Algemene Rekenkamer

Financial autonomy of local and regional government: recent Dutch experience

Hans de Groot, senior counsellor
The Netherlands Court of Audit

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Content

- Dutch government and the Netherlands Court of Audit at a glance
- Local finance and European perspective
- Recent developments
- Challenges ahead

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State of the Netherlands

Three Governmental Levels:

State level

Provincial level (12 provinces)

Municipal level (443 municipalities)

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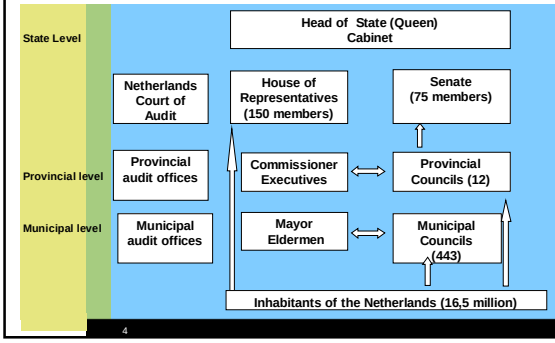
Netherlands government



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Audit Mandate and Scope

Mandate: Constitution (1814)

Government Accounts Act (2001)

"NCA audits whether the financial management meets standards of regularity, is well ordered and accountable" (Art. 82 GAA)

"NCA audits the effectiveness and efficiency of central government policies" (Art. 85 GAA)

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Audit Mandate and Scope

Scope: Central Government

Legal entities with public duties (social security, regulators)

State subsidized organisations (social and cultural services)

Recipients of European Union subsidies

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Key facts about the NCA

- Independent
- Board: 3 members
- About 300 staff, of which 200 auditors
- Annual budget: € 26.7 million
- 25 reports annually
- Reporting to parliament, ministers, other auditees and the public

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Council of Europe

- European Charter of Local Self-Government (1985):
- ‘Local authorities shall be entitled, within national economic policy, to adequate financial resources of their own, of which they may dispose freely within the framework of their powers‘
- Different recommendations

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Basics of local finance

- COE-study Local finance in Europe (1997)
- Local taxation to encourage balancing costs and benefits of local public services
- Equalization transfers or grants from central government if access to services should be independent of local income and wealth while respecting local preferences
- Specific national objectives require specific grants that cover costs

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Some European data

- Relative importance of local government in comparison with state and central government and social security funds
- Expenditure data approximate volume of local vs. total government spending
- Local vs. total tax revenues measure importance of local balancing of costs and benefits of public services

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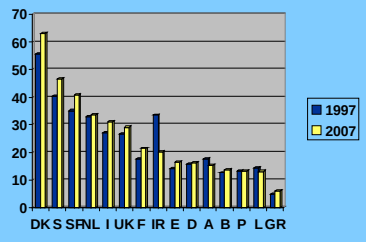
share of local expenditures



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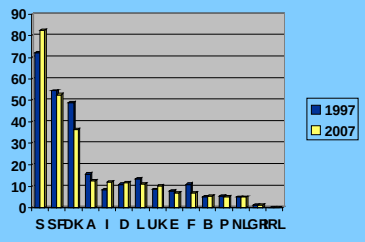
share of local taxes



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Dutch local finance

- Large dependence on grants
- Municipalities: 44% general grants, 36% specific grants: welfare benefits, primary public schools
- Provinces: 23% general grants, 52% specific grants: regional public transport, environment, institutional youth care

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Sophisticated distribution models

- General grant to municipalities:
- 60 parameters to reflect demand for services and cost differences: population size, age, income, occupational status, area size, correction for local tax capacity (local property values)
- Provinces: simpler, but similar

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Level of grants

- Political agreement on total level of general grants, more or less following evolution of central government expenditures
- Discretionary spending of general grants, although national legislation sometimes imposes constraints
- Specific grants with specific requirements on standards of service and accountability to central government

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Recent developments

- Stated central government policy already for decades prefers local taxation and general grants over specific grants
- Reduction of specific grants: 1/5 of the level 25 years ago, 40% reduction in money terms, but slow down in recent years
- New target: reduction by another 50% (15% in money terms) between 2007 and 2012

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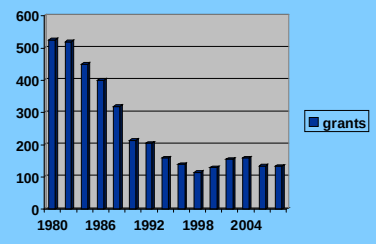
specific grants 1980-2007



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On the other hand...

