UNIVERSITY OF GOTHENBURG

MASTER THESIS IN EUROPEAN STUDIES

City Networking in Europe

Rescaling of the state and increased importance of cities in the multi-level system of governance

Author: Mimmi Delsing
Supervisor: Urban Strandberg
MAY 24th 2013

Abstract

This thesis analyzes city networking from a rescaling perspective, highlighting the shift from government towards non-hierarchical governance, a development shifting political power between different scales. In its most institutionalized form, this development can be found in the EU, where power is moved upwards to the supra-national level and downwards to the sub-national level. As the EU system of governance is inherently multi-level, the international activity of cities can be understood as Europeanization of domestic practices, increasing the connections between the levels of governance and thus the multi-level character of the European political systems.

Previous research suggests explanations along two lines; city level variables and country level variables, such as domestic institutional relationships between national and sub-national levels. When using Regional Autonomy Index (RAI), World city index, and years of EU membership to measure cities' international networking, and thus the interconnectedness between scales, the results point towards the country level variables having more explanatory value. Consequently, the level of networking seems to be conditioned by Europeanization in combination with national institutional relations measured by RAI. A longer history of membership, in combination with more regional autonomy, limits the state ability to act as a gatekeeper and increases the networking. This shows higher adaptation to the multi-level system of governance in accordance with the Europeanization hypothesis.

Key words: city networks, rescaling of the state, Europeanization, regional autonomy, multi-level governance.

Words: 18 030

CONTENT

TABLES AND FIGURES

1. INTRODUCTION

At the turn of the millennium Le Gales and Bagnasco claimed "we are really in a 'historical interlude' in which there are multiple competing centres and independent forms of authority that favour the autonomy of cities" (Le Gales, 2002: 7). This MA-thesis aims at exploring and explaining the increased importance and interconnectedness of different levels of governance, especially cities.

In the last decades an increasingly complex and nonhierarchical development moving from government to governance has been evident. In this development the city has been especially important as a node of economic activity. The cities have increased their importance in the economic process gaining in economic power (Friedmann, 1986: 71) and economic connectivity. This is followed by increased political connectivity of city regions across borders, but why are some cities more connected than others? More explicitly, what explains the differences in the international activity of cities? These questions will be explored through a comparative analysis of the interconnectedness of cities through international activity in city networks.

The rescaling theory will provide a broader framework for the analysis of the multilevel governance developments in Europe. By analyzing international activity of cities, measuring membership in international city networks, this study will further the understanding of how Globalization, Europeanization, and national institutions influences and mediates the international activity of cities, and thus, the ongoing shift in political responsibilities between different levels of governance.

AIM

The aim of this research is to analyze how and why international networking activities vary between different cities, and thereby contribute to the interconnectedness of scales. This will give new insights in the complex mechanisms of the rescaling of the state and what facilitates and inhibits these developments towards a multi-level system of governance in Europe.

1

2. THEORETICAL FRAMEWORK

Nico Van der Heiden puts forward three lines, along which the redefinition of cities should be studied: (1) increased importance of cities as nodal points of economic process, (2) globalization as deterministic structuring of politics in urban areas, and (3) the international activities of city-regions (Heiden, 2010: 1). This study touches upon all three but the focus is the third area. The following chapter will provide a theoretical framework for the study, situating the international activity of cities, within the rescaling theory, and the discussion on Europeanization, as a part of the development from government to governance.

Analyzing political transformations using the rescaling approach means studying this development spatially, acknowledging the specific scales where political action is taken, and more importantly the interaction between these scales. Analyzing political steering capacity with this framework means stepping away from the traditionally national focus of political analysis (Heiden, 2010: 6). This is especially applicable when studying international activity of cities since the main explanations tested by previous research can be categorized according to which scale explanatory factors are situated within, this will be discussed at length in the third chapter.

RESCALING OF THE STATE

When moving away from the post second world war era of strong nation state power, especially when it comes to international activity, a rescaling of political power, following along the lines of rescaling of economic power, is evident. The large-scale national redistribution programs with the goal of equalizing spatial inequalities were downsized. With the 1970s economic crisis, and the break down of the Bretton woods system, international economic competition increased rapidly. The nation state experienced a loss of power when it came to the ability to control market flows, and thus the possibilities for redistribution decreased as well. In order to maximize economic competitiveness under these circumstances the nation state had to reduce its control over the financial activity within its territory (Jessop, 2005: 226). Accordingly, the redistribution had to be decreased and there were clustering of economic activity in the urban areas, which increasingly became the primary scale for international competition (OECD Territorial reviews, 2006: 14-15).

Brenner, as well as Swyngedouw (2004: 32), claims that "the process of rescaling remains 'on-going' and 'highly conflictual', it is clear that the 'urban', has a particular place within this scalar hierarchy" (Brenner, 1999: 436). Collinge and Liepitz have argued for a relativization of power where we are not only experiencing an absolute loss of power over all scales but an order where power is moved between scales (Collinge, 1999 and Liepitz, 1994, see also Heiden, 2010: 10). Researchers are emphasizing the shift away from the national scale and highlight a development with more complex and less stable scalar hierarchy without the national scale dominating (Wood, 2005: 205). The increased importance of cities and hollowing out of the state power (Jessop, 2005 and Le Gales, 2002) can be seen as an effect of this increased global competition (Brenner, 1999: 432). Cities are identified as the main economic scale; where the work of globalization gets done (Sassen, 1996: 30-31) and where the fixed and immobile infrastructure needed for globalization is built (Brenner, 1999: 433). It is therefor important and essential to focus on the urban when studying the rescaling of governance.

RESCALING AND NETWORKING

A dual development is visible, an increasingly global competition where nation states matter less, and an increased competition between city regions, since their performance is no longer solely dependent upon the nation state (Heiden, 2010: 11). Emphasis has therefor been on "glocalization", taking the twofold nature of this development into account, acknowledging shifts in power both upwards and downwards from the nation state (Swyngedouw, 2004). This relativization of scale is important, as societies are not moving towards a new era with a single dominating scale (whether this would be the global or local) (Jessop, 2005: 227).

As this development is increasingly complex the main focus of the analysis in this thesis will be concentrated on networks. The general argument of the rescaling theory is that supranational and sub-national units have gained importance and power due to the process of glocalization (Harding, 1997: 294). It has however been pointed out that the interconnectedness between scales should be in focus to avoid the simple comparing of power between scales or oversimplifying it by only arguing for the hollowing out of the state and the taking over of power by other scales (see for example Wood, 2005). The international networking activity of cities can be understood as a response to glocalization, and through the connections between scales this brings a form of multi-

3

scalar governance (Jessop, 2004: 225). The mechanism of rescaling is, put simply, the compensation at other levels for the loss of steering capacity at national level. The city's position as a nodal point in the global economy, due to downscaling, gives it a possibility to increase its political steering capacity and, conversely, globalization and Europeanization makes the central government less able to act as a gatekeeper and monopolize international activities (Heiden, 2010: 13-14).

Other authors have been more critical to the rescaling development, arguing that the cities cannot take up on the steering capacity that is lost at the national level and that the same loss is experienced at all levels. (Jones and McLeod, 1999 and Leitner and Shepard, 2002: 501) Again, the city networks are good examples of the interconnectedness of scales regardless of the absolute power relations. They can also be seen as the infrastructure of globalization, a way to accommodate the location specific policies needed in a world where competition is increasingly global and location specific assets ever so important to attract investment (Heiden and Torhorst, 2007: 342).

In conclusion, the mechanism of the rescaling hypotheses is that this neo-liberal development increases competition and thus limits state intervention and its ability and legitimacy to manage the economy. This opens up for more city action. On the other hand globalization leads to incentives for cities to create entrepreneurial forms of governance (Le Gales and Harding, 1998: 125) and both of these developments indicates that cities would increase international activity for competitive reasons. Networking has also been argued to counter the race to the bottom, regarding social policy, which neo-liberal developments and deregulations at the national level can cause. Many networks do indeed address issues of strengthening social cohesion in cities and they might increase cooperation rather than competition (Heeg et al, 2003: 151).

Since rescaling theory doesn't offer divergent trajectories between cities it can hardly be used to explain differences in city activity (Heiden, 2010: 17). In this study it serves as an overarching framework of analysis and as an understanding of the context in which cities find themselves today. Predictions and models will be derived from previous research but first it is important to look at today's most institutionalized example of

scalar governance; the European Union. In the next section the overlapping and connections between rescaling and Europeanization will be elaborated on.

EUROPEANIZATION

In a European context the rescaling of the state has also been studied under the umbrellas of multi-level governance and Europeanization. Multi-level governance is a concept that highlights both the change in vertical relationships between political actors located at different levels, and horizontal relationships in society (Bache, 2008: 1). Europeanization has generally been understood as "a process by which domestic policy areas become increasingly subject to European policy-making" (Börzel, 1999: 547). The European Union is now the most paradigmatic case of multi-scalar or multi-level governance (Jessop, 2005: 227), and this will be used as this thesis' second level of analytical framework, and a more specific approach to the rescaling development. In this understanding Europeanization implies a similar shift towards multilevel or multi-scalar governance described in the section above. Multi-level governance have been used and redefined through the study of European integration but this study will simply treat the concept as complementary to the rescaling theory. For this purpose a more specific definition of Europeanization is needed and it will therefor be understood as: "the reorientation or reshaping of politics in the domestic arena in ways that reflect policies, practices or preferences advanced through the EU system of governance" (Bache and Jordan, 2006: 30).

In the European context cities are more than sociological and geographical definitions. Because of the cities' central position in the economic development cities are a highly important part in the making of the EU polity, (Le Gales, 2002: 7) partly because the multi-level features of the EU and partly because of the economic focus of the integration project. As the EU system of governance is inherently multi-level in nature, the international activity of cities, increasing the multi-level character of the political system(s), can be understood as Europeanization of domestic practices.

Europeanization has been explained in terms of top down and bottom up processes, and networking between cities (with or without the explicit goal of effecting EU decisions) can be seen as, both a vertical and a horizontal, type of Europeanization (Kern, 2007: 5). Europeanization is caused by the implementation of specific policies and their impact on domestic sub-national level, indirectly through implementation of EU directives

disguised as national law or more directly through the structural funds. This is implying a convergence between governmental bodies through; download of policy from the EU, upload of policy through lobbying from the lower scales, and horizontal policy transfer across Europe through exchange of best practice (Bache, 2008: 18-19). European states show concrete evidence of rescaling, both through the upscaling of power to the EU, and downscaling to sub national levels in accordance with the subsidiarity principle.

Cities in the traditional governance system are seen as subordinate to the nation state and confined by it, but recently they have been seen to jump scale and bypass the national level to gain influence and/or funding. This is an example of vertical multilevel governance and networking is often the tool through which this is achieved (Heiden, 2010: 13). "Some state capacities (…) are being usurped by emerging horizontal networks of power – local and regional – which bypass central state and connect localities or regions in several nations" (Jessop, 1994: 264).

EUROPEANIZATION AND NETWORKING

Analyzing the multi-level system of governance, whether it is defined as purely European or as a more general rescaling of governance, is a challenge since it requires a detangling of the complex and dynamic relationships between different levels of governance (most often the supra-national, national and subnational/local administrations). One way of doing this is to look at city networking. It is both a way to capture city-city relations through the exchange of best practice, and city–EU relations as many of the networks main focus is lobbying or joint efforts to bring funding to projects from the EU. The networking also has implications for city-national relations as contacts and funding from other sources than the national level, most notably the structural funds, will increase the possibility for autonomy in policy choices (Kern, 2007: 2-3).

Along the lines of the rescaling hypothesis, John suggests a convergence in networking behavior among cities due to Europeanization. Implementation of European directives and regulations help to undermine the differences between the Northern professionalized bureaucratic governments such as Sweden, Finland, Germany and the Netherlands, and the fragmented, weak and clientelistic, southern attributes characterizing the Mediterranean countries (John, 2000: 877). This would decrease the relative advantages that the northern countries have due to the better fit of their

6

bureaucratic systems to the European system (Kern, 2007: 14).

John argues that what affects the authority of sub-national governments is the predominant and legitimate role of national governments in the implementation of EU policies. Several scholars stress the importance of existing balance of power in central-local relationships when determining relations on EU policy matters. The extent to which the nation state acts as a gatekeeper is central to the subnational governments ability to participate in networking and also to what extent it is affected by Europeanization (John, 2000: 882-883). Bache and Marshall also emphasize the mediating role of domestic institutions on how EU impacts its member states and their respective levels of governance (Bache and Marshall, 2004: 1).

