, ***Mr. Schwarting*** will see this in some parts of his state too! With respect to education two comments: First comment is, a main conclusion we can draw from the evaluation of *Pisa*-studies is, that resources are of not that much importance as the trade unions and as the teachers claim they are. Resources, as a matter of course, are of importance, but if you have a changing pupil-teacher-ratio within a reasonable range the performance effect of these changes is at the best marginal. Second point: Institutions matter, that is the true message from all these evaluations. And with respect to higher education, I would like to see it move to the federal level, but I share the critical comments by ***Horst Zimmermann***, because the federal government might be convinced to do some equalization policy with respect to higher education systems. We live to see this already within states. Some universities are only instruments of regional political appeasement. So this has nothing to do with education. I have no problems with decentralizing school education, if we have some institutions that control the performance of the decentralization system, as for example central examinations, at the federal level. With respect to university education I really believe that the future will bring us centralization. I believe this will be a trend in Germany.

***Christian Leuprecht***: Just a couple of quick remarks on post-secondary education. I don’t think that I would make the argument that I would want to shift responsibility. I am someone who believes that the federal government, there are only very few areas that it does well in policy and that most policy is better made at more local levels. But I think the federal government should get more involved in the funding scheme. And of course, it is always difficult to get the federal government involved in funding, we don’t give them any power of how to spend the money, being from Canada, I know about that. But I think, the issue about post-secondary education is fascinating, in the sense that what you have, of course, is also a huge shift in supplying demand within sub-territories for education with a decline in some university aged co-guards. You have a decline in the demand for higher education in particular parts of the country. What will happen is increasing, increasing basically, these institutions will subsidize the labor forces of other parts of the country. And I think you are absolutely right that it will be very difficult to convince policy makers to spend more money on education, and if there is anything to spend, put education on the second place, spend less on it. And I think the answer, although I know that this is heretical in Germany, are truncheon peace and some means of privatizing some office systems to represent that. I think this is the only way to serve counter-balance, some limited truncheon. And I think it's important, I like the decision that was made in Karlsruhe, because I think, one of the interesting things about federalism is, that you have these laboratories of experimentation. So you can actually let different *Länder* and provinces try different things. And I am very much for it, let us using that flexibility that is already in the system. Great fall with more than thirty: I think we also put higher education, we need to consider that university education is also meaning to defeat people out of the labor market, which is probably not in a long-term interest of a country, which at least wants to highly qualify it. Labor demand will soon exceed labor supply of the served qualified people that we need. And so I think these debates about whether we should, may be, shorten high-school, even shorten some university education service, how we train people, are important considerations, because basically we will have fewer people, highly qualified people, with an increased demand. So there is no point, unlike for instance seen in the 1960ies or 1970ies, to keep people in school for a very long time, because there will be jobs for highly qualified people. So I think we need to think about how we structure our education, our immigration policy and how we bring immigrants into the system. And I think Germany has to think about bringing more immigrants into its post-secondary education system using that as a means of socialization and keeping young people in Germany. Just a quick note in a quick story why federalism is so interesting, *Manitoba*, which is not an immigrant province. The city of *Winnipeg* has partnered with the province of *Manitoba* to try to bring immigrants to *Winnipeg* and it has done so very successfully over the last two or three years. And so it shows that, I think, we need to give more provinces, more *Länder*, more capacity to experiment and try their own sort of programs in this area.

***Everhard Holtmann***: Let me come back once more to the described gaps of problems between Eastern and Western Germany. I fully agree with ***Horst Zimmermann's*** description that we have these unbalanced problem structures between the eastern and western part of the country, but I hesitate to share the optimistic view of being able to handle these problems. I wonder if East German problem areas can be regarded as, let me say, a laboratory for problem-solving for Germany as a whole, because conditions there are changing, are changing rapidly, not only because of the demographic factor. It is not only the question of age, but we can notice an ongoing and over-average immigration of not only young, but better qualified and of female persons, female persons too. It is not the perspective to have regions where nobody will live. That's not the perspective, but it is realistic to calculate with such problem regions where are arising a specific social pattern and a specific political culture. Forecasts have lots of losers of modernization and that will be a permanent critical scenario, but probably not the soil for a national-wide solution. And therefore one question arises for me; Is the problem capable to be given to a decentralized problem management. Will it be sufficient or must we have such a re-centralization of problem solving, perhaps, by the power of the West, for the weakness of the East?