- Amended law in 2008 introduces ‘decentralization grant’ as part of the general grant
- Part of general grant, but not distributed through model parameters
- Practice: many ex-ante conditions to be fulfilled when local government applies for this grant
- As a general grant no ex-post accountability to central government for spending and results

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On the other hand.. continued

- New grant introduced despite negative advice from Council of State and Financial Relations Council
- Incentive for central government to transform specific grants into decentralization grants
- Also: in 2006 one billion euro reduction of local revenues by exempting users (not owners) from local property tax

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Challenges ahead

- Current credit crisis and economic recession stresses financial relations between different levels of government
- Recovery of assets from bankrupt banks led to debate between central and local or regional governments
- Crisis requires careful coordination of central and local investment programs, also taking into account EMU-criteria

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Challenges continued

- Recent report on the system of general grants to provinces will revive debate on tasks and finances of different levels of government
- Decentral financial autonomy has to be carefully designed, accounting for local preferences and solutions on one hand and nationwide preferences for universally accessible public services on the other hand

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Challenges continued

- The Dutch system of a fundamentally open economic household for each of the three levels of government requires political consensus on the optimal division of responsbilities between those levels – even before considering finances
- Answers to the economic crisis could be found in solutions provided by local and regional government: creative, flexible and adapted to local needs and capacities

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Some Political Economy Insights to Multi-Level Government Financing Mechanisms in Hungary

Analyis of political budget cycles and partisanship in municipal investment activities and central grant distribution

Judit Kalman – CEU

Structure

- 1.Introduction
  - What this paper is about? Theoretical context
  - Empirical context
- 2. Some background facts on the Hungarian local govt. infrastructure policy
- 3. Data and estimation methods
- 4. Empirical Results
- 5. Concluding remarks

What this paper is about?

Point of departure: how do political institutions effect government efficiency? How much the struggle for votes distorts economic policy/financing choices?

Interaction of politics and economics – old and new topic (A.Smith, J.S.Mill - Buchanan, Lindblom etc. – new political economy)

Puzzle: decentralization is a continuing policy trend, LGs becoming important players in the economy – however in reality there are downsides, institutional, political and other factors that do interfere with decision-making and can increase the chances for inefficient policy outcomes

Theoretical Context

Traditional public finance/fiscal federalism

Decentralization theorem (Tiebout,Oates etc.): matching public services more closely with local preferences brings allocative efficiency gains (economic argument) + more responsible and accountable, less corrupt government (political argument)

Critiques of decentralization + 2nd generation of Fisc.Fed.

- **decentr. brings** coordination problems which can result in **equity and efficiency problems** : a great need for central government intervention ("trap" of decentr.), **insufficient information** and institutional setup can eventually lead to **strategic behavior** and thus to management problems, scope of corruption might in fact be increased

⇒ **decentr. outcomes depend a lot on the design of fiscal transfers** (Shah,2005)

Theoretical Context

Political economy of intergovernmental grants:

(Worthington-Dollery, 1998, Grossmann, 1994, Dollery-Wallis,2001, Porto-Sanguinetti 2001, Drazen 2002, Feld-Schaltegger 2005, Pinho-Veiga, 2004 etc.)

- **grants are viewed as providing direct political benefits to both recipient and higher level government** or governing party (esp. In **vote-generating visible expenditure items) without pain of additional taxation** for the recipient, while in exchange they deliver political capital/votes for the higher level
- literature on pork-barrel programs (Ferejohn,1974, Weingast, 1984, Persson and Tabellini,2000 etc) and rent seeking (Tullock etc.)

Theoretical Context

Political Business/ Budget Cycles: manipulation of economic outcomes /instruments of economic policy surrounding elections

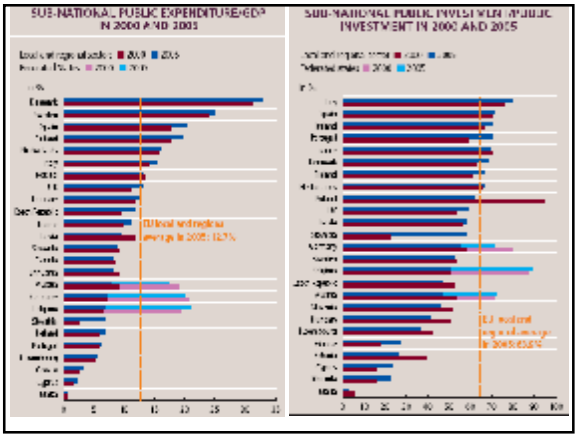
- **3 generation of models**: **opportunistic**(office motivated-Nordhaus,1975) vs.partisan (ideologically difft. Goals – Hibbs, 1977, 1987) **signalling competences** (Rogoff-Sibert, 1988, Rogoff,1990), **moral hazard** Persson and Tabellini (2000), Shi and Svensson (2002), DeHaan-Mink(2005)
- Targetting **core disctricts** (risk averse candidates favor their supporters Cox-McCubbins,1986) vs. **swing districts** (Lindbeck-Weibull,1989, Dixit-Londregan,1999, Johansson,2003)

- **PBC empirical literature: mixed**, for usage of fiscal policy instruments/deficits there is more empirical support **very few on PBCs in the subnational context** (Veiga,2004, Veiga-Pinho,2005, Balerias-Costa, 2005, Sole Olle-Navarro, 2006) → **need for more**
- Voting literature: economic conditions effect on election results - debate on retrospective or prospective voting? Pocketbook voting?

→ **a deeper understanding of the connection between federalism and economic and political performance is clearly needed**

Empirical Context

- **LG policy sphere**: institutional and political complexities + paradigm shift **from government** (hiearchical, bureaucratic,standardized) **to governance** (consumption based, corporatist, network governance) ⇒ **analysis of LG policies can only be adequate if they account for the complexity of actors and incentive mechanisms** (Bailey,1999)
- **Capital investment: sub-national governments very active** (in EU more than 2/3 of all public capital exp.by LGs in 2005, 176 bn Euros - Dexia Report)
- **infrastructure financing is especially prone to political considerations** and corruption due to **high visibility**, high expenditures, lobbying by special interests, possible control of timing and level of investments by politicians – offering more transferable political capital (Romp-deHaan,2005, Veiga-Veiga,2006) – yet they strongly effect long run growth prospects and productivity of a country
- Central **capital grants given to municipalities are more discretionary** than operational ones (not all localities receive them) - more room for political considerations.