The idea of the nation states acting as gatekeeper, will serve as the third level of the thesis' analytical framework. As indicated above it is important to be sensitive to specific domestic institutional arrangements when explaining how the EU impacts on subnational governance and thus the rescaling process. In the next section, previous research on the international activity of cities will be discussed. The Regional autonomy index will also be introduced; it is a clear measurement of the institutional settings regarding the relationship between the local/regional and national levels of government. It will be used as an indicator for domestic institutional gatekeeper functions. Therefore, this approach emphasizes a bottom up perspective on these developments, conditioning the multilevel governance and rescaling on the existing structures of governance. This approach also affirms the rescaling theory prediction of the increased power of the sub national scale.

Using this as an analytical framework puts focus on the existing central governments' ability to act as a gatekeeper and how this can mediate the effect of Europeanization, as this determines the fit and thus the pressure for adaptation. "There is clear evidence that where the center has the determination to obstruct Europeanisation, it retains considerable capacity to do so." (Bache and Marshall, 2004: 14). The implications that this has for hypothesis and models will be elaborated on in the next chapter.

FIGURE 1. THEORETICAL FRAMEWORK
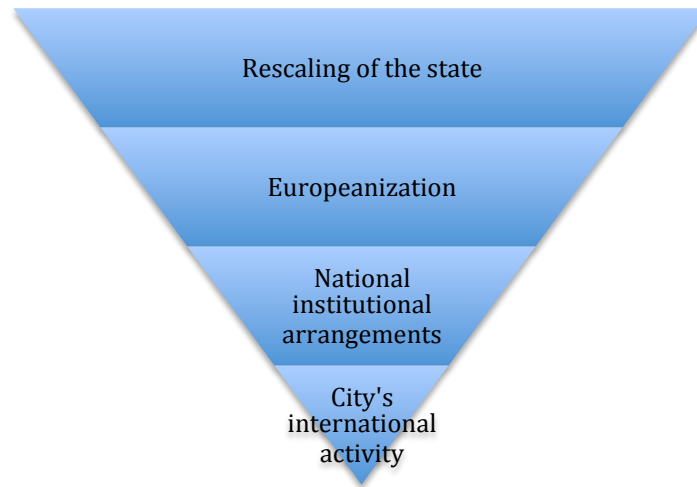
Note: The rescaling of statehood is an ongoing process and can be found, in its most institutionalized form, as a process of Europeanization, within the EU system of governance. As suggested by previous research the existing institutional arrangements governing relationships between scales of governance mediate the effects of Europeanization. According to the logic of this theoretical framework the interconnectedness of cities can be determined by analyzing the Europeanization and national institutional arrangements.

3. HOW TO EXPLAIN NETWORKING BEHAVIOR; COUNTRY OR CITY LEVEL OF EXPLANATORY VARIABLES?

This chapter will discuss previous research on cities' international behavior and, more specifically, networking activity from the point of view described in the analytical framework above.

CITY NETWORKS

The membership in city networks has been a recurrent phenomenon in the western world, but especially important and frequently found in Europe in the era of European integration.

These networks are more or less formal gathering of city administrations or parts of them. Networks can have many different aims, be oriented towards a certain policy area or a more general assembly of like-minded. Likeness can be attributed to geography, as the case with *Union of Baltic cities* and *EUROMED - European Mediterranean Commission,* or to policy preference. Heiden (2010: 138) uses two categories, which are not mutually exclusive, when classifying networks according to activities and aims. 1. Thematic networks: Exchange of best practice and knowledge sharing on policy alternatives for a specific area of policymaking vital to cities, for example: *Energy Cities*, *POLIS European cities and Regions Networking for Innovative Transport Solutions* and *European Cities Against Drugs*. 2. Lobby networks: specializes in influencing national and international decision makers, often, the lobby efforts are directed towards the EU, for example *European Regeneration Areas Network, Quartiers en Crise.*

Both of these categories contain networks of different weight and width. Some might cover a range of issues, for example *Eurocities* are working on a variety of issues, such as earmarking a budgetary post in the new structural funds for urban areas. Others might focus on one single issue, such as *LUCI Lighting Urban Community International,* sharing experiences on the use of lighting in the urban space. Networks can also be direct initiatives of, and funded by, the Commission as the case with *Urban forum for sustainable development*. The demands on members can also be very different; it does however mostly include a membership fee as well as attendance and contribution to joint conferences and workshops.

Studying these functions in relation to the theoretical discussion on rescaling, networking is clearly connecting scales both horizontally, between countries, and vertically, between scales. In these networks cities cooperate not only with other cities but also with regions, central government agencies and the supranational bodies. Focus is, often in the lobby networks, on the supranational scale and represents a direct connection between the urban and supranational scale, a clear manifestation of the interconnectedness of scales introduced in the rescaling literature.

The primary reasons for city networking in Europe can be derived from Europeanization. There are mutual gains for both the European commission and the cities. Cites' main benefits are information exchange, financial support, policy access (lobby), and to bypass the national government's central administration. Cities want to attain a more competitive position, both through inflow of funding and exchange of best practice. The Commission is said to gain through less complicated and faster implementation as this is mostly executed at local level and, increases credibility through local level participation in policy making (Ward and Williams, 1997: 443-444). The following section will discuss previous attempts of explaining why some cities seems to be more active networker than others.

CITY-LEVEL OR COUNTRY-LEVEL EXPLANATIONS

Two distinctive types of explanation for city networking behavior can be detected from the previous research, and the main controversy is at which level (or scale) we find the most explanatory factors. The first type is emphasizing the variables at city level such as the size of the city, globalization of a city, the entrepreneurial attributes of a city, or multi-diversity attracting a creative class with international ambitions and higher educations. The second type stresses the nation state level variables, such as national institutional arrangements, and how these provide abilities or constraints for the nation states ability to act as a gatekeeper. Since this controversy is clear but empirically under explored, a study along these lines with new empirical data will shed light on the issue and using the rescaling framework will highlight these differences in scales of explanations further.

CITY LEVEL EXPLANATIONS

"In some ways, the growing influence of transnational city networks epitomizes the

diminishing importance of nation-states and the rise of a new form of "glocal governance". Networks overcome the territoriality trap of national governments, which struggle to respond to challenges about which they lack sufficient information and whose origin is far beyond their geographic reach" (Reinicke and Deng, 2000, in Keiner and Kim, 2007: 1371)

The UN funded study by Keiner and Kim from 2007 analyses city membership in sustainability networks on a global scale. They find that cities like Barcelona, Brussels, Washington D.C., Paris, Dakar, Quito, and Nairobi are the most active ones, measuring both city membership and hosting of network headquarters. The most frequent networkers are not the prominent or larger global cities but mid-sized, more regionally oriented cities; Brussels, Rome, and Barcelona are in the lead with 12 memberships each, followed by Venice (10 memberships) and Copenhagen, Turin and Lisbon (9 memberships). Keiner and Kim see the networking activity as an expression of both globalization and Europeanization. Their main explanatory variables are size and relative position of the city within the country. (Keiner and Kim, 2007:1381, 1388-1390)

Le Gales and Harding finds that globalization can be both a constraint and an opportunity for cities, it does however not determine their strategies. The state is found to be an influencing factor but not determining of city activity. Le Gales and Harding's explanations lie within the city level of analysis, arguing that differences within countries can be as big as between them. This is illustrated with the example of Amsterdam and Rotterdam where the latter is said to be more active due to a better ability to build elite consensus. A closer explanation is however not given (Le Gales and Harding 1998: 142-143).

Taedong Lee has studied membership of environmental networks and finds that level of globalization has positive and significant effect on cities' membership of environmental networks. Lee finds that city attributes, rather than country level variables explain cities' behavior. However, Lee's research aims at explaining environmental commitment of cities and the variations of this, not the international activity in it self. In this study the focus is international networking in general, and the explanatory variables differ slightly since Lee is emphasizing the global city aspect but also the commitment to the specific issue. Lee's model is based on US cities and has six explanatory factors: state

environmental conditions; economic resources for environmental protection; political pressure from public opinion and organized interests; elite ideology; federal government influence; and institutional characteristics (professionalism). The last two can be seen to belong to the country level of analysis but the first four, softer, non-institutional variables, are valid when looking, not only at the environmental networking, but the more general one and they all belong to the city level of analysis (Lee, 2008: 3-5).

Heiden uses an explanation built on both EU membership (country level), and varieties of capitalism (city level) when studying the international activity of seven European cities. Along the lines of Europeanization he stresses the positve relationship between EU membership and the frequency of international activity. However, it is important to note that increasing international activity at city level is not necessarily part of an increased steering capacity. Heiden attributes this to the process of glocalization. As expected by the rescaling hypothesis cities have increased their international activity over time but the convergence towards economically oriented international activities is doubtful, however, this prediction was partially true for the EU-cities (Heiden, 2010: 137). Heiden uses an approach containing the varieties of capitalism in order to explain city activity, the two cities with the highest international activity are both located in EU member states, and van der Heiden shows that a city's economic orientation is highly decisive for the international activity. However, this doesn't say anything directly about the frequency of international activity, only that the orientation and intensity is determined by needs of the existing economic configurations (Heiden, 2010: 145, 152). This suggests that country level variables may be a more feasible explanation.

Tatham studies how sub-national entities are by-passing the state and argues that it is not the length of exposure to the EU integration process that determines by-passing and non-bypassing. He instead finds devolution and party politics to be relevant explanations. However, his two groups of either cooperation or bypassing cannot categorize cities in general and they are not mutually exclusive, most cities show evidence of both behaviors (Tatham, 2010: 91-92).

The Europeanization of cities provides them with new opportunities and transnational spaces, policy transfer, and lesson drawing, to an extent not comparable on member state level (Kern, 2007: 5). This is usually included in some kind of international strategy or policy, indicating rescaling of power, as rescaling of policy is historically

exclusive to nation states. This rescaling can be explained by the globalization arguing the importance of place specific assets, needing place specific policies to accommodate them, in an increasingly competitive environment. Kern suggests, along the same lines as Keiner and Kim, Heiden and Lee that the differences between cities can be explained by "the size of the city, its capacities, and the attitudes of the political elite" (Kern, 2007: 9).

The attitudes of the political elites are a city level variable that has been raised by several authors, and especially the role of the mayor seems to play a central role in the international activity. This is closely related to the arguments put forward by Richard Florida; that multiversity and tolerance attracts the creative class with higher education and international ambitions. According to his approach, this should in turn foster an internationally competitive environment and generate greater wealth (Florida, 2002: 745). This has also been seen as an increase in entrepreneurial activity by cities, defined as the innovative and strategies to maintain or improve competitiveness (Dannestam, 2008: 355).

In conclusion the city level explanations put forward concern the soft values of the individual who lives in the city and what preferences they have, as well as size, wealth and relative position of the city within the nation state. The rescaling theory stresses the globalization that a city is subjected to as a measurement for the need for competition. According to the logic of the entrepreneurial city these go hand in hand; a city with high competition will try to attract capital and people with high education with innovative environments. It is important to see whether globalization, and closely linked, economic competitiveness, matters. In the following section the choice of empirical material relating to these theoretical assumptions will be discussed and justified.

GLOBAL CITY INDEXES

There are several indexes measuring the city level values, the most well-known is the Global Cities Index produced by consulting firm AT Kearney, it measures the global activity of cities according to five dimensions that sufficiently captures the theoretical discussions on what influences international activity at city level. 1. **Business activity** measured by headquarters of major global corporations and location of to business service firms. 2. **City's ability to attract talent** measured by size of foreign-born population quality of universities, number of residents with university degrees and

international student population. 3. **Information exchange** measured by how well news and information circulates within and outside the city, for example accessibility to major TV channels and Internet presence. 4. **Cultural experience** measured by diverse attractions such as number of larger sporting events, museums, performance-art venues, international travellers. 5. **Political engagement** measured by number of embassies and consulates, major think tanks, international organizations that reside in the city. Even though the measurement fits well with the theoretical discussions it will not be used as a measurement of the city level explanations because of the relatively few observations provided, it merely ranks 66 cities throughout the whole world. Since this study is focusing on Europe, the selection is too small to be able to make statistically significant predictions of impacts (Hales and Mendoza Pena 2012: 2, 10-11).

