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**The Intergovernmental Dimension of
Local Government Financial Stress:
A European Comparative Analysis**

by

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Doctor of Philosophy

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ABSTRACT

This thesis investigates the relationship between intergovernmental structures and financial stress in local government. The research compares three European constitutional systems: England, as a centralised case; Germany, representing a federation; and the Netherlands, constituting a unitary-decentralised system. The impact of intergovernmental structures on local finances is identified by concentrating on three core institutional arrangements: intergovernmental financial regulations, grant funding systems, and local tax space. The thesis applies a mixed methodological approach. Based upon a unique panel dataset, the econometric research identifies the institutional causes of local financial stress. The statistical results are complemented by 48 elite interviews, conducted among intergovernmental stakeholders across the three systems.

The thesis applies an innovative policy dynamics framework. Findings demonstrate that local financial stress should be primarily understood as a manifestation of a set of inter-related institutions. The results show that despite the constitutionally stronger position of local government in Germany, local financial error accumulation is stronger than in the English system, with the Dutch system occupying a position between the two. A more centralised structure carries a high risk of implementing intergovernmental design failures; however its fluid institutional structure generates a higher capacity to comprehensively address financial errors. More decentralised structures, in contrast, prolong institutional adjustments, resulting in intergovernmental arrangements that are stable over time but contain larger risks of local financial error accumulation.

The research findings have both theoretical and practical implications. The thesis expands second-generation fiscal federalism beyond its dominant focus on the meso-level and demonstrates that a higher sensitivity to constitutional varieties improves the cross-system applicability of political economy theories. The thesis also develops an integrated policy dynamics framework that contributes to stronger theory building in public administration studies. Practically, the thesis provides relevant knowledge to policymakers on how to improve the sustainability of local government finances within different institutional contexts.

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CHAPTER 1

Introduction

1.1 Introduction

The financial crisis starting in 2008 has brought discussions about the design of political institutions to the forefront of political discourse. While the crisis was triggered by a banking crisis, it brought to light weaknesses in the institutional architecture of government systems. In Europe, criticisms have concentrated on weak monitoring capacities by EU institutions on Eurozone members, and a lack of fiscal resources at the EU level for organising a European response to financial crises. While several major institutional reforms have been implemented in the post-2008 period, the long-term effects of the reforms on the budgetary behaviour of European governments are difficult to predict.

The response to the financial crisis by governments in Europe is one illustration of the complex relationship between economic variables and political institutions. The design of political institutions has major consequences on how changes in the economic environment affect governments, including their finances, and how governments respond to financial challenges. Political institutions generate contrasting pressures on political actors: some stimulate coherent and efficient policies, but others lead to a prioritisation of the short-term over long-term benefits. Institutions affecting policymaking are not only of a legal nature. Informal practices, such as normative understandings and expectations, can have as big, or even bigger consequences than legal institutions on how governments operate (cf. Helmke & Levitsky, 2004).

When analysing institutions, three different analytical levels can be distinguished (Peters, 2005; Weaver & Rockman, 1993). The constitutional structure sets out the

institutional framework at the macro level. Specific institutions can be found below the constitutional level. An illustration of a specific institution in the domain of public finance is the division of government tax revenues across government layers. A third institutional level specifies the secondary features of specific institutions, such as, continuing with the example, the spending freedoms attached to taxes that are allocated to different government levels. Despite widespread interest in the influence of political institutions, fundamental issues remain unanswered. Most importantly, it is unclear how the interactions between different institutions affect governmental performance (Jones, 2001; Jones & Thomas, 2012).

The development of new institutionalism explains the lack of an integrative explanation as to how government output is affected by multiple institutions. In contrast to the comprehensive theoretical approach that was typical for system analysis in the 1950s, the three new institutionalisms that emerged in the 1980s all emphasise different aspects of government systems. Rational choice theory concentrates on the process of decision making; sociological institutionalism offers a strong explanation for preference aggregation; and historical institutionalism maintains a distinctive focus on historically evolved power asymmetries (Hall & Taylor, 1996). Due to the theoretical fragmentation in institutional analysis, scholars show difficulties in evaluating how, and to what extent, governmental performance is the output of interactions between multiple institutions in a system.

The original system approach developed by Easton (1965) was a comprehensive analytical approach, aimed at explaining the entire political process, from societal inputs into the political system to the resulting decisions or policies, including their environmental outputs. While its ambitious scope means that system analysis is a difficult framework to operationalize, it makes a valuable contribution by pointing out the relevance of the wider configuration of political systems for understanding the behaviour of individual components within those systems (Parsons & Shils, 1951).

This thesis argues that to enhance theoretical progress in the study of government systems, as well as the field's societal relevance, a higher degree of integration among institutional approaches is essential. Less ambitious than Easton's system analysis, an integrative approach is applied to analyse how interactions between institutional components affect the performance of government systems. Dissimilar government systems have been selected for this purpose, with a focus on their intergovernmental structures. Statistical data from public finance provide relevant indicators regarding government performance. Interactions between government levels are likely to intensify

during periods of financial stress, as financial resources become scarce and competition for access to these resources intensifies. The development of financial stress will be affected by institutional factors, and this thesis builds a framework based upon core concepts from policy dynamics theory that enables the analysis of how dissimilar intergovernmental systems develop and respond to financial stress. The thesis concentrates on the actor that has become particularly exposed to the consequences of resource competition: local government.

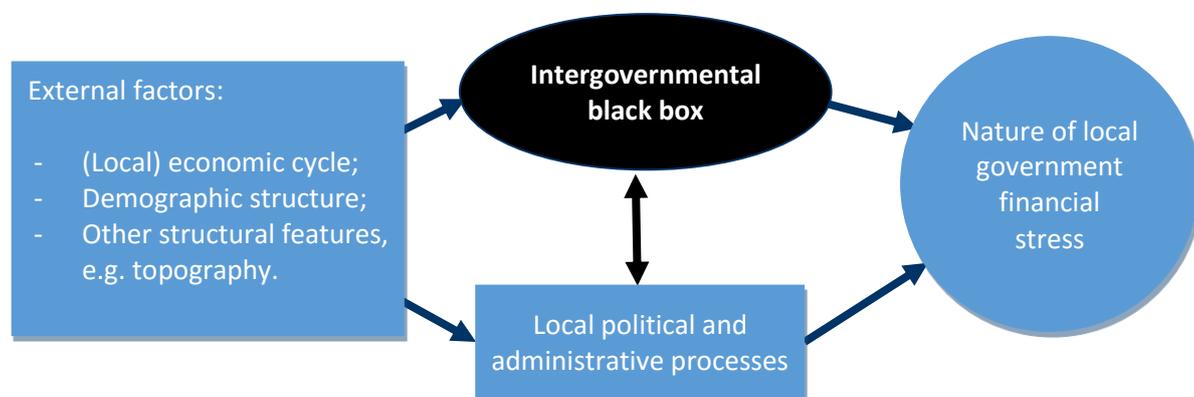
1.2 The local level under pressure

The local government level is responsible for around 33% of total public sector spending in the EU (OECD 2012) on average. Austerity measures implemented across Europe since the start of the financial crisis in 2008 increasingly affect the financial position of European local governments (LGs). In England, the local authority of West Somerset has been labelled ‘unviable’ in an assessment by the English Local Government Association (LGA), whereas the English Audit Commission identified 12% of English LGs at on-going risk of not balancing their budgets (Audit Commission, 2012, p. 5). Financial stress also characterises local government in the German state North Rhine-Westphalia (NRW). In NRW, local financial distress is not a new phenomenon: in 2004 more than 40% of the NRW LGs found themselves in special financial emergency arrangements organised by the NRW state government. That many NRW LGs were unable to balance their budgets even during strong economic upswings suggests a complex relationship between macroeconomic developments and local financial stress.

The most obvious factor leading to deteriorating LG finances are economic and structural features of an individual LG, or macroeconomic trends. A second factor contributing to local financial stress are local budgeting decisions. A third factor is the intergovernmental institutional framework in which LGs operate. The intergovernmental framework is most important as it will determine how worsening local, or national, economic conditions are translated into individual LG finances. In addition, intergovernmental regulations affect LG budgeting, and will so affect local causes of financial stress, and responses towards it. The territorial distribution of government tasks provides another intergovernmental factor with potentially significant effects as to the development of LG financial stress. This indicates the correspondence of intergovernmental frameworks with systems, and specific institutional components, such as intergovernmental regulations, constituting their subsystems. Figure 1.1 provides an illustration of such an intergovernmental constitutional system. The intergovernmental

system constitutes the focal point of this research and is, in line with Easton (1965), referred to as the black box.

Figure 1.1 Main institutional relationships to investigate



The impact of the intergovernmental institutional context on LG financial stress has remained unclear for two reasons. First, social science is characterised by a lack of integration among scholarly disciplines. This strongly applies to the highly specialised scholarly world of public finance and public financial management (cf. Schick, 2014). Second, there has been an ignorance by researchers for local government, and local finances in particular (cf. Bailey, 1999).

Using a multi-theoretical and European comparative approach this research aims to answer the question:

What effects do differences in intergovernmental institutional design have on local government financial stress?

The literature indicates that three intergovernmental institutions fundamentally affect local finances: (1) the regulatory framework in which LGs operate; (2) grant funding systems; (3) and local tax space (Musgrave, 1959; Oates, 1972). Based upon this, the empirical investigations in this thesis analyse how the system specific design of each of these intergovernmental institutions relates to LG financial stress. The following three sub questions have been formulated:

- *How do systems of intergovernmental regulation and supervision affect LG financial behaviour?*
- *What are the consequences of grant funding systems on the evolution of LG financial stress?*

- *To what extent does the nature of local tax space determine local level responses to financial stress?*

Analysing these questions will help to understand the causes of local financial stress, as well as responses towards it. The focus on how different intergovernmental contexts relate to LG financial stress, means that the research will generate vital knowledge regarding the circumstances under which the interactions within government systems enhance systemic risks. These research findings will strongly contribute to theory development on policymaking within multi-level governance systems (Hooghe & Marks, 2003; Jensen, Koop, & Tatham, 2014).¹ The thesis builds upon pioneering research in policy sciences on error accumulation processes and error correction mechanisms, an analytical framework that enables a more integrative analysis of the institutions operating in intergovernmental financial systems (Jones & Thomas, 2012; Workman, Jones, & Jochim, 2009). As such, answering the research questions will not only improve scholarly understanding of the institutional dimension of LG financial stress, but will also advance theory development on how different systems of multi-level governance give rise to different policy dynamics, and consequently generate dissimilar risks of error accumulation, and demonstrate diverging institutional capacities for mitigating those risks.

1.3 Analysing LG financial stress

It has been argued that it is ‘easier to theorize about local governments than study them’ (Levine, Rubin, & Wolohojian, 1981). Conducting an empirical investigation into financial stress at the local government level in multiple countries increases the methodological difficulties. Most importantly, an adequate and feasible indicator of local financial stress has to be found that carries relevance in different country contexts. There is little consensus in the literature on the question which indicators can be applied to determine LG financial conditions (cf. Dollery, 2009; Honadle, Cigler, & Costa, 2004).

¹ Intergovernmental relations (IGR) and multi-level governance (MLG) are closely related but show some differences. Whereas IGR broadly refers to relations within the public sector and is widely used within US government studies, MLG focuses on vertical government relations in Europe generally and the EU in particular (Ongaro et al., 2010, p. 1). There have been little interconnections between both approaches, which seems less to do with the overall relatively minor differences in topical choice, and more a result of generational differences within the scholarly community, combined with a likely desire among MLG scholars to re-establish the study of vertical government interactions in a methodological rigorous way (e.g. Hooghe & Marks, 2003). Hence, for practical reasons, and given the analytical focus in this thesis on both the horizontal and vertical relationships between government actors, this thesis refers to the theoretical framing of government relationships as IGR, but this does not exclude MLG.

When searching for adequate indicators of LG financial stress it is important, first of all, to recognise the specific nature of the finances of LG entities. In contrast to the private sector, LG's are not profit making entities and their budgets are mainly consumption driven (Bailey, 1999). Due to this, a reduction in LG expenditure may indicate local financial stress. Jacob and Hendrick (2013b, p. 39) refer to the ability to provide adequate public services as a municipality's 'service-level solvency'. Jones and Walker (2007, p. 396) define local financial distress as an 'inability to provide services at pre-existing levels'. The difference between financial stress and financial distress is normally defined as the latter representing a more advanced state of financial stress, near financial collapse (Cahill, James, Lavigne, & Stacey, 1994; Capalbo, Grossi, Ianni, & Sargiacomo, 2012). As the focus in this thesis is not limited to the small group of LGs facing such extreme financial conditions, but financial pressures in a wider sense, the term financial stress is used instead of distress. By taking the evolution of local service levels into account, Jones and Walker's (2007) definition has the advantage that it prevents LGs who radically reduce their public services being classified as without, or in less, financial difficulties compared to LGs whose finances are in decline but maintain their level of public service provision.

However, using public service levels as an indicator of local financial stress is unfeasible in the quantitative and country-comparative design of this study. Using the indicator would require a vast amount of data related to income and expenditure of different local public service areas, preferably over longer periods of time. It would also require detailed and historical information about service level standards used within the three selected systems, as potential adjustments of standards may strongly affect financial stress levels at the local level. Due to the primitive state of many LG statistics, vast collections of mostly primary data would need to be collected. The controversial and often problematic attempts to collect such data (cf. the English Audit Commission) explains the limited amount of existing research that uses data on public service levels, and indicates the methodological difficulty attached to any attempt to use data related to public service standards in a statistical research. The methodological difficulties and labor-intensive nature of collecting such data are multiplied in a country comparative study, and would go beyond the research capacity of the single investigator.

Another indicator of local financial stress is the occurrence of a municipality's financial default. Financial defaults of LGs have been particularly observed in the US. Since its introduction in 1937 until 2011, around 600 US LGs filed for a Chapter 9 bankruptcy petition, the majority of them small, special-purpose districts such as water

districts or smaller rural municipalities (De Angelis & Tian, 2013, p. 312). Notable cases of large LGs have been California's Orange County in 1994, the Pennsylvanian capital Harrisburg in 2011, and, the largest municipal bankruptcy filing in US history, Detroit in 2013. It needs to be underlined that the American federal regulations on local government bankruptcies generally prevent a local financial default to result in a complete default of local services (Cahill & James, 1992). With the exception of the Swiss case of Leukerbad in 1998 (Uebersax, 2005), LG bankruptcies have been scarce in Europe due to the absence of special legislation facilitating local bankruptcies. However, most European countries have special arrangements in place to respond to local financial crises. The degree of formalization of these arrangements differs strongly between countries; hence, there is limited transparency under what local financial stress conditions the arrangements start to operate. Because of this, the arrangements constitute a potentially relevant indicator of LG financial stress, but their institutional features have to be considered carefully.

The most obvious indicator of local financial stress is when a LG fails to balance its revenues and expenditure flows on a regular basis. This would be translated into deficits, and increasing debt levels. A problem, however, arises when attempting to use local deficit as a stress indicator. Due to their use of a double-book keeping accounting system, many European LGs are subjected to the balanced-budget rule. Hence, they are prohibited from running a formal deficit on their current account (Dafflon, 2002). Real local deficits might occur but will be reflected in reductions of local reserves, or increases of local assets. A more tangible indicator than local deficits is offered by local debt.

Local debt poses an increasing risk for local finances across Europe, for two reasons. First, pressures on current revenue expenditure are increasingly absorbed into capital expenditure borrowing. This 'capitalisation' of local financial stress occurs despite formal borrowing restrictions being in place, which leads to questions regarding the adequacy of intergovernmental monitoring structures on local finances. Second, in several countries, including Germany, current revenue pressures are widely dealt with at the local level by issuing short-term debt (Gröpl et al., 2010). Although offering substantial interest rate benefits, short-term liquidity poses significant interest rate risks and refinancing risks to LGs. As LGs are involved in the provision of core services to citizens, and intergovernmental liability structures in the potential case of a local financial default are marked by ambiguity, growing local debt levels may have serious implications as to the sustainability of local service delivery. Hence, LG debt provides a relevant and tangible indicator of local financial stress. As borrowing might also occur for legitimate capital investment purposes, this thesis transforms LG debt figures in order to provide

more robust financial stress indicators. In line with transformations common in the literature (e.g. Cropf & Wendel, 1998; Benito & Bastida, 2004; Ashworth, Geys, & Heyndels, 2005), debt figures have been translated into three different local financial stress indicators.

The first adjustment of the debt indicator is measured on a per capita (p/c) basis, providing a better indicator of local debt size for comparable purposes. The second adjustment is to correct the debt figures for local reserve levels. Stable or reducing debt levels might be a consequence of declining local reserve levels, and increasing debt levels might be paralleled by a build-up of local reserves (Jacob & Hendrick, 2013, p. 13). Therefore, correcting debt for changes in reserve levels provides a more adequate stress indicator compared to an indicator solely based upon debt (cf. Audit Commission, 2012). Third, debt has been calculated as percentage of total local income. The usefulness of this debt ratio can be demonstrated by comparing it to equity as an indicator widely applied in the private sector. Whereas equity for a private sector firm illustrates capital invested in a company by its shareholders, equity in case of LG does not exist out of financial capital, but is invested in municipal property, such as school buildings (Cheng & Harris, 2000, p. 195; Lei, 2009). Due to this particular character of LG equity, a situation might occur where a LG without equity on its balance sheet might have fewer difficulties balancing its budget, compared to a LG that holds significant equity.

The development of LG income is also crucial to the affordability of LG debt. LGs with growing income, for example due to a rising population, will experience a relative reduction in the costs of debt, since the relative share of borrowing costs in the total local budget also reduces (assuming interest rate is a given constant). The opposite situation occurs if a LG faces a structural income reduction, and the costs of their debt increase as borrowing costs occupy a larger share of the local budget. Many European LGs are confronted with the second scenario due to factors such as cuts in grant funding, and population decline. These two categories of LGs demonstrate that the ‘burden of the debt’ (Domar, 1944) will differ significantly across LGs depending upon their income development.² This provides a rationale for using LG debt indicated as percentage of LG income.

Given the current state of empirical research, the availability of primary data, and cross-country differences in public service levels and accounting systems, this thesis

² Cf. Domar (1944) demonstrated that the burden of the national debt is determined by the size of the national economy. A growing national economy will increase tax revenues, and so reduces the relative costs attached to debt, whereas a declining economy, and hence government income, will increase the ‘burden of the debt’.

argues that adjusted debt figures provide the most suitable quantitative indicators currently available to make cross-country analyses on LG financial stress. This view is supported in the international public finance literature, in which debt, rather than other financial indicators, is used as primary indicator to evaluate the financial position of government entities (e.g. Musgrave & Musgrave, 1980). The quantitative debt indicator will be used in addition with qualitative evidence on local financial stress, through the deployment of elite interviews with policymakers across the three systems.

1.4 Intergovernmental structures of the selected systems

This section shows the basic intergovernmental outline of the selected constitutional systems, and provides descriptive statistics about the financial position of their local governments. The selected systems are England, as representative of a unitary-centralised system, Germany, representing a federation, and the Netherlands, constituting a mixed or decentralised-unitary system.

Indicated by its UK population share of 84%, England occupies a special position within the UK. Although English voices can be heard favouring an exclusive English government, in practise the UK government operates as a regional central government for England (Hazell, 2006). This is illustrated in LG finances by the application of the Barnett funding formula for Scotland, Wales and Northern-Ireland, which, as a general grant is specified by the devolved governments, whereas UK central government departments apply much more specific funding criteria towards English LGs (Mitchell, 2003).

Germany is divided into 16 *Länder*, including the areas covered by the three city states. In line with its federal structure, the organisation of German local government is largely determined at the level of the *Länder*. Inter-state intergovernmental differences led to the decision to concentrate on one German state. North Rhine-Westphalia (NRW) has been selected as it is the largest German state, both in terms of inhabitants and the size of its economy. It therefore constitutes a good example of the institutional framing of LG financial stress in one of Germany's most prominent states. The Dutch system unites decentralised and unitary features in its state structure, reflecting the country's historical periods of being a republic, as well as a French inspired unitary system. While the selection of the systems, and their historical evolution, is further discussed in chapter 3, the systems' basic intergovernmental structure is briefly outlined below.

Sub-regional level

Since the abandonment of the Regional Development Agencies in 2012, a regional level has been completely absent within England. Figure 1.2 shows that NRW has two types of authorities active at the regional level: government districts and regional authorities. The five government districts in NRW (e.g. Detmold) perform a double function: they are the first executive agencies for the state government, and they fulfil a coordinating and supervisory role towards the counties and county-independent cities. The two regional authorities in NRW are responsible for several social services. In the Dutch system, the provinces (e.g. South Holland) constitute the regional level, with their main responsibilities in spatial and regional economic planning.

Local level

The local landscape is most homogenous in the Netherlands. All LGs have the similar legal position of municipality (*gemeente*), and, hence, they demonstrate a high degree of homogeneity in their tasks. The main distinction at the local level in England and NRW is between two-tier and single-tier authorities. In the two-tier authorities, tasks and powers are split between the county, and the authorities below them. Around 40% of the English, and 60% of the NRW territory is served by two-tier authorities. The English counties (e.g. Oxfordshire) are officially known as non-metropolitan counties but since the abolishment of the metropolitan counties in 1986, the designation ‘metropolitan’ has become superfluous, hence, they will be referred to as counties. The English counties are around twice the population size of their NRW counterparts (*Kreise*, e.g. Lippe) and a similar scale difference applies to the population served by the lower tier in the two systems.

The LGs in the counties differ between England and NRW. In England, they all have a similar status as districts (e.g. Oxford), whereas the NRW system further divides them into county-dependent LGs with and without city status, referred to as county-dependent cities and county-dependent municipalities (*kreisangehörige Städte*, e.g. Bocholt vs. *kreisangehörige Gemeinden*, e.g. Engelskirchen). The difference in status is used by the NRW state government to differently allocate tasks to localities, in practice often resulting in (bigger) county-dependent cities conducting more administrative tasks by themselves and being less reliant upon the county.³

Next to the counties, there are country-free areas. In NRW, these are chiefly covered by one type of LG: the county-independent city (*kreisfreie Stadt*, e.g. Bonn). The

³ In addition, the county-dependent cities in NRW are further divided into 125 midsized cities (more than 25,000 inhabitants) and 35 big cities (more than 60,000 inhabitants).

Figure 1.2 Core intergovernmental structure of the selected systems: England, Germany/North Rhine-Westphalia (NRW), and the Netherlands (2012)

		England			NRW/Germany			The Netherlands			
National level		pop.			pop.			pop.			
		UK central government (Westminster & Whitehall – London)	63.18 mil.		German federal government (Bund – Berlin)	80.49 mil.		Dutch central government (Rijk – The Hague)	16.77 mil.		
Regional level		pop.		% UK pop.	pop.		% German pop.	pop.		% Dutch pop.	
		English = UK central government	53.01 mil.	83.9%	NRW state government (one of the 16 German states/Länder)	17.54 mil.	21.8%	12 provinces	16.77 mil.	100%	
Sub-regional level		∅ pop.		% English pop.	∅ pop.		% NRW pop.	∅ pop.		% Dutch pop.	
		-	-	-	5 government districts (Bezirksregierungen)	3.51 mil.	100%	-	-	-	
					2 regional authorities (Landschaftsverbände)	8.77 mil.	100%				
Local level	T w o t i e r	Upper level	27 counties	796,367	40.1%	30 counties (Kreise)	345,640	60.1%	415 municipalities (gemeenten)	40,410	100%
		Lower level	201 non-metropolitan/shire districts	105,726		248 county-dependent cities (kreisangehörige Städte)	36,227				
	125 county-dependent municipalities (kreisangehörige Gemeinden)	12,731	23 county-independent cities (kreisfreie Städte)	323,960	368%						
	S i n g l e t i e r	56 Unitary Authorities		216,300	22.8%	36 metropolitan districts	318,741	21.6%			
		1 Greater London Authority (GLA)		8.17 ml.	15.5%		1 city region (Städteregion Aachen)	541,521			
33 London boroughs (incl. City of London)		247,695									
N total LG entities		354			427			415			

Source: own illustration; data: 2012 national statistics (CBS, Destatis, DCLG, ONS) & own calculations.

only exception is Aachen, whereby as an administrative experiment, the former county Aachen has been merged with the county-free city Aachen. The English system illustrates more institutional variety in the county-free areas compared to NRW. Institutionally most similar to NRW's county-independent cities are the English Unitary Authorities (e.g. Bristol). The English metropolitan districts (e.g. Manchester) differ somehow from NRW county-independent cities, as many of them have joint service delivery boards. The institutional structure of the London area is relatively unique – and also unique within the English structure. With a split between boroughs (e.g. Tower Hamlets) and the Greater London Authority (GLA), LG structures in the London area are best comparable to the previous English two-tier metropolitan structures.

Despite the use of different labels for LGs across the systems, and differences in the tasks they conduct, there is a clear main distinction among the LGs inside, and between the systems. On the one hand, there are single-tier LGs that are (largely) responsible for all public services provided in their area. These are the Dutch *gemeente*, the NRW *kreisfreie Stadt*, the English Unitary Authority, and, largely in practice, the English metropolitan districts and London boroughs. The London boroughs can be treated as unitary, since the most important executive tasks of the GLA – , transport, police and fire services – are also delivered by separate authorities outside the London area (cf. Lockwood, 2013). On the other hand, there are two-tier LGs in which services are split between the county, and the authorities below them. These are the English Districts and Counties, and the NRW *Kreise*, *kreisangehörige Städte*, and *kreisangehörige Gemeinden*.

1.5 The state of local finances: comparative statistics

The intergovernmental distribution of debt can be analysed either vertically or horizontally. A vertical perspective is illustrated in table 1.1 and shows a (strong) concentration of debt at the central level in the UK and the Netherlands, whereas German debt is spread out over the different government levels. For all three systems, government liability obligations, such as those due to interventions in the financial sector, are excluded from the debt statistics. Unless otherwise stated, the data is taken from the fiscal year 2012.

Using the government gross consolidated debt definition used in the Eurozone, table 1.1 shows that the UK total public sector debt reached 1,664.9 billion € in 2012, equal to 86.5% of UK GDP. Most of this debt is held by the UK central government (1,644.9 billion €, or 85.4% of UK GDP). According to ONS/Treasury statistics, the UK local government sector has an accumulated debt of 103.2 billion €, over 92% of which

Table 1.1 Intergovernmental structure of German, UK and Dutch public debt, 2012

	Debt, billion €	Debt € p/c	Debt % GDP
All levels			
Germany	2,071.8	25,700	78.3
UK (general government gross consolidated debt, Maastricht)	1,664.9 (1,350.7 £)	26,000 (21,400 £)	86.5
UK (Public Sector Net debt)	1,369.9 (1,111.4 £)	22,000 (17,585 £)	70.7
Netherlands	426.2	25,000	66.5
Central level			
German federal government	1,289.3	16,000	48.7
UK central government	1,644.9 (1,334.5 £)	26,000 (21,000 £)	85.4
Dutch central government	385.2	22,900	60.1
Regional level			
Cumulative 16 German states	649.1	8,100	24.5
NRW state	188.9 (2011)	10,595 (2011)	32.5 (NRW GDP)
Cumulative 12 Dutch provinces	5.6	333.30	0.9
Local level			
Cumulative German local government	133.6	1,700	5.1
NRW local government only	58.1	3,300	10.0 (NRW GDP)
UK local government	103.2 (83.7 £)	1,600 (1,324 £)	5.4
England local government only (excl. functional)	91.0 (73.8 £)	1,700 (1,392 £)	English GDP unavailable
Dutch local government	49.8	2,964	8.6

Source: 2012 national statistics (CBS, Destatis, IT.NRW, DCLG, ONS) & own calculations.

is held by English local government. The difference of 83.2 billion € between the UK's total public sector debt (1,664.9 billion €) versus the debt of UK central and local government combined (1,644.9 + 103.2 = 1,748.1 billion €) is explained by intergovernmental crossholdings of debt (ONS, 2013).

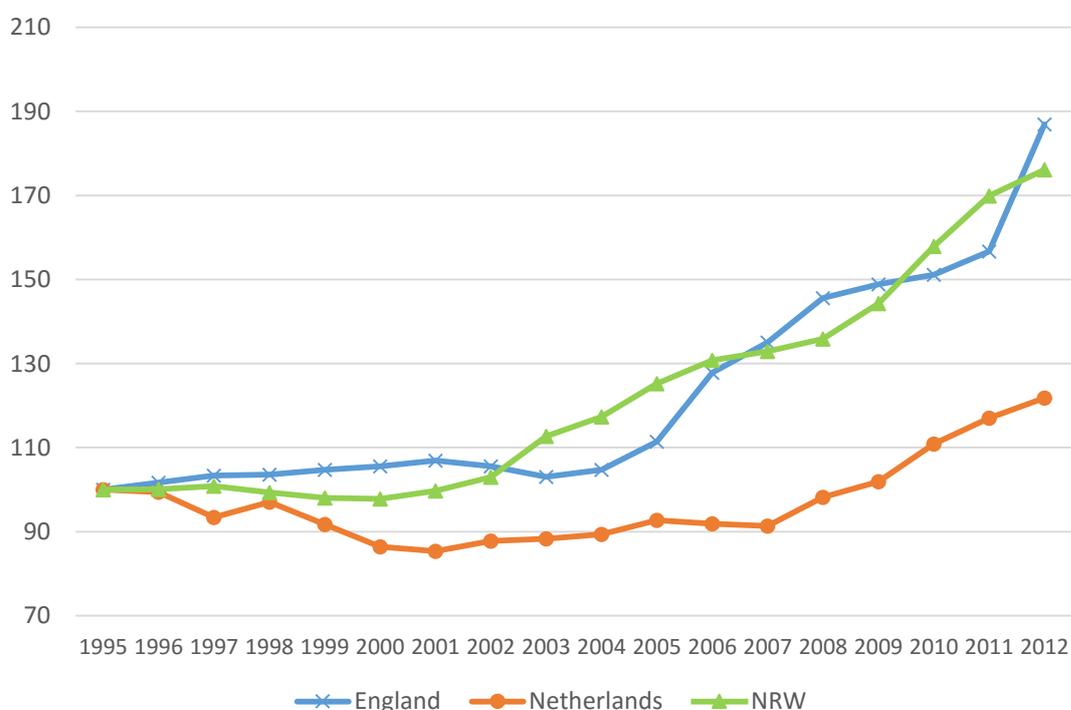
Table 1.1 shows that most German debt is held by the federal government – equal to 48.7% of Germany's GDP – the accumulated debt of the German *Länder* is substantial and is equal to roughly half the size of the federal government's debt. However, there are large differences in the debt held by the German *Länder*, and per capita debt data show that NRW is one of the more heavily indebted *Länder*. Similar to the state level, financial

heterogeneity characterises the financial position of LG within the *Länder*. The total accumulated debt of German LG stands at 133.6 billion €, or 5.1% of German GDP. In NRW, however, LG debt is equal to 10% of the state's GDP, resulting in nearly double the amount of LG debt held per NRW citizen compared to the average among the *Länder* citizens (Destatis). Reflecting 8.6% of GDP, the debt amount held by the Dutch LG sector falls roughly in between the debt volume of the UK and NRW, but is substantially larger than the cumulative average of German LG.

Figure 1.3 shows that all three systems experienced a growth in LG debt since 1995. However, there have been significantly different trends among the systems. LG debt has its most consistent growth in NRW, whereas in the English system it has grown dramatically since 2005. The Dutch system shows the most minimal growth in LG debt, although after a period of reductions, debt has increased rapidly since 2007.

The aggregate statistics conceal substantial financial heterogeneity in the debt held by different LG types. Table 1.2 shows the local debt position in England and NRW in 2012 according to LG type. In England and NRW, the average debt per capita is highest in the single-tier LGs. Of these authorities, the NRW county-free cities are stronger indebted compared to the English city areas. Among the English city areas, the Unitary

Figure 1.3 Index LG debt evolution, 1995-2012 (1995 = 100)



Source: own illustration; based upon national statistics (CBS, IT.NRW, DCLG & ONS) & own calculations.

Table 1.2 Descriptive statistics detailing the institutional spread of LG debt, 2012

	Mean debt per LG, million €	Mean debt p/c, €	Standard deviation debt p/c, €	Min. debt p/c, €	Max. debt p/c, €	% LGs debt free (n= absolute)
City areas						
NRW county-free cities	1,411.05	4,558.24	1,921.79	693.68	8,373.03	0
English Unitary Authorities	305.50 (247.85 £)	1,333.64 (1,081.97 £)	701.19 (568.87 £)	0 (0 £)	3,294.76 (2,673.02 £)	1.8 (1)
English metropolitan districts	648.88 (526.43 £)	1,945.23 (1,578.15 £)	1,019.94 (827.47 £)	404.27 (327.98 £)	4,570.28 (3,707.84 £)	0
London boroughs	386.51 (313.57 £)	1,528.37 (1,239.96 £)	786.25 (637.88 £)	14.31 (11.61 £)	3,196.12 (2,592.99 £)	0
County areas						
NRW counties	62.01	173.06	179.53	0	877.74	6.7 (2)
English counties	578.61 (469.42 £)	747.30 (606.28 £)	201.12 (163.17 £)	337.40 (273.73 £)	1,254.02 (1,017.38 £)	0
NRW cumulative LGs within counties	814.25	2,225.85	954.24	877.24	4,548.14	0
English cumulative LGs within counties	430.99 (£ 349.66 £)	508.56 (£ 412.59 £)	295.38 (£ 239.64 £)	16.29 (£ 13.22 £)	1,190.68 (£ 965.99 £)	0
County-dependent areas						
NRW county-dependent cities	81.75	2,059.23	1,271.91	0	6,566.64	1.6 (4)
NRW county-dependent LGs	19.26	1,414.16	1,165.08	0	5,091.25	6.3 (8)
English districts	57.90 (46.97 £)	536.96 (435.63 £)	745.78 (605.05 £)	0 (0 £)	4,096.45 (3,323.42 £)	19.4 (39)
Miscellaneous areas						
English GLA (one authority)	10,471.48 (8,495.44 £)	1,281.08 (1,039.33 £)	-	-	-	-

Source: 2012 national statistics (Destatis, IT.NRW, DCLG, ONS) & own calculations.

Authorities have the lowest debt (1,333 € p/c), and the metropolitan districts are most heavily indebted (1,954 € p/c). The London boroughs occupy a middle position. The minimum and maximum debt values confirm the observations: the highest maximum debt position (8,400 € p/c) is occupied by a county-free city in NRW (Oberhausen), while the only debt free single-tier authority in England is a Unitary Authority (Bracknell Forest).

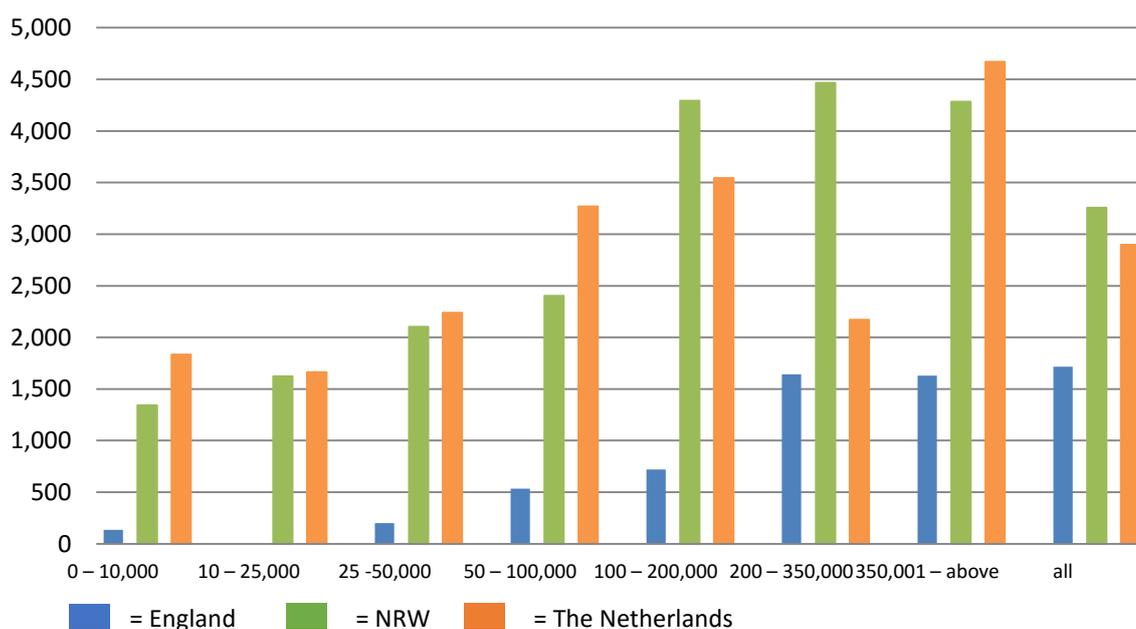
In the county areas, the county administrations in NRW hold less debt compared to their English counterparts. The situation is different when the cumulative debt position of the counties is observed, including the lower tier. In that case, the debt of the English counties is less than one fourth of the NRW counties. This is reflected by the mean debt p/c of the NRW county-dependent LGs, which is roughly three times the debt size held by English non-metropolitan districts. The comparatively limited debt position of English districts is also indicated by around 20% of them being debt free.

Most of the local debt in NRW is concentrated in the county-free cities, whereas both the counties, and county-dependent areas score below NRW's average debt level (3,256 € p/c). In England, only metropolitan districts outnumber the average LG debt level in England (1,716 € p/c). For the large part, the high total of English LG debt reflects debt held by the GLA. The GLA's debt of around 10.5 billion € makes the London area the most heavily indebted area of England (2,810 € p/c for the London boroughs and GLA combined), and significantly increases the average debt level of the English LG sector.

The descriptive statistics in this section illustrate that institutional differences affect the financial position of LGs. Due to this, it can be expected that the increase of LG debt, as a likely reflection of increased LG financial stress, is affected by institutional variables. To a large extent, the institutional differences are linked to differences in LG population size.

Figure 1.4 shows that in all three constitutional systems debt increases with an increase in population size, with the highest debt positions taken by LGs with more than 350,000 inhabitants. The concentration of debt in large LGs is confirmed in table 1.3, which shows that the largest absolute debt volumes are concentrated within the biggest cities. Different LGs are listed when using the indicators debt p/c, and debt as percentage of income. The top five maximum cases demonstrate relatively similar debt volumes in the Dutch and NRW systems. The top five indebted LGs in p/c terms in the English

Figure 1.4 Mean LG debt p/c, by population size, 2012 € (excluding NRW counties)



Source: own illustration; based upon national statistics (CBS, IT.NRW, DCLG & ONS) & own calculations.

Table 1.3 *LGs with highest debt volumes, 2012*

England		The Netherlands		NRW	
Top 5 – debt total bil. €		Top 5 – debt total bil. €		Top 5 – debt total bil. €	
Birmingham	3.4	Amsterdam	4.3	Cologne	4.5
Leeds	1.6	Rotterdam	2.4	Duisburg	3.3
Kent County	1.2	Groningen	1.2	Essen	3.2
Nottingham	0.9	The Hague	1.1	Dortmund	2.4
Dudley	0.9	Utrecht	0.9	Wuppertal	1.9
Top 5 – debt p/c €		Top 5 – debt p/c €		Top 5 – debt p/c €	
Woking	4,100	Hengelo	8,700	Oberhausen	8,400
South Tyneside	4,000	Spijkenisse	6,600	Hagen	7,400
Gateshead	3,400	Schiermonnikoog	6,300	Remscheid	7,100
Welwyn Hatfield	3,200	Groningen	6,100	Mülheim an der Ruhr	6,800
Harlow	2,600	Gemert-Bakel	5,900	Siegburg	6,500
Top 5 – debt % income		Top 5 – debt % income		Top 5 – debt % income	
Woking	720	Hengelo	295	Windeck	257
Dacorum	422	Barneveld	293	Siegburg	247
Welwyn Hatfield	408	Hendrik-Ido-Ambacht	261	Oberhausen	246
Stevenage	363	Gemert-Bakel	258	Lindlar	245
North East Derbyshire	362	Ten Boer	255	Werl	238

Source: own illustration; based upon national statistics (CBS, IT.NRW, DCLG & ONS) & own calculations.

system demonstrate debt figures around half the size of their Dutch and NRW counterparts.⁴

The descriptive statistics demonstrate a strong rise in LG debt across the three systems in the period since 1995, but with significant differences between the systems, and among LGs within the systems. This thesis investigates the institutional dimension of the increase in LG debt in three core empirical chapters.

1.6 Chapter outline

Following this introduction, chapter two provides a literature review. The review develops a conceptual framework to analyse the impact of intergovernmental institutions on local finances in a country comparative research design. The literature review identifies three core intergovernmental financial institutions, which each affect LG finances across the three systems: intergovernmental regulations, grant funding systems, and local tax space.

⁴ The high debt levels, measured as percentage of income, of the five LGs in the English system have different backgrounds, and are partly related to the introduction of Housing Revenue Account (HRA) self-financing in 2012, as well as historical territorial restructurings.

Chapter three discusses the methodological aspects of the research, concentrating on conducting combined qualitative and quantitative methods. The chapter also provides a comparative historical overview of intergovernmental trends in the three selected European systems over the past decades.

Chapter four analyses the impact of regulatory structures on local debt. The regulatory intergovernmental mechanism is especially analysed through investigating the relationship between local borrowing costs and local debt accumulation.

Chapter five investigates the impact of grant funding systems on LG debt development. The chapter shows that grant allocation patterns in practice differ from what would be expected based upon the technical design of the grant funding systems in place. Grant deviations are explained by political and institutional factors, and these factors change the relationship between grants and debt.

Chapter six investigates local tax space as the third and final intergovernmental financial institution. The chapter concentrates on how the nature of local tax space impacts the fiscal response of LGs to financial stress. The analysis demonstrates to what extent local tax space contributes to the error correction capacity of different IGR financial systems.

The thesis concludes by summarising the research findings and contributions to the literature, a discussion of the research limitations, its policy implications, and an overview of topics for further research.

CHAPTER 2

Literature review

2.1 Introduction

Studying financial relationships among government levels has a long tradition in the social sciences. Following the strong institutionalization of public finances within economics, especially from the 1950s onwards, most of this research has been strongly based on economic assumptions. The approach of economists towards public finances is most noticeable in the study of fiscal federalism (Musgrave, 1959; Oates, 1972). The increasingly sophisticated theories produced within fiscal federalism contain valuable insights into the most efficient organisation of the vertical structures of government systems. However, due to limited theory testing, the relevance of fiscal federalism for understanding the logic and mechanisms through which real world intergovernmental financial systems operate has remained uncertain.

The limited number of empirical studies that are available often show weak results supporting fiscal federalism's economically driven propositions (e.g. Dowding, John, & Biggs, 1994; Inman, 1988). In addition, the highly specialised nature of much economics research into intergovernmental relationships has resulted in a methodologically advanced but also highly fragmented research field. The effects of individual intergovernmental financial institutions are widely researched, such as grants or taxes. However, the relevant question as to the combined impact of the different intergovernmental institutions on local finances is virtually ignored.

Another explanation for the weak operationalisation of institutional factors in fiscal federalism results from the methodological preference to conduct single country studies. Studies by organisations such as the OECD and World Bank include country

comparisons of intergovernmental finances, but mainly of a descriptive nature (e.g. OECD, 2012; Ter-Minassian, 1997). The preference for single country studies is strongly driven by scholarly pragmatism: as most theories have evolved on the basis of single country studies, building upon these theories is easiest by studying a single system, or selecting multiple ones that are very similar in institutional design. Consequently, the institutional dimension of local financial stress has been seriously neglected in the literature, which is evident in any attempt to export theories across institutional contexts.

Oates clearly acknowledges the explanatory shortcomings of fiscal federalism in a 2005 article titled 'Towards a Second-Generation Theory of Fiscal Federalism'. Whereas classic fiscal federalism theory naively assumes that governments act benevolently to maximise social welfare, more recent research on intergovernmental finances demonstrates that voters and officials are not always driven by 'common good considerations'. These theories, to which Oates refers as second-generation fiscal federalism (SGFF), demonstrate that voters and officials have their own objectives and respond to institutional incentives. In contrast to classic fiscal federalism, SGFF theories draw on literature beyond the field of public economics, such as organisation theory and public choice theory (Oates, 2005; Weingast, Shepsle, & Johnsen, 1981).

A major contributor to SGFF is Rodden, whose work investigates the relationship between vertical fiscal imbalances and subnational budget institutions. In a 2006 comparative study, Rodden deploys a multi-method approach to investigate how subnational borrowing capabilities affect the fiscal position of the regional level, especially in Germany and Brazil. The study demonstrates that it is not institutional forms themselves that determine fiscal outcomes, but the way in which political actors operate within a given institutional framework. According to Rodden (2006), the greater the political disconnection between the centre and subnational governments, the more likely subnational government rent-seeking behaviour will occur.

The direct relevance for the study of local financial stress of SGFF has hitherto remained uncertain – this is especially because of the dominant focus in this literature on interactions between the regional and national level, which are likely to occur in a much more politicised context than local-national level interactions. This is due to the generally much smaller number of regional compared to local level entities, which provides many more opportunities for direct political interaction processes between regional level entities and the national government, as compared to local level entities and the national level. In addition, many SGFF studies that include the local level solely draw upon aggregate statistics, or refer to a small number of cases (Inman, 2003; Rodden, 2002).

Due to the large fiscal diversity between local entities that has been observed within several political systems, theorizing about actor's behaviour on the basis of aggregate data solely, or based on a small number of case studies, may contain large risks.

As another major contributor to SGFF, Von Hagen (2008) acknowledges the need for political economy investigations covering all government levels, including the local, and research that is more cognizant of constitutional aspects. Although political economy has generated relevant insights for the conduct of fiscal policy, such as the fiscal effects of the principal-agent relationship between voters and politicians (Persson, Roland, & Tabellini, 1997), and the common-pool problem in budgetary politics (Hallerberg, Strauch, & Von Hagen, 2009; Poterba & Hagen, 1999) (see also later in this chapter), Von Hagen emphasises that the impact of constitutional aspects, such as levels of decentralisation, has remained underexplored. This is particularly problematic, according to Von Hagen, since constitutional aspects 'seem to be more fundamental [for fiscal performance] than budgetary processes' (Von Hagen, 2008, p. 474).

More so than SGFF, the field of intergovernmentalism has widely explored 'lower-level institutions' (Von Hagen, 2008, p. 474) – or the political and administrative factors influencing vertical government systems. Besides minimal attention for public finances, theoretical rigor has unfortunately remained restricted in intergovernmentalism, due to the lack of genuinely comparative investigations, which stand in sharp contrast to the number of frequently published and inevitably under-conceptualized edited intergovernmental studies (e.g. Denters & Rose, 2005; Loughlin, 2001b). In addition, the growing importance of the EU government level, resulting in the thriving scholarly field of multi-level governance, has been at the expense of the study of vertical government relationships within a domestic context (Hooghe & Marks, 2003; Ongaro, Massey, Holzer, & Wayenberg, 2010).

Hence, in order to conduct a country comparative analysis of intergovernmental dynamics affecting LG financial stress, a conceptual framework is required that exceeds individual country descriptions but does not result in a narrow and formalised set of assumptions. Although the latter is methodologically tempting, as it would allow for the development of sophisticated methodological models, it is likely to result in theories that will only marginally contribute to our understanding of government systems, or would have an opposite effect. In this thesis, pioneering theories from policy sciences are found to provide a relevant framework to analyse cross-country institutional dynamics in intergovernmental financial systems.

The rest of this chapter is structured as follows. First, theory development in policy sciences is discussed, contrasting some of its insights to models of rational maximisation. Second, core intergovernmental institutions that affect local finances are introduced in the third section. The chapter identifies three core institutions: intergovernmental financial regulations; grant systems; and local tax space. Based upon an extensive literature review, which particularly draws upon recent insights from SGFF and budget theory, hypotheses are formulated as to how each of the institutions will affect the financial position of local authorities. The final section concludes the literature review.

2.2 A policy dynamics approach towards intergovernmental financial systems

The question do institutions matter has been central in social science research in the past decades. The topic has given rise to a vast scholarly field known as neoinstitutionalism (see for an overview: Hall & Taylor, 1996). Despite the extensive literature, theory development on the working of institutions has been modest. An important factor that has constrained progress in institutional theory has been the lasting schism in government studies between analyses that rely upon models of rational maximisation and those that do not. The schism has tended to polarize scholars and has resulted in explanatory models that are either based upon formal models using narrow assumptions, or studies taking a non-formalistic but often rather eclectic explanatory approach. The schism has undermined theory development, with institutional theories having shown particular weaknesses at explaining institutional change, and institutional interactions (cf. Hall & Taylor, 1996; Jones, 2001; Peters, 2005). Although still undermining research on institutions, there are welcoming signs that the schism is having less impact on more recent scholarly work. In particular, SGFF theory demonstrates that by applying a multi-theoretical and multi-methodological approach, strong contributions can be made to the institutional literature.

Another relevant explanation for the lack of progress in institutional theories is that the ground-breaking theoretical work conducted from a behavioural perspective in the 1950s received a limited following in mainstream government studies. Herbert Simon is particularly noteworthy here, as his work combined theoretical strengths with realistic assumptions of human behaviour. Simon's core contribution is his concept of bounded rationality. A basic formulation of the concept first appeared in *Administrative Behavior* (1947) and the concept can be characterised by four principles (Jones & Thomas, 2012; Simon, 1947). First, the principle of intended rationality emphasises that people are goal-

oriented but often fail to accomplish goals because of interactions between their cognitive architectures and the complexities of their environment. Secondly, human behaviour is characterised by adaptation, which puts emphasis on the fact that human problem-solving behaviour is learned and as such is subject to improvement. The fundamentally adaptive nature of human behaviour leads to the inference that the more time decision-makers spend on a problem, the more likely it is that the limitations of their cognitive architecture evaporate (Newell, 1994). Uncertainty is the third principle and emphasises that human psychology plays a crucial role in how we perceive and respond to risk. Finally, Simon's model underlines the cognitive difficulties people can experience with trade-offs. Due to limited attention spans, people generally work on goals sequentially. As a result, trade-offs among goals are difficult to implement (Jones, 2003, p. 399).

Jones (2003) convincingly argues that a study of political behaviour that relies on behavioural assumptions will be drawn toward the study of information processing and problem solving, both argued to be critical determinants of government performance. A behavioural approach will be less focused on questions of equilibrium and control, topics that have occupied large parts of the political science community in the past decades, illustrated by widely tested theories such as principal-agent models (cf. Bendor, Taylor, & Gaalen, 1987; Miller, 2005). Taking a behavioural approach demonstrates that the nature of information streams diverges, depending upon the political infrastructure in place. In his work *The Nerves of Government* (1963), Deutsch provides the first major study investigating information streams in government systems. Based upon insights from modern biology, Deutsch developed a theory of information processing, using concepts such as feedback loops, decision points, and evolutionary dynamics. Despite its impact at the time, the study did not trigger further work toward a general theory of information processing in government systems (Workman, Jones, & Jochim, 2009, p. 77).

Recent research in policy sciences has reconnected to information processing theory, particularly in relation to punctuated equilibrium theory. The latter theory emphasises that although political processes are generally marked by stability and incrementalism (Lindblom, 1959; Wildavsky, 1964), they occasionally produce large-scale departures from the past (Baumgartner & Jones, 2002; Baumgartner, Jones, & Mortensen, 2014, p. 59). The intellectual roots of punctuated equilibrium theory are generally traced to the study of complex systems (Érdi, 2007), which investigates complex interactions among components of a system that can generate considerable

unpredictability.⁵ Complexity in political systems can lead to destabilizing events that change the status quo, leading to short processes of radical changes that establish a new policy equilibrium (Baumgartner et al., 2014, p. 61). While complexity theory itself suffers from the lack of a coherent and agreed-upon theoretical body of knowledge (cf. Gerrits & Marks, 2015), punctuated equilibrium theory is a flourishing research field. The cognitive framework that underpins punctuated equilibrium theory is bounded rationality, since the mechanisms associated with human cognitive architecture are also characteristic of organisations, including governments (Jones, 2001).

Workman, Jones and Jochim (2009) apply bounded rationality to develop an information processing theory. Their theory emphasises that attention is crucial to understanding processes of policy change. According to information processing theory, organisations, like policymakers, are confronted with an oversupply of information. This contrasts with mainstream theories of politics, which generally view the decision problem as one of an undersupply of information that is held privately (e.g. Niskanen, 1975). Due to information oversupply, policymakers must rank information by its relevance (Workman et al., 2009, p. 78).

Parallel processing and serial processing are different mechanisms through which policy actors are able to prioritise attention. Parallel processing refers to the ability of people in organisations to address multiple issues simultaneously. In practice, most organisations show a low capacity for parallel processing and instead process information in a serial, one-at-a-time mode (Workman et al., 2009, p. 79). This is due to two main institutional frictions. First, the short attention span of policymakers means that institutions generally change slowly. Second, high institutional decision costs incentivise policymakers to concentrate on one issue at a time. Due to the concentration on single issues, organisations will overrespond to some issues and underrespond to others. These institutional frictions translate into long periods of stability, which are punctuated by short bursts of large-scale policy change. The relationship between policymakers' cognitive limitations versus institutional decision costs is not a linear one, and the exact relationship between them is likely to differ depending upon policy area or institutional context. Institutional frictions caused by policymakers' cognitive limitations might be lower in one policy area compared to another, resulting in different dynamics of policy change depending upon the nature of the issue (Lowi, 1964). Many policy issues are inherently

⁵ However, punctuated equilibrium theory also shows strong similarities with what Wildavsky (1964), and Davis, Dempster and Wildavsky (1966) already referred to as 'shift points'.

complex and multi-dimensional, which explains why, overtime, issues can be redefined by actors along different dimensions.

The impact of institutional frictions result in disproportionate information processing, to which Workman et al. (2009) refer as ‘errors’. An error is defined as a ‘nonresponse of the governing system to new signals or information in the policy environment’ (Workman et al., 2009, p. 81). According to Workman et al. (2009), institutional features give rise to two error related phenomena: error accumulation processes and error correction mechanisms. Error accumulation refers to the fact that due to serial information processing and high decision costs, actors ignore policy errors over long periods of time, leading to a build-up of errors. Processes of error accumulation eventually forces actors to respond but the capacity to do so differs between systems (Workman et al., 2009, p. 82). Error correction mechanisms refer to the system’s capacity to correct errors that have been developed in the policy system. Workman et al. (2009) do hardly elaborate on the policy features that might characterise error accumulation processes and error correction mechanisms. Differences in institutional structures will affect how information processing dynamics contribute to error accumulation and error correction capacity. The next section offers a further discussion of the two error terms, focusing on different institutional contexts.

2.2.1 Error accumulation processes

Workman et al. (2009, p. 85) emphasise that multi-layered intergovernmental structures enhance the risk of ‘inefficient’ channels of information, which will increase risks of information oversupply. In contrast, hierarchical and unitary intergovernmental channels of information are likely to result in information undersupply. In this view, jurisdictional overlap increases the supply of information to policymakers, whereas a centralised system will have difficulties generating counter-knowledge, making the system ‘maladaptive’ (Workman et al., 2009, p. 85).

A larger number of influential actors, such as subnational authorities or a constitutional court, will increase the supply of information to policymakers. In addition, a wider range of actors will be able to influence the policy agenda (Kingdon, 1995). These information processing dynamics point towards the importance of what Workman et al. (2009) label ‘interinstitutional signalling’, which emphasises that in order to understand the supply of information in the policy process it is critical to understand the manner at which information processes flow between government actors.

Error accumulation processes can be observed as a form of policy feedback into the system. While policy feedback is mostly related with self-reinforcement, hence stimulating path dependent processes, feedback mechanisms can also carry policies that become self-undermining over time. These feedback processes contribute to error accumulation and increase the likelihood of a major change in policy direction (Jacobs & Weaver, 2014).

2.2.2 *Error correction mechanisms*

Similar to error accumulation processes, error correction mechanisms are likely to differ depending upon the constitutional structures in place. For the analysis of intergovernmental financial systems, this thesis distinguishes between three error correction mechanisms: political correction mechanisms, legal-institutional correction mechanisms, and economic-financial correction mechanisms. While the three error correction modes can operate simultaneously, it is most likely that the constitutional features will result in some correction mechanisms being more frequently employed than others. Some examples illustrate this.

Political correction mechanisms operate through actors carrying an explicit party political profile, such as a popularly elected government minister who resolves a policy issue by aligning with a subnational politician holding a similar party political background. When applying political correction mechanisms to different constitutional structures, it can be expected that in centralised systems correction mechanisms will be of a strong political nature as central level executives hold a dominant position and limited veto players are present (Tsebelis, 2000; Ward & John, 1999). Error correction will take place through legal-institutional mechanisms when non-political institutions amend errors. Examples are mediation by judicial or administrative institutions, such as administrative procedures that require right of approval by third parties affected by proposed policies. Finally, policy errors can be corrected without direct intervention by policy actors as a consequence of changes in the external policy environment. Financial stress among government actors might be eliminated by the occurrence of an economic recovery, which will reduce the pressure to implement a policy based solution to financial tensions.

The system's success at identifying errors is a crucial determinant of the effectiveness of error correction mechanisms. Effective processes of information acquisition are critical in order to identify errors. Success in information acquisition is determined by three key dimensions: intensity, speed and the source of information

(Zahra & George, 2002, p. 189). In IGR systems, intensity and speed refer, for example, to the effort and reaction speed of monitoring by regulatory agencies. The source of information refers to the direction of knowledge accumulation within IGR systems, which may be top-down, bottom-up, or a combination of both.

2.3 Intergovernmental relations (IGR): core financial institutions

Given a fragmentation in research topics and the dominance of single country studies, the impact of intergovernmental institutions on local finances is poorly understood. In order to identify how local finances are affected by intergovernmental structures a framework is needed that allows the integration and identification of multiple institutions. The literature indicates that three intergovernmental institutions fundamentally impact local finances across constitutional contexts: (1) the regulatory framework in which LGs operate; (2) grant mechanisms; (3) and local tax space (Musgrave, 1959; Oates, 1972).

In line with Easton's (1965) approach to the analysis of political systems, it is assumed in this research that although each of the financial institutions can be studied in isolation, to understand and compare their local financial impact the institutions have to be studied alongside each other. This is even more relevant when considering the effect of individual institutions in a comparative constitutional framework. The institutions all produce separate input and output into their respective intergovernmental system, but input and output of every institution is fundamentally shaped by interaction with other institutions. Core local output indicators are local treasury variables, which constitute feedback input into the intergovernmental structure. Feedback can take many other forms: it ranges from purely formal feedback, for example aimed at fulfilling some regulatory obligations connected to grant funding, to highly politicised feedback, such as a local led campaign to increase grant funding.

The different intergovernmental institutions are perceived as policy subsystems. It can be expected that different policy dynamics operate within each of the subsystems. Below, four hypotheses are formulated on the relationship between LG financial stress and each of the three financial institutions. As explained before, debt is used as the main local financial stress indicator.

2.3.1 The financial regulatory framework and LG financial stress

Research about the impact of regulatory systems on local debt accumulation demonstrates a large diversity in topical approaches. Scholars have investigated the impact of accounting frameworks (Rivenbark & Roenigk, 2011), budgetary procedures (Cabasés,

Pascual, & Vallés, 2007; Lewis, 1994; Tovmo, 2007), and vertical supervision exercised within intergovernmental systems (Berman, 1995; Capalbo et al., 2012; Kloha, Weissert, & Kleine, 2005). The regulatory space in which LGs operate is likely to constitute one of the core error correction mechanisms to prevent financial imbalances occurring at the local level. However, cognitive limitations among regulators are likely to reduce the effectiveness of IGR financial regulations, giving rise to error accumulation processes.