Background on Hungary

- **Hungary is an interesting case to study for several reasons:**
  1) **it is a recent democracy,where decentralization was a major part of transition with a significant shift of responsibilities to LGs and the bulk of research on political economy of intergovernmental grants have been mostly focusing on older democracies - there is no such research with respect to Hungary (and even very few for transition countries en bloc)**
  2) **transfers (from both national and EU funds) are the main sources of municipal investments -** cc.20% of LG budgets go for infra – **huge tasks in infrastructure investments for LGs**
  3) **institutional structure of and the policy instruments available to local governments are identical for all localities (i.e. no further intermediate administrative levels)**

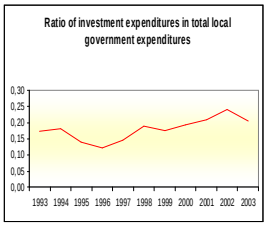
Background on Hungary –Sources for LG Investment

The Financial Sources of Local Government Capital Investment (1996–2003) (%)

	1994	1995	1996	1997	1998	1999	2002	2003
Taxes	9	11	10	8	16	8	7	11
Revenues from the sale of municipal assets	5	26	27	27	20	25	27	31
Capital grants from government	33	31	33	37	26	28	43	30
Other (including surplus)	5	5	13	13	18	13	6	7
Total investment	100	100	100	100	100	100	100	100

Source: Ministry of Finance.

Hungary - First glimpse on data



Source: Own data - election years (1994, 1998 and 2002) do in fact stand out!

- **General Government Deficit history**

My Research

2models:

- **Are investment expenses of LGs influenced by political cycles (elections)?**
  - **Dep. Var.: investment expend. Per capita in year t**
  - **1993-2003 panel fixed effects**
  - **(natl. and local elections same year in H. – hard to separate effects)**
- **Do political effects play some role in central inv. grant allocation to LGs?**
  - **Does same political color of a city raise chances for grant receipt? (core district model)**
  - **effect of elect. year in grant allocation?**
  - **Dep.Var.: has the LG received central inv. Grant in year t?** (binary 1= got grant, 0 =not)
  - **1995-2003 panel probit (probability models)**

Full sample + sub-samples

- **size**
- **% of own revenues**

Data

- **Panel dataset built** from the Regional Public Administration Authority database containing **all (n=3130) Hungarian local government budgets**
- **1993-2003**, a period bridging **three election cycles,**
- linked with some demographic and **socioeconomic data** from the "T-Star" territorial database of the Hungarian Statistical Office and
- **local election data** from the Ministry of Interior

Models for PBC in per capita LG investment expenditures

Description	Expected sign	Result (panel FE)	Result on subsample: received central inv.grants
Dependent Variable:			
per capita municipal inv. expenditures	Dep var		
Political variables of interest (dummies):			
election year	+	+++	+++
year before election	+	+++	+++
distance from next election year	-	---	---
mayor political color same as central government	+	+++	Not sign.
Control vars. for LG revenue base:			
per capita local PIT base	+	+	Not sign.
per capita municipal current own income	+	++/ Ø	++/ Ø
per capita municipal investment income	+	++/ Ø	++/ Ø
per capita investment grants received	+	+++	+++
% of own resources in LG budget	+	+++	+++
Controls for need (demand):			
population	+	* 0	* 0
indicator of local infrastructure endowment	-	--- /+++	Not sign./+++
indicator of local education demand	+	* 0	
indicator of local health service demand	+	* 0	
indicator of local social service demand	+	* 0	
% of young population	+	Not sign.	Not sign.
% of old population	+	+++	Not sign.

+/- : low positive /negative effect (coefficient under 7-10%)
++/-- : medium positive/negative effect (coefficient between 7-10 to 20-25%)
+++/---: strong positive/negative effect (coefficient above 20-25%)
Not sign.: statistically not significant
* 0 : significant, but close to 0
Ø : not used in analysis

Models for partisan effects in grant recipiency (probability models)

Variable Description	Expected sign	Result Probit
Dependent Variable: received central invest. grants (addressed and targeted)	Dep.Var.	
Political variables of interest (dummies):		
election year	+	+
year before election	+	-
distance from next election year	-	Not sign.
local government political color same as central (absolute or relative majority)	+	+
local government political color same as central (absolute majority)	+	++
mayor political color same as central government	+	+
Control vars. for LG revenue base:		
per capita local PIT base	-	* 0 / Ø
per capita municipal current own income	-/+	* 0/ Ø
per capita municipal investment income	-/+	* 0 / Ø
% of own resources in LG budget	-/+	++
Controls for need (demand):		
population	+	* 0
indicator of local infrastructure endowment	-	+
indicator of local education demand	+	* 0/ Ø
indicator of local health service demand	-/+	* 0/ Ø
indicator of local social service demand	+	* 0/ Ø
% of young population	+	++/+
% of old population	-	--/-