Instead the globalization and world cities index (GaWC) created by Beaverstock, Smith and Taylor will be used. It measures connectivity and ranks cities according to the existence of four "advanced producer services": accountancy, advertising, banking/finance, and law. The score consists of how many international company offices, selected from a list of advanced service providers, which is situated in a city. The advanced producer services also coincide with Florida's three T: s, Talent (creative human capital), Technology (innovative activity associated with high tech industry), and Tolerance (the degree to which a place is liberal and tolerant and thus can attract creative people with and allow them to create new ideas) (Taylor, 2003: 29-32). According to Florida these three variables are determining a city's wealth and competitiveness. (Florida 2002: 744-746).

The Globalization and world city index is also a good operationalization of the non-institutional explanatory factors used by Lee. More international firms bring capital that can be invested in networking and it attracts the international workers with networking backgrounds and creates a more international identity (Lee 2008: 5). The world city index shows level of diffusion of ideas, international socialization of people that in turn builds international identities. It also shows indirect international flow of people through measuring the core services stated by Sassen as providing the infrastructure for globalization to take place (Sassen, 1996: 630-631).

COUNTRY LEVEL EXPLANATIONS

Traditionally the actions of sub-national governments have not attracted much attention in the academic literature; the focus on the nation state has been almost exclusive. In the same line of thinking the explanations for sub-national behavior have often been the domestic institutional settings. Kern argues that the activity of cities is, to a large extent, determined by Europeanization. Since two thirds of legislation at local level is affected by EU decisions it is important for cities to act as active policy makers in the EU multilevel system (Kern, 2007: 3).

> Despite the formal hierarchical structure of the state-local relations, which means that cities and towns are part of the Member States in formal terms, they have developed effective strategies to bypass them. Therefore, the analysis of the Europeanization of cities requires a better understanding of the dynamic development of EU-local relations and their repercussions for both the relations between the EU and its Member States and local-state relations within Member States. (Kern, 2007: 3)

Hooghe and Marks find that it is the political factors that determine international activity and connections between scales when it comes to representation in Brussels, namely the amount of sub-national autonomy that actors have. More autonomous actors are affected more by European issues and thus have bigger incentives to invest time and money in lobbying, both through networking and individual actions. This is in line with the discussion on gatekeepers; in a federal state the national government doesn't have the same gatekeeper function (Hooghe and Marks, 1996: 88-89). On the other hand scholars have found that there are high activity in sub-national units with less autonomy since they seems to have more to win to bypass their national government. The same is suggested to apply to the cities with low GDP/capita since they would have more to gain on networking through the funding opportunities, especially from the structural funds (Collier and Löfstedt, 1997: 36).

Arguing along the same lines, John maintains that the domestic variables matter, that nation size and political system determines how much of a gatekeeper function the central state can have. Smaller state means higher possibility for the central government to have gatekeeper functions. This is mostly due to the divide between unitary and federal states (John, 2000: 886). Bache agrees and takes the analysis further by arguing that country specific institutional relations mediate Europeanization. Therefor it is not

feasible to study Europeanization as length of membership in the EU without it being accompanied with a measurement of the institutional relations between scales. Bache categorizes countries according to a scale ranging from simple polity to compound polity (Bache, 2008: 2-3). According to Cowels, Caporaso and Risse, the goodness of fit of the Europeanization and national institutional structures are what determine the pressure for adaptation (Cowels, Caporaso Risse, 2001: 6)

Within the EU system of governance several policies are pushing for decentralization; deregulation of markets, globalization, the subsidiarity principle, and not least the accession of funds for projects administered by the EU. We can therefore assume that the processes of Europeanization push cities to act more independently of their respective nation states. Emphasizing the multilevel structure of the EU polity it has been argued; "networking is the most characteristic feature of EU governance" (Jachtenfuchs and Kohler-Koch, 2004: 100). Europeanization understood as the reorientation or reshaping of politics in the domestic arena in ways that reflect policies, practices or preferences advanced through the EU system of governance, must therefore be understood to increase the network activity of cities. This pressure for change is mediated by domestic institutional arrangements. In the next section the Regional Autonomy Index will be presented as a measurement of these domestic institutional arrangements.

REGIONAL AUTONOMY INDEX

The Regional Autonomy Index (RAI) as developed by Hooghe, Marks and Schakel, measures the institutional relationships between central government and sub-national levels of government in 42 OECD countries. It has both a sub-national score and an aggregated score for nations. The unit of analysis is the sub-national unit, referring to a given territory having a single, continuous, and non-intersecting boundary. Sub-national regions are defined as intermediate between local and national government, and have a regional government that is a set of legislative and executive institutions responsible for authoritative decision-making. Since there can be several sub-national tiers, a lower limit is set at 150 000 inhabitants (Marks et al., 2008a: 112-114). The RAI is a good measurement of the domestic institutional arrangements as the characterization goes well with the polity distinctions used by Bache. A low score on the RAI indicates a simple polity and a high score indicates a compound polity (either regionalized or federal), this will be elaborated on in the next section.

The RAI measures formal authority in two domains; self-rule and shared rule. It is similar to the distinction between simple or compound polity by Bache but, being a quantitative measurement, it has more distinct dimensions. Self-rule measures the extent to which the sub national entity can shape its own policies and shared rule measures the extent to which the sub national entity can influence the central government.

TABLE 1. DIMENSIONS OF REGIONAL AUTHORITY MEASURED BY THE REGIONAL AUTONOMY INDEX

Self-rule The authority exercised by a regional government over those who live in its territory	scale	**Shared rule** Authority exercised by a regional government or it's representatives in the country as a whole	scale
Institutional depth The extent to which a regional government is autonomous rather than de-concentrated	0–3	**Law making** The extent to which regional representatives co-determine national legislation.	0–2
Policy scope The range of policies for which a regional government is responsible.	0–4	**Executive control** The extent to which a regional government co-determines national policy in intergovernmental meetings.	0–2
Fiscal autonomy The extent to which a regional government can independently tax its population.	0–4	**Fiscal control** The extent to which regional representatives co-determine the distribution of national tax revenues.	0–2
Representation The extent to which a regional government is endowed with an independent legislature and executive.	0–4	**Constitutional reform** The extent to which regional representatives co-determine constitutional change.	0–3

Source: Hooghe et al, 2008:115

The Cronbach's alpha across the eight dimensions is reported at 0.92, suggesting that these variables can be interpreted as indicators of a single latent concept. Marks et. al. finds that RAI is slightly positively correlated with EU membership, this strengthens the Europeanization hypothesis about the impact of the EU system of governance on the member states. The correlation is however very small, it is estimated that it would take 29 years of EU membership to increase regionalization by one category in this measurement (Marks et al., 2008b: 177). As these two variables have been tested against each other and a correlation is apparent it will be relevant to both theoretically and statistically to test the networking activity towards them in an interaction model (see chapter 5).

The regional autonomy index is not exclusively measured for the city level but for the regional level. Each region in a country acquires a score and then these scores are

aggregated to country level giving a second score. This measurement operationalizes the national institutional arrangements, and since it is these arrangements in general that the measurement is supposed to measure the aggregated country score will be used. It represents the average degree of gatekeeping possibilities that the national institutions have over sub-national entities in general. These can however be different within a country where some regions are more autonomous than others but it would not be meaningful to use the regional scores since it represents the wrong scale. Choosing to take the aggregated score will give priority to the country level of explanation and this is, as proved by the discussion above, theoretically relevant.

According to Kern a low score on RAI, meaning low regional authiroty, should correspond to high activity levels since they have more to gain from bypassing their national government. A particular example of this is the UK where sub national governments have been more active as a counter reaction to centralization (John, 2000: 884, see also Collier and Löfstedt, 1997: 36). On the other hand, local authorities in federal or regionalized contexts would, according to Bache, have a better institutional fit with the multi-level system. The pressure for adaptation will in these instances not be as high and because the regions with higher RAI scores initially have a better fit for the multi-level system, the opportunities to take advantage of it through networking should be larger (Bache, 2008: 16-19).

In conclusion, previous research provides several possible explanations at two levels for the differences between cities networking activity and thus for this part of the rescaling of governance. It is clear that the approach using national level explanations have had a slightly better fit when it comes to explaining the frequency of networking activity. The present study will, systematically try these explanations on a large number of cases to statistically indicate the accuracy of the assumptions derived from previous research using the Regional autonomy index as the indicator for the national institutional arrangements, something that has not been done before. As a second level of analysis it will also try the city level explanation by using the Global City Index representing level of globalization by measuring the existence of multinational company offices, from specific sectors, in the city. This will give indications about the balance of the explanatory potential between these two main variables as well as trying these concepts on new empirical material with new indicators for familiar explanations.

The impact of European integration has long been viewed to be negative for the authority of sub national governments, due to the limited possibility to impact EU policy in contrast to the majority of implementation being made by sub national governments. This top down view of Europeanization has however been criticized for neglecting the opportunities provided (Kern, 2007: 18). This study will shed more light on the bottom up perspective and the possibilities that European integration brings to sub-national governments and especially cities. It will also specifically examine Globalization and the mediating effect of existing national-local institutional relations on Europeanization. Possibly, it will also say something about what affects the process of rescaling and multilevel governance in general.

TABLE 2. HYPOTHESES

The following hypotheses, derived from previous research within the limitations of the theoretical framework, expressed both theoretically and empirically, will be tested

1.	The relative size of a city, in relation to other cities within the same country, is decisive for networking activity and interconnectedness. Medium size cities have the highest networking activity.
2.	Higher globalization of city corresponds to higher networking activity and interconnectedness. Globalization of world city index is positively correlated to networking activity and interconnectedness.
3.	Country level variables have higher explanatory value than city level variables. EU membership years, regional autonomy, GDP/capita of country and Country population have the higher explanatory value than the city level variables
4.	Country variables have more explanatory value in countries with lower integration, as cost of regionalization is higher. Explanatory value of model is higher for non EU members and cities in countries that became members of the EU after 1995, than for cities in the older member states
5.	Lower wealth corresponds to higher network activity. GDP/capita is negatively correlated with networking.
6.	There is a positive relationship between integration and city networking activity. Cities in countries with a longer history of EU membership are members of more networks and have a higher relative interconnectedness.
7.	The highest activity is found in cities subjected to more decentralized national institutional arrangements in combination with more integration. The highest networking activity and connectivity are found in cities with high RAI scores in combination with a longer history of membership in the EU

4. RESEARCH QUESTION

To what extent can globalization and Europeanization conditioned by national institutional arrangements explain relative networking activity and relative interconnectedness of cities?

LIMITATIONS

The approach used for this research becomes inherently institutional when regarding rescaling and Europeanization as theoretical frameworks. Explanatory attempts will thus mainly be of institutional character, this doesn't mean that the actual individuals doing the networking is unaccounted for, but merely implies a primacy to the setting in which the individuals operate as explanatory variable. To be able to make more encompassing generalizations about political systems, the institutional perspective has proved to be fruitful when studying organizations, and especially when the focus is on how they act within a complex system of governance. The goals of organizations must of course be understood as a compromise of individual actor's preferences. In this context it is valid to view and analyze cities as collective actors without saying that whoever lives in a city or leads it doesn't matter. Individual level analysis is valid and these actors are the ones generating political preferences but as shown by previous literature, it is the institutional arrangements that mediate these ideas providing incentives and disincentives for possible actions (Bulmer, 1994: 353).

It should also be noted that multilevel governance and the interconnectedness of cities is manifested in many other ways than networking, for example cities' direct lobbying and representation in Brussels, usually termed a kind of para-diplomacy. It has also been known to take the bilateral relationships between cities, (sister cities or friend cities) into account when studying international activity of cities (Kern, 2007: 12-13). As this study is predominantly focusing on the multilevel dimension of the governance of cities and aims at saying something about the relationship between the different tiers of governing bodies, the networks will be investigated. Even though bilateral relations and direct representation in Brussels can be seen to complements the networking activity, the networking is the clearest example. It has also been discussed at length how influential cities actually are in affecting EU policy outcomes through these networks. This will however not be investigated in this study since this will shift focus from the interconnectedness to the relative power of scales.