***Sandra Renn*** and then ***Gerhard Schick*** please: I agree with you that institutions matter very strongly when we talk about the impact of the demographic change. And indeed, our institutional setting needs a strong change, but with respect to that, I am rather sceptical whether we are actually going to make the necessary reforms. Because another aspect of the demographic change is the aging of the median voter, as ***Hans-Werner Sinn*** and ***Silke Übelmesser*** wrote in an article. At present, the age of the median voter is averagely 44, 45 years old and in 2050, it will be around the end of the fifties according to the current population projections.. Institutional changes and reforms are to a greater or lesser extent the result of democratic voting and so I wonder, for what kind of a policy this aged median voter is going to decide or going to vote for. In fact, I have no answer, but I am rather sceptical that deep changes or reforms where a larger part of the elderly will lose can be done. But they are absolutely necessary to cope with the consequences of the demographic change.

***Gerhard Schick***: I have one question to ***Christian Leuprecht*** concerning the regionalization of the German party system. This part of your presentations, I didn't really understand. My own perception is, that apart from the Bavarian experience and the ex-communist parties in the East, all regional efforts to create a new party were limited to very short periods of time. And, last week, the Schill-party in Hamburg announced its dissolution.

An interesting thing is to link the yesterday's discussion about Berlin and the metropolitan area of Berlin, which has no hinterland, to today's prognostics on demographic change in East Germany. I think the bets are open if the federal government in Berlin is able to avoid the dissolution of this metropolitan area, because from an economic point of view it is to expect that a metropolitan area, which loses its hinterland, will also lose importance. The federal government now with its presence in Berlin tries to block a little bit this movement and I think it is a very interesting experiment who is going to win, economic and demographic structure or the federal government.

Very interesting in the presentation of ***Helmut Seitz*** was the question of endogenous age-cost-profiles. I think this is a very good agenda for future research. Today's discussion of demographic change is very static. We see some lines of development but we do not really include what the economists should always include, the reaction of the market, the counter-balancing forces of social entities. I would very much like to have the same conference in a couple of years from now and hear more about that.

And a fourth very short point. Talking about these counter-balancing effects, I wonder if environmental legislation is not one of these. A couple of days ago, the European Commission announced very strictly enforced regulation on air-quality in the cities. And this is, of course, for agglomerations a very severe threat. And I also wonder if we could not use environmental legislation more as a means for balancing out between metropolitan areas and rural areas, for example concerning the use of land. I refer to the discussion on certificates. If we distribute the right to use nature equivalently among the population of our country, rural areas gain a new resource, a new source of wealth and I wonder if we could not pass some of the ideas we have discussed here to those who do environmental legislation. Thank you.

***Gunnar Schwarting***: First of all, I would agree, the East needs specific answers. We cannot sit here and look what the East will do. I think, this will not work. Second: “no need to panic”, I do not agree with ***Horst Zimmermann***, not for this panel, in this panel there is no need for panic. But politicians, they do not do anything without panic. So, I think it’s very helpful to have some panic in the head. Our Prime Minister has understood that demographic change is a problem and he has to look what to do. We should use this situation. ***Peter Treuner***, who is a regional scientist, planning scientist, argues that we have no time. If we handle things as we do in Germany, we are ready with our program in ten years. And then we can start with the program, perhaps. So, I think, we should make more, a little bit more of panic. Third: I think that the federal state cannot ignore the spatial consequences of demographic change, cannot leave it only to the states and the states cannot leave it to the counties or whatever. This is a national objective to handle these things in the East first of all, but also in the West. And perhaps two remarks concerning visions . One of the key issues or key assumptions was flexible response to changing demographics. We all know that we cannot respond flexible. So we have to ask what to do to give more flexibility to the public service system. I have a very short message: not have but hire. And the second is, we did not mention the importance of cooperation. When we talk about cooperation, we talk about public-private partnership. But what we do have to discuss, is the cooperation state to state, why not Rhineland-Palatinate and Saarland? Second: it’s state to local. There is a very low level of state/local-cooperation. And the third is: local to local-cooperation, which in many cases will not work without any incentive.