+/- : low positive /negative effect (marginal effect under 7-10%)
++/-- : medium positive/negative effect (marginal effect between 7-10 to 20-25%)
+++/---: strong positive/negative effect (marginal effect above 20-25%)
Not sign.: statistically not significant
* 0 : significant, but close to 0
Ø : not used in analysis

Major results

- **political budget cycles: municipal investments culminate in election years** (in all models and in all LGsize categories, except the largest and most fiscally independent (above 40% own.rev)
- **elections affect the central distribution of investment grants: +2.5-4% more chance** for grant receipt, if there is **an election year,** especially for those municipalities, who have less of their own to invest from
- **political color (partisan) considerations present in grant distribution** practices of different central governments in Hungary: **same political color of the absolute majority in a local government** with incumbent central government **increased** the **chances for getting investment grants** considerably (with **+6-20%**) – **matters most for the middle sized cities (4-15000)** and for those with 10-40% own revenues in the LG budget)
- **political color similarity of mayor adds +2.5-15% chances** (more important for large cities above 15000 and adds +12-17% chances for the group with above 40% own resources in their budget)

Major results

Socioeconomic and need-based controls – mixed role in investment decisions

- *the **PIT base (wealth)*** **of a city does not explain the investments** of grant recipient localities
- Budget constraint variables are positive and significant, changes in *per capita grants received* has the greatest impact - highest for largest cities (larger, costly projects)
- **Need indicator composite controls** (educ, health, social) **NOT significant** at all in local investment outlays (not surprising,within variation between years very small)
- **Infrastructure indicator (of existing level) - matters for those under 15000(majority of H. LGs**) negatively as expected (have more infra, invest less), does not matter for those with considerable financial independence (above 40% own revenues)

Major results

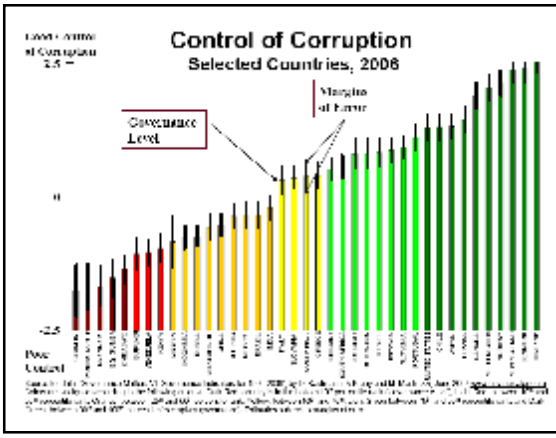
Socioeconomic and need-based controls in GRANT allocation – turn out to be not so important

Grants are supposed to correct for equity and effic. problems, yet

- PIT base (wealth of citizens) was always significant, yet practically zero
- *infrastructure indicator* (ind_infr) behaves oddly, either not sign. or positive sign! - ***appears the grant system in fact rewards an existing endowment of infrastructure***
- *+17-25% to the chances of receiving investment grants* for a 1% increase in own revenues - it seems ***grant policy indeed rewards local efforts, however this also means favoring the better-offs + there is a preference for bigger cities→ enlarging inequalities*** *(+/-? Different interpretations)*

Policy implications

- **Grant schemes inefficiency**
  - Room for politics, rent-seeking - **My estimations can only underestimate real political influences and rent-seeking (pre-agreed tenders?, investments by munic.enterprises?)**
  - Overinvestment due to grant incentives(„white elephants") – future operation cost problems
  - Favors most developed, well-off (o.k. by New Econ. Geography)
- As long as **grant dependence** of Hungarian local governments, **strong effect of political factors is likely to remain →reform of local own revenues** seems crucial
- **Competition for investments** -state (nonLG) or private (80-85% of total inv.)– **uncertainty in public finances** might affect private behaviour
- Complexity of financing and institutions→fiscal illusions (misperceptions)→ financing of sub-national govt. and public investments in general needs **simplification and greater transparency**



Contributions - what is new in my paper?

Topic of this paper: political motivations present in local infrastructure development and central and local governments' fund allocationn decisions in H., political budget cycles and partisan considerations empirically verifiable

- **Interesting for academia and policy sphere too**
- **Contribution to few international publications on political budget cycles at the subnational level** - most papers in the PBC literature deal with old, established democracies, a few on developing ones and none on transition countries
- a new contribution to the **political economy** of intergovernmental **grant allocation mechanisms** – with a case of a transition country - **first such analysis of Hungarian data**
- **Intuitive results**
  - **Relevant for other countries – the point is not about blaming H. governments**
  - **Provide grounds for comparison/generalization**

Thank You!