5. METHOD AND DATA

The dependent variables in this study are (1) relative networking activity; the number of network memberships and (2) the relative interconnectedness; number of connections these memberships create to other cities. The method used for analysis is OLS regression with models derived from previous research including both city-level and country-level variables to see how well they fit the data; to what extent they can explain networking activity and interconnectedness, and if there is a possibility to determine which one have the highest explanatory value.

SELECTION OF NETWORKS

As shown in the previous sections, the networking activity of cities are part of urban policy making in the era of rescaled statehood, and a better understanding of what determines this behavior is of great importance to gain insight in the dynamics of this process. City networks are good examples of the connections between scales, and will therefore, represented in two separate forms, be the central element of the dependent variables of this research.

As one of the primary reasons for cities to join networks is to promote themselves internationally to be competitive, and attract business and organizations, the selection of networks will be based on where information of membership is readily available on the network websites. Internet connections and digital platforms are crucial for networking activities and many networks have their primary activity online through their websites, it is therefore valid to gather information from this source (Keiner and Kim, 2007: 1383-1384).

European and global networks will be selected from a variety of issue areas, on the condition that they have European members. The goal is for the selection to be as encompassing as possible. Keiner and Kim investigates 53 different networks on sustainability, taking a broad interpretation of the network concept including regional, European and global networks (Keiner and Kim, 2007: 1375-1379). This is a good starting point since most of the transnational city networks in Europe are focusing on sustainability (Niederhafner, 2012: 2). This list is cross referenced with the one presented by Heiden, which has 31 networks gathered while investigating the international activity of the seven cities under scrutiny in his study (Heiden, 2010: 135).

The whole population of networks will not be studied; it would be an impossible task since the number of networks has risen steeply and increases continuously. The selection of units of analysis (cities) is done based on the networks instead of starting with the cities. It would have been possible to choose a number of cities and inquire into how many networks they are members of but this would have had to include a careful selection of cities. With the chosen approach the cities studied are chosen indirectly by the selection of networks.

In many of these networks, members are regions as well as city administrations, but for this research to be valid within the rescaling theoretical framework where the cities have an outstanding place, the urban must be central. Therefore the selection has been set at 100 000 as the lower limit of population size. The selection is also limited to the city administrations when gathering the data on membership. The regional scales will not be considered since they may be a different level of governance, even though a city within a region can be an active party to the memberships.

Networks have been selected in a snowball fashion, most of them are on the two lists from previous research, but they also have to fulfill four criteria to fit the theoretical framework: (1) The network must have a list of members ready available online, (2) members must be cities bigger than 100 000 inhabitants, (3) the network must be a main network (not a sub network), and (4) network members must be at the right scale meaning that they are not smaller villages or bigger regions.

DATA GATHERING

Data on members is collected from 50 networks. An additional 15 networks have been investigated, but these did not live up to the criteria for data collection. The most common problem was that a list of members was unavailable (for full list of networks investigated see Appendix I).

Sometimes members are listed as municipalities, for example the municipality of Oslo; these will be counted as they represent the same scale even though some bigger cities consist of several municipalities. Districts of bigger cities will not be counted even though they have over 100 000 inhabitants as this might double the count for the whole city. For example Sutton (London) and Monteruil (Paris) will not be regarded as the other variables are defined for the whole city. The logic is to always aim at being

consistent when it comes to the scale, therefore, individual membership is the only form of membership that will be considered. Hence, being part of an organization that in turn is a member of a network is not included, for example no Baltic cities will be counted as members of the network *Energy Cities* since they only represent themselves through the central organization Union of Baltic Cities. Membership of this network is counted on its own. It is important to note that networks can have more members than the number reported, these members may have less than 100 000 inhabitants or be regions, agglomerations or associations of municipalities or regions.

NETWORKING ACTIVITY AND CONNECTEDNESS THROUGH NETWORKS

As suggested above, the networking activity is an operationalization of the interconnectedness of scales and a manifestation of the rescaling of statehood, where sub national scales are increasingly internationally connected to other levels of government. From the information on networking activity collected, two dependent variables will be created to measure different aspects of the networking. First, a simple addition of the number of memberships will measure the superficial or advertised interconnectedness of the city. Second, an index will be created that consider the number of members that each network have among the selected cities. Being a member of a big network will generate a higher score, this will measure the relative interconnectedness of the cities within the dataset, and be a better operationalization of the international connections between cities.

The **relative networking activity**, measuring the number of memberships that each city has among the 50 networks investigates ranges from 1-27. The number of members that a network have among the cities in the data set ranges from 177 members to just 2. For example, among the 372 cities in the dataset, 154 are members of *Eurocities*. Being a member of *Eurocities* implies connections to 154 other cities within the dataset, it therefor gives a relative score of 154. Being a member of *Cities for children* gives you a score of 77 according to the same logic. When adding up all of the membership scores, the results shows the **relative interconnectedness** of the city, something that has some interesting differences from the simple addition of network memberships.

The measurement for interconnectedness between cities measures relative cross-border activity and thus a form of " horizontal foreign policy". A higher number is thus a sign of the local government acting in a way that the national scale used to have monopoly

on. The networking activity measurement is a better theoretical match for the vertical connections between scales. The activity measure deals with the presence of connections between scales and the connectedness measure the frequency of the international connections between the local scales. Thus the activity measure is a more valid operationalization for the main aim, since this is studying the relative interconnectedness of scales. All the networks are, in some form, dealing with transfer across scales and the number of network memberships shows the relative potential number of connections for the city.

As these measurements of network activity and interconnectedness are not absolute, neither in the number of networks it investigates, nor in the number of connections that cities have, they are **relative measurement**. There are two main reasons for not measuring the absolute connectivity (except for the time constraints). Firstly, the methodological approach do not allow for measuring other types of connectivity than networking, such as twinning and sister cities. Secondly, since the selection is based on networks rather than cities, all network memberships of a city is not inquired into. This methodological approach leaves the relative activity and interconnectedness to be captured. From the theoretic point of view, it is the relative networking activity and how it varies between cities that is interesting when analyzing explanation models for network activity and, moving along the abstraction level, also the connectivity between scales. The interconnnectedness is a measurement of the level of multilevel governance, both since many networks are aimed at influencing the EU and since it means possibilities of external funding. More connections between cities and between cities and the supranational level of government, are evidence of more multi-scalar governance.

SPECIFICATION OF VARIABLES

City globalization, measured by the world city index, national institutional arrangements, measured by the Regional Autonomy Index, and integration measured by years of membership in the EU will be the key independent variables. The RAI is measured for a period from 1950-2006 but since the study is limited to present day data on network membership, the most recent will be used. Newer data would have been preferable but since this data have not been used in this context before and the relationships are quite stable this will be sufficient. The RAI will be used both as an

independent variable and an interaction term in different models. The control variable data on size and wealth of cities and countries have been gathered from Eurostat. Models will be specified in the next sections

TABLE 3. VARIABLES

Theoretical concept	Level	Measurement	N	Min	Max	Mean	Std. deviation	Data source
Relative networking activity	Sub-national	Number of network memberships	372	1	27	5,6	4,63	
Relative interconnectedness	Sub-national	Relative interconnectedness of city	372	0	1623	437,3	323,46	
European-ization	National	EU membership years	372	0	61	36,3	23,64	
National Institutional arrangement	National	Regional Autonomy Index	365	0	30,5	16,6	8,87	Appendix B, RFS, 2008 18:2[1]
Globalization	Sub-national	World city score (GaWc)	97	7	372	59,5	61,52	da11
Size	National	Population country	372	318,452	81 751,602	44 277, 676	28 139,674	Eurostat 2011 demo_pjan
City size	Sub-national	Population city	372	100,482	8803,468	478,594	850,839	Eurostat 2011 urb_vlca
Wealth	National	GDP/capita in euros at market prices	372	1,413	71,2	25227	12,230	Eurostat 2011[2] nama_gdp_c
Wealth	Sub-national	City GDP/capita in euros at market prices	209	3,728	56,288	25191	9,726	Eurostat 2009[3] met_e3gdp

Note: pop_city is based on the most recent data available through Eurostat Urban audit, other sources have been used in a few cases, see Appendix II for detailed information.

All variables have been controlled for normal distribution and GDP/capita country level and population of city have been log transformed to correct for skewness.

---

[1] Reported aggregated at country level with most recent data from 2006. Belarus, Moldova, Ukraine and Kosovo not reported. Serbia and Montenegro reported together.
[2] Romania, Macedonia, Kosovo, Albania and Bosnia and Hercegovina 2010
[3] Spain 2008

FIGURE 2. EXPLANATION MODELS
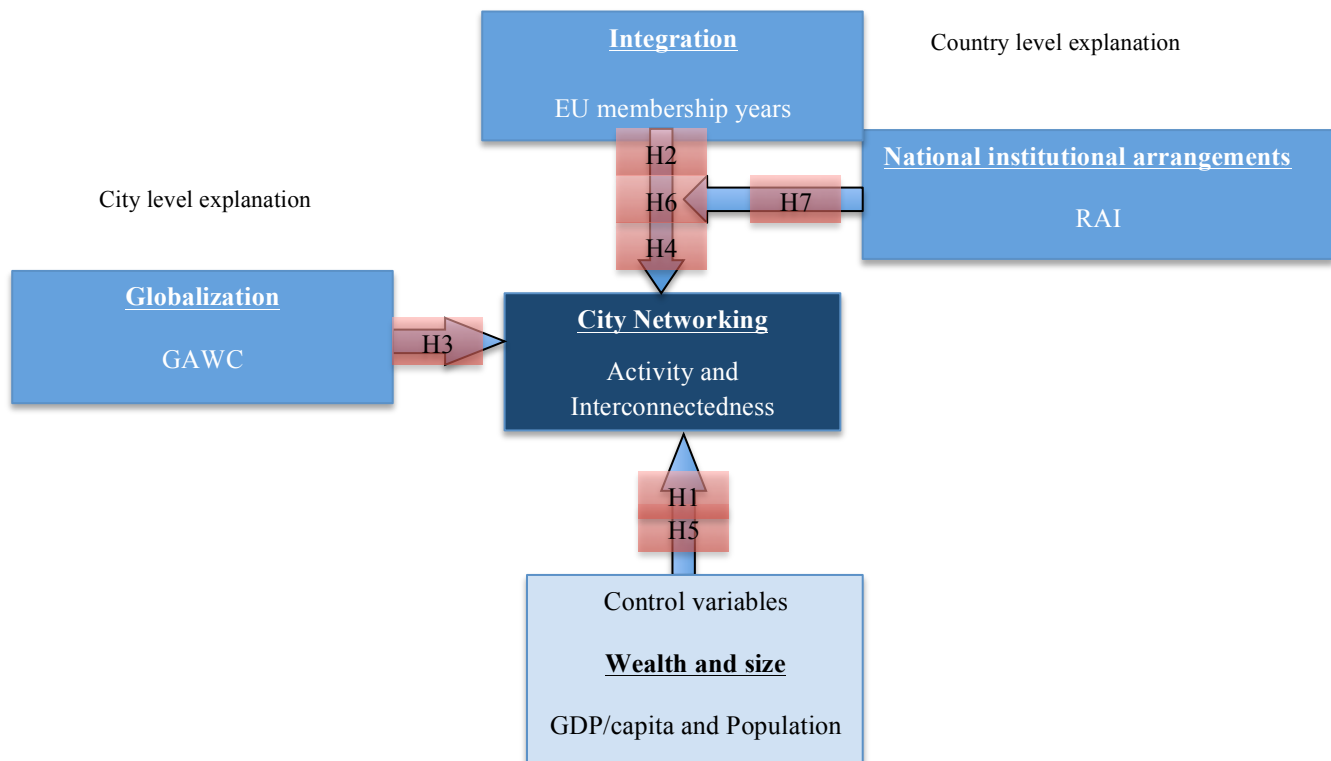
Note: The two explanation models are shown graphically with variables expressed in both theoretical concepts (underlined) and operationalizations (below). The hypotheses are represented by the red boxes and placed according to theoretical expectations.

RELIABILITY, VALIDITY AND GENERALIZABILITY

The operationalizations of concepts have been described above, but these entail, as mentioned earlier, certain limitations to the measurements. When it comes to validity of the study it cannot be stressed enough that the study is measuring relative activity and relative interconnectedness of the 372 biggest cities in Europe. The measurements of activity and interconnectedness are not absolute, but this research is testing the theoretically generated explanations models using new data in terms of relative networking. These models have been tested in case studies and other selections of cases before, but not with the regional autonomy index as an independent variable.