The impact of regulatory structures on local finances will differ between systems. On a constitutional scale, it can be expected that the regulatory framework in a more centralised system leaves marginal space for error accumulation, as error correction capacity is likely to be extensive and the system is able to respond promptly. Research on the dynamics between state taxes and spending in US states during the late 1980s demonstrates that more restrictive state institutions, such as ‘no-deficit-carryover’ rules, are correlated with more rapid fiscal adjustments to fiscal shocks (Alt & Lowry, 1994; Poterba, 1994). However, more restrictive, and hence more centralised systems might suffer from information undersupply, which will negatively affect regulatory performance. In a more decentralised and pluriform IGR system, information processing between regulators will be more fragmented, enhancing the risk of inefficient channels of information.

Previous findings demonstrate a negative relationship between a government’s regulatory structure versus the borrowing costs it faces (Bayoumi, Goldstein, & Woglom, 1995; Johnson & Kriz, 2005). Given its claim to government budgets, borrowing costs can be expected to operate as an indirect regulatory error correction mechanism. LG borrowing costs also offer one of the few available statistical indicators that can be linked to the regulatory framework, as the framework is likely to be a major determinant of LG borrowing costs. Through borrowing costs, regulatory systems will be a major determinant of LG debt development. Hence, borrowing costs are used as the main statistical indicator to determine the (indirect) effect of the regulatory framework on LG debt evolution.

The effect of borrowing costs on LG debt evolution constitutes a scarcely researched topic. Most of the literature investigating local borrowing costs has focused on municipal bonds, largely in the US. Although bond market funding among European LGs selected in this study is small compared to bank loans, behaviour that is identified by US municipal bond buyers might be comparable to behaviour shown by providers of loans to European LGs. The US literature mostly concentrates on the effects of local debt on local borrowing costs, rather than the other way around. The literature on the debt-

borrowing costs relationship reveals mixed findings. A study by Capeci (1991) finds no effect of outstanding debt per capita on LG borrowing costs, in contrast to the significant effect the author identifies of bond ratings, with higher ratings producing lower interest rates. Similar results are shown by Poterba and Rueben (2001), and by Robbins and Simonsen (2012). Opposite findings occur in Benson, Marks and Raman (1984), and by Marks and Raman (1985), who show that larger amounts of city debt are associated with higher net borrowing costs. Despite these ambiguous results, most American studies demonstrate a significant effect of bond ratings, as given by credit rating agencies, on borrowing costs. However, as local level credit ratings for individual LGs are only used by a very small number of LGs in the country selection of this study, it can be expected that investors mainly rely upon the regulatory regimes in place as determinants for LG borrowing costs. Given the importance of the macro level regulatory regimes for the perception of local level risk presence (Peng, Kriz, & Wang, 2014), it can be expected that limited risk assessment is being conducted at the local level by credit providers to Dutch, English and German LGs.

Hence the following hypothesis has been formulated:

Hypothesis 1: LG debt has no significant effect on LG borrowing costs.

Although less frequently studied in this causal direction, the decision about whether or not to take on debt will be affected by the costs that are attached to debt making. Studies on national governments illustrate that politicians are more willing to increase borrowing in a situation of low borrowing costs (e.g. Drazen, 1997; Faini, 2006). Borrowing costs will occupy a larger share of the available budget if interest rates are high, which reduces political willingness for entering into debt.

Hence:

Hypothesis 2: borrowing costs are negatively related to LG debt.

The business literature illustrates a negative relationship between firm size and borrowing costs (Piot & Missonier-Piera, 2007; Reeb, Mansi, & Allee, 2001). This relationship might also apply to public sector entities, for several reasons. First, larger LGs tend to employ more professional financial management compared to smaller LGs (Simonsen, Robbins, & Helgerson, 2001). This is likely to be perceived by lenders as a form of risk reduction. A more professional treasury will also improve the chances for a locality in finding the most advantageous borrowing deals. Second, the size of a LG will affect the responses of higher government levels during situations of financial distress. The history

of LG financial distress demonstrates that higher government levels are more eager to provide financial support to larger as opposed to smaller LGs. The literature provides multiple reasons for this difference in support. The electoral importance of bigger LGs makes politicians more wary to allow interruptions of service provision in large LGs, as dislocated voters place some of the blame on the centre (Anagnoson, 1982). International visibility and potential ‘reputational effects’ of a bankruptcy of a large LG are also significant (Oates, 2005, p. 362). The eventual federal bailout received by a nearly defaulting New York City in the 1970s was primarily driven by concerns among the US federal administration of the city’s bankruptcy triggering a global dollar crisis (Morgenson, 2008; Shefter, 1992). The higher the quality of local treasury management and a reduced risk of financial default of large LGs are likely to be rewarded by credit markets with the levying of lower interest costs.

Hence:

Hypothesis 3: borrowing costs are negatively related to the local population size.

The regulatory framework might apply to all local financial categories through the guidelines it sets out regarding LGs’ income, expenditure and debt making possibilities. Differences in income structures may have different effects upon local debt accumulation. It can be expected that LGs with a larger total income will have a larger capacity for taking on debt. A positive relationship between a jurisdiction’s income and the scale of its debt has been identified in several previous studies. In a study of 298 Flemish LGs over the period 1977-2000, Ashworth, Geys, and Heyndels (2005) illustrate a positive relationship between local income and debt, and a similar relationship is identified by Benito and Bastida (2004) using a random sample of 130 Spanish cities over a five-year period. The positive relationship between local income and local debt is likely to be affected by the level of borrowing costs LGs face. Low borrowing costs will increase the positive relationship between LG income and LG debt.

Hence, the hypothesis is formulated:

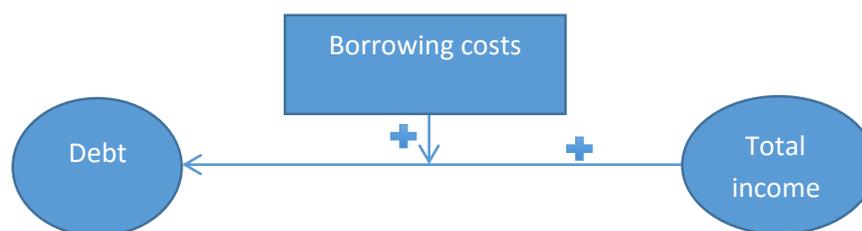
Hypothesis 4: low LG borrowing costs enhance the positive relationship between LG income and LG debt.

Research on the regulation of public sector organisations demonstrates that regulatory agencies that have a larger degree of autonomy from both their political superiors and the organisations they are supposed to regulate, have a higher quality of regulatory output (Gilardi, 2008). Differences in local regulatory compliance are likely to be reflected in

differences in local debt accumulation. It can be expected that the more autonomous regulators are, the better they will be at enforcing regulatory compliance at the local level, and hence restraining debt growth, assuming such regulations are in place. Some regulatory behaviour can be expected to occur across regulatory structures. An illustration is the cognitive limitations of regulators, resulting in the scenario where regulators will ignore financial error accumulation for long periods of time, until local financial problems become very visible.

All the outlined hypotheses can be tested using quantitative techniques. The econometric relationship to investigate the effect of LG borrowing costs on LG debt evolution is illustrated in figure 2.1. It illustrates that the positive relationship between LG income and LG debt is enhanced by low borrowing costs.

Figure 2.1 Econometric relationship to investigate the (indirect) impact of the regulatory framework on LG debt accumulation



2.3.2 Grant funding systems and LG financial stress

The grant funding system constitutes the second intergovernmental institution affecting LG financial stress. Despite the large volumes of public funding involved, grant funding systems to local government have received limited scholarly attention. As a supposedly economic topic but with strong institutional dimensions, the study of grant systems has fallen victim to largely still mono-disciplinary functioning social sciences. A large literature on redistribution systems can be found in the public finance literature, traditionally characterised by a highly theoretical approach (e.g. Breton, 1965; Buchanan, 1952; Dixit & Londregan, 1996; Oates, 1972). Although empirical studies of grant systems have increased in recent decades, empirical work is focused on grant mechanisms between central and regional government. To a large extent, this research choice can be explained by scholarly pragmatism as the data requirements for meso government entities are easier to fulfil than for the much larger number of government entities at the local level. Due to the bias towards central-regional grant systems, studies on grant systems in

countries that lack an institutionalised meso level are underrepresented, while studies on federal systems dominate the literature (Ansolabehere & Snyder, 2006; Larcinese, Rizzo, & Testa, 2013; Musgrave, 1997).

As well as the dominance of central-state level studies, research on grant systems reflect a general weakness of both public finance and intergovernmental studies: a strong bias towards single country studies. While a number of studies on central-state level grant systems do take a country comparative approach (e.g. Boadway & Shah, 2007; Melitz & Zumer, 2002), Buettner (2009) stands alone as an empirical scholarly comparison of redistribution systems between the local and central level across countries (Germany and the US). Due to this, the institutional dimension of grant systems has been seriously neglected in the literature.

A further limitation of empirical work on grant systems is their narrow financial focus. Studies that include grant variables mostly analyse their effect on total expenditure or income (e.g. Mehiriz & Marceau, 2014; Veiga & Veiga, 2007), which say little about the consequences of grant funding on the wider financial position of involved government entities. This narrow scholarly orientation is surprising given that non-academic debates across intergovernmental systems focus on the adequacy of grant funding in meeting LGs' expenditure obligations and its impact on the wider financial position of LGs, such as reflected in the local budget balance, debt and reserve levels (cf. Jacob & Hendrick, 2013a). In order to analyse the contribution of grant funding to error accumulation and error correction capacity within different European systems, this section develops four hypotheses.

In most systems, grants act as mechanisms to compensate for inter-local variation in revenue raising capacity. It can be assumed that the financial base position of LGs with high grant dependence and weak local tax capacity is weaker than LGs with low grant dependence and a strong local tax capacity. This difference in financial position arises because few intergovernmental systems completely equalise inter-jurisdictional differences in local tax capacity so as not to de-incentivise local tax effort (Boadway & Shah, 2007). However, empirical studies that analyse how grant funding affects the financial position of governments are limited. The few available studies that analyse the impact of intergovernmental grants on debt levels almost exclusively relate to the US. Clingermayer and Wood (1995) study 48 US states over a nearly four decade period and demonstrate that states with higher intergovernmental revenues borrow more money annually than those with lower intergovernmental revenues. Using panel data related to

all 50 US states over the period 1984 to 1999, a similar positive relationship between grants and borrowing is found by Martell and Smith (2004). Explanations as to why grants and debt issuance may be positively related follow from both the design of grant systems and their impact on local spending behaviour.

In most systems, grants act as mechanisms to compensate for variations in local tax capacity. Without a redistribution system, large numbers of LGs would struggle to provide a minimum level of public services. Redistribution of fiscal capacity among LGs, however, is only partial following three reasons. First, partial redistribution is a deliberate policy preference, based upon the reasoning that full equalisation would deter LGs from optimising their local tax capacity (Boadway & Shah, 2007). Second, technical limitations result in imperfect grant mechanisms that reduce equalisation objectives (Bramley, 1990). A third factor relates to the fact that grant systems are not only aimed at equalising inter-local fiscal differences, but also used to fund specific tasks mandated to LGs by higher government levels. Several, mostly qualitative based studies emphasise the financial risks that mandates may exert to grant receiving authorities due to lacking or insufficient financial compensation (Gormley, 2006; Posner, 1998). Following from the partial and imperfect nature of grant funding systems, it can be assumed that the financial position of LGs with high grants dependence is weaker than LGs with low grant dependence.

In addition to debt-enhancing effects caused by the intrinsic design of grant systems, the theory of the 'flypaper effect' suggests that grants may also have an independent effect on local spending behaviour. With the observation 'money sticks where it hits', the flypaper effect states that an increase in grant funding to LGs raises local spending by a higher amount than an equivalent increase in local tax income (Gramlich, 1977). In addition, the 'flypaper effect' argues that authorities respond differently to an increase in grants compared to a reduction. Authorities facing grant reductions manage to keep their spending levels relatively unaffected as they compensate grant losses with rises in other income sources. These asymmetries in local spending responses are supported by empirical evidence across a variety of constitutional contexts (Deller & Maher, 2006; Lalvani, 2002). Although local debt has generally been excluded from empirical investigations into the flypaper effect, it can be assumed that increased borrowing is one of the ways via which LGs compensate for grant losses. Income from credit liquidity will be particularly relevant in a context where other income streams, such as local taxes, face restrictions.

Following from the partial and imperfect nature of grant systems, combined with the independent impact of grant funding on local spending behaviour, it can be assumed that LGs with high grant dependence will borrow more compared to LGs with low grant dependence.

Hence, the following hypothesis is formulated:

Hypothesis 5: grants are positively related to LG debt.

The extent to which technical considerations affect grant allocation differs across systems. Studies on the Indian grant system (Khemani, 2007) and the Australian grant system (Worthington & Dollery, 1998) show that having an independent grant committee in place increases the likelihood of a technically motivated grant allocation. These committees are also likely to be relevant in signalling the negative financial effects that might build-up in intergovernmental financial systems due to the grant mechanisms in place. As such, the committees will increase a system's error correction capacity. Error correction capacity is also likely to increase in case of a rise in the institutional capacity to consult LGs, or groups of LGs, who might be financially affected by grant mechanisms. In line with the behavioural assumption that actors do not deliberately want to extort each other, financial errors resulting from the grant architecture in place need to be explained primarily from cognitive limitations among policymakers and the decision costs attached to institutional change.

The literature on grant redistribution has identified two main factors explaining why grant allocations might deviate from what would be expected based upon the technical characteristics of the grant system in place. The first type of explanations applies a partisan approach and traces how party political linkages among intergovernmental actors affect grant allocation. A second group of explanations identifies how interest representation different from party political interests affects grant mechanisms. Both literatures are discussed below.

2.3.2.1 Partisan explanations: international literature

The incentives to use grant systems for political purposes differ across systems. Partisan explanations are likely to be most relevant in majoritarian states as parties must win a majority of seats in the legislature to retain executive office. This incentivises them to advantage certain electoral districts over others. Moreover, once in government the party in power at the national level 'has relatively unfettered control over the central government machine and faces relatively weak units of local government' (John & Ward,

2001, p. 309). Hence, central governments in majoritarian systems are strongly motivated, and face limited obstacles, to use grants for political purposes.

Most studies applying a partisan explanation concentrate on the geographical distribution of grants. Two main opposing effects are identified in the literature and referred to as the swing voter versus core voter hypothesis. According to the swing voter hypothesis, governments allocate more grants to subnational authorities with a higher proportion of voters who are not specifically linked to any of the national parties. Examples of studies that find support for the swing voter hypothesis are Dahlberg and Johansson (2002) on Sweden, Magaloni (2006) on Mexico, and Weitz-Shapiro (2006) on Argentina.

In the core voter hypothesis, governments allocate more funding to states where voters are clearly attached to the incumbent party. The core voter hypothesis has been confirmed in several US studies, resulting in a substantial literature on pork barrel politics. Most of these studies investigate the grant mechanisms in place between the federal level and state governments and typically explain pork barrel politics using a common-pool resource logic: as individual legislators are elected in specific districts they are incentivised to demand more money for projects in their electoral district than is socially optimal (Grossman, 1994; Levitt & Snyder, 1995; Weingast et al., 1981; Wright, 1974). Support for the core voter hypothesis at the sub-state level is found by Ansolabehere and Snyder (2006) in a study on the funding of US counties.

Outside the US, several studies find support for the core voter hypothesis. Calvo and Murillo (2004) demonstrate that in Argentina the provincial vote share of the incumbent Peronist party is positively associated with federally financed expenditures. Horiuchi and Lee (2008) report that in South Korea the incumbent president's strongholds have received disproportionately larger amounts of grants. Similar partisan dynamics in the Indian system leading to higher grants to states that are politically aligned with the national government are identified by Khemani (2007). Although national politicians in centralised political systems have less direct electoral interest in allocating grant funding to specific districts, scholars have also identified the presence of pork barrel dynamics in non-federal systems. The reason for this is that voters' assessment of the party's performance at one level spills over and positively affects the assessment of the party's national performance (Fourinaies & Mutlu-Eren, 2015; John & Ward, 2001; Rodden, 2006).

Some studies find support for both hypotheses. In a study on India, Arulampalam et al. (2009) show that states that are both aligned and swing with central government

receive on average 16% higher federal transfers compared to states that are unaligned and non-swing. With the international literature providing inconclusive evidence, a closer look at the empirical literature on the selected European systems in this study might provide more direction as to what political motivations affect grant allocation.

2.3.2.2 *Partisan explanations: studies on selected systems*

In line with the international literature, empirical research on grant systems to the Dutch, English and German local level is limited. Most **UK** research has concentrated on the redistribution mechanisms that are in place between the national level and the devolved regions – especially through the Barnett formula (Christie & Swales, 2009; Mitchell, 2003). Studies on grant funding to English local government mostly date back from the period before 2000. Many of these studies have an introductory character and limit themselves to aggregate statistics (e.g. Travers, 1986) or are highly theoretical (e.g. Bramley, 1990).

Studies on England using micro-level LG treasury data are (largely) limited to Bennett (e.g. 1982), Ward and John (1999), Boyne, Powell and Ashworth (2001), Hilber, Lyytikäinen and Vermeulen (2011), and Fourinaies and Mutlu-Eren (2015). In a 1982 study, Bennett provides an elaborate analysis of the spatial distribution of English central government grants. Since the study is largely concerned with the outcomes and the technical aspects that are part of the distribution, Bennett does not provide much insight into the causal mechanisms that determine grant allocations. A 2001 study by Boyne et al. concentrates on the relationship between local tax effort and grant funding, and does not account for political variables.

Ward and John (1999) clarify some of the mechanisms at work in the English system by identifying how political dynamics affect grant allocation. Based upon factor analysis and OLS regression techniques, using a dataset of 108 English LGs (in FY 1994/95), the authors find support for both the core and swing voter hypothesis. Their empirical results demonstrate that central government allocated around 500 million £ more to LGs containing marginal constituencies and around 155 million £ more to core constituencies than they could have been expected to receive on the basis of the needs criteria used in the system. The presence of partisan elements in grant allocation is confirmed by John and Ward (2001). Hilber et al. (2011) also identify partisan elements and show that the Labour central government in the early 2000s targeted grants to LGs where it gained marginal dominance after local elections. However, as the focus of Hilber et al. (2011) is on the effects of central grants on local house prices, the study does not

shed light on why and how grants are allocated in a different way compared to what would be expected based upon the technical design of the English system. Support for the core voter hypothesis is found by Fourinaies and Mutlu-Eren (2015), who demonstrate that English LGs showing party political symmetry with the national government receive up to 17% more grant funding.

Studies on grant allocation in the *German system* have concentrated on relationships between the federal level and the *Länder*. Investigating the evolution of federal intergovernmental transfers over the period 1970-2002, Pitlik, Schneider and Strotman (2006) demonstrate that the impact of overrepresentation of *Länder* in the upper house of the German legislature has led to disproportionate state shares of per capita transfers. In addition, the impact has increased over time, indicating that the German intergovernmental transfer system has become more 'politicised'. Similar to many other federations, the design of intergovernmental mechanisms towards the local level is a state level responsibility, and hence differs across the German *Länder*. Empirical studies investigating the *Länder's* intergovernmental transfer systems are limited. Most studies analyse the effects of transfers on the cost efficiency of LGs (e.g. Kalb, 2010) or their tax policies (e.g. Buettner, 2006), without considering institutional factors impacting grant allocation. Most analyses that do explicitly study the design of transfer systems are (German language) evaluation studies, regularly assigned to investigation committees by the *Länder* (e.g. Buettner, Holm-Hadulla, Parsche, & Starbatty, 2008). As such, these studies are not typical scholarly representations of the intergovernmental systems, despite the frequent participation of academics. Due to their evaluative character and tendency to make policy recommendations, the reports themselves need to be part of an analysis of what determines the working of grant systems.

Scholarly empirical studies about what determines grant allocation in the *Dutch system* are virtually absent, as most studies are of a historical nature (e.g. Van Zaalén, 2002). Available evaluations have mainly been conducted by the Dutch Financial Relations Councils (Rfv) (e.g. Rfv, 2007). Although this advisory body to the Dutch central government and parliament has an independent status, it is one of the actors in the Dutch intergovernmental financial landscape and its publications need to be evaluated as such.

In sum, the identification of political and institutional drivers behind grant allocation receives limited attention. The small number of empirical studies available suggests the presence of political influence, however the results refer to redistribution systems that have since been replaced (e.g. John and Ward studied the SSA system which

ceased to exist in 2003), or are based on a selection of LGs. Notwithstanding the restricted empirical studies on the selected systems and the mixed international findings, the majority of research seems to indicate that party political congruence between the grant-provider and the subnational grant-receiver tends to positively affect grant levels. To investigate the relevance of partisan explanations it is expected that the positive relationship between grants and debt reduces in case of intergovernmental party political symmetry, either due to the allocation of more grants, or grants pertaining less risks to the financial position of the grant-receiving LG. The following hypothesis has been formulated:

Hypothesis 6: the positive relationship between grants and LG debt diminishes in case of party political symmetry between the grant-providing government and the grant-receiving LG.

The extent to which grant allocation is politicised might be affected by the type of grant allocated to LGs. The traditional distinction is between general, or block grants, versus specific grants (cf. Ter-Minassian, 1997). Whereas general grants allow a high degree of local spending discretion, specific grants must be allocated to spending aims prescribed by the grant-provider. Although empirical studies mostly use aggregate grant figures, Kim (2013) and Sacchi and Salotti (2014) distinguish between types of grants and find significantly different results, with specific grants more affected by political dynamics. Khemani (2007) shows similar results for the distribution of central level grants to Indian states, with discretionary grants being more susceptible to partisan impact compared to constitutional grants. As the funding allocation of general grants tends to be determined through formula based mechanisms while this tends to be more diverse for specific grants, it can be expected that specific grants leave particular large space for partisan motivated grant allocation.

Hence, the following hypothesis is formulated:

Hypothesis 7: party political symmetry between the grant-providing government and grant-receiving LG will have a larger effect on specific compared to general grants.

Although politics affects grant allocation, empirical results regarding the political dynamics behind grant allocations are mixed. An explanation for these mixed empirical findings is due to the weak operationalisation of institutional contexts and a general bias towards majoritarian systems. Hypotheses testable across institutional systems need to

account for institutional differences. In contrast to majoritarian systems, multiparty executives constitute the ordinary government situation at the local and higher government levels in the Dutch and NRW systems. Consequently, the relevance of specific political variables in grant allocation processes is likely to differ between the systems.

In contrast to England, mayors (or district heads in NRW's counties) are present in all Dutch and NRW LGs. Although empirical research is limited, available studies indicate that mayors carry considerable political and policy responsibilities, and are crucial in representing the authority towards other government actors (Schaap, Daemen, & Ringeling, 2009; Wollmann, 2005, 2014). Research on US LGs indicates that mayors who are directly elected enjoy more influence at the state and national levels than their indirectly elected colleagues. Directly elected mayors would be more effective at bringing in state and federal money (Basehart, Kane, Wagenhals, & Hedger, 2000). Based upon this, it can be expected that mayors provide an additional test to trace a moderating effect of party political symmetry on the grant-debt relationship

2.3.2.3 *Interest representation explanations*

In majoritarian political systems, grant-providing governments have strong incentives for the political use of grants as they are elected in geographically defined areas. It can be expected that in non-majoritarian systems, central governments will have limited political motivation to influence electoral results in specific areas since election results will be based upon national aggregate results with every vote carrying a similar weight. In addition, central governments in non-majoritarian systems will face more institutional obstacles when attempting to use grants for political purposes (John & Ward, 2001; Tsebelis, 2000). Following from the differences in institutional structures, factors other than intergovernmental party political symmetry might explain grant patterns.

Empirical studies suggest that local interest representation is crucial to the operation of grant systems in practice. In a study of 49 US states during four different years, Grossman (1994) finds that the importance of intergovernmental party political affiliation has become weaker over time and instead, interest representation of the grant-receiver at the level of the grant-provider has become more relevant to explain grant allocations. Proxies for interest representation used by Grossman (1994) are the size of the state bureaucracy and union membership. The importance of interest representation by the administrative apparatus of the grant receiver is also identified by Lowry and Potoski (2004) in a study on the distribution of US federal discretionary grants to US

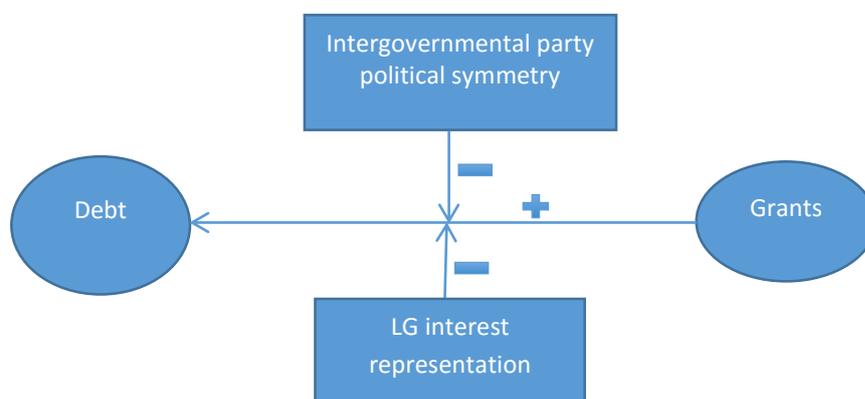
states (period of investigation: 1991 to 1998) and by Borck and Owings (2003) in the distribution of LG grants by the Californian state government. It can be expected that enhanced local interest representation leads to the acquisition of grants that pose less risks to the local financial position. Hence, the local administration will reduce the positive relationship between grants and LG debt.

The subsequent hypothesis has been formulated:

Hypothesis 8: the positive relationship between grants and LG debt diminishes with an increase of the size of the local administration.

The hypotheses formulated in this section are summarised in figure 2.2, which illustrates the institutional relationships to investigate in the analysis of grant systems.

Figure 2.2 Main institutional relationships to investigate



LGs that are aligned in partisan terms with the grant provider are able to reduce the risks posed by grants on local finances. It can be expected that due to strong electoral incentives and institutional capacity at the central level, error correction mechanisms within grant funding arrangements are particularly strong along partisan lines in centralised systems, whereas such mechanisms will be less developed in decentralised systems. Local administrative capacity is another error correction mechanism related to grant funding. Well-staffed and professional local administrations are likely to be better able to represent local financial interests at the level of the grant provider, and so reduce the risks posed by grants on LG finances.

2.3.3 Local tax space and LG financial stress

Local tax space constitutes the third and final core intergovernmental institution affecting LG financial stress. Despite its presence across systems, the contribution of local tax

space to financial error accumulation, and error correction capacity, is likely to differ across systems. Local tax space will be reflected in the extent to which LGs can autonomously introduce new taxes, and decide on tax rates. Hence, the main variable to be used to identify the relationship of local tax space with LG financial stress are local tax rates. Empirical research on the determinants of local tax space can be separated into one strand that concentrates on local level explanations, which are focused on structural and political features, and another strand that looks for explanations in the financial relationships among government levels, mainly the literature on Tax and Expenditure Limitations (TEs). While the local level approach has received attention in both Europe and the US, the TEL literature is almost exclusively US based. Both literatures are reviewed in this section.

2.3.3.1 Local level explanations

Empirical literature that studies local tax trends from a local level perspective can be distinguished into four strands: (1) the political colour of the local council, (2) local political business cycles, (3) characteristics of the local executive, and (4) inter-local spatial tax competition.

Empirical research, which takes a partisan approach generally assume left-wing councils set higher tax rates compared to right-wing councils. Empirical evidence for this hypothesis is mixed. Using data for FY 1996 only, Allers, De Haan and Sterks (2001) find evidence for partisan influence on the tax rate set by Dutch LGs, with councils dominated by left-wing parties having a higher tax burden. However, Bosch and Suarez-Pandiello (1995) find no partisan effect, using data on Spanish LGs for FY 1988 only. Other scholars highlight that due to the type of spending that occurs at the local level, local expenditure leaves little space for ideologically driven spending decisions (i.e. because LGs play a minor role in income redistributive spending) (e.g. Ashworth et al., 2005). Inconclusiveness of the empirical literature on the impact of local partisan characteristics on LG finances is enhanced by the fact that several studies exclude local tax variables (Hagen & Vabo, 2005; e.g. Ibrahim, 1994; for an extensive overview of the empirical literature, see Imbeau, Pétry, & Lamari, 2001).

The second research strand concentrates on the effect of local political business cycles. It argues that in order to increase their chances of being re-elected, politicians reduce tax pressure in the years prior to elections and increase tax pressure in the post-election period. Effects of a local political business cycle are found in several studies, however, mostly using other dependent variables than taxes. Ashworth, Geys and

Heyndels (2005) show that due to rising local expenditure, debt levels increase prior to local elections. In a study of French councils, Binet and Pentecôte (2004) explicitly investigate the effect of political business cycles on local tax rates. They find that local tax pressures reduce in the two year prior to local elections and increase in the post-election period. Similar political business cycle effects are identified by Lago-Peñas and Lago-Peñas (2008), and by Veiga and Veiga (2007).

A third main approach to explain local tax rates looks at the characteristics of the local executive. Based upon research originally conducted by Roubini and Sachs (1989), the assumption is that an increase in the number of parties that compose the political executive complicates decision-making and so reduces governments' fiscal performance, as indicated by, amongst others, higher levels of taxation. Although several empirical studies conducted on national and regional level governments find support for the weak government explanation (e.g. Bawn & Rosenbluth, 2006; Jochimsen & Nuscheler, 2010), results at the local level are mixed. A study by Allers and Elhorst (2005) on Dutch LGs does not find support for the weak government hypothesis. Allers and Elhorst (2005) instead suggest that multiparty local executives benefit local fiscal performance as the higher the likelihood that coalition executive parties will be part of the post-election executive, the higher the sense of fiscal responsibility among executive parties. A study conducted by Rattsø and Tovmo (2002) of all Danish LGs from 1985-1996 also fails to provide support for the weak government hypothesis. Notice the close links of this literature on the composition of the political executive and government's fiscal performance with the lively empirical debates about the relationship between the composition of the political executive and the size of government (Pettersson-Lidbom, 2012; Schaltegger & Feld, 2009; Weingast et al., 1981).

A fourth research strand concentrates on the effects of inter-local tax interactions. A substantial and growing literature demonstrates that tax decisions made in one LG can be significantly influenced by tax trends in other LGs (Bordignon, Cerniglia, & Revelli, 2003; Wu & Hendrick, 2009). These effects are more substantial when a large local tax space exists, and when locally generated taxes do not negatively affect the amount of grant funding received. Several empirical studies indicate that tax rate setting by smaller LGs is more likely to be affected by inter-local tax competition due to the larger elasticity

of their fiscal base.⁶ Bucovetsky (1991) and Wilson (1991) are examples of studies that identify asymmetries in spatial tax competition.

Empirical evidence supporting the above mentioned four research strands is mixed. The factors identified above are therefore relevant to the analysis, and most of them can be used to operationalize control variables, but additional institutional and financial factors should be considered to adequately explain local tax trends.

Few studies investigate the effect of the financial position of LGs on fiscal decision-making at the local level. In a study of German LGs, Buettner (2001) shows that LGs paying more on their debt service set higher rates on capital income tax. A study by Leprince, Madiès and Paty (2007) demonstrates that French LGs with a higher income per capita set lower business taxes. This supports the hypothesis that financial stress, as indicated by higher debt service or a reduction in LG income per capita, increases local tax rates. Hence, the following hypothesis has been formulated:

Hypothesis 9: LG debt is positively related to LG tax rates.

The literature provides several indications that local tax effort might also be affected by the types of spending in which LGs are involved. Wolman (1983) laid out a theoretical model for responses to financial stress at the local level and tested it through a series of case studies in the US and the UK. Wolman's study indicates that local fiscal strategies are aimed at minimising the decline of spending on public service delivery and local administrative staff. In a study of 264 Chicago suburban LGs, Hendrick (2011) shows that expenditure on capital investment, instead, is used by many LGs to alleviate fiscal stress, especially in the short run. Based upon these findings, it can be expected that the relationship between local tax rates and LG expenditure is influenced by the type of LG spending. Hence, the following hypothesis has been formulated:

Hypothesis 10: LG tax rates are positively related to LG staff expenditure, whereas LG tax rates are negatively related to local capital expenditure.

Next to local level explanations, intergovernmental structures have been identified as a main determinant of local fiscal developments (Amiel, Deller, Stallmann, & Maher, 2014; Blom-Hansen, Bækgaard, & Serritzlew, 2014). Mostly dominated by US literature, it focuses on so-called Tax and Expenditure Limitations (TEs). TEs have been

⁶ E.g. the amount of local tax revenues generated by a small number of enterprises might be significantly affected when one enterprise relocates to another LG, something that will much less affect tax revenue streams of larger LGs.

introduced across the US at both the state and local level since the 1970s in what has become known as the Tax Revolt.

2.3.3.2 *Tax and Expenditure Limitations (TEs)*

The application of TEs in the US is most visible in limitations on property taxation, the most important tax at the American local level. In 2006, only five out of the 48 continental American states did not impose a rate limit on some aspects of property taxation. Expenditure limitations have been less widespread, with only six American states having expenditure limitations imposed upon their local level in 2006 (Anderson, 2006, p. 688). The literature published in the 1980s found little evidence that TEs do effectively limit government tax and spending growth. However, with the availability of longer time series, more recent studies conclude that TEs have effectively reduced the growth of revenues and expenditures (Joyce & Mullins, 1991; Shadbegian, 1998; Skidmore, 1999; Staley, 2015).

The US literature indicates that TEs incentivise revenue shifting strategies. While TEs lead to less tax income, several studies show that governments might shift their revenue levying from taxation to other sources, such as grants, service charges and user fees (Joyce & Mullins, 1991; Shadbegian, 1999). At the state level, the effect of TEs has been further undermined by states avoiding their constraining effect on state budgeting by shifting expenditures from the state level to local jurisdictions to which the TEs do not apply. These local jurisdictions can be existing ones (Skidmore, 1999) or exclusively created to avoid the effects of TEs (Bowler & Donovan, 2004). As this thesis concentrates on the local level, to which explicit expenditure limitations do not apply in any of the three selected European systems, unintended consequences of TEs are likely to be expressed in the form of local revenue shifting strategies rather than through an institutional shift of local expenditure obligations. Hence, the following hypothesis is formulated:

Hypothesis 11: stringent intergovernmental tax limitations are positively related with a replacement effect of LG tax revenues by nontax revenues.

Although it can be expected that TEs do not effectively limit local expenditure, the exact form of the tax replacement effect will be affected by the demographic, financial, and political features of the intergovernmental structure in place. The TE literature demonstrates that the effects of tax limitations are not uniform across localities, as they depend on local characteristics. In a study of LGs in Colorado, Brown (2000) finds that

the impact of TELs depends on jurisdiction size, with TELs having a more constraining effect on small LGs. In the absence of TELs and in case of increasing local financial stress, small LGs have the strongest incentive to increase taxes, which is in line with the larger elasticity of their fiscal base as identified in spatial studies.

In a study including all Danish LGs between 2007 to 2011, Blom-Hansen, Bækgaard and Serritzlew (2014) illustrate that the implementation of tax limitations upon the Danish local level incentivised revenue-shifting strategies from local taxation to central government grants. The authors relate the revenue shift to the specific working of the Danish intergovernmental system. As Danish LGs are responsible for the implementation of core welfare functions, the Danish LG sector blames the Danish central government for cutbacks to spending triggered by the TELs. The authors hypothesise that the Danish intergovernmental system makes it subsequently difficult for central government to commit credibly to the enforcement of TELs because task and expenditure responsibilities are so closely intertwined (Blom-Hansen et al., 2014, p. 65). Due to central government's enforcement problem and in anticipation of the cutbacks resulting from TELs, Blom-Hansen et al. (2014) anticipate that the Danish local government association has been able to strengthen its negotiation position *vis-à-vis* the Danish central government, which should explain increases in the collective grant result for the Danish LG sector.

As their study is limited to statistical research, Blom-Hansen et al. (2014) do not explicitly explore their institutional effect hypothesis. It can be expected that the country-specific features of intergovernmental systems will significantly affect the type of revenue shifting strategies that occur. Following Blom-Hansen et al. (2014), it can be assumed that the credibility of higher government commitment to the enforcement of local tax limitations is more problematic in IGR systems that are more vertically integrated, as local tax pressures will easily backfire on central government. Tax limitations in more centralised intergovernmental systems are more likely to be replaced by increased grant funding. Based upon the assumption that intergovernmental structures critically affect the expression of the tax replacement effect, the following hypothesis has been formulated:

Hypothesis 12: an increase of the level of centralisation is positively related to a replacement effect of LG taxes by grant funding.

Within the selected constitutional systems, a tax replacement effect by grant funding is most likely to occur in the centralised English intergovernmental structure. In contrast to

England, it can be expected that in the more decentralised Dutch and NRW systems, taxes are more frequently used to offset budgetary imbalances, as compared to local strategies aimed at increasing funding from higher level grant providers.

2.4 Concluding remarks

This review illustrates the fragmented character of the literature about intergovernmental finance, and the resulting lack of integrated frameworks for conducting comparative investigations into LG financial stress. In order to understand how intergovernmental structures affect local finances, it is insufficient to study one institution. This thesis observes the three different intergovernmental financial institutions as components within a system and studies their impact. The literature indicates that IGR dynamics can work significantly differently depending upon the institutions in place. Within a single system, IGR institutions work in opposing directions; with some institutions causing LG financial stress, while others alleviate financial tensions at the local level.

The concept of bounded rationality, deriving from the behavioural literature, can be operationalised towards IGR financial institutions in multiple ways. First, the concept of intended rationality implies that policy actors design IGR financial institutions in such a way they do not deliberately exert negative financial consequences on government entities. Based upon this, it can be assumed that negative local financial consequences deriving from IGR financial institutions are not intended consequences and hence need to be explained by other reasons than motivations of policy actors. The intention to design IGR financial institutions that do not pose risks to local finances is translated as followed in practice. First, the regulatory framework will be aimed at reducing financial risk-taking at the local level – even when the regulatory design of the system has different consequences in practice. Second, grant funding will be aimed at reducing inter-local financial divergence. Hence, it can be expected that the design of grant systems is intended to reduce local financial stress levels. Third, intended rationality in the use of local tax space will be translated as tax rates being used to reduce local financial imbalances that are difficult, or impossible, to prevent within the wider design of the IGR financial system.

A second feature of bounded rationality is that human behaviour is characterised by adaptation and that more time being spent on a problem results in better insight in the problem, and hence better decision-making. Following this, it can be expected that more decentralised political systems, which are characterised by more prolonged decision-making processes compared to centralised systems, will design intergovernmental

structures that result in more sustainable financial arrangements at the local level. This leads to the expectation that IGR financial institutions are more rationally designed in Germany/NRW than in England. Due to these design differences, institutional arrangements lead to limited local financial risks in Germany/NRW and more substantial risk in England. The Dutch system will occupy a mid-position.

Another assumption following from bounded rationality is that uncertainty plays a crucial role in human psychology. This means that situations will often occur in which policy actors are aware of their own knowledge deficiencies regarding the financial output of IGR financial systems. Knowledge deficiencies will be most explicit in case of large scale reforms, because its consequences will be most difficult to predict. Uncertainty is closely related to the fourth characteristic of bounded rationality: the difficulty people have with trade-offs. This leads to the expectation that policy actors have difficulties in identifying and implementing trade-offs between different IGR financial arrangements.

The policy approach to focus on one institution at a time strongly resembles serial processing, which is the common mode at which institutions process information. Serial processing does not only occur due to limited attention spans and uncertainty among policy actors, but also because of high institutional decision costs. High institutional decision costs are due to the complexity and the number of actors that are affected in case of reforms in IGR financial arrangements. While institutional decision costs will be substantial in every IGR system, the specific sum of decision costs will be determined by the constitutional structure in place. Given the dominant position of the centre in centralised systems versus a higher power dispersion in decentralised systems, institutional decision costs can be expected to be lower in centralised compared to decentralised constitutional systems. Hence, the dominant mode of information processing is serial in decentralised systems, while centralised systems demonstrate larger capacity for parallel processing.

Bounded rationality characterises policy processes across constitutional systems. However, constitutional systems score differently regarding the degree to which rationality in policymaking is 'bounded'. The duration of error accumulation processes until the system responds will differ between systems and policy areas. A larger number of actors involved in policymaking increases the response threshold (Workman et al., 2009, p. 82), as more coordination is required to mediate between a larger number of interests and stakeholders. Hence, the threshold for a policy response towards local financial stress increases with the level of decentralisation. Different response thresholds are particularly due to information supply in different constitutional structures. Following

information processing theory, it can be expected that the centralised English system is characterised by information undersupply, whereas German policy actors face information oversupply. It can be expected that information undersupply and oversupply prolong the threshold of response. In a mixed constitutional system, such as the Dutch system, information supply will be most proportionate as information channels are neither pluralistic and ‘inefficient’, nor hierarchical and ‘efficient’. Hence, it can be expected that the threshold of response will be most adequate in a mixed constitutional structure such as the Dutch system.

Once the threshold is passed, mechanisms to correct errors take effect. Similar to the dynamics of error accumulation, error correction mechanisms are framed by constitutional structures. Different error correction mechanisms can be identified in case of the three IGR financial institutions. Regarding IGR regulatory frameworks, the regulations themselves constitute a potential mechanism to correct local financial errors. Key to the effectiveness of regulatory structures is tractability of rule violation and the subsequent response implemented by regulators. A second error correction mechanism identified, which is indirectly related to the regulatory framework, are interest rates set by credit providers to LGs. More integrated IGR systems are likely to generate less correction capacity through the mode of interest rates, since the regulatory framework is likely to be more effective at eliminating risks of local financial defaults.

The literature hints at significant political-institutional effects influencing grant funding, most importantly party political alignment and interest representation. Local tax space offers the third and final IGR financial institution that might contribute to error accumulation and error correction capacity. Local tax space will mainly operate as a correction mechanism of local financial stress through the extent at which LGs are autonomous to introduce new taxes, and determine their rates. The literature review in this chapter indicates that error accumulation processes and error correction mechanisms are likely to differ between country systems and IGR financial institutions.

Table 2.1 provides an overview of four scenarios of LG financial stress depending upon the scoring of the two error terms. The biggest risk of a policy failure (Howlett, 2012) occurring in IGR finances is when error accumulation processes are high, and the system demonstrates low capacity to correct those errors. In this scenario, the IGR financial context leaves the local level in a *financially fragile* position. The opposite situation occurs when the system transfers limited financial stress to the local level, while it generates limited error correction capacity, resulting in a *financially robust* position of LG. The remaining scenarios are mixed, where LG either possesses high error correction

capacity, but is also confronted with high error accumulation (*financially volatile*); or has low capacity to correct errors, but the IGR structure also prevents the accumulation of any significant local financial errors (*financially stable*).

Table 2.1 Conceptualisation of LG financial stress within different IGR contexts

		IGR error correction capacity	
		low	high
IGR error accumulation processes	low	Financially stable	Financially robust
	high	Financially fragile	Financially volatile

At its core, the different working of the two error terms comes down to the level of discretion versus certainty at the level of the grant provider and local grant receiver. Larger discretion results in larger institutional flexibility in the regulatory framework, grant funding and local tax systems. Increased flexibility might positively affect error correction capacity. However, more discretion might also result in less well considered institutional structures that increase risks of error accumulation. Greater certainty, in contrast, corresponds with lower error accumulation processes and hence reduces the need for error correction capacity. Next to a discussion of the methodological aspects of this thesis, the next chapter offers an overview of the institutional evolution of the German, English and Dutch IGR structures. This discussion demonstrates that the dichotomy discretion versus certainty is a key dimension distinguishing the selected European systems. However, it also shows – in line with this literature review – that the consequences of these institutional differences on local financial conditions have remained unclear and so has the explanatory stretch of the policy dynamics approach.

CHAPTER 3

Methodology & institutional comparison

This chapter consists of two parts. The first provides a discussion of the macro level choices underlying the methodological design of this thesis. The second provides a comparative overview of the constitutional features of the selected intergovernmental systems.

3.1 Methodology

The study applies a mixed method strategy to investigate local financial stress. The study uses a classic research methodology: the comparative method. This section offers a discussion of the methodological strengths and weaknesses of a mixed method approach, explains the selection of cases, and elaborates on the main methodological strategies of the qualitative stage of the research. The reader is referred to the empirical chapters for information about the methodological choices made as part of the quantitative research.

3.1.1 *Mixed method strategies*

The intention of this research is to test the hypotheses formulated in chapter 2. There are strong reasons for applying qualitative and quantitative methods to investigate these hypotheses. Most importantly, triangulation of research methods can enable a researcher to address a broader range of issues, and to increase the reliability of research findings (cf. Lieberman, 2005; Yin, 2003). However, using mixed method strategies also contains

risks, which the researcher has to take into account carefully in order to achieve the full benefits of a mixed method research design. Examples of barriers in conducting mixed method research are the potential intensity of the research given the methodological skills and research capacity it necessitates, difficulties in integrating the quantitative and qualitative findings, and the lack of exemplar studies, which especially complicates the question how mixed method research has to be written up (Bryman, 2007).

The qualitative side of this thesis uses the comparative method. While linked to classic publications in political science (e.g. Skocpol, 1979), the comparative method has several shortcomings, of which the most serious one is the problem of ‘many variables, small number of cases’ (Lijphart, 1971, p. 685). Due to the small number of cases, the comparative method complicates the identification of variables which are critical in causal processes. While increasing the number of cases potentially reduces this problem, the research resources that are required for conducting in-depth comparative research on a range of cases goes beyond the investigation capacity of the individual researcher.

Given the smaller number of variables, quantitative research provides a realistic research strategy to investigate a large number of cases and test the statistical significance of hypothesised relationships. The large-N in quantitative research enables the aversion of problems related to small-N research, most importantly difficulties in generalizability (Gerring, 2007). A solely quantitative research approach faces its own problems, especially in the scenario where it is not guided by strong, empirically grounded theory. The validity of quantitative research findings is jeopardized when the researcher misses out on important phenomena due to a focus on hypothesis testing, which causes risks of reductionism and confirmation bias. Other potential weaknesses in quantitative research are measurement issues with the underlying data, and errors in the selection of procedures for determining statistical significance (Burnham, Grant, Lutz, & Layton-Henry, 2008).

Due to the relative strengths and weaknesses of qualitative and quantitative research, several scholars have called for greater integration of the methodologies (Lieberman, 2005; Tarrow, 1995). Resembling this pragmatic approach, this thesis combines the strengths of qualitative and quantitative methods in order to improve the quality of conceptualization and measurement, analysis of rival explanations, and overall confidence in the central findings (Friedrichs & Kratochwil, 2009; Lieberman, 2005, p. 436).

To identify the impact of intergovernmental institutional factors on the occurrence of local financial stress, a research design is needed that includes multiple intergovernmental structures. A country comparative research design is most appropriate

to this aim, given the fact that intergovernmental systems are managed at the macro level. Prior to the selection of cases, the comparative method requires the researcher to choose between either a research design that uses the most similar or most different cases (Gerring, 2007, p. 138; Mill, 1843/1872).

In a most similar systems research design (MSSD), cases show large similarity with respect to their explanatory variables, but differ regarding their dependent variable. A most different systems design (MDSD), instead consists of highly heterogeneous cases, all of which have the same dependent variable in common. The MDSD can be either exploratory or aimed to test a hypothesis. What is specific for the MDSD is the focus on variables below the system level. By conducting tests in a variety of sub-systems, the problem caused by too many variables and too few cases can be prevented when using the MDSD (Anckar, 2008).

The initial assumption of the MDSD is that systemic factors do not play any role in explaining the observed behaviour. Further research consists of testing, step by step, if this assumption is still held in cross-systemic research. The analysis remains at the *intrasystemic* level, unless the assumption is rejected. In case of the latter, systemic factors must be considered to explain the dependent variable (Przeworski & Teune, 1970, p. 35). The most serious limitation of the MDSD is that it can only be applied in situations where the dependent variable resides at a sub-systemic level. In other words, independent variables can be measured at all levels, but the dependent variable should reside at the sub-system level (Anckar, 2008, p. 392).

A major difference between the MSSD and MDSD is that whereas the former is concerned with the independent variable, the latter focuses on the dependent variable. Although some methodological scholars argue that a MDSD requires a constant dependent variable (Landman, 2008), this is a controversial issue in the literature as a constant variable only allows the researcher to identify the necessary conditions of a phenomenon (Anckar, 2008; King, Keohane, & Verba, 1994, p. 129). A further relevant feature of the MDSD is the specific research design, which can be more deductively or inductively orientated. In case a deductive strategy is pursued, the aim of the MDSD is to study if the independent variable is present in all cases, whereas a more inductive strategy is aimed at identifying the determinant of the dependent variable with an open mind, without an a priori notion of the relevant explanatory variable (Anckar, 2008, p. 396).

Given the aim of this study to identify the impact of intergovernmental institutional structures on the occurrence of local financial stress, a research design is needed that maximises the variation on the institutional dimension – the independent

variable in this research. Hence, the MDS is most suitable in this study, and the analysis is initially concentrated at the intrasystemic level, which is reflected in the use of similar demographic and economic variables at the subnational level across the three selected European systems. In addition, LG debt indicators are used as comparable dependent variables for measuring LG financial stress across the systems. Although the absolute size of LG debt differs across the systems, the dependent variable contains a strong similarity since LG debt demonstrates an increase across the three systems. The MDS approach will enable an explanation as to what extent increases in LG financial stress across varying contexts must be attributed to either intrasystemic independent variables at the local level or systemic independent variables at the country-constitutional level.

3.1.2 Case selection

Several typologies exist for selecting most-different intergovernmental systems. A popular method for the selection of country cases in Europe is the classification according to administrative traditions, or country groups. In Europe, five country groups can be distinguished: a Continental Napoleonic group, a Continental federal group, a Scandinavian group, an Anglo-Saxon group, and a Central Eastern and South Eastern European group (Kuhlmann & Wollmann, 2014, p. 10; Painter & Peters, 2010). Other classifications focus on the dichotomy among European legal systems between the classic Continental European rule-of-law (*Rechtsstaat*) culture and the Anglo-Saxon public interest culture (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999; Pollitt & Bouckaert, 2004). Inspired by this legal dichotomy, four groups of countries are differentiated: Common Law, Roman-French, Roman-German, and Roman-Scandinavian. A third typology focuses on the intergovernmental constitutional structures of states, and distinguishes between three variants: federal, unitary-centralised, and unitary-decentralised (Kuhlmann & Wollmann, 2014, p. 11; Loughlin, 2001b). The typologies are helpful instruments for classifying different European state systems, but their biggest weakness is that they conceal the large diversity existing within the groups. On some dimensions, diversity is larger *within* than *between* the groupings (Stewart, 2011).

Following the weak empirical support, all three typologies are used to select the cases in this study. Given the focus of this research, most relevant is the intergovernmental constitutional typology. Hence, this study selects one federal, one unitary-centralised, and one unitary-decentralised system. Germany is selected as representative of a federal system. In line with its federal structure, the organisation of

local government in Germany is mainly determined at the *Länder* level, which has led to significant inter-state differences across LGs, in spite of some converging institutional processes that have occurred recently (Blume, Döring, & Voigt, 2011). Inter-state intergovernmental differences, including differences in tasks fulfilled by ostensibly similar types of LGs, have led to the selection of one state, North Rhine-Westphalia (NRW).

With around 17 million inhabitants, NRW constitutes the most populous, and most densely populated German state. Once Germany's industrial heartland, substantial parts of NRW, most notably the Ruhr area, underwent significant economic transformation, leaving several weak economic structures. At the same time, economic strength is considerable in many parts of NRW, reflected by an above average GDP per capita compared to the German national average (Destatis, 2011). The state is highly urbanized and contains 30 out of the 80 biggest German cities. At the same time, around 60% of NRW's population lives in rural areas. NRW's spatial economic heterogeneity is likely to increase the relevance of the intergovernmental system for the financial position of LGs. The state's prominent place among the German states and its spatial economic heterogeneity provide the main reason for its selection.

The UK is selected as the unitary-centralised case. The analysis is limited to England, because although Scotland and Wales (leaving aside the special case of Northern Ireland) have become less centralised in the last decades, England's structure still reflects the UK's typically highly centralised and functional government structure. The Netherlands is selected as representative of a unitary-decentralised system. The classification unitary-decentralised adequately highlights the flexibility of Dutch intergovernmental structures. The decentralised dimension of the Dutch system is observable in the principle of municipal autonomy, which determines that Dutch LGs are free to define their tasks and use their power, as long as it does not conflict with national or provincial statutes. The unitary element is reflected in the principle of co-governance (*'medebewind'*) which determines that LGs have to cooperate in the implementation of national legislation (Hendriks, 2001, p. 143).

Next to the constitutional typology, the case selection reflects the different legal systems – with the UK as a Common Law system, and Germany as a Roman-German system, as well as different administrative groups, with the UK representing the Anglo-Saxon group, and Germany the Continental federal group. Although classifying the Dutch system is less straightforward, the government structure of the Netherlands most strongly resembles features of a Roman-French legal system, and the Continental Napoleonic

administrative group. As such, the Dutch system adds a third unique case to the country selection. The country selection guarantees a broad variety of intergovernmental structures, but it also has important practical benefits. Most important is that the researcher is not thwarted by linguistic obstacles, which is highly relevant as access to policymakers, and understanding of contextual factors, is greatly enhanced when the researcher possesses the linguistic skills that match with the case selection. The linguistic benefits increase the quality of the field research, and as such contribute to making valid comparisons across the cases (Lieberman, 2005, p. 447). Another strength of the case selection is that the quality of the statistical data in the three selected systems is of comparably high standards. These practical considerations provide strong rationale for the deliberate rather than random case selection in this study.

3.1.3 Implementation of mixed method strategies

Various methods are distinguished in the literature to implement mixed method research. Lieberman (2005) systematizes a specific mixed method approach, which he labels 'nested analysis'. In a nested design, the researcher combines a large sample of cases in the statistical research phase, with an in-depth investigation of one or more of the cases contained within the large sample. Translated to this study, this would mean that from within the dataset of LGs, a small number of LGs are selected from each of the three systems for in-depth study. Although a nested research design has been considered in this research, the decision was made to concentrate on LG interest groups, rather than individual LGs from within the dataset. Several reasons motivate this decision.

First, given the large variety among LGs in terms of their financial position, institutional structure, intergovernmental political contacts, and demographic features, there is a high risk that the selected LGs are unrepresentative for the larger LG population. This would result in misfit between the specified model and the empirical data. There are also strong arguments to select LGs from different geographical regions (cf. the North-South divide in England). Due to this variety, it is necessary, for example in the case of England, to select LGs from several LG categories (e.g. Unitary Authorities, counties, shire districts, metropolitan districts and London boroughs). This would have resulted in at least ten LGs to be selected for in-depth analysis in the English case alone. Although it is possible to reduce the qualitative caseload by only concentrating on one type of LG, for example counties in the English system, this decision significantly complicates the cross-country analysis given the methodological difficulties of comparing country specific LG entities across borders.

Second, the decision was made to include all LG entities in the selected systems in the dataset, in order to grasp intergovernmental financial dynamics within and across the entire LG sector of the selected systems. Hence, concentrating on particular institutional categories of LGs in the qualitative research phase would reduce the value of the qualitative findings for triangulation with the quantitative findings. Third, a positive motivation for focusing on LG interest groups instead of individual LGs is that the groups both reflect the institutional variety of LG within their respective system, and represent the views held by a majority of their members. These factors enhance the representativeness of qualitative research findings deriving from LG groups compared to investigating individual LGs.

A fourth reason for focusing on LG groups is that interviewees in the LG (treasury) associations mostly held their society position besides their main source of employment, in most cases in a local authority. For example, the President of the English Society of County Council Treasurers, who was interviewed for this research, held the society's presidency in addition to being CFO of Oxfordshire County Council, which constituted the interviewee's main source of employment. The first-hand experience of interviewees prevented the risk of interviewing officials who would be detached from the practice of local finances. In addition, the approach allowed interviews to be conducted with officials who were not only highly aware of the finances of their own authority but also of the broader category of LGs their authority belonged to. At the same time, the associations at which interviews were conducted for this research represented LGs from a wider subcategory within the public sector. Hence, this interview approach positively contributes to the aim of case study research; namely to shed light on a question pertaining relevance to a broader class of units (Gerring, 2004, p. 344).

Finally, the intergovernmental approach of this study leads to a focus on intergovernmental policy interactions in the qualitative research. Due to this, it is most appropriate to conduct interviews with members of LG and treasury associations, as it is these policy makers, rather than random LG officials, who are most often involved in intergovernmental interactions, enabling them to provide unique information. The focus on LG interest groups rather than individual LGs in the case study research phase carries some trade-offs, particularly as it reduces the possibility to illuminate, at the level of individual LGs, underlying mechanisms not captured by the theoretical model. However, the selected qualitative research focus also improves the aim of small-N analyses to assess and triangulate the plausibility of observed statistical relationships between variables (Lieberman, 2005). By approaching both officials within LG interest groups and officials

based at the level of the grant provider and regulator of LG, the chosen research design enables to incorporate different levels of analysis which are vital to understand the mechanisms through which intergovernmental institutions affect local finances. As interviewees representing the local level were both strongly involved in intergovernmental interactions and rooted in individual LGs, the qualitative investigations generated contextually based evidence both related to the systemic level of intergovernmental interactions and the subsystem level of local financial trends. Hence, the chosen small-N research strategy proved most complementary to the focus on intergovernmental interactions and the large-N analysis pursued in this thesis.

3.1.4 Implementation of qualitative research strategies

To optimise a balanced view, interviewees have been selected from all relevant levels of government across the three systems. Interviewees were further selected based upon their assumed direct contribution to, and knowledge of intergovernmental financial interactions. Following this approach, nearly all interviewees occupied an advanced senior or executive level position (e.g. director-general of a government department, or chairing position in a LG representative association). As such, the qualitative methodology can be classified as elite interviewing.

According to Dexter (1969/2006), a crucial difference of standardised versus elite interviewing is that in elite interviewing the investigator must be willing to let the interviewee teach him what the problem, the question, or the situation is. Following this approach, a semi-structured interview method is considered most appropriate, as this methodology allows new ideas to be brought up during the interview as a result of what the interviewee says. This exploratory approach enables the investigator to benefit more fully from the knowledge, expertise, and viewpoints of the elite interviewees, compared to what is achievable when sticking to a rigorous set of questions (Burnham et al., 2008, p. 231).

Notwithstanding its flexible and open approach, a semi-structured interview requires from the investigator to carefully consider in advance the topics he or she wants to explore. In this research, similar topics across the three systems were discussed in the semi-structured interviews. The main aim of the interviews was to identify to what extent LG financial stress can be related to the intergovernmental setup of the system, focused upon the working of the regulatory framework (chapter 4), grant funding systems (chapter 5), and local tax space (chapter 6). In total, 48 interviews have been conducted, of which 16 in England, 12 in Germany, and 20 in the Netherlands. The average duration of the

interviews was 1.5 hours and interviews mostly took place in the interviewee's formal working environment, mostly his or her private office (see appendix I for an overview of interviewees). The interviews were transcribed to improve reflection upon the data and the conclusions drawn from the transcripts (cf. Oliver, Serovich, & Mason, 2005). For confidentiality reasons, interviewees have been anonymised, and references are made to organisations rather than individuals.