Comments welcome

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Table1: Regression results: political cycles in per capita municipal investment expenditures

Dep.var.: per capita municipal investment expenditures	1	2	3	4	5	6	7	8	9	10
	OLS				Fixed Effects Panel Estimations				Fixed effects with AR	
		with more controls for need	*with decentr measure*	*without possibly endogen controls*		*with more controls for need*	*with decentr measure*	*without possibly endogen controls*		*with decentr measure*
political variables of interest:										
election year	3.704 [0.515]***	3.794 [0.523]***	2.835 [0.685]***	3.951 [0.723]***	3.261 [0.489]***	3.236 [0.489]***	2.226 [0.625]***	3.707 [0.652]***	3.654 [0.484]***	2.028 [0.618]***
year before elections	2.813 [0.537]***	2.778 [0.536]***	0.733 [0.655]	2.980 [0.664]***	2.292 [0.489]***	2.311 [0.492]***	0.732 [0.633]	3.134 [0.652]***	-0.785 [0.543]	-2.219 [0.704]***
distance from next election year										
mayor political color same as central government	-0.580 [0.919]	-0.590 [0.928]	1.414 [1.381]	2.616 [1.443]	1.571 [1.079]	1.717 [1.089]	3.999 [1.394]***	4.629 [1.446]***	1.967 [1.115]	4.489 [1.406]***
control variables for LG revenues:										
per capita local personal income tax base	-0.011 [0.005]*	-0.013 [0.004]***	-0.026 [0.005]***	0.028 [0.004]***	0.022 [0.005]***	0.021 [0.005]***	0.036 [0.006]***	0.072 [0.006]***	0.014 [0.003]***	0.030 [0.007]***
per capita capital grants received	1.389 [0.055]***	1.291 [0.055]***	1.724 [0.065]***	1.751 [0.068]***	1.283 [0.006]***	1.286 [0.006]***	1.668 [0.007]***	1.722 [0.007]***	1.298 [0.006]***	1.668 [0.007]***
per capita municipal investment income	0.934 [0.047]***	0.935 [0.047]***			0.903 [0.007]***	0.902 [0.007]***			0.918 [0.007]***	
per capita municipal current own income	0.411 [0.063]***	0.409 [0.064]***			0.461 [0.010]***	0.457 [0.009]***			0.400 [0.014]***	
% of own (current+capital) resources in LG budget (decentralization measure)			143.760 [7.820]***				166.302 [3.389]***			172.343 [3.538]***
controls for need:										
indicator of local infrastructure endowment	-5.961 [1.907]***	-8.589 [1.926]***	-0.675 [1.990]	17.057 [1.898]***	-14.114 [2.163]***	-16.100 [2.119]***	3.511 [2.718]	18.113 [2.803]***	-4.428 [2.483]	14.565 [3.358]***
indicator of local education demand		0.001 [0.000]***				0.001 [0.001]				
indicator of local health service demand		-0.000 [0.000]***				0.000 [0.000]				
indicator of local social service demand		0.012 [0.004]***				0.003 [0.008]				
share of young population	16.109 [10.998]				22.553 [13.438]				6.927 [14.731]	
share of old population	51.709 [8.803]***		56.028 [8.840]***	61.771 [8.901]***	103.563 [14.861]***		58.234 [17.718]***	77.898 [18.385]***	67.473 [16.437]***	35.937 [20.838]
population	-0.000 [0.000]***	-0.001 [0.000]***	-0.000 [0.000]***	-0.000 [0.000]***	-0.002 [0.001]***	-0.003 [0.001]***	-0.003 [0.001]***	-0.003 [0.001]***	-0.002 [0.001]*	-0.003 [0.001]*
Constant	-3.227 [4.558]	14.213 [0.858]***	-7.424 [2.215]***	-8.220 [2.364]***	-16.161 [6.142]***	14.772 [3.083]***	-22.519 [5.513]***	-16.287 [5.718]***	-10.739 [6.553]	-21.925 [5.991]***
Observations	34109	34256	34244	34253	34109	34256	34244	34253	30979	31116
Number of LGs					3130	3130	3129	3130	3129	3126
R-squared	0.83	0.83	0.70	0.67	0.82	0.82	0.70	0.68		

Robust standard errors in brackets
* significant at 5%; ** significant at 1%

Table 7.4: Regression results for local investments and election cycles by size categories - Panel FE

dep.var.: per capita municipal investment expenditures	Panel FE							
	cities above 40000		cities between 15-40000		between 4-15000		under 4000	
political variables of interest:								
election year	3.659		5.716		6.187		2.848	
	[2.174]		[1.873]**		[1.068]**		[0.538]**	
year before elections	0.527		0.102		0.416		2.571	
	[2.240]		[1.881]		[1.117]		[0.537]**	
distance from next election year		-1.033		-1.866		-1.670		-0.721
		[0.791]		[0.671]*		[0.300]**		[0.191]**
mayor political color same as central government	1.627	1.638	5.892	6.131	1.342	1.346	2.040	1.936
	[2.115]	[2.121]	[1.874]**	[1.883]**	[1.521]	[1.526]	[1.414]	[1.415]
control variables for LG revenues:								
per capita local personal income tax base	0.014	0.017	0.052	0.055	-0.001	0.003	0.023	0.026
	[0.027]	[0.027]	[0.018]**	[0.018]**	[0.011]	[0.011]	[0.006]**	[0.006]**
per capita capital grants received	1.615	1.615	1.443	1.450	1.403	1.406	1.279	1.279
	[0.214]**	[0.214]**	[0.070]**	[0.070]**	[0.028]**	[0.030]**	[0.006]**	[0.006]**
per capita municipal investment income	0.344	0.338	0.340	0.336	0.652	0.648	0.922	0.922
	[0.126]**	[0.126]**	[0.029]**	[0.029]**	[0.025]**	[0.025]**	[0.007]**	[0.007]**
per capita municipal current own income	0.348	0.335	0.367	0.370	0.905	0.903	0.445	0.447
	[0.118]**	[0.119]**	[0.046]**	[0.046]**	[0.035]**	[0.035]**	[0.010]**	[0.010]**
% of own (current+capital) resources in LG budget (decentr. measure)								
controls for need:								
indicator of local infrastructure endowment	29.114	31.321	-1.055	0.345	-18.827	-18.266	-14.110	-15.093
	[34.826]	[34.810]	[15.301]	[15.388]	[6.478]**	[6.485]**	[2.325]**	[2.313]**
share of young population	92.318	106.677	-144.041	-138.935	-111.264	-127.414	22.999	25.970
	[129.807]	[129.152]	[107.652]	[107.880]	[59.461]	[59.042]*	[14.315]	[14.308]
share of old population	224.527	258.284	-160.184	-135.977	6.111	-10.256	107.780	109.246
	[260.217]	[256.224]	[195.108]	[196.227]	[96.303]	[95.458]	[15.988]**	[15.921]**
population	-0.001	-0.001	-0.001	-0.001	-0.004	-0.004	-0.004	-0.004
	[0.001]*	[0.001]*	[0.001]	[0.001]	[0.002]*	[0.002]*	[0.005]	[0.005]
Constant	30.747	21.419	66.237	62.658	49.870	59.547	-19.106	-17.775
	[92.380]	[91.552]	[63.714]	[63.751]	[30.280]	[30.350]*	[7.769]*	[7.784]*
Observations	253	253	744	744	2886	2886	30227	30227
R-squared	**0.44**	**0.44**	**0.60**	**0.60**	**0.76**	**0.76**	**0.82**	**0.82**
Number of LGs	23	23	72	72	281	281	2791	2791