In regards to reliability, there is full transparency in the networks and cities that have been inquired into. Some availability of data has limited the study in regards to some countries, thus Ukraine, Russian Federation, and Turkey have been excluded.

The operationalizations are lacking in a few aspects. They are not accounting for the activity of the network itself: is it a social gathering of likeminded or an active working body that puts demands on its members? There are no indications for how active a network is or what they actually do. However, most networks are aimed at giving cities a voice in the multi-level system of governance (Kern, 2007: 13). As mentioned before, the motivation for joining a network could be as little as just being able to advertise that you are a member, this is probably not the case for too many cities, but even minimal engagement in the network shows the importance of being competitive by aiming at connections with other scales of governance.

The data availability, models, and design of this study also create certain limitations in generalizability. Since there is no way of determining the whole population of networks, it cannot be established that a random, or selected sample have been investigated, therefore the results cannot be generalized beyond the given sample when it comes to networks investigated. However, since the sample of cities is as inclusive as possible, there is reason to believe that the results will be able to say something about the relative networking activity among the biggest European cities. This will become clearer in the next paragraph.

The data set represents 372 cities, 14 of these are located in Turkey, Belarus, Russian Federation, and Ukraine, and due to lack of data availability on some variables, these have been excluded in the following discussion on generalizability and sample size. In the EU there is 396 cities with 100 000 inhabitants or more (Dijkstra and Poelman, 2012: 4-5), 333 of the 358 cities in the data set are located within the EU; this gives a coverage percentage of 84% within the EU. Data has also been gathered on non-EU countries; including Croatia, Switzerland, Norway, and Iceland, which gives a total population of 408 cities (Dijkstra and Poelman, 2012: 4-5). In addition to these countries my dataset includes data on cities in Serbia, Montenegro, Moldova, Bosnia and Hercegovina, Albania, and Kosovo. Adding all cities above 100 000 inhabitants from these countries gives a total population of 408+14= 422 cities. The coverage rate for the whole data set is thus 84,8%. The selection has not been systematically skewed

towards certain cities, the only reason why the remaining 15,2% of cities are not represented in the dataset is because they are not members of any of the researched networks. As the sample is not random, it had to be thorough in order to be able to say that the study counts for as many cities as possible. The measurements are relative and can therefore be generalizable to European cities in general.

Before reporting and discussing the results it is necessary to point out that the networking measured here is nothing new in itself, as cities have cooperated and shared experiences and ideas for a long time. The new aspect is considering the networking as a function that connects the scales in a in a multilevel system. In Europe they are now an important part of formal and informal policymaking.

6. RESULTS AND ANALYSIS - CITY NETWORKING ACTIVITY AND CONNECTIVITY IN EUROPEAN CITIES

The aim of this research is to analyze how and why international networking activity and interconnectedness vary between different cities and countries. As evidence of moving from government to governance is increasing, the nature of governance is also increasingly multi-level in character. Networking activity is a concrete example of the interconnectedness of scales and this move towards governance. Analyzing the frequency of networking will give new insights into the complex mechanisms of the rescaling of the state towards a multi-level system of governance and what facilitates and inhibits this development in Europe.

As previous research have taken two separate trajectories when trying to explain this behavior, the study has been designed to test both of them by introducing variables measuring potential explanations at different scales.

To give an overview of the results, this chapter starts out with the bivariate correlations of the variables. Then the OLS regressions of the models described above will be presented and finally the seven hypotheses will be tried and discussed individually. Results of this research also include a list of city networks fulfilling the selection criteria listed on page 24, see Appendix I.

TABLE 4. BIVARIATE CORRELATIONS

	Relative networking activity	Relative inter-connectedness of city	Regional Autonomy Index	EU membership years	World city score
Relative networking activity		,948**	,023	,062	,561**
Relative interconnectedness of city	,948**		-,006	,062	,534**
Regional Autonomy Index	,023	-,006		,644**	-,013
EU membership years	,062	,062	,644**		,002
World city score	,561**	,534**	-,013	,002	

Note: p<0,05=* p<0,01=**

World city score is the only independent variable which is significantly correlated to any of the two dependent variables As seen above there is also a problem with multicollinearity between EU membership and the regional autonomy index. The theoretical prediction for impact is heavily dependent on the effect of EU membership being conditioned by the national institutional arrangements, here measured by regional autonomy index. The effects of EU membership and RAI are therefor hard to predict when observed without the interaction between them. The multicolliniearity gives a non-stable model, which shifts quite a lot between different versions. However, it will not be disregarded as the theoretical predictions are strong and well grounded. This will be examined more closely below, under hypothesis 7.

TABLE 5. REGRESSION MODELS, DEPENDENT VARIABLE RELATIVE NETWORKING ACTIVITY

Independent variable	Integration Country level	Integration City level	Integration Total	Regional autonomy	Globalization	Interaction
Constant	-8,530* (4,341)	-48,782***	-50,731*** (10,932)	-55,685*** (10,480)	-31,989 (22,290)	-65,949*** (11,463)
EU membership years	,009 (,017)	-,026 (,015)	,031 (,022)			-,085* (,040)
Regional autonomy index				,075 (,039)		-,200* (,090)
EUmem*RAI						,006** (,002)
Globalization					,341 (,909)	
Population Country	,000** (,000)		,000*** (,000)	,000*** (,000)	,000* (,000)	,000*** (,000)
Population city		4,061*** (,313)	4,174** (,315)	4,226*** (,317)	2,850** (,952)	4,352*** (,312)
GDP/capita Country	1,539** (,461)		,208 (1,017)	,656 (,948)	,134 (1,897)	1,911 (1,108)
GDP/capita city		,000*** (,000)	,000** (,000)	,000** (,000)	,000 (,000)	,000* (,000)
R2	,072	,553	,586	,589	,402	,611
N	372	209	209	209	77	209

Note: p<0,05=* p<0,01=** p<0,001=***
Unstandardized betas, standard errors within brackets. Plotting residuals and leverage values show no distinct outliers.

TABLE 6. REGRESSION MODELS, DEPENDENT VARIABLE RELATIVE INTERCONNECTEDNESS

Independent variable	Integration Country level	Integration City level	Integration Total	Regional autonomy	Globalization	Interaction
Constant	-442,008 (307,223)	-3084,812*** (278,404)	-3451,350*** (758,402)	-3727,332*** (732,117)	-1534,903 (1354,751)	-4403,402*** (800,415)
EU membership years	,936 (1,168)	-1,797 (1,025)	1,903 (1,516)			-5,658* (2,768)
RAI				1,646 (2,736)		-17,492** (6,317)
Globalization					28,275 (55,246)	
EUmem*RAI						,407** (,126)
Population Country	,000** (,000)		,000*** (,000)	,000*** (,000)	,000** (,000)	000*** (,000)
Population city		265,492*** (21,670)	275,110*** (21,879)	274,620*** (22,118)	152,232* (57,865)	283,548*** (21,768)
GDP/capita Country	96,068** (32,602)		37,440 (70,531)	67,328 (66,223)	26,602 (115,269)	150,314 (77,368)
GDP/capita city		,012*** (,002)	,008** (,003)	,008* (,003)	,007 (,006)	,007* (,003)
R2	,068	,518	,553	,550	,343	,575
N	372	209	209	209	77	209

Note: p<0,05=* p<0,01=** p<0,001=***
Unstandardized betas, standard errors within brackets. Plotting residuals and leverage values show no distinct outliers.

In the regression tables above the control variables are added to the first model in two steps, with each scale at one time and then both scales at the same time. It is evident that, as predicted, models show positive effects on all key independent variables except EU membership when population variables are left out.

When testing the EU membership, RAI and City globalization while controlling for GDP/capita and population at both national and city scale, the effects show same lack of significance in all the independent variables, except for the interaction model. This is suggesting that the effects of the independent variables are taken up by other variables but the specification in the interaction model gives a better causal understanding. This will be explored further in the hypothesis testing.

When comparing the two indexes of networking (activity and interconnectedness) it is important to note the difference in operationalization of the theoretical concepts. They show same results regarding direction and significance, but the variance explained is slightly lower for all models using the interconnectedness measure as the dependent variable. This means that the variables used is better for explaining networking activity

than interconnectedness of cities. This is consistent with the theoretical discussion that showed that the networking activity is a better measurement for the connectivity between scales of governance. In the coming sections the results from hypothesis testing are established and discussed.

HYPOTHESIS TESTING

1. MEDIUM SIZE CITIES HAVE THE HIGHEST NETWORKING ACTIVITY
Because of the rescaling, the capital cities are said to have less incentive for networking since they already are economic and political hubs.

Top networkers, relative network activity, memberships within brackets:

Barcelona (27), *Helsinki* (23), *Rome* (22), Lyon (20), *Brussels* (19), Gothenburg (19), *Paris* (19), Torino (19), *Madrid* (18), Nantes (17), *Berlin* (17), Venice (17). The first city from a Central and Eastern European Country is Budapest with 15 memberships, then Zagreb, Vilnius, Riga and Tallinn with 14 memberships each. As these cities have no or shorter history of EU membership they should have less networking activity than others see hypothesis 6 for a more detailed explanation on this prediction.

Top networkers, relative interconnectedness score within brackets:

Barcelona (1623), *Rome* (1333), Nantes (1304), Zaragoza (1291), Geneva (1277), Gothenburg (1253), *Madrid* (1228), Venice (1203), Frankfurt (1182), Munich (1180).

Barcelona is in the lead both when it comes to relative activity and relative interconnectedness, this is in line with the findings of Keiner and Kim, they also find Barcelona to be the top networker when measuring network memberships and locations of network headquarters. They draw the conclusion that medium sized cities with clear regional orientation will be the top networkers (Keiner and Kim, 2007: 1391). The results from the interconnectedness is also in line with the previous research, when it comes to Barcelona being the leader and Rome in the top, however, Rotterdam, the Hague, Lille, Glasgow and Lyon are not in the top when it comes to the broad definition of networks studied here. The immediate difference is that Keiner and Kim have only investigated sustainability networks.

The main difference between the two networking measurements is that capital cities are overrepresented when it comes to networking activity but not when looking at

interconnectedness. This indicates that capital cities hold more memberships than other cities, but as seen in the second list, other cities are more interconnected to each other. Only Rome and Madrid are still in the top ten when it comes to connectedness. Helsinki (1156) have dropped to 14th place but it is still Zagreb (1149) 17th, Budapest (1085) 25th, Vilnius (1083) 27th and Riga (1071) 29th that hold the highest scores when looking at the new and potential EU members.

Drawing from previous research it has also been suggested that the second cities after the capitals are the most frequent networkers since the capitals often are the biggest cities and already are political and economic hubs. The result from this research does not support this hypothesis. There is a clear positive correlation between city size and both dependent variables, and capitals are dominating among the most active networkers. The idea of more activity among second cities is more true for the relative interconnectedness, here only 2 capitals are represented, 3 of the top ten cities are 2nd cities but Frankfurt and Zaragoza are both 5th largest cities in their respective country and Venice, 11th in size in Italy, have outstandingly high network connectivity.

In conclusion the hypotheses of higher networking activity and connectivity in medium size cities or second largest cities cannot be conclusively supported by these findings. Thus the explanatory value of the relative size of a city, in relation to other cities from the same country cannot be supported by this data, instead absolute size seems to be a better explanation.

2. GLOBALIZATION OF WORLD CITY INDEX IS POSITIVELY CORRELATED TO NETWORKING ACTIVITY AND INTERCONNECTEDNESS

According to Sassen and Florida, among others, the globalization that a city is subjected to is an important factor for determining networking activity, this is not only due to the increased economic competition that it puts on the city but also due to that a global city attracts a diverse group of residents, educated and innovative people with tools and ambitions for international networking (Sassen, 1996: 630 and Florida, 2002: 745). Lee finds that level of networking activity is positively correlated to city globalization (Lee, 2008: 22).

When analyzing the independent variables it is clear that World city score by itself is a significant predictor of network activity and interconnectedness when running a bivariate regression (Pearson's correlation is ,561** and ,534**), but the significant

effects disappear after controlling for population and GDP. Therefor, within the limitations of this research, the importance of the city globalization as a determinant of networking activity is weakened. For example, among the cities with high scores on the globalization index, which, almost exclusively are capitals, London is at the top. London is, nonetheless, not a big networker, having only 9 memberships.