Another primary source used in the qualitative research phase are archival sources. Some of these documents are in the public domain, but others have been provided by interviewees. Combining the interviews with archival sources enables a rich and triangulated understanding of the study phenomenon (Burnham et al., 2008, p. 187). The collection of archival data continued until saturation was reached and a rich account of insights allowing triangulation with the interview data was available.

3.1.5 Concluding comments

The quantitative methods are used in this study to test hypotheses deriving from a variety of literature. The qualitative methods are used to cross verify the statistical findings and generate a richer understanding of the causal relationships affecting LG financial stress in different constitutional contexts. While the nature of case study research explains the selection of three constitutional systems, the focus on the subnational level strongly increases the number of observations, and allows the additional implementation of a quantitative analysis. The number of LGs in each of the selected systems is around 400, amounting to around 1,200 LGs in the panel dataset constructed for the statistical research. The statistical analyses do not only help in mitigating the weaknesses of small-N research, but a focus on a large number of subnational government entities also 'strengthens the capacity of comparatists to accurately code cases and thus make valid causal inferences' (Snyder, 2001, p. 93).

The methodological approach of this thesis has several implications for the inferences that can be formulated based upon its observations. Chapter 2 presents several theories to explain local financial stress and formulates hypotheses to investigate for dissimilar constitutional systems. The selected constitutional systems differ on many aspects that potentially affect local financial stress, such as central-local relationships between political actors, and administrative monitoring structures in place. At the same time, the three systems show a strong similarity with respect to their dependent variable: an increase in LG financial stress as indicated by LG debt levels (e.g. see table 1.1 on page 26, and figure 1.3 on page 26). The most-different system approach in this study

enables to identify why and how different institutional contexts generate largely similar local fiscal effects.

In terms of inference, formulating the research design reflects limitations which are more generally identified with the method of agreement and the method of difference as proposed by Mill. Both methods imply that causality can be determined based upon a small number of cases and can be traced back to a single cause (Liebersohn, 1991). Due to this, the constitutional comparison in this thesis is more likely to identify causal propositions that are probabilistic rather than deterministic. The insights gathered through the constitutional comparison will reflect knowledge that can best be referred to as ‘middle range theory’ (Merton, 1968), as the study’s findings will only be applicable to a confined set of comparable intergovernmental contexts where cause-effect links recur as they are identified in the selected cases.

3.2 Cross-country institutional comparison

In this section, the selected intergovernmental systems are investigated by mapping out their constitutional features. The term ‘design’ should not give the impression that the systems have been established according to a concrete and consistent plan. Within each system institutional developments can be traced that reinforce but also contradict one another. Nevertheless, the systems show certain continuums that demonstrate long-term intergovernmental trends in each system. Institutions that exist longer are more difficult to change and will exert a more durable effect on decision-making processes (Pierson, 2000; Thelen, 1999). Regarding the intergovernmental financial position of local government, institutional resilience is observable in both formal and informal institutions. Formal institutions, such as constitutional arrangements, or informal ones, such as cultural norms, may have large effects on the financial position of local government. Below, a discussion is provided of the most relevant institutions. The description of each country system is divided in a historical intergovernmental overview and an analysis of relevant political institutions.

3.2.1 England: historical overview

Traditionally, almost any description of the constitutional system of the United Kingdom starts by emphasizing the supremacy of the centre. Devolution implemented by the Labour governments from the 1990s onwards moderated the UK’s centralised state structure. According to some observers, classifications such as quasi-federalism

(Bogdanor, 2001), or federacy (Watts, 2008) have become more appropriate to refer to the current British government system.⁷ However, others have disputed the previous degree of centralization in the UK (Mitchell, 2003, p. 18), as has been the extent to which devolution has genuinely affected the powers of the UK government (Gamble, 2006, p. 33).

Characteristic of the devolution implemented during the Labour governments is its asymmetric nature, with England, in contrast to the other parts of the UK, having remained largely unaffected by devolution. Hence, England still constitutes one of the most centralised government systems in the Western world. From a legal-historical perspective, England's unitary state structure was especially recognizable in the 'ultra-vires' principle, which emphasised that only parliament could determine the powers of subnational government, i.e. the powers 'beyond which' local government was not allowed to act. The Localism Act 2011 replaced the 'ultra-vires' principle with a 'general principle of competence', that has given local government a full-scale power of general competence (Wilson & Game, 2011, p. 32). However, as a constitutional framework has remained absent in the English system, the enhanced local powers can be reversed easily in practice.

Due to the absence of a constitutional framework, the position of English LG has been determined by individual laws passed by the Westminster Parliament and case law made by judges, developed over long periods of time. The absence of a constitutional framework exerted a dubious effect on the position of English local government: on the one hand it left local government unprotected without any allocated inherent rights, but on the other hand it also meant that the dominance of the central government was never formulated in an unambiguous manner (Loughlin, 1996). Largely due to the latter, British parliamentary legislation never acquired the character of administrative law, in contrast to what occurred in many European continental systems. The English common-law tradition led to the dominance of a pragmatic approach in the country's IGR system (Bulpitt, 1983; Jowell, 2003, p. 375). It also reinforced a governing culture that has created large degrees of political and administrative discretion in individual policy decisions, and a relatively fluid institutional tradition of what has been referred to as 'ungrounded statism' (Dunleavy, 1989).

Historically, English local government had substantial autonomy and responsibilities. The rapid industrialization in the 19th century led to a rising demand for

⁷ The term federacy is used to denote a large political unity to which smaller units are federated even though the larger unit is not itself a federation (Watts, 2008).

public services, resulting in important legislation such as the 1835 Municipal Corporations Act and the Local Government Acts of 1888 and 1894. During the Victorian period central government pursued a laissez-faire politics of minimal central interference and taxation in which local government was able to cope admirably with the social changes it faced (Lambert, 1962; Travers & Esposito, 2003, p. 10). During the interwar period, local autonomy was reduced, especially in fiscal affairs.⁸ Centralization continued with the development of the welfare state after the Second World War. Public services in health care and infrastructure provision became transferred from local government to newly established national government organisations. Most significant, however, for the current position of English local government is the acceleration of centralization that occurred after the electoral victory of the Conservatives in 1979.

Reforms, such as agentification and the implementation of compulsory competitive tendering (CCT), strengthened a centralization of services that were previously organised at the local level, either towards the national level or the private sector. In fiscal matters as well, the position of English LG weakened in the 1980s. With its embracement of monetarism, the Thatcher governments strongly emphasised the need to control public expenditure for macro-economic policy purposes (Thain & Wright, 1995, p. 20). Since LG spending was argued to increase faster than other kinds of government spending, the cabinet implemented various measures that tightened LG finances. A major instrument to increase central fiscal control was the possibility implemented in 1984 to cap the council tax rates of LGs whose expenditure the government judged 'excessive' (Loughlin, 2001a, p. 41). Since nearly all of these councils were Labour controlled, intergovernmental frictions acquired a profound political nature, with cabinet members referring to the overspending LGs as irresponsible and profligate 'socialist republics' (Fry, 2008, p. 162) .

The Thatcher government's claim that LG expenditure was on the rise was partially true. Ironically, increased spending was largely made possible by the Conservative government's own policy, which had forced councils to sell their socially rented houses, resulting in an expansion of local capital revenues. When interest rates rose during the UK's economic recovery of the second half of the 1980s, many LGs decided to place their assets in the UK money market instead of repaying their debts (Potter, 1997, p. 353). To strengthen control over subnational capital revenues, the

⁸ E.g. the Rating and Valuation Act of 1925 pulled all the differing strands of local rates across England and Wales into one single rate, while the scope of rates as a local tax was decreased in 1929 (Travers & Esposito, 2003, p. 11).

government imposed limitations on the additional revenues from the mid-1980s onwards.⁹

The most prominent element in the Conservative policies towards LG finances was the introduction of the community charge in 1990, better known as the poll tax. Following its dramatic implementation, the poll tax was replaced in 1993 by the council tax, which itself is a mix of the rates and the community charge. The failed introduction of the poll tax resulted in the unintended policy consequence of making the local level more instead of less dependent on central government funding (Butler, Adonis, & Travers, 1994). Overlooking the Conservative government period, English central-local relations became increasingly dominated by the centre. The application of a more centralised approach was not applied for the sake of increasing central government power, but was instrumental to increase central government's fiscal control. This illustrates that the intergovernmental approach taken by the centre during the Thatcher period has to be explained by the context of the crisis of the British welfare state following the economic downturn of the late 1970s and early 1980s (Laffin, 2009).

In its rhetoric, the New Labour government that entered office in 1997 applied a different approach in central-local relations and declared partnership the guiding principle. However, in practice most of the Conservative policies that aggravated the local level continued, or were extended. Agentification further expanded, while the basic neoliberal assumptions underlining CCT persisted (Fry, 2008). Local dependence on central government financing further continued from 61% in 1997 to 65% in Labour's final year in power, in 2010 (excluding non-domestic rates) (CIPFA statistics, 1997-1998, and 2010-2011). New Labour also continued the capping instrument on council taxes. The failed attempt by New Labour to institutionalize an English regional level also contributed to a continuation of centralised decision-making, even though differences in decision-making approaches have been observed among Whitehall departments (Mitchell, 2002, p. 762).

Under the slogan 'Localism', the decentralisation of powers from London has been a policy aim for the Conservative-led coalition that entered office in 2010. The decision of where to move decentralised powers has been less clear, and the evolution of English LG under the coalition shows a mixed record. Important tasks have been removed

⁹ The 1989 Local Government and Housing Act restricted local discretionary space by determining that only 25% of capital receipts from housing and 50% of other capital receipts were allowed to be used for capital expenditure. In addition, the 1989 Act introduced credit approvals and limitations on LGs net indebtedness (Potter, 1997, p. 351).

from English LGs, in particular education, while others have been added to their tasks (especially public health functions). With respect to local finances, substantial changes have been implemented, most importantly the removal of local auditing from the Audit Commission to private sector auditors, the partial localization of the business tax rates, and the introduction of council tax referendums. These reforms are further discussed in the separate empirical chapters. Due to its recent implementation, the eventual impact of the reforms is difficult to determine at this stage, but its consequences on the power balance in the English intergovernmental system seem unlikely to be revolutionary (cf. John, 2014; John & Copus, 2012).

3.2.2 *England: political institutions*

With power centralised in London, the position of the English local level is heavily influenced by power constellations within the Westminster Parliament, the cabinet and the Whitehall bureaucratic apparatus. As long as it enjoys a majority in parliament, the UK central government faces few veto players that might block its funding decisions. The political science literature on the British system suggests that the Treasury, and its Chancellor, play a predominant role in interdepartmental interactions and cabinet decision-making, even though the Treasury is locked into a system of mutually constrained power-relationships with other Whitehall departments (Heald, 1998; Thain & Wright, 1995).¹⁰ The suggestion of a dominant Treasury in the UK system is supported by political economy findings which indicate that Treasury Ministers tend to have a dominant position within single party cabinet systems (Hallerberg, Strauch, & Von Hagen, 2009).

The limitation in veto players in the English system is partly explained by the fact that English LG lacks an (authoritative) judicial institution at which it can appeal against central government decisions.¹¹ Whilst the possibility of judicial review exists, the few court cases heard in recent years have largely proven unsuccessful (Wilson & Game, 2011, p. 174). There have been several attempts over the decades to introduce more institutional guarantees for the English local level but these failed to receive central government support (e.g. Lyons Inquiry, 2007, for a recent illustration). The weak access

¹⁰ Due to their largely historically orientated methodological approach, available Treasury studies strongly rely upon anecdotal information and lack a long-term systematic (financial) analysis of the trajectories and outcome of UK central level policy-making. Hence, the real impact of the Treasury on cabinet decision making and Whitehall policy-making is still largely unclear (cf. Heald, 1998 in a review of Thain and Wright, 1995).

¹¹ The Supreme Court of the UK that was established in 2005 only resolves disputes relating to devolution in the UK.

of English local politicians to the centre, combined with a strong silo structure among Whitehall departments, leads to the strongest intergovernmental connections traditionally existing between local and central level bureaucrats working within the same policy silo (Laffin, 2009).

The English local level is hugely dependent upon the central level for its funding, but, and despite reductions in its tasks, central government still strongly relies upon the implementation capacity of the local level for the delivery of public services (John, 2014, p. 687). It was estimated in a 2011 inventory that the English local level has to fulfil around 1,294 statutory tasks prescribed by central government (DCLG, 2011). Its significant role as service provider does not translate into a strong role for English LG at the political centre. Several reasons can be identified for this (John & Copus, 2012). First, the British political centre shows limited interest in LG (Bulpitt, 1983). Second, the comparatively large population size of English LGs – on average 140,000 residents – , and the frequent reorganisations they have been subjected to, undermines community identity, and contributes to a weak local electoral base for local politicians – all being detrimental to an authoritative and powerful representation of local interests at the centre. Third, councils often have limited discretion over the services they provide, mostly on behalf of central government.

The concentration of power at the central level leads to the expectation that English LG interest groups have limited influence on funding decisions made by central government. However, empirical research on the financial dimension of English intergovernmental negotiations is limited, and existing work outdated (e.g. Rhodes, 1986). Since 1997, the Local Government Association (LGA) has been responsible for the representation of all English LGs at the central level. Although this concluded a period in which different associations represented the interests of different types of LGs, the previous associations continue to exist within the LGA (i.e. the County Council Network/CCN, the District Councils' Network/DCN, and the Special Interest Group of Municipal Authorities/SIGOMA). The effectiveness of the LGA at the centre in representing local interests has received mixed evaluations (Entwistle & Laffin, 2003). The Core Cities Group and London Councils are the only LG interest groups that exist outside the LGA, but their members have retained their membership of the LGA.

3.2.3 Germany/NRW: historical overview

Fragmentation of power has been a returning feature in Germany's intergovernmental history. The Holy Roman Empire can be seen as the first modern cooperation among

German states. State cooperation within the Holy Roman Empire became intensified with the creation of the German Empire in 1871. The institutional and fiscal capacity of the German Empire remained weak due to the constitutionally assured autonomy of the individual states (Hefeker, 2001). It is difficult to trace a pattern in Germany's intergovernmental system during the twentieth century. After the collapse of the Empire in 1918, centralization increased under the Weimar Republic (1918-1933), and the *Länder* were entirely dissolved during the Nazi period. After 1945, the Cold War context resulted in a clear split in Germany's intergovernmental development, with a highly centralised system in East Germany and federal structures in West Germany (Schneider, 1999).

Despite an initially highly decentralised take off, federalism in West Germany gradually evolved into a strongly dual or cooperative system (Adelberger, 2001). Inspired by Keynesian economic theories, the West German federal government of the second half of the 1960s strived to increase its macroeconomic steering capacity. By paying off the rich against the poor *Länder*, the federal government was able to increase its macroeconomic role through the big tax alliance (*Großer Steuerverbund*) of 1969. The tax alliance nearly equaled the tax share of the federal government to the proportion held by the *Länder* (Senger, 2008, p. 39). Besides the Keynesian inspired emphasis on its macroeconomic role, the federal government enhanced its intergovernmental position by somewhat selectively applying the German constitution. Crucial has been article 106 of the Basic Law, which demands equal living conditions to be achieved throughout the German federation. Based on this notion, the federal government has justified federal interference in policy fields in which the *Länder* used to be autonomous. Although growing federal government activity has frequently been challenged by the *Länder* in the Federal Constitutional Court, the Court has mostly backed the federal government (Abromeit, 1992).

In constitutional terms, policy responsibilities are apparently clearly divided in the German system with the federal government holding the main policy making competences and the *Länder* performing executive tasks on behalf of the federal government. In practice, most policy is implemented by local government at the sub-state level. Regarding the position of LGs, the constitutional notion of subsidiarity constitutes a guiding principle, determining that in case state and federal authorities are not explicitly entitled to deal with a particular policy field, LGs have the autonomy to take on that responsibility (Henneke, 2012b, p. 76). The intergovernmental practice, however, has been far more complex than what is suggested by its constitutional outline.

The German governing complexity has been a particular result of the growing role of the federal government in the 1960s and 1970s, especially via so-called 'joint tasks' (*Gemeinschaftsaufgaben*). This system of what Scharpf (1976) has called '*Politikverflechtung*' cemented doubts about the genuine nature of Germany's federal system, and has led to classifications such as the 'unitary federation' (Spahn & Föttinger, 1997, p. 226), or the 'crypto-unitarist state' (Abromeit, 1992). With the German system increasingly suffering from 'joint decision traps' (Scharpf, 1988), efforts were undertaken in the 1980s to simplify the intergovernmental system. This was initiated by the *Länder* who aimed to roll-back and rein-in the federal government. Led by the strongest *Länder* Baden-Württemberg, Bavaria, Hesse, and North Rhine-Westphalia, the *Länder* aimed to strengthen the Federal Council as their main representative institution, in both legal and procedural sense (Adelberger, 2001, p. 51; Schneider, 1999, p. 71).

The result of the *Länder* resurgence at the end of the 1980s and early 1990s has been mixed; while proposals to strengthen the collective legislative rights of the *Länder* vis-à-vis the federal government have been successful, proposals to return responsibilities to the individual *Länder* largely failed (Adelberger, 2001, p. 51). The failure to (re-)decentralize policy responsibilities to the *Länder* is explained by continuing conflicts of interest among the prosperous and less well-off *Länder*. While the prosperous *Länder* have been generally inclined to underline *Länder* autonomy, the less well-off *Länder* have mostly favored a growing role for federal institutions, and subsequent financial equalization mechanisms (Adelberger, 2001, p. 45). Following the German unification, and five poor *Länder* being added to the federation, conflicting *Länder* interests have only increased.

Germany's difficulties in reaching intergovernmental agreements are reflected in the distribution of the massive costs linked to the German reunification, which led to a rise in gross public sector debt from 41.8% in 1989 to 60.3% in 1996 (Spahn & Föttinger, 1997, p. 238). Since an intergovernmental agreement on the unification costs was hard to reach, the federal government took up the far majority of the debt that was made in the process; 18.5% compared to 2% for the *Länder* (Spahn & Föttinger, 1997, p. 238). Though this protected *Länder* finances, the federal government could fortify its intergovernmental position due to its increased financial responsibilities, and the subsequent strong dependence of the new East German *Länder* on federal government spending. It needs to be emphasised, however, that federal government spending has been additional spending above the much more substantial horizontal equalization mechanisms that exist among the *Länder* themselves. The latter is particularly of relevance to West

German local finances, because the *Länder* have largely retracted the costs caused by horizontal equalization directly from local government.

Germany/NRW: clarifying intergovernmental responsibilities in a context of fiscal stress

The growing complexity of the German system meant that from the 1980s onwards ongoing pleas were made to reform the country's intergovernmental structure. Due to political sensitivity it took until the early 2000s before a large scale reform was seriously considered. In two commissions, jointly organised by the Federal Parliament and Federal Council, options were discussed to simplify the intergovernmental system. Commission I concentrated on non-fiscal subjects and delivered some results such as the complete decentralisation of higher education to the *Länder* and the federalization of civil servant employment conditions. Overall, however, many government tasks have remained highly intermingled across government levels (cf. Burkhart, 2009).

The results of the even more sensitive fiscal topics that were discussed in Commission II have been even more modest. Commission II focused on three intergovernmental financial issues: the vertical and horizontal equalization systems, the intergovernmental division of tax resources, and the introduction of public debt limits. The Commission largely failed to introduce reforms in case of the first two topics. More significant was its work leading to the implementation of a debt brake in the German constitution. The amendment determines that from 2016 onwards the federal government is forbidden to run a deficit of more than 0.35% of GDP, while the *Länder* are not permitted to run any deficit from 2020 onwards. The effectiveness of the debt brake in the long run is uncertain, especially given the exception clauses included in the balanced budget law (i.e. in 2009, this resulted in the debt brake being overdrawn when both the federal and state governments implemented fiscal stimulus packages to address the financial and economic crisis). In budgeting processes at various government levels, the debt brake nevertheless plays an increasingly prominent role (Ciaglia & Heinemann, 2012; Feld & Baskaran, 2010).

3.2.4 Germany/NRW: political institutions

In the German system, intergovernmental relations are strongly affected by constitutional institutions. The federal Basic Law, and NRW's state constitution, contain two articles affecting LG, which can be judicially reviewed by either the Federal or NRW's Constitutional Court. First, there is the constitutional article that guarantees equal living conditions across the German federation, which is seen as an implicit instruction for both

the federal government and *Länder* to organise a financial redistribution. For the federal government among the *Länder*, and for the *Länder* among LGs. Secondly, the constitution provides the guarantee of local self-government, which in common understanding is perceived as LGs being able to determine a share of the local budget according to local preferences (Buettner et al., 2008). Despite these (indirect) protections, the constitution does not ‘provide’ German LGs with constitutional autonomy, but observes them as part of the state administration (Henneke, 2012b). Hence it is the *Länder* organised in the Federal Council who carry the main responsibility for looking after the interests of LG at the federal level.

In the German system, the interests of different types of LGs are represented by different associations. At the NRW state level, three main associations can be distinguished, largely organised along NRW’s three categories of LG: cities, counties, and county-dependent LGs. Despite the institutional segregation of the LG landscape, the organisations regularly operate in joint cooperation when dealing with the NRW state government.¹² As federal legislation has substantial financial consequences for the local level, federal counterparts of the associations are active at the federal level in Berlin. The Federal Association of Counties and the Federal Association of County-dependent Cities and Municipalities only offer federal membership at an associational level to their counterparts active in the *Länder*. The Federal Association of Cities provides both associational and direct membership to individual cities (Henneke, 2012a, p. 74). The influence of the associations is stronger at the state level compared to the federal level, although their role in Berlin has increased in recent years, as is illustrated in the empirical chapters of this thesis.

3.2.5 *The Netherlands: historical overview*

Less extreme than the German case, the Dutch IGR system has also endured major changes in its historical evolution. When the Dutch Republic of the Seven United Provinces was founded in 1581, it was a loosely organised state system, and the first federation in modern history. Strong power differences existed between the provinces, with Holland dominating the other provinces in both commercial and military weight. For the most part, the provinces were highly autonomous as central decision-making proceeded by mutual consensus and remained largely restricted to common defense and trade interests. While the decentralised structure was effective and contributed to the

¹² Collectively organised in the ‘Working Community of the LG Associations NRW’ (*Arbeitsgemeinschaft der kommunalen Spitzenverbände NRW*).

Dutch Golden Age of the 17th century, the necessary reforms were thwarted when the Republic faced increasing economic and military competition from the more centralised European states in the 18th century (Deursen, 2003, p. 163).

The implementation of French inspired institutional reforms in the Netherlands from 1795 onwards strengthened capacity for central level decision-making. The French inspired, centralised state structures continued to exist in the United Kingdom of the Netherlands established in 1815. In its first decades, the Dutch Kingdom was characterised by autocratic monarchical rule, however this changed when the European revolutions of the 1840s convinced the Dutch king to take on a more liberal approach. The Dutch constitution of 1848 not only enhanced the powers of the Dutch parliament, but also outlined and formalised the Dutch intergovernmental structure. The 1848 constitution, in combination with the Provinces Act of 1850 and the Municipal Law of 1851, largely determined the Dutch IGR structure until today. All drafted by the liberal Prime Minister Thorbecke, the legislation outlined an intergovernmental structure containing elements from both the Dutch Republic and the post-1795 French inspired centralised system.¹³

Dutch LGs are required to cooperate in co-governance arrangements, which illustrates the unitary character of the Dutch system. At the same time, the Dutch constitution regards LG as equal and autonomous in these arrangements, rather than a subordinate government partner. The constitutional provisions offer limited protection to Dutch LGs in practice, due to the Dutch prohibition on reviewing the constitutionality of Acts of Parliament.¹⁴ In a similar vein, the Dutch system has been characterised as an example of ‘grass roots constitutionalism’ in that the shape and legitimacy of the constitutional order is – in general – not derived from the popular will as expressed in constitutional texts, but instead rests on the stability, efficiency and outcomes of the government’s performance (Schyff, 2010).

As Dutch LGs face ‘freedom in restraint’ (Hendriks, 2001, p. 144), and central government strongly depends on the local level for the implementation of its policies, the Dutch system is characterised by strong institutionalized interdependence. Vertical interdependence strongly increased with the rise of co-governance arrangements in the

¹³ Thorbecke was also influenced by the German philosophical and legal tradition which emphasised the organic development of state institutions, in close interaction with the societal context (Drentje, 2004).

¹⁴ The original text in Section 120 of the Constitution of the Netherlands states that: ‘The constitutionality of Acts of Parliament and treaties shall not be reviewed by the courts’ (in Dutch: ‘De rechter treedt niet in de beoordeling van de grondwettigheid van wetten en verdragen’). Source: website Dutch Ministry of the Interior and Kingdom Relations (visited March 12, 2014).

twentieth century, which according to some observers reduced the autonomy of Dutch LG (Hendriks & Schaap, 2012, p. 113). Other scholars emphasise the role played by co-governance to enable Dutch citizens to continue to exercise some degree of local control over an expanding public sector (Denters & Klok, 2005; Toonen, 1987). The relevance of each of the perspectives remains uncertain given a lack of empirical research that elucidates the genuine degree of local discretionary space in co-governance arrangements. Uncertainty about the degree of discretionary space in the implementation of local tasks poses a major barrier for determining LG financial flexibility, and hence for using local task execution as an indicator of LG financial stress (see also chapter 1).

Similar to England and Germany, cultural features have reinforced path dependency in IGR arrangements and practices in the Netherlands. Consensus-orientation is particularly characteristic of Dutch society (Lijphart, 1969), where as many actors and perspectives are involved in the decision-making process of a matter as possible (also referred to as *overlegeconomie* - deliberative economy –, or *poldermodel*) (Andeweg & Irwin, 2009). The need for government policies to have widespread support from organised interests and citizens has contributed to the Dutch egalitarian culture. The tradition can also be traced in the performance of the Dutch intergovernmental system. First, there is a strong emphasis and official government policy to realise a high level of equality in public service provision throughout the country (Goedhart, 1989). Second, central government generally restrains from taking unilateral decisions affecting subnational interests. Duyvendak (1998) therefore typifies Dutch IGR interactions by the three C's, denoting 'consultation, consensus and compromise'.

3.2.6 *The Netherlands: political institutions*

Despite the limited role for the constitution, the Dutch system operates several norms affecting the (financial) position of LG. First, in 2004 the Dutch cabinet and LG representative associations agreed on a Code of Intergovernmental Relations (*Code Interbestuurlijke Verhoudingen*) as a procedural basis for intergovernmental interactions. The basic assumption of the Code is that government tasks should be allocated at the subnational level, unless central level allocation offers clear advantages. The Code includes nine guidelines, which, in essence, encourages central government to consult LG representative associations in early stages of national and EU level policy trajectories.

In intergovernmental negotiations, the Dutch Association of Municipalities (Vereniging Nederlandse Gemeenten/VNG) plays a prominent role. Since 1987, government actors involved in intergovernmental negotiations are using so-called

convenants, which are agreements between the national government, and LG interest groups, generally drafted at the start of a national cabinet period. The convenants are not binding legally, but they have some relevance due to the moral obligations they create among the organisations involved. Further strengths of the convenants are their results oriented nature, and the increased access they provide to senior officials of subnational organisations vis-à-vis cabinet Ministers (Denters & Klok, 2005, p. 73). Although all Dutch municipalities held a membership with the Association of Dutch Municipalities, subgroups of Dutch municipalities are present and operate as such, although to varying degrees of intensity, within and outside the Association of Dutch Municipalities. There are four main associations active besides the Association of Dutch Municipalities, which are mainly organised along their demographic or physical characteristics. Particularly relevant are the G4, which represents the four largest Dutch cities, and the G32, which lobbies central government on behalf of the 33 largest Dutch cities, excluding the G4-cities.

3.3 Concluding remarks

The first part of this chapter offers a discussion of the methodological aspects of the thesis. The discussion identifies several risks attached to conducting combined quantitative and qualitative research. It is noted that when these pitfalls are properly taken into account, a mixed method research design offers substantial benefits to enhance the reliability of research findings, compared to the results that can be achieved when applying one methodological approach. The research design of this thesis reflects awareness of the perils attached to mixed method research. It has selected a feasible number of cases – three country systems – to which the investigator has a level of access. To ensure integration of quantitative and qualitative findings, the thesis is not divided into chapters using separate methodologies. Instead each empirical chapter draws upon both quantitative and qualitative research findings.

The second part of the chapter provides a descriptive overview of the evolution of the institutional structures selected in this study. The overview demonstrates that all systems are characterised by substantial IGR changes throughout their history, most dramatically in the German case. Despite these changes, the systems demonstrate long periods of path dependent processes. The comparison demonstrates several similarities between the systems. Most significant is the strong institutional interdependence between government levels in the provision of public services. IGR reforms with fiscal

distributional effects stand out as politically most sensitive. The observations also highlight several distinctive features of the systems.

In England, LG has been torn between long periods of minimal government involvement and periods with intergovernmental restrictions unparalleled from a European comparative perspective. A dominant pragmatic, and often uninterested approach at the centre towards local affairs, means that changes in the intergovernmental position of English LG have not been an outcome of long running constitutional debates but are much more a reflection of immediate responses by the country's governing elites to changing material circumstances. This is most noticeable during the Thatcher period, where significantly restrictive regulations were introduced to increase central fiscal control.

The chapter shows that political and administrative discretion is a core feature of the English intergovernmental system, whose institutional origins can be retraced to the English common-law tradition. Although present at all levels of government, discretion is most visible in the approach of the centre towards LG, and explains the regular changes in England's intergovernmental structure. The reform mode in the German/NRW system contrasts sharply with England. Besides the complete institutional makeovers during Germany's periods of extraordinary political change, post-war intergovernmental structures demonstrate a high degree of institutional resilience. This is also observable in the frequency and intensity of territorial restructurings, which occurred almost continuously in the English system and are much rarer in the German system. The German tradition of administrative law has evolved into an IGR approach that is characterised by certainty and stability, rather than discretion and flexibility.

With respect to decision-making legitimacy, the Dutch system more strongly resembles the English system. In contrast to Germany, it is not so much normative constraints on the political process that provide legitimacy to policy decisions, but, similar to England, very much the political process itself. The limited prominence of normative constraints can be explained by the Dutch prohibition on reviewing the constitutionality of Acts of Parliament, which has resulted in marginal formal protection for the local level. In practice, however, the Dutch system applies informal, cultural norms that seem to restrict central government's space for manoeuvre.

The institutional differences are expected to result in differences in access by LG interest groups to higher government levels. Although systematic research on interest representation at the level of the German *Länder* is highly limited (cf. Benz & Zimmer, 2012, p. 159), it is likely that the *Länder* provide more space for local interest

intermediation compared to England. Unlike England, state level politicians in Germany frequently have roots in local politics. In addition, institutional and political distance between the local level and the *Länder* governments is smaller compared to the distance between the UK government and the English local level, as the latter (still) lacks its own parliament or government. Due to relatively strong political links between local and national level politicians – although the size of the city matters –, access of interest groups in the Dutch system is likely to resemble the German system more closely than the English system.

In conclusion, the comparisons in this chapter demonstrate that the existing political and administrative literature on the constitutional ‘identity’ of the three selected European systems leaves unanswered the question of what impact the differences in the degree of institutional discretion versus the degree of certainty have on error accumulation processes and error correction mechanisms in different IGR financial systems. Hence, the effect of these differences on the occurrence of LG financial stress remains unexplored in the existing literature.¹⁵ As shown in the chapter 2, the research gap can be explained by the near ignorance of the financial dimension in government studies, and the unrefined approach taken towards institutional structures in public economics and political economy.

By investigating the three core IGR financial institutions that affect LG finances, the next three empirical chapters explore the impact of differences in institutional discretion and certainty on financial error accumulation and error correction mechanisms at the local level within heterogeneous IGR contexts. This investigation improves scholarly understanding of local and IGR finances but also has important implications for theorizing about institutional processes.

¹⁵ This gap in government studies contrasts to other fields, such as planning, where cross-country investigations into the impact of discretion versus certainty have been commonplace (e.g. Booth, 2007; Tewdwr-Jones, 1999).

CHAPTER 4

The double role of regulatory regimes: how low borrowing costs increase systemic risks

4.1 Introduction

The level of interest rates is a relevant consideration for consumers and businesses when making the decision to take on debt. Also for national governments that aim to prevent a rise of inflation and therefore limit the increase of the money supply, borrowing costs determined by credit markets will effectively demarcate debt policies. More ambiguous is the question of how interest rates affect debt accumulation at the subnational level. This ambiguity results from the country-specific organisation of local government (LG) borrowing markets, which is visible in two major ways. First, financial regulations on loan provisions to LG entities often differ from borrowing regulations applied to private sector organisations. Second, LG lenders are often partially or completely based within the public sector.

Research about the effect of interest rates on subnational debt accumulation is highly limited. Most research has focused on US municipal bond markets with a common finding showing that financial indicators significantly affect local interest rates (e.g. Capeci, 1994; Kriz, 2003). In many European systems, however, bond markets are of minor importance, making it difficult to predict the effect of local financial indicators on local borrowing costs. This also applies to the impact of local borrowing costs on local

debt accumulation. In order to identify the impact of LG borrowing structures on local debt accumulation in Europe, this chapter compares the Dutch, English and German LG systems.

The aims of this chapter are threefold. First, the chapter seeks to discover whether a relationship exists between local level financial indicators and the borrowing costs of LGs. Second, the relationship is investigated between local financial indicators and borrowing costs on the evolution of LG debt. Third, the chapter analyses the impact of country-specific regulatory structures on local debt accumulation and borrowing costs. This part of the analysis discusses the formal and informal institutional framing of LG borrowing in the selected systems. To realise the chapter's aims, a mixed methodological approach is adopted. The relationship between borrowing costs and local debt accumulation is investigated using regression techniques, which are supplemented by qualitative sources to identify the impact of the regulatory framework on LG debt and borrowing costs.

The structure of the chapter is as follows. First, the hypotheses developed in chapter 2 are shortly recapitulated. The chapter then describes the organisation of the markets for LG borrowing in the three systems. This information is essential in order to understand how macro-system characteristics affect local borrowing costs. A detailed description of the research design and methodology is provided in the fourth section, followed by a discussion of the empirical results. The sixth section provides a comparative institutional analysis that identifies the effect of the three regulatory regimes on local debt-making. The chapter concludes by summarising the findings.

4.2 Hypotheses

Section 2.3.1 in the literature review introduces four hypotheses to investigate the relationship between regulatory structures, LG borrowing costs, and LG debt development. This section shortly recapitulates those hypotheses.

First, due to the fact that investors in the European context mainly rely upon regulatory regimes to determine LG borrowing costs, it is expected that limited local level risk assessment is being conducted by credit providers to Dutch, English and German LGs (Peng et al., 2014). Hence:

Hypothesis 1: LG debt has no significant effect on local borrowing costs.

Second, it is expected that political willingness to enter into debt, will reduce when borrowing costs occupy an increasing share of the budget (Drazen, 1997; Faini, 2006). Hence:

Hypothesis 2: borrowing costs are negatively related to LG debt.

Third, the higher quality of local treasury management and a reduced risk of financial default of large LGs are likely to be rewarded by credit markets through the levying of lower borrowing costs to large LGs, as compared to small LGs. Hence:

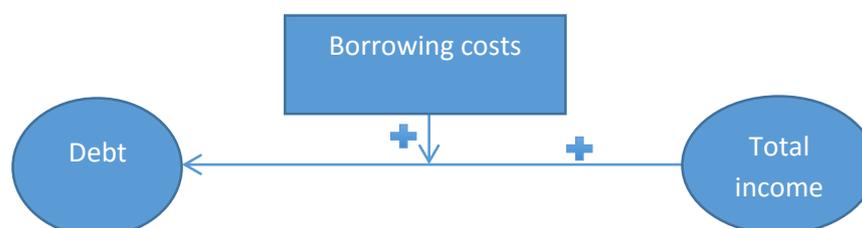
Hypothesis 3: borrowing costs are negatively related to the local population size.

Fourth, the literature indicates at a positive relationship between a jurisdiction's income and the scale of its debt (Ashworth et al., 2005; Benito & Bastida, 2004). It can be expected that low borrowing costs will enhance the positive relationship between local income and local debt-making. Hence:

Hypothesis 4: low LG borrowing costs enhance the positive relationship between LG income and LG debt.

All the outlined hypotheses can be tested using quantitative techniques. The main econometric relationship to investigate the effect of borrowing costs is illustrated in figure 4.1. Before progressing onto the empirical analysis, some background information is provided on the organisation of the borrowing markets for LGs in the three selected systems.

Figure 4.1 Econometric relationship to investigate the (indirect) impact of the regulatory framework on LG debt accumulation



4.3 Organisation of LG borrowing markets

In all the three systems the credit market for LG borrowing is characterised by a mix between public and private sector institutions. Table 4.1 provides an overview of the main

lenders to local government. In each system, a single player (strongly) dominates the market in LG credit provision. In the English system, around 74% of all LG debt in 2013 was outstanding with the Public Works Loan Board (PWLB), compared to around 60% of all Dutch LG debt with the Dutch Municipal Bank, the BNG.¹⁶ The market for credit provision is significantly more diverse in NRW - that said, the NRW.Bank, stands out with a market share of around 25% in the financing of NRW's LG debt (2012). In all three systems, these credit providers are in public ownership. This is most noticeable in England, where the PWLB is part of the Treasury's agency responsible for the UK's debt management. The NRW.Bank is NRW's main public investment bank and is solely owned by the state of NRW. Ownership of the Dutch BNG is equally shared between central and subnational government.

Table 4.1 *LG lending institutions*

	England	NRW – Germany	The Netherlands
Main LG credit provider	Public Works Loan Board (PWLB)	NRW.Bank	Dutch Municipal Bank (BNG – Bank Nederlandse Gemeenten)
Year of foundation	1793	2002	1914
Estimated market share LG borrowing (2013)	74%	25%	60%
Ownership structure	100% central government; part of the UK Debt Management Office, an executive agency of HM Treasury	100% owned by the state of NRW	50% shares owned by central government, 50% by the municipalities and provinces
Interest rates determined by	HM Treasury	Markets	Markets
Long-term credit ratings of the bank (2013)	-	AA- Standard and Poor's; Aa1 Moody's; AAA Fitch	AA+ Standard and Poor's; Aaa Moody's; AAA Fitch
National credit ratings (NRW for Germany) (2013)	AAA Standard and Poor's; Aa1 Moody's; AA+ Fitch	AA- Standard and Poor's; Aa1 Moody's; AAA Fitch	AA+ Standard and Poor's; Aaa Moody's; AAA Fitch

Source: own illustration, based upon corporate reports respective financial institutions.

¹⁶ Total debt of English LG (including functional authorities) in 2013: 69.2 billion £, of which 51.2 billion £ outstanding with the PWLB (DCLG statistics 2012/13; PWLB 2013). Total debt of NRW LG in 2012: 58.0 billion €, of which 14.3 billion € outstanding with the NRW.Bank (Landtag NRW, Drucksache 16/4504, 27/11/2013); Handelsblatt, 'Landeseigene NRW.Bank hält Kommunen über Wasser, 01/12/2013). Source Dutch percentage: interview BNG, interviewee A, 28/01/2014.

In England and NRW, other actors active on the market for LG borrowing are mainly private. Due to the PWLB's dominance this percentage is relatively small in England, but private sector banks provide the majority of local credit in NRW. In the Dutch system, the main competitor of the BNG is the similarly publicly owned Netherlands Water Boards Bank, with a market share of around 12% in municipal loan funding in 2012 (NWB Bank, 2013, p. 26). Although most Dutch local treasury statutes contain the requirement to obtain at least three borrowing offers before deciding where to take a loan, acquiring a third offer often proves difficult. Some Dutch private sector banks, such as the Rabobank, are active on the LG borrowing market but their involvement is limited, mainly due to the small margins on municipal loan provision which reduces the market's commercial attractiveness. Foreign banks appear to operate rarely on the Dutch LG borrowing market, which is partly due to unwillingness to channel resources into building a bank infrastructure in the Netherlands, and unfamiliarity with the Dutch intergovernmental system which complicates the offering of attractive loans to local treasurers.¹⁷

Familiarity and tailored size loans also motivate English and NRW LGs to mainly organise loans with domestic financial institutions. However, the main motivation to acquire loans domestically – and especially with the specialised lenders – are their competitive rates. Treasurers in all three systems indicate that they would not hesitate to change from the current dominant loan providers if cheaper loans could be acquired elsewhere. With larger treasury capacity available and bigger borrowing sums to finance, eagerness to find the most attractive loan pricing is most explicit among bigger LGs. In all three systems, bigger LGs tend to have the most diverse loan portfolios, but the specialised lenders still dominate.

The competitive loan pricing that the PWLB, NRW.Bank and the BNG are able to offer, can largely be explained by their ownership structure. In case of the NRW.Bank, the institutional and guarantor liability for the bank rests with the state of NRW. The bank also benefits from an explicit, unconditional, and irrevocable guarantee that has been granted by the state of NRW for an unlimited period of time.¹⁸ Unlike the NRW.Bank,

¹⁷ For example, one Dutch local treasurer recalls: *'I remember a case where a foreign bank included in their draft borrowing contract that if our municipality had to apply to Section 12 support [= i.e. the financial safety net in place for LGs in the Dutch system, DW], they would be able to claim their loan with us. For us this was reason to cancel the loan, because Section 12 itself is the safety net, and you can't then put a second guarantee in the contract that the loan would be claimable with the municipality'*. Source: interview Dutch 100,000+ Municipal Treasurers Association, 20/02/2014.

¹⁸ "Gesetz über die NRW.BANK" (Act on NRW.BANK) dated March 16, 2004; and NRW.Bank Corporate Profile, available on the bank's website: <http://www.nrwbank.de>. See also Moody's (2012).

the BNG does not have an explicit comfort letter from the Dutch central government or other contractual guarantees from its key stakeholders. However, given BNG's importance to the Dutch public sector, the rating agencies generally assume that the Dutch central government would provide support if a financial stress situation would occur ('a very high likelihood', according to Moody's (2013)). Another factor contributing to BNG's high rating is linked to the bank's advantageous funding costs, which is largely due to the fact that most lending to Dutch public sector entities is classified as risk-free by the Dutch Central Bank (DNB). The solvency-free status of municipal loans significantly reduces the BNG's banking costs because liquidity requirements do not apply to LG loans (Eekelen, 1987, p. 139). This cost advantage is passed on to LGs through the BNG's low interest rates.¹⁹

The special ownership structures result in credit ratings for the BNG and NRW.Bank that are, with some delay, in line with the ratings assigned to their sovereigns (see table 4.1).²⁰ As an integral part of the central government, the credit rating of the UK directly affects interest rates set by the PWLB. Loans to LGs are provided by the PWLB at a slightly higher rate than the UK government is able to borrow, which in most cases is lower than the rates English LGs can achieve on the private sector market. The English borrowing market also differs from the Dutch and NRW system as the PWLB holds the official status as lender of last resort for LG loans (since 1955) (DCLG, 2012). As such, the PWLB does not only reduce LG borrowing costs through directly provided loans, but also indirectly by providing a guarantee to private banks who would otherwise not be willing to lend to English LGs.

Since the BNG, NRW.Bank, and PWLB, solely operate to serve the public sector, and therefore lack private savings – traditionally the cheapest source of bank funding – the institutions strongly rely upon external investors to raise money. High credit ratings are crucial in this process.

As one banker from the BNG recalls:

When we are on our fundraising roadshows, say in Asia where we raise over 40% of our funding, the BNG, or Dutch municipalities generally, do not say much to investors, but when we start telling about our triple A-status, that works.²¹

¹⁹ Interview BNG, interviewee A, 28/01/2014.

²⁰ The high trust position of the BNG and NRW.Bank is also reflected in both banks having been continuously listed in the annual top ten of the world's safest banks from the *Global Finance Magazine* (2nd and 8th position respectively in 2013).

²¹ Interview BNG, interviewee B, 28/01/2014.

In addition to their assumed (BNG) or formalised special status (NRW.Bank), the high credit ratings of BNG and NRW.Bank are strongly related to the external perception of the intergovernmental systems in which their client' LGs operate. Confidence in the regulatory frameworks and safety nets in place for financially distressed LGs provide a crucial reason for low local borrowing costs. These regulatory frameworks carry even more relevance for lending to LGs by private sector banks, who in the Dutch and NRW system lack an official lender of last resort as present in the English system.

Confidence in the internal organisation of the intergovernmental systems is reflected in how borrowing provision by the specialised lenders occurs in practice. A simple phone call by a local authority and a check by the loan provider whether the caller is authorized, is sufficient to transfer the loan sum, almost immediately.

According to an interviewee at the Dutch BNG:

We do not conduct any risk analysis in case a municipality arranges a borrowing sum with us. This is also not our task, since the provinces [that is the official regulators on LGs in the Dutch system, DW], carry the main responsibility for supervising local finances. In addition, if the borrowing sum is provided for a project carrying high financial risks, local treasurers are generally very much aware of this, but if it's a prestige project and local politicians want it, it will go ahead. It's then not up to us to start asking critical questions.²²

Due to high confidence in the quality of the system's regulatory regime, the (assumed) presence of safety nets, and the absence of both historical cases of municipal bankruptcies and official legislation regulating LG insolvencies, interest rates offered by the three specialised lenders are not only comparatively low priced but are also set at uniform levels across LGs. This means that the specific credit position of a LG does not affect its borrowing costs from the three specialised lenders.²³

The high degree of financial integration in the intergovernmental systems is strongly emphasised by the LG associations in the three systems. The associations generally discourage their members from acquiring an individual credit rating, arguing

²² Interview BNG, interviewee B, 28/01/2014.

²³ The PWLB stands somewhat out here as it offers an advantageous rate to LGs who are able to demonstrate in their long-term capital expenditure borrowing plans that they have prudential borrowing and debt policies in place. This concessionary so-called Certainty Rate is 20 basis points (0.2%) below PWLB's standard rate and has been in use since 2012. The reduced rate seems primarily an effort by the UK Treasury to re-assure the attractiveness of PWLB interest rates, which came under pressure after rising PWLB rates between 2006-2012 resulted in increased private sector borrowing by English LGs. However, submitting the plans mentioned requires limited local effort, since according to the English audit regulations LGs already need to have these plans in place when considering any type of long-term borrowing, indiscriminate of the specific lender.

that individual credit ratings are unnecessary as the intergovernmental system is assumed to eliminate local default risks. Without facing any substantial difficulties in attracting loans in the recent past, combined with the costs attached to acquiring a credit rating, local treasurers in the three systems generally hold a negative perception of acquiring a credit rating. This position is reflected by all Dutch and NRW LGs foregoing an independent credit rating in 2013. In England, eight LGs did have a credit rating in 2013 (see appendix II). The individual financial position of these eight English LGs has exerted only a minor effect on their rating, which has primarily reflected rating changes for the UK central government. Given the PWLB's position as official lender of last resort and its generally low interest rates, it seems surprising that out of the three systems, only English LGs have sought a credit rating. However, acquiring a credit rating was strongly linked to a onetime change of the Housing Revenue Account (HRA) in 2010, which temporarily increased borrowing needs among English LGs, and triggered some of them to improve their credit status for private sector borrowing.²⁴

Due to the special intergovernmental structures, a weak link can be expected between the financial status of a LG and its interest rates. The relationship will be weakest in England, following the dominance of the PWLB and the virtual uniform interest rates it sets among LGs. The relationship is expected to be strongest in NRW, following a large borrowing share occupied by private sector borrowers, and an intermediate position taken by the Dutch system. The empirical analysis of the relationship between local interest rates and local financial variables confirms these expectations. Therefore, these results are briefly discussed in the empirical section, but the focus will be on the more interesting question of whether low borrowing costs have a separate effect on LG debt-making policies.

4.4 Method and data sources

The empirical analysis is based on a uniquely compiled dataset of LGs in England, NRW, and the Netherlands. The data on English and NRW LGs cover a four year period, from 2009 to 2012. The interest rates for LGs in the three systems have been calculated as the interest expense for the year divided by the average debt during the year. This calculation controls for differences in the maturity period of local loans and macro level interest rate trends, which makes calculating interest rates based upon borrowing costs preferable over relying upon the actual interest rates. When using the term interest rates in this chapter,

²⁴ *Public Finance*, 18 November, 2011; *Public Finance*, 19 September, 2011.

the reference is made towards these calculated effective interest rates. A similar method has been used by previous studies such as Pittman and Fortin (2004), Francis et al. (2005), and Bastida et al. (2014).

In contrast to NRW and England, the Dutch national statistical office (CBS) does not publish local borrowing expense figures. According to the Dutch accounting regulations, Dutch LGs are required to include their long-term interest costs in their annual accounting report. By checking the annual accounting reports, which are mostly available on the municipality's website, it has been possible to obtain the long-term interest costs for 360 of the 415 Dutch municipalities in 2012. Missing cases are due to 39 municipalities that demonstrate report omissions, and 16 that do not provide long-term interest costs figures because they are debt-free. As historical accounting reports prior to 2012 are unavailable for many Dutch LGs, interest rate figures for Dutch municipalities are used for 2012 only.

It has been possible to calculate the average interest costs over the period 2009-2012 for 200 English LGs, and for 316 NRW LGs. Missing cases are due to missing data on interest cost expenditures, especially in case of English LGs, and LGs reporting a debt free status. Given the limitation of the Dutch data to a single year, the dataset is unsuitable to conduct panel data analysis. In order to be able to run the statistical analysis in a model including all three constitutional systems the four year English and NRW data have been averaged into single year observations, and combined with the Dutch data into one pooled dataset. To standardize the fiscal data, the currencies of all three countries have been converged in euros. For the currency conversion from pound sterling to euros in case of the English treasury data, the average annual currency exchange rates have been used, as calculated by the Bank of England. The historical exchange rates data are available through the online Statistical Interactive Database of the Bank of England.

A dummy variable is used to indicate whether a LG is in a special financial emergency arrangement, which might affect its borrowing costs. For NRW, the official status of non-approved emergency budget has been used, and for Dutch LGs Section 12 status. Since no special arrangements for financially distressed LGs exist in the English system, information has been used from the LG performance measurement system that was developed by the Audit Commission. The system used a 4-star rating system to

Table 4.2 Variable names pooled dataset

Variable	Measurement	Source		
		<i>England</i>	<i>Germany-NRW</i>	<i>The Netherlands</i>
debt	Natural log of total debt	DCLG	IT.NRW	CBS
income	Natural log of total income	DCLG	IT.NRW	CBS
taxes	Natural log of tax income p/c	DCLG	IT.NRW	CBS
totalgrants	Natural log of total grants p/c	DCLG	IT.NRW	CBS
interestrate	Effective interest rate	DCLG	IT.NRW	Municipal accounting reports
expenditure	Natural log of total expenditure p/c	DCLG	IT.NRW	CBS
density	Natural log of inhabitants per square km	ONS	IT.NRW	CBS
unemployed	Unemployed inhabitants as % total local population	ONS	IT.NRW	CBS
emergency	Financial emergency status	DCLG & Audit Commission	MIK	BZK
icelandbanks	English LGs with savings with Icelandic banks (Landsbanki and Kaupthing)	DCLG & Audit Commission	-	BZK
propertybubble	Dutch LGs affected by property bubble	-	-	CBS
ideology	Political colour; 0 right wing council majority; 1 left wing council majority	BBC council election results	IT.NRW	Dutch Electoral Council (<i>Kiesraad</i>)
nrw	1 if a NRW LG, 0 otherwise			
netherlands	1 if a Dutch LG, 0 otherwise			

designate LGs which in turn received the label ‘poor’ or ‘excellent’. LGs included are those that were ranked poor in the most recently available ranking (2009).²⁵

The financial data for English LGs are derived from the Department for Local Government and Communities (DCLG); for NRW LGs, from NRW’s statistical office (Landesdatenbank NRW); and for Dutch LGs, from the office of Statistics Netherlands (CBS). Sources of other variables are provided in table 4.2.

Dependent variable

Two different dependent variables are used in the regressions. First, the regressions identify if a relationship exists between local variables and the borrowing costs of LGs. In this case, the calculated borrowing costs are used as dependent variable. In the second and main regression, the local debt size (natural log) is used as the dependent variable.

²⁵ See also <http://www.theguardian.com/society/2009/dec/09/oneplace-website-council-services>; providing additional information on the worst performing councils according to the Audit Commission’s One Place rating system.

As local borrowing costs in England and NRW refer to all borrowing, total local debt figures are used in case of England and NRW. It is particularly relevant to include total local debt size for NRW, as more than half of NRW's local debt consists of short-term liquidity (see also section 4.6.2.2). The available Dutch interest expense figures refer to long-term debt only, so the debt variable used in the Dutch case refers to long-term debt only. Dutch regulations effectively reduce the use of short-term liquidity by Dutch municipalities. For this reason, the vast majority of Dutch local borrowing costs are related to long-term borrowing, which legitimises a statistical limitation to long-term borrowing in the Dutch case.

Model specification

In line with the hypotheses generated from the literature, independent variables are related to the financial, institutional and demographic features of LGs. Country dummies have been created to control for unobserved effects at the country level, with England used as reference group. The following empirical model has been formulated to identify the effect of the regressors on the effective local interest rate:

(4.1)

$$\begin{aligned} \text{interestrate}_{it} = & \alpha + \beta_1 (\text{debt}) + \beta_2 (\text{income}) + \beta_3 (\text{taxes}) + \beta_4 (\text{totalgrants}) \\ & + \beta_5 (\text{expenditure}) + \beta_6 (\text{emergency}) + \beta_7 (\text{ideology}) \\ & + \beta_8 (\text{density}) + \beta_9 (\text{unemployed}) + \beta_{10} (\text{nrw}) + \beta_{11} (\text{netherlands}) + \varepsilon_i \end{aligned}$$

Where

interestrate is the effective interest rate calculated as the $\frac{\text{borrowing costs}_{it}}{\text{average debt}_{it}}$.

debt is the log of total debt size.

income is the log of total income.

taxes is the log of tax income p/c.

totalgrants is the log of total grants p/c.

expenditure is the log of total expenditure p/c.

emergency is equal to 1 for LGs in an institutional emergency arrangement, 0 otherwise.

ideology is equal to 1 for left wing council majorities, 0 otherwise.

density is the log of inhabitants per sq. km.

unemployed is the number of unemployed inhabitants as percentage of the total local population.

nrw is 1 if a NRW LG, 0 otherwise.

netherlands is 1 if a Dutch LG, 0 otherwise.

Secondly, debt is used as a dependent variable, and effective interest rates are included as one of the explanatory variables. This model is formulated as follows:

$$\begin{aligned} \text{debt}_{it} = & \alpha + \beta_1(\text{income}) + \beta_2(\text{taxes}) + \beta_3(\text{totalgrants}) + \beta_4(\text{expenditure}) \\ & + \beta_5(\text{interestrates}) + \beta_6(\text{emergency}) + \beta_7(\text{ideology}) + \beta_8(\text{density}) \\ & + \beta_9(\text{unemployed}) + \beta_{10}(\text{nrw}) + \beta_{11}(\text{netherlands}) + \varepsilon_i \end{aligned} \quad (4.2)$$

To test the moderating effect of the effective interest rates on local debt accumulation, interaction terms are included in the final estimation model. This regression is expressed as:

$$\begin{aligned} \text{debt}_{it} = & \alpha + \beta_1(\text{income}) + \beta_2(\text{taxes}) + \beta_3(\text{totalgrants}) + \beta_4(\text{expenditure}) \\ & + \beta_5(\text{interestrates}) + \beta_6(\text{emergency}) + \beta_7(\text{ideology}) + \beta_8(\text{density}) \\ & + \beta_9(\text{unemployed}) + \beta_{10}(\text{nrw}) + \beta_{11}(\text{netherlands}) + \\ & \beta_{12}(\text{interestrates} \times \text{income}) + \varepsilon_i \end{aligned} \quad (4.3)$$

In addition to model 4.3, which provides the main model for analysing the pooled data for the three systems combined, regressions are run for the three systems individually. Two additional variables are added to these models. For English LGs the variable *icelandbanks* is added, with a dummy coded 1 for English LGs that had savings with the Icelandic banks Landsbanki and Kaupthing, 0 otherwise. The variable is relevant to include – the effect of the Icelandic banks defaulting in 2008 (temporarily) increased the borrowing costs and debt levels of the 105 English LGs that had investments with Icelandic banks (to account for this, losses on saving accounts were added to borrowing costs). For the Dutch case, the variable *propertybubble* has been added, which controls for Dutch LGs that have been severely financially affected by investments in real estate projects (see also further in this chapter). The variable is operationalised as a dummy, with the fifty Dutch LGs most affected by the property crisis labelled 1, 0 otherwise.

4.5 Empirical analysis – results

Table 4.3 reports the summary statistics of the key variables used in the regression. Following large ranges of magnitude, natural log transformation has been applied to control for skewed and wide distribution among data. As part of the data transformation, values with absolute value less than one have been mapped to zero (e.g. debt free LGs).

Table 4.3 Summary statistics

Variable	n	Mean	s.d	Min	0.25	Mdn	0.75	Max
debt	876	7.76	0.62	5.56	7.33	7.72	8.16	9.637
income	876	7.93	0.56	6.72	7.53	7.80	8.28	9.73
taxes	876	2.50	0.43	0.17	2.22	2.45	2.89	4.14
totalgrants	876	2.85	0.43	0.99	2.58	2.97	3.14	4.77
interestrate	876	3.75	1.23	0.15	2.85	3.80	4.42	9.76
expenditure	876	3.28	0.20	2.51	3.23	3.31	3.40	4.88
density	876	4.639	2.01	0.54	2.67	4.81	6.25	10.3
unemployed	876	7.99	1.77	4.54	6.44	8.04	9.50	11.9
emergency	876	0.18	0.39	0	0	0	0	1
icelandbanks	876	0.07	0.25	0	0	0	0	1
propertybubble	876	0.05	0.22	0	0	0	0	1
ideology	876	0.44	0.50	0	0	0	1	1
nrw	876	0.42	0.49	0	0	0	1	1
netherlands	876	0.43	0.50	0	0	0	1	1

Table 4.4 Correlation coefficients

Variables	1	2	3	4	5	6	7	8	9	10	11	12		
1 debt	1													
2 income	0.61	1												
3 taxes	0.671	0.660	1											
4 totalgrants	0.382	0.304	-0.016	1										
5 interestrate	-0.001	0.146	-0.044	0.419	1									
6 expenditure	0.410	0.255	0.240	0.357	-0.028	1								
7 density	0.409	0.421	0.364	0.284	0.116	0.176	1							
8 unemployed	0.420	0.458	0.573	0.251	0.220	-0.095	0.424	1						
9 emergency	0.064	-0.073	0.197	-0.408	-0.373	0.0533	-0.069	-0.003	1					
10 icelandbanks	0.219	0.254	0.275	0.161	0.164	-0.054	0.108	0.007	-0.09	1				
11 propertybubble	0.278	0.064	0.025	0.199	0.003	0.219	0.057	0.004	-0.114	-0.104	1			
12 ideology	-0.050	0.024	0.025	0.135	-0.262	-0.099	0.008	0.027	0.093	0.181	0.140	1		
13 nrw	-0.142	-0.133	0.210	-0.650	-0.517	-0.001	-0.180	-0.200	-0.167	0.592	-0.181	0.372	1	
14 netherlands	-0.069	-0.189	-0.581	0.524	0.203	0.304	-0.100	0.200	-0.534	-0.388	-0.201	0.288	-0.410	1

Table 4.5 Pooled OLS cross-sectional analysis, using interest rates as dependent variable

Independent variables	Model 1 interestrates (percentage)	Model 2 interestrates (log)
debt	-0.772*** (0.104)	-0.148*** (0.032)
income	3.947 (2.617)	0.759 (0.795)
taxes	0.077 (0.162)	-0.020 (0.049)
totalgrants	0.106 (0.180)	0.033 (0.054)
expenditure	-2.840 (2.634)	-0.428 (0.800)
emergency	-0.216* (0.111)	-0.086** (0.034)
ideology	0.144* (0.078)	0.042* (0.024)
density	-0.127** (0.043)	-0.034** (0.013)
unemployed	0.045 (0.030)	0.007 (0.009)
nrw	-1.335*** (0.200)	-0.361*** (0.061)
netherlands	-0.596** (0.264)	-0.179** (0.080)
constant	4.872*** (0.965)	1.173 (0.310)
Number of LGs	876	876
R ²	.35	.30

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses. Pooled data 2009-2012 for England and Germany/NRW; 2012 data for the Netherlands.