Robust standard errors in brackets
* significant at 5%; ** significant at 1%

Table 7.6: Regression results for local investments and election cycles by categories of % of own revenues in LG budgets (a measure of fiscal decentra

dep.var.:per capita municipal investment expenditure	-17	-19	-20	-21	-23	-24	-25	-27	-28	-29	-31	-32
	Panel FE											
political variables of interest:	own revenues above 40%			own revenues between 20-40%			own revenues between 10-20%			own revenues under 10%		
election year	1.976	8.250	5.877	3.026	4.647	4.572	0.262	3.591	3.752	-0.369	4.833	4.418
	[3.881]	[5.677]	[5.856]	[0.794]**	[1.035]**	[1.040]**	[0.468]	[0.622]**	[0.620]**	[0.899]	[1.004]**	[0.999]**
year before elections	-3.686	-0.193	-1.025	-0.846	1.111	1.338	-0.104	3.935	4.166	0.366	5.265	4.801
	[4.089]	[5.884]	[6.076]	[0.786]	[1.027]	[1.032]	[0.471]	[0.627]**	[0.623]**	[0.914]	[1.032]**	[1.025]**
distance from next election year												
mayor political color same as central government	-5.779	-0.313	3.573	1.405	2.682	2.769	1.617	1.132	1.051	4.967	0.900	1.244
	[7.534]	[11.107]	[11.462]	[1.444]	[1.895]	[1.904]	[1.121]	[1.496]	[1.497]	[2.354]*	[2.653]	[2.653]
controls for LG revenues:												
per capita local personal income tax base	0.038	-0.015	0.002	-0.009	0.064	0.067	-0.028	0.059	0.060	-0.015	0.068	0.067
	[0.031]	[0.046]	[0.048]	[0.007]	[0.009]**	[0.010]**	[0.005]**	[0.007]**	[0.006]**	[0.011]	[0.012]**	[0.012]**
per capita capital grants received	1.127	1.998	2.013	0.983	1.861	1.868	0.980	1.864	1.864	1.033	1.150	1.154
	[0.051]**	[0.064]**	[0.066]**	[0.016]**	[0.013]**	[0.013]**	[0.012]**	[0.009]**	[0.009]**	[0.011]**	[0.012]**	[0.012]**
per capita municipal investment income	0.893			1.429			2.814			3.057		
	[0.024]**			[0.023]**			[0.035]**			[0.148]**		
per capita municipal current own income	0.310			1.084			2.159			3.422		
	[0.028]**			[0.024]**			[0.027]**			[0.084]**		
% of own (current+capital) resources in LG budget		293.173			77.399			32.961			-85.745	
		[33.135]**			[9.613]**			[10.247]**			[22.186]**	
controls for need:												
indicator of local infrastructure endowment	24.098	23.904	45.678	-10.126	3.401	7.991	-12.992	-12.897	-12.840	5.074	-14.386	-13.197
	[23.083]	[33.006]	[33.992]	[3.926]**	[4.913]	[4.904]	[2.143]**	[2.668]**	[2.669]**	[4.103]	[4.475]**	[4.467]**
share of young population	264.029			-5.412			-16.491			-54.905		
	[143.486]			[18.184]			[16.317]			[24.308]*		
share of old population	249.839	295.499	364.880	112.170	188.491	192.419	-27.066	37.558	37.926	-10.127	87.813	83.739
	[169.179]	[209.924]	[216.647]	[30.569]**	[37.113]**	[37.289]**	[16.158]	[19.682]	[19.690]	[24.303]	[24.587]**	[24.584]**
population	-0.004	-0.007	-0.003	-0.000	-0.001	-0.001	-0.001	-0.010	-0.011	0.012	0.023	0.022
	[0.005]	[0.008]	[0.008]	[0.001]	[0.001]	[0.001]	[0.002]	[0.003]**	[0.003]**	[0.010]	[0.012]*	[0.012]
Constant	-112.811	-112.074	-24.310	-35.239	-51.009	-34.196	-2.634	10.786	15.033	-5.752	-25.594	-29.555
	[65.941]	[65.049]	[66.329]	[9.963]**	[10.764]**	[10.610]**	[7.530]	[7.400]	[7.294]*	[12.871]	[11.759]*	[11.721]*
Observations	1954	1962	1968	8953	8890	8900	13469	13501	13501	9733	9791	9794
R-squared	**0.76**	**0.49**	**0.45**	**0.87**	**0.78**	**0.77**	**0.88**	**0.79**	**0.79**	**0.65**	**0.56**	**0.56**
Number of LGs	790	793	799	2376	2382	2382	2805	2807	2807	2148	2149	2149