In conclusion the control variables at city level add the most explanatory value to the model, but when it comes to the more complex explanation models emphasizing city level variables tested by the Globalization variable, the country level explanation is strengthened by the result and not the city level one (this is explored further in the next section).

3. EU MEMBERSHIP YEARS, REGIONAL AUTONOMY, GDP/CAPITA OF COUNTRY AND COUNTRY POPULATION HAVE HIGHER EXPLANATORY VALUE THAN THE CITY LEVEL VARIABLES

As suggested by previous research, especially by Bache and Marshall, networking activity can be seen as a form of Europeanization as the EU is now the most institutionalized example of scalar governance in the World. Bache and Marshall argue that country level variables have higher explanatory variables than city level variables since the state still exercises the role as a gatekeeper when it comes to influencing the way Europeanization effects countries and thus networking of cities (Bache, 2008: 16-18). The variation should then be bigger between countries than within them. Statistically, the data does not allow for comparing variation within country with the variation among all cities since the number of cities from each country is about 5-10 (with the exceptions of Germany, France, Italy, Poland). The standard deviations cannot be meaningfully compared between the whole dataset and within countries. Instead, the control variables are measured at two different scales to test the explanatory value of each level.

At the city level population and GDP/capita are significant predictors of both networking activity and interconnectedness of cities. At country level, population is also significant but not the GDP/capita. An indication for strengthening the city level hypothesis is that almost all of the explained variation attributed to the control variables at city level, see table 4 and 5. When it comes to the independent variables it is only EU membership and regional autonomy index that is significant predictors of networking activity and interconnectedness and this is conditioned on using the interaction model.

As shown in the testing of hypothesis 2, the independent variable at city level, globalization world city score, is not significant when controlling for population and GDP/capita.

In conclusion this suggests that city level control variables play a bigger role in determining networking behavior but when regarding the independent variables the hypothesis of the country level influence can be supported, and since these models have a stronger theoretical base the main findings are supporting the country level explanation.

4. EXPLANATORY VALUE OF MODEL IS HIGHER FOR NON EU MEMBERS AND CITIES IN COUNTRIES THAT BECAME MEMBERS OF THE EU AFTER 1995, THAN FOR CITIES IN THE OLDER MEMBER STATES

In the chart below two different models have been tested for both dependent variables. The output has been split into two groups according to membership in the EU, the first group consists of non-members and the newer member states that entered the Union in 2004 and 2007 and the second group of the older members.

In accordance with the theoretical framework, and the findings of Heiden (2010: 137), it is expected that the cost of regionalization is much higher in the first category. When a multilevel polity is not present or more recently introduced the cost of regionalization is much greater since this would entail a loss of power at the national level without compensation in the form of market access or access to funds. In the older member states the pressures for adaptation have changed the governmental systems to allow for more autonomous regional and local levels. The newer and non members are thus thought to have a much lower regional autonomy, which is confirmed by the data where the new or non-members have a mean RAI of 8,9 and the older member states have a mean of 19,26.

TABLE 7. COUNTRY LEVEL EXPLANATIONS FOR NEW AND NON-EU MEMBERS AND OLDER EU MEMBERS

	Networking activity				Networking connectivity			
	New and non EU members (0-9 years)		Older EU members (18-61 years)		New and non EU members (0-9 years)		Older EU members (18-61 years)	
Constant	-7,380 (4,227)	-79,245** (20,510)	-16,028 (16,231)	-24,039 (23,316)	-405,865 (324,761)	-6881,420*** (1676,249)	-785,810 (1134,178)	-1234,694 (1606,376)
EU member-ship	-,224** (,085)	1,656* (,789)	,019 (,024)	-,134* (,057)	-12,939* (6,511)	73,714 (64,504)	1,659 (1,645)	-6,514 (3,914)
RAI		1,419* (,664)		-,332* (,148)		71,144 (54,275)		-21,281* (10,202)
EU mem*RAI		-,238** (,085)		,008** (,003)		-13,319 (6,967)		,478* (,201)
Population country	,000** (,000)	,000* (,000)	,000** (,000)	,000*** (,000)	,000* (,000)	,000 (,000)	,000* (,000)	,000*** (,000)
GDP/capita country	1,585** (,448)	1,916 (1,981)	2,217 (1,6)	-1,935 (2,130)	102,677** (34,430)	353,288* (161,941)	125,771 (111,595)	-153,531 (146,777)
Population city		4,653*** (,657)		4,296*** (,347)		303,048*** (53,720)		278,157*** (23,883)
GDP/capita city		,000 (,000)		,000** (,000)		-,007 (,009)		,009** (,003)
R2	,247	,796	,038	,609	,193	,740	,036	,576
N	38	38	171	171	38	38	171	171

Note: $p<0,05=$*, $p<0,01=$**, $p<0,001=$***. Unstandardized betas, standard errors within brackets.

In the chart above it is clear that the first model including EU membership and country level control variables is a much better fit for the new and non-members than the old members for both dependent variables. The explanatory value for the whole interaction model, testing the independent variables representing the country level explanation, is also much higher for the same category. This supports the hypothesis showing that new or non-members have lower regional autonomy. The interaction between RAI and EU membership years also carries more explanatory weight for these countries meaning that the ability for the central government to act as a gatekeeper is higher. The models are however not able to show the direction of causality regarding regional autonomy and EU membership.

Another interesting difference is the change in sign of correlation for both RAI and EU membership between the two groups. This is consistent for the models where RAI is not included but the effects are only significant for the new and non-members. This could be due to the big differences in RAI scores between the groups, which will be explored further under hypothesis 7.

In conclusion the findings strengthen the hypothesis about higher cost for regionalization in newer or nonmember countries.

5. GDP/CAPITA IS NEGATIVELY CORRELATED WITH NETWORKING

The rescaling of the state is predominantly explained by the neoliberal economic developments and, as argued by both Brenner and Heiden, the rescaling of governance is due to increased competition and globalization. The ability to regulate the economy and redistribute is decreasing. According to the rescaling approach, higher GDP/ capita does not necessarily lead to higher networking activity even though the wealthier cities are having greater possibilities to be autonomous of their national government since they are, in many cases, the economic motors of the country, and because they have more resources to spend on networking (Brenner, 1999: 441-442). Following the logic of rescaling, arguing that networking is mostly a development driven by economic competition, Kern argues that the networking is driven by the possibility of acquiring funds (Kern, 2007: 12-13). By that logic, the cities with lower GDP/capita should be more frequent networkers as they have more to gain. Lower GDP/capita should thus correspond to higher network activity, since these cities have more to gain from the structural funds.

When measuring network activity this study cannot find the expected results of a negative correlation between GDP per capita and both of the dependent variables. Cities with lower GDP per capita have a lower network activity and interconnectedness. This can presumably be explained with the amount of resources that these cities are able to dedicate to networking activity. A wealthier city can afford to spend more resources on uncertain, or long term, investments that the networks memberships are. This is confirmed by many of the top networkers being capitals as these are the often the wealthiest cities.

An interesting finding is the difference between city GDP/capita and country GDP/capita. The city GDP/capita adds almost all of the explanatory value to the model while the country GDP/capita seems to make no significant contribution to the explanation except for the new or non-EU member states (see table 6).

In conclusion the expected negative relationship between GDP/capita and networking activity is not strengthened by the results, instead the opposite relationship is observed.

6. Cities in countries with a longer history of EU membership are members of more networks and have a higher relative interconnectedness

The prediction that EU membership should be positively correlated to networking activity is derived from the notion of the EU as the most paradigmatic case of scalar governance today in combination with the process of Europeanization defined as "the reorientation or reshaping of politics in the domestic arena in ways that reflect policies, practices or preferences advanced through the EU system of governance" (Bache and Jordan, 2006: 30). Longer time as a member of the EU should therefore have made the single country more prone towards, and influenced by, a multi scalar and multi-level type of governance. Whether the country as such will display signs of multilevel governance is doubtful, but as they are part of a multi-scalar polity they are subject to the pressure for adaptation. Higher rates of networking activity and connectivity are clear examples of an adaptation to the multi-scalar system.

These suggestions can not be strengthened by the results of this research as, EU membership on its own, is not significantly correlated to the any of the dependent variables in a positive way (see table 4 and 5). The theoretical prediction is, however, conditioning the influence of European integration on the ability of the country to act as a gatekeeper when it comes to Europeanization influence (Cowels, Caporaso and Risse, 2001: 6). This will be elaborated on in the next section.

In conclusion the results point to the conclusion that integration, on its own, is not enough to explain networking activity.

7. The highest networking activity and connectivity are found in cities with high RAI scores in combination with a longer history of membership in the EU

As seen in the testing of hypothesis 1-6 the most interesting results can, as predicted by the theoretical framework, be found in the interaction model. Here all key explanatory variables show significance, and the model fit is the highest of all the explanatory models: 61% of the variance is explained for the relative networking activity, and 57% for the relative interconnectedness. The interaction term shows that different scores on regional autonomy are significantly affecting the relationship between EU membership and networking activity and interconnectedness. The positive sign indicated that the effect of EU membership is bigger in cities with higher regional autonomy.

TABLE 8. REGRESSION INTERACTION, DEPENDENT VARIABLE RELATIVE NETWORKING ACTIVITY

Constant	4,877*** (,837)	5,278*** (1,381)	-46,295*** 4,060	-62,818*** (11,896)	-65,949*** (11,463)
EU membership years	,027 (,026)	-,142** (,042)	-,106** (,031)	-,140*** (,039)	-,085* (,040)
Regional autonomy index	,032 (,062)	-,295** (,114)	-,234** (,084)	-,288** (,091)	-,200* (,090)
Interaction RAI*EU member	-,001 (,001)	,006* (,002)	,005** (,002)	,006** (,002)	,006* (,002)
GDP/capita city		,000*** (,000)	,000*** (,000)	,000*** (,000)	,000* (,000)
Population city			4,045*** (,308)	4,183*** (,321)	4,352*** (,312)
GDP/capita Country				1,700 (1,151)	1,911 (1,108)
Population country					,000*** (,000)
N	365	209	209		209
R2	,004	,211	,573	,578	,611

Note: p<0,05=*, p<0,01=**, p<0,001=***. Unstandardized betas, standard errors within brackets.

TABLE 9. REGRESSION INTERACTION, DEPENDENT VARIABLE RELATIVE INTERCONNECTEDNESS

Constant	388,919*** (58,996)	465,449*** (92,863)	-2877,755*** (281,131)	-4214,969*** (822,050)	-4403,402*** (800,415)
EU membership years	2,848 (1,862)	-8,498** (2,843)	-6,176** (2,167)	-8,956** (2,689)	-5,658* (2,768)
Regional autonomy index	,802 (4,403)	-22,323** (7,650)	-18,394** (5,817)	-22.795*** (6,323)	-17,492** (6,317)
Interaction RAI*EU membership	-,091 (,098)	,364* (,153)	,341** (,116)	,442** (,129)	,407** (,126)
GDP/capita city		,020*** (,003)	,014*** (,002)	,011** (,003)	,007* (,003)
Population city			262,189*** (21,343)	273,432*** (22,221)	283,548*** (21,768)
GDP/capita Country				137,611 (79,546)	150,314 (77,368)
Population country					,000*** (,000)
N	365	209	209	209	209
R2	,008	,199	,541	,547	,575

Note: p<0,05=*, p<0,01=**, p<0,001=***. Unstandardized betas, standard errors within brackets.

As seen above the effect is the same for both dependent variables. The direction of the effect is moving in the same direction as the theory predicts. Both regional autonomy and EU membership years have negative effects on their own when controlling for population and wealth on both country and city level. According to the theoretical discussion, the relationship between EU membership and network activity should be positive and the relationship should be stronger as RAI increases. The last part of the prediction holds true for this data. As we have seen before in table 4 and 5, the effects EU membership and RAI are not significant on their own but when introducing the interaction effect they have a significant effect. This is coherent with the theoretical discussion about the impact of Europeanization; predicting that the state's ability to act as a gatekeeper is influencing the effect of EU membership. It also confirms the operationalization of national institutional arrangements.

The difference in effect of EU membership years on networking activity between the highest and lowest RAI scores goes from –2,84 to 3,53[4]. This means that a city in the most decentralized country is predicted to have 6,37 more network memberships per extra year of membership in the EU than a similar city in the least decentralized one. The predicted effect of one year extra membership in the EU on networking activity is an increase of 3,53 memberships at the highest RAI scores compared to a decrease of 2,84 for a city with 0 RAI.