***Giancarlo Pola***: Now, I would like to do a reflection and raise an open question. In these hours I have been mentally comparing the two situations, the East-West problem of Germany and the problem of “Mezzogiorno” in Italy, which have started are being more and more studied in Germany: (my friend ***Hans-Werner Sinn*** in München has produced many papers about the comparability of these two situations) Yet, I myself I personally came to the conclusion that these two situations are quite different from the demographic point of view. The South of Italy has the highest share of young population in Italy. Southerners are the poorest, but they are also the youngest. It is not so for the East Germans, as I learn from your contributions to this seminar. So, that the Italian scenario cannot be compared with the German situation. They, of course, are the “Mediterranean” part of Italy and they probably obeys to other, more traditional, habits than those of the North of Italy, but they are, I mean believe, a sort of promise for us. I mean that: Young people are an asset, not a burden for the whole nation, so I am optimistic about the fate of the South. But the issue of poor and rich regions mixes up with the issue of how to set up a convincing federalization of Italy. So here again I am brought to reflect and think: here in Germany, you are unexpectedly worried about the capability of your system to resist this sort of differentiation; while there, in my beloved country, we are just worried about how to render justice to fulfill the expectations of all regional portions of Italian population and at the same time try to solve such a century -old problem as is the “Mezzogiorno”. I just end up with this question: Taking the territorial differentiation in wealth as given and as quite comparable (Calabria has 62% of the average income of Italy and Brandenburg or Lower Saxony have more or less the same percentage in Germany) is it possible to see, scientifically, whether the differences in demographic structures would do suggest any difference in the approach to the political solution of the problem, as well as to in the federal organization of our two Nations? This, as I said from the beginning, is just an open question. Thank you.

***Krisztina Toth***: Please let me add a remark relating to both presentations which discussed the demographic trends in Germany. I guess that the model you have presented for East and West Germany could apply on a larger scale to the relations between Eastern and Western Europe as well. I think we cannot analyze demographic trends in Germany without looking at the broader European context which is marked by the post-socialist transformation and the very dynamic process of economic integration. The eastward enlargement of the European Union has actually opened up (or will open up) the frontiers between East and West, and while income levels have already started to converge, this process will certainly take some years or decades. And during this time, a migration of well-qualified young workforce from Eastern to Western Europe is to be expected. Good news for Western Europe: the immigration of East European workers may help to boast public revenues and reduce social spending as the proportion of young people within the total population will increase. Bad news for the East: the "youth drain" will deprive transition countries of their most valuable resources, making conditions for economic development more difficult. My message is that the aging population problem is likely to shift towards the East in the following decades. However, nothing can be said at this moment about the length of this period. Once the salaries, as well as other non-monetary values determining the quality of life (such as the state of natural environment, education and health services), attain comparable levels in Eastern and Western Europe, migrant workers from the East are likely to return to their home countries for the years of their retirement and claim old-age benefits and health-related services there. The following generations will probably no longer feel the need to emigrate. But how many generations will pass before the present wave of financially motivated migration of young workers starts to abate? For the time being, it is impossible to make any predictions. Yet it is important to keep an eye on these developments in the following years.

***Helmut Seitz***: Just a short comment on the last issue. It might be possible that there can be migration to East Germany from Eastern European countries, but I doubt whether this migration will be significant, because, I think, in Europe we will face a problem the next 30-40 years that there will be a competition for human capital among the nations of Europe. That means we have to compete in Germany with France, Switzerland and the other countries because we are facing more or less the same demographic changes. It seems to be that France is a little exception to the rule because France has increasing fertility rates in the last years, but nobody knows whether this is a substantial change and perhaps even we can experience such periods of an increase in the fertility rate.