Robust standard errors in brackets

Table 7.11: Probability models for receiving central investment grants and political colors - Probit estimations - Panel FE Marginal effects

Dep var: received targeted and adressed investment grants from central govt.	-1	-2	-3	-4	-7	-8	-9	-10
	Panel Probit - Marginal Effects				with decentralization measure			
political variables of major interest:								
local government political color same as central (abs.or rel. majority)	0.035 [0.006]**		0.036 [0.006]**		0.044 [0.007]**		0.045 [0.007]**	
local government political color same as central (abs. majority)		0.061 [0.014]**		0.065 [0.014]**		0.111 [0.013]**		0.113 [0.013]**
mayor political color same as central government	0.043 [0.006]**	0.048 [0.006]**	0.042 [0.006]**	0.048 [0.006]**	0.070 [0.010]**	0.071 [0.010]**	0.069 [0.010]**	0.070 [0.010]**
election year	0.034 [0.005]**	0.034 [0.005]**	-0.037 [0.004]**	-0.037 [0.004]**	0.034 [0.005]**	0.033 [0.005]**	-0.037 [0.004]**	-0.037 [0.004]**
year before elections								
distance from next election year								
control variables:								
indicator of local infrastructure endowment	0.038 [0.016]*	0.041 [0.016]*	0.050 [0.014]**	0.054 [0.014]**	0.028 [0.015]	0.030 [0.015]*	0.037 [0.015]*	0.039 [0.015]**
per capita local personal income tax base,2003prices	-0.000 [0.000]**	-0.000 [0.000]**	-0.000 [0.000]**	-0.000 [0.000]**				
population	0.000 [0.000]**	0.000 [0.000]**	0.000 [0.000]**	0.000 [0.000]**				
per capita municipal current own income	0.001 [0.000]**	0.001 [0.000]**	0.001 [0.000]**	0.001 [0.000]**				
per capita municipal investment income	0.000 [0.000]**	0.000 [0.000]**	0.000 [0.000]**	0.000 [0.000]**				
% of own (current+capital) resources in LG budget (decentralization measure)					0.176 [0.016]**	0.177 [0.016]**	0.186 [0.019]**	0.187 [0.019]**
other need indicators: indicator of local education demand								
indicator of local health service demand								
indicator of local social service demand								
share of young population								
share of old population								
Observations	29076	29076	29076	29076	29068	29068	29068	29068
Number of groups	3130	3130	3130	3130	3129	3129	3129	3129

Standard errors in brackets
* significant at 5%; ** significant at 1%

Public Risk Management
with special reference to Dutch municipalities

a paper for the COE conference at Twente University

April 2-3 2009

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Public Risk Management II

by BOORSMA, Peter B.

- Professor of Public Finance
- Twente University
- Enschede, the Netherlands

2

Introduction I

- drought
- flooding
- diseases
- bad harvest

→ nature

- theft or assault
- threat of an invasion
- competition

→ other people

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Introduction II

- Chinese Wall, sharing
- a first paper on insurance: in the early 17th century by the famous Dutch statesman Jan de Wit
- second half of the last century
- USA : PRIMA, Public Risk Management Association
- Western Europe: developing PRIMO

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Introduction III

- the Netherlands, early nineties:
- a Bylaw for the municipalities and provinces : *Risk Paragraph*
- *Paragraph on Financial Resilience*

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Content

- the difficult concept of risk
- distinction between positive and negative risks
- focus on negative risks
- the different steps or phases in a risk management
- the Dutch municipalities' approach of resilience.
- some objections and suggestions for improvement
- some conclusions.

6

What is risk?

- an *event*
- the *frequency or chance or probability*
- the *damage*
- Definition: *the chance a specific event will occur which will cause damage*

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What is risk? Complications

Example: event of a dike breaking

- by different *causes*
  - damage to different objects
  - each effect not easy to assess: chances for different losses are different
- one cause: different effects: break through of the dike, flooding on other places, capsizing of ships, etc.