The effect of EU membership years on interconnectedness changes from -189,036 to 243,198 between the lowest and highest RAI scores.[5] This means that for a country with a high RAI score, for example Germany (29,3) an additional year of membership is predicted to generate bigger increase of the interconnectedness score for this city.

While this is inline with the theoretical predictions but, the fact that, for the lowest RAI scores the calculations predict that EU membership is negatively correlated to both networking activity and networking connectivity is more difficult to interpret. This means that a city in Latvia (RAI=0) actually would have less networking activity than one in Bulgaria (RAI=1) since Latvia has been a member of the EU for a longer time

---

[4] Calculated for the mean of EU membership years, 36, see appendix III.

(provided they were the same size and had the same GDP/capita; which is highly unlikely).

The predictions made by Collier and Löfstedt (1997: 36) of higher network activity also in low RAI countries, due to the fact that these cities have more to gain in terms of inflow of funds and thus independence from the central administration, is alos supported by the data. Both the effect of RAI and the effect of EU membership years on network activity have a negative effect for the cities with low RAI scores, meaning that shorter EU membership corresponds to higher networking for countries with lower RAI scores (see Table 10 below).

TABLE 10. COMPARISON OF THE EFFECT OF EU MEMBERSHIP YEARS ON
NETWORKING ACTIVITY AT DIFFERENT REGIONAL AUTONOMY SCORES

	Dependent variable: Relative networking activity				Dependent variable: Relative interconnectedness			
	Beta	Standardized beta	R^2	N	Beta	Standardized beta	R^2	N
RAI<15	-,114**	-,426**	,663	90	-6,891**	,-382**	,604	90
RAI>15	,088**	,245**	,677	119	6,521**	,273**	,631	119

Note: p<0,05=*, p<0,01=**, p<0,001=***. Variables included in regression: EU membership, GDP/capita city, GDP/capita country, Population city, Population country,

The interaction effect of RAI on the effect that EU membership has on networking activity of a city can be seen more clearly in the table above. When splitting the data set into two parts, one with low RAI scores and one with higher, it is evident that the effect of EU membership on the Networking activity of a city is not only significant but also differ in direction depending on the regional autonomy of the country. The model also has a slightly better fit for the cities with high RAI scores. This indicates a strengthening of the explanation as laid out by Bache that the institutional arrangements of a country matter when it comes to the ability and incentives for the cities to network (Bache, 2008: 18-19). The table above also confirms the results of the interaction model above.

In conclusion, this sophisticated model can strengthen the hypothesis that the effect of EU membership years is dependent on the national institutional arrangements of the country. The effect of EU membership years is more positive for cities in countries with higher RAI score.

RESULTS: HYPOTHESES

The table below shows the results of the hypothesis testing with each hypothesis expressed in a theoretical and empirical way and weather it can be strengthened or weakened according to this data.

TABLE 11. RESULTS: HYPOTHESES

|	
1. The relative size of a city, in relation to other cities within the same country, is decisive for networking activity and interconnectedness. Medium size cities have the highest networking activity.	**-**
2. Higher globalization of city corresponds to higher networking activity and interconnectedness. Globalization of world city index is positively correlated to networking activity and interconnectedness.	**-**
3. Country level variables have higher explanatory value than city level variables. EU membership years, regional autonomy, GDP/capita of country and country population have higher explanatory value than the city level variables.	**+**
4. Country variables have more explanatory value in countries with lower integration, as cost of regionalization is higher. Explanatory value of model is higher for non EU members and cities in countries that became members of the EU after 1995, than for cities in the older member states	**+**
5. Lower wealth corresponds to higher network activity. GDP/capita is negatively correlated with networking.	**-**
6. There is a positive relationship between integration and city networking activity. Cities in countries with a longer history of EU membership are members of more networks and have a higher relative interconnectedness.	**-**
7. The highest activity is found in cities subjected to more decentralized national institutional arrangements in combination with more integration. The highest networking activity and connectivity are found in cities with high RAI scores in combination with a longer history of membership in the EU	**+**

Note: A positive sign indicating that the hypothesis is strengthened by the results of this research and a negative sign meaning that it is weakened by the results of this research.

Finally, the research question of this study posed:

To what extent can globalization and Europeanization conditioned by national institutional arrangements explain relative networking activity and relative interconnectedness of cities?

The answer to this, is according to this study, that Europeanization conditioned by national institutional arrangements is a much better explanation for networking activity and interconnectedness than the globalization of a city. When controlling for wealth and population this model explains 61% of the variation in networking activity and 57% of the variation in interconnectedness. The highest activity and interconnectedness can be found in cities with highly autonomous regions and a long history of EU membership. This explanation model is a better at explaining networking in countries with no, or shorter, membership of the EU.

FIGURE 3. EXPLANATION MODEL
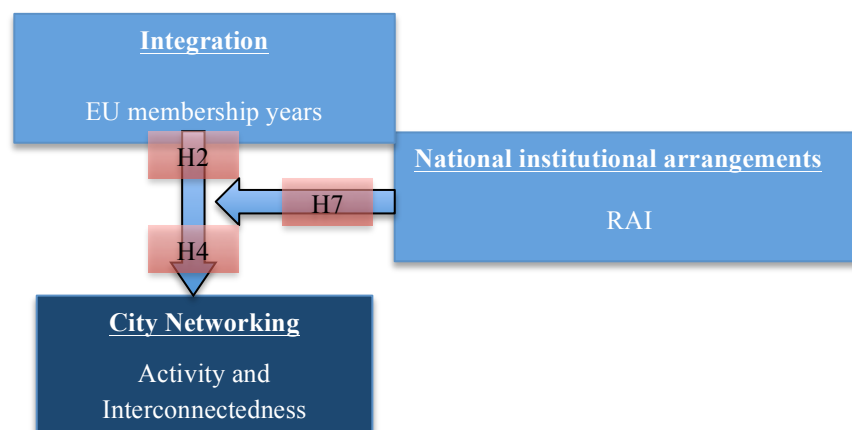
Note: The figure shows the explanation model and hypotheses that has been strengthened by the results.

The operationalizations and aim of this research specifies that these results are, in turn, a measurement of the extent to which scales of governance are interconnected, this will be returned to in the next section.

7. CONCLUSIONS AND THEORETICAL IMPLICATIONS OF FINDINGS

The aim of this thesis has been to analyze how and why international networking activities vary between different cities in different countries. Thereby, contributing to, and advancing, the understanding of interconnectedness of scales of governance, emphasizing the rescaled nature of the nation states. This has given new insights in the complex mechanisms of the rescaling of the state towards a multilevel system of governance through indications for what facilitates and inhibits this development in Europe.

CONCLUSIONS

As the results show, some of the hypotheses derived from previous research regarding rescaling and networking have been strengthened by this research using new and unique data. Cities networking activity is mostly explained by the city's size and wealth, as these two variables added the most explanatory value to the models. Thus the city level variables seem to be superior to country level. This is true until the key explanatory variables of this study are introduced. The two explanation models of previous research where tried individually. One with the explanatory logic of city globalization, in line with the reasoning by Florida, Sassen and Dannestam, argues that cities with higher globalization in the expression of multinational companies that offers the "infrastructure necessary for globalization" (Sassen, 1996: 630-31) such as financial and legal services will exhibit more networking. However, this explanation model cannot be supported by this data.

The second explanatory model is strengthened by this research. It is derived from the Europeanization hypothesis, in the first step arguing that Europe is the most paradigmatic case of scalar governance being a members of the European union and being subjected to adaptational pressure towards the European model of multilevel governance. Thus the interconnectedness of cites and networking activity should be higher in countries that have been subjected to higher adaptational pressure, as the networking is a sign of more frequent connectivity between scales of governance. The adaptational pressure is determined by two theoretical concepts as argued by Cowels, Caporaso and Risse (2001: 6), and proven by Bache (2008: 16-18), the national institutional arrangements and the length of exposure to the EU policies. These where

operationalized by the number of years of EU membership and the regional autonomy index.

The results show, firstly, that the RAI index is a good substitute for Bache's division of countries from simple to compound polity, determining the possibility for the central administration to act as a gatekeeper when it comes to cities ability to connect with other scales of governance. Secondly, the predictions of the importance of the gatekeeper functions of the national central administration are strengthened with this new data and new operationalization of the concept. The country level explanation described above is a better model for predicting the networking activity of a city than the city level explanation.

These results imply that we can predict an increased Europeanization over time and thus increased networking in a greater number of cities, partly, due to the enlargement of the EU and, partly, because of the continued decentralization dependent on to the increased economic competition. This in an indication towards a rescaling development where cities are increasingly important nodes of both economic and political activity; a development, not only attributed to the urbanization of populations but as shown above, this development must be understood as a rescaling of the state where power is moved between different levels of government.

The results of top networking cities are in line with previous research. The conclusion to draw from a theoretical perspective is that the Europeanization and the EU matter as well as the regional autonomy of that states. It is not, as expected, enough to look at this complex development without combining these two factors regional autonomy, and EU membership length is not sufficient on their own to add explanatory value to networking behavior.

Another way of thinking about this development is the domestication of European affairs. The networking behavior of cities could simply be seen as something that was international in the past, but now, in the light of both rescaling and the European integration project, is an action that no longer falls under the foreign policy area. Therefor, it is exercised by all levels of governance, not only the national.

IMPLICATIONS FOR CITIES

Cities join networks and allocate resources to membership fees, preparation for meetings and joint projects, in order to gain not only funding, but also influence and reputation. This study has shown that the pressure for adaptation conditioned by Europeanization and national institutional arrangements, in addition to greater wealth and population facilitate this behavior. More interconnectedness of cities and of political scales equals more multi-level activity that connects the different scales. Looking at this development it is clear that cities do take the opportunity to bypass the national central government. It is however also encouraged by the national central administrations, directly or indirectly as many countries have indeed, as predicted by the rescaling hypothesis, been moving towards more decentralization during the last 50 years (Marks, et al, 2008b: 167-168).

The effect of EU on sub-national government is often thought of as being a top-down development, and not a very favorable one to the cities (Kern, 2007: 18). On the contrary, this research measures is a type of bottom-up process of policy activity, and not just a reactive one, but a proactive one. Thus, the results of this study are also valid in explaining the proactivity of cities. It displays signs of Europeanization, and what characterizes it, as well as the move from government to governance and rescaling of politics. The results show that bigger cities with more resources in the old member states, which are more towards the compound end of the polity scale, will be better at acting proactively and utilize the possibilities that the networks offer.

POLICY IMPLICATIONS

The existence of networks as a formalized part of city level politics is, in it self, clear evidence of a rescaling of the state and the multi-level nature of the political system(s) of Europe. The interconnectedness of cities, both to each other and other scales of governance, has implications for the democratic nature of this system. Networks create new ways to influence decision making at other scales and as highlighted in this study, cities have very different conditions for taking advantages of what the networks have to offer.

The democratic deficit of the EU has been argued to be determined by the constitutional arrangements of the system. Since decisions are, more often than not, delegated in several steps and made further away from the citizen thus impeding on accountability,

networking could be seen as way to strengthen the democratic project of the EU. Both trough lobbying and through exchange of best practice. The actual work of implementing EU directives and regulations is done at local level, and since 74% of the EU population is living in urban areas this is most often done by a city administration (World bank, 2013). The increased connections between these local level administrations and the lawmaking bodies therefor also have to be viewed as a part of the democratic development of the EU, as it can shorten both geographical and delegated distances. A simultaneous rescaling of democracy taking place.

Networks are part of formal and informal policy making and as this research has shown the activity differs a lot among European cities. One of the main aims of networks is to find partners for projects that can be co-funded by the EU or lobby towards the EU to increase funding opportunities for cities. As GDP/capita of the city is one of the factors with the highest explanatory value for networking, the conclusions form this research is very much interlinked with the policy issues regarding the structural funds. The conclusions suggesting that the funds may be more actively accessed by cities in older member states and in more decentralized countries since they are more active in networking. More research needs to be done in this area to develop these linkages.