The effective interest rates in the dataset range between a minimum of 0.15% to a maximum of 9.76%, with a mean of 3.75% and a standard deviation of 1.23. Table 4.4 shows the correlation matrix of the key variables. All variables show coefficients below the critical level of 0.7. With coefficients around 0.65, only the variable taxes comes close to the critical value.

Table 4.5 shows the results of the conducted pooled OLS cross-sectional analysis, using interest rates as dependent variable, and using England as the reference group. The results indicate that an increase in local debt does not lead to an interest cost penalty for LGs. However, in contrast to hypothesis 1, an increase in debt negatively affects local interest rates. This indicates that LGs with higher debt levels pay, on average, lower

Table 4.6 The effect of total income on debt and the moderating effect of interest rates – England, Germany/NRW, and the Netherlands, OLS

Independent variables	Model 1	Model 2	Model 3
interestrate*income			0.064*** (0.017)
income		1.042*** (0.035)	0.797*** (0.063)
taxes		0.335*** (0.065)	0.328*** (0.064)
totalgrants		0.029 (0.050)	0.016 (0.048)
expenditure		-0.345** (0.155)	-0.387** (0.157)
interestrate		-0.073*** (0.012)	-0.580*** (0.135)
emergency		0.238*** (0.028)	0.242*** (0.028)
ideology		0.054** (0.0212)	0.038* (0.021)
density	0.280*** (0.025)	0.030** (0.015)	0.034** (0.014)
unemployed	0.085*** (0.016)	0.024** (0.011)	0.026** (0.011)
nrw	0.220** (0.093)	0.058 (0.054)	0.118** (0.057)
netherlands	1.158*** (0.126)	0.573*** (0.096)	0.644*** (0.101)
constant	5.484*** (0.173)	-0.478* (0.271)	1.492** (0.617)
Number of LGs	876	876	876
R ²	.35	.78	.79

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

Pooled data 2009-2012 for England and Germany/NRW; 2012 data for the Netherlands.

interest rates. The relationship is highly significant ($P < 0.05$) and remains strong when using alternative measurements in addition to the natural log of total debt, the regressions were also run using debt p/c and the log of debt p/c). While the finding looks counterintuitive at first, interviews with local treasurers and finance experts in the three systems indicate that the negotiation space surrounding borrowing costs and conditions of borrowing increases with the size of the loan. In addition, and in line with Simonsen et al. (2001), larger LGs are able to realise better loan conditions due to their higher treasury capacity. These findings confirm that when deciding about the level of interest rates, loan providers in the three systems do not rely upon the financial conditions of an individual

LG, but are guided by the institutional characteristics of the intergovernmental structures in place.

Table 4.6 reports the empirical results that show the effect of financial, institutional and demographic variables on local debt. The first model provides the base model, which is extended in model 2 with financial and institutional variables. In both model 1 and 2, the variable unemployed and the country control variables are highly significant and show a positive relationship with local debt. Of the financial variables, income and taxes are highly significant ($P < 0.01$) and positive, which confirms previous findings in the literature (Ashworth et al., 2005; Benito & Bastida, 2004). The amount of total grants shows a positive relationship with local debt, but does not demonstrate a significant effect. The variable interest rates, now used as a regressor, is significantly negatively related to local debt (coefficients $\beta = -0.073$, $P < 0.01$). This indicates that an increase in interest rates reduces local debt making, which supports hypothesis 2. The variable emergency indicates that LGs in a financial emergency arrangement show significantly higher debt levels compared to LGs outside these arrangements. The financial, institutional and demographic variables included in model 2 result in a R-square of 0.78, which is in line with models explaining local debt used in the literature (Cropf & Wendel, 1998).

Model 3 in table 4.6 provides a direct test of the moderating relationship between local income and local debt. The results show a positive and highly significant effect of the interaction term $\text{interest rate} * \text{income}$ on local debt (coefficients $\beta = 0.064$, $P < 0.01$), and an improvement in the explanatory power of the overall model. In model 3, the variables interest rate and income remain significant at the 0.01 level, and continue to demonstrate a similar direction as in model 2. These findings provide strong support for hypothesis 4, indicating that interest rates enhance the positive effect of local income on local debt accumulation by around 6.4%. Figure 4.2 provides a visual representation of the marginal effects. The graph indicates that beyond a certain income threshold, interest rates positively affect local debt accumulation.

To specify results, estimations organised by size of LG are provided in table 4.7 and by country system in table 4.8. The results demonstrate that the moderating effect of effective interest rates is especially strong for LGs with more than 50,000 inhabitants, but is insignificant for LGs with less than 50,000 residents. These results are in line with interview findings, which indicate that large LGs are better able to strategically use

Table 4.7 The effect of total income on debt evolution and the moderating effect of interest rates: OLS regressions, results by jurisdictional size

Independent variables	Small LGs (< 50,000)	Large LGs (50,000>)
interestrate*income	0.050 (0.054)	0.095*** (0.025)
income	0.899*** (0.205)	0.650*** (0.111)
taxes	0.078 (0.131)	0.372*** (0.104)
totalgrants	0.064 (0.047)	0.195 (0.247)
expenditure	0.311* (0.182)	-0.440 (0.305)
interestrate	-0.474 (0.406)	-0.825*** (0.207)
emergency	0.198*** (0.030)	0.283*** (0.056)
ideology	0.039 (0.032)	0.041 (0.031)
density	0.030 (0.028)	0.039** (0.018)
unemployed	0.002 (0.210)	0.037** (0.013)
nrw	0.196 (0.131)	0.109* (0.128)
netherlands	0.378*** (0.135)	0.109 (0.128)
constant	-0.973 (1.461)	3.143 (0.929)
Number of LGs	527	349
R ²	.60	.79

Table 4.8 The effect of total income on debt evolution and the moderating effect of interest rates: OLS regressions, results by country system

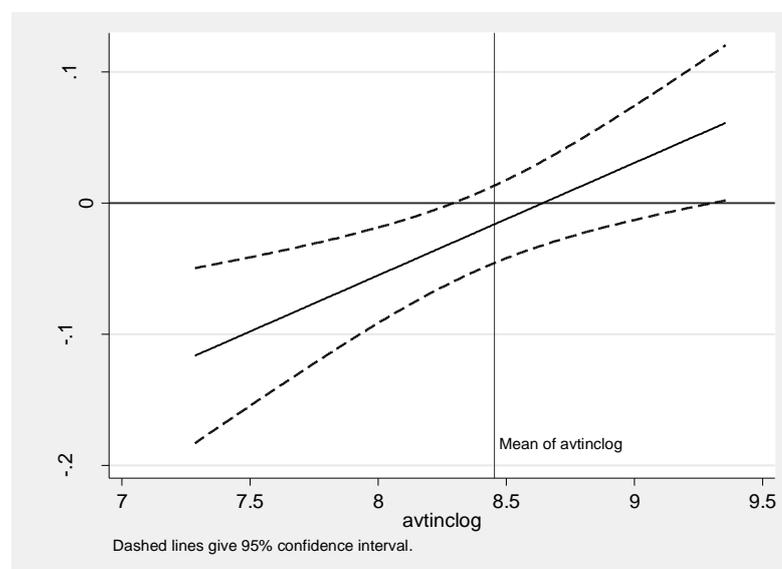
Independent variables	England	Germany/NRW	Netherlands
interestrate*income	0.060** (0.023)	0.077* (0.043)	0.114** (0.040)
income	0.831*** (0.135)	0.864*** (0.140)	0.493** (0.166)
taxes	0.772 (0.492)	0.545*** (0.165)	0.126 (0.107)
totalgrants	3.581* (1.860)	0.005* (0.067)	-0.030 (0.171)
expenditure	-4.502* (2.316)	-1.053 (0.700)	-0.133 (0.177)
interestrate	-0.529*** (0.195)	-0.618* (0.325)	-0.935** (0.307)
emergency	0.085 (0.113)	0.121*** (0.036)	-0.168 (0.094)
ideology	0.067 (0.046)	0.011 (0.036)	0.036 (0.031)
density	0.021 (0.022)	-0.029 (0.042)	0.022 (0.035)
unemployed	0.011 (0.013)	0.043 (0.026)	-0.005 (0.024)
propertybubble	-	-	0.234* (0.039)
icelandbanks	0.124*** (0.042)	-	-
constant	2.261* (1.300)	2.686 (1.881)	4.226 (1.263)
Number of LGs	200	316	360
R ²	.84	.81	.78

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses. Pooled data 2009-2012 for England and Germany/NRW; 2012 data for the Netherlands

interest rate movements due to their larger and more constant borrowing demand.²⁶ This contrasts to small LGs, who are far less able to apply total financing methods since their long-term borrowing needs are more likely to be directly linked to concrete investments, primarily determined by amortization periods of local capital goods.

The country-specific estimations confirm the findings: the interaction term *interestrate*income* is again significant and in the expected direction, and the same applies to the individual variables *interestrate* and *income*. Taking into consideration the overall model in table 4.6, these observations also remain robust when other variables are excluded from the model. This also applies to the tax income variable, hence, it can be concluded that the high correlation of this variable with the dependent variable does not negatively affect the model. The coefficients differ among the three country systems, with the moderating effect of interest rates least significant in NRW. The difference is less a result of NRW's borrowing market, as it primarily follows from the substantially smaller average size of NRW LGs compared to Dutch and English LGs. Taxes are only significant in NRW, with the direction of the variable indicating that LGs with higher tax income have higher debt levels. Hence, the country estimations confirm the relevance of a jurisdiction's size for its borrowing behaviour. Finally, the country specific variable formulated for the English system – *icelandsbanks* – and the Dutch system – *propertybubble* – are significant and positively related to local debt, which is in line with expectations.

Figure 4.2 Marginal effects graph: the graph shows the impact of interest rates on debt accumulation increases with local income



²⁶ E.g. interview Association of Cities in NRW, 23/04/2013; interview Dutch 100,000+ Municipal Treasurers Association, 20/02/2014.

4.6 Institutional analysis

The statistical analysis demonstrates that higher debt levels have not positively affected LG interest rates during the period of 2009-2012, whereas interest rates have enhanced the positive relationship between local income and local debt accumulation. Section 4.3 illustrated that investors' confidence in both the quality of the regulatory frameworks and the vertical financial integration of the IGR systems provides an explanation for LG borrowing costs. This section analyses to what extent investors' confidence in the institutional quality of the three regulatory regimes is supported by their regulatory performance. This question indirectly investigates whether the regulatory regimes enhance a scale of local debt accumulation that would not occur if, either different monitoring mechanisms were in place, or markets would be able to adequately evaluate the financial risks faced by LGs. To analyse the intergovernmental regulation of LG finances in the Dutch, English and NRW system, the focus is on three questions: who regulates LG finances; what is regulated; and how the monitoring systems operate once LGs face financial default.

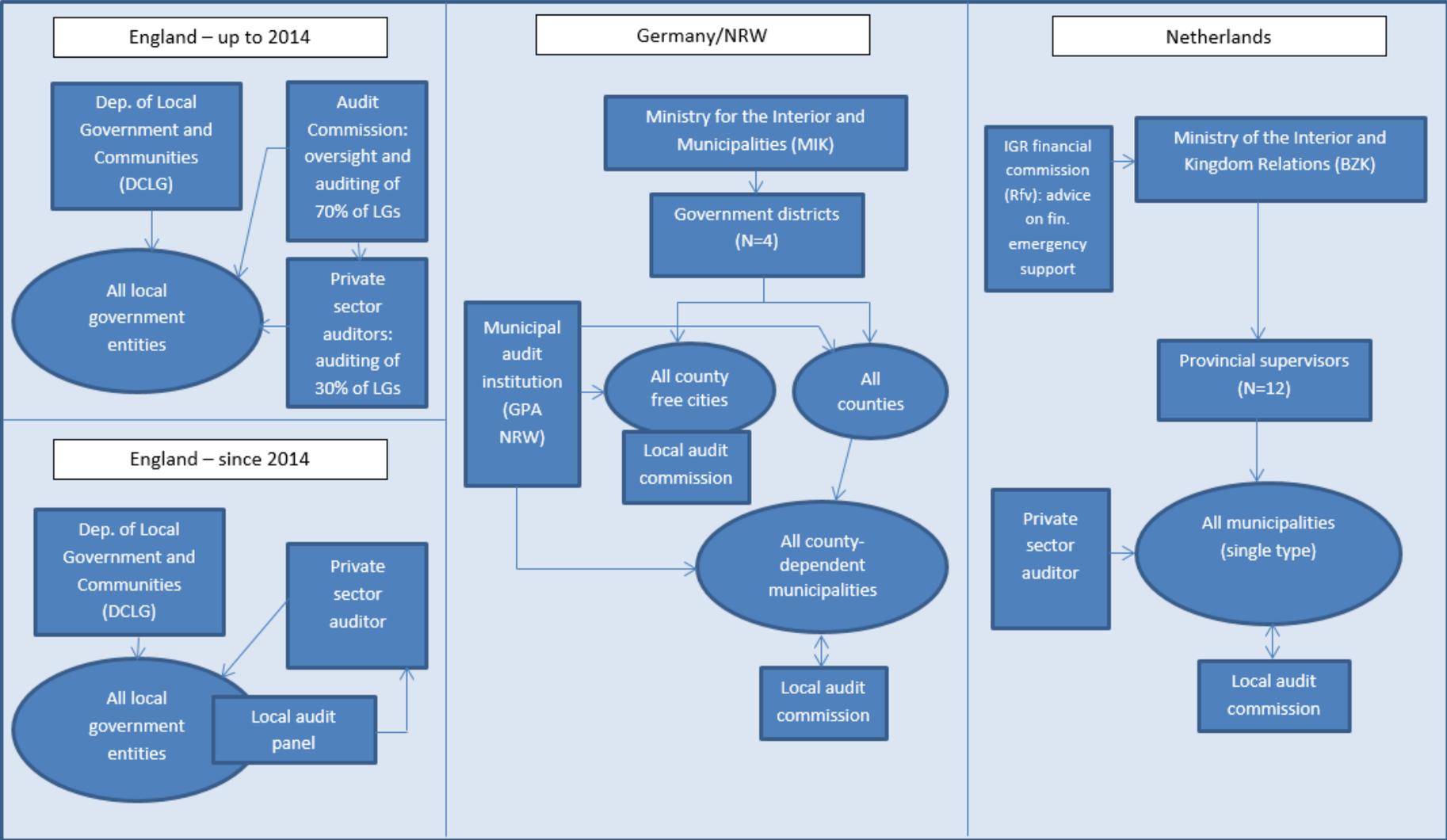
4.6.1 Regulatory actors on LG finances

In all three systems, the ministry responsible for LG at the central level carries the main responsibility for the regulatory framework in which LG operates. Since the organisation of local government is a state level responsibility in the German system, the relevant ministry in the German context is based at the NRW state level. In the Dutch case the ministry responsible for LG is known as the Ministry of the Interior and Kingdom Relations (BZK), in NRW as the Ministry for the Interior and Local Government (MIK), and in the English/UK case as the Department for Communities and Local Government (DCLG). For convenience, the departments are referred to as the Interior Ministries.

In all three systems, the Interior Ministries are not themselves responsible for ensuring regulatory compliance at the local level. The Interior Ministries fulfil a policy responsibility regarding the laws and regulations that provide the statutory basis of the regulatory framework, and they coordinate and facilitate the activities of the actual regulators. The Interior Ministries only act as active regulators in case a LG infringes the regulations in place or faces a financial emergency. These types of extraordinary central level regulation are discussed in section 4.6.3.

As shown in figure 4.3, the actual regulators differ among the three systems. In England, during the period leading up to 2014, the Audit Commission constituted the

Figure 4.3 Schematic representation monitoring structures on LG finances



main regulator of LG finances. The Audit Commission was established as a statutory corporation in 1983, which meant that only its chair and the Commission's board members were appointed by Ministers, whereas its members were not to be regarded as civil servants. The Audit Commission fundamentally changed British public sector auditing by making auditors only answerable to the public and the courts rather than to their public sector 'clients' in the field (Campbell-Smith, 2008, p. 2). The mediating function fulfilled by the Audit Commission between LGs and auditors gave English auditors a highly autonomous position towards their LG clientele. The independence of English auditors was also strengthened by the LG Act 1988, which gave auditors the power to issue a 'prohibition order'. This order enables English auditors to pre-empt any local decision that they believe would lead to a breach of the law. Before 2012, the Audit Commission was responsible for appointing all LG auditors and allocated them to specific LGs. The auditors were a mix of around 70% direct employees of the Commission, and a segment of around 30% from the private sector.

The Audit Commission fulfilled its oversight role by conducting analyses that stretched beyond ordinary financial compliance checks. The Commission obliged its auditors to not only check and conclude local accounts based upon traditional regularity criteria, but to also include a full professional opinion on the economy, efficiency, and effectiveness of local spending (the so-called Value for money conclusions). To identify aggregate trends in LG performance, the Commission also developed increasingly sophisticated, and time-consuming, benchmarking systems. These systems reduced support for the Commission's work among the local sector, partly explaining why the Conservative-led coalition government faced limited opposition when it decided to abolish the Commission in 2010. As one prominent English LG treasurer put it:

The Commission should have stayed within its core auditing business, in which it did an excellent job, but they went off track by developing benchmarking systems that demanded too much of theirs and our energy.²⁷

This view was widely echoed in interviews conducted among other English LG officials.²⁸ Despite a lack of support within the public sector to keep the Audit

²⁷ Interview Society of London Treasurers (SLT), 07/02/2014.

²⁸ An interview (30/12/2013) with a high level official at the Audit Commission, conducted a few months prior to the organisation's closure, indicated that serious doubts also existed within the Commission as to whether the Commission had made the right decision in dedicating a growing share of its work to non-audit related tasks.

Commission alive, the decision to close it was criticised by the rating agencies (e.g. Moody's, 2010).

As shown in figure 4.3, the responsibility for appointing local auditors is no longer based at the central level in the English post-2014 audit regime. In line with the localism vision of the Conservative-led coalition government, LGs themselves appoint their own auditors. To address concerns regarding the independence of auditors in the new framework, auditors are not directly appointed by the local council but through council-appointed auditor panels. It is uncertain at this stage if the audit panels will be able to ensure the independence of local auditors.²⁹ A second risk of the new structure is that with the absence of an independent body standing behind auditors, auditors may be less willing to expose local malpractices out of fear of being dismissed. Third, a localised auditing structure is likely to reduce central government's oversight on English LG finances, despite the transfer of the corporate governance inspections from the Audit Commission to the Interior Ministry (DCLG).³⁰

External regulation of LG in the German state NRW is exercised in a horizontal way through traditional auditing, and vertically through inspections by higher government levels. The identity of the financial supervisor in the vertical chain depends on the type of LG. As shown in figure 4.3, upper-tier LGs in NRW – i.e. county-free cities and counties – are monitored by government districts. The government districts in NRW represent the state government and their head is directly appointed by NRW's prime-minister. While being part of the state administration, the government districts have significant autonomy in the execution of their monitoring duties. Information from interviews conducted with local level representatives and at the NRW Interior Ministry indicates that the southern based government district of Cologne is a tougher regulator, compared to the northern based district of Münster.³¹ While the government districts are responsible for monitoring LGs that have the largest budgets, they only monitor a minority of LGs as most LGs in NRW are based within counties.

²⁹ E.g. the British public sector accounting specialist Prof. David Heald critically commented on the new system by stating that 'at a time when there are doubts about the private sector's role in appointing its own auditors' it did not seem sensible 'that the public sector should move off in the opposite direction of its own choosing' (*Financial Times*, 26 September 2010).

³⁰ The corporate governance inspections have been hitherto only commenced once there have been clear indications of regulatory non-compliance (between 2000 and 2010, the Commission only carried out 20 corporate governance inspections). Source: <http://archive.audit-commission.gov.uk/auditcommission/inspection-assessment/corporate-governance/pages/default.aspx.html> (visited 12 July, 2014).

³¹ Interview NRW Ministry of the Interior, 24/04/2013; interview Association of Cities in NRW, 23/04/2013.

Vertical financial supervision of the lower tier in the counties is conducted by the county administrations. In comparison to the government districts, the quality of supervision conducted by the county administrations has to be critically reviewed due to the existence of strong financial interdependencies between counties and county-dependent LGs. Most problematic is that the counties raise around 60% of their income via a contribution fee levied among their county-dependent LGs, which they are supposed to regulate. These county contribution fees constitute one of the main explanations for debt-making among NRW's county-dependent LGs. As such, one interviewee metaphorically compared the monitoring relationship in NRW county areas with '*a butcher who's allowed to inspect his own meat*'.³²

The monitoring performance of NRW counties is also impeded by political aspects. In the counties, the final responsibility for financial supervision rests with the popularly elected county leader (*Landrat*). Since the similarly popularly elected mayors of the county-dependent LGs often share their party political background with the county leader, interviewees indicate that political considerations regularly undermine the firmness of county supervision.

In addition to vertical monitoring, all LGs in NRW are audited by NRW's Municipal Audit Institute (GPA NRW). Established by NRW's state government in 2003, the Audit Institute is the compulsory auditor for every LG in NRW. Regulations about the composition of its board of directors show that NRW's LG sector is strongly involved in the Institute; of the ten members in the board, nine are equally divided among NRW's three main LG representative organisations, with the remaining board member representing the NRW Interior Ministry.³³

In the Dutch system, the provincial level carries the main responsibility for monitoring LG finances. The twelve Dutch provinces conduct local financial supervision on behalf of the Interior Ministry. However, as a separate government layer in the Dutch constitutional system, the provinces enjoy significant autonomy in their supervision. The responsibility of supervision at the provincial level rests within the College of Provincial Executives, which is elected by the popularly elected Provincial Council – except its Chair, is appointed by the national cabinet. Decision-making in the college is collegial, but one provincial executive carries the primary responsibility for intergovernmental

³² Interview Association of Cities and Municipalities in NRW, 22/04/2013.

³³ The Association of Cities in NRW, the Association of Cities and Municipalities in NRW, and the Association of Counties in NRW have each three members in the board.

financial supervision. In practice, substantial differences exist among provincial executives regarding their interests for – and dedication to – supervision. One provincial civil servant recalls:

Attention for financial supervision ranges from provincial executives starting their term by stating that they don't want any LG in their province put under preventive supervision, to others who show a high interest in improving the effectiveness and thoroughness of applied supervision methods.³⁴

Political aspects affect some of the monitoring decisions by provincial executives. According to Dutch regulations, LGs must be put under an intensified, so-called preventive form of supervision if they show a structurally unbalanced budget. However, as the label 'preventive supervision' attracts considerable media attention and negative publicity for the local politicians involved, the decision to install preventive supervision is not taken lightly by provincial authorities. According to those interviewed, the decision about whether or not to install preventive supervision is affected by the existence of party political similarities that often exist between provincial executives, who are popularly elected politicians, and municipal politicians. As indicated in the above given quote, in some cases, provincial executives continuously refuse to follow advice from their administrative staff to install preventive supervision.³⁵

Institutional reforms implemented in Dutch LG in the early 2000s have also influenced monitoring relationships. These so-called dualism reforms have increased the council's control over the local executive, and led to a reduction of intergovernmental financial supervision by the provinces. According to one provincial supervisor:

The primary responsibility for the local finances has become more explicitly located with the local council. The council has to be primarily supported in its work by the external local auditor and the local court of audit, and provincial supervision should only be complementary to the local monitoring chain.³⁶

Interviews conducted within the Dutch Interior Ministry indicate that even a complete removal of provincial financial supervision was considered by central government.³⁷

More than ten years after the implementation of dualism, the expected benefits of the

³⁴ Interview Dutch Expert group of provincial supervisors on municipal finances, 27/01/2014.

³⁵ One interviewee recalls a situation where a provincial executive continuously refused to install preventive supervision in municipality X which finances were clearly going off track. It appeared that the executive had been the responsible alderman for finances in municipality X, previous to his provincial career. Interview: Dutch Council for Intergovernmental Finances, 21/01/2014.

³⁶ Interview Dutch Expert group of provincial supervisors on municipal finances, 27/01/2014.

³⁷ Interview Dutch Ministry of the Interior, 23/01/2014.

reforms regarding the council's control over local finances have not yet materialised. Instead, the program budgets that were introduced as part of the dualism reforms have reduced the financial steering possibilities of Dutch councils. Partly because of these disappointing results, the Dutch central government has decided to not allow a further weakening of provincial supervision.³⁸

In addition to political aspects, provincial monitoring is affected by policy relationships between the Dutch provincial and local level. Most relevant for the financial position of LGs are the spatial planning responsibilities held by the provinces. By translating central government's spatial policies into area-specific plans, the provinces traditionally play a key role in Dutch spatial planning. With the economic opportunities for commercial and private property development strongly increasing in the Netherlands during the 1990s, provinces facilitated and incentivised municipalities to conduct a pioneering role in real-estate projects. By reselling former agricultural land to commercial developers, municipalities were able to generate huge profits. In 2006 alone, 900 million € of LG income derived from property projects, while the average share of property profits to the total income of LGs with more than 100,000 inhabitants amounted to 17.4% in 2008 (Ten Have, 2010, p. 29). Commercial interests in construction sites evaporated with the economic crisis in 2008 and municipal profits started to decrease strongly. Since many LGs had acquired substantial areas for real-estate developments, and made large infrastructure related investments to prepare areas for construction, the sites turned from being a very profitable activity into an expensive undertaking. The financial loss suffered by Dutch LGs between 2010 until 2012 amounts to 3.3 billion €, likely to increase to 6.0 billion € according to independent expert analyses (Deloitte, 2013). Although the role of the provinces in the local real-estate debacle has not been subject to separate analyses, local and central government actors interviewed for this research criticised the provinces for their long-time reluctance to enforce better financial risk management of real-estate investment within the municipalities.³⁹

³⁸ An indication of this is offered by the experiments that two Dutch provinces – Limburg and North Brabant – were eager to conduct in the early 2000s. The provinces intended to redesign supervision drastically, e.g. Limburg wanted to subject LGs to intensive financial scrutiny only once every four years, which, in case the local finances were evaluated to be healthy, should have resulted in the complete absence of provincial supervision in the intermediate years. The experiments did not go ahead in the manner intended by the provincial executives since the Interior Ministry demanded at least a basic annual check of the local accounts. Source: interview Expert group of provincial supervisors on municipal finances, 27/01/2014.

³⁹ E.g. interview Dutch Financial Relations Council, 21/01/2014; interview Dutch National Court of Audit (interviewee B), 22/01/2014.

As illustrated by figure 4.3, local auditors in the Dutch system are directly appointed by their clientele LG. Auditing of Dutch LGs has been run by private sector auditors since 1997. In 2014, only two Dutch LGs had their own auditing service (Amsterdam and The Hague), while others are audited by external firms, mostly the Big-4 (Deloitte, Ernst & Young, KPMG, and PWC). The quality of audits conducted by the Big-4 has recently been strongly criticized by the Dutch independent government regulator for financial services (AFM, 2014). Problems are most notably related to the mix of auditing and consultancy that characterises the work of auditors from the Big-4, which alerted to the serious moral hazards in the Dutch accounting profession, and undermines the quality of local government auditing.

Pros and cons of different monitoring regimes

The organisation of LG monitoring is highly heterogeneous among the three constitutional systems, with significant effects on supervision performance. In the English system, monitoring of LG finances has been fundamentally driven by expert considerations of the Audit Commission, a highly independent regulator that combined auditing and inspection tasks. The statutory independence of the Audit Commission in the pre-2014 English system made English regulators more autonomous compared to Dutch and NRW regulators who are directly subordinate to elected politicians. The combined function of the Audit Commission, however, also made the Commission politically vulnerable as it could easily be seen as an ‘agent for central government’ (Jones & Stewart, 2012, p. 17). Observing the lifetime of the Audit Commission, it can be concluded that a combined inspectorate and auditing agency with special protected status from politicians enhances regulatory output, but also results in an existentially vulnerable regulator that lacks natural allies at both the local and central level, putting strong pressure on the diplomatic skills of the organisation’s leadership.

The Dutch and NRW systems confirm the importance of the institutional location of regulators. The location of regulators at a government level that does *not* carry the largest intergovernmental responsibility for the allocation of funding and tasks to LGs, increases the independence of regulators. Following from this perspective, the subnational level in non-federalized systems, and the sub-state level in federations is the most suitable place for regulators. Locating regulators at the subnational/sub-state level also poses three major disadvantages.

First, regulators at the subnational level are not able to receive direct back-up or support from government Ministers. Interviewees in the Netherlands and NRW indicate

that this coverage would help to strengthen the position of regulators, especially vis-à-vis large cities, on which the impact of regulators appears to be rather limited. Second, regulators based at the subnational level tend to have more general training and experience. This is a result of the smaller territories they cover and the subsequently smaller divisions in which regulators work, which reduces utilising economies of scale in monitoring management. As large cities have treasuries with many and often highly specialised staff, intergovernmental regulators face difficulties in acquiring the authority and expertise required to adequately monitor large LGs.⁴⁰ Third, if LGs end up in a financial emergency, it is the national level in the Dutch case and the state level in NRW that would manage the financial safety net. The absence of any direct financial implications of defaulting LGs, especially in the Dutch case, helps to explain why financial monitoring has not been a policy priority for many of the Dutch provincial regulators.

From this perspective, government districts regulating counties and county-free cities in NRW may well provide the best performing regulatory actors in an inherently political world of intergovernmental financial regulation. As the government districts are responsible for financial monitoring, while the actual auditing work is assigned to auditors appointed by local councils, the system encapsulates LGs as co-shapers of their own regulatory space. A second advantage of the NRW system is that it provides the state government with a fall-back option in case local auditing does not result in regulatory compliance (cf. Huntington, 1961).

In a context where one government level regulates the finances of another government level, it seems unrealistic to insulate regulators completely from the politicians that are active on these government levels, and from which regulators finally derive their legitimacy. A far-fetched approach to establishing an independent regulator seems to be at the root of the conversion from an effective English regulatory framework to a system that in its post-2014 structure might become the most perilous regulatory regime of the three country selection.

⁴⁰ E.g. an interviewee at the Dutch Financial Relations Council (21/01/2014) indicated that '*in practice provincial authorities do not have any regulatory authority over the finances of the city of Amsterdam*'. Comparable remarks were made by other Dutch interviewees, and by German interviewees regarding the limited influence of the government districts over the budgeting practices of large cities (e.g. interview Dutch Municipal Bank, interviewee b, 28/01/2014; interview Association of Cities in Rhineland Palatine, 09/07/2013).

4.6.2 *Regulatory focus of intergovernmental monitoring*

Regulations affecting local debt can be distinguished at three different levels. First, macro level regulations structure the aggregated borrowing space between government levels. Next, meso level regulations apply to each individual LG. Finally, LGs might be affected by tailored sized micro level regulations. This section discusses the first two types of regulation, and, as they mostly apply to non-conforming LGs, micro level regulations are discussed in section 4.6.3.

4.6.2.1 *Aggregate level regulations*

Out of the three systems, England has the longest history of controlling expenditure and deficit at a level related to the entire public sector. Introduced as the Public Sector Borrowing Requirement (PSBR), the UK has strongly designed its borrowing policies, since the 1970s, around financial aggregates that apply to the country's entire public sector (Thain & Wright, 1995). Aggregate figures on local finances have been an integral part of central government policies, resulting in aggregate local borrowing being strictly controlled by the Treasury. Central control of local borrowing has been a reason for intergovernmental tensions but also explains long periods of moderate borrowing among English LG.

National government budgeting based upon public sector financial aggregates is from a more recent date in the Dutch and German system. In both systems, the introduction of the fiscal responsibility conditions of the Maastricht Treaty in 1993 incentivised a discussion about how to share the newly established borrowing limits among government levels. As the intergovernmental negotiations proceeded slowly, the discussion about sharing the Maastricht borrowing limits was not resolved in Germany with any definitive result in the 1990s (Farber, 2002, p. 152). A reform of Germany's fiscal federalism in 2009, however, resulted in the introduction of specified debt restrictions for the federal government and the *Länder*, but not the local level.⁴¹

Discussions in the Netherlands about the intergovernmental sharing of borrowing limits were particularly incentivised after the signing of the European Fiscal Compact in 2012. The Dutch Ministry of Finance initially aimed to set maximum deficit levels for

⁴¹ From 2016 onwards the federal government will be forbidden to run a structural deficit of more than 0.35% of GDP, while the states will not be permitted to run any structural deficit from 2020 onwards. The debt brakes do not apply to the local level, which has given rise to fears among several local level interviewees about potential debt shifting strategies by *Länder* governments (e.g. interviews Association of Cities and Communities in NRW, 22/04/2014; Association of Cities in NRW, 23/04/2014). This risk, however, seems limited as EU deficit regulations apply to the entire German public sector, including the local level.

each individual municipality, including a sanction option in case the municipality violated its deficit limit.⁴² Severe opposition by Dutch LG organisations prevented this law from being implemented. From 2014 onwards, the EMU's maximum public sector deficit level of 3% GDP is annually divided by central government between the Dutch government layers. This is done following a process of intergovernmental consultation. So far, the consequences of the regulations have been limited as they have not significantly reduced local borrowing space.⁴³

In sum, mainly due to European developments cross-country differences in macro level regulations have converged in recent years, with the concept of aggregate public sector deficit now constituting the main indicator in budget policies in the three constitutional systems. However, country specific trends are still relevant and may counteract European developments. The implementation of state level debt brakes in several German states, combined with large inter-state financial heterogeneity, makes that large local deficits within some German states do not necessarily result in a negative aggregate EMU balance for the German public sector. In parallel, macro level regulations have also limited impact on the deficit levels of individual LGs in the Dutch and English context because their deficits can be compensated by LGs with budget surpluses. As a result, macro level regulations in the Dutch and English system prevent debt accumulation at the local level, but have little impact on preventing debt concentrations within individual LGs. It may be expected that regulations that uniformly apply to LGs, rather than the local or public sector at an aggregate level, are more effective in restraining budget deficits.

4.6.2.2 *LG meso level regulations*

In all three systems, meso level regulations applying to all LGs show a fundamental distinction between borrowing for current revenue purposes versus capital investment. In general, current revenue borrowing is restricted while LGs have more autonomy to borrow for capital investment. The main purpose of borrowing for current revenue in each system is to bridge over temporary funding gaps in the local budget. Regarding capital investment borrowing, the principle of the 'golden rule' can be recognised in each system as borrowing for investment purposes is allowed as long as it can be realised in combination with a balanced budget on the current revenue account. Despite these general similarities, the operationalisation of the principles differs strongly between the systems.

⁴² Interview Dutch Ministry of Finance, 24/01/2014.

⁴³ Interview Dutch Association of Municipalities, 30/01/2014.

Table 4.9 System comparison of regulations on local capital and current expenditure borrowing

	England	The Netherlands	Germany/NRW
Main regulatory frameworks (year of implementation)	Local Government Act (2003) CIPFA's Prudential Code (2004) Local Audit and Accountability Act (2014)	Local Government Law (Gemeentewet) (1851/1994) Wet Fido (2000) ⁴⁴ BBV (2003) Ruddo (2000/2009) ⁴⁵	Local Government Order (GO NRW) (1994) Directive 'Credit- and Credit-Related Local Government Activities' (2006) ⁴⁶ Local Financial Management Law (NKFG NRW) (2004)
Specified regulations long term borrowing	Reporting requirements of specified prudential indicators.	Interest risk norm (<i>renterisiconorm</i>).	Reporting requirements.
Specified regulations temporary/current revenue borrowing	Reporting requirements of specified prudential indicators.	Cash limit: liquidity credits (max. one year) not allowed to exceed 8.5% of total local exploitation costs.	50% of liquidity credits may mature within max. ten years; 25% within max. five years.

Source: own composition, based upon LG accounting regulations.

Table 4.9 illustrates that only in the Dutch system regulators apply explicit norms regarding current and capital expenditure borrowing. The Wet Fido, or the Law on the financing of sub-central governments, provides the main Dutch regulatory framework for LG borrowing. Fido tightened the relatively liberal Dutch subnational treasury framework in 2000, as a response to the secret commercial banking activities by the province of South Holland, which led to a loss of more than 20 million €. ⁴⁷ With regard to current expenditure, Fido provides a cash limit (*kasgeldlimiet*), stating that short-term debt is not allowed to exceed 8.5% of the total municipal exploitation costs. Fido's interest risk norm (*renterisiconorm*) provides the main regulation on capital expenditure borrowing and prohibits LGs from refinancing debt that exceeds 20% of their total budget, every year. ⁴⁸

⁴⁴ Wet Fido is defined as Wet Financiering decentrale overheden, which translates as Law on the Financing of Subnational Governments.

⁴⁵ Ruddo is defined as Regeling uitzettingen en derivaten decentrale overheden, which translates as Regulation on Loans, Advances and Derivatives of Subnational Governments.

⁴⁶ Runderlass über Kredite und kreditähnliche Rechtsgeschäfte der Gemeinden (GV) vom 9. Oktober 2006' (SMBL NRW. 652).

⁴⁷ The province of South Holland speculated with almost 0.8 billion € (1.7 billion gulden) of loans to realise interest profits. After some initial lucrative years, the secret banking activities brought the province near financial collapse when one of its debtors, the trading house Ceteco, went bankrupt (Koelewijn and Meeus, 1999).

⁴⁸ The norm's operationalisation does not necessarily reflect real financial risks as refinancing an amount exceeding 20% of total long-term debt might result in financial advantage if the replacement interest level

The balanced budget rule is operationalised in the Dutch system by focusing upon a materially balanced budget. Materially balanced is defined as the structural costs being covered by structural income, whereby structural refers to a period of three years. Difficulties to present materially balanced budgets among Dutch LGs that have been affected by the property bubble have led to an extension – only for this group of LGs – of the period in which the budget needs to be balanced for up to ten years. Other relevant regulation affecting borrowing behaviour by Dutch LGs is included in the BBV, which tightened the Dutch regulatory framework for the activation of current expenditure on the municipal balance.⁴⁹

In the English system, local borrowing autonomy for capital investments significantly increased with the introduction of the prudential borrowing framework (PBF) in the Local Government Act of 2003. Until 2003, a strict central government monitoring system on English local capital expenditure borrowing was in place, including a system of Credit Approvals via which central government annually set a credit limit for each local authority (outlined in detail in the Borrowing Act, part of the Local Government Housing Act 1989). LGs that exceeded their approved credit limit were confronted with intensive government sanctions, including the possibility of a personal surcharge imposed upon culpable LG officers and councillors (in place up to 2000).

The introduction of PBF in 2003 removed the centrally set capital borrowing limitations. The Treasury possesses a reserved power to impose borrowing limits upon the entire English local level, or individual LGs, but the power has not been used hitherto (LG Act, Section 4, 1 & 2). According to the prudential borrowing regulations, an English LG has only the obligation to ‘determine and keep under review how much money it can afford to borrow’ (LG Act 2003, Section 3, 1). This duty has been operationalised in the Prudential Code, developed by the accountancy body CIPFA. The Code obliges all LGs to base their capital expenditure decisions on a set of ‘prudential indicators’, which should ensure that local capital investment plans are ‘affordable, prudent and sustainable’ (CIPFA, 2011). Although the Code has received legislative backing in 2004 its

is lower. This illustrates that in contrast to the norm’s title, it is not interest risk but the annual borrowing amount to be refinanced that is observed as the main risk in long-term local borrowing. Because of these criticisms, the main advantage of the Dutch interest risk norm is that it forces LGs to pay attention to a proper spread of the maturity of their debt portfolio in time (Zanten-Lagen-Daal and Wijnands, 2001).

⁴⁹ ‘BBV - Besluit Begroting en Verantwoording Provincies en Gemeenten’; or ‘Decision Budget and Reporting Provinces and Municipalities’. The BBV replaced CV’95 (Comptabiliteitsvoorschriften 1995), which was introduced in 1995 and completed the gradual implementation of accrual based accounting in Dutch LG.

implementation is not policed in practice, and the operationalisation of the budget indicators leaves substantial interpretation space to LGs.

Compared to the Dutch and NRW regulations, CIPFA's Prudential Code is most explicit in its attention for local debt. English councils are required to set an authorised limit for external debt, which establishes the outer boundary of a LG's borrowing based on a realistic risk assessment (Section 5 LG Act 2003). This debt indicator applies to the entire local debt volume, including short-term debt. Although the CIPFA Code pays attention to debt, the Code only provide guidelines regarding procedures on how to decide about the level of debt, while the actual debt levels are solely determined by the LG. English interviewees emphasise the strict enforcement of the balanced budget rule at the English local level, especially due to the authoritative role of the Officer 151. In practice, the enforcement of the balanced budget rule sets strict boundaries on short-term borrowing by English LGs, something that is reflected in the very small amount of short-term liquidity held by English LGs ((around 5% of total English LG borrowing in 2012; (DCLG, 2013)).

The NRW system has undergone some major changes in the 1990s regarding the regulation of short-term liquidity. Until 1994, NRW applied a proportional limit similar to the Dutch system, which restricted an authority's amount of short-term borrowing to a maximum of 1/6 of a locality's total annual income. In case a LG was planning to exceed the cash limit, it had to acquire pre-approval from its intergovernmental supervisors. The revision of NRW's Local Government Order in 1994 removed the cash ceiling and essentially gave LGs total freedom in setting their maximum level of short-term liquidity.⁵⁰ In theory the relaxation of the liquidity credits has not replaced NRW's balanced budget rule, since liquidity credits are only allowed to balance annual budget fluctuations. As the liquidity credits are perceived as budgetary neutral transactions they are not an integral part of the municipal budget report. Since the removal of the credit ceiling, short-term liquidity in NRW LG has strongly increased, from an amount just

⁵⁰ NRW's 1994 and currently operational LG Act formulates this as follows: 'For the timely performance of their payments, the municipality may take up liquidity credits up to the ceiling amount as ascertained in its budgetary bill insofar as it has no other means available. The authorization is valid for the budget year and until the adoption of a new budgetary bill'. Original clause: 'Zur rechtzeitigen Leistung ihrer Auszahlungen kann die Gemeinde Kredite zur Liquiditätssicherung bis zu dem in der Haushaltssatzung festgesetzten Höchstbetrag aufnehmen, soweit dafür keine anderen Mittel zur Verfügung stehen. Diese Ermächtigung gilt über das Haushaltsjahr hinaus bis zum Erlass der neuen Haushaltssatzung' (GO NRW § 89 II).

above 1 billion € in 1992 to 23.7 billion € in 2012, exceeding long-term debt held by NRW LG (22.7 billion € in 2012) (IT.NRW, 2013).

The gradual implementation of an accrual based accounting system from 2006 onwards also changed NRW's borrowing regulations. Parallel to the obligation for LGs to draft an opening balance sheet, NRW's Local Government Order was changed to allow the inclusion of a so-called 'balancing reserve facility'.⁵¹ NRW LGs include this facility as a separate asset post on their balance. As long as the facility does not exceed 1/3 of the total municipal assets, and 1/3 of the total annual local income from taxes and grants, LGs are allowed to use the facility to balance annual deficits if faced with such a situation. Even though LGs that use the facility have a deficit in practice, the regulatory framework regards them as formally balanced if they are able to balance their budget by reducing their assets within the defined maximum of the balancing reserve facility (e.g. Gröpl, Heinemann, & Kalb, 2010).⁵²

The comparative analysis of the formal regulations which frame local budgeting shows that despite the emphasis put on prudential budgeting in every system, the local level has substantial scope in how it implements prudential budgeting. After the introduction of PBF in England, this observation applies to all three systems. The German system provides most space for local debt-making. Arguably, the unique financial circumstances of individual LGs and the need for local budget flexibility make it virtually impossible to prescribe detailed guidelines for local budgeting. With strong arguments against detailed budgeting rules, the formulation and manner of monitoring of the few rules that are present becomes even more relevant. The next section compares the practice of supervision in case LGs do not conform to the few budgetary regulations in place.

4.6.3 *Monitoring approach towards non-conforming LGs*

As self-government constitutes the leading principle for the constitutional position of German LGs, interviewees in the German system widely perceive levels of supervision as a '*necessary evil*'.⁵³ The regulatory regime in NRW applies different intervention once a LG is unable to set a balanced budget. As illustrated in table 4.10, it starts with a situation in which a LG is unable to produce a balanced budget, in which case it faces an

⁵¹ See for this so-called 'Ausgleichsrücklage' NRW Gemeindeordnung (GO NRW), Section 75, par. 2, sentence 3.

⁵² The system in NRW regulates capital borrowing through the municipal balance. Capital borrowing is allowed as long as a municipality does not become over indebted. Over indebtedness is defined as a municipality that has used all local assets on the municipal balance (*Gemeindeordnung NRW* § 75, 7).

⁵³ E.g. interview NRW Ministry of the Interior, 24/04/2013; interview Association of Cities and Municipalities in NRW, 22/04/2013.

Table 4.10 Intervention steps towards non-conforming LGs

	England	Netherlands	Germany/NRW
Normal supervision	- Auditor's standard supervision - Audit Commission oversight (pre-2014)	Repressive supervision	Standard supervision
First phase intensified supervision	DCLG directives	Preventive supervision	Budget balancing concept
Decision taken by	Secretary of State DCLG	Province – provincial representative	Government district (<i>Bezirksregierung</i>) or county administration
Second phase intensified supervision	DCLG intervention	Section 12 status	Non-approved budget status
Decision taken by	Secretary of State DCLG	Minister of the Interior & Minister of Finance, after consultation	Government district (<i>Bezirksregierung</i>)
Additional funding	No	Yes	No
Main reason second phase intensified supervision 2000-13	Underperformance in public service delivery	Financial problems	Financial problems

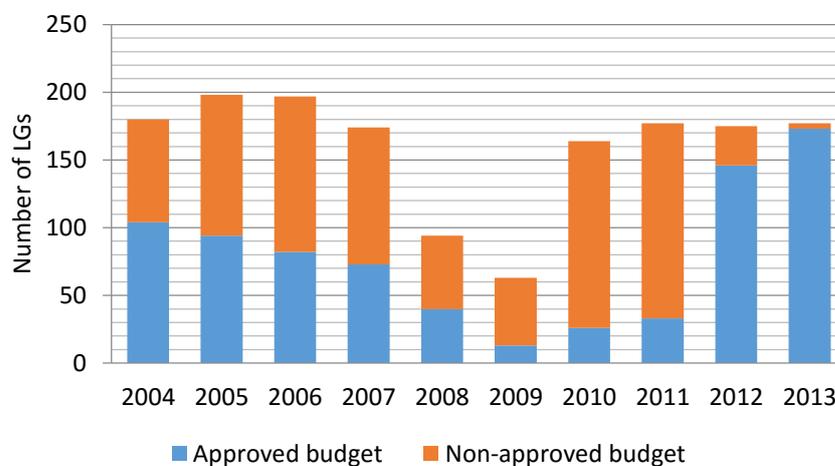
Source: own composition, based upon LG accounting regulations.

intensification of intergovernmental supervision. The LG is now only allowed to borrow for investments that generate revenues, is no longer allowed to adopt any new voluntary tasks, and significant limitations are implemented upon its personnel management (Busch, 2005). In 2011 a major change was implemented in NRW's local budget regulations. Up to that period, a rebalanced budget needed to be realised by the fourth year after the start of the budget balancing concept. Since 2011, the period has been extended to the tenth year after the start of the procedure (GO NRW § 76, 2).⁵⁴ Figure 4.4 illustrates that in the period leading up to 2011, 81% of NRW LGs had a non-approved budget status. The amendment of NRW's LG budgetary law in 2011 reversed this situation and 83% of NRW LGs set an approved budget in 2012. The final stage of action in the German system is to send of a state commissioner. Given the strong interference

⁵⁴ In addition, the budget concept needs to illustrate that in the most recent five years since the start of the four year budget balancing period, the remaining old debts will be phased out via budget surpluses – assuming that no extraordinary financial setbacks will occur.

with the constitutional principle of local self-autonomy, state commissioners are used very infrequently.⁵⁵

Figure 4.4 Graph approved and non-approved budgets NRW, 2004-2013



Source: own graph, based upon data from NRW Interior Ministry (MIK).

In the Dutch system, the provinces monitor LG budgets to identify those that do not balance their budget over a period up to three years. A LG is allowed to show a budget deficit in the current budgetary year but should be able to present a balanced budget in its three year estimates. This indicates that a municipality is able to have a continuously unbalanced budget without getting into trouble with the provincial regulator, as long as it can present a balanced budget in its three year estimates. Data on the number of Dutch LGs that are unable to set a balanced budget in the upcoming budgetary year are not systematically disclosed by the Dutch provinces. However, indications about the scale of unbalanced budgets can be obtained from data provided by the provinces of Utrecht and North Brabant. In correspondence from 2013 with the Dutch Interior Ministry (BZK, 2013), Utrecht reports seven LGs that set an unbalanced budget (out of a total of 27), and North Brabant, 34 (out of a total of 67). A countrywide extrapolation of these figures indicates that 175 municipalities or more than 43% of Dutch LGs set an unbalanced budget in 2013. Although extrapolations have their obvious limitations, this extrapolation does not seem to be a very precarious one since the relevant statistics show average financial conditions for LGs in Utrecht and North Brabant.

⁵⁵ The NRW Interior Ministry used the instrument in 2013 for the first time. However, the Commissioner was sent to a LG – Nideggen – who had committed itself to the implementation of a set of austerity measures in exchange for additional financial support from the state, which nuances the degree of state intervention in the municipality’s autonomy.

If a LG is unable to present a structurally balanced budget, the Dutch provincial authorities are legally obliged to put the LG under ‘preventive supervision’. In this stage, a LG needs to send its budget and any budget changes it plans for approval to the provincial regulators. The number of Dutch LGs under preventive supervision has been small, and has more recently further decreased. Whereas 30 LGs – equal to 6.4% of the total number of Dutch LG – were under preventive supervision in 2005, the number was only 9, or 2.2%, in 2014 (see appendix III for details by province and year). Several Dutch interviewees made critical and sceptical comments regarding these figures, and showed surprise that at the same time as Dutch local finances were under increasing pressure, the number of LGs facing intensified financial supervision is reducing.⁵⁶

If the municipal finances do not improve under preventive supervision, a Dutch municipality can apply to central government for Section 12 status, which provides the municipality with a temporary annual funding amount in addition to the normal allocation it receives from the Dutch Municipal Fund. To prevent common pool problems (Ostrom, 1990), entrance to Section 12 funding is decided after a tightly organised process lasting approximately one and a half years in which local expenditure, income, reserve and deficit structures are scrutinized by Section 12 inspectors from the Interior Ministry (BZK).⁵⁷ Once a municipality receives Section 12 funding, the municipality is put under intensive supervision, resulting in the virtual abolishment of local financial decision-making freedom. Four Dutch LGs were receiving Section 12 funding in 2013, with a similar annual average over the period since 2001. Historically, this is a relatively small number. For example, in 1955 more than 700 of the then 1,000 Dutch LGs were receiving additional funding. By improving municipal income via an introduction of a local property tax in the 1970s and through continuously sophisticating the distribution funding mechanisms, Section 12 funding has developed from a ‘*popular opportunity to get something additional*’ into a safety net of last resort.⁵⁸

Compared to the Dutch and NRW systems, procedures as to how intergovernmental regulators should operate in case councils are unable to set a balanced budget is least institutionalised in the English system. The English system puts strong

⁵⁶ E.g. interview Dutch Association of Provinces, 21/01/2014; interview Dutch Financial Relations Council, 21/01/2014; interview Dutch National Court of Audit (interviewee B), 22/01/2014.

⁵⁷ Only in the case the deficit exceeds two per cent of the sum the municipality receives from the Dutch Municipal Fund and the capacity of its local property tax, the municipality can be considered for Section 12 emergency support. In addition, an income threshold, or admission ticket, is in place that demands that the local property tax is at least 20% above the national average, and fees for savage and refuse collection need to cover all costs (BZK, 2011, p. 9).

⁵⁸ Interview Dutch Ministry of the Interior, 23/01/2014.

emphasis on the role of the local Chief Financial Officer (CFO) as key actor in safeguarding a balanced budget. The role of CFO, also known as Officer 151, has traditionally been defined in a broader sense, with responsibilities that exceed those owned to the local council.⁵⁹

The CFO has several duties, including the requirement to provide a report to the local Council if there is, or is likely to be unlawful expenditure or an unbalanced budget. This report must also be sent to the LG's external auditor, and to the Secretary of State of the Interior Ministry (DCLG). Until the council has considered the report, Section 114 of the LG Finance Act 1988 determines that the local authority is not allowed to make any new agreements incurring expenditure (CIPFA, 2012). By functioning in practice as a prohibition on any local spending, Section 114 gives strong powers to the CFO. Section 114 notices were frequently issued in the 1990s, but following improvements in local financial management have been relatively scarce in the period since 2000.⁶⁰

The English system provides no formalised follow-up scheme for intergovernmental supervision once a Section 114 notice has been issued by the CFO. In case the LG is unable to re-balance its finances, central government can issue a financial directive, directing the LG to take certain measures. Since the introduction of the LG Act of 1999 central government has the additional competence to intervene in a LG in order to re-establish the authority's finances.⁶¹ This decision is up to the discretion of the Secretary of State of DCLG, and is normally taken after pre-agreement within cabinet. Directions and interventions have only seldom been used by central government, the first time being in the London borough of Hackney in 2001, after a critical report from the Audit Commission called for government intervention.⁶² Although financial matters often call for central government intervention, non-performing local services constituted the main reason for the interventions that occurred in England between 2000 and 2013 (e.g. Doncaster, Kingston upon Hull, and – threatened with intervention – Walsall).

⁵⁹ Case law *Attorney General -v- De Winton* (1906) established that the local treasurer is not merely a servant of the Council but also holds a fiduciary relationship to the local taxpayers (CIPFA, 2012).

⁶⁰ Interview Audit Commission, 30/12/2013.

⁶¹ LG Act 1999, Section 15, 5 states: 'the Secretary of State may direct the authority to take any action which he considers necessary or expedient to secure its compliance with the requirements of this Part', and LG Act 1999, Section 15, 6a states 'the Secretary of State may direct that a specified function of the authority shall be exercised by the Secretary of State or a person nominated by him [-]', and Section 15, 6b: 'the authority shall comply with any instructions of the Secretary of State or his nominee in relation to the exercise of that function and shall provide such assistance as the Secretary of State or his nominee may require for the purpose of exercising the function'.

⁶² *Local Government Chronicle*, 'Hackney LBC responds to Audit Commission', 11 July 2001; *Public Finance*, 'Hackney faces intervention', 21 September 2001; and Audit Commission (2002).

4.7 Concluding remarks

This chapter has analysed the impact of borrowing costs on LG debt accumulation, and in the second part compared the regulatory regimes. The analysis demonstrates that the regulatory systems in which LGs operate contribute to high investor confidence in the financial creditworthiness of LGs. This confidence is expressed directly through low interest rates applied by private sector credit institutes when borrowing to LGs, and indirectly through the low financial compensation accepted by investors when borrowing to specialised LG lenders.

The empirical analysis demonstrates that low effective interest rates significantly affect debt policies at the local level. Low borrowing costs enhance the positive relationship between a locality's income and its debt accumulation. The moderating effect is significant in all three constitutional systems, and is particularly strong for large LGs. On average, interest rates enhance the positive effect of local income on local debt accumulation by around 6.4%.

The regulatory regimes directly affect local budgeting practices, and as such help to explain local deficit and debt trends. Due to low interest rates, borrowing is an attractive local option, and, as indicated by interviewees across the three systems, politically often more appealing than reducing expenditure and/or increasing local tax rates. This even applies to the most heavily indebted LGs. Increased local borrowing has most strongly contributed to growing intergovernmental fiscal imbalances in NRW's system.

The institutional analysis presented in the second part of the chapter demonstrates that the performance of the regulatory regimes might be at risk of being overestimated. Growing LG financial stress has resulted in a relaxation of the borrowing regulations in place in the Dutch and NRW system, while pressure from the English local sector is growing to soften intergovernmental regulations on local debt repayments.⁶³ Several features of the regulatory systems undermine their effectiveness and give space for error accumulation: political, financial, and task relationships between regulators and the regulated local level weaken independent monitoring.

Inadequate performance by the regulatory regimes carries considerable risks for the stability of intergovernmental financial systems. The absence of LG bankruptcies in the recent history of the three selected systems should not lead to the conclusion that the question of how sovereigns will respond in case of defaulting LGs is only of theoretical interest. The EU financial crisis has led to discussions about defaulting European states

⁶³ *Local Government Chronicle*, 'Cities moot lower debt repayments to offset cuts', 21 May 2014.

unimaginable in the European discourse before the crisis. In addition, uncertainty about the responses of the regulatory regimes in situations of defaulting LGs may well have an immediate effect as well. This is most visible in NRW, where heavily indebted LGs and unclearly defined government liability structures, should a local default occur, have recently caused private sector loan providers to apply (slightly) higher interest rates to more indebted NRW LGs.⁶⁴ Although less pronounced, similar concerns about diverging local interest rates due to unclear liability structures are expressed by Dutch officials. With the PWLB providing an official lender of last resort, the discussion is largely absent in the English system, but liability questions can be observed in discussions surrounding current efforts by the English Local Government Association to establish a Municipal Bonds Agency.

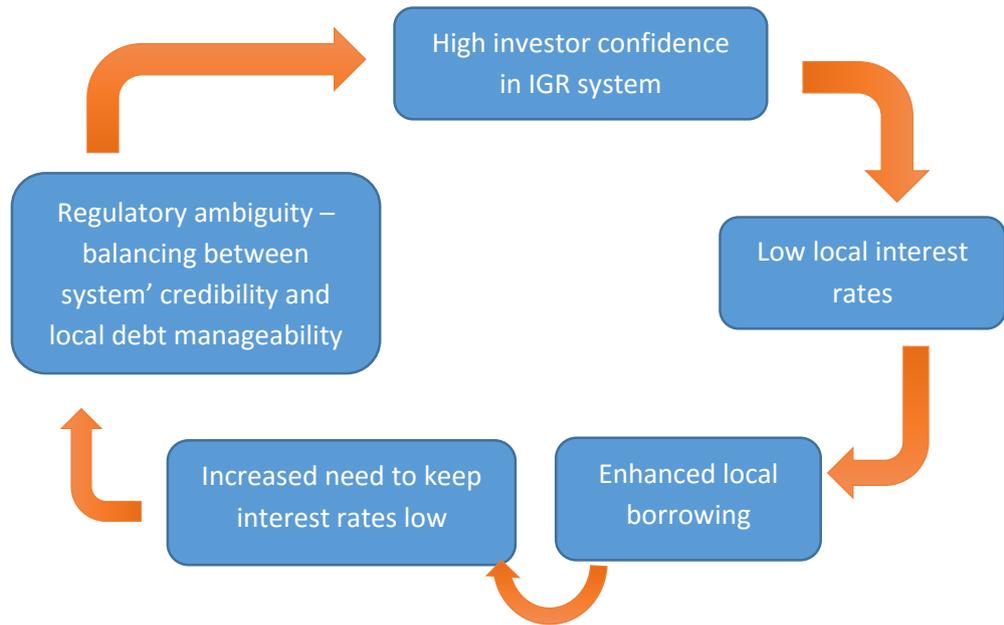
The financial relevance to enable LGs to profit from low interest rates, and at the same time promote sustainable local budgeting puts higher government levels in an ambiguous position. This is illustrated by figure 4.5. The loop demonstrates that the regulatory performance of the selected intergovernmental systems incites a vicious circle: incentivised by low interest rates LGs are able to accumulate substantial debt, which urges higher government levels to uphold the system's external reputation.