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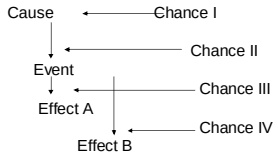
Illustration of Risk



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The risk management cycle I

- I. Policy formulation
- II. Risk identification
- III. Risk assessment
- IV. Prioritization
- V. Policy measures
- VI. Implementation and organization
- VII. Feed back

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The risk management cycle: Risk identification

- different instruments to distinguish and identify risks
- use a systematic classification:
  - *events* (like a fire),
  - policy *fields or organizational departments,*
  - *objects* impacted by the event.
- Use the classification most suited for your organization

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The risk management cycle: Risk identification II

- classification of risk objects

Buildings	Other material damage	Immaterial damage (imago)
Machinery	Personnel	Other organizations
Inventory	Clients	Sales loss
IT	Other citizens	Environment

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The risk management cycle: Risk assessment

I. assess the chance or probability of an event.

II. quantify the possible damage(s).

- one event may have different consequences
- one consequence may have a varying intensity

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the frequency-severity index: prioritization

Frequency \ Severity →			
very high	III	III	IV
high	II	II	III
low		II	III

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The risk management cycle: Policy measures

- economists' approach:
  - the consequence of an event is a damage or loss,
  - the measures will cost money.
  - weigh the advantage of possible but uncertain loss reduction against certain costs
- Bell and Schleifer (1995): "Often risk can be reduced at a cost. Clearly, if the price gets too high it may be better to stick with the risk."
- 70% of risks caused by human failures.
- promotion of *risk awareness!*

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The risk management cycle: Policy measures: Risk Control

1. *Risk Avoidance:* very extreme: the ending of an activity.
2. *Risk Prevention:* reduce the probability
3. *Risk Reduction:* reduce the damage
4. *Segregation of risks:*
   1. *splitting or spreading*
   2. *doubling*
5. *Contractual Risk Transfer*

Note: all (1?) measures cost money!

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The risk management cycle: Policy measures: Risk Financing

1. *Acceptance*
   - Funding from current account
   - Funding from free reserves
   - Funding from special reserves
   - Captive

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The risk management cycle:

Risk Financing:

2. *Insurance*
   - A mutual insurance
   - A commercial insurance

Implementation and organization

Feed back

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The Dutch municipalities approach *The rules in the bylaw* I

- since 1995 all (say 350) municipalities and 12 provinces a paragraph on risk management.
- Since 2004 a paragraph on financial resilience.

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The Dutch municipalities approach *The rules in the bylaw* II

- A scrutiny of the available financial capacity,
- A scrutiny of the risks (needed financial capacity)
- The policy on the financial resilience, the risks and the measures taken.

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The Dutch municipalities approach *The rules in the bylaw* III

- Step 1: summarize the uncovered "risks"
  - risks which occur frequently,
  - can for that reason be easily assessed
  - can be covered for that reason by a reserve or by insurance.

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The Dutch municipalities approach *The rules in the bylaw* IV

- Step 1: summarize the uncovered "risks"
  - 'positive risks' and pure risks
  - 3 categories of risk:
  - financial risks
  - risks for property
  - risks related to the internal organization.
  - distinguish between general risks and specific risks

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The Dutch municipalities approach *The rules in the bylaw* V

- Step 2: calculate the financial loss due to these uncovered risks. = the *financial capacity needed.*
- Step 3: calculate the *financial capacity available. Equal to:*

  the available free budgetary reserves
  + the available room for extra tax income
  + hidden reserves.

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The Dutch municipalities approach *The rules in the bylaw* VI

- Step 4: the *financial resilience* =

the ratio between the capacity available and the capacity needed.

- Step 5: give an exposé of its risk management policy.

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E*mpirical findings* I

- Boorsma and Haisma (research 2005-06)
- data from (a few provinces and) 130 municipalities
- *Step 1: identification:*
  - The municipalities do not identify the risks in a systematic way
  - No distinction between events, policy fields exposed to risk, and risk exposed objects
  - Cause: only unfunded risks are to be mentioned ??

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E*mpirical findings* II

  - positive and negative risks: most cities only mention the pure or negative risks.
  - The distinction between general and specific risks mostly is not followed.
- *Step 2: the assessment of the possible loss or of the financial capacity needed:*
  - A few cities, 5 out of 130, use the approach of the enlarged frequency-severity index
  - 23 have quantified the chance, without quantifying the resulting damage.
  - Many cities do not calculate the possible risk in an appropriate way.

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E*mpirical findings* III

  - Many cities do not mention what is needed at all.
- *Step 3: calculate the financial capacity available:*
  - 124 mention the available financial capacity
- *Step 4: Calculate the financial resilience as the ratio between capacity available and capacity needed.*
  - Only 13 out of 130 calculated the needed financial capacity.
  - The range is between 0.39 and 3.92, the average being 1.58.

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E*mpirical findings* IV

- *Step 5: the municipal risk management policy:*
  - *Only 7 presented an explicit policy.*
  - *Only 6 formulated a rather complete policy.*
  - *Most do not formulate the ways to improve the resilience.*

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Conclusions I

- Risk management is growing as a special, multidisciplinary discipline.
- Enough reasons to implement a modern public risk management.
- A growing mass of literature.
- In Holland there is an interesting new policy
- Quite much room for improvement!
- Especially the calculation of the possible loss, in theory difficult, is even more in practice a difficult problem.

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Conclusions II

- The main objection to the Dutch approach is the restriction to “uncovered” risks.
- Each organization should have a full, systematic approach of all risks.
- Williams and Heins (1989): “Since no one knows the future exactly, *everyone is a risk manager, not by choice but by sheer necessity*.”

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