***Christian Leuprecht***: Just a couple of quick comments to echo that on immigration. I think immigration is an issue where we virtually need to have a national strategy, because it deals with territorial sovereignty. But, I think, you also need to have very strong and increasingly strong sub-state involvement in this section of immigrants, because different states will decide to take different strategies with regard to immigration and will be looking for a different sort of immigrants. So, it’s a perfect area, I think it’s only sustainable with cooperation. The only other brief point is, that, I think, you are absolutely right, while for me the future in terms of this research line is particularly the local level and local/local cooperation. And if we look at the diagram of the multi-level governance, I mean, this governance tends to be structured very horizontally and, I think, all this research of multi-level governance deals very much with them, shows how important it is, how the vertical part of the system is uncoupling, as a result of mobilization, economic developments, demographic differentiation and how the horizontal dimension of governance is becoming so much more important. I think, for that reason alone it’s also important to leave some more rules to the sub-state, so that they can experiment and cooperate with other sub-state units in Europe that might be facing similar problems or might adopt similar policies.

***Gisela Färber***: We are now coming to the last round. The whole discussion is not questioning an answer but it's a high involvement of all speakers in prospective questions and development of research. But for the last round I explicitly ask you to formulate what you think what we need to research in the next future years and at the same time I invite you to bring you in and offer, may be we can make something of a network and research group. May be, you can express something of interest or some ideas or what we can do together.

***Horst Zimmermann***: First I would like to make a brief comment on this cooperation between the *Länder* in East Germany. The Academy of Spatial Research and Planning has two types of working groups. One is national with one subject and participants coming from different parts of Germany and abroad. The second is a network "Regional Working Groups" (Landesarbeitsgemeinschaften). For some big state like Bavaria exists a separate one, for smaller states one group comprises several states. Each group includes regional planners and persons from the universities, and they work together on the problems of that area. For East Germany there exist two such groups, one in the north (Berlin, Brandenburg and Mecklenburg-Vorpommern) and one for Sachsen, Sachsen-Anhalt and Thüringen. . In these two groups there has been from the beginning, soon after German unification, a strong discussion of the various subjects, which they have in common. And it is there that, through an initiative of the Academy, much work on demographic change has occurred over recent years. So, there are common efforts like that, but otherwise I subscribe to the fact that there is not enough cooperation among these *Länder,* looking at the huge problems they face. If you are rich and have no problems, forget about cooperation. But if you have to allocate scarce resources, you better cooperate.

Now I would like to come back once more to the issue of a national or provincial higher education. Canada, of course, is a country much more varied and widespread than Germany, and still you are discussing this issue of centralization. While you were responding, an argument in favor of some coordinated effort might be advisable under the national perspective of exhausting your supply of good young people. If they are living very far away from the next university, there is a high probability that they will not go to university or college at all. That is one of the reasons why, besides equalization aspects, we established universities in far-out areas in Germany like Konstanz or Bamberg. And, I think, this argument becomes stronger with the diminishing supply of young good people in all our countries, but particularly in Germany. The question is whether we really do need far-away universities for that purpose, because that is a very expensive solution. Or whether you subsidize heavily out-of-town studies. I know what I am talking about, because my three children were at the same time studying out-of-town being interested in economics and management science, they could not study very well at the university where I am professor. Another colleague told me long ago, when he was in the same situtation: "I have never earned so much money in my life, and I have never had so little available". It is very expensive to have children studying out-of-town. So if you subsidize some kind of educational mobility scheme, maybe that would be a less expensive solution than having far away universities centrally financed and organized, with all the problems of federal interventions.