Debt accumulation further increases by the fact that, in order to accommodate LG financial stress, intergovernmental regulations are being relaxed. Due to the substantial debt accumulation, both local and higher government levels do profit from the following question remaining unanswered: how will the regime respond to potential LG financial defaults? Although questions of liability are relevant, the systems generate sufficient trust to enable LGs to continue to borrow against low interest rates, with a further accumulation of financial risks as a result.

An increase of the borrowing costs for LGs with above average debt volumes may well lead to a financial risk reduction within each of the systems. However, to determine to what extent diverging interest rates should be welcomed for their disciplinary effect on 'irresponsible local budgeting', or feared for the further pressure they put on already 'squeezed local finances', it is essential to analyse the income streams of LGs in the three systems.

⁶⁴ A survey conducted by the German treasurers' magazine DNK (2013) illustrated that whereas 6% of German treasurers had noticed inter-local interest rate differences in 2011, 17% did so in 2013. In addition, a survey conducted among 300 treasurers of the 72 biggest German cities by Ernst & Young in 2013 demonstrated that 71% of correspondents judged an increasing application of LG credit ratings 'more likely' (Ernst & Young 2013).

Figure 4.5 The figure shows the vicious cycle incentivised by low effective interest rates



CHAPTER 5

The comparative impact of grant funding systems

5.1 Introduction

Grant funding constitutes a major income source for Dutch, English and German LGs. Grant funding is the biggest income source for Dutch and English LGs at 65% on average. Own tax revenues are the largest income source for NRW LGs with an average of 32%, but grants still provide on average 29.8% of local income in NRW, equal to around 20 billion € in 2012. Given the importance of grant funding in the three systems, it can be expected that changes in redistribution funding will affect a local authority's financial position. The previous chapter has illustrated that despite the presence of regulations aimed at limiting LG borrowing to capital expenditure, the regulatory systems leave substantial scope to respond to reduced grant funding by increasing local borrowing.

Redistribution funding can be analysed at a vertical and horizontal level. The vertical distribution refers to the funding amount that local government receives in total, relative to the other government levels. The vertical distribution is the outcome of a country's constitutional structure. At one end of the spectrum, the aggregate local funding amount is solely decided upon by central government, whilst at the other end a constitutionally prescribed revenue division exists across government layers (e.g. shared taxes common in federal systems). The horizontal distribution refers to the allocation of grants among individual LGs. While the aggregate budget is relevant for the local sector in its entirety, the mechanisms in place to distribute the macro budget horizontally are most relevant to the funding position of individual LGs.

This chapter investigates the extent to which changes in grant funding mechanisms have affected the financial position of the selected LGs over the period 2005-2012. As the period includes the economic effects of the Great Recession of the late 2000s, the dataset can be deployed to identify the crisis dampening effect of grant systems on LG finances. The chapter starts by shortly recapitulating the hypotheses developed in chapter 2. The third section presents the institutional characteristics of the redistribution systems. After a presentation of the relevant descriptive statistics, section 5.4 presents a model to analyse the moderating effect of political-institutional features on grant allocations. Section 5.5 presents the quantitative empirical results, which are triangulated with qualitative research findings in section 5.6. Section 5.7 concludes the chapter.

5.2 Hypotheses

The literature review in section 2.3.2 introduces four hypotheses to investigate the relationship between grant allocation processes and their local financial consequences. This section shortly recapitulates these hypotheses.

First, because few grant funding systems completely equalise inter-jurisdictional differences in local tax capacity, it can be expected that the financial position of governments with high grant dependence is weaker than governments with low grant dependence (Clingermayer & Wood, 1995; Martell & Smith, 2004; Posner, 1998). From this perspective, grants contribute to error accumulation as expressed in the debt indicator. Hence:

Hypothesis 5: grants are positively related to LG debt.

Two main institutional factors may explain why grant allocations deviate from what would be expected based upon the technical characteristics of the grant system in place. A first group of explanations refers to party political linkages among intergovernmental actors as a moderating factor in grant allocations (Dahlberg & Johansson, 2002; Khemani, 2007; Magaloni, 2006). To investigate the relevance of partisan explanations it is expected that the positive relationship between grants and debt reduces in case of intergovernmental party political symmetry, either due to the allocation of more grants, or grants pertaining less risks to the financial position of the grant-receiving LG. The working of partisan effects in grant allocation will be affected by the particular political infrastructure in place. US research indicates that directly elected mayors are more effective at bringing in state and federal money (Basehart et al., 2000). It can be expected

that mayors provide an additional test to identify partisan effects on the grant-debt relationship. The following hypothesis has been formulated:

Hypothesis 6: the positive relationship between grants and LG debt diminishes in case of party political symmetry between the grant-providing government and the grant-receiving LG.

As the funding allocation of general grants tends to be determined through formula based mechanisms, this is likely to be more diverse for specific grants, paving the way for partisan motivated grant allocation (Kim, 2013; Sacchi & Salotti, 2014). Hence:

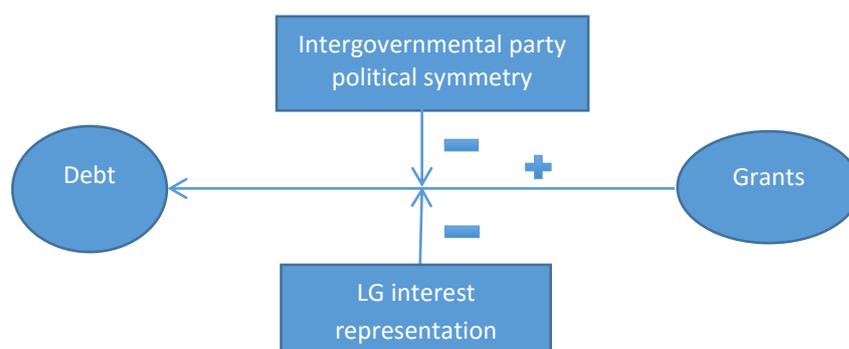
Hypothesis 7: party political symmetry between the grant-providing government and grant-receiving LG will have a larger effect on specific compared to general grants.

In addition to partisan effects, empirical studies suggest that local interest representation is crucial to the operation of grant systems in practice (Borck & Owings, 2003; Sacchi & Salotti, 2014). It can be expected that the size of the local administration leads to the acquisition of grants that pose less risks to the local financial position, which will reduce the positive relationship between grants and debt. Hence:

Hypothesis 8: the positive relationship between grants and LG debt diminishes with an increase of the size of the local administration.

The hypotheses formulated in this section are summarised in figure 5.1, which illustrates the institutional relationships to investigate in the analysis of grant systems. LGs that are aligned in partisan terms with the grant provider, and/or have a well-staffed and professional local administration, are able to reduce the risks posed by grants on local finances.

Figure 5.1 Main institutional relationships to investigate



Before going to the empirical analysis, relevant background information is provided on the political and financial institutions related to the redistribution mechanisms in the three systems.

5.3 Redistribution in the three systems

Redistribution funding provides a relevant income source for Dutch, English and German LGs. Chapter 3 provides a macro-level analysis of the constitutional nature of the three systems. This section builds on this review by describing the political and financial institutions that affect grant redistribution. The most important political institutions are the electoral system and local executive structures. The discussion of the financial institutions is linked to the size of LG grant funding, changes implemented to grant funding, and the formal institutional characteristics of the allocation process.

5.3.1 Political institutions: electoral systems and local executive structures

The English system is a majoritarian democracy where the electoral first-past-the-post (FPP) system has led to a tradition of single party governments. The absence of a meso-level and constitutional authority for the local level means, too, that power is strongly concentrated at the central level. The electoral districts in the English system are not equal but very similar to the boundaries of LGs. In addition, parties organised at the LG level are a major part of the electoral infrastructure of national parties and provide vital campaign support during national elections (Wilson & Game, 2011). Both reasons provide rational explanations for central government actors to target specific local areas with grant funding.

Similar to the German federal level, the electoral system in NRW uses mixed-member proportional representation. This means that although parliament mirrors the overall proportion of votes received, it includes a set of members elected by geographic constituency who are deducted from the party totals. Up until to 2010, constituency and party votes were combined into one vote, meaning that voting for a representative automatically meant voting for the representative's party. In 2010 NRW changed to a system whereby voters first vote for the local person they prefer for local MP without regard for party affiliation (the direct candidate) and vote on a party list in a second vote (Andersen & Bovermann, 2012, p. 402).

The partisan make-up of the NRW legislature is determined only by the party vote and in case a party wins more local seats than its proportion of votes justifies, the size of the *Landtag* increases so that the total outcome is fully proportional to the election result.

NRW is divided into 128 electoral districts, all representing a similar number of inhabitants (around 140,000). Since the elections in 2012, the NRW parliament has 237 MPs in total. Although many of the 128 MPs held strong ties with their district, in parliamentary practice party interest continues to dominate over district interests (Andersen & Bovermann, 2012, p. 399). The dominance of party interests in the NRW system is likely to reduce the occurrence of politically motivated spatial targeting of grant funding.

The electoral system in the Netherlands is a system of pure proportional representation (PR). This means that the entire country is treated as a single electoral district, which eliminates virtually all electoral incentives for central government to target specific areas with grant funding. Similar to NRW, PR incentivises the presence of multiparty executives, which itself further discourages an electoral use of grant allocation.

Most English LGs are led by an executive arrangement called leader and cabinet, which are mostly drawn from the local majority party. In 2013, only 16 English LGs had a directly elected mayor. Partly due to the absence of a strong local mandate, few English local politicians enjoy the authority that would help them gain easy access to central government (Copus, 2006; Fenwick, 2010). Therefore, electoral considerations on the side of central government are likely to be the most relevant political determinants for grant funding.

The German local administrative system is often portrayed as strongly legalistic and rather elitist, with a limited role for political variables (e.g. König, 2006). More recently, many German local systems experienced substantial institutional reforms. Since 1999, mayors, who are present in all NRW LGs, are directly elected (including county heads in the counties). The introduction of the elected mayor has strengthened the leadership role of NRW mayors and increased their external authority by building their own electoral base (Wollmann, 2005, p. 29).

The local leadership within Dutch LGs rests with the mayor, who is appointed by the national cabinet, after a recommendation made by the local council. While Dutch mayors are deprived of electoral legitimacy, their central level appointment, combined with their wide networks within national political parties, and increasing portfolio responsibilities especially in the safety domain, makes them relevant actors for central government to work with (Dölle, 2010, p. 119; Karsten, Schaap, Hendriks, van Zuydam, & Leenknecht, 2014).

5.3.2 *The aggregate amount of redistribution funding*

The three systems use different procedures to determine the overall budget available for LG. LG redistribution funding in the Dutch system is strongly linked to the central government budget. The Dutch Municipal Fund, which includes general LG grant funding, applies to one year and is one of the chapters in the government's annual national budget. The funding determination follows the so-called standardised methodology (*normeringssystematiek*), which connects the Municipal Fund to the central government's corrected net expenditure. Central government's net expenditure includes most departmental expenditure, with the exclusion of repayments on the national debt, development aid and EU contributions (Zaalen, 2002, p. 32). The standardised methodology was first used in 1995 and intends to let the Municipal Fund claim an equal share in a rise in central government expenditure (mostly due to increased tax revenues), and avoid disproportionately suffering in central government expenditure cuts.⁶⁵ The second Dutch intergovernmental fiscal tradition affecting the LG funding position is a maximisation of the maximum financial change considered to be permissible when implementing changes in the Municipal Fund. The protection has been agreed on between both central and local government and has been set at 15 € per inhabitant, per year (VNG, 2012, p. 3).

There are no federal regulations that specify how much the NRW state government should allocate to the local level. The German Basic Law contains a clause only obliging state governments to provide funding to the local level from the tax sharing system. The tax sharing system refers to the horizontal revenue sharing system among the *Länder*, which follows after the vertical tax distribution between the federal, *Länder* and local level. The tax sharing system distributes the most voluminous German taxes – income and corporate tax, and VAT. The actual determination of the amount of local funding from the tax sharing system is left to the discretion of the *Länder*. The tax sharing system (*Allgemeiner Steuerverbund*), set out in NRW's Local Government Finance Law (GFG), determines that the NRW state allocates around 23% of its share in the national tax alliance to the NRW local level.⁶⁶ This funding has been divided across NRW's LG sector in shares that have been unchanged for almost three decades (78% is allocated to

⁶⁵ Due to proportional differences, an increase in central government's core budget expenditure of 1 million € results in an increase of the Dutch Municipal Fund of around 180,000 € (VNG, 2012). The standardised methodology (*normeringssystematiek*) is also known as 'going upstairs together, going downstairs together' (*'samen de trap op, samen de trap af'*).

⁶⁶ *Gesetz zur Regelung der Zuweisungen des Landes Nordrhein-Westfalen an die Gemeinden und Gemeindeverbände im Haushaltsjahr 2012, § 2 Allgemeiner Steuerverbund*. Also known as: *Gemeindefinanzierungsgesetz (GFG)*.

county-free cities and county-dependent LGs, 12% to counties and 10% to the regional authorities).

There are no fiscal laws or traditions in place in the English system that set the boundaries for central government's decision-making when deciding on the overall budget available to the LG sector. However, damping mechanisms exist that demarcate the maximum change of annual funding to which individual LGs can be subjected. These micro level boundaries indirectly limit the extent of changes that can be implemented on the aggregate budget.

In sum, a comparison of formal institutions shows that most financial protectoral mechanisms are in place for redistribution funding to Dutch LG. English LG enjoys a minimal amount of financial protectoral mechanisms, with NRW LG occupying a mid-position.

5.3.3 *Changes to redistribution funding*

Changes to redistribution funding can be due to changes in the division of tasks between government layers or changes to the available aggregate budget. In every system, financial regulations determine that where central government proposes changes in the intergovernmental allocation of tasks, it has to explicitly set out the potential financial consequences for the subnational level.

The Dutch Law on Intergovernmental Finances (Fvw), adopted in 1996, obliges central government to explain and quantify the intergovernmental financial consequences of proposed government legislation. In addition, it has to include a separate appendix with its legislative proposals that outlines how the subnational level would be able to absorb the financial consequences of proposed legislation (Fvw, Section 2, 2).

Similar regulations exist in NRW since the introduction of the Connectivity Principle (*Konnexitätsprinzip*) in the NRW state constitution in 2004. Following the example of the other German *Länder*, the Connectivity Principle means that the state government is only allowed to assign new tasks to the local level if provided with sufficient funding.⁶⁷ To guarantee adequate funding, a cost calculation has to be made prior to the task assignment and evaluated after its implementation (Bätge, 2014, p. 19).

There are no financial laws in place in the English system demarcating central government's decision-making space when implementing intergovernmental reforms. There have been several attempts over the decades to introduce more institutional

⁶⁷ NRW State Constitution, art. 78, section 3.

guarantees for the English local level but these failed to receive central government support.⁶⁸ Whitehall departments have a statutory duty to consult the local level in case of changes to the financial arrangements for local government, however, this is merely a procedural requirement, and is not a guarantee of funding for the local level.⁶⁹

5.3.4 *The calculation of micro-level redistribution funding*

The three systems are similar in the division of redistribution funding into general and specific transfers. In principle, the allocation of general funding is left to the discretion of LGs, whereas specific transfers are attached to tasks LGs are required to implement on behalf of higher government levels. As such, budget surpluses on specific transfers have to be transferred back in most cases to the grant provider. Specific transfers range from multibillion social welfare transfers to small transfers (e.g. the aggregate amount of the smallest transfer is 189,000 € in the Dutch system). Across the three systems, methods for allocating specific grants differ among departments.

The number of specific grants in place towards the local level in 2013 differs substantially between the systems: 46 in England, 45 in the Netherlands, and 250 in NRW (including federal grants) (BZK, 2013; DCLG, 2013; Landtag NRW, 2014). Whereas the UK central government is the main specific grant funder for English LGs, NRW LGs do receive specific grants from both the NRW state and the federal government. In 2013, 3.7 billion € in specific grant funding was provided by the German federal government, via 35 different grants, compared to 4.8 billion € provided by NRW state departments (Landtag NRW, 2014). Given the diversity of the 215 specific grants provided by the NRW state government, in combination with less distance between the local and state level as compared to the local and federal level, grant dynamics are likely to operate differently in case of state as compared to federal specific grants. Figure 5.2 shows the share of individual government departments in the distribution of specific grants and demonstrates that in all three systems social welfare and education related expenditure

⁶⁸ Recommendations published by several official committees over the years to improve the (financial) position of the local level vis-à-vis central government have generally failed to mobilise sufficient support at the central level. Examples are the Lyons Inquiry into Local Government (2006), which, despite being assigned by central government, did not even receive an official government response, and more recently, an elaborate but unsuccessful attempt by the House of Commons Political and Constitutional Reform Committee (2013) to codify English central-local relations.

⁶⁹ According to the English Local Government Finance Act 1988, central government has to consult representatives of local government before making a determination of the amount of Revenue Support Grant (section 78); and to notify representatives of local government of the general nature of the basis of distribution (section 78A); to notify those representatives of the general nature of the basis of calculation of payments authorities make or receive (top ups and tariffs) (Schedule 7B, paragraph 12).

Table 5.1 Comparative redistribution mechanisms: calculation and proportional size of LG grant funding (2013)

	England	NRW	The Netherlands																																								
<i>Step 1: calculation LG funding base</i>	<p><i>Relative Needs Amount</i> = calculated via different formula for 7 main local service areas. Basic amount per client, plus additional top ups depending on local circumstances. Most significant top up factors: area costs and deprivation.</p>	<p>Five indicators, weighting factor in formula between parentheses: 1. population – 20 categories (min. 100; max. 157); 2. pupils (3.33 full day; 0.70 half day); 3. social costs (15.3 per social benefit receiver); 4. spatial centrality (0.65 per employee); 5. area size (0.24 per sq. km).</p>	<p>60 Indicators categorised in 14 clusters. Units of every indicator are multiplied with corresponding indicator amount. 5 indicators distribute 61.7% of the Municipal Fund, 15 indicators 93%. Top 5 indicators: 1. population (133 €); 2. living space (178 €); 3. address density (63 €); 4. inhabitants < 20 years (225 €); 5. local clients' potential (51 €).</p>																																								
<i>Step 2: available macro budget</i>	<p><i>Formula grant</i> = 50% of locally collected business rates and Revenue Support Grant (RSG). The RSG is calculated via the Aggregate Settlement Funding Assessment MINUS the local share of the business rates. The RSG is fixed via Departmental Expenditure Limits (DEL), part of the Spending Reviews.</p>	<p>LG redistribution funding (<i>Allgemeiner Steuerverbund</i>) is 23% of NRW's state share in the federal vertical tax sharing arrangements (<i>Finanzausgleich</i>).</p>	<p>Funding base multiplied by transfer coefficient (<i>uitkeringsfactor</i>). The coefficient is linked to central government expenditure (standardised methodology).</p>																																								
<i>Step 3: calculation LG fiscal capacity</i>	<p><i>Relative Resource Amount</i> = capacity of the council tax base, which is based upon the number of properties equivalent to Band D council tax.</p>	<p>The capacity of the combined business and property taxes (<i>Realsteuer</i>), based upon fictional tax rates. The fictional tax rates are based on the average tax rates set by NRW LGs.</p>	<p>Capacity local property tax (<i>OZB rekentarief</i>), based upon national standard rates.</p>																																								
<i>Step 4: additional steps</i>	<p>Step 4a: Central Allocation = amount leftover after steps 1-3, which is centrally allocated on a per capita basis. Step 4b: Floor Damping Block: sets out maximum reductions in grant. Step 4c: Grant changes based upon Ministerial judgement.</p>	<p>To finance a LG consolidation package, which has been established by the NRW state, LGs with a fiscal capacity above a certain threshold temporarily <i>contribute</i> to NRW's redistribution funding.</p>	<p>Damping mechanism: maximum 15 € per inhabitant per year.</p>																																								
<i>Composition LG funding sources (billion) (% total)</i>	<table> <tr> <td>General grants (business rates and RSG)</td> <td>26.3 £ (16.8)</td> </tr> <tr> <td>Capital expenditure grants</td> <td>9.1 £ (5.7)</td> </tr> <tr> <td>Dedicated Schools Grant</td> <td>30.8 £ (19.6)</td> </tr> <tr> <td>Other specific grants, current expenditure</td> <td>46.2 £ (29.5)</td> </tr> <tr> <td><i>Total grants from central government</i></td> <td><i>112.4 £ (71.7)</i></td> </tr> <tr> <td><i>Total England LG income</i></td> <td><i>156.8 £ (100.0)</i></td> </tr> </table>	General grants (business rates and RSG)	26.3 £ (16.8)	Capital expenditure grants	9.1 £ (5.7)	Dedicated Schools Grant	30.8 £ (19.6)	Other specific grants, current expenditure	46.2 £ (29.5)	<i>Total grants from central government</i>	<i>112.4 £ (71.7)</i>	<i>Total England LG income</i>	<i>156.8 £ (100.0)</i>	<table> <tr> <td>General grants (NRW key support Grants – <i>Schlüsselzuweisungen</i>)</td> <td>7.3 € (15.3)</td> </tr> <tr> <td>NRW capital expenditure grants (incl. school investment grant)</td> <td>1.3 € (2.7)</td> </tr> <tr> <td>NRW specific grants</td> <td>4.8 € (10.0)</td> </tr> <tr> <td><i>Total grants from NRW state</i></td> <td><i>13.4 € (28.0)</i></td> </tr> <tr> <td>Specific federal government grants</td> <td>3.8 € (7.9)</td> </tr> <tr> <td>Total income from shared taxes</td> <td>7.1 € (14.9)</td> </tr> <tr> <td><i>Total NRW LG income</i></td> <td><i>47.8 € (100.0)</i></td> </tr> </table>	General grants (NRW key support Grants – <i>Schlüsselzuweisungen</i>)	7.3 € (15.3)	NRW capital expenditure grants (incl. school investment grant)	1.3 € (2.7)	NRW specific grants	4.8 € (10.0)	<i>Total grants from NRW state</i>	<i>13.4 € (28.0)</i>	Specific federal government grants	3.8 € (7.9)	Total income from shared taxes	7.1 € (14.9)	<i>Total NRW LG income</i>	<i>47.8 € (100.0)</i>	<table> <tr> <td>General grant Municipal Fund – <i>Algemene Uitkering Gemeentefonds</i>)</td> <td>15.4 € (31.1)</td> </tr> <tr> <td>Integration grant Municipal Fund</td> <td>1.5 € (3.0)</td> </tr> <tr> <td>Decentralisation grant Municipal Fund</td> <td>1.1 € (2.2)</td> </tr> <tr> <td><i>Total grants Municipal Fund</i></td> <td><i>18.0 € (36.4)</i></td> </tr> <tr> <td>Specific grants</td> <td>12.7 € (25.6)</td> </tr> <tr> <td><i>Total grants from central government</i></td> <td><i>30.7 € (62.0)</i></td> </tr> <tr> <td><i>Total Dutch LG income</i></td> <td><i>49.5 € (100.0)</i></td> </tr> </table>	General grant Municipal Fund – <i>Algemene Uitkering Gemeentefonds</i>)	15.4 € (31.1)	Integration grant Municipal Fund	1.5 € (3.0)	Decentralisation grant Municipal Fund	1.1 € (2.2)	<i>Total grants Municipal Fund</i>	<i>18.0 € (36.4)</i>	Specific grants	12.7 € (25.6)	<i>Total grants from central government</i>	<i>30.7 € (62.0)</i>	<i>Total Dutch LG income</i>	<i>49.5 € (100.0)</i>
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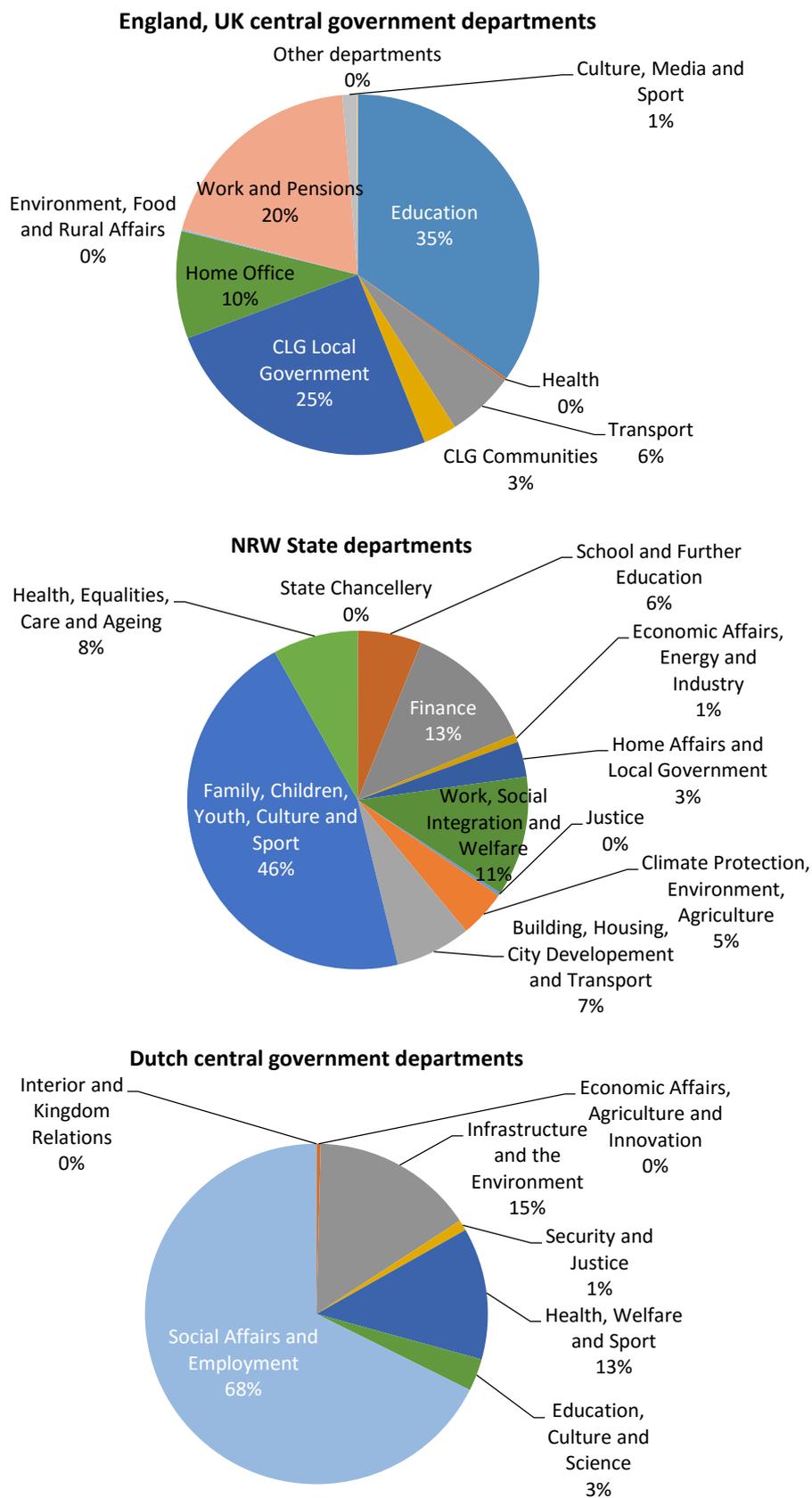
occupies the majority of specific grant funding to LGs. The number of specific transfers has reduced in all three systems in favour of funding through general transfers, sometimes referred to as block grants. As illustrated in table 5.1, the mechanisms in use to allocate general funding differ substantially in institutional terms.

In England, the 'four block' model was used to determine grant distribution in the English system prior to the reform of the local business rates system in 2013/14. The four blocks referred to the different steps required to calculate LGs' grant allocation (consisting of: calculation of LGs' needs, their local resources, a central allocation after distribution through the formula, and a floor dampening block).

Since the reform of the Business Rates System, the Revenue Support Grant (RSG) is the primary source of central government funding for English LGs (excluding school expenditure that is allocated through a specific grant). The RSG compensates the difference between the aggregate Settlement Funding Assessment and the local share of business rates. The reform of the business rates system is substantial – 50% of locally collected business rates are no longer redistributed nationally but retained locally. Despite this change, the formula based system to distribute the remaining 50% of the business rates and the RSG itself has remained largely unchanged. Compared to the Dutch and NRW system, general grant calculation in the English system is exceptionally complex. Spending needs are based upon the seven main service areas provided by English LGs which each use their own formula. The formulas consist of different indicators which are organised differently by type of local authority, including different floor damping levels (DCLG, 2012). The formulas have a standard amount per unit/client, which, depending upon the local circumstances might be topped-up with additional funding. The biggest factors affecting the top-ups are area costs and deprivation. For example, Children's Services and within this local service area the sub-block Youth and Community, uses top-up indicators for the number of children in out-of-work families and pupils from low achieving ethnic groups (DCLG, 2012, p. 8).

Formula funding in NRW is comparatively straightforward with five indicators in use in its formula, which distributes all NRW's general LG funding. Local population size is NRW's most significant distributional factor. In contrast to the Dutch and English systems, the weight that residents' carry in the formula increases with a rise in population size. The system operates twenty different population classes (see appendix IV). The smallest class are LGs with a population size up to 25,000, who receive 100% of the basic funding amount, and the largest category are LGs with a population size above 634,000, who receive 157% of the basic funding amount. This means that a resident of the city of

Figure 5.2 Departmental share in total financial size of specific grants (2013)



Source: own figures, based upon the Budgets from UK, NRW, and Dutch Finance Ministries (2013).

Cologne, which has a total population of around one million, enters the formula with a weight of 1.57 higher compared to a resident of the city of Meckenheim, which has a population of just below 25,000 (Buettner et al., 2008, p. 74). The particular design of the indicator has a long history in German grant funding, and is mainly motivated upon the idea that more urbanised LGs need to make higher expenditures per capita to facilitate public goods, partly because these facilities are used by residents of neighbouring LGs (Popitz, 1927). The area size indicator has been implemented in NRW since 2012, following several years of deliberation, and was motivated on the assumption that low population density increases costs of local service provision.

Although the Dutch system uses a relatively large number of around 60 indicators in its redistribution formula, more than 90% of funding is distributed through 15 indicators (Rfv, 2010). In contrast to the NRW system, indicators do not have a %-share in the funding amount attached to them, but financial figures are presented in euros. The funding base of a Dutch LG is based upon its scoring on all indicators combined. The indicator coefficients, with which the indicator units are multiplied, are derived from analysing actual local expenditure on fourteen spending clusters. To illustrate this: the spending cluster 'education' uses 13 different indicators, including young inhabitants and students in secondary education. In case of a policy change in education, the redistribution cluster 'education' is used by central government to implement accompanying changes in education funding. The figure is based upon the scoring of a LG on all indicators combined, and is then multiplied with a coefficient calculated using the amount of central government funding available (itself based upon the standardised methodology set out above).⁷⁰

The third step in all three redistribution systems is to correct the calculated funding base for the local tax capacity. To prevent LGs being able to influence their funding allocation, the amount used is that which could have been raised based upon the local tax capacity and the average tax rates set by LGs in the system, and not the actual amount of local taxes raised. The fourth step includes the damping mechanisms formulated either as a percentage (England) or a nominal amount in euros (the Netherlands). In the English system, this step also includes the central allocation of money left over following the first three steps, and space for grant changes based upon Ministerial judgement. Since 2011, NRW applies a fourth step that determines that LGs with a fiscal surplus have to contribute to the redistribution mechanism. The measure is temporarily and has been

⁷⁰ Interview Dutch Ministry of the Interior and Kingdom Relations, interviewee B, 23/01/2014.

implemented to finance a city consolidation package. The package has been implemented by the NRW state government aimed at NRW cities with the most problematic finances, partly as a response to growing concerns among LG borrowers about the creditworthiness of highly indebted NRW LGs. Despite support among a large part of NRW's LG sector, the partly Robin Hood funding structure of the package has caused large controversies within NRW LG.⁷¹ The distributional mechanisms in use for specific grants strongly differ by program and departmental grant funder, and will not be analysed in-depth in this chapter.

5.3.5 *Financial organisations and redistribution funding*

The main ministries involved in redistribution funding in each system are the Finance and Interior Ministries. The main involvement of the Finance Ministries is in deciding the aggregate budget available for the local sector as part of the total government budget, whereas the Interior Ministries are responsible for the horizontal distribution among the local sector. In Germany, the Federal Ministry of Finance is also relevant, but the role of the Federal Ministry of the Interior in intergovernmental financial affairs is negligible. In all three systems, the budget available for the LG sector is managed by the Interior Ministry, but is institutionally separate from the Interior Ministry's budget. Out of the three systems, it is only the Dutch system that has an independent council that provides the government and parliament advice on intergovernmental funding issues, especially related to the Municipal Fund. The Dutch Financial Relations Council (Rfv) is partly made up of (subnational) government practitioners and partly of academics.

In all three systems, the LG redistribution budget is determined through financial settlements that mostly apply to a single parliamentary year. Efforts have been made in England to extend LG financial settlements to two years in order to better facilitate long-term local budgeting but in practice changes have been made during the settlement.

⁷¹ In return for in total 5.85 billion € additional financial support over the period 2011-2020, the cities included in the programme are required to implement sufficient budget savings to realise a balanced budget without additional support by 2020. 61 Cities in total are included in the program, of which 34 cities were obliged to participate – the already overindebted ones; while 27 cities that are threatened by overindebtedness jointed on a voluntary basis. See website NRW Ministry for the Interior and Local Government; '*Stärkungspakt Stadtfinanzen*'; <http://www.mik.nrw.de/themen-aufgaben/kommunales/kommunale-finanzen/kommunale-haushalte/haushaltssicherung/staerkungspakt-stadtfinanzen.html> (visited July 20, 2013).

5.4 Method and data sources

The empirical analysis is based upon a panel dataset exclusively compiled for this research. Panel data relate to LGs in England, NRW, and the Netherlands, and cover the period from 2005 to 2012. Due to a number of local territorial amalgamations in England and the Netherlands during this period, the total number of LGs is 1,165 in 2012 compared to 1,252 in 2005 (N English LGs reduced from 389 in 2005 to 354 in 2012, N Dutch LGs reduced from 467 in 2005 to 415 in 2012, N NRW LGs remained unchanged at 396). LGs with missing data for more than three years have been deleted from the dataset, which brings the total number of LGs included in the panel dataset to 1,190.

Dependent variable

The dependent variable is total debt size p/c. Log-transformation has been applied to control for skewed and wide distribution among data. While the log of debt in p/c terms is a common denominator in the empirical literature on LG debt (e.g. Bastida, Beyaert, & Benito, 2013; Cropf & Wendel, 1998), additional measurements of debt are used to check the robustness of the regression results deriving from the main dependent variable. First, following standardised LG financial stress denominators, debt has been calculated as percentage of a locality's total income.

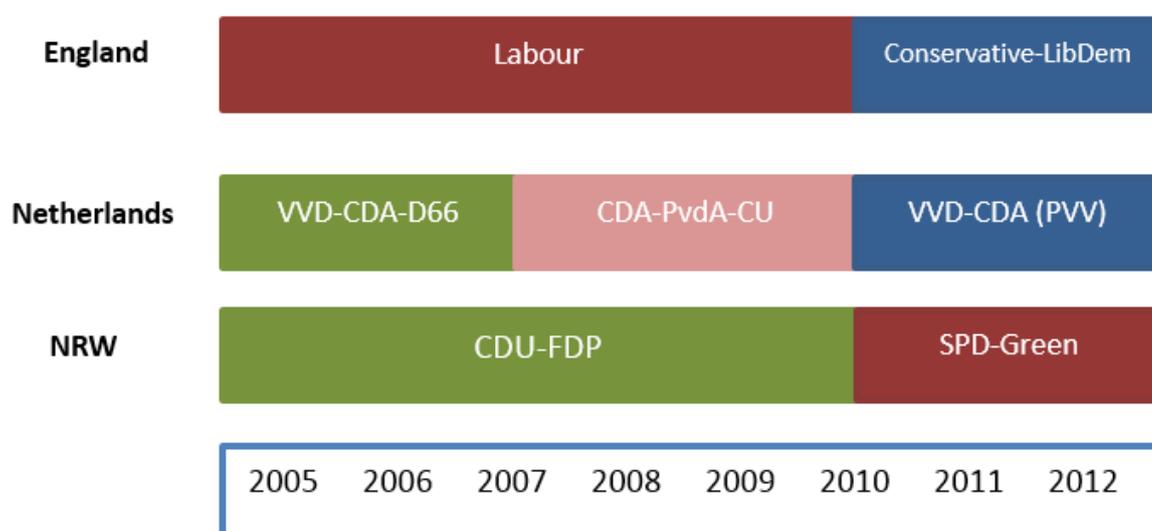
Second, the *debtminusreserves* dependent variable has been compiled which corrects for (unallocated) reserve levels. This provides a more adequate debt indicator, since stable or reducing debt levels might be a consequence of declining local reserve levels, and increasing debt levels might be paralleled by a build-up of local reserves (cf. Audit Commission, 2012; Jacob & Hendrick, 2013, p. 13). Figures on local reserves are not available for all LGs, hence, the reduction of the number of English LGs to 312, and Dutch LGs to 335. Due to the cameral accounting system in place in NRW up to 2008 and the gradual transition of the statistical information in NRW at the time of this research, figures on reserve levels were unavailable for NRW LGs.⁷² In order to have a more dynamic indicator than historical debt, the annual change in debt is used as the dependent variable for NRW LGs (log debt evolution). Using annual change figures to indicate the dependent variable is a common procedure in econometric research using longitudinal data (e.g. Gujarati & Porter, 2009).

⁷² Although many of NRW's LG accounting categories have changed due to the transition from a cameral to a double bookkeeping accounting system, the main variables used in this research have largely remained unchanged.

Independent variables

The independent variables of central interest relate to the institutional features of LGs: the degree of party political symmetry between a LG and its main grant funder, and LG interest representation. It is expected that party political symmetry and larger administrative capacity improves LG access to their grant providers, which positively relates to the effect of their grant allocation.

Figure 5.3 Party political composition of grant providing governments, 2005-2012



Variables indicating central-local party political similarity are most convenient to construct for the English system, where most local councils are dominated by one party. Over the 2005-12 period included in the dataset, around 20% of English LGs had no overall control by a single party (often referred to as ‘hung councils’) (BBC election results, multiple years). In the Dutch system, around 95% of the local council executives were multi-partisan in 2012, and 75% in NRW.⁷³

The political situation at the level of the main LG funder also differs across the systems. Figure 5.3 illustrates that in the period of the dataset England has been the only system with a single party government at the central level (2005-2010). In the Dutch and NRW system, the central government has been made up of at least two parties. In order to allow party political symmetry to be measured beyond Westminster systems, the

⁷³ Dutch percentage own calculation based upon data from the Dutch Electoral Council (Kiesraad). NRW percentage own calculation based upon IT.NRW data (99 councils in total had a single party majority following NRW’s 2009 local elections – 89 dominated by the CDU and 10 by the SPD).

variable *councilsym* is measured as a dummy variable, whereby intergovernmental party political symmetry is assumed to be present if the largest party in the local council shares its party political colour with one of the parties represented in the central level government executive. The political science literature demonstrates the often precarious nature of coalition governments, which makes it unlikely that only the biggest party in the central government coalition will be able to politically direct grant allocation (Laver & Schofield, 1998). Hence, this provides a rationale to encompass all central level government parties in the operationalisation of the *councilsym* variable.

In addition to symmetry between the biggest local party and a central level government executive party, an alternative measurement for the Dutch and NRW system concentrates on party political symmetry between the local mayor and a central level government party. Mayors are present in every Dutch and NRW LG, but in only 13 English LGs. The variable *mayorsym* is operationalised as a dummy variable, with a dummy coded 1 for Dutch and NRW LGs having a mayor of a similar party political colour as one of the parties represented in the central level executive.

In line with Grossman (1994), LG interest representation as the second moderating effect is measured via a proxy for local administrative capacity (*staffcapacity*). Administrative capacity is indicated by p/c expenditure on local administrative staff. In addition, for English and NRW LGs the number of local administrators for every 1,000 inhabitants has been used as an alternative measurement for administrative capacity.⁷⁴

Model specification

In line with the hypotheses generated from the literature, independent variables are related to the financial, institutional and demographic features of LGs. The following empirical model has been formulated to identify the effect of the regressors on the dependent variable *debt*:

$$\begin{aligned}
 \text{debt}_{it} = & \alpha + \beta_1(\text{income}) + \beta_2(\text{totalgrants}) + \beta_3(\text{taxes}) + \beta_4(\text{expenditure}) \\
 & + \beta_5(\text{politicalsym}) + \beta_6(\text{staffcapacity}) + \beta_7(\text{density}) \\
 & + \beta_8(\text{unemployed}) + \varepsilon_i
 \end{aligned}
 \tag{5.1}$$

Where

⁷⁴ LG level time series data on the number of municipal public servants were unavailable for the Dutch system.

debt_{it} is the log of total debt size p/c.

income is the log of total income p/c.

totalgrants is the log of total grants p/c.

taxes is the log of tax income p/c.

expenditure is the log of total expenditure p/c.

politicalsym is equal to 1 for Dutch and NRW LGs showing political symmetry between the party political colour of the mayor and a central level governing party, and for English LGs showing party political symmetry between the biggest party in the local council and a central level governing party, 0 otherwise.

staffcapacity is the log of expenditure on administrative staff p/c.

density is the log of inhabitants per sq. km.

unemployed is the number of unemployed inhabitants as percentage of the total local population.

To test the moderating effect of the institutional variables on LG debt accumulation interaction terms are included in the full estimation model. This model is as follows:

(5.2)

$$\begin{aligned} debt_{it} = & \alpha + \beta_1(income) + \beta_2(totalgrants) + \beta_3(taxes) + \beta_4(expenditure) \\ & + \beta_5(politicalsym) + \beta_6(staffcapacity) + \beta_7(density) \\ & + \beta_8(unemployed) + \beta_9(politicalsym \times totalgrants) \\ & + \beta_{10}(staffcapacity \times totalgrants) + \varepsilon_i \end{aligned}$$

In a third step, country-specific estimations are formulated for the Dutch and NRW system that specify intergovernmental political symmetry as symmetry with the local mayor and/or the local council. This model is formulated as follows:

(5.3)

$$\begin{aligned} debt_{it} = & \alpha + \beta_1(income) + \beta_2(totalgrants) + \beta_3(taxes) + \beta_4(expenditure) \\ & + \beta_5(mayorsym) + \beta_6(councilsym) + \beta_7(staffcapacity) + \beta_8(density) \\ & + \beta_9(unemployed) + \beta_{10}(mayorsym \times totalgrants) \\ & + \beta_{11}(councilsym \times totalgrants) + \beta_{12}(staffcapacity \times totalgrants) + \varepsilon_i \end{aligned}$$

Where

councilsym is equal to 1 for LGs showing political symmetry between the biggest party in the local council and a central level governing party, 0 otherwise.

mayorsym is equal to 1 for Dutch and NRW LGs showing political symmetry between the party political colour of the mayor and a central level governing party, 0 otherwise.

Table 5.2 Variable names pooled data

Variable	Measurement	Source <i>England</i>	Variable <i>Germany/NRW</i>	Measurement <i>The Netherlands</i>
debt	Natural log of total debt p/c	DCLG	IT.NRW	CBS
income	Natural log of total income p/c	DCLG	IT.NRW	CBS
totalgrants	Natural log of total grants p/c	DCLG	IT.NRW	CBS
specificgrants	Natural log of specific grants p/c	DCLG	IT.NRW	CBS
taxes	Natural log of tax income p/c	DCLG	IT.NRW	CBS
expenditure	Natural log of total expenditure p/c	DCLG	IT.NRW	CBS
politicalsym	1 for Dutch and NRW LGs with party political symmetry between the mayor and a central level governing party; 1 for English LGs with party political symmetry between the biggest party in the local council and a central level governing party, 0 otherwise.	BBC council election results	IT.NRW	Municipal websites
councilsym	1 for political symmetry between the biggest party in the local council and a central level governing party, 0 otherwise.	BBC council election results	IT.NRW	Dutch Electoral Council (Kiesraad)
mayorsym	1 for Dutch and NRW LGs with party political symmetry between the mayor and a central level governing party, 0 otherwise.	-	IT.NRW	Municipal websites
staffcapacity	Natural log staff expenditure p/c	ONS	IT.NRW	CBS
density	Natural log of inhabitants per square km	ONS	IT.NRW	CBS
unemployed	Unemployed inhabitants as % total local population	ONS	IT.NRW	CBS

Table 5.2 provides an overview of the sources and measurements of the variables. The grant figures in case of NRW only refer to state level funding, and exclude federal grants.

Since the allocative dynamics of specific grants might differ from total grant figures, equations 5.1-5.3 have also been calculated with β_2 totalgrants replaced by specificgrants.

5.5 Quantitative empirical results

Table 5.3 reports the summary statistics of the key variables used in the regression (natural logarithms). Table 5.4 shows the correlation matrix of the key variables. All variables show coefficients below the critical level of 0.7. The Hausman test has been conducted to determine if there are fixed effects for each LG and whether these can be modelled as random effect. A Hausman test indicating a statistically significant difference

Table 5.3 Summary statistics for the pooled panel dataset, including Dutch, English and NRW LGs, 2005-2012

Variable	n	Mean	s.d	Min	0.25	Mdn	0.75	Max
debt	1,190	2.70	1.05	-4.77	-4.15	3.06	3.95	5.83
income	1,190	3.20	0.26	0	2.49	3.25	4.61	6.37
totalgrants	1,190	2.83	0.34	1.79	1.84	2.81	4.24	6.29
specificgrants	1,190	2.13	0.60	0.31	0.32	2.13	3.76	5.91
taxes	1,190	2.43	0.52	-0.96	-0.62	2.38	3.42	5.66
expenditure	1,190	3.18	0.30	0	2.25	3.26	4.66	6.38
politicalsym	1,190	0.50	0.50	0	0	0	1	1
councilsym	1,190	0.50	0.50	0	0	0	1	1
mayorsym	799	0.57	0.49	0	0	1	1	1
staffcapacity	1,190	5.53	0.79	2.27	2.39	5.38	9.99	13.89
density	1,190	2.62	0.50	-0.08	0.55	2.55	4.47	4.48
unemployed	1,190	4.09	2.58	0.37	0.39	3.43	35.77	42.99

Table 5.4 Correlation coefficients for the pooled panel dataset, including Dutch, English and NRW LGs, 2005-2012

Variables	1	2	3	4	5	6	7	8	9	10
1 debt	1									
2 income	0.585	1								
3 totalgrants	0.278	0.435	1							
4 specificgrants	0.231	0.176	0.366	1						
5 taxes	0.251	0.595	-0.316	0.039	1					
6 expenditure	0.021	0.133	0.028	0.006	0.064	1				
7 politicalsym	0.067	0.630	-0.084	-0.077	-0.062	-0.014	1			
8 staffcapacity	0.270	0.450	0.315	0.477	0.572	0.108	-0.129	1		
9 density	0.246	0.309	0.522	0.294	0.033	-0.032	-0.062	0.303	1	
10 unemployed	-0.004	-0.072	0.462	0.344	0.005	0.034	-0.129	0.454	0.349	1

between fixed versus random effect results is interpreted as evidence against the random effect assumption. With a p-value significant at the 0.001 level, the Hausman test indicates that H0 can be resoundingly rejected and the fixed effect method is appropriate to estimate the parameters (Wooldridge, 2010, p. 329). Robust standard errors are used to account for heteroskedasticity.

5.5.1 Moderating effects and total grants: country estimations

The first results of the country-specific estimations are presented in tables 5.5. The first column in table 5.5 shows the results for England. The control variables density and unemployed are highly significant at the 0.01 level and are positively related with local debt. In line with expectations, the variable income indicates that an increase in aggregate income is negatively related to local debt. Unpacking income, however, demonstrates that an increase in local dependence upon grants increases LG debt. This confirms hypothesis 5. Although the direction of the coefficients of the interaction terms *politicalsym*totalgrants* and *staffcapacity*totalgrants* is in the expected direction, the interaction terms are non-significant when using total debt p/c/ (log) as dependent variables. Results are largely similar for England when using as robustness check debt as % of total income. However, the interaction term *politicalsym*totalgrants* is now significant ($P<0.1$), and the same applies to the component variables *politicalsym* ($P<0.1$) and *totalgrants* ($P<0.05$). The interaction term *staffcapacity*totalgrants* lacks significance both when using total debt p/c (log) as the dependent variable, or total debt as % of total income.

Similar to English LGs, local unemployment is positively related to the debt position of Dutch LGs. Dutch results on the financial variables taxes and expenditure are also similar to the English results; an increase in tax revenues increases debt making (coefficients $\beta=0.178$, $P<0.01$), whereas an increase in expenditure reduces debt making (coefficients $\beta=-0.269$, $P<0.01$). The positive relationship between taxes and local debt making seems counterintuitive at first, but can be well explained by own tax revenues being used as one of the main indicators of debt affordability in the Dutch and English system (e.g. CIPFA, 2013). In contrast to the English results, the total income of Dutch LGs is positively related to debt when measured on a total debt p/c log base. These results might be explained by the less strict intergovernmental regulatory framework of Dutch compared to English LGs, and the enhancing effect in the Dutch case of a rise in local income on debt making (see chapter 4). The Dutch results confirm the significance of, and the negative relationship with debt of the interaction term *politicalsym*totalgrants*

(coefficients $\beta=-0.157$, $P<0.01$). The component variables *politicalsym* and *totalgrants* are both highly significant, at the 0.01 level and 0.05 respectively, and results are in the expected direction, confirming hypothesis 6.

The last two columns in table 5.5 show the results for NRW. Using total debt p/c (log) as dependent variable, the control variables *unemployed* and *density* indicate moderate to strong levels of significance, and are, in line with expectations, positively related to local debt. From the financial variables, only the variable *taxes* is significant at the 0.01 level. The variable *income* is positively related to debt when using total debt p/c (log) as dependent variable but the direction of the variable reverses when using total debt as % of total income. In contrast to the Dutch and English system, taxes in NRW appear to be negatively related to debt (coefficients $\beta=-0.246$, $P<0.01$). This negative and strongly significant relationship between taxes and local debt provides strong support for the comparatively high tax dependence of NRW LGs (see chapter 6). The relevance of taxes is further confirmed by a weakly significant relationship between *totalgrants* and debt held by NRW LGs ($P<0.1$). The results for the interaction terms in NRW are very similar to the Dutch case. The interaction term *politicalsym*totalgrants* is significant and shows a negative relationship with debt (coefficients $\beta=-0.213$, $P<0.05$), while also the interaction variables *politicalsym* and *totalgrants* are significant separately. The interaction terms *staffcapacity*totalgrants* is insignificant for NRW LGs.

5.5.2 *Moderating effects and total grants: robustness check country estimations*

The robustness check identifies the financial impact of grants on debt levels corrected for reserves. The results of the robustness check are presented in table 5.6 and mostly confirm the relationships identified in table 5.5. The socioeconomic and financial control variables remain significant and in the same direction (although levels of significance show small differences). The interaction term *politicalsym*totalgrants* is significant both when using debt corrected for unallocated reserves in p/c terms, and when using debt minus reserves as % of income. The direction is similar to the results in table 5.5, demonstrating that political symmetry between central government and the local council reduces the debt enhancing effect of grants in the English system, which confirms hypothesis 6. The positive relationship, however, between *totalgrants* and English LG debt identified in table 5.5 appears weaker when controlling for local reserves. Table 5.6 shows that the variable *totalgrants* is significant at the 0.05 level for England, in the measurement of debt minus reserves in p/c terms. This indicates that English LGs with high transfer dependency tend to have high debt levels, but also have significant unallocated reserves.

Table 5.5 Effect of total grants on debt, and the moderating effect of institutional variables on total grant allocations, panel data 2005-2012. Dependent variable: total debt p/c (log), including robustness check dependent variable total debt as % total income. Fixed effects

	England		The Netherlands		NRW	
	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income
politicalsym*totalgrants	-0.130 (0.146)	-0.167* (0.091)	-0.157*** (0.054)	-0.225*** (0.074)	-0.213** (0.102)	-0.245* (0.141)
staffcapacity*totalgrants	-0.000 (0.000)	0.000 (0.000)	0.001 (0.014)	-0.001 (0.004)	-0.000 (0.000)	-0.000* (0.000)
income	-1.246** (0.614)	-0.981** (0.342)	0.586*** (0.199)	-0.293 (0.796)	0.570** (0.236)	-4.376*** (0.736)
totalgrants	2.996** (1.055)	2.075** (0.807)	0.367** (0.158)	0.601*** (0.146)	0.224 (0.159)	1.364*** (0.341)
taxes	2.117** (0.703)	2.798*** (0.561)	0.178*** (0.061)	0.298*** (0.102)	-0.246*** (0.063)	-0.007 (0.087)
expenditure	-0.927** (0.463)	-1.586*** (0.360)	-0.269*** (0.085)	-1.002 (0.765)	-0.505** (0.225)	-0.770 (0.549)
politicalsym	0.450 (0.440)	0.570* (0.296)	0.491*** (0.170)	0.698*** (0.230)	0.593** (0.276)	0.650* (0.370)
staffcapacity	0.000 (0.001)	0.000 (0.000)	-0.009 (0.043)	0.002 (0.111)	0.000 (0.000)	0.001 (0.000)
density	1.743*** (0.519)	2.372*** (0.395)	0.455 (0.320)	0.897 (0.959)	0.551** (0.219)	1.513*** (0.531)
unemployed	0.028*** (0.007)	0.020*** (0.005)	0.025*** (0.007)	0.021* (0.011)	0.015* (0.009)	0.184*** (0.025)
constant	-10.207*** (3.049)	-11.328*** (2.281)	0.561 (0.973)	4.743** (1.857)	1.405 (1.016)	10.101*** (2.489)
Observations	2,512	2,512	2,542	2,542	3,300	3,300
Number of LGs	391	391	367	367	432	432
Adj. R ²	.07	.10	.10	.12	.02	.06

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

Table 5.6 Effect of total grants on debt, and the moderating effect of institutional variables on total grant allocations, panel data 2005-2012. Robustness tests dependent variable: total debt minus reserves England and the Netherlands; NRW debt evolution. Fixed effects

	England		The Netherlands		NRW	
	total debt p/c minus unallocated reserves (log)	total debt minus unallocated reserves % income	total debt p/c minus unallocated reserves (log)	total debt minus unallocated reserves % income	total debt evolution (log)	total debt % administrative income
politicalym*totalgrants	-0.415* (0.221)	-0.159* (0.090)	-0.603*** (0.229)	-0.287*** (0.095)	-0.284 (0.495)	-0.245* (0.141)
staffcapacity*totalgrants	0.000 (0.000)	0.000 (0.000)	-0.029 (0.052)	0.004 (0.022)	0.000 (0.000)	-0.000* (0.000)
income	0.899 (1.035)	-0.919*** (0.337)	3.315 (2.054)	-0.085 (1.205)	3.199*** (1.176)	-4.376*** (0.736)
totalgrants	1.078 (1.105)	2.061*** (0.784)	1.235* (0.656)	0.477* (0.276)	0.422 (0.863)	1.364*** (0.341)
taxes	5.379*** (1.091)	2.716*** (0.553)	1.126*** (0.275)	0.510*** (0.134)	-0.576 (0.429)	-0.070 (0.087)
expenditure	-0.967 (0.771)	-1.570*** (0.355)	-2.529 (1.965)	-1.231 (1.153)	-0.050 (1.130)	-0.770 (0.549)
politicalsym	1.449** (0.721)	0.545* (0.291)	1.872*** (0.714)	0.894*** (0.294)	-0.288 (1.279)	0.650* (0.370)
staffcapacity	-0.000 (0.000)	0.000 (0.001)	0.079 (0.158)	-0.019 (0.067)	-0.000 (0.000)	0.000 (0.000)
density	4.140*** (0.988)	2.345*** (0.391)	4.330* (2.323)	1.505 (1.359)	0.007*** (0.002)	1.513*** (0.531)
unemployed	0.027** (0.012)	0.020*** (0.005)	0.052** (0.025)	0.021* (0.012)	0.081 (0.067)	0.184*** (0.025)
constant	-22.270*** (5.919)	-11.280*** (2.251)	-2.094 (4.886)	4.054 (2.629)	2.160 (4.598)	10.110*** (2.489)
Observations	1,715	1,715	2,177	2,177	1,374	3,300
Number of LGs	312	312	348	348	432	432
Adj. R ²	.20	.10	.05	.09	.15	.06

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

The results in table 5.6 of the interaction effects in the Dutch and NRW system mirror the results of table 5.5. Party political symmetry between the mayor and one of the central level government executive parties remains a significant moderator on the relationship between total grants and local debt. The capacity of the local administration has no significant effect on debt evolution directly or indirectly via moderating total grant allocation in any of the three systems. An additional robustness test has been carried out for total grants, using lagged values of the dependent variable on the right-hand-side of the model. The lagged estimation results largely resemble the results of table 5.5, with the variable totalgrants continuing to be positively related with debt, and the interaction terms demonstrating significant effects in a similar direction as in table 5.5 (see appendix V). In case of NRW and England, an additional robustness test of the effect of administrative capacity has been conducted by using actual local administrative staff numbers (indicated as Full Time Equivalents), re-calculated as the number of administrators per 1,000 residents. This robustness test demonstrated similar results to the proxy staff expenditure p/c, with no significance for the recalculated variable staffcapacity separately or as part of the moderating term (in case of both England and NRW, and when using the two different total debt indicators). In sum, the empirical analysis confirms hypothesis 5 by demonstrating a positive relationship between grants and local debt. The debt enhancing effect of grants is reduced by party political variables. Staff capacity has no effect on the total amount of attracted grants.

To specify for country-specific political institutional structures, political symmetry has been separated for the Netherlands and NRW into symmetry between a central level government executive party and the local council, and a central level government executive party and the local mayor. The regression results are reported in table 5.7. As explained above, the English case is excluded due to the absence of mayors in the majority of English LGs. The results indicate that political moderation of total grants is concentrated with mayors in the Dutch and NRW systems. Party political symmetry between the local mayor and a governing party at the level of the grant provider reduces the debt enhancing effect of grants. Again, the robustness of the results has been tested by using lagged values of the dependent variable on the right-hand-side of the model. The lagged estimation results largely resemble the results of table 5.7, with the variable totalgrants continuing to be positively related with debt, and the interaction terms demonstrating significant effects and in a similar direction (see appendix VI). The results of table 5.7 also remain robust when controlling in the Dutch case for local reserves (see appendix VII).

Table 5.7 Effect of total grants on debt, and the moderating effect of party political variables on total grant allocations, panel data 2005-2012. Dependent variable: total debt p/c (log), including robustness check dependent variable total debt as % total income. Fixed effects

	The Netherlands		NRW	
	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income
mayorsym*totalgrants	-0.140** (0.056)	-0.197*** (0.074)	-0.267* (0.183)	-0.302** (0.147)
councilsym*totalgrants	0.022 (0.086)	0.001 (0.112)	-0.191 (0.120)	-0.212* (0.128)
income	1.568*** (0.246)	0.586 (0.376)	0.550* (0.313)	-4.508*** (0.758)
totalgrants	0.376*** (0.100)	0.546*** (0.140)	0.297* (0.160)	1.057*** (0.242)
taxes	0.168** (0.066)	0.316*** (0.104)	-0.350* (0.198)	-0.008 (0.088)
expenditure	-1.230*** (0.152)	-1.797*** (0.255)	-0.323 (0.314)	-0.575 (0.564)
mayorsym	0.439** (0.176)	0.613*** (0.230)	0.819* (0.490)	0.825** (0.387)
councilsym	-0.067 (0.267)	0.001 (0.348)	0.448 (0.320)	0.691** (0.334)
staffcapacity	-0.027 (0.039)	-0.026 (0.049)	-0.001 (0.001)	-0.000** (0.000)
density	1.478*** (0.421)	1.915*** (0.626)	0.875*** (0.307)	1.474*** (0.536)
unemployed	0.025*** (0.008)	0.022* (0.011)	0.0217* (0.012)	0.180*** (0.024)
constant	2.081* (1.110)	5.459*** (1.562)	4.544*** (1.527)	10.49*** (2.669)
Observations	2,542	2,542	3,300	3,300
Number of LGs	367	367	432	432
Adj. R ²	.09	.11	.03	.06

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses.

The moderating effect of political and institutional variables is likely to be affected by the type of grant being allocated. Due to the different allocation mechanisms in place for specific grants, political and institutional variables might moderate the relationship between specific grants and debt differently compared to total grants and debt.

5.5.3 Moderating effects via specific grants: country estimations

Tables 5.8 and 5.9 investigate the relationship between debt and specific grants. The debt size is again measured in p/c terms (log) and as % of total income. Many variables

demonstrate effects in a similar direction and with comparable significance levels as shown in table 5.5, 5.6 and 5.7 (e.g. density, unemployed and expenditure). However, compared to the regressions using total grant figures, table 5.8 indicates significantly different effects of specific grants.

Firstly, specific grants are positively related to local debt in the English and NRW system, but do not have any significant effect on debt in the Dutch system. This indicates that in the Dutch system specific grants do not increase debt, and/or do not tend to be distributed towards LGs already characterised by high debt levels. Secondly, the moderating effect of specific grants contrasts significantly with the previous regressions using total grant figures. The results for England demonstrate that the relationship between specific grants and debt is moderated by both intergovernmental partypolitical symmetry and local staff capacity. The interaction term $\text{staffcapacity} * \text{specificgrants}$ (coefficient $\beta = -0.307$, $P < 0.1$), including significant coefficients for staffcapacity and specificgrants separately.

While the coefficients remain around the same size, the significance level of the interaction term $\text{staffcapacity} * \text{specificgrants}$, and the component variables separately increase to the 0.05 level in the robustness check using debt as % of income. The interaction term politicalsymmetry lacks significance in the total debt p/c (log) calculation, and is only weakly significant when using as dependent variable debt as % of income. In the Dutch system, only the moderator $\text{politicalsym} * \text{specificgrants}$ shows significance.

Compared to the estimation results on total grant figures, moderating effects are more substantial in NRW in case of specific grants. The interaction terms $\text{politicalsym} * \text{specificgrants}$ and $\text{staffcapacity} * \text{specificgrants}$ appear to be highly significant (respectively at the 0.01 and 0.05 level). In line with expectations, intergovernmental party political symmetry and an increase in local administrative capacity, reduces the debt enhancing effect of specific grants. The component variables politicalsym and staffcapacity are also significant individually. Using total debt as % of income as the dependent variable does not substantially change the direction and significance of the interaction terms $\text{politicalsym} * \text{specificgrants}$ and $\text{staffcapacity} * \text{specificgrants}$.

Table 5.8 Effect of specific grants on debt, and the moderating effect of institutional variables on specific grant allocations, panel data 2005-2012. Dependent variable: total debt p/c (log), including robustness check dependent variable total debt % total income. Fixed effects

	England		The Netherlands		NRW	
	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income
politicalym*specificgrants	-0.121 (0.136)	-.0166* (0.085)	-0.050* (0.029)	-0.084** (0.039)	-0.192*** (0.068)	-0.105** (0.043)
staffcapacity*specificgrants	-0.307* (0.174)	-0.270** (0.128)	-0.033 (0.073)	-0.043 (0.115)	-0.251** (0.103)	-0.195*** (0.051)
income	-0.545 (0.554)	-0.564** (0.264)	1.051*** (0.155)	-0.061 (0.795)	0.347 (0.234)	0.119 (0.181)
specificgrants	2.730** (1.242)	2.435*** (0.927)	0.167 (0.359)	0.218 (0.573)	1.692*** (0.578)	1.331*** (0.261)
taxes	2.860*** (0.674)	3.099*** (0.482)	0.155** (0.061)	0.290*** (0.103)	-0.020 (0.055)	0.253 (0.029)
expenditure	-1.012** (0.491)	-1.629*** (0.383)	-0.463*** (0.066)	-0.884 (0.780)	-0.237 (0.220)	-0.627*** (0.161)
politicalsym	0.416 (0.394)	0.551** (0.267)	0.137* (0.078)	0.221** (0.102)	0.387*** (0.140)	0.120** (0.084)
staffcapacity	0.832* (0.475)	0.838** (0.357)	0.085 (0.195)	0.134 (0.294)	0.482** (0.187)	0.425*** (0.091)
density	-1.372 (1.472)	-0.264 (1.084)	0.713** (0.321)	0.892 (0.975)	0.453*** (0.086)	0.418*** (0.076)
unemployed	0.025*** (0.007)	0.016*** (0.500)	0.019** (0.008)	0.012 (0.011)	0.011 (0.019)	0.033** (0.016)
constant	-3.617 (2.813)	-6.684*** (1.825)	0.563 (1.414)	4.249* (2.333)	-1.793 (1.196)	-1.568*** (0.608)
Observations	2,512	2,512	2,540	2,540	3,300	3,300
Number of LGs	391	391	367	367	432	432
Adj. R ²	0.07	0.10	0.08	0.11	0.12	0.11

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

Table 5.9 *Effect of specific grants on debt, and the moderating effect of institutional variables on specific grant allocations, panel data 2005-2012. Dependent variable: total debt (minus reserves) p/c and as % of total income. Fixed effects*

	England		The Netherlands		NRW
	total debt p/c minus unallocated reserves (log)	total debt minus unallocated reserves % total income	total debt p/c minus unallocated reserves (log)	total debt minus unallocated reserves % total income	total debt evolution p/c (log)
politicalym*specificgrants	-0.421* (0.217)	-0.159* (0.084)	-0.309** (0.145)	-0.098** (0.043)	-1.438*** (0.453)
staffcapacity*specificgrants	-0.438* (0.231)	-0.272** (0.127)	-0.240 (0.281)	-0.102 (0.127)	-0.308 (0.365)
income	1.254 (0.819)	-0.507* (0.260)	2.712*** (0.613)	0.637 (1.138)	2.362** (1.039)
specificgrants	3.714** (1.669)	2.440*** (0.916)	1.197 (1.395)	0.464 (0.634)	3.520* (2.130)
taxes	5.431*** (1.044)	3.017*** (0.477)	1.111*** (0.269)	0.408*** (0.116)	0.154 (0.225)
expenditure	-0.978 (0.813)	-1.607*** (0.373)	-1.242*** (0.261)	-1.298 (1.129)	2.462** (0.990)
politicalsym	1.406** (0.678)	0.5289** (0.262)	0.808** (0.384)	0.247** (0.114)	2.838*** (0.910)
staffcapacity	1.135* (0.680)	0.838** (0.352)	0.598 (0.747)	0.258 (0.324)	-0.165 (0.666)
density	0.597 (1.791)	-0.299 (1.070)	3.400*** (1.074)	1.807 (1.294)	0.788*** (0.245)
unemployed	0.023* (0.013)	0.016*** (0.005)	0.0389 (0.024)	0.019* (0.011)	-0.0624 (0.045)
constant	-19.560*** (5.480)	-6.643*** (1.803)	-6.874 (4.801)	1.740 (2.730)	-16.001*** (4.702)
Observations	1,715	1,715	2,177	2,177	1,341
Number of LGs	312	312	348	348	412
Adj. R ²	0.21	0.10	0.05	0.07	0.12

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

Table 5.10 Effect of specific grants on debt, and the moderating effect of party political variables on specific grant allocations, panel data 2005-2012. Dependent variable: total debt p/c (log), including robustness check dependent variable total debt as % of total income. Fixed effects

	The Netherlands		NRW	
	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income
mayorsym*specificgrants	-0.042* (0.030)	-0.068* (0.040)	-0.156** (0.073)	-0.057 (0.044)
councilsym*specificgrants	-0.009 (0.038)	-0.090 (0.133)	-0.265*** (0.071)	-0.148*** (0.044)
income	1.063*** (0.162)	1.025*** (0.294)	0.256 (0.227)	0.061 (0.181)
totalgrants	0.008 (0.041)	0.446 (0.665)	0.442*** (0.107)	0.312*** (0.070)
taxes	0.157** (0.065)	0.308*** (0.105)	0.073 (0.045)	0.087*** (0.028)
expenditure	-0.470*** (0.069)	-1.909*** (0.263)	-0.170 (0.225)	-0.585*** (0.160)
mayorsym	0.115 (0.082)	0.180* (0.104)	0.366** (0.143)	0.156* (0.088)
councilsym	0.019 (0.103)	-0.003 (0.019)	0.543*** (0.146)	0.294*** (0.087)
staffcapacity	0.002 (0.037)	0.252 (0.342)	0.016 (0.037)	0.064*** (0.024)
density	0.784** (0.385)	2.153*** (0.651)	0.448*** (0.085)	0.414*** (0.075)
unemployed	0.021*** (0.008)	0.014 (0.011)	0.011 (0.019)	0.033** (0.016)
constant	0.777 (1.112)	4.654** (2.331)	0.290 (0.602)	0.151 (0.436)
Observations	2,540	2,540	3,300	3,300
Number of LGs	367	367	432	432
Adj. R ²	0.08	0.10	0.12	0.11

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

5.5.4 Moderating effects via specific grants: robustness check country estimations

Similar to the total grants estimations, additional robustness tests are conducted on specific grants using English and Dutch debt indicators corrected for unallocated reserve levels, and debt evolution for NRW. The results are shown in table 5.9 and confirm the initial findings: specific grants continue to be positively related to the adjusted debt indicator in England and NRW, but lack significance in the Dutch system. The interaction terms for political symmetry and local administrative capacity continue to be significant in the English system. The only significant moderating effect in the Dutch system

continues to be the impact exerted by the local mayor. In contrast to table 5.8, the effect is significant both when using total debt p/c, and total debt as % of income as dependent variable (in both cases at the 5% significance level). The results for NRW using debt evolution as dependent variable reflect the results in table 5.8.

Table 5.10 again specifies the results for country-specific political institutional structures. The results show that political moderation of specific grants is present with mayors in the Dutch and NRW systems. Party political symmetry between the local mayor and a governing party at the level of the grant provider reduces the debt enhancing effect of specific grants. In contrast to the Netherlands, the effect also operates through the council in case of NRW (coefficient $\beta=-0.265$, $P<0.01$).

5.5.5 Concluding empirical section on effects of grants

The empirical analysis in this section indicates significant moderating effects exerted by political and institutional variables. However, the relevance of the interaction terms differs significantly across systems, and by type of grants, reducing the relevance of conducting a pooled regression and increasing the relevance of taking system specific institutions into account (see appendix VIII for a summary of the quantitative research findings according to the different variables measured for debt).

To cross verify the patterns identified in the statistical analysis, the quantitative results are triangulated with the qualitative research findings. The results are presented in the next section.

5.6 Qualitative empirical results: what experts say about grant allocation and local financial stress

The statistical findings indicate significant differences among the countries and by type of grant. These statistical relationships are triangulated in this chapter by using qualitative information. Semi-structured interviews were conducted with intergovernmental actors in the three systems, which were combined with archival material. The reader is referred to chapter 3 for a further discussion of the methodological aspects of the qualitative strategies used in this chapter. The purpose of the qualitative research is twofold. First, the relationship is analysed between grants, and the local debt and reserve position. Second, the relevance of political and institutional variables is identified in the working of grant allocation.

5.6.1 Relationship between grants and LG debt

The statistical results demonstrate a positive relationship between grants and local financial stress – indicated by debt, debt evolution, and reserve levels. Based upon this finding, it can be expected that LGs more dependent upon grants as part of their total income face larger financial risks. The statistical findings are triangulated by country case in the following sections.

5.6.1.1 England: qualitative findings on the relationship between grants and LG debt

Qualitative information on the English system supports the statistical findings. In line with estimations, the organisations investigated tend to emphasise the financial risks attached to a large local dependence on grants, and specific grants in particular.

With grant funding providing the majority of income for most English LGs (see descriptive statistics), changes in central government funding are outlined by English interviewees as critical to the local financial position. Interviewees emphasise the historical background of English LG debt due to the strict borrowing regulations historically in place. However, increased borrowing freedom introduced with prudential borrowing in the English system in 2003, followed a couple of years later by unprecedented cuts on the English LG sector, has increased interactivity between central government funding and local borrowing behaviour. Interviewees emphasised that after years of relatively generous funding under the Labour governments, financial slack had been developed at the English local level that offered scope to absorb some of the early cuts implemented by the Conservative-led coalition government. However, the dimension and multiyear nature of the spending reductions introduced since 2010 increases creativeness in LG capital borrowing behaviour. A high-level interviewee at an English LG association describes this as follows:

Central government spending cuts are putting us under increasing pressure to find creative financing solutions. Many of our members are optimising their capital borrowing freedom by deciding to invest in new assets, which can be financed through borrowing, rather than spending on the maintenance of existing assets, which must be financed through our increasingly squeezed current expenditure accounts.⁷⁵

Other interviewees in contrast emphasise the continuing robustness of the English intergovernmental regulatory framework, which would reduce the extent to which LGs

⁷⁵ Interview English District Councils' Network, 10/01/2014.

use borrowing to compensate for funding cuts.⁷⁶ However, a large number of interviewees, including those from the second category, demonstrate a lack of knowledge about the exact causes of the recent growth of English LG debt.⁷⁷ An interview with a senior official in the Audit Commission highlights the lack of attention for English LG debt:

To be honest, I've been working here for thirteen years and I don't really know why we didn't look at it [debt]. We probably took the view that if the PWBL continued to provide loans, there was no reason to investigate it. Given the recent rise in local debt, we would now probably be investigating it, were we not in a process of liquidation.⁷⁸

The qualitative review confirms that specific grants have created the greatest risk to the financial position of English LGs. While specific grants saw a steady rise under the Labour governments, the Conservative-led coalition government that entered office in 2010 has been implementing a 27% cut in current expenditure during its government period, exceeding the departmental average of 19% (HMT, 2010). While there have been limits on the maximum cut in formula grant due to the damping mechanisms, this has not been the case with specific grants. Hence, English LGs receiving substantial funding from specific grants have seen larger falls in government income.⁷⁹ The allocation criteria used for specific grants are diverse, but many focus on tackling social needs and therefore tend to be distributed to LGs which already have a weaker socioeconomic structure. In 2014, the Government acknowledged that the effect of spending cuts has been greater for councils in more deprived areas, but said '*this was not a conscious decision*'.⁸⁰ Despite their reduction, LGs that are most severely hit by the cumulative effect of central government cuts still receive an above average level of grant funding (DCLG, statistics, multiple years, up to 2013). It is these English LGs that seem to compensate their reduced grant funding by increasing borrowing and/or reducing reserve levels.

Overall, central government funding cuts have increased financial stress in English LGs but have not yet fundamentally affected the financial stability of the English LG sector. In 2013, more councils increased rather than reduced their reserve levels (63 vs. 37%). Interviewees in English LGs, however, emphasise that the build-up of reserves

⁷⁶ E.g. interview London Councils, 21/12/2012; interview Society of District Council Treasurers, 04/02/2013.

⁷⁷ Interview Audit Commission, 30/12/2013; interview SIGOMA, 07/01/2013.

⁷⁸ Interview Audit Commission, 30/12/2013.

⁷⁹ Interview Audit Commission, 30/12/2013; and Audit Commission (2012) p.15.

⁸⁰ *LGC*, 27 November, 2014.

has been a precautionary measure in most cases against likely future cuts.⁸¹ DCLG, as the responsible department, has hitherto intervened once grant reductions threatened to interrupt service provision. An illustration is West Somerset Council, which hit the headlines because of unmanageable local finances in 2012. Central government increased its grant by 0.9% in 2013 for West Somerset, and also allowed the council to set a higher level of council tax than what it allowed for the majority of English LGs (Keeling, 2013). The overall picture of the English system is that whilst grants and LG debt are positively related, the English regulatory framework and the central government's response has hitherto prevented LGs from defaulting. However, given the extent of central government cuts, systemic financial risks have increased in the English LG system. Systemic risks are aggravated by the absence of back-up plans in central government in case a large number of LGs default, combined with a lack of forecasting and modelling techniques to estimate the long-term impact of central level decisions on LG finances and service levels.⁸²

5.6.1.2 NRW: qualitative findings on the relationship between grants and LG debt

More substantially so than in England, there is a positive link between grant funding in the German system and local debt. In case of specific grants, the relationship is significant in all debt measurements used. These findings received strong qualitative support. From the interviewed actors in NRW and at the federal level in Berlin, it is only the NRW Ministry of Finance that emphasised that the grants received by NRW LGs do not have an intrinsic financial risk attached to them.⁸³ Interviewees in the NRW Ministry of Finance refer to rulings from NRW's State Court that labelled the amount of LG funding provided by the NRW state government as adequate '*in light of the state's own restricted budgetary space*'.⁸⁴ Reference to this court ruling is not a particularly strong argument to dispose of the notion of the debt increasing effect of grants, as the ruling only refers to the budgetary space of the NRW state, rather than the budgetary consequences of the state's funding decisions on LG finances.

German statistics at the level of individual LGs do not provide detailed information on the composition of local expenditure, however aggregate statistics do. Aggregate statistics show continuously rising expenditure on social welfare by NRW LGs

⁸¹ E.g. interview Society of County Council Treasurers, 04/01/2013; interview Society of District Council Treasurers, 04/02/2013.

⁸² Interview English Audit Commission, 30/12/2013; HoC PAC (2013); and NAO (2013).

⁸³ Interview NRW Finance Ministry, 24/04/2013.

⁸⁴ Interview NRW Ministry of Finance, 24/04/2013. The phrasing is confirmed in the actual court ruling; State Court NRW, 19 July 2011 (32/08).

during the past two decades. Nearly all of this local social welfare expenditure is a direct consequence of federal level legislation. Interviews conducted at the German federal level indicate that the federal government tends to underestimate the local financial impact of social welfare legislation, especially those implemented in the early 2000s. Examples of reforms are the Basic insurance for pensioners, the Basic insurance for the unemployed (SGBII), and Support for living maintenance (see appendix IX for an overview of the major social welfare reforms and local financial consequences). An interviewee in the German Federal Ministry of Finance confirms this view. The federal civil servant, however, highlights the different approach of the federal government:

When the federal government negotiates with the *Länder*, safeguarding local finances is not a primary concern. It is the *Länder*, of which the local level is part of, who have the main responsibility to watch over local level interests.⁸⁵

Interviews conducted with the federal LG associations indicate that the associations try to stress the local financial risks attached to federal legislation, but often without much effect on the course of the federal legislative process.⁸⁶

The *Länder* appear to be natural allies of the local level – approval by the Federal Council is required during federal legislative processes for laws affecting state competences. Reconstructions made in the interviews of the legislative processes surrounding the social welfare reforms indicate that in practice the role of the *Länder* at the federal level is ambiguous. The primary responsibility to protect NRW's financial interests at the federal level rests with NRW's Finance Ministry. Interviewees in NRW's Finance Ministry emphasise that the space to critically affect legislative processes in the Federal Council is often restricted for an individual state due to diverging financial interests among the *Länder*.⁸⁷ Diverging interests include different conditions of LG finances, which are more problematic in NRW compared to the southern German states. The special financial position of the East German states also complicates NRW's efforts to build an effective coalition within the Federal Council. As the East German *Länder* are still relying upon additional financial support from the federal level, they are often not eager to join a coalition aimed against federal government legislation.⁸⁸

⁸⁵ Interview German Federal Ministry of Finance, 02/05/2013.

⁸⁶ E.g. interview German Association of Counties, 26/04/2013; interview German Association of Cities and Communities, 29/04/2013.

⁸⁷ Interview NRW Ministry of Finance, 24/04/2013.

⁸⁸ Interview German Federal Ministry of Finance, 02/05/2013; interview NRW Ministry of Finance, 24/04/2013.

The German unification and the massive transition costs following from it has a direct effect on the local level in NRW. On a net base, NRW is one of the five contributing *Länder* to the federal level equalisation mechanism, and the NRW state government has made LG in NRW a direct financial contributor towards the state's payment into the federal equalisation. An interviewee at one of NRW's LG associations recalls the effect of this decision in a most illustrative way:

For some LGs in NRW, the main reason of debt making is their payment towards NRW's share in the federal equalisation mechanism. [-] The federal financial arrangements are having very direct consequences on our local public services. In practice, it works out like local swimming pools are being closed in NRW to reopen them in Saxony.⁸⁹

Inter-state financial differences hinder effective coalition-building within the Federal Council. However, interviews conducted within NRW's LG associations indicate that the NRW state government at the time of the social welfare reforms in the early 2000s did not make much effort at the federal level to try to protect the financial interests of NRW LG at the federal level. The interviewees unanimously suggested that the party political similarity of the coalition at the NRW state level and at the federal government level at the time of decision-making on the major social reforms – both the social democratic SPD and the Greens – undermined NRW's assertiveness in the Federal Council.⁹⁰

Recent institutional changes are reducing the local financial risks posed by federal and state level grant funding. First, the introduction of the mentioned Connectivity Principle in NRW has resulted in a more careful approach of the NRW state government when designing local funding mechanisms. In particular, the state government changed its funding practices after LG associations won several cases in the NRW state court, which forced the state to reconsider or increase its local funding.⁹¹ Second, since the implementation of the Federalism Reform I in 2006, the federal government is no longer allowed to assign tasks directly to the local level.⁹² This is seen as an improvement at the local level, since the federal government now has to negotiate directly with the states, who, due to the implementation of the Connectivity Principle, are more assertive in defending the financial interests of the local level. Third, several measures have been

⁸⁹ Interview NRW Association of Counties, 22/04/2013.

⁹⁰ Interview NRW Association of Counties, 22/04/2013; interview NRW Association of County-dependent Cities and Municipalities, 22/04/2013; and interview NRW Association of Cities, 23/04/2013.

⁹¹ E.g. the court case *Kinderförderungsgesetz (KiFöG)*, 12 October 2012; organised by 17 county-free cities and 2 counties.

⁹² Art. 84 Federal Basic Law, Par. 1, sentence 7.

taken by the federal government to relieve financial pressures at the local level. The most substantial reform is the re-federalisation of the ‘Basic insurance for pensioners’ from 2012 onwards.⁹³ Fourth, some procedural changes implemented at the federal level have improved the position of LG in federal policymaking processes, which might prove beneficial to the financial interests of the local level. Notably measures include the installation in 2010 of a subcommittee exclusively for LG affairs within the Federal parliament, and intensified procedural requirements for federal government departments to inform and consult LG associations on legislative proposals.⁹⁴ Of the above outlined institutional changes, the interviewees emphasise that the Connectivity Principle has resulted in the most significant reduction of the financial risks attached to grant funding. However, from the perspective of LG interviewees, the principle has two major drawbacks. First, the principle sometimes intensifies instead of reduces intergovernmental tensions. As an interviewee at NRW’s County Association recalls:

The introduction of the Connectivity Principle has led to an almost phobia among some of NRW’s state departments against transferring any new tasks to the local sector. They prefer to work with their own agencies, as they reason working with ‘the local sector is too much of a hassle’.⁹⁵

The second and most important drawback of the Connectivity Principle from the perspective of the local level is its exclusive application to new legislation introduced since 2004. Due to this, much of the social legislation introduced before 2004 lacks connectivity relevance. The restriction to new legislation also significantly reduces the amount of legislation relevant to the Connectivity Principle, as the majority of legislative processes concern changes to existing laws. Hence, it is uncertain if the implemented institutional changes will halt the debt increasing effect of grants, as demonstrated by the statistical results in section 5.5.

⁹³ For the period 2012-2020, the measure leads to an expenditure reduction of around 18.5 billion € for the entire German local level (*Der Neue Kämmerer*, 2 August 2012).

⁹⁴ See *Gemeinsame Geschäftsordnung der Bundesministerien* (2012); section 47, par.1 determines that the ‘LG associations at the federal level have to be informed, if possible in an early stage, on federal government proposals that might affect their members’ interests’. The sentence has been included in 2011 following recommendations by the Federal Local Government Finance Commission (*Gemeindefinanzkommission*).

⁹⁵ Interview NRW Association of Counties, 22/04/2013.

5.6.1.3 *The Netherlands: qualitative findings on the relationship between grants and LG debt*

Qualitative information on the Dutch system confirms the relationship between grants and debt. Historically, Dutch LGs with higher grant dependence have shown a weaker local financial structure, reflected by relatively high expenditure and a low level of locally generated revenues. Civil servants in the Dutch Interior Ministry indicate that the local financial effects of the main Dutch redistribution fund for general funding, the Municipal Fund, have improved over the years by including more and more sophisticated indicators, especially following the reform of the intergovernmental finance law (Fvw) in 1997.⁹⁶ Interviewees at the LG representative groups confirm the view that historical inequalities in local financial positions were partly caused by the redistribution mechanism.⁹⁷ The impact of the previous redistribution system is still reflected in current LG debt positions. For example, the city of Gouda long experienced financial difficulties due to ground subsidence increasing the city's infrastructure costs. Although the inclusion of an indicator for ground subsidence in the Municipal Fund has reduced the city's financial problems, Gouda still has a debt level more than three times above the Dutch local average (debt as percentage of Gouda's income was 91%; or 3,422 € p/c in 2012) (CBS statistics).

Due to a continuous sophistication of the redistribution mechanism and an almost uninterrupted growth of the aggregate budget of the Dutch Municipal Fund during the 1990s and 2000s, redistribution funding has not been a significant driver for the recent debt growth among Dutch LGs. The research findings of chapter 4 show that low LG borrowing costs and a weak intergovernmental supervision structure, in combination with the property bubble that presided over the Dutch housing market, constitute the main drivers of the recent growth of Dutch LG debt.

The statistical results in section 5.5 demonstrate that specific grants in the Dutch system do not have any significant effect on LG debt. The interviewees confirm this finding. The general view among both central and local government actors is that Dutch specific grants receive tight funding, but LGs have been able to cope with them without a negative structural effect on their finances. A Dutch MP, and member of the Public Expenditure Select Committee in the Dutch Lower House, recalls:

⁹⁶ Interview Dutch Ministry of the Interior and Kingdom Relations, 23/01/2014.

⁹⁷ Interview Dutch Association of Municipalities, 30/01/2014; interview Dutch 100,000+ Municipal Treasurers Association, 20/01/2014.

Throughout my parliamentary career, which now covers nearly twelve years, I have experienced a range of decentralisations, and only once did the cabinet decide to transfer the entire budget with the decentralisation. In all other cases, efficiency cuts were implemented at the minimum of 10%. However, Dutch municipalities seem to have been able to cope with these reductions, partly due to a continuous annual increase of the Municipal Fund.⁹⁸

The influential role of the Dutch Association of Municipalities in central government policymaking is significant in protecting the local level against negative financial effects of government grants. The Association, which is referred to by one of the interviewees as the second most influential lobby group after the Dutch Employers' Federation, is often included by central government departments in policymaking processes and regularly meets with government Ministers.⁹⁹

However, the future effectiveness of the Association in safeguarding adequate grant funding proves controversial among interviewees. Doubts regarding the Association's performance are especially related to the decision taken in 2013 to decentralise several social welfare tasks to the Dutch local level, totalling 16 billion €. The decentralisation, which received strong support from the Association's leadership, is implemented with substantial budget cuts from the original budget – ranging between 10 to 30% – and will significantly contribute to central government's planned budget savings. However, given the financial and operational risks attached to the decentralisations, the cuts have caused a significant amount of controversy within the Association of Municipalities.¹⁰⁰

5.6.2 *Moderating variables in grant allocation: qualitative evidence*

The qualitative investigations aim to identify moderating political and institutional variables in grant allocation. For many of the interviewees, discussing political variables in grant allocation appeared to be a sensitive topic. In these circumstances, it was mostly possible to acquire information on the existence of moderating variables by formulating interview questions in a more indirect way.

⁹⁸ Interview Dutch member of the House of Representatives, and member of the Finance Select Committee, and Public Expenditure Select Committee, 23/01/2014.

⁹⁹ F.e. together with the other subnational associations, the Dutch Association of Municipalities meets at least twice a year with the Minister of the Interior and the Minister of Finance in what is referred to as the Meeting of Government Layers (*Overhedenoverleg*).

¹⁰⁰ One civil servant at the Dutch Ministry of the Interior and Kingdom Relations phrased this as follows: '*We are holding the VNG [Association of Dutch Municipalities, DW] in the air*'. Interview Dutch Ministry of the Interior and Kingdom Relations, interview B, 23/01/2014.

5.6.2.1 *England: moderating variables in grant allocation*

Qualitative findings on the English system confirm the presence of political influence on total and specific grant allocation. A 2011 investigation on formula funding by the House of Commons' Committee of Public Accounts (CPA) indicates that nearly 20% of local authorities in 2011-12 received funding allocations which differed by more than 10% from their calculated grant allocation. One LG, Wokingham, received double its calculated funding needs (increase of 98.6%), while Christchurch experienced the largest reduction (25.6%).¹⁰¹ The difference between calculated and final grant allocation can largely be explained by government Ministers' judgement as to the reasonableness of the rate of change in grant funding from year to year. However, the motivations behind the changes remain largely unarticulated.

With respect to DCLG's Formula Grant the CPA concludes that 'it is virtually impossible to follow the link between calculated needs and funding allocations' (HoC CPA 2011, p. 5). This view is widely spread among English interviewees, indicated by phrases such as *'No-one any longer understands where the number [the grant allocation, DW] comes from'*. Other terms used to describe the redistribution system are *'broken'* and *'utterly complex'*.¹⁰² Some English interviewees offered a more positive evaluation of the system since the introduction of the Business Rates Retention reform, mainly because the reform strengthened their authority's financial position. However, these interviewees also indicate that in contrast to the reform's stated objective, Business Rates Retention has not led to a more transparent local finance system.¹⁰³

The complexity of the English system of LG finance reduces its transparency and makes it difficult to determine the extent to which political variables affect grant allocations. Political influence mostly occurs through the discretionary freedom that Ministers have regarding Formula Grant allocations (step 4 in table 5.1). Formally, this responsibility rests with the Secretary of State of Local Government, but it is often used following inter-departmental coordination. Interviewees representing LGs and LG associations generally regard the extent to which Ministers use their discretionary space as substantial and Whitehall actors indicate that political considerations play a prominent role in case of grant adjustments. A civil servant at the Treasury indicates this when stating:

¹⁰¹ Written evidence from the Permanent Secretary of DCLG, included in: House of Commons Committee of Public Accounts (2011) p.19.

¹⁰² Interview Society of London Treasurers, 07/02/2014; interview SIGOMA 07/01/2013.

¹⁰³ Interview Society of District Council Treasurers, 04/02/2013.

Based upon DCLG information, the Treasury develops alternative proposals mostly focused on whether Ministers prefer policies with more or less redistributive consequences. Generally, Ministers choose to make some adjustments based upon these proposals. For example, the current Chief Secretary of the Treasury, who's a Liberal Democrat, tends to be quite concerned about the distributional consequences of government policies, especially regarding places that would have most difficulties in generating growth.¹⁰⁴

Political influence in the English system is further stimulated by the absence of an independent advisory commission on LG grant funding. There are intergovernmental working groups around formula grant funding, e.g. the annual Local Government Finance Settlements, which include members from different LG and local treasury associations. Interviewees, who personally participated in these working groups, indicate that the main function of the working groups is to generate feedback from the local level on the technical aspects surrounding formula funding, with very limited involvement of the local level on more fundamental financial and institutional design questions. In addition, the working groups meet irregularly and lack organisational resources.¹⁰⁵

Interview information indicates that in the English system, direct contacts with central government Ministers are more relevant to influence LG funding than administrative Whitehall working groups. Party political symmetry helps significantly in getting access to government Ministers. The chairman of a large LG group within the LGA, who shares his party background with the incumbent government, recalls:

Having Conservative Ministers in DCLG helps us a lot as a subgroup within the LGA in getting access to the Department, and is beneficial for Ministers' willingness to take our requests into account in policy processes.¹⁰⁶

An interview at the LG group SIGOMA confirms the importance of party political symmetry in intergovernmental interactions. The interviewee indicates that his association had more lobbying success with central government under the previous Labour government, partly because the majority of SIGOMA members are urban authorities based in the Midlands and north of England, where most of Labour's electoral base can be found.¹⁰⁷

¹⁰⁴ Interview HM Treasury, 11/02/2013.

¹⁰⁵ Several interviews, e.g. Society of London Treasurers, 07/02/2014; and House of Commons Committee of Public Accounts (2011), p. 19.

¹⁰⁶ Interview District Councils' Network, 10/01/2014.

¹⁰⁷ Interview SIGOMA, 07/01/2013.

The indicators used in the Formula Grant distribution do not seem to (strongly) favour a particular type of LG or geographical region. This is confirmed by elements of the Formula Grant system being criticised across the English LG sector, including LGs of the London region represented in London Councils.¹⁰⁸ The system shows capacity to adapt to changing spending needs of different types of LGs, such as an additional efficiency support grant for ‘super sparse areas’ in place since 2014 (DCLG, 2014).

In sum, the qualitative findings indicate an influential role for party political dynamics in the English system. The complexity of the system, and especially the lack of transparency surrounding Minister’s use of their discretionary space, complicates the identification of clear-cut partisan factors in grant allocation processes. Many of the interviewees assume political influence, but given the complexity of the system are unable to provide evidence. The statistical findings do demonstrate that the substantial scope for discretionary decision-making in the English formula system is used not only to stabilise grant allocations but also to favour councils that show party political symmetry with central government.

5.6.2.2 *NRW: moderating variables in grant allocation*

Qualitative findings on the NRW system provide mixed results for the presence of political and interest group variables in grant allocation. Interviewees highlight that due to the straightforward calculation of grants in NRW’s main general grant mechanism, partisan influence would be easily detectable. Due to its simple design, local officers are able to calculate their forthcoming grant allocation once the total funding amount is known, and as such the system generates high certainty. Other features of the NRW system also make party political steering of grants more difficult. Most relevant are a tradition of multiparty governments at the NRW state level, which prevents a single party from having complete control over the executive, and an influential state court that regularly reviews whether grants are distributed objectively and in line with the constitution. In addition, due to the stable and small number of indicators used in the NRW’s redistribution mechanism, differences in local administrative capacity are unlikely to affect general grant allocation. In contrast to interest representation at the level

¹⁰⁸ According to an interviewee at London Councils (21/12/2012), London LGs have strong criticisms with the redistribution system, even though outside the London area *‘the impression sometimes exists that as a result of the redistribution system London streets are paved with gold’*. Criticisms by London boroughs are diverse, but focus on the accuracy of the census data.

of individual LGs, LG interest representation at an associational level has a significant impact on the design of NRW's general redistribution mechanism.

The influence of the associations is reflected in the indicators used in NRW's general grant formula. The main indicator in the formula is population size, which as indicated in section 5.3.4, is used as a grading system, whereby the funding amount per inhabitant increases in case of a rising population. Ever since its implementation in the 1980s, the population size classification system (*Verstaffelung*) has received strong support from NRW's Association of Cities and strong criticism from the other associations.

An interviewee at the NRW Association of Cities and Municipalities (22/04/2013) states: '*How can a resident in a rural area be worth less funding than someone living in a large city?*' This view was also brought forward by NRW's Association of Counties. The huge division within NRW's LG community about the population indicator leaves the NRW Interior Ministry in a difficult position. Partly to compensate for criticisms on the population indicator, the NRW Interior Ministry decided in 2012 to approve a request by the NRW Association of Counties and the NRW Association of Cities and Municipalities to include an area size indicator, which should compensate rural LGs for their assumed higher costs in providing public services. The inclusion of the area size indicator was strongly criticised by interviewees at NRW's Association of Cities (23/04/2013), especially for the lack of empirical evidence demonstrating the higher costs of public service provision in large area size LGs.¹⁰⁹

Although interest representation affects the design of NRW's redistribution mechanism, it has not resulted in an equalisation system that consistently favours a particular type of LG or geographical area.¹¹⁰ The NRW Interior Ministry is an important actor in keeping the general redistribution mechanism relatively simple and stable in its design. Avoiding inter-local tensions is also one of the drivers behind the Ministry's approach. A leading civil servant in the NRW Interior Ministry recalls:

¹⁰⁹ One argument brought forward against the area size indicator is that in case rural LGs have concentrated city centres, their costs of public service provision would not be significantly different from other types of LGs. Instead of including an area size indicator, detailed indicators would be required, such as regarding the total length of municipal roads. Interview Association of Cities in NRW, 23/04/2013.

¹¹⁰ Possibly, the small number of specific capital investment grants can be mentioned that are being allocated in NRW for over a decade to LGs with spa bath facilities, and those having a military base. Notwithstanding the effective lobby of NRW LGs that profit from the grant to continue with their funding, the quantitative financial meaning of the grants is limited. Hence, the funding does not result in a substantial systematic bias in NRW's general redistribution system.

Discussions on the general funding system do only have losers. Those who see their position improved, will not be openly grateful, whereas municipalities that experience a reduction in their allocation will not get tired pointing out the unfairness of the reform.¹¹¹

The transparency and relative simplicity of NRW's general funding mechanism virtually eliminates the chance for individual LGs to manipulate their grant allocation. However, this does not mean that local funding in NRW is free of moderating institutional and political variables. Qualitative information indicates that scope exists for LGs to affect their allocation of specific grants. A professional and good-sized local administration is beneficial for having access to the NRW state departments. This also relates to the funding methods used to provide specific grants. Both the NRW and federal government departments frequently use matching and start-up funding methods (*Anschubfinanzierung*), via which LGs compete for specific grants and their allocation is decided, amongst others, on the basis of the quality of submitted proposals. Having a sizeable and professional staff significantly increases successes in attracting these often temporary, specific grants. Interviewees indicate that the prospect of matching funding often has a decisive impact on spending decisions by German LGs.¹¹²

Political variables also affect the allocation of specific grants. Qualitative data points at the relevance of intergovernmental networks and negotiation strength. The democratic mandate of NRW mayors, in combination with their role as head of the local administration, improves access of mayors to the state departments. Intergovernmental symmetry in the party political colour of local leaders and the incumbent state government further improves the mayor's access to state departments. Although there are no indications of direct party driven pork barrel politics, interviewees indicate that local political leaders that are politically aligned to one of the state level government parties seem to be better and faster informed on the funding opportunities available.¹¹³ In general, the NRW Interior Ministry aims to realise equal funding arrangements across the LG sector. However, the role of the Interior Ministry is marginal in the allocation of specific grants as it allocates less than 5% of NRW's specific grants, with the rest being provided by federal and counter state-level departments.¹¹⁴ Negotiation authority and party political symmetry are crucial elements that contribute to attracting grants. While the

¹¹¹ Interview NRW Ministry of the Interior, 24/04/2014.

¹¹² Interview Finance Committee of the Association of Cities in NRW, 10/07/2013; interview Finance Committee of the German Association of Cities, 10/07/2013.

¹¹³ E.g. interviews NRW Finance Ministry, interviewee A, 24/04/2013; and interview Association of Cities in Rhineland-Palatinate 09/07/2013.

¹¹⁴ Source Landtag NRW, Drucksache 16/5097, 19 February 2014.

allocation of specific grants formally mostly depends on external factors, such as the length of existing roads where infrastructure funding is concerned, previous studies confirm that the actual amount of funding acquired is often a matter of intense bargaining between government levels (e.g. Garlich, 1980; Kemmerling & Stephan, 2002).

5.6.2.3 *The Netherlands: moderating variables in grant allocation*

The quantitative empirical investigations in section 5.5 demonstrate that specific grants do not significantly affect Dutch LG debt. However, the variable mayor proved significant throughout the estimations and exerted a debt reducing effect as part of the interaction term $\text{mayorsym} * \text{totalgrants}$ and $\text{mayorsym} * \text{specificgrants}$. The qualitative investigations provide support for an effect of local political leaders on LG grant allocation.

According to the majority of interviewees, the clearest indication of political influence in the Dutch redistribution system is the indicator included in the Dutch Municipal Fund for the biggest four Dutch LGs – Amsterdam, Rotterdam, The Hague, and Utrecht. The cities work closely together in the G-4, a Dutch acronym for *grote-4*, or big 4. Lobbying activities from the G-4 in the early 1990s resulted in the inclusion of an additional fixed amount of funding for each of the cities in the Municipal Fund. The biggest supplement of approx. 190 million € in 2012 was awarded to Amsterdam as the most populous city, and the smallest supplement – approx. 45 million € in 2012 – to Utrecht as the least populous city of the G-4 (BZK, 2012).

Ever since its inclusion, the G-4 indicator has been highly controversial. An interviewee at G-4 member city Rotterdam defends the indicator by referring to the additional tasks G-4 cities carry out on behalf of central government, especially in the area of culture and social expenditure.¹¹⁵ A civil servant at the Dutch Interior Ministry confirms that the additional tasks of the G-4 initially motivated the inclusion of a special G-4 indicator, but that due to changed funding arrangements this argument no longer holds. Despite its reduced justification, the indicator has continued in the Municipal Fund, which seems to have set the G-4 cities further apart from the rest of the Dutch LG sector. This was indicated in interviews at other Dutch LG groups by phrases such as *'the G-4 does not really feel part of the Dutch local government community'*, and *'the G-4 has too much influence'*.¹¹⁶

¹¹⁵ Interview G4 city Rotterdam, 29/01/2014.

¹¹⁶ Interview G-32, 20/01/2014; and interview P10, 24/01/2014.

With the G-4 indicator increasingly criticised, the Ministry of the Interior attempted to discontinue the indicator during its 2013-14 review of the Municipal Fund. However, interviewees in the Interior Ministry indicate that this proved less simple than expected following fierce resistance by the G-4. The lobby of the G-4 with central government proved successful, which several interviewees explain by referring to the short communication lines of G-4 local political leaders to Dutch cabinet members.¹¹⁷ In the post-2014 structure of the Dutch Municipal Fund, the fixed amount for the G-4 cities continues to exist but is no longer visible as a separate indicator. Instead, the amount is spread across multiple adjusted formula indicators, which is almost similar to their previous fixed funding amounts.¹¹⁸ The interviewee at the Dutch Advisory Council for Intergovernmental Financial Relations reflects on the G-4 funding amounts as follows:

It is unclear to what extent the real costs of the G-4 cities have been taken into account when the decision was made to continue their additional funding. It is very coincidental that their future funding is allocated through adjusted indicators on which almost only the G-4 cities score. Our council cannot help thinking that the indicators have been designed towards a preferred outcome.¹¹⁹

Although the G-4 indicator is a notable illustration of political influence on the Dutch grant system, it is the only non-objectified indicator in the Dutch Municipal Fund. Many other indicators have been included over the years in the Municipal Fund to accommodate specific local requests, hence why it ended up with 60+ indicators, but they all have an objectified base. As such, and with the exception of the G-4 indicator, the Dutch Municipal Fund is not biased in its funding towards particular groups of LGs.

Similar to the NRW system, dynamics are different in the allocation of specific grants. Qualitative data indicates that Dutch local political leaders are increasingly important to the position of LGs. Dutch mayors have received more policy responsibilities (e.g. in the safety domain), and increasingly cooperate with higher government levels following a trend of scaling up of service provision.¹²⁰ Due to these developments, the party political profile of Dutch mayors has grown stronger over the past decade (cf. Karsten et al., 2014).

¹¹⁷ E.g. interview Dutch Ministry of the Interior and Kingdom Relations, 23/01/2014; interview G-32, 20/01/2014; and interview P10, 24/01/2014.

¹¹⁸ The original total fixed amount for the G-4 was 600 million € p/a, which, in the revised funding method will, be around 40 million € p/a less (Bekkers, 2014).

¹¹⁹ Interview Financial Relations Council, 21/01/2014; and consultation response *Municipal Fund*, by the Financial Relations Council/Rfv (2014).

¹²⁰ Interview Dutch 100,000+ Municipal Treasurers Association, 20/01/2014.

In conclusion, the qualitative findings provide strong support and help to understand the quantitative results in all three systems. Table 5.11 presents a summary of the findings.

Table 5.11 Summary qualitative and quantitative findings grant funding systems

		England	NRW	Netherlands
<i>Total grants</i>	<i>Relationship with debt:</i>	+	+	++
	<i>Political symmetry:</i>	Council symmetry reduces debt enhancing effect total grants	Mayor and council symmetry reduces debt enhancing effect total grants	Mayor symmetry reduces debt enhancing effect total grants
	<i>Staff capacity:</i>	No effect	No effect	No effect
<i>Specific grants</i>	<i>Relationship with debt:</i>	+	++	Non-significant
	<i>Political symmetry:</i>	Council symmetry reduces debt enhancing effect of specific grants	Mayor and council symmetry reduces debt enhancing effect of specific grants	
	<i>Staff capacity:</i>	Reduces debt enhancing effect of specific grants	Reduces debt enhancing effect of specific grants	

5.7 Concluding remarks

This chapter investigates the relationship between grants and LG debt, and the existence of a moderating effect of party political and interest representation variables. A major shortcoming identified in the political economy literature on grant allocations is the bias towards FPP electoral systems. Hence, hypotheses have been formulated suitable to the diverse electoral systems present in the European context.

Hypothesis 5 concentrates on the positive relationship between grants and LG debt. Strong empirical support for this hypothesis is found across the systems. Cuts in English specific transfers increase the interactivity between grants and English LG debt. English LGs facing the largest spending reductions since 2010 have shown an above average increase in LG debt. Research findings of chapter 4 indicate that English LG debt is weakly monitored as central government supervision concentrates on the use of aggregate instead of micro level LG data. Due to the reduction of specific grants and a decrease by half of the central level redistribution of the business rates from 2014 onwards, heterogeneity in LG financial stress levels has increased in the English system.

Growing financial divergence provides a strong reason to improve the monitoring and forecasting of the effects of central government grant changes on English LG finances.

The relationship between grants and LG debt in the Dutch system has changed over the past two decades, and the original debt increasing effect of the Dutch grant system has evaporated due to the continuous sophistication of its design. Quantitative and qualitative evidence demonstrates that the positive relationship between grants and LG debt is strongest in NRW. High expenditure on social welfare arrangements can be identified as the main driver behind local debt accumulation in NRW. From the three European systems included in this study, the funding adequacy of tasks delegated by higher government levels to the local level turned out to be most prominent in interviews conducted in the German/NRW system. All three selected European systems show a strong connection between local finances and macroeconomic trends. The institutional standing of the Dutch system delays the impact of central government cuts most strongly, whereas central government cuts affect the local level fastest in the English system.

Hypotheses 6, 7 and 8 focus on the impact of a moderating effect on the relationship between grants and LG debt following party political symmetry between the grant provider and local government. A significant negative moderating effect on the grant-debt relationship is exerted by party political symmetry. This confirms the core voter hypothesis and demonstrates that political symmetry between political actors at the local and central level reduces the financial risks posed by grants on the local debt position. The relevant actors for partisan effects differ across the systems.

In the Dutch and NRW systems, the main party political actor is the mayor. The moderating effect is significant and in the expected direction for both aggregate and specific grants, and is confirmed in robustness tests using different measurements of the dependent variable. Subsequently, party political symmetry between mayors and grant providing governments increases the latter's successes in channelling resources to their local authority.

Local administrative capacity has no significant moderating effect when using aggregate grant figures as regressor. The size of the local administration, however, moderates the debt-grant relationship in case of specific grants. Confirming hypothesis 8, the interaction term $staffcapacity * specificgrants$ is significantly and negatively related to LG debt in each of the systems. Hence, a bigger local administration either increases the amount of attracted specific grants, or leads to grants with less financial risks attached to them.

Triangulation was conducted in the second part of the chapter. The qualitative data support the quantitative findings on the moderating effects. In addition, they help to clarify the institutional interpretation of the statistical results. English results demonstrate that the calculation of the Formula grant, as the main general grant in the English system, proceeds in a technically complex manner but is not overly biased in its design to specific types of LGs or geographical areas. However, despite the neutral technical appearance of the system, there are substantial differences in the English system between calculated versus allocated grants due to Ministerial discretion. Party political factors are one reason why Ministers diverge from calculated grant figures.

The transparent design of the redistribution mechanism used in NRW for general funding, with no discretionary freedom for Ministers in the allocation process of general grants, eliminates the chance of partisan factors affecting general grant allocation, and leads to high certainty regarding the expected grant allocation. Instead, most discussions in NRW concentrate on the institutional design of the general grant mechanism at an institutional level, and changes are mainly an outcome of interaction between LG associations and the NRW state apparatus. Hence, it is interest group variables that dominate policymaking regarding the general grant funding mechanism in NRW, instead of party political variables. However, party political variables are not absent in NRW as scope exists for partisan dynamics in the allocation of specific grants. Similar to the Dutch case, local political leaders are influential actors who play an important role in the intergovernmental allocation of specific grants.

In conclusion, this chapter has identified some preliminary evidence about the impact of intergovernmental institutional factors on the relationship between LG debt and grant funding. Following the focus on regulations and borrowing costs in chapter 4, and grant funding in this chapter, local tax space is left as the final major intergovernmental financial institution.

CHAPTER 6

Local fiscal responses to financial stress: the role of debt

6.1 Introduction

Fiscal federalism theory argues that an increase in the share of local income generated via local taxes is beneficial to local fiscal behaviour (Oates, 1972). According to the theory, a large local tax space incentivises local tax paying citizens to carefully scrutinize the financial decisions made by local politicians, which in turn increases the allocative efficiency of local financial decision-making. Influenced by fiscal federalism theories, a strong preference is articulated in many government systems to prioritise local taxation in favour of other revenue sources. In practice, local taxation is often one of the smaller local income sources, but a large spread in local tax space can be observed. Measured as a percentage of total national tax revenues, local taxes range from 0.8% in Greece to 35.6% in Denmark. Grants provide the majority of funding for most LGs across the OECD (OECD, 2012).

Despite the quantitative dominance of grants, local tax revenues are a vital local income source even when providing a relatively small contribution to the overall local budget. First, local taxes offer larger discretion to local decision-makers compared to other local income sources, such as grants and fees. Second, the less equalising the grant system, the more relevant it is for the local financial position to optimise local tax space. Local tax space refers to the taxes LGs are allowed to levy, including their discretionary competences regarding rate setting. Tax capacity refers to the amount of taxes a local

authority would be able to levy if it would optimise its tax space (e.g. Ter-Minassian, 1997).

The chapter concentrates on how the nature of local tax space impacts the fiscal response of LGs to local financial stress. The main question investigated is whether LGs in each of the systems respond to financial stress by increasing their tax rates. The analysis demonstrates to what extent local tax space contributes to the error correction capacity of different IGR financial systems. It also sheds light on the question to what extent local financial stress is (partly) caused by fiscal decision-making at the local level. In addition, the chapter tests to what extent theories of local tax space that have mainly been developed in the US can be applied within the European context. As such, the chapter improves our understanding of IGR financial structures and it adds important empirical evidence to the literature.

The outline of the chapter is as follows. The chapter starts by shortly recapitulating the hypotheses developed in chapter 2. The subsequent section describes the institutional features of local tax structures in the three selected systems. Section 6.4 provides a description of the dataset and presents the model. The empirical results are discussed in section 6.5, including estimation results by country system. Qualitative material is used to triangulate the quantitative research findings in section 6.6. The last section concludes the chapter.

6.2 Hypotheses

The literature review in section 2.3.3 introduces four hypotheses to investigate the relationship between local tax effort and LG financial stress. This section shortly recapitulates those hypotheses.

First, previous research suggests that financial stress, as indicated by higher debt service or a reduction in LG income p/c, increases local tax rates (Buettner, 2001; Leprince et al., 2007). Hence:

Hypothesis 9: LG debt is positively related to LG tax rates.

The literature provides several indications that local tax effort might also be affected by the types of spending in which LGs are involved, with different effects for expenditure on local staff versus capital investment (Hendrick, 2011; Wolman, 1983). Hence:

Hypothesis 10: LG tax rates are positively related to LG staff expenditure, whereas LG tax rates are negatively related to LG capital expenditure.

The US literature indicates that Tax and Expenditure Limitations (TELS) incentivise revenue shifting strategies from taxation to nontax revenues (Joyce & Mullins, 1991; Shadbegian, 1999). Hence:

Hypothesis 11: stringent intergovernmental tax limitations are positively related with a replacement effect of LG tax revenues by nontax revenues.

Another finding in the TEL literature is that the effects of tax limitations are not uniform across localities, with the effect of TELS more constraining on small LGs. In the absence of TELS and in case of increasing LG financial stress, small LGs are likely to have the strongest incentive to increase taxes (Brown, 2000). The exact form of the tax replacement effect will be affected by the financial and political features of the intergovernmental structure in place. Tax limitations in more centralised intergovernmental systems are more likely to be replaced by increased grant funding. In intergovernmental systems that are less vertically integrated, LG associations will have less access to their grant provider, reducing the likelihood of a revenue shift from taxation towards grant funding (Blom-Hansen et al., 2014). Hence:

Hypothesis 12: an increase of the level of centralisation is positively related to a replacement effect of LG taxes by grant funding.

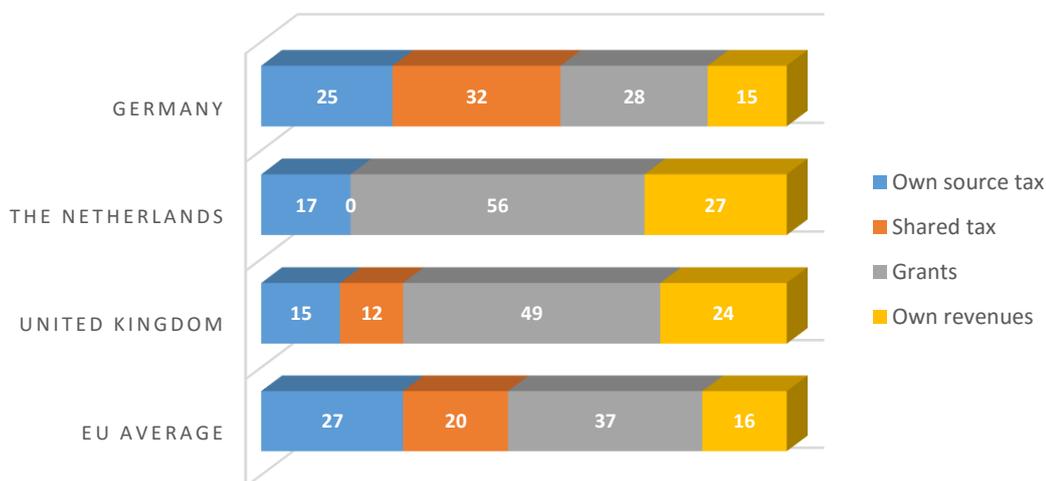
Within the selected constitutional systems, it can be expected that the strongly vertically integrated English intergovernmental structure will be subjected to a significant tax replacement effect by grant funding. In contrast to England, no upper limitations on local taxes are in place in NRW. Hence, it can be expected that in NRW taxes are more intensively used to offset budgetary imbalances, when compared to local strategies aimed at increasing funding from higher level grant providers. The next section provides more background information on the institutional differences of LG fiscal structures in the selected European cases.

6.3 Main fiscal structures

Local tax space shows large differences between the three systems. Figure 6.1 shows the average share of taxes as part of a locality's total income. With taxation constituting over 50% of local income, the average German LG has a significantly larger income share deriving from taxes compared to Dutch and English LGs. However, on average only around 25% of the revenues of German LGs are own taxes, whereas the remaining taxes are shared between the local, *Länder*, and federal level. The share of the local level in the

shared taxes is set for multiple years and is primarily a result of negotiations between the federal government and the *Länder*. Own taxes at the German local level are made up of the tax on business profits (*Gewerbesteuer*) and two property taxes.

Figure 6.1 Breakdown of LG government revenues



Source: own illustration, based upon data from Dexia (2008).

Tax revenues of Dutch LGs are not shared between government levels, and as such can be classified as own source taxes. In international comparisons, the English National Non Domestic Rates (NNDR) is officially labelled a shared tax (e.g. OECD 2012). It is a tax on non-domestic property collected by LGs, who are funded by the tax after it has been pooled nationally. Due to the central redistribution and the fact that rate setting powers of the NNDR solely rest with central government, NNDR has functioned in practice more as a government grant than a shared tax (Potter, 1997, p. 347). The implementation of the business rates retention reform in 2013 has transformed NNDR into more of a shared tax as it localised up to 50% of the business rates growth. However, due to the recent implementation of the business rates reform, the financial consequences of the reform are not reflected in the statistics used in this chapter, hence, the reformed English NNDR system will not be further discussed here.

To allow cross-country comparisons of LG tax responses, the chapter focuses on taxes that LGs can influence and therefore excludes the shared German taxes and the English NNDR. Even with the limitation to own source taxes, the Dutch, English and German systems show substantial differences regarding the extent to which local taxes can be genuinely locally determined.

6.3.1 Germany/NRW: local fiscal structure

Similar to the rest of Germany, the business tax constitutes the largest own local tax source in NRW. The tax is levied over the profits of local businesses. The importance of the business tax as an autonomous income source for German LGs has declined in recent decades. The largest reform affecting the business tax was implemented in 1969, when, in exchange for a local share in the federal income tax, German LGs were obliged to transfer a percentage of the business tax to the federal level and the *Länder* governments. This reform reduced the share of the business tax in total local tax income from over 80% before 1969 to around 45% after the reform. The introduction of the business tax transfer and the inclusion of the local level in the federally set income tax reduced German local tax autonomy, but also reduced volatility and inter-local divergence in local tax revenues (Henneke, 2012b).

Additional reforms on the German local business tax were implemented after the reform of 1969. Local level interests generally played a minor role in these reforms. Originally, the local business tax rested on three pillars: a tax on business profit, a tax on business capital and an optional local payroll tax. A reform in 1980 abandoned the payroll tax, while the business capital tax was removed in 1998. In addition, over the years an increasing number of businesses have received exemptions from the business tax via federal legislation, such as the independent professions. This means that today the German local business tax only applies to specific categories of mid- and large size enterprises. The federal level reforms have considerably narrowed down the tax base of the local business tax and have increased its already high volatility. Table 6.1 illustrates that at present, the business tax constitutes around 35% of German local tax income on average. However, there is a large spread with, in NRW, the smallest contribution of the business tax to by the state calculated local income needs being only 1.5% (Gelsenkirchen), versus a maximum of 128.0% (Krefeld) (IT.NRW 2012).