***Christian Leuprecht***: I have a quick reaction to that. Canada started three years ago some projects in virtual university, and actually what I do, as a large part of my job at the Royal Military College. There are 6.000 students at the college, only 1.200 are residential, 5.000 are distance students and we have 2.000 students a year taking politics courses. And one of the efforts in this Canadian virtual university is the Quebec answer to that, is to develop a national strategy for distance education, and especially with regard to a continuing education, I think. This is a particular need allowing people to have a fist degree, to upgrade or to specialize.

***René L. Frey***: From what I have heard this morning and looking from the Swiss experience, I am a little bit surprised that immigration and immigration policy is not a big issue in Germany. The only person who has stressed this aspect was a Canadian. I suggest that you organize a kind of network or research program treating the relation between immigration, demographic change and economic growth. I have the impression that a good immigration policy could solve some of your aging problems. Immigrants normally belong to the age group of 20 to 40. They help to normalize the distorted age structure of aging societies.

***Christian Leuprecht***: I don't think immigration solves your aging or dissolves the aging problems per se, but dissolves your innovation problem of having more younger people, because the immigrants also tend to bring their families.

***Gisela Färber***: With regard to the demographic patterns, the problem of Germany is not to have too few children. That's some kind of paternalistic view. From my point of view the only real problem is that each year, each birth year, people become older by 40 days. That is a tremendous dimension for changes in public expenditures, ***Helmut Seitz*** talked about the problem of the age profile of public expenditures. But I think there is a dynamic side of the problem, because this will bring a change of priorities, not only by the increase of age of the median voter, but also by the real public needs of that population. With regard to age frontiers for pension schemes, e.g. people can only counteract the future loss of pension income by working longer. Other public goods will change, the behavior of people will change. The development is very unequal in Western and Eastern Länder. The extremely low birth rates in the beginning of the 1990ies in the eastern Länder, only show half of the side of the problem, because in the next years there will be a strong growth of life-expectancy. And the population there will age in the double speed than in the western states. And I don't know how, for example, the transfers from West to East Germany will develop. Until now, we have stabilized the process by the interregional transfers of social security systems and by the intergovernmental financial transfers. If younger people migrate to West Germany the imbalance becomes bigger and bigger. The same problems can be observed among countries where there is no internal financial connection to stabilize the process of the different speeds of aging. It should urgently be investigated.

***Horst Zimmermann***: ***Helmut Seitz*** mentioned in his paper that on the revenue side there occurs a lot of what I think you named "smoothing out of regional demographic change" And you spoke of risk-sharing in terms of demographic risk. I agree with many of your assertions that we have too much equalization, up to 100 %. But in this specific case, I am still thinking whether it is really so bad, if regions and especially in the case of East Germany some of the *Länder* are particularly aflicted by the consequences of demographic change plus out-migration etc. To reflect this on the revenue side would mean to have these regions in trouble somehow finance themselves more from their own - very very small - resources. Or to put it the other way around: Maybe this issue of demographic change, which is mainly not the fault of a particular region, is really an issue where a national effort is the thing to do. And looking at our 85 % shared taxes (which I hate under other perspectives), isn't that in this particular case rather an advantage? I have not yet finished my thinking on that, it only started when you argued this way. To put it different: Isn't this a case where national risk-sharing is adequate?