The second largest German local own tax source is property taxation. Property taxation is divided into a Property Tax A on agricultural land, and a Property Tax B on non-agricultural land. Both property taxes allow for local rate setting. The financial relevance of the two property taxes is highly unequal, with the Property Tax B generating around 90% of all revenues deriving from property taxation (see for further details appendix X). Besides the business and property taxes, German LGs are allowed to introduce additional taxes. This opportunity is widely used in NRW, especially in financially stressed LGs. Several new taxes have been introduced in recent years, including creative taxes such as a ‘tax for offering sexual services for financial reward’,

first introduced in NRW by Cologne in 2004. The actual financial contribution of these additional taxes is highly limited: they contribute less than one per cent to the budget of German LGs, and for some taxes the collection costs outnumber tax revenues (Destatis 2012; Henneke, 2012b, p. 146). The German system further discourages the implementation of new taxes – this is because new taxes are frequently contested in court procedures, which further increases their implementation costs and regularly leads to cancellation altogether.

6.3.2 England: fiscal structure

Local taxes in England focus on the taxation of property. There have been regular discussions about broadening the tax base of English LGs, e.g. by creating a local income tax (e.g. HoC-PCRC, 2012; Layfield Committee, 1976). However, in practice the taxation of property has continued to be the only own tax source for English LGs. While the origins of the English local property tax go back to the Poor Law Act of 1601, the current council tax system was introduced in 1990, replacing the disastrously failed implementation of the Community Charge, better known as the poll tax (for a history, see: Butler et al., 1994). The council tax is calculated as follows: each of the levying authorities sets a precept (total amount) to be collected from households in their area. This amount is then divided by the number of properties of a certain property value within their area – referred to as Band D –, which provides the average Band D council tax amount. There are eight valuation bands in total, all derived upon the calculated Band D amount for the area. As the implementation of property revaluations has proven politically sensitive in England, the assumed capital values being used to calculate council tax are still based upon 1991 values, including newly constructed properties that are assigned a nominal 1991 value (Keep, 2013). English LGs lack the competence to introduce new taxes, but some of their charges provide a relevant revenue source that provides them with some spending discretion. An example is parking charges, which added around 714 million £ to the budget of English LGs in 2012. Although income from parking charges has increased in recent years, it only constitutes around 6% of the total income of English LGs from the income category sales, fees and charges (which was 11.1 billion £ in 2012) (DCLG/ONS, 2013).

6.3.3 The Netherlands: fiscal structure

Similar to England, property taxation is the main source of local tax revenues in the Dutch system. The Dutch property tax was introduced in 1971 (Wassenaar & Verhagen, 2006,

p. 166), and over 90% of Dutch local tax revenues derive from this source (CBS). As a property tax, it is levied in three different ways: a tax for owners of residential houses, a tax for owners of non-residential houses, and a tax for renters of non-residential houses. A fourth pillar of the property tax, which contained a tax on renters of residential houses, was abandoned by central government in 2005. The three remaining property taxes represent around 8% of the total income of Dutch LGs (CBS, 2012). The capital base of the Dutch property tax is revaluated annually.

Similar to the German/NRW system, Dutch LGs have the powers to raise a range of additional taxes, such as tourist, advertising, and dog taxes. However, whereas German LGs are allowed to introduce new taxes, Dutch LGs can only implement additional taxes from a range of previously agreed taxes. In 2012, 984 million € was raised via these taxes, with the majority (617 million €) deriving from parking taxes. Although there has been an increase in recent years, the additional taxes still contribute only marginally to the budget of Dutch LGs – on average 1.9% in 2012 (CBS).

A comparative overview of indicators is provided in table 6.1. The indicators confirm that while subnational taxes – measured as a share of total public sector tax revenues – are most substantial in Germany, only 25% of these taxes are truly autonomous, whereas the others offer limited discretion to LGs.

Table 6.1 Comparative indicators of local tax space (2005)

	Share local taxes in country's total taxes	Share local taxes in % GDP	Autonomous tax revenues in % total local revenues	Contribution single largest local tax in % total local revenues
England	6	2	15	15
Germany/NRW	9	3	25	15
Netherlands	3	1.8	10	8

Source: Campos & Vammalle (2011, p. 99) and DCLG.

6.4 Statistical analysis local tax rates – data and model

This chapter relies on some of the statistics used in chapters 4 and 5. Several variables, however, are added to the dataset in order to identify the impact of institutional, socio-demographic and treasury variables on local rate setting. The added variable *taxrate* is

most important; it is the main dependent variable and indicates local tax effort, expressed by the tax rate set by LGs. Given their large contribution to overall own source local tax revenues (see section 6.3), the focus is on the main local tax source in each system. This is Band D council tax in England, the business tax in NRW, and the OZB residential tax in the Netherlands.

In addition, institutional variables are added to test the political economy explanations provided in the literature. First, *ideology* is added to identify the impact of political ideology on local fiscal decision-making. The variable is measured as a dummy variable; with 1 indicating councils with a left-wing political majority, and 0 in case of a right-wing council or no overall majority. In line with the hypotheses in the literature (e.g. Allers et al., 2001), the data is used to test whether, in order to finance an assumed higher level of public service provision, left-wing councils set a higher tax burden compared to non-left-wing councils. Most local political parties in each of the three systems have a clear left- or right-wing signature, and are treated accordingly.

Given the large number of local political parties in Dutch and NRW LGs, additional information has been collected by visiting the websites of the respective political parties and verifying their fiscal policy stance. In case it proved impossible to identify a clear ideological profile, the LG council has been treated as no-overall-majority and coded 0. Another political variable added to the dataset is *election*, which indicates the number of years until the local election, with 4 indicating four years up to the elections, descending to 0, indicating the actual election year. Time series data on the number of parties participating in local executives proved unavailable for the Dutch case; hence the weak government hypothesis will not be tested.

It has been possible via the respective government departments and statistical offices to collect the tax rates set by most English and NRW LGs during the period 2005-2012. For England, these data encompass 353 LGs, constituting the majority of English LGs with rate setting power. Rates of the three main local taxes used in NRW have been collected for all NRW LGs with rate setting power; i.e. the county-free cities and county-dependent LGs. Since the counties in NRW have virtually no own tax space, and instead strongly rely upon transfers from their lower tier, the statistical data referring to NRW excludes the counties. The Dutch national statistical office (CBS) does not collect local tax rate data. It has been possible, nonetheless, to collect Dutch LG tax rate statistics in an alternative way, through data collected by an independent Dutch public data collector (Cijfernieuws.nl). From this source, tax rates are available for the period since 2007 and

Table 6.2 Variable names pooled dataset Dutch, English and NRW LGs (2007-12)

Variable	Measurement	Source		
		England	Germany/ NRW	The Netherlands
taxrate	Natural log of rate main own local tax source (England: Band D council tax; NRW: business tax; the Netherlands: OZB)	DCLG	IT.NRW	Cijfernieuws
debt	Natural log of total debt p/c	DCLG	IT.NRW	CBS
income	Natural log of total income p/c	DCLG	IT.NRW	CBS
totalgrants	Natural log of total grants p/c	DCLG	IT.NRW	CBS
feesincome	Natural log of income p/c deriving from fees and user charges			
capitalexpenditure	Natural log of capital investment expenditure p/c	DCLG	IT.NRW	CBS
staffexpenditure	Natural log of staff expenditure p/c	DCLG	IT.NRW	CBS
ideology	1 for council with left-wing political majority, 0 otherwise.	BBC council election results	IT.NRW	Dutch Electoral Council (Kiesraad)
election	Time to election: 4 is four years etc., 0 is election year.	BBC council election results	IT.NRW	Dutch Electoral Council (Kiesraad)
density	Natural log of inhabitants per square km	ONS	IT.NRW	CBS
oldinhabitants	Natural log of the number of inhabitants age 65 and older	ONS	IT.NRW	CBS
younginhabitants	Natural log of the number of inhabitants age 18 and younger	ONS	IT.NRW	CBS
unemployed	Unemployed inhabitants as % total local population	ONS	IT.NRW	CBS

cover 293 Dutch LGs, located in 11 out of the 12 Dutch provinces. Given the time span of the Dutch data, the pooled dataset covers a six year period (2007-2012) and contains 1,030 LGs in total. To allow for comparison, most variables have been calculated on a per capita base. Further information on the sources of the variables used in the dataset is provided in table 6.2.

Model specification

The main dependent variable used in the regressions is the tax rate set for the main own local tax source.

The following statistical model has been formulated to identify the determinants of local tax rates:

(6.1)

$$\begin{aligned}
taxrate_{it} = & \alpha + \beta_1(debt) + \beta_2(income) + \beta_3(totalgrants) + \beta_4(feeseincome) \\
& + \beta_5(capitalexpenditure) + \beta_6(staffexpenditure) + \beta_7(ideology) \\
& + \beta_8(election) + \beta_9(density) + \beta_{10}(oldinhabitants) \\
& + \beta_{11}(younginhabitants) + \beta_{12}(unemployed) + \varepsilon_i
\end{aligned}$$

Where

taxrate_{it} is the log of the rate of the main local tax.

debt is the log of total debt size p/c.

income is the log of total income p/c.

totalgrants is the log of total grants p/c.

feeseincome is the log of income p/c deriving from fees and user charges.

capitalexpenditure is the log of total expenditure on capital investments p/c.

staffexpenditure is the log of expenditure on administrative staff p/c.

ideology is the political colour of the local council, on a left-right scale using a dummy.

election is the time to the election (4 is four years etc., 0 is election year).

density is the log of inhabitants per square km.

oldinhabitants is the log of the number of inhabitants age 65 and older.

younginhabitants is the log of the number of inhabitants age 18 and younger.

unemployed is the number of unemployed inhabitants as percentage of the total local population.

6.5 Quantitative empirical results

Table 6.3 reports the summary statistics of the main variables used in the regression (using natural logs), while table 6.4 shows the correlation matrix of the key variables. The majority of variables show coefficients that do not exceed the critical level of 0.7. The only exception is the variable *younginhabitants*. To avoid potential bias due to multicollinearity, alternative measurements of the variable have been used as a robustness test, and provide largely similar results. The Hausman test has been conducted to determine if there are fixed effects for each LG and whether these can be modelled as random effect. With a p-value significant at the 0.001 level, the Hausman test indicates that H0 can be resoundingly rejected, and the fixed effect method is appropriate to estimate the parameters in the model.

Table 6.5 demonstrates the effects of the independent variables on local tax rates. The first column in table 6.5 demonstrates the results on the pooled panel dataset of English, Dutch and NRW LGs for the period 2007-2012. The results show that LG debt has a significant and positive effect on local tax rates, indicating that LGs with higher

Table 6.3 Summary statistics pooled dataset Dutch, English and NRW LGs (2007-12)

Variable	N	Observations	Mean	s.d	Min	0.25	Mdn	0.75	Max
taxrate	1,035	6,441	2.09	0.90	0.06	1.04	2.57	2.63	3.28
debt	1,035	6,938	2.74	1.04	-4.77	2.68	3.08	3.33	5.83
income	1,035	6,938	3.22	0.26	1.98	3.17	3.27	3.37	6.37
totalgrants	1,035	6,937	2.85	0.34	1.79	2.60	2.87	3.10	6.29
feesincome	1,035	6,938	2.22	0.31	-0.21	2.04	2.31	2.41	5.39
capitalexpenditure	1,035	6,407	2.09	0.37	-0.81	1.86	2.09	2.33	5.42
staffexpenditure	1,035	6,938	3.71	1.14	1.48	2.28	4.24	4.56	8.02
dumideology	1,035	6,390	0.35	0.38	0	0	0.34	0.63	1
election	1,035	6,938	1.85	1.11	0	1	2	3	4
density	1,035	6,938	2.63	0.51	-0.08	2.26	2.56	2.98	4.48
oldinhabitants	1,035	6,938	3.88	0.53	2.20	3.50	3.83	4.28	5.61
younginhabitants	1,035	6,938	3.99	0.52	2.25	3.59	3.92	4.37	5.56
unemployed	1,035	6,394	4.06	2.64	0.37	2.23	3.25	5.2	18.8

Table 6.4 Correlation coefficients pooled panel dataset Dutch, English and NRW LGs (2007-2012)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1 taxrate	1												
2 debt	-0.194	1											
3 income	-0.160	0.560	1										
4 totalgrants	-0.265	0.222	0.625	1									
5 feesincome	-0.086	0.294	0.606	0.332	1								
6 capitalexpenditure	0.349	0.049	0.391	0.409	0.281	1							
7 staffexpenditure	0.650	-0.319	-0.193	0.143	-0.090	0.349	1						
8 ideology	0.224	0.178	0.294	0.109	0.150	0.271	-0.017	1					
9 election	0.001	0.043	0.043	-0.051	0.043	0.007	-0.062	0.095	1				
10 density	0.104	0.114	0.340	0.490	0.266	0.349	0.222	0.089	-0.014	1			
11 oldinhabitants	0.244	-0.021	0.116	0.243	-0.005	0.171	0.473	-0.073	-0.049	0.277	1		
12 younginhabitants	0.288	-0.057	0.103	0.324	-0.009	0.239	0.577	-0.048	-0.062	0.352	0.883	1	
13 unemployed	0.520	-0.103	-0.037	0.266	-0.052	0.368	0.593	0.136	-0.001	0.363	0.334	0.421	1

debt levels tend to set higher tax rates (coefficient $\beta=0.08$, $P<0.05$). This confirms hypothesis 9. Total income and the level of grant funding are highly significant ($P<0.01$), and are also positively related with LG tax rates (coefficients $\beta=0.904$ and $\beta=0.076$). Income deriving from fees and charges is negatively related to the local tax rate (coefficient $\beta=-0.046$, $P<0.05$). The variables indicating expenditure show opposite directions. Expenditure on capital investment is negatively related to tax rates, whereas expenditure on staff increases tax rates. This confirms hypothesis 10. The political-institutional variables are both significant in the pooled regressions. In contrast to expectations, a left-wing council is negatively related to local tax rates. The results of the time variable election are in line with expectations: the closer a council is to its election date, the higher the likelihood that local tax rates will be reduced. Of the control variables density, oldinhabitants, and unemployed all show significant signs, and are positively related to tax rates.

In addition to the pooled regression results, table 6.5 provides the country specific estimations, which in the case of England and NRW cover the period 2005-2012. Regarding the impact of LG debt, the English findings confirm the pooled regression results. The significance levels and the direction of the variables income, totalgrants, and staffexpenditure also mirror the results from the pooled dataset. The variable capitalexpenditure, however, has no significant effect, and the same applies to election. The non-significance of capitalexpenditure can be well explained by the fact that capital investments by English LGs are financed through dedicated capital expenditure grants, more than in the Dutch and NRW system. The lack of significance for the election variable can be explained by the particular set-up of the English electoral system at the local level. In a large number of English LGs (around 130), council members take it in turn to stand in each election, resulting in more frequent elections. The specific English local electoral cycle largely evaporates potential political business cycle effects on local budgeting.

LG debt does not significantly affect the tax rates set by Dutch LGs, but debt has an impact on the business tax rates set by NRW LGs. Similar to England, the level of grant funding positively affects tax rates set by Dutch LGs. Grants have no significant impact upon rates set by NRW LGs, and also other treasury variables, such as feesincome and capitalexpenditure, lack significance in the results for NRW. In the Dutch case, the estimations for staffexpenditure, as well as the political-institutional variables ideology and election, are in line with the pooled regression results. When comparing the R-squares of the country estimations, the explanatory strength of the model in the Dutch and

Table 6.5 Determinants of tax rates, panel data. Dependent variable: rate main local tax. Fixed effects

	Pooled (2007-2012)	England (2005-2012)	The Netherlands (2007-2012)	NRW (2005-2012)
	Rate main local tax	Rate main local tax – council tax	Rate main local tax – OZB residential houses	Rate main local tax – business tax
debt	0.008** (0.004)	0.005** (0.002)	0.102 (0.067)	0.001*** (0.000)
income	0.904*** (0.093)	0.477*** (0.104)	0.927*** (0.148)	0.000 (0.011)
totalgrants	0.076*** (0.024)	0.566*** (0.107)	0.877*** (0.215)	0.001 (0.002)
feesincome	-0.046** (0.018)	0.078*** (0.016)	0.137 (0.212)	0.001 (0.001)
capitalexpenditure	-0.041** (0.015)	0.001 (0.012)	-0.078** (0.035)	-0.002 (0.001)
staffexpenditure	0.212*** (0.032)	0.158*** (0.032)	0.903*** (0.198)	-0.001 (0.002)
ideology	-0.140*** (0.028)	0.016*** (0.005)	-0.225*** (0.035)	-0.005*** (0.002)
election	-0.019*** (0.001)	-0.001 (0.001)	-0.053*** (0.004)	0.001*** (0.000)
density	0.331* (0.170)	0.636*** (0.153)	0.241 (0.405)	0.006 (0.008)
oldinhabitants	0.800*** (0.292)	0.011 (0.013)	6.001*** (0.388)	0.079*** (0.024)
younginhabitants	0.041 (0.087)	-0.051 (0.035)	0.262 (0.529)	-0.133*** (0.020)
unemployed	0.003** (0.002)	-0.004*** (0.001)	0.011 (0.015)	-0.001* (0.000)
constant	-5.700*** (1.099)	0.666 (0.513)	-31.450*** (2.860)	2.812*** (0.134)
Observations	5,235	1,935	1,293	3,053
Number of LGs	1,030	353	287	396
Adj. R ²	.20	.50	.69	.21

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

English case is in line with models used in the literature, but the low R-square for NRW might indicate omitted variable bias.

To identify the effect of the independent variables for different LG types, separate regressions have been run for the different types of LG that exist in England and NRW. In both systems, the main distinction is between two-tier and single-tier areas. In the two-tier areas, the lower tier is responsible for tax collection. These include the districts in England and the county-dependent municipalities in NRW. Table 6.6 demonstrates that in both England and NRW, LG debt has a significant and positive effect on the tax rates

Table 6.6 *Determinants of tax rates, England and NRW by type of LG, panel data 2005-2012. Fixed effects*

	England: band D tax rate (banddtaxlog)		NRW: business tax rate (gewerrateleg)	
	Unitary Authorities	Districts	County-free cities	County-dependent municipalities
debt	0.002 (0.005)	0.006** (0.002)	0.003 (0.006)	0.001*** (0.000)
income	2.064*** (0.237)	0.301*** (0.076)	0.062*** (0.021)	-0.006 (0.012)
totalgrants	-0.559** (0.235)	0.616*** (0.124)	-0.003 (0.004)	0.000 (0.002)
feesincome	0.060** (0.025)	0.079*** (0.021)	0.009 (0.008)	0.001 (0.001)
capitalexpenditure	-0.013 (0.017)	0.016 (0.013)	-0.006** (0.003)	-0.001 (0.001)
staffexpenditure	0.111** (0.046)	0.160*** (0.041)	-0.001 (0.005)	0.000 (0.002)
ideology	0.008 (0.008)	0.018** (0.008)	-0.003 (0.015)	-0.005*** (0.002)
election	0.001 (0.001)	-0.005*** (0.001)	0.001** (0.000)	0.000*** (0.000)
density	1.697*** (0.287)	0.126 (0.276)	0.078 (0.200)	0.008 (0.008)
oldinhabitants	0.033 (0.032)	-0.001 (0.023)	0.047 (0.020)	0.026 (0.023)
younginhabitants	-0.610** (0.233)	-0.046 (0.029)	-0.062 (0.098)	-0.173*** (0.024)
unemployed	-0.001 (0.001)	-0.004*** (0.001)	-0.000 (0.000)	-0.000 (0.000)
constant	-1.583** (0.705)	2.063*** (0.720)	2.246*** (0.628)	3.158*** (0.163)
Observations	636	1,074	184	2,869
Number of LGs	111	210	23	373
Adj. R ²	.71	.43	.47	.21

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses.

set within the two-tier areas, again confirming hypothesis 9. However, LG debt does not significantly affect tax rates set by single-tier LGs – i.e. the county-free cities in NRW and the Unitary Authorities, metropolitan districts, and London boroughs in England. This difference might be related to the fact that for LGs with limited tasks, tax instruments constitute a dominant financial steering instrument, including to influence debt, whereas with an increase of tasks the number of financial instruments at a city's disposal increases, such as increased grant payoffs from intergovernmental lobby activities (see chapter 5).

In addition, the literature indicates that inter-local tax competition is more severe for large LGs, which restricts their fiscal space in practice (Buettner, 2001).

In addition to LG type, separate regressions were run and organised by population categories. Tables 6.7-6.9 demonstrate the estimation results depending upon LG population size. The impact of the independent variables on rate setting shows significant differences depending upon local population size. In the Dutch system, LG debt has a significant impact on local tax rates, except in case of LGs with less than 25,000 inhabitants. For the population categories above 25,000 inhabitants, the debt variable is positively related to LG tax rates, which contrasts with previous research which demonstrates that the positive relationship between LG debt and LG tax rates increases with a reduction in local population size (Brown, 2000).

Table 6.8 demonstrates that LG debt has a positive and highly significant impact on local tax rates set in NRW by small (<25,000 inhabitants) and large (50,000> - <100,000 inhabitants) LGs (coefficient $\beta=0.001$, $P<0.05$; and $\beta=0.004$, $P<0.01$). Table 6.9 shows that in England, only the category of LGs in the population class 100,000> - <200,000 show a positive and significant relationship between debt and the development of local tax rates ($\beta=0.007$, $P<0.05$). Given the statistically large number of LGs in NRW which are in official financial emergency arrangements, an institutional variable has been included in the estimations for NRW which tests whether LGs within these emergency arrangements set significantly higher tax rates compared to LGs that are not in such arrangements. The institutional variable 'emergency' is significant and in the expected direction for both small and medium size LGs ($P<0.01$ and $P<0.05$). The estimations indicate that being in a financial emergency procedure does not significantly affect the tax rates set by NRW LGs exceeding 50,000 inhabitants. This result may indicate that optimising local tax space could be a less than optimal financial recovery strategy for large LGs.

Additional treasury variables that have been used to analyse local fiscal responses to financial stress are the level of capital investment and spending on local staff. The variables demonstrate significantly different results across the systems. The country estimations in table 6.5 demonstrate only significant results for capital investment in the Dutch system ($P<0.01$). The estimations show that an increase in capital expenditure goes together with a reduction of local tax rates. For the Dutch case, the regressions organised by population class confirm the negative relationship between capital expenditure and local tax rates for most LG classes. In addition, table 6.7 demonstrates that the relationship is in a similar direction, and significant at the 0.05 level, in case of county-free cities

Table 6.7 The Netherlands: determinants rate main local tax (OZB residential houses) by LG population size, panel data 2007-2012. Fixed effects

	All	<25,000	25,000> - <50,000	50,000> - <100,000	100,000>
debt	0.102 (0.067)	0.018 (0.050)	0.150* (0.090)	0.381*** (0.138)	0.473** (0.194)
income	0.927*** (0.148)	0.941*** (0.246)	0.950*** (0.220)	-0.502 (0.480)	0.484 (0.461)
totalgrants	0.877*** (0.215)	0.884*** (0.309)	0.823*** (0.286)	0.167 (0.644)	1.802*** (0.398)
feesincome	0.137 (0.212)	-0.038 (0.285)	0.124 (0.285)	-0.675 (0.672)	0.218 (0.622)
capitalexpenditure	-0.078** (0.035)	-0.057 (0.058)	-0.112** (0.049)	0.109 (0.130)	0.091 (0.136)
staffexpenditure	0.903*** (0.198)	0.820*** (0.286)	1.301*** (0.287)	1.250* (0.643)	0.138 (0.332)
ideology	-0.225*** (0.035)	-0.213*** (0.079)	-0.158** (0.062)	-0.319*** (0.042)	-0.209** (0.097)
election	-0.053*** (0.004)	-0.051*** (0.007)	-0.054*** (0.005)	-0.047*** (0.010)	-0.058*** (0.009)
density	0.241 (0.405)	-5.938** (2.469)	0.169 (0.279)	-1.475 (5.544)	13.860*** (4.172)
oldinhabitants	6.001*** (0.388)	6.555*** (0.587)	5.834*** (0.423)	8.598*** (1.132)	6.351*** (1.741)
younginhabitants	0.262 (0.529)	1.700* (0.859)	-0.203 (0.683)	0.882 (1.393)	0.456 (2.105)
unemployed	0.011 (0.015)	-0.008 (0.016)	0.025 (0.028)	-0.036 (0.041)	-0.053 (0.049)
constant	-31.450*** (2.860)	-20.800*** (5.044)	-29.807*** (3.369)	-34.655*** (12.168)	-84.280*** (9.841)
Observations	1,293	531	527	124	111
Number of LGs	287	124	113	35	23
Adj. R ²	.67	.69	.71	.80	.77

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

Table 6.8 *NRW: determinants rate main local tax (business tax – Gewerbesteuer) by LG population size, panel data 2005-2012. Fixed effects*

	All	<25,000	25,000> - <50,000	50,000> - <100,000	100,000>
debt	0.001** (0.001)	0.001** (0.000)	0.004 (0.004)	0.004*** (0.000)	0.007 (0.005)
income	0.001 (0.011)	0.000 (0.004)	-0.045 (0.042)	0.013 (0.021)	0.054*** (0.017)
totalgrants	0.000 (0.002)	-0.006*** (0.002)	0.010 (0.007)	0.008 (0.007)	-0.000 (0.004)
feesincome	0.001 (0.001)	0.002* (0.001)	0.002 (0.004)	-0.004 (0.005)	0.003 (0.006)
capitalexpenditure	-0.002 (0.001)	-0.000 (0.001)	0.001 (0.004)	-0.004 (0.004)	-0.003 (0.002)
staffexpenditure	-0.001 (0.002)	0.000 (0.002)	0.003 (0.005)	-0.002 (0.005)	0.001 (0.003)
emergency	0.003*** (0.001)	0.003*** (0.001)	0.003** (0.001)	0.001 (0.001)	0.000 (0.001)
ideology	-0.005*** (0.002)	-0.004** (0.002)	-0.001 (0.004)	-0.013 (0.013)	-0.010 (0.012)
election	0.000*** (0.000)	-0.000 (0.000)	0.000* (0.000)	0.000 (0.000)	0.001** (0.000)
density	0.006 (0.008)	-0.001 (0.007)	0.074 (0.046)	0.075*** (0.022)	0.115 (0.181)
oldinhabitants	0.080*** (0.023)	0.021 (0.024)	0.087* (0.051)	-0.062 (0.064)	0.046 (0.068)
younginhabitants	-0.127*** (0.019)	-0.148*** (0.018)	-0.237*** (0.071)	-0.146 (0.087)	-0.058 (0.068)
unemployed	-0.001** (0.000)	-0.000 (0.000)	-0.000 (0.001)	0.000 (0.001)	-0.000 (0.000)
constant	2.785*** (0.129)	3.063*** (0.121)	3.088*** (0.395)	3.235*** (0.566)	2.131*** (0.567)
Observations	3,053	1,699	753	368	233
Number of LGs	396	226	103	48	30
Adj. R^2	.22	.29	.21	.24	.43

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses.

Table 6.9 *England: determinants rate main local tax (council tax – band D tax rate) by LG population size, panel data 2005-2012. Fixed effects*

	All	50,000> - <100,000	100,000> - <200,000	200,000>
debt	0.005** (0.002)	0.003 (0.004)	0.007** (0.003)	-0.000 (0.010)
income	0.477*** (0.104)	0.393*** (0.057)	0.248*** (0.086)	2.028*** (0.277)
totalgrants	0.566*** (0.107)	0.662*** (0.100)	0.810*** (0.117)	-0.394 (0.278)
feesincome	0.078*** (0.016)	0.103*** (0.019)	0.046** (0.020)	0.063*** (0.019)
capitalexpenditure	0.001 (0.012)	0.019 (0.018)	0.011 (0.015)	0.006 (0.019)
staffexpenditure	0.158*** (0.032)	0.085* (0.045)	0.243*** (0.050)	-0.067 (0.061)
ideology	0.016*** (0.005)	0.007 (0.011)	0.020* (0.010)	0.006 (0.007)
election	-0.001 (0.001)	-0.005*** (0.002)	-0.003** (0.001)	0.002* (0.002)
density	0.636*** (0.153)	0.299 (0.706)	0.548 (0.348)	0.970*** (0.228)
oldinhabitants	0.011 (0.013)	-0.214 (0.215)	0.006 (0.0306)	0.019* (0.010)
younginhabitants	-0.051 (0.034)	-0.191 (0.399)	-0.024 (0.135)	-0.058 (0.047)
unemployed	-0.004*** (0.001)	-0.003** (0.001)	-0.006*** (0.001)	-0.002 (0.001)
constant	0.666 (0.513)	3.047** (1.225)	0.341 (1.010)	-0.949 (0.739)
Observations	1,935	486	811	620
Number of LGs	353	106	150	109
Adj. R ²	.50	.45	.51	.75

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

in NRW. These results corroborate hypothesis 10 and demonstrate the discretionary nature of much capital investment expenditure.

Although also constituting an expenditure post with substantial local spending discretion, the estimations for the treasury variable staffexpenditure strongly contrast with capitalexpenditure. In line with hypothesis 10, the results confirm that an increase in expenditure on local staff increases tax rates of Dutch and English LGs. Table 6.9 demonstrates that in England, the relationship is positive and highly significant for all LG types and population classes, except those exceeding 200,000 inhabitants. The non-significance of the relationship between staff expenditure and local tax rates in case of 200,000+ English LGs can be explained by the decreasing amount, relatively spoken, of p/c expenditure on staff by LGs exceeding a certain population level. Table 6.9 excludes a row for English LGs with less than 25,000 inhabitants, due to their statistically small number (n = 6). In case of Dutch LGs, the positive relationship between staff expenditure

and local tax rates is concentrated in LGs with a population of 25,000 to 100,000 residents. The variable lacks significance in case of the largest Dutch LG population class (100,000+); however, only 22 observations are included in the category, so the results should be interpreted with carefulness. The estimations in table 6.8 do not show significant findings on the staff expenditure variable for NRW. Overall, the positive relationship between staff expenditure and local tax rates demonstrates an opposite effect to local capital expenditure – the decision of Dutch and English LGs to increase tax rates is partly made to accommodate local discretionary decision-making, or, to put it negatively, local spending pressures related to expenditure on administrative staff.

Given its fiscal structure and the available data, additional estimations have been carried out for NRW. The NRW statistics provide data on both the predicted tax capacity and the revenues from taxes actually raised. Following this, NRW LGs can be divided into two groups: LGs with a tax capacity shortage, i.e. LGs that raise *less* in tax revenues than indicated by their calculated tax capacity, versus LGs with a tax capacity surplus, i.e. LGs that raise *more* tax revenues than indicated by their calculated tax capacity (see appendix X for further descriptive statistics on both groups). Separate regressions have been run for the two groups with debt used as the dependent variable and results are presented in table 6.10. Model 2 in table 6.10 shows that local taxes for NRW LGs with a tax capacity shortage demonstrate a significant relationship with LG debt. The direction and effect size of the other independent variables remain largely unchanged compared to model 1, providing support for the robustness of the estimations. Model 3 of table 6.10 shows the base model for the group of LGs with tax capacity surplus. Most important difference between the two LG groups is related to local tax rates. Model 4 demonstrates that the rate of the business tax is no longer significantly related with local debt in case the authority demonstrates a tax capacity surplus. The results of table 6.10 demonstrate that the debt position of LGs with a tax capacity shortage is on average amended by adjustments to local tax rates, whereas the debt position of LGs with a tax capacity surplus is far less susceptible to changes in local tax rates. This indicates that debt in NRW has a significant impact on LG tax rates, but only for the category of LGs that raise less tax than suggested by the calculations that are used in the system to calculate their tax capacity.

*Table 6.10 NRW, impact of tax rates on debt evolution, LGs with tax capacity shortage and LGs with tax capacity surplus, panel data 2005-2012
Fixed effects*

	LG group tax capacity shortage (dummy 0)		LG group tax capacity surplus (dummy 1)	
	Total debt p/c (log)		Total debt p/c (log)	
	Model 1	Model 2	Model 3	Model 4
propertytaxarate		2.323 (1.511)		0.140 (0.220)
propertytaxbrate		-3.724*** (1.302)		-0.405 (0.309)
businessstaxrate		5.328*** (1.594)		0.826 (0.629)
income	0.196 (0.366)	0.281 (0.364)	0.239* (0.137)	0.213 (0.141)
totalgrants	0.055 (0.089)	0.042 (0.092)	-0.029 (0.042)	-0.028 (0.044)
feesincome	-0.026 (0.043)	-0.026 (0.043)	-0.006 (0.038)	0.008 (0.033)
capitalexpenditure	-0.097** (0.047)	-0.099** (0.047)	-0.038 (0.032)	-0.031 (0.032)
staffexpenditure	-0.055 (0.095)	-0.080 (0.093)	-0.025 (0.061)	-0.030 (0.061)
emergency	0.058 (0.055)	0.051 (0.055)	0.000 (0.011)	0.001 (0.011)
ideology	0.006 (0.162)	0.006 (0.162)	-0.169** (0.070)	-0.176** (0.068)
election	-0.010** (0.005)	-0.009* (0.005)	0.005 (0.004)	0.005 (0.004)
density	0.094 (0.119)	0.017 (0.159)	-3.389** (1.607)	-3.429** (1.619)
oldinhabitants	-0.970 (1.308)	-1.061 (1.345)	0.946* (0.516)	1.015* (0.510)
younginhabitants	-0.108 (0.821)	0.052 (0.812)	-0.766 (0.507)	-0.818 (0.511)
unemployed	0.030* (0.016)	0.032** (0.016)	0.004 (0.006)	0.005 (0.006)
constant	6.273 (4.965)	-3.665 (5.820)	12.550*** (4.573)	11.210** (4.589)
Observations	2,680	2,680	373	373
Number of LGs	372	372	79	79
Adj. R^2	.01	.02	.35	.36

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses.

To improve confidence about the empirical existence of the financial relationships identified in the regressions, the next section provides additional qualitative information about the influence of intergovernmental factors on local tax space. It will also investigate hypothesis 12.

6.6 The intergovernmental impact on local tax space: qualitative evidence

The previous section has indicated similarities and differences in the cross-country relationships between local financial variables and tax rate developments. Using qualitative information, this section further elaborates upon the institutional dimension of these relationships.

6.6.1 Germany/NRW: qualitative evidence

The case with the most local autonomy over own-source taxes is NRW. In contrast to the Dutch and English system, there is no maximum in place in NRW to limit the (annual) rate increase set by NRW LGs for own source taxes. However, the German system has applied a minimum tax rate (*Hebesatz*) since 2004. The minimum tax rate is 200, which in practice means that the taxable base is multiplied by 2% (e.g. business profits in case of the business tax). The implementation of a tax rate minimum follows a ruling by the German federal constitutional court, which aimed to address the negative effects of a local tax race to the bottom observed in several German regions (Henneke, 2012b). The same federal court ruling authorised the *Länder* to implement a maximum limit on the increase of business and property taxes set by LGs, however this has been ignored by NRW.¹²¹

To determine the level of local grant funding, the NRW system calculates the local income base, which is broader than only the local tax capacity. The income base is calculated via four different components, whereby the first two components – the municipal share in the income and VAT tax, and compensation payments due to a social welfare reform – enter the formula using actually generated revenues. Some *Länder* do not include the full amount, such as Lower Saxony, where only 90% of the local share in the income and VAT tax enters the formula. Failing to enter the full amount in the income base formula is advantageous to the local authority as it will positively affect the amount it receives in grant funding. The other two factors entering the equation refer to the sum of the capacity of the business and property taxes, reduced by the business tax transfer. The sum of the business and property tax capacity is calculated using fictional tax rates, which are the tax rates deemed reasonable by the state government (Buettner et al., 2008, p. 124).

The calculation method of the fictional collection rates differs among the German *Länder*. Some calculate the fictional rates as an average of the actual collection rates set by all LGs, whereas in other *Länder* the fictional rates are more loosely connected to the

¹²¹ BVerfGE 125, 141, 142f.

actual collection rates. NRW is part of the second group since its fictional collection rates have remained constant over significant periods of time, with the actual collection rates only infrequently updated.¹²² Different fictional collection rates are in place depending upon the type of tax (e.g. business or property tax).¹²³ The fictional collection rates are deducted by 5% from what the NRW state government calculates as the average tax rates set by its LGs. The deduction is aimed at reducing institutionally driven rate increases.

NRW has set its fictional rates for the business tax and property tax B at a level that has consistently been among the top of the German *Länder*.¹²⁴ A 2008 investigation conducted by the IFO research institute indicates that, as a result of the high fictional tax rates, around 89% of every additional euro in business tax revenues generated by a LG in NRW disappears in the form of reduced general grant funding as a result of the state equalisation mechanism (Buettner et al., 2008, p. 7). Due to this, the actual tax rates of NRW LGs are at least partially determined by the fictional rates. NRW LG associations consulted as part of this research all emphasise that it has been one of their continuous policy objectives to urge the NRW state government not to set fictional tax rates above the German average in order to prevent institutionally driven increases in local tax rates.¹²⁵ The associations have been supported in their plea by independent investigation committees, who have made similar appeals (e.g. IFO in 2008 and FIFO in 2013). In defence, NRW state representatives emphasise that the fictional collection rates are deducted by 5% from what is calculated as the average tax rates set by LGs, which aims to reduce institutionally driven rate increases.¹²⁶

¹²² The following equation is used to calculate the tax capacity for each of the three own source taxes (i.e.

the business and the two property taxes): $R_i^{fictional} = \frac{R_i^{IS}}{t_i^{IS}} \times | t_i^{fictional}$

Where $R_i^{fictional}$ is the tax revenues generated in municipality i using fictional tax rates. R_i^{IS} is the tax revenues collected in practice, as reflected in the official statistics. t_i^{IS} refers to the actual collection rate set by municipality i . $t_i^{fictional}$ refers to the fictional collection rate, as determined by the state government (Buettner et al., 2008, p. 88).

¹²³ In addition, some *Länder*, such as Lower Saxony, further differentiate their fictional rates depending upon type of LG, with generally lower fictional rates set for smaller LGs. NRW used to have different fictional tax rates in place for LGs with more than 150,000 inhabitants, but operates uniform fictional rates since 1996 (Buettner et al., 2008, p. 129).

¹²⁴ For example, in 2007, NRW had a fictional collection rate for the business tax of 403, the highest among the German *Länder*, strongly contrasting with the fictional collection rates of other *Länder*, for example set by Hesse (310) or Rhineland-Palatinate (325). NRW's rate of property tax A has generally been set below the German average, however, it is a tax with very limited financial importance (see also appendix X).

¹²⁵ E.g. interview Finance Committee of the Association of Cities in NRW, 10/07/2013; and interview Association of Cities in NRW, 23/04/2013.

¹²⁶ Interview Ministry for the Interior and Local Government NRW, 24/04/2013.

Due to the inclusion of local tax capacity in NRW's grant allocation formula, fiscal structures in NRW do not directly cause the accumulation of financial errors at the local level. The average rates calculated by the state government, accounting for the 5% deduction, are set at a level that does not appear to significantly reduce fiscal steering space for LGs facing financial stress. The majority of financially stressed LGs in NRW set tax rates that are substantially higher than the minimum average rate determined by NRW's state government. However, as business tax is the dominant local tax in the German system, the revenues contribute to financial error accumulation in a different way: as the tax is levied on business profits, which are volatile and raised from mobile capital, the tax itself causes inter-local tax competition, which in certain regions of NRW substantially reduces local fiscal space for upward rate setting. This explains the previous estimation results that show that tax rate decisions by county-free cities are not significantly affected by debt levels. In contrast, interviewees in NRW indicate that large LGs especially tend to base their tax rate decisions upon rates set by neighbouring LGs.¹²⁷

6.6.2 *England: qualitative evidence*

Intergovernmental tax regulations in place in the English system strongly contrast with Germany. Tax limitations used to be implemented in the English system through a rate capping mechanism, which was first implemented in England with the Rates Act of 1984. The capping mechanism strongly contributed to the polarisation of English intergovernmental relations during the Thatcher period. Government minister Heseltine remarked: *'we took their council powers away because they were making such a mess of it'* (quoted in Jenkins, 1996). The capping policy seemed to have some rationale, since some councils deliberately chose to heavily subsidize public services, and abstained from redundancies among council staff, just by increasing their local rates. In Sheffield, for example, business rates went up by 40% in 1980, and by 37% in 1981, with a strong reduction in private sector investments as a result. Many local councils nevertheless continued their policies, gambling that the central government would bail them out in case of near financial collapse (Fry, 2008, p. 170). While councils organised substantial resistance against central government's increased possibilities to intervene in subnational fiscal policymaking, especially illustrated by the 'rate-capping rebellion' of 1985, local government's resistance remained ineffective largely due to internal disagreement (Fry, 2008).

¹²⁷ Interview Finance Committee of the Association of Cities in NRW, 10/07/2013; and interview Association of Cities in NRW, 23/04/2013.

The Conservative governments led by Major between 1991 and 1997 moderated capping by introducing a system called ‘universal capping’. According to this method, the criteria for capping were announced by central government before LGs set their budget, thereby enabling LGs to be sure that the budgets they set would not be capped. Capping in this system was not simply focused on council tax levels but took account both of the authority’s budget increase and council tax increase. Due to this it was possible to have a high budget increase alongside a low council tax increase, or vice versa, without the authority being capped (Berman & Sear, 2004). This illustrates that in its operationalisation, the capping mechanism was primarily an expenditure limitation, and worked only indirectly as a tax limitation. Universal capping was abolished by the Labour Government elected in 1997 in the LG Act 1999 (Stewart, 2003, p. 231).

Despite Labour’s stated intention to rebuild central-local relations as a partnership, the LG Act 1999 continued to give the Secretary of State of DCLG capping powers, but of a more discretionary nature. The Act ((Chapter IVA 52B (1)) gave the Secretary of State the power to designate an authority ‘*that he considers [that] its budget requirements are excessive*’. While the authority was able to challenge this decision within 21 days after the announcement, the Secretary of State had the power to set out the maximum budget increase in an order that had to be approved by resolution of the House of Commons. In both the universal and discretionary capping methodology, the government had the option to either ‘designate’ a LG for capping within the budget year (‘in year’) or ‘nominate’ an authority, indicating that the Secretary of State intended to authorise a cap in the next budget year (Berman & Sear, 2004, p. 15).

Initially, discretionary capping powers remained unused and not a single authority was capped in the first five years following the implementation of the powers in 1999. However, the fact that capping was not formally used by Ministers does not imply the powers did not have any impact. Interviewees state that Labour government figures of this period regularly contacted LGs who were intending to implement a large council tax increase, reminding them of the Government’s capping powers.¹²⁸ Indications of this are also provided in government documents, such as Labour Minister Raynsford’s statement given in answer to parliamentary questions in 2004. Raynsford clarified that he had ‘*already written to some 54 authorities that have indicated that they were considering unreasonably large increases*’.¹²⁹ Parliamentary reports indicate that Government

¹²⁸ Interview Society of District Council Treasurers, 04/02/2013.

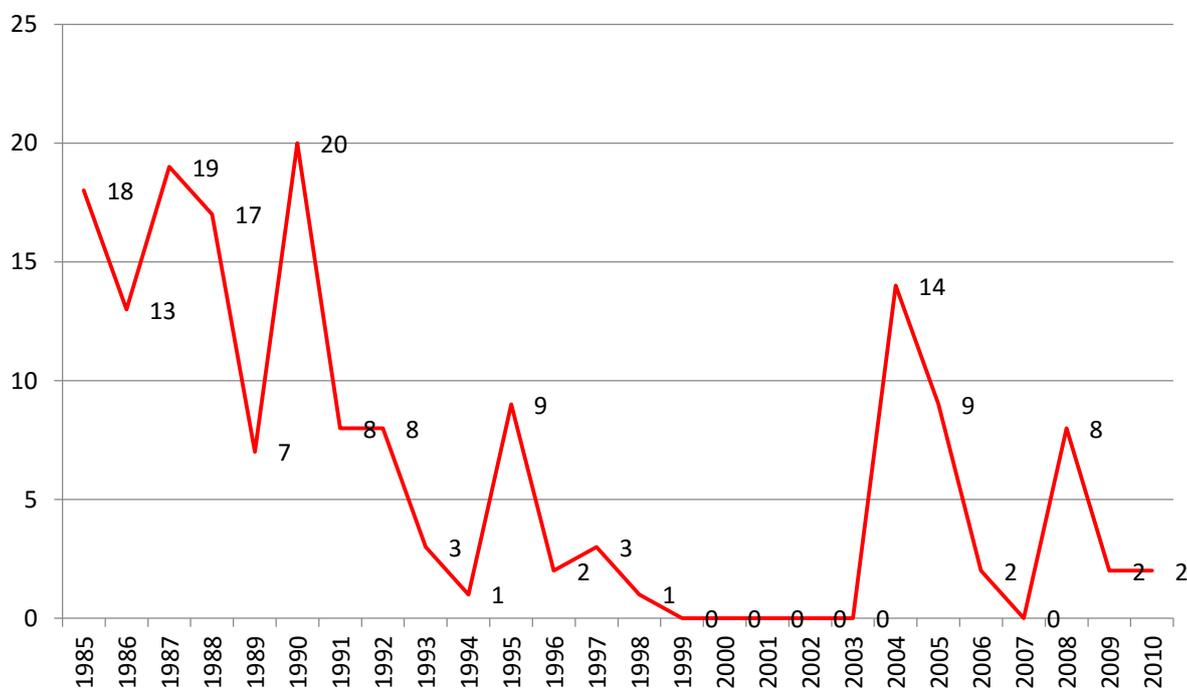
¹²⁹ LGC (2004, 5 February) ‘Raynsford issues written warnings to 54 authorities – and ready for more’, *Local Government Chronicle*.

Ministers used to meet representatives from designated LGs to listen to their explanation for planned council tax increases. For example, LGs originally designated for capping in 2004-05 attended a thirty-minute meeting with the Secretary of State and his officials (Berman & Sear, 2004, p. 30).

Increases in council tax were particularly high in 2003-04 with an average of 12.9%. The increase led to considerable pressure from central government to reduce council tax levels in 2004-05. Figure 6.2 shows that, whereas in the 1980s around 15 LGs were confronted each year with capping, this number fell between the 1990s and 2000s, but shows a peak in 2004/05 with 14 LGs being capped. Among them was an authority that had been classified as ‘excellent’ in the benchmarking system from the Audit Commission. Capping this authority went against the Government’s earlier announcement that excellent councils would be given more financial freedom and capping would not apply to them.¹³⁰

The capping system was affected by some major practical disadvantages. The drawbacks were especially visible with in-year capping, which obliged LGs that had already sent out their council tax bills to re-bill. Table 6.11 shows that the costs of

Figure 6.2 Number of LGs in England subject to capping measures



Source: own illustration, based upon statistics provided by Hay & Martin (2013)

¹³⁰ LGA, LGA frustration and disappointment over government capping announcement, *LGA press release* 059/04, 29 April 2004.

rebilling for the six designated LGs during 2004/05 amounted to approximately 40% of the amount saved as a result of capping. Rebilling costs for Nottingham in 2004 turned out to exceed the over-budget savings of 180,000 £. In addition, the discretionary use of the capping powers caused major budgetary uncertainty at the local level. Observing capping as a major impairment of local democracy, the Conservative-led coalition government that entered office in 2009 took the decision to cancel capping. The decision was partly motivated by prominent government assigned evaluations of central-local relations undertaken in the early 2000s, such as the Lyons Inquiry, which saw capping ‘as a sign that central and local government have together failed to make the system work’ (Lyons Inquiry, 2007, p. 10) .

Table 6.11 Costs of rebilling of designated LGs during 2004/05

LG	Budget Savings - £	Billing Costs - £
Nottingham City	180,000	250,000
Torbay	614,000	100,000
Herefordshire	253,000	93,000
Fenland	300,000	100,000
Hereford & Worcester	1,000,000	500,000
Shepway	600,000	93,000
TOTAL	2,947,000	1,136,000

Source: Sear & Berman (2004, p. 10).

In the Localism Act 2011, the coalition government introduced the novelty of the council tax referendum. LGs have to organise a referendum when they propose a council tax increase above a threshold that is annually determined by central government. In 2014, the threshold was set at 2%. In the three years after its implementation, no single English LG has organised a council tax referendum to obtain an increase in council tax that would be officially classified by central government as ‘excessive’ (Keep, 2013). Based upon interviews conducted with English LG representatives, four reasons can be identified that explain the lack of popularity of English council tax referendums.¹³¹ First, all local interviewees highlight that a local referendum that proposes an above average tax increase has high political risks attached to it as voters are unlikely to approve tax increases.¹³² Second, the practical costs attached to organising a referendum can be a substantial part

¹³¹ The leader of Brighton and Hove City Council announced in January 2014 that he wished to hold a referendum on a 4.75% increase in council tax. However, the plan was abandoned two months later when the city’s Green administration compromised with the minority Labour group to pass a budget with a tax rise of 1.99%, just below the 2% referendum threshold Source: Wiggins (2014).

¹³² E.g. interview SIGOMA, 07/01/2013; interview Society of London Treasurers (SLT), 07/02/2014.

of the increase in tax revenues proposed, especially for small LGs. Third, the Conservative-led coalition government introduced a council tax freeze grant given to LGs which decide to freeze or reduce their council tax level. In 2011-12, 100% of LGs took up the freeze grant, with an aggregated total of 675 million £. Of the three selected European systems, the English system alone explicitly links the abstention from local tax increases with a higher grant allocation. This supports hypothesis 12, stating that a rise in the vertical integration of the intergovernmental system is positively related to a replacement effect of LG taxes by grant funding.¹³³ The fourth reason for the absence of council tax referendums hitherto, has been willingness by Government Ministers to take the special circumstances of some groups of LGs into account and permitting them to set a council tax increase above the threshold. This applies to LGs with a historically low council tax level, which is the case for many district councils.¹³⁴ Party political links between the leadership of LG organisations, such as the Conservative dominated District Councils' Network (DCN), and central government during the Conservative-led coalition government has been an important factor in softening the council tax regulations for some groups of LGs.¹³⁵

6.6.3 *The Netherlands: qualitative evidence*

In the Dutch system, central government and LG associations agree annually upon a maximum permitted increase of the property tax (OZB), the main Dutch local tax. The operationalisation and monitoring of the property tax has seen some major changes overtime. In the initial years, Dutch LGs were largely free to determine their property tax level, but in 2006 a micro norm was introduced. The main motivation to start micromanaging the local property tax was the fear at the central government level that LGs would try to compensate for the cancellation of one part of the property tax – the tax on renters of residential houses – in 2005 (see section 6.3) by increasing the remaining property taxes. One year after its introduction, central government had already concluded that the system did not work. The system had particular disadvantages in terms of its local financial consequences and administrative requirements.

¹³³ The regulations for the freeze grant changed in 2012-13, when grants equivalent to a 2.5% council tax increase were valid for one year only instead of multiple years of the Spending Review period. This change incentivised around 12% of English LGs to no longer freeze their council tax level, and increase their grants up to the referendum threshold level (3.5% in 2012-13) (Keep, 2013).

¹³⁴ E.g. in 2013-14, 52 LGs were allowed to set a maximum council tax increase in the range of 4-8% without requiring a referendum. Source: Keeling (2013).

¹³⁵ Interview District Councils' Network (DCN), 10/01/2014.

Negative local financial consequences followed from the application of similar maximum increases of the property tax across LGs, which assumes that a certain set increase in property taxation results in an equal revenue rise across LGs. However, since 1997, local tax capacity has not been fully equalised in the Dutch system. From the calculated tax capacity of the category non-residential houses, 70% of the revenues are equalised, compared to 80% for the category residential houses.¹³⁶ Due to the partial equalisation of local fiscal capacity, Dutch LGs with above average property values possess more general funding at a certain property tax rate, compared to LGs with lower average property values, while setting the same tax rate (Allers et al., 2007, p. 20). Hence, by not taking historical differences into account, the micromanaging of rate increases, enlarged inter-local financial differences, which went against its intended effect.

The system also had substantial administrative disadvantages. A central government interviewee explains:

The system was very demanding in terms of administrative capacity. The budgets of all 400+ municipalities had to be checked individually, including judgement on their proposed property tax increase. While this was already extremely burdensome, the work was further complicated by several exceptions that had been agreed upon. For example, it was decided that municipalities that set a 'disproportionate' tax increase would not be sanctioned in case they had received dispensation from their provincial regulator.¹³⁷

Due to the difficulties attached to the micro norm, the Dutch central government and the Dutch local government association (VNG) agreed to replace the micro norm by a macro norm from 2008 onwards. The macro norm represents the maximum allowable increase of the property tax annually, and is monitored by central government at an aggregated level, rather than at the level of individual LGs. Decision-making on the macro norm is done in a typically consensus-oriented Dutch way with the economic predictions from the CPB, an independent Dutch government agency for economic policy analysis, playing a leading role. The macro norm is calculated by multiplying the predicted economic growth with predicted inflation, both calculated by the CPB. In the intergovernmental agreements made as part of the macro norm, the Dutch local government association has committed itself to actively promoting local compliance with the macro norm, whereas central

¹³⁶ The equalisation occurs on the basis of the total property tax value within a municipality, multiplied by a percentage that represents the average property tax rate set by all Dutch LGs, known as *rekentarief* or calculation rate. For example, in 2012 this percentage was 0.0963% for owners of residential houses, 0.1043% for owners of non-residential houses, and 0.1294% for renters of non-residential houses. Source: BZK (2011).

¹³⁷ Interview Dutch Financial Relations Council, 21/01/2014.

government itself retained the power to correct potential encroachment of the norm via a reduction of local grant funding.

The standard procedure, agreed upon between central government and the local government association, is to first discuss situations in which the norm has been trespassed within the so-called Governmental Consultation Meeting on Intergovernmental Financial Relationships – the Bofv (Bestuurlijk Overleg Financiële Verhoudingen). The Bofv is a high level working group consisting of the Minister of the Interior, the Minister of Finance, and the Chairman of the Dutch Association for Local Government (VNG), and the Dutch Association of Provinces (IPO). A recent government evaluation of the macro norm showed that in 2008, the increase of the local property tax exceeded the macro norm. However, during the Bofv meeting on the 2008 norm, the decision was taken to re-evaluate the implementation of sanctions if the macro norm would be violated again in 2009, which did not happen. The macro norm was again violated in 2012, forcing central government to implement a reduction on the macro norm for 2013 by the percentage amount the norm was exceeded in 2012. Currently, the system is being evaluated as both central and subnational actors prefer to adapt the indicators being used to calculate the macronorm.¹³⁸ Overall, analysis of the Dutch system demonstrates that, largely due to the consensus-oriented and pragmatic approach of Dutch intergovernmental actors (see chapter 3), individual Dutch LGs have substantial leeway in setting their tax rates.

6.7 Concluding remarks

This chapter analyses how the nature of local tax space impacts on the fiscal response of LGs to financial stress. The chapter focuses on taxes that LGs can influence, and shows that even for own source taxes, fundamentally different intergovernmental arrangements are in place across European systems. While US style TELs are not directly observable in the European context, in all three systems there are institutional mechanisms in place that affect local rate setting powers. In the Dutch and English systems these institutional restrictions have been strongly driven by national level concerns about the effects of growing local fiscal pressures on the national tax burden. The German/NRW system differs from the Dutch and English systems as no limitations are in place to maximise local tax rates.

¹³⁸ Interview Dutch Ministry of the Interior and Kingdom Relations, 23/01/2014; interview Dutch Association of Municipalities, 30/01/2014.

The empirical findings confirm that the LG financial stress indicator used in this thesis – LG debt – is positively related to the local tax effort by several types of LGs. The relationship is most relevant for the lower tier in the two-tier areas in England and NRW, and for Dutch LGs with more than 25,000 inhabitants. Findings also demonstrate that expenditure on staff has a positive, and opposite, effect on local tax effort compared to capital expenditure. This shows that local tax effort is affected by the type of spending in which LGs are involved. Support and disapproval is found for the political economy-driven hypothesis. In contrast to expectations, a left-wing council is negatively related to local tax rates in the Dutch case, but the results of the time variable election are in line with expectations.

Expenditure on capital investment appeared to be strongly negatively related to rates set by Dutch LGs and NRW county-free cities. The systems also demonstrate similarities and differences regarding the error correction capacity of local fiscal structures. First of all, the error correction capacity of local taxes is restricted due to the limited share of local taxes as part of a locality's total income. Hence, in the Dutch and English system in particular, local taxes often only make minor adjustments to total budget capacity. Second, error correction capacity of local taxes has shown inter-local divergence due to changes in equalisation mechanisms. Equalisation of inter-local differences in fiscal capacity mainly occurs through adjustments of grant funding. These adjustments substantially reduce the potential financial errors that would result from local taxes in case no equalisation took place. However, the systems have not been stable on this dimension: inter-local differences in fiscal capacity in NRW have reduced following the inclusion of the local level in the federal income and VAT tax, in exchange for an increased share of the federal government in local business tax revenues. In England, to contrast, equalisation has reduced overtime, and especially since the partial localisation of the business rates from 2014 onwards, local tax revenues are causing significant increases in financial leeway for fiscally strong LGs, but at the same time reduce the fiscal correction capacity for LGs with a weaker tax base. Hence, the most contrasting cases in this study have converged in recent decades, with the German intergovernmental financial system having become more vertically integrated, whereas the English system has become less financially integrated.

The findings of this chapter provide several directions for future research. A relevant question for scholars and policymakers alike is as follows: why do different types of LGs use their fiscal space in a different manner, and to what extent do local fiscal strategies reflect concerns among key local actors about the financial health of the local

authority. Country comparative research into the spatial effects of local finances provides another promising research avenue, both in terms of empirical contribution and methodological advancement. As this chapter has concentrated on local taxes, the question has remained unanswered to what extent the different dynamics in local fiscal structures identified in this chapter reflect an institutional logic that fits with the wider intergovernmental financial structure of each of the three systems. To answer this question, a comparative institutional analysis is provided in the next and final chapter of the thesis which covers the core intergovernmental financial institutions that have been distinguished in this thesis.

CHAPTER 7

Conclusions

7.1 Overview

This thesis analyses the role of intergovernmental systems in the evolution of LG financial stress. The study applies a most-different system approach in its comparison of three European constitutional systems: a unitary-centralised, a federal, and a unitary-decentralised system. The focus is on three core intergovernmental financial institutions: intergovernmental regulations, grant funding systems, and local tax space.

To identify LG financial stress, LG debt has been used as a stress indicator. Quantitative results, and triangulation of those findings with qualitative evidence, confirm the relevance of debt as an indicator in a country comparative study of LG financial stress. Debt is a relevant financial stress indicator in case of all three IGR financial institutions. Findings demonstrate that intergovernmental institutions fundamentally affect the causes of, and responses to LG financial stress. Some intergovernmental institutions enhance LG financial stress, whereas others reduce stress, reflecting different processes of error accumulation and different capacities for error correction.

This concluding chapter provides a review of the policy context in intergovernmental financial systems, analyses the relevance of a framework based upon error accumulation processes and error correction dynamics, and relates the findings to cross-country differences in discretion and certainty. The final section discusses the contributions of the thesis to the literature, the limitations of the research findings, its policy implications and sets out an agenda for future research.

7.2 Regulatory structures and LG financial stress

The regulatory framework provides a potentially strong institutional contribution to error correction capacity. Strict regulations and active monitoring improve effective enforcement of regulations, which can reduce financial error accumulation at the local level. In practice, the error correction capacity of the regulatory structures in the Dutch, English, and NRW systems is more limited. Some of the regulatory features contribute, directly or indirectly, to error accumulation – articulated in an increase in LG debt levels.