***Helmut Seitz***: I have to admit that I have to think about it. It is an interesting question. What struck my mind during your argument is the following. My presentation covered the total of Germany. If I take a differentiated picture, differentiated by east/west, so we will have much stronger effects in East Germany as compared to West Germany, and if our simulation results are correct, we should expect taking the age structure into account that the East German states can, in the future, manage their expenditures with a lower amount of per capita revenue, because our simulation results suggested expenditure saving effects, assuming perfect flexibility as a matter of course, at the state and local level. So, I think, the answer would depend upon the intensity, the real intensity of these effects. But, as a matter of course, this risk sharing or smoothing effect would take some pressure out of the necessity to adjust the changes in demographics. And I believe we can even observe this in East Germany. All East German states are currently in hard struggle to reduce the number of teachers. And in some cases these effects are that strong, that I calculate for some states dramatic expenditure reducing effects, that will take a lot of fiscal stress in 10 or 15 years time, if they succeed in their policy, because as we know about 40 % of the state expenditures go to the education system, the bulk of 60-75 % go to school teachers, only 25 % are for universities. But, I believe, of much greater importance is the problem raised by you, at the local level, because I made a very simple regression examination at the local level, at the county level in East Germany and you can see the effects of demographic change in the data, for example I made differentiation between counties according to different degrees of population losses. And there is a strong effect that counties with above-average losses of population increased their per capita personal expenditure. And another interesting effect is also investment, per capita investment expenditure increases too, because obviously there are some fixed costs of handling investment projects or the distribution of our investment grants is not that much sensitive to demographics. I think, I mentioned this effect already yesterday or the day before yesterday. So I really believe that there has to be a lot of research done and I even believe that we need mechanism to handle these effects, especially at the local level. For example one should have some smoothing effects in local grant provision, because in East Germany you really have cities, counties that have an average loss of population of about 1,5 % each year, which is really a lot. This means that revenues out of grants decreased dramatically year by year, and they are simply not able to absorb these changes of the revenue side at the expenditure side.

***Horst Zimmermann***: The answer makes me think again, and I very much agree with this. So if I sum it up, I would say, I would split between East and West and between *Länder* and county/local level in that respect. So you have a four-quadrant field. If it comes to the *Länder* may-be, they would need some help; but they receive help anyway through the horizontal equalization system between *Länder*. As far as the West is concerned, with 80 % of the population in 2030, we should have them adjusted to their demographic pressures. There should be no allowance for that in equalization or something like that, because, as an example, if a region is declining, it has to adjust to the decline: Either they are able to get out of it through adequate economic policy, or they have to adjust their public sector. So, I would only think of some patches, so to speak, in East Germany, where I would not let them drop fully back on their low expenditures, because there everything happens so fast. But with the other three fields in the quadrant, I would totally agree with you for efficiency reasons: We really have to adjust them. Thank you very much for your kind attention.

***Helmut Seitz***: In fact, this effect should be also prospective. For example, we have especially in East Germany, but also in West Germany, a discussion on where to direct our public resources, especially in the area of infrastructure investment etc. So, the question is, should we really construct modern high capacity roads in regions where nobody lives in 20 years. This is really a crucial issue and you can imagine what trouble you have in East Germany, when you say this in some peripheral area as Uckermark.

In East Germany we have an unbelievable density of theaters at the local level. The density is two times, three times higher as in West Germany. So that means, small cities like for example Franfurt/Oder with 50.000 people have a theater but in 20 years there will only be 35.000 people and they will have to close the theater because nobody can finance the running cost.

***Thomas Lenk***: Just a small comment to ***Helmut Seitz***. I think the question of infrastructure in the East is a really mature issue. If we won't have the infrastructure we have now, for example in Leipzig, there wouldn't be BMW there, there wouldn't be DAL there and we wouldn't get those workplaces there. The way you work with this aging problem, is always the question how to handle this problem. I think, we should think about it how to solve the problem, that's a difference and that means to me, that we have to look how to change our family policy. Should we do it like the French people, get some incentives like that, or to give some infrastructure that we have working places in the East. I think there are two different ways to see this kind of problem. Then I have a question to your results: you said at your last table there, that, okay, there is a decrease in expenditure growth on the state, on the local level, you just referred to that. And I understood this table in that sense, that we have a new adjustment between the federal level and the state level, a vertical adjustment should be the result of your table and not a horizontal discussion between East and West, that's a different thing. So if we have a growth in expenditure in the total, the table paged 19, says that the federal government expenditure increases at 7,9% and the sub-national levels have a decreasing, then the question is, for example, what should we do with the lack between these two levels and something like that. So, please help me with the interpretation of that table, if it makes sense to interpret it in a horizontal way, I think we should only interpret it in the vertical sense.

***Helmut Seitz***: Just a reply to this. We have to concentrate infrastructure investment resources etc. on urban agglomeration areas, but not on the peripheral rural areas. That is the main issue.

***Christian Leuprecht***: Germany doesn't have an immigration problem if you look at the figures, Germany has an emigration problem. So, Germany can keep its people here. I think, the future for Germany and particularly for the federal debate and federal investment lies, I think, in not investing in immigrants, but in the children of immigrants, making sure that the immigrants who are here stay here and making sure that their children get a proper and sound education, both primary as well as secondary and post-secondary education. When you talk about children and immigrants, you can see that, I mean, the children of immigrants have just completely skewed the Canadian age pyramid if you disaggregate it by an overhang of the use between under 25 and are now identifying themselves neither British nor Canadian. So I think this is where the federal policy parts fit.

***Anja Eichhorst***: I have just a short comment on what ***Prof. Seitz*** said. I think we shouldn't forget the causes that have led to such a dramatic change in demography in the East. It was the dramatic change in the economic situation and the uncertainty about the future that made people refrain from having children. Therefore, I think that solving the demographic problem in the East is not an issue of providing institutions such as kindergartens , because we have such institutions. Maybe it's a different thing in West Germany, but in the East I think the causes are very different; they are economic in nature.

***Bernard Dafflon***: My remark runs along the same line. I totally agree: it sounds very much a non sense to believe that with active demographic policies a nation will change the parents' private decision to have more children. Yet, you have to look at the practical situation of a country before drawing any conclusion. If you want qualified women to return back on the labor-market after maternity, and at the same time improve the national rate of birth, then you obviously need kindergartens. Otherwise you run into problems because there are no facilities. So, you cannot just say that a policy coming out with the proposal to build and to install kindergartens is just nonsense. Here you have a real causal relation between work and motherhood. You can call it nonsense and ignore it at the start, but you remain with your problem that demography and the kind of pyramid of ages you have within one particular region bring with it specific needs for an infrastructure. I am not sure that, as you say, the market will solve the problem. At least this does not correspond to the Swiss experience. There, the cantons and the federal governments have stepped in: not for demographic problems, but just because they want a return on investment for highly qualified women who step out of the labor market at the end of their education after the birth of their first or second kid. And the market did not respond providing facilities or the response came from very specific industrial groups in order to retain female employees with specific qualifications (the watch industry for example). So if you leave the response to the market, either women remain at work but abandon the idea to have children, or they have children but then problem to accommodate their family life with a professional occupation. You are back to square one. That's the problem for me.

***Gisela Färber***: After that discussion I am sure we will continue. And I am sure, we will have that last subject of the conference to be continued, because it is something, which we all, whereever we are living, will be concerned with and it will happen under our own, our proper life-expectancy, even for the older here in the room. I have listed a lot of subjects, education finance, federalism etc. and the last was a special gender perspective of demographics, and all under these spatial aspects. That's different from others and we will negotiate how to implement this in the research system. For the moment, because some people have quickly to leave, in the moment I can only say, thank you for all, it was wonderful to have you here and to speak to you, to drink with you and discuss and work together. Thank you for all. Have a good travel back to whereever you come from. I am sure, we will come back and I can invite you to come back to this room with the wonderful atmosphere. Thank you very much and the last word to ***Horst Zimmermann***.

***Horst Zimmermann***: For me the conference had two parts. One is the scientific part, and there I was partly responsible, so I was looking forward to whether it was working all right. And I think with the quality of the papers and of the discussion, particularly this morning again, I am very much satisfied But the second part, which is the conference infrastructure and includes yesterday's evening and for which I was not responsible, I would like to thank in the name of all of us ***Gisela Färber*** and her crew: This was a dangerous investment, because we might come back soon. Thank you very much.

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FORSCHUNGSINSTITUT FÜR ÖFFENTLICHE VERWALTUNG
bei der Deutschen Hochschule für Verwaltungswissenschaften Speyer
Freiherr-vom-Stein-Straße 2 • 67324 Speyer • Postfach 1409
Tel.: 06232/654386 • Fax: 06232/654290
e-mail: foev@foev-speyer.de • Internet: http://www.foev-speyer.de

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