The regulatory regimes are a primary explanation for low effective borrowing costs across the three systems. The individual financial position of LGs does not have any impact on the interest rates set by the specialised LG lenders, who strongly dominate the English and Dutch LG borrowing market, and are also prominent in NRW. Private sector borrowers also barely adjust the costs of borrowing to the financial features of LGs. The empirical findings indicate that low borrowing costs enhance the positive relationship between a locality's income and its debt accumulation in all three constitutional systems. The effect is especially strong for large LGs – reflecting the greater ability of large LGs to strategically use fluctuations in interest rates, due to their larger, more consistent need to borrow. The regulatory regimes directly affect LG budgeting practices, and as such help to explain LG deficit and debt trends. The analysis shows that despite the strong belief among credit markets in the quality of the regulatory frameworks, and hence indirectly the creditworthiness of LGs, the supervision systems show flaws in practice. Different regulatory elements reduce their effectiveness as error correction mechanisms.

The English regulatory system used to provide the most heavily regulated system of the three cases in this study, but the introduction of the Prudential Borrowing Framework (PBF) has transferred many treasury decisions that were previously subjected to intergovernmental inspection to the local level. The local level in NRW has also experienced a relaxation of intergovernmental regulations, the most notable being the removal of the credit ceiling on short-term liquidity, and the extension of the requirement of setting a balanced budget from the fourth to the tenth year after the identification of an unbalanced budget. In the Dutch system, provincial supervision on LG finances has been reduced in favour of a larger scrutiny role for local politicians. The expected effects of the Dutch reforms regarding a greater local control over LG finances have not materialised. The Dutch system also demonstrates substantial local leeway to temporarily escape from the system's balanced budget rule.

The English, NRW and Dutch reforms increased local level financial flexibility, but they have exerted mixed effects regarding local level discretionary space. In the

English system, PBF has strongly increased discretion at the English local level. The reforms in the Dutch and NRW system have acquired an administrative legal character. Due to this, the reforms increased local level financial flexibility but have not substantially enlarged the discretion of Dutch and NRW LGs. The regulatory changes implemented, apply to all LGs, such as legislation introduced by the NRW parliament to extend the balanced budget rule from the fourth to the tenth year. Hence, from the three systems, local level discretion in the regulatory space is most substantial in the English system. This demonstrates that in contrast to the theoretical expectation, the centralised case in this study offers most space for error accumulation in the regulatory domain. Discretion in the Dutch and NRW systems does exist but is concentrated to the role played by intergovernmental regulators in performing their regulatory duties. Regulatory discretion has a strong political dimension due to intergovernmental partisan linkages between regulators and regulated LG entities. Opposite to the English system, the use of discretion in the Dutch and NRW regulatory domain is observed as a system feature that undermines institutional performance because of its partisan nature.

The Interior Ministries in each of the three country cases officially fulfil the role of safeguarding the institutional and financial stability of the intergovernmental systems. However, given cognitive limitations among policymakers, the practical translation of this role is performed by analysing the institutional components in a serial way, hence, the dominant response mode to local financial errors is ad-hoc. This is despite the frequent employment of investigations into local finances across the three systems, the impact of which on the processing of policy information appears rather limited. Illustrations of the ad-hoc response mode are NRW's city consolidation package, and regulatory changes implemented in the Dutch system to provide a local budgetary leeway for the – largely unforeseen – negative financial consequences of the involvement of Dutch LGs in the country's property bubble.

Bounded rationality, in the form of cognitive limitations among regulators, is deepened by understaffing of regulatory agencies, and an underutilisation of scale advantages in monitoring. The latter particularly affects the Dutch and NRW systems due to the organisational fragmentation of often highly autonomously operating regulatory agencies. These regulatory weaknesses reduce the error correction capacity of regulatory frameworks, making it particularly difficult to adequately monitor the finances of large LGs. In line with information processing theory, information exchange is more fragmented in systems that are more decentralised (Workman et al., 2009). In the Dutch system, the provinces monitor the factual number of LGs with unbalanced budgets, but

policymakers in the Dutch Interior Ministry largely ignore such information and focus on the much smaller number of LGs that are part of the intensified supervisory arrangements. The features of policy information streams strongly affect the performance of the regulatory systems.

The regulatory system in NRW operates in a more centralised manner than the Dutch system, and this reduces inefficiencies in the processing of information about LG finances between the NRW state and the regional regulators on LG finances. However, a large fragmentation in information processing exists in the German systems between the state and the federal level, as these intergovernmental channels have a strong political rather than administrative character. This has resulted in inefficient information processing on local finances between the state and federal actors, which has contributed to financial error accumulation at the German local level.

Of the three intergovernmental institutions, the regulatory framework provides the clearest illustration of self-undermining feedback (Jacobs & Weaver, 2014). An unspoken preference can be observed in all three country cases among intergovernmental actors to enable LGs to profit from low local borrowing costs. This focus on short-term financial advantages affects the thoroughness of intergovernmental monitoring, reduces its transparency to the outside world, and biases local budgeting behaviour towards borrowing instead of exploring other financial options.

7.3 Grant funding systems and LG financial stress

The three country cases all demonstrate a relationship between LG financial stress and grant funding systems. LGs with higher grant dependence demonstrate higher debt levels. The relationship is concentrated with specific grants, and differences exist between the countries. In the English system, reductions in central government funding have been compensated by increased local borrowing. While there have been limitations on the maximum cuts in formula grant, this has not been the case with specific grants. Specific grants pose the greatest risk to the financial position of English LGs.

In the NRW system, it is also specific grant arrangements that most negatively affected the financial position of LGs. Strongly driven by a wish to control public finances after the German unification, German social welfare arrangements were drastically reformed by the federal government in the early 2000s. The reforms increased LG financial stress in NRW regions with a struggling economy and high demand for social services. While recent institutional reforms have improved the political and financial

position of the NRW local level, local funding difficulties resulting from social welfare legislation have only partially been addressed.

The quantitative findings demonstrate a historically positive relationship between grant allocation and Dutch LG debt. Interviewees indicate that while the relationship was strong in the past, the debt enhancing effect of grants has reduced with the increasing sophistication of the Dutch formula system. While the funding of specific grants contain increasing risks for the financial position of Dutch LGs, consequences on Dutch LG financial stress have been limited over the period of this research.

In all three systems, there are partisan effects that influence the allocation of grants. Party political congruence has a positive financial effect for the involved LGs. However, the financial perks enjoyed by politically aligned LGs are likely to go at the cost of making funding available for unaligned LGs, hence, contributing to financial error accumulation amongst the latter group. This can be explained by the fact that the aggregate budget available for grants is mostly fixed, and changing the allocation mechanisms in favour of one group of LGs results in financial disadvantages for the other group.

Error correction mechanisms in grant funding

The investigations demonstrate that several institutions reduce the debt increasing effect of grant funding. LG financial stress resulting from grant mechanisms can be prevented when policymakers are incentivised to account for the local financial consequences of grant mechanisms as part of the legislative process. Due to their preventive nature, these institutions can be labelled *ex-ante* error correction mechanisms.

The introduction of the NRW Connectivity Principle and the Dutch Intergovernmental Finance Law 1997 strengthened the capacity of *ex-ante* error correction mechanisms in the NRW and Dutch systems. The mechanisms reduce cognitive limitations among policymakers and operate in a relatively effective way – even though social welfare legislation is excluded from NRW's Connectivity Principle. The functional allocation of the supervision of the enforcement of the aforementioned *ex-ante* error correction mechanisms at the Interior Ministry in the Dutch and NRW systems plays a supportive role in their implementation, as opposed to leaving their administration entirely to individual departments. The interdepartmental power position of the Interior Ministry seems to influence the effectiveness of the implementation of the mechanisms – with the strong position of the NRW Interior Ministry increasing its capacity to supervise the mechanism.

The standardised methodology is another mechanism that reduces error accumulation in the Dutch grant system. The mechanism does not protect Dutch LGs from cuts, but delays their implementation and guarantees that cuts are proportionate compared to those implemented in the rest of the Dutch public sector. The Dutch standardised methodology demonstrates its relevance when comparing the larger cuts implemented by the Conservative-led coalition government upon the English LG sector, relative to other parts of the English public sector. Although there are constitutional protections in place in NRW, these have infrequently operated as error correction mechanisms since the NRW State Court has tended to back the budgetary decision made by the NRW state government.

Next to intergovernmental institutional mechanisms, partisan effects and administrative staff capacity affect the working of error correction mechanisms. However, in line with recent scholarly findings (Kim, 2013; Sacchi & Salotti, 2014), the results demonstrate fundamentally different dynamics between specific and total grants. Party political congruence has no significant effect on the allocation of general grants to NRW LGs. The transparency and relative simplicity of NRW's general funding mechanism eliminates the chance for individual LGs, and state level actors, to influence general grant allocations. Partisan influence affects the allocation of NRW's specific grants, and dynamics operate via both the local council and the mayor. The introduction of the elected mayor in NRW has improved local access at higher government levels. This has enabled NRW LGs that demonstrate party political congruence to reduce the positive effect of grants on debt. This illustrates that for those NRW LGs to which it applies, party political congruence increases error correction capacity.

The non-significance of specific grants in relation to LG debt in the Dutch system confirms the limited contribution of Dutch grant funding to local error accumulation. Qualitative evidence explains the effectiveness of error correction mechanisms in the Dutch grant system. Grant mechanisms have become more sophisticated over the years, the system has a special arrangement in place for the small number of LGs for which the redistribution system still exerts negative financial consequences (Section 12), and errors in the design of grant mechanisms are relatively quickly identified and addressed following regular financial reviews. In the policy actor space, the Dutch system is the only case from the three countries that has a Council for Intergovernmental Finances in place. The council initiates and (partly) executes the review processes, but its role is not imperative in the process of correcting institutional errors. In fact, the Council's authority among policymakers has reduced in recent years. The Dutch Association of

Municipalities is an actor whose everyday negotiations play the most critical role in the Dutch system to safeguard local financial interests. It has great access to central government and the ongoing decentralisation of tasks to the Dutch local level has strengthened the association's intergovernmental negotiating position. Similar to NRW, Dutch local political actors are able to positively affect the financial consequences of specific grants, with an influential role occupied by the mayor. The findings are in line with emerging research that demonstrates that individual Dutch LGs put increasing resources in professionalizing their lobby activities at the level of grant providers (cf. Haan & Venetië, 2014).

In the English system, *ex-ante* error correction mechanisms are weakly developed. There is no institutionalised independent council on intergovernmental finances and only weakly institutionalised procedures to involve LG interest groups in central level decision-making. Hence, the strongest error correction mechanisms in the English system operate *ex-post*, i.e. once financial errors have occurred. The responsive error correction mode in the English system does not imply that English correction mechanisms are less effective than the more preventive Dutch and German mechanisms. The English system illustrates that in its *ex-post* mode it possesses the capacity to correct errors quickly and pragmatically. Government mediation during the financial crisis that faced West Somerset Council, the additional grant funding implemented by the Conservative-led coalition government for rural councils, and willingness by government Ministers to exempt specific LGs from the council tax referendum requirement, exemplify the fast error responses by the centre in the English system.

The large discretion in the English system provides space for government Ministers to respond in a flexible manner to local financial difficulties that occur due to grant funding. However, larger discretion also creates larger space for partisan influence. The likelihood that rural LGs would have received a similar funding priority under a Labour government as during the Conservative-dominated coalition government is smaller. Field research findings demonstrate that Conservative and Labour dominated LG interest groups have more success in defending their financial interests when 'their' party is in government. Political effects in the English system influence the allocation of grants to LGs. Party political congruence reduces the debt enhancing of grants at the English local level. Despite the technical appearance of England's general grant system, government Ministers have substantial discretion to adjust calculated grant allocations. As space for local actors to adjust their general grant allocation is marginal in England, allocative dynamics are strongly driven by central level considerations. The findings on

specific grants indicate that a bigger local administration either increases the amount of attracted specific grants, or leads to grants with less financial risks attached to them. This confirms the scholarly portrayal of the English system as having the strongest intergovernmental links between local and central level bureaucrats and professionals, rather than politicians (Laffin, 2009).

In all three systems, government departments frequently use matching and start-up funding methods, through which LGs compete for specific grants and their allocation is decided, amongst others, on the basis of the quality of submitted proposals. Having a sizeable and professional staff significantly increases the chance of success in attracting these grants. The increasing importance of local skills in attracting grants provides at least a partial explanation for the growing divergence in the financial position of Dutch, German and English LGs. LGs that put more resources into their local staff tend to have administrators who are more specialised and experienced in interacting with grant-providers, and results indicate this contributes positively to the impact of specific grants on the local financial position. As expenditure on local staff is one of the main targets in the austerity measures implemented by LGs with weak finances, staff reductions are likely to further reduce the performance of LGs in attracting grants, hence increasing financial pressures on LGs with already weak finances.

7.4 Local tax space and LG financial stress

In all three country cases, local taxes serve as a mechanism to help correct financial imbalances that are caused by the larger intergovernmental financial architecture. Local fiscal structures also contribute to local discretionary spending capacity. In all three systems, error accumulation processes in local tax space are reduced due to the fact that, as part of the grant calculation, local tax capacity is taken into account. However, the institutional design of local tax systems exerts risks on the local financial position due to the level of the fictional tax rates that are used as part of the grant calculation, which is particularly high in NRW. The error correction capacity of fiscal structures is further reduced due to intergovernmental limitations on local fiscal space, which reduce local fiscal options to respond to financial stress. Even when limited to own source taxes, the Dutch, English and German systems show large differences regarding the extent to which local tax rates can be locally determined. The working of intergovernmental limitations on local tax space is strongly related to processes of error accumulation as caused by the organisation of local fiscal space: the bigger the financial errors caused by local fiscal space, the more relevant is the system's capacity to correct those errors.

The institutional feature that has most strongly contributed to error accumulation in the English local fiscal domain has been the continuing postponement of property revaluations. Due to the effect of council tax capacity on the grant level received by LGs, calculating council tax on the basis of 1991 property values benefits LGs that have seen a relative rise in property values and weakens the financial position of LGs that have experienced a decline. Ignoring this effect on the grant calculation, the postponement of revaluations has starved English LGs across the spectre of a potentially buoyant revenue source. With re-evaluations occurring annually in the case of the Dutch property tax, and NRW tax levies being connected to the actually generated business profits, error accumulation due to the calculation of the taxable base is minimal in the Dutch and NRW system.

A second weakness in the design of the Dutch and English tax system is that due to the relatively small size of own source taxes, as a proportion of the locality's total income, local tax rates have to be significantly increased in order to generate a small increase in total local income. With (in)direct limitations on rate increases in place, the gearing effect significantly reduces the actual error correction capacity of local fiscal structures in the Dutch and English systems. Given the larger share of own source taxes as part of total local income the gearing effect is smaller in NRW, and, from an institutional perspective, rate increases are easier to implement due to the absence of rate limitations. However, given the nature of the business tax in NRW, LGs face pressures from inter-local tax competition not to increase tax rates, which makes that error correction capacity is limited also in the NRW case.

A third source of error accumulation carries financial risks in the long-term. Expenditure on capital investment appeared to be negatively related to rates set by Dutch and NRW LGs. In line with findings outside the country selection in this study (e.g. Hendrick, 2011), rate increases by Dutch and NRW LGs are seldom used for capital expenditure purposes. Although putting limitations on capital expenditure might generate financial space in the short-term, it builds up internal risks and often results in large expenditure obligations in the long-term. Major and often sudden capital expenditure obligations following long periods of cuts on capital investment are a major feature of Dutch and NRW LGs in financial emergency arrangements. The English system contributes less to this type of error accumulation as local capital expenditure is more frequently financed through dedicated capital grants. Hence, capital expenditure is less dependent upon local political willingness to generate own source revenues for investment purposes.

Despite the gearing effect reducing the error correction capacity of local tax space, findings indicate that LGs facing higher levels of financial stress set higher tax rates. The use of tax space as an error correction mechanism is particularly concentrated in smaller LGs, which seems related to the smaller number of financial instruments available for correcting financial errors at the disposal of smaller LGs. In Dutch and English LGs, the use of the tax instrument is positively related to local staff expenditures – indicating that tax rate increases are triggered by local discretionary spending preferences to protect spending on local staff.

Limitations in error correction capacity of fiscal structures in the Dutch and English systems interact with grant funding mechanisms. In both systems, a lack of fiscal error correction capacity is compensated by increased grant funding – which is most visible with the council tax freeze grant in the English system. The strong vertical integration of core welfare functions in the English system provides English LGs with a stronger strategic position than one would expect from a sole comparison of constitutional structures. Although less formalised than the council tax freeze grants in England, the Dutch system also provides evidence of error correction capacity in the intergovernmental consultation arrangements related to local tax limitations and grant funding. The consensus-oriented approach in the Dutch system partly explains why the Dutch central government chooses to monitor local tax decisions at an aggregated level and intensely coordinates decisions affecting local finances with subnational actors. In England, correction capacity is present but operates mainly at a micro level – LG associations have limited influence, and central government takes most decisions unilaterally. The relatively fixed legal structure of intergovernmental funding arrangements in the German system, in contrast, eliminates much of the scope for a tax replacement effect by non-tax revenues, especially grants. At the same time, the German system has reduced local tax space by allowing *Länder* governments to implement a maximum limit on the increase of local tax rates, even though this possibility has not been used by NRW to date. Hence, the findings confirm that increases in local tax revenues are likely to be replaced with increased grant funding in case of more vertically integrated intergovernmental systems (Blom-Hansen et al., 2014).

7.5 Intergovernmental financial institutions combined: cross-country comparison

The investigations in this thesis demonstrate that intergovernmental financial structures can be seen as complex systems (Érdi, 2007), with continuous interactions among their

subsystems. The expectation was formulated in the literature review that IGR financial institutions are more rationally designed in NRW than in the English system, with the Dutch system occupying a mid-position. The financial implications of the designs are that the NRW, and to a lesser extent the Dutch system, export fewer financial risks to the local level than the English system does. Findings indicate that LG is in a less stable position in England. Changes are implemented frequently, resulting in a relatively ungrounded English state structure (Dunleavy, 1989), even when the system gives a stable and technical impression from the outside. In line with the institutional and IGR literature (cf. Benz & Zimmer, 2012; Hendriks & Schaap, 2012), more constitutional protections are in place in the German and Dutch systems. Implementing institutional changes in the German and Dutch systems is also more time intensive. Based upon the insight from information processing theory that more time being spent on a problem reduces policymakers' cognitive limitations, the expectation is reinforced that the German and Dutch systems develop more sensibly designed systems, which will export less financial risks to the local level.

The quantitative and qualitative findings into core intergovernmental financial institutions do only partly confirm these expectations. Despite the constitutionally stronger position of LGs and their interest groups in the German/NRW, and to a lesser extent Dutch system, financial error accumulation is stronger in the German and Dutch systems, than in England. Hence, the financial position of English LG is volatile but less fragile than in the German/NRW system. The intergovernmental financial structure in England carries a higher risk to implement design failures than the German and Dutch systems. However, the fluid constitutional structure generates high capacity in the English system to rapidly and comprehensively respond to local financial errors caused by the intergovernmental financial design.

The centralised English system has limited debt accumulation, reflected in the comparatively smaller amount of LG debt in England versus NRW and the Netherlands. As such, the comparatively healthier financial position of English LG is an indirect consequence of this framework. Due to its pragmatic nature, the English framework remains largely unarticulated, which means that the position of English LG is an outcome of immediate responses by the centre to changing material circumstances, rather than long running reform processes. The high fluidity of the English framework implies that changes can be implemented quickly, including reforms that contrast an apparent path dependent logic. The strong increase in English LG financial stress over a short period of time shows that error accumulation in the English system can accumulate rapidly, but due

to the system's large error correction capacity the consequences of stress accumulation as to the long-term financial stability of English LGs are less severe compared to the German and Dutch systems.

The legalistic and federal design of the German/NRW intergovernmental system offers institutional features that are beneficial to the position of the local level, such as constitutional reviews, the Connectivity Principle, and a great access at the local level to grant providers. The structure, however, also contributes to financial error accumulation and reduces error correction capacity. The institutional separation between the actors that draft legislation – which has a local financial impact – and actors that fund that legislation increases the risk of tightened funding for local service provision. The functional separation also increases institutional decision costs. In addition, the limited fiscal space of the *Länder* as the main grant provider of German LG, creates incentives at the *Länder* level to find short-term solutions to local spending pressures. An illustration of this is the relaxation by the NRW state government of the balanced budget rule applying to the local level.

The unitary-decentralised Dutch system was expected to present a mid-position in terms of its effects on error accumulation processes and error correction capacity. In the Dutch case, the causes of, and responses to LG financial stress are in many cases indeed a mix of what is observed in the centralised English and federalised NRW systems. The design of the three core institutions in the Dutch system is more affected by local influence than in the English system, but has less formal protections surrounding it as in NRW. The consensus-oriented approach of the Dutch governing culture (Andeweg & Irwin, 2009) is strongly observable in the design of its intergovernmental financial institutions. The Dutch redistribution system reflects the centre's ambition to accommodate as many interests as possible, and the implementation of intergovernmental tax limitations proceeds through intensive coordination with the local sector, and leaves Dutch LG with substantial discretionary space.

The effect of the Dutch governing style on the evolution of LG financial stress is mixed. This is noticeable when comparing the effects of different intergovernmental financial institutions. The consensus approach has a positive impact on grant funding mechanisms, which pose limited financial risks to the financial position of Dutch LGs, notwithstanding the disproportionate influence of the G-4 cities. However, the consensus approach contributes to error accumulation in the regulatory domain. Dutch intergovernmental monitoring occurs in a more politicised context than in the English and NRW system, and this combined with a political culture of conflict avoidance, explains

the particular Dutch background of ineffectiveness in the enforcement of intergovernmental financial regulations. The negative financial consequences on Dutch LGs following from the Dutch property bubble, and the belated response by Dutch provincial regulators, demonstrates that the threshold of response in the Dutch regulatory system is far from being adequate. This shows that the explanatory strength of information processing theory can be improved by extending its focus on formal institutional structures to informal rules.

Constituting one of the main areas determining local performance, the analysis of the financial dimension in this thesis demonstrates that ‘institutions matter’ but that the working of their subsystems differs from how the three European systems are portrayed in the literature. The system which possesses the most capacity for parallel processing is the English system. Although the English system stands out in its historically evolved complexity, the larger capacity for parallel processing is not reflected in intelligent system design. Rather, it is the administrative and political discretion that generates capacity at the English centre for parallel processing (Booth, 2007; Tewdwr-Jones, 1999). The investigations confirm a particular political character of the English system, but political factors also affect the performance of Dutch and NRW intergovernmental financial systems. The extent and impact of these political factors is strongly influenced by the nature of the policy subsystem and the direction of the institutional dynamics – i.e. whether policy behaviour is focused on preventing or correcting error accumulation, or, unintentionally, contributes to error accumulation. This demonstrates the relevance of focusing on specific domains of local government in cross-country analyses, rather than comparing LG systems across a range of dimensions (e.g. Loughlin, Hendriks, & Lindström, 2012). An investigation into one institutional dimension improves the analytical capacity to distinguish between institutional processes that have predominantly a local level background, or instead strong intergovernmental determinants. Policy dynamics theory proves highly valuable in identifying the positive and negative impact of separate intergovernmental institutions, and analysing them in conjunction.

7.6 Contributions to the literature

This thesis makes several contributions to the literature. Five contributions stand out.

First, by comparing the impact of fiscal institutions on local finances in three European systems, this thesis expands second-generation fiscal federalism (SGFF) beyond its dominant focus on the meso-level (Oates, 2005; Rodden, 2006; Von Hagen, 2008). By using non-aggregate local statistics and developing cross-country local fiscal

stress indicators, the thesis strengthens the empirical and methodological base of SGFF perspectives on intergovernmental finances. The thesis findings demonstrate that behaviour by actors in the intergovernmental finance game does not solely result from ‘common good considerations’, providing support for a core claim made by SGFF scholars. The empirical chapters of the thesis demonstrate that political considerations regularly affect actors’ judgements – reducing the technical nature of grant funding and intergovernmental supervision techniques. While SGFF rightly extends the traditional rational-economic explanation for governments’ fiscal performance with political variables, this thesis demonstrates that in some cases it is neither economic-rational nor political considerations that affect local fiscal outcomes. Rather, the findings point at the relevance of macro level constitutional structures. These ‘lower-level institutions’ (Von Hagen, 2008, p. 474) strongly affect the ability of actors to process information, adapt to environmental changes, and implement institutional reforms. Hence, the findings of this thesis do not solely underline the relevance of a SGFF approach to intergovernmental finances but illuminate the importance of enlarging SGFF towards the underlying constitutional architecture of intergovernmental financial systems, including the fiscal effects at the local level.

Second, given the strongly segregated state of empirical research on local finances, this thesis contributes to the literature by analysing the combined impact of the main intergovernmental financial institutions on local finances. The effects of these institutions appear highly contingent (Weaver & Rockman, 1993). In the German/NRW system, increased LG financial stress as caused by grant funding arrangements has been addressed by relaxing LG budgetary regulations on local debt and deficit making. Institutional interactivity is also visible in the Dutch system. The standardised methodology linking central government spending to the size of the Dutch LG budget reduced local financial stress in the Dutch system. However, low borrowing costs and a loose intergovernmental financial regulatory framework incentivises local politicians to increase their debt position. The thesis demonstrates that LG debt, including the local level political strategic drivers behind it (Pettersson-Lidbom, 2001), can only be explained by accounting for the contingency among intergovernmental institutions – which can only be captured by conducting an in-depth analysis of multiple intergovernmental institutions simultaneously.

Third, the thesis points at the transforming role of mayors in European political systems, and sheds new light on the functioning of German local administration. In contrast to the dominant portrayal of German local administration as predominantly

legalistic (e.g. König, 2006), partisan elements do affect grant processes to the German local level. In contrast to England, partisan dynamics have a strong bottom-up effect in the German system. The findings from this thesis resemble an emerging empirical research strand that demonstrates the growing importance of mayoral leadership for bringing different actors and resources together, and representing the local authority externally (Vogelsang-Coombs, 2007; Wollmann, 2005, p. 29). The increased importance of local political leadership is clearly articulated by John (in: Goldsmith & Larsen, 2004, p. 122): ‘Leadership is crucial to the new urban governance. The politics of decentralisation, networks, participation, partnership, bureaucratic reform, rapid policy change and central intervention need powerful but creative figures to give direction to local policy-making’.

Fourth, the thesis provides a unique application of policy dynamics theory which leads to a reconsideration of the conventional portrayals of intergovernmental relations in the systems studied. Using core concepts from policy dynamics theory, the analysis demonstrates that the political nature of discretion does not only contribute to processes of error accumulation but can also strengthen error correction capacity. The political nature of discretion in the English intergovernmental system leads to a redefinition of the influence of LG interest groups in the English system. While the formal institutional position of LG interest groups in England is weakest from the three country selection, the influence of English LG groups on intergovernmental financial decision-making within the centre can be substantial in case of party political alignment between the government in power and the leadership of the LG groups. This finding contrasts with conventional wisdom about English IGR interactions that emphasises the limited influence of English local interest groups at the centre (John & Copus, 2012). Intergovernmental party political alliances also impact on intergovernmental financial decision-making in the German case. However, given the larger number of government levels, complexity in decision-making and conflicting interests, party political effects may also exert negative financial effects on the position of LG (e.g. Harz IV in the German case). This leads to the expectation that party political effects in IGR financial systems exert more financial risks on LG in systems characterised by power diffusion, as opposed to power concentration (cf. Weaver & Rockman, 1993).

A final main contribution of this thesis is that it demonstrates that punctuated equilibrium theory can be significantly strengthened by extending the approach with concepts from policy dynamics theory. While punctuated equilibrium theory explains why complex interactions within political systems give rise to a punctuated reform style

(Baumgartner et al., 2014), policy dynamics theory relates the temporal aspects of reforms to the errors that may build up within government systems, and their capacity to correct those errors. Put it differently, whereas punctuated equilibrium theory concentrates on how people process and respond to signals from their environment, and explains how these processes translate into a particular reform mode, the ‘error correction’ argument extends the punctuated equilibrium analysis by including the policy output generated through the interaction between people and institutional contexts. Due to the inclusion of policy outputs, policy dynamics theory is in a stronger position than punctuated equilibrium theory to theorize about the relationship between institutional structures and the speed and comprehensiveness of the correction capacity of intergovernmental systems.

The findings of the thesis demonstrate that policy dynamics theory has particular strengths within a country comparative research design, including detailed analysis of individual actor constellations. Three examples from the German findings illustrate this. First, the German case demonstrates that a more legal-constitutional nature of institutional mechanisms does not automatically imply less error accumulation at the German local level. The stronger presence of judicial institutions does not have an unequivocal beneficial effect on the intergovernmental fiscal position of the local level, since the local level is administratively part of the *Länder*, and judicial institutions – at least in NRW – have tended to side with the state government, rather than the local level. The approach of judicial institutions in the German case also demonstrates that an increase in the number of veto players does not automatically improve the system’s error correction capacity, either in an ex-ante or ex-post manner. Second, the German case shows that the legal-institutional nature of error correction mechanisms may lead to a higher threshold of response as changes are more difficult and time-consuming to implement. In practice, this might expose LG to a higher, instead of lower degree of financial risk. Third, the German case demonstrates that error correction capacity within institutional subsystems can change fundamentally over time. Whereas the German local level was in a strategically weak intergovernmental position in the early 2000s, institutional reforms improved its position. Rather than the sole focus of policy equilibrium theory on stability and change in policy systems, the policy dynamics approach connects policy trends with policy outcomes. The distinction between error accumulation processes and error correction mechanisms on the one hand, and institutional structures on the other hand, enables one to specify the impact of policy output in processes of incremental or punctuated institutional change.

Overall, the thesis research findings indicate that in order to adequately identify a system's error correction capacity, scholars need to make much more detailed and longitudinal analyses of actors and their mutual interactions within their specific institutional settings than the political economy literature currently accounts for.

7.7 Policy recommendations

The contingent nature of IGR financial institutions has important implications for policymakers. First, it demonstrates the necessity to better analyse the consequences of the implementation of reforms in one subsystem, on the other subsystems. The findings indicate that the current capacity to analyse financial interactions at system level is highly limited among policymakers. This is most visible in the Dutch and German systems. Following the abandonment of the Audit Commission and the budgetary savings implemented on Whitehall departments, capacity for parallel processing has also reduced in the English system. The limited policy capacity for system analysis explains the regular implementation of IGR reforms that alleviate financial errors in one subsystem, but increase financial errors in the system as a whole. In order to address policymakers' cognitive limitations, investing more administrative capacity in developing more advanced monitoring and forecasting techniques will reduce the unpredictability of intergovernmental financial institutions and improve system capacity for parallel processing. Given the potential long-term financial risks on LG finances, the financial stability of the systems would benefit from not only monitoring LG current expenditure but also the conditions of LG capital investment.

Second, the findings demonstrate that LG debt, in its various measurements, is a relevant indicator for policymakers to monitor the financial condition of LGs. Policymakers in the Dutch system reflect this awareness as LG debt has been made one of the core financial stress indicators monitored by the provincial regulators since 2014. Third, the findings illustrate that low local borrowing costs contribute to financial error accumulation in the three European cases. LGs with deplorable finances do not face any penalty costs in the form of higher interest rates. As all three systems generate uncertainty regarding the responses of the regulatory regimes in the case of defaulting LGs, increased divergence in LG borrowing costs constitutes a relevant error correction mechanism to increase system stability. A reassessment of the regulatory regimes based upon a realistic evaluation of their regulatory performance, as well as the actual regulations in place, will most likely reduce the debt enhancing effect of borrowing costs, since LGs with problematic finances will be charged higher interest rates. Divergence in borrowing costs

may well have a positive financial effect as it will put pressure on LGs to improve their financial decision-making.

A fourth policy recommendation relates to the findings on grant systems. It is demonstrated that a larger transparency in the design and operation of grant systems (NRW) positively affects intergovernmental support for grant funding systems, as opposed to grant mechanisms where the motivations behind the design and operational decisions remain disclosed (England). Hence, if grant funding bodies want to raise intergovernmental support for distributional choices, they should aim for greater transparency by setting out the basis for their judgements and how they affect the distribution of grants. Increased transparency of grant funding systems will also help to clarify to what extent LG financial stress is caused by the intergovernmental arrangements, or, instead, has primarily a 'homemade', local background.

7.8 Limitations

This study has applied a mixed method research design. Using quantitative and qualitative research techniques in a study on intergovernmental finances offers substantial benefits. The triangulation of the quantitative findings with qualitative material improved understanding of the public finance mechanisms at work, and strengthened the reliability of research findings. Notwithstanding the strong results, an evaluation of the selected quantitative and qualitative techniques is not out of place.

As the first empirical chapter of the thesis, chapter 4 investigates the relationship between interest rates and debt accumulation at the local level. OLS cross-sectional estimations are run using three equations. The first equation (4.1) uses debt as independent variable and interest rates as the dependent variable, with results demonstrating that LGs with higher debt levels pay, on average, lower interest rates. In line with the literature (Robbins & Simonsen, 2012; Simonsen et al., 2001), this is explained by the better loan conditions larger LGs are able to realise due to their higher treasury capacity. The second model (4.2) uses interest rates as a dependent variable, whilst the third model demonstrates that, if interacting with local income size, borrowing costs enhance local debt accumulation. Although results are robust following different measurements for interest rates and local debt, the relationship between both variables might be endogenous, with the OLS estimation picking up both forwards and backwards effects, thereby leading to biased and inconsistent coefficients that might lead to incorrect causal statements (Wooldridge, 2010).

A possible strategy to guard against endogeneity is to estimate the models using two-stage-least-square (2SLS) with instruments for LG debt. Gordon and Slemrod (1986) have found that communities in which people live with low marginal tax rates will prefer debt financing compared to communities in which individuals live with high income tax rates. As town specific income tax rates are difficult to obtain, several studies use the homeownership rate as a proxy for whether or not residents itemize their deductions, a good indicator of residents' after-tax cost of borrowing (Capeci, 1991; Robbins & Simonsen, 2012). As the instrumental variable strategy represents a suitable option to address potential sources of endogeneity, future research on the relationship between LG interest rates and debt is likely to benefit from developing an instrumental variable based upon homeowner rate statistics.

Although the problem of endogeneity cannot completely be ruled out in case of the debt-grant relationship investigated in chapter 5, the problem of reverse causality is highly unlikely to occur in the debt-grant relationship because during the period covered by the dataset used in this research, grant funding has not been affected by a locality's debt size, either as a formal or informal distribution criterion. This is partly explained by the fact that awareness of LG debt trends is highly limited among grant providers.

Another restriction of the study follows from its limitation to the use of time series and cross-sectional data. Some of the intergovernmental financial institutions have strong spatial components, especially local tax space. While the cross-country design of this research prevented conducting a spatial regression analysis, future single country studies should account for the spatial dimension of LG financial stress.

With respect to the operationalisation of LG financial stress, a limited number of indicators have been used in this thesis. Additional indicators, e.g. based upon data related to LG pension liabilities or local asset statistics, would provide relevant alternative LG financial stress indicators. However, an increase in the number of variables will equally complicate country comparative research into LG financial stress, and technical questions related to measurement invariance of local financial accounting categories have to be answered.

Another limitation follows from the country comparative research design. As this thesis has investigated one case per constitutional system, the findings are only applicable to a confined set of comparable intergovernmental contexts where cause-effect links recur as they are identified in the selected cases. A possible way to alleviate this limitation in future research is to extend the country selection by focusing upon most-similar constitutional systems. An extended country selection will help to answer, for example,

the question whether the institutional dynamics behind LG financial stress as identified in this thesis for the federal German case, also occur in other federal systems (e.g. Switzerland or the US).

A final limitation relates to the material that was gathered during the interview phase of the research. While the interview findings provide valuable information regarding the political and interest group aspects affecting grant funding systems, interviewees often provided general comments on the non-technical aspects of grant funding rather than detailed information related to specific cases or incidents. Partly, this attitude can be explained by the complexity of the system which prevents interviewees from being able to provide detailed information on partisan effects. However, given the political sensitivities surrounding the topic, some interviewees were deliberately reluctant to provide detailed information. The acquisition of qualitative evidence in future research projects is likely to benefit from building long-term relationships with policymakers.

7.9 Future research

The institutional dimension of intergovernmental financial systems remains poorly understood in the literature – this is despite its far-reaching impact, including the day-to-day lives of citizens. Hence, there are strong future research needs in the area of intergovernmental finance, both from a theoretical, methodological and policymaker's perspective.

There are strong needs to continue country comparative research into LG financial stress. Comparative investigations will help to identify how a definition of the sustainability of LG financial conditions is determined by the country-specific features of the institutional framework in place. Future empirical research efforts are required to identify the relationship between grant mechanisms and local finances, and to investigate whether similar types of grants carry similar risks across constitutional systems. This research would contribute to stronger theory development in second-generation fiscal federalism, especially by improving our understanding of the relationship between, on the one hand governments' fiscal performance, and on the other hand interactions between 'lower level' (Von Hagen, 2008) constitutional structures, budgetary processes, exogenous factors, and intrinsic motivations of political actors. With financial tensions mounting in intergovernmental systems and decentralisation processes widespread (Snyder, 2001), comparative research into grant mechanisms offers an invaluable insight for government scholars and policymakers alike.

The field of intergovernmental finances also offers major opportunities to test and advance policy theories on how multi-level governance systems process and respond differently to financial information carried in the policy environment. A longitudinal analysis of IGR financial institutions will generate important knowledge on the nature of policy dynamics in dissimilar IGR contexts. It will identify the drivers behind changes in error correction capacity, and provide important knowledge on policymakers' behaviour. In particular, it will clarify the exact relationship between constitutional structures and how policymakers respond to error accumulation processes. Changes in error correction mechanisms, and their capacity, are likely to reflect policymaker responses to error accumulation processes, but constitutional structures will fundamentally affect the nature of this relationship, such as the speed and adequateness of the response. The findings of this study underline the relevance of taking a longitudinal approach when analysing error accumulation processes and error correction mechanisms. What might be an error correction mechanism in the short-term, can lead to error accumulation in the long-term and, vice versa.

The findings also demonstrate that the design of institutions has a fundamental effect on how cognitive limitations among policymakers affect policymaking processes. Future research should more systematically explore under what institutional conditions policymakers design financial arrangements that carry less or more risks to the financial position of the local level. This research would also benefit from taking a longitudinal approach, given the fact that, as this research indicates, some institutional structures only provide correction capacity in the short run, but contribute to error accumulation in the long term. A major determinant at which this research hints is the power constellation among grant funding government departments. A relevant question to be answered in future research is the interdepartmental position of the department that represents the local level at the centre, and whether a more prominent positioning of this department reduces the financial risks exported by grant funding arrangements to the local level.

The findings from this thesis also have some implications regarding the methodological and disciplinary approach for future research on local and intergovernmental finances. The thesis demonstrates the importance of cross-fertilisation and integration among disciplines in order to successfully investigate a multi-causal phenomenon such as LG financial stress (Schick, 2014). In particular, an increased fusion between political economy, public finance, and government studies provides a promising framework for understanding cross-country differences in intergovernmental financial dynamics. The thesis also shows that in an era in which public administration research

transforms from being largely qualitative to increasingly quantitative (Groeneveld, Tummers, Bronkhorst, Ashikali, & Van Thiel, 2014), the advantages of mixed method research should be explored more systematically. Using qualitative research methods to investigate policy events linked to intergovernmental financial structures, such as reforms in grant systems, and linking these events with statistical analyses drawing on long-term datasets, will generate fundamental knowledge on the determinants of intergovernmental finances, as well as institutions generally.

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Appendix I

Table Overview of conducted interviews

England		
<i>Organisation</i>	<i>Location</i>	<i>Date</i>
Audit Commission	London, Home Office	30/12/2013
Centre for Cities	London, Centre for Cities office	13/01/2014
Chartered Institute of Public Finance and Accountancy (CIPFA)	London, CIPFA Head Office	06/11/2012
Core Cities Group (CCG)	Manchester, CCG office	06/02/2013
District Councils' Network (DCN)	Nottingham, Rushcliffe Borough Council	10/01/2014
HM Treasury	London, HM Treasury	11/02/2013
House of Commons, Communities and Local Government Select Committee	London, Westminster, House of Commons	12/12/2012
Localis	London, Localis office, Westminster	12/02/2014
London Councils	London, London Councils Headquarter	21/12/2012
New Local Government Network (NLGN)	London, NLGN office	06/01/2014
Society of County Council Treasurers (SCCT)	Oxford, Oxfordshire County Council, County Hall	04/01/2013
Society of District Council Treasurers (SDCT)	Hemel Hempstead, Dacorum Borough Council, Civic Centre	04/02/2013
Society of London Treasurers (SLT)	Conference call	07/02/2014
Special Interest Group of Metropolitan Authorities (SIGOMA)	Barnsley, Barnsley Metropolitan Borough Council, Town Hall	07/01/2013
Former DCLG civil servant, public sector consultant	London, Senate House, University of London	05/12/2012
Germany/NRW		
<i>Organisation</i>	<i>Location</i>	<i>Date</i>
Association of Cities and Municipalities in NRW (<i>Städte- und Gemeindebund NRW – StGb NRW</i>)	Düsseldorf, StGB NRW headquarter	22/04/2013
Association of Cities in NRW (<i>Städtetag NRW – ST NRW</i>) & German Association of Cities (<i>Deutscher Städtetag – DST</i>)	Cologne, ST NRW & DST combined headquarter	23/04/2013
Association of Cities in NRW (<i>Städtetag NRW – ST NRW</i>) & German Association of Cities (<i>Deutscher Städtetag – DST</i>)	Bonn, city hall (<i>Stadthaus</i>)	10/07/2013

Association of Districts in NRW (<i>Landkreistag NRW – LKT NRW</i>)	Düsseldorf, LKT NRW headquarter	22/04/2013
Federal Ministry of Finance (<i>Bundesministerium der Finanzen – BMF</i>)	Berlin, BMF headquarter, Wilhelmstraße	02/05/2013
Finance Ministry NRW (<i>Finanzministerium NRW – FM NRW</i>)	Düsseldorf, FM NRW headquarter	24/04/2013
German Association of Cities and Communities (<i>Deutscher Städte- und Gemeinbund – DStGB</i>)	Berlin, DStGB headquarter	29/04/2013
German Association of Counties (<i>Deutscher Landkreistag – DLT</i>)	Berlin, DLT headquarter	26/04/2013
Ministry for the Interior and Local Government NRW (<i>Ministerium für Inneres und Kommunales NRW – MIK NRW</i>)	Düsseldorf, MIK NRW headquarter	24/04/2013
NRW state parliament (<i>Landtag</i>), Local Government Select Committee	Düsseldorf, NRW state parliament	25/04/2013
Expert / Association of Cities in Rhineland Palatine (<i>Städtetag Rheinland-Pfalz – ST RLP</i>)	Mainz, ST RLP headquarter	09/07/2013

The Netherlands

<i>Organisation</i>	<i>Location</i>	<i>Date</i>
100,000+ Municipal Treasurers Association	Tilburg, city hall	20/01/2014
Association of Municipalities (<i>Vereniging van Nederlandse Gemeenten – VNG</i>)	The Hague	30/01/2014
Association of Provinces (<i>Interprovinciaal Overleg – IPO</i>)	The Hague, IPO head office	21/01/2014
BBV committee (Commissie BBV – Besluit Begroting en Verantwoording Gemeenten en Provincies)	The Hague, South Holland Province House	28/01/2014
Dutch Municipal Bank (<i>Bank Nederlandse Gemeenten – BNG</i>)	The Hague, head quarter BNG	28/01/2014
Expert group of provincial supervisors on municipal finances (<i>Vakberaad Gemeentefinanciën</i>)	Haarlem, North Holland Province House	27/01/2014
Financial Relations Council (<i>Raad voor de financiële verhoudingen – Rfv</i>)	The Hague, Rfv head office	21/01/2014
G32, cooperation of 34 biggest Dutch cities, excluding the biggest 4/G4	Nijmegen, city hall	20/01/2014
G4, cooperation of the four biggest Dutch cities	Rotterdam, city hall	29/01/2014
House of Representatives (<i>Tweede Kamer der Staten Generaal</i>)	The Hague, Tweede Kamer	23/01/2014
Ministry of Finance (<i>Ministerie van Financiën</i>)	The Hague, head quarter Ministry of Finance	24/01/2014

Ministry of the Interior and Kingdom Relations (<i>Ministerie van Binnenlandse Zaken & Koninkrijksrelaties – BZK</i>)	The Hague, BZK	23/01/2014
Ministry of the Interior and Kingdom Relations (<i>Ministerie van Binnenlandse Zaken & Koninkrijksrelaties – BZK</i>)	The Hague, BZK	23/01/2014
Ministry of the Interior and Kingdom Relations (<i>Ministerie van Binnenlandse Zaken & Koninkrijksrelaties – BZK</i>)	The Hague, BZK	23/01/2014
Ministry of the Interior and Kingdom Relations (<i>Ministerie van Binnenlandse Zaken & Koninkrijksrelaties – BZK</i>)	The Hague, BZK	23/01/2014
National Court of Audit (<i>Algemene Rekenkamer</i>)	The Hague, Algemene Rekenkamer head office	22/01/2014
P10, cooperation of 10 largest Dutch rural municipalities	Opsterland, town hall Beetsterzwaag	24/01/2014

Appendix II

Table Credit ratings English LGs (2013)

LG entity	Long term issuer rating		
	Standard & Poor's	Moody's	Fitch
London Borough of Wandsworth		Aaa	AA+
Royal Borough of Kensington and Chelsea	AAA		
Guildford Borough Council		Aaa	
Cornwall County Council		Aaa	
Birmingham City Council	AA+	Aaa	
Greater London Authority	AA+		
Lancashire County Council		Aa1	
Woking Borough Council	AA-		
Spectrum	Standard & Poor's	Moody's	Fitch
Prime	AAA	Aaa	AAA
High grade	AA-plus	Aa1	AA-plus
High grade	AA	Aa2	AA
High grade	AA-minus	Aa3	AA-minus
Upper medium grade	A-plus	A1	A-plus
Upper medium grade	A	A2	A
Upper medium grade	A-minus	A3	A-minus

Source: NLGN (2011), and rating reports from Standard & Poor's, Moody's and Fitch.

Appendix III

Table Dutch municipalities placed under preventive provincial supervision, numbers by province and aggregated totals, 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total LGs province										
Total LGs under preventive supervision										
Drenthe	12	12	12	12	12	12	12	12	12	12
	0	0	0	0	0	0	0	0	0	0
Flevoland	6	6	6	6	6	6	6	6	6	6
	1	2	2	1	1	1	0	0	0	0
Friesland	31	31	31	31	31	31	27	27	27	24
	1	1	1	1	1	1	1	1	1	0
Gelderland	56	56	56	56	56	56	56	56	56	56
	4	3	2	2	1	2	2	3	2	2
Groningen	25	25	25	25	25	23	23	23	23	23
	0	0	1	1	2	2	1	1	3	2
Limburg	47	47	40	40	40	34	33	33	33	33
	8	4	3	3	0	2	0	0	0	0
North Brabant	68	68	68	68	68	68	67	67	67	67
	0	0	0	0	0	1	0	0	2	2
North Holland	65	64	61	61	60	60	58	55	53	53
	5	2	2	1	1	1	1	1	1	1
Overijssel	25	25	25	25	25	25	25	25	25	25
	0	0	0	2	2	2	0	0	0	1
South Holland	86	82	77	77	76	74	72	72	67	65
	11	6	7	3	1	1	2	0	0	1
Utrecht	33	29	29	29	29	29	26	26	26	26
	0	2	1	0	0	1	1	2	0	0
Zeeland	13	13	13	13	13	13	13	13	13	13
	0	0	0	0	1	1	0	0	0	0
Total Dutch LGs	467	458	443	443	441	431	418	415	408	403
	30	20	19	14	10	15	8	8	9	9
LGs under preventive supervision as % of total Dutch LGs	6.4	4.4	4.3	3.3	2.3	3.5	1.9	1.9	2.2	2.2

Source: own table; data from CBS, Dutch Interior Ministry (BZK), and Provincial Reports (e.g. Drenthe, *Financiële Verkenningen*, publications 2010 and 2011).

Appendix IV

Table NRW population size classification system

Population class	Population weight
25,000	100.0
37,000	103.0
51,500	106.0
68,500	109.0
88,000	112.0
110,000	115.0
134,000	118.0
160,500	121.0
189,500	124.0
221,000	127.0
255,000	130.0
291,000	133.0
329,500	136.0
370,500	139.0
414,000	142.0
460,000	145.0
508,000	148.0
558,500	151.0
611,500	154.0
611,500>	157.0

Source: NRW GFG 2012

Appendix V

Table Effect of total grants on debt, and the moderating effect of institutional variables on total grant allocations, panel data 2005-2012. Dependent variable: total debt p/c (log), lagged, including robustness check dependent variable total debt as % of total income. Fixed effects

	England		The Netherlands		NRW	
	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income
Lagged DV	0.184*** (0.024)	0.003*** (0.001)	0.137*** (0.029)	0.096*** (0.020)	0.001*** (0.002)	0.002** (0.001)
politicalsym*totalgrants	-0.621*** (0.190)	-0.121 (0.137)	-0.125** (0.053)	-0.192*** (0.072)	-0.190* (0.099)	-0.117* (0.071)
staffcapacity*totalgrants	0.001 (0.001)	-0.001 (0.001)	0.001 (0.003)	-0.001 (0.004)	-0.001 (0.001)	-0.001** (0.001)
income	0.979 (1.037)	-1.237** (0.580)	0.765** (0.365)	-0.404 (0.740)	0.982*** (0.237)	-1.368*** (0.147)
totalgrants	1.144 (1.039)	2.628*** (0.947)	0.383*** (0.093)	0.583*** (0.146)	0.096* (0.153)	0.488*** (0.111)
taxes	4.038*** (1.054)	1.851*** (0.672)	0.079 (0.061)	0.287*** (0.102)	-0.239*** (0.062)	-0.031 (0.067)
expenditure	-1.078* (0.631)	-0.775* (0.433)	-0.458 (0.341)	-0.846 (0.707)	-0.432** (0.218)	-0.148 (0.136)
politicalsym	2.152*** (0.612)	0.443 (0.412)	0.391** (0.168)	0.593*** (0.224)	0.532** (0.268)	0.325* (0.188)
staffcapacity	-0.001 (0.001)	0.001 (0.003)	-0.055 (0.065)	0.155 (0.112)	0.000 (0.002)	0.003*** (0.001)
density	3.358*** (0.863)	1.361*** (0.471)	0.563 (0.450)	0.824 (0.890)	0.408* (0.215)	-0.034 (0.236)
unemployed	0.026** (0.012)	0.031*** (0.006)	0.022*** (0.007)	0.018* (0.011)	-0.002 (0.009)	0.028*** (0.006)
constant	-18.204*** (5.316)	-8.107*** (2.756)	0.934 (1.013)	4.065** (1.794)	0.455 (1.001)	7.883*** (0.931)
Observations	2,512	2,512	2,542	2,542	3,300	3,300
Number of LGs	391	391	367	367	432	432
Adj. R ²	.29	.14	.14	.13	.09	.13

* p ≤ 0.1, ** p ≤ 0.05, *** p ≤ 0.01; robust standard errors in parentheses.

Appendix VI

Table Effect of total grants on debt, and the moderating effect of party political variables on total grant allocations, panel data 2005-2012. Dependent variable: total debt p/c (log), including robustness check dependent variable total debt as % of total income. Fixed effects

	The Netherlands		NRW	
	total debt p/c (log)	total debt % total income	total debt p/c (log)	total debt % total income
Lagged DV	0.133*** (0.029)	0.001*** (0.002)	0.015** (0.009)	0.006** (0.008)
mayorsym*totalgrants	-0.117** (0.055)	-0.167** (0.073)	-0.147* (0.079)	-0.006 (0.041)
councilsym*totalgrants	0.062 (0.085)	0.020 (0.115)	-0.011* (0.060)	0.005 (0.031)
income	1.288*** (0.267)	0.362 (37.11)	0.295** (0.133)	-0.986*** (0.096)
totalgrants	0.368*** (0.096)	0.522*** (0.137)	0.147* (0.087)	0.107** (0.048)
taxes	0.089 (0.064)	0.307*** (0.103)	-0.067 (0.059)	-0.018 (0.024)
expenditure	-0.959*** (0.174)	-1.510*** (0.251)	-0.192 (0.139)	-0.115 (0.082)
mayorsym	0.365** (0.171)	0.516** (0.227)	0.386* (0.209)	0.147 (0.107)
councilsym	-0.192 (0.265)	-0.061 (0.359)	-0.083 (0.158)	-0.084 (0.082)
staffcapacity	-0.016 (0.036)	-0.008 (0.049)	0.000 (0.000)	0.001* (0.001)
density	1.111*** (0.407)	1.702*** (0.601)	0.003* (0.002)	-0.193 (0.156)
unemployed	0.022*** (0.007)	0.018* (0.011)	0.001** (0.005)	0.019*** (0.004)
constant	1.637* (0.974)	4.506*** (1.525)	5.481*** (0.837)	4.500*** (0.587)
Observations	2,542	2,542	3,300	3,300
Number of LGs	367	367	432	432
Adj. R ²	.13	.14	.17	.04

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses.

Appendix VII

Table Effect of total grants on debt, and the moderating effect of country specific institutional variables on total grant allocations, panel data 2005-2012. Robustness tests dependent variable: total debt minus reserves the Netherlands. Fixed effects

	The Netherlands	
	total debt p/c minus unallocated reserves (log)	total debt minus unallocated reserves % income
mayorsym*totalgrants	-0.545** (0.238)	-0.243** (0.095)
councilsym*totalgrants	0.095 (0.336)	-0.078 (0.142)
income	6.919*** (0.904)	0.794* (0.457)
totalgrants	0.938** (0.413)	0.495*** (0.166)
taxes	1.184*** (0.284)	0.513*** (0.135)
expenditure	-6.007*** (0.558)	-1.999*** (0.299)
mayorsym	1.690** (0.743)	0.757** (0.296)
councilsym	-0.282 (1.051)	0.245 (0.441)
staffcapacity	-0.007 (0.014)	-0.005 (0.006)
density	8.240*** (1.375)	2.454*** (0.733)
unemployed	0.048* (0.025)	0.022* (0.013)
constant	3.408 (3.751)	4.527** (1.972)
Observations	2,054	2,054
Number of LGs	335	335
Adj. R^2	.06	.08

* $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$; robust standard errors in parentheses.

Appendix VIII

Table Summary of the statistical findings of redistribution mechanisms, sign only included when interaction term and component variables have significant sign

		England				Netherlands				NRW		
		Total debt p/c (log)	Total debt % total income	Total debt p/c minus unallocated reserves (log)	Total debt minus unallocated reserves % total income	Total debt p/c (log)	Total debt % total income	Total debt p/c minus unallocated reserves (log)	Total debt minus unallocated reserves % total income	Total debt p/c (log)	Total debt % total income	Total debt evolution (log)
Total grants	Relationship with debt indicators:	+(**)	+(**)	/	+(**)	+(**)	+(**)	+(**)	/	+(*)	+(***)	/
	Political symmetry: <i>mayorsym*totalgrants</i>					-(**)	-(**)	-(**)	/	/	-(*)	-(**)
	<i>councilsym*totalgrants</i>	/	-(*)	/	-(*)	/	/	/	/	/	/	/
	<i>staffcap*totalgrants</i>	/	/	/	/	/	/	/	/	/	/	/
Specific grants	Relationship with debt:	+(**)	+(**)	+(**)	+(**)	/	/	/	/	+(**)	+(***)	+(***)
	Political symmetry: <i>mayorsym*specificgrants</i>					/	/	/	/	-(**)	/	-(***)
	<i>councilsym*specificgrants</i>	/	-(*)	-(**)	-(*)	/	/	/	/	-(***)	-(**)	-(***)
	<i>staffcap*specificgrants</i>	-(*)	-(**)	-(**)	/	/	/	/	/	-(**)	-(***)	/

Notes symbols: + positive relationship; - negative relationship; / not significant; () indicate significance levels, * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$.

Appendix IX

Table Seven major German social welfare tasks performed by LGs, federal level data (2007)

		Total		Whereof:			
				County-free cities	Counties	County-dependent municipalities	Higher local associations (e.g. NRW regional authorities)
Support for living maintenance	2007	1,000 €	1,697,554	614,216	936,172	50,358	96,808
		In %	100.0	36.2	55.1	3.0	5.7
		% Δ 2001-07	-79.1	-82.4	-75.3	-93.1	-12.3
Support for care	2007	1,000 €	2,244,861	581,150	994,226	7,055	662,430
		In %	100.0	25.9	44.3	0.3	29.5
		% Δ 2001-07	-7.2	17.6	33.3	-83.1	-41.7
Adaptation support for disabled persons	2007	1,000 €	11,450,466	1,731,049	4,176,228	62,571	5,480,618
		In %	100.0	15.1	36.5	0.5	47.9
		% Δ 2001-07	42.2	235.9	107.8	-53.3	1.6
Basic insurance for pensioners and less employed	2007	1,000 €	2,101,685	785,727	1,033,742	35,461	246,755
		In %	100.0	37.4	49.2	1.7	11.7
		% Δ 2005-07	20.0	12.7	11.7	-22.3	194.7
Youth care	2007	1,000 €	6,373,807	2,358,947	3,066,373	869,510	78,997
		In %	100.0	37.0	48.1	13.6	1.2
		% Δ 2001-07	24.4	22.7	27.3	24.6	-15.9
Institutions for youth care	2007	1,000 €	12,393,387	4,096,650	1,645,935	6,623,683	27,119
		In %	100.0	33.1	13.3	53.4	0.2
		% Δ 2001-07	19.0	22.7	8.0	20.1	-22.2
Basic insurance for unemployed (SGB II)	2007	1,000 €	12,235,876	5,028,320	7,064,380	143,176	-
		In %	100.0	41.1	57.7	1.2	0.0
		% Δ 2001-07	17.5	24.1	11.1	4279.8	-

Source: Destatis 2007

Note: the data in the table relate to all German LGs, since social welfare data specified by type of LG and social welfare field are only available at the federal level (Destatis). Since 2008, the Federal statistical office no longer provides micro level data, with only aggregate data on social welfare spending available. The general character of the social spending statistics, which has partly been caused by the non-federal wide introduction of the double bookkeeping system, substantially complicates intergovernmental negotiations on social welfare spending. Incentivised by the increase of social welfare costs, local government interest groups have been lobbying to improve the quality of local social expenditure statistics, to date without success.

Appendix X

Table NRW LGs, relative income share selected income categories, as % of income, 2012

In % of total income	Number of LGs	Average	Minimum	Maximum
Business tax				
total	396	34.7	3.3	78.0
abundant	47	62.1	38.7	78.0
non-abundant	349	30.9	3.2	63.2
Property tax A				
total	396	0.5	0	2.9
abundant	47	0.2	0	1.3
non-abundant	349	0.5	0	2.9
Property tax B				
total	396	11.8	3.9	26.3
abundant	47	10.0	3.9	15.1
non-abundant	349	12.1	7.7	26.3
LG share income tax				
total	396	27.8	13.6	49.9
abundant	47	23.9	13.6	43.2
non-abundant	349	28.3	15.4	49.9
LG share VAT				
total	396	2.8	0.5	7.9
abundant	47	3.7	1.4	5.9
non-abundant	349	2.7	0.5	7.9
Specific transfers				
total	396	22.4	0	55.4
abundant	47	0	0	0
non-abundant	349	25.4	0.7	55.4

Source: own illustration, based upon IT.NRW statistics.

Note: The distinction between abundant and non-abundant LGs refers to LGs that have own source taxes below and above a certain threshold. Abundant LGs have taxes above the threshold which makes that they are no longer entitled to grant funding.