IMPLICATIONS OF RESEARCH DESIGN

This study has systematically tried explanations, derived from previous research (made both with qualitative case studies and quantitative analysis) on a large number of cases to statistically indicate the accuracy of the assumptions. The unique contribution to the field was firstly, the use of new data on the city networking activity and connectivity, and secondly, using the Regional Autonomy Index as the operationalization of national institutional arrangements. This design made it possible to confirm many of the previous suggestions for the explanations for city networking activity, most notably the interaction hypothesis claiming that effect of EU membership is dependent on national institutional arrangements. Being able to strengthen this hypothesis with new data and new operationalizations is one of the main benefits with this design. More variables could have been included in the analysis, however, the problem is that data on city level is still difficult to acquire, Eurostat's Urban audit is one step in the right direction but the type of variables available are too narrow to explore the important role of cities in the rescaling of the state.

Secondly, the specific research design was also beneficial because it measures the relative networking activity and thus the interconnectedness of scales. This gives an indication of the existence of level of multi level governance or at least the adaptation to the multilevel or multi scalar governance system. The results show that the EU membership and the national institutional arrangements in combination with the wealth and size of the city can explain this level of multi level governance. This relative approach avoids the simple comparing of power between scales and is instead focused on the relative interconnectedness of scales for different cities in an attempt to detangle the complex process and dynamic relationships between different levels of governance.

SUGGESTIONS FOR FUTURE RESEARCH

It would be very interesting to analyze these developments in a time-series regression adding data on past network activity and connectivity, this research would benefit greatly from the available time series data on regional autonomy. This could be done in discussion with the results from Keiner and Kim's study from 2007. For example their research show that the POLIS network had 51 members 1999 and this research shows that the number of members in 2013 was 58, Eurocities had 156 members in 1999 and the recent figures show 178 members (Keiner and Kim, 2007). The problem with this kind of analysis is that the data availability is limited but one possible way to go about this would be to go directly to the networks to gather the information on historical membership. This way the research could maintain the relative aspect, or exempt it by using absolute the number of members.

There is also a great need for adding more variables to this equation. Operationalizing van der Heiden's explanatory factor of historical economic orientation is a great challenge but could be one first step towards a more in depth understanding. This would entail an approach taking traditions of international activity in to account. Other economical measurements that could be included are infrastructure, geography or tradition of international affairs, but these are, as mentioned before difficult to obtain for the city level of analysis. The city level explanations could also be evaluated further with different operationalizations of the theoretical concepts. As mentioned before, using the Global cities index by AT Kearney would be a similar and possibly even more accurate operationalization of the theoretical concepts but the data availability is regrettably not sufficient.

An additional elaboration of the theoretical suggestions made here is to move this research to an alternative scale, for example the regional. The individual RAI scores for different regions could then be used to capture the differences in regional autonomy within countries. This could provide explanations for the networking of regions. Still, it is problematic to predict whether it would follow the same pattern as cities, as the argument for the special economic importance of the urban scale within the rescaling theory, no longer applies. To keep the urban scale at the center, another possibility would be to move the study geographically either to the USA or Germany to see weather the theoretical prediction would hold in setting with a federal constitution.

Returning to introductory claim made by Le Gales and Bagnasco they mean that we are moving into an era with "multiple competing centres and independent forms of authority that favour the autonomy of cities", this research have tried to show how this development is effecting cities' networking behavior, and also the interconnectedness of these different scales of governance. Weberian urban sociology suggests that the city is a complex social formation and an integrated local society, but in Weber's analysis the city is an incomplete society. However, this research shows a more complete societal development in the context of governance instead of government. In reality this means that cities are increasingly important when it comes to representation and proactivity of acting in an international setting.

8. BIBLIOGRAPHY

Bache, I. (2008) *Europeanization and multilevel governance. Cohesion policy in the European Union and Britain*. Lanham: Rowman & Littlefield Pub.

Bache, I. and Jordan, A. (red.) (2006) *The Europeanization of British politics,* Basingstoke: Palgrave Macmillan.

Bache, I. and Marshall, J. (2004) "Europeanisation and Domestic Change: A Governance Approach to Institutional Adaptation in Britain" *Queen's Papers on Europeanisation* N.5.

Brenner, N. (1999) "Globalisation as Reterritorialisation: The Re-scaling of Urban Governance in the European Union", *Urban studies*, 36(3), 431-451.

Bulmer, S. (1994) "The Governance of the European Union: A New Institutionalist Approach", *Journal of public policy*, 13(4), 351-380.

Börzel, T. (1999), "Towards Convergence in Europe? Institutional Adaptation to Europeanization in Germany and Spain", *Journal of Common Market Studies*, 39(4), 573-596.

Collier, U. and Löfstedt, R. E. (1997) "Think globally, act locally? Local climate change and energy policies in Sweden and the UK", *Global environmental change,* 7(1), 25-40.

Collinge, C. (1999), "Self-organization of Society by Scale", *Environment and Planning D: Society and Space,* 17, 557–574.

Cowles, M., Caporaso, J. and Risse, T. (eds.) (2001) *Transforming Europe: Europeanization and Domestic Change*, Ithaca and London: Cornell University Press.

Dannestam, T. (2008) "Rethinking Local Politics: Towards a Cultural Political Economy of Entrepreneurial Cities"*, Space and Polity*, 12(3), 353-372.

Dijkstra, L. and Poelman, H. (2012) "Cities in Europe the new OECD-EC definitions", European commission, RF 01/2012.

Florida, R. (2002) "The Economic Geography of Talent", *Annals of the Association of American Geographers*, 92(4), 743-755.

Freidmann, J. (1986) "The World City Hypothesis", *Development and Change*, 17(1), 69-83.

Hales M and Mendoza Pena A., (2012) "Global cities index and emerging cities outlook", AT Kearney, (Read on 2013-02-25) Available at: http://www.atkearney.com/documents/10192/dfedfc4c-8a62-4162-90e5-2a3f14f0da3a

Harding A (1997) "Urban regimes in a Europe of Cities", *European Urban and Regional Studies*, 4(4), 291-314.

Heeg S, Klagge B., Ossenbruügge (2003) "Metropolitan cooperation in Europe: Theoretical issues and perspectives for urban networking 1", *European Planning Studies*, 11(2), 139-153.

Heiden, N.V.D. (2010). *Urban foreign policy and domestic dilemmas: insights from Swiss and EU city-regions*. Colchester: ECPR Press.

Heiden, N.V.D. and Torhorst, P. (2007) "Varieties of glocalisation: the international economic strategies of Amsterdam, Manchester, and Zurich compared", *Environment and Planning C: Government and Policy*, 25, 341-356.

Hooghe, L. and Marks, G. (1996) ""Europe with the regions": Channels of regional

representation in the European Union", *The Journal of Federalism,* 26(1), 73-91.

Hooghe, L., Marks, G. and Schakel, A. H., (2008) "Operationalizing Regional Authority: A Coding Scheme for 42 Countries, 1950-2006", *Regional & Federal Studies*, 18(2), 123 -142.

Jachtenfuchs, M. and Kohler-Koch, B., (2004) "Governance and Institutional development" in Wiener, A. and Diez, T., (eds.) *European Integration Theory*. New York: Oxford Univ. Press.

Jessop, B. (1994) "Post-Fordism and the state", in Amin, A., (ed.) *Post-Fordism: A Reader*, Oxford: Blackwell.

Jessop, B. (2005) "The political economy of scale and European governance", *Tijdschrift voor Economische en Sociale Geografie* , 96(2), 225–230.

John, P. (2000) "The Europeanisation of Sub-national Governance", *Urban Studies*, 37(5-6), 877-894.

Jones, M. and McLeod, G. (1999) "Towards a regional renaissance? Reconfiguring and rescaling England's economic governance.", *Transactions of the British Institute of Geographers NS,* 24, 295–313.

Keiner, M. and Kim, A. (2007) "Transnational city networks for sustainability". *European Planning Studies*, 15(10), 1369-1395. Original data available at: http://sustainablecities.ethz.ch/

Kern, K. (2007) "When Europe Hits City Hall: The Europeanization of Cities in the EU Multilevel System." Paper submitted for presentation at the 2007 Biennial Conference of the European Studies Association in Montreal. Minneapolis. Available at: http://www.unc.edu/euce/eusa2007/papers/kern-k-06h.pdf (Read on: 2013-01-15)

Lee, T. (2008) "Global City and Climate Change Networks", University of Washington, Seattle. Available at: http://www.csss.washington.edu/StudentSem/TaedongLee.pdf (Read on 2013-02-21)

Le Galès, P. (2002) *European Cities. Social Conflicts and Governance*. Oxford, Oxford University Press.

Le Galès, P. and Harding, A. (1998) "Cities and states in Europe", *West European Politics*, 21(3), 120-145.

Leitner, H. and Shepard, E. (2002) ""The City is Dead, Long Live the Net": Harnessing European Interurban Networks for a Neoliberal Agenda", *Antipode,* 34(3), 495-518.

Liepitz, A. (1994) "The National and the Regional: Their Autonomy vis-à-vis the Capitalist World Crisis." In: Palan, R. and Gills, B. (eds.) *Trascending the State-Global Divide*, Lynne Rienner, Boulder CO.

Marks, G., Hooghe, L .and Schakel, A. H. (2008a) "Measuring Regional Authority" , *Regional & Federal Studies*, 18(2), 111-121.

Marks, G., Hooghe, L. and Schakel, A. H. (2008b) "Patterns of Regional Authority", *Regional & Federal Studies*, 18(2), 167-181.

Niederhafner, S. (2012) "Functions of Transnational City Networks in Europe and Asia." *Seoul National University EU Center Working Paper Series*, 2012-05.

OECD Territorial reviews (2006) *Competitive cities in the Global Economy,* Paris: OECD.

Sassen, S. (1996) "Cities and Communities in the Global Economy: Rethinking Our Concepts", *American behavioral scientist* 39(5) 629-639.

Swyngedouw, E. (2004) "Globalisation or 'Glocalisation'? Networks, Territories and Rescaling", *Cambridge Review of International Affairs*, 17(1), 25-48.

Tatham, M. (2010) "'With or without you'? Revisiting territorial state-bypassing in EU interest representation", *Journal of European Public Policy*, 17(1) 76-99.

Taylor, P. J. (2003) "Generating Data for Research on Cities in Globalization", in Borsdorf, A. and Parnreiter, C. (eds) *International Research on Metropolises: Milestones and Frontiers*. Wien: Verlag der Österreichischen Akademie der Wissenschaften,

Ward, S. and Williams, R. (1997) "From Hierarchy to Networks? Sub-central Government and EU Urban Environment Policy", *Journal of Common Market Studies*, 35(3), 439-464.

Wood, A. (2005) "Comparative urban politics and the question of scale", *Space and Polity*, 9(3), 201-215.

World Bank, (2013) Data on urban development. (Read on: 2013-05-03)
Available at: http://data.worldbank.org/topic/urban-development

APPENDIX I

Networks	Members in the data set (inter-connectedness score)	Data on membership accessed	Total members	Range
Mayors for Peace	177	12-mar	5551	International
International network for urban development INTA	131	12-mar	5000	International
World alliance of cities against poverty	104	18-mar	1900	International
Climate Alliance	75	05-mar	1673	European
ICLEI Europe Local Governments for Sustainability	71	05-mar	1100	International
Cities for mobility	63	08-mar	631	International
International Association of Educating Cities	72	11-mar	453	International
European Forum for Urban Security	73	06-mar	300	European
Civitas	140	08-mar	214	European
Energy Cities	68	05-mar	183	European
Eurocities	154	01-mar	178	European
CPMR Conference of Peripheral and Maritime Regions	2	08-mar	160	European
Metropolis	13	12-mar	121	International
METREX Network of European Metropolitan Regions and Areas	48	12-mar	120	European
European Cities Marketing	87	11-mar	108	European
Association of European Cities and Regions for Culture Recontres	59	06-mar	107	European
Glocal forum	42	19-mar	105	International
OWHC Organization of World Heritage Cities	20	18-mar	104	International
Union of Baltic Cities	28	18-mar	101	European
IAPMC International Association of Peace Messenger Cities	29	11-mar	98	International
Telecities	81	18-mar	97	European
Cities for children	77	07-mar	90	European
Citynet/ proact	3	08-mar	78	International
EUROMED European Mediterranean Commission	35	18-mar	77	International
European Walled Towns	8	18-mar	70	European
LUCI Lighting Urban Community International	33	12-mar	69	International
POLIS European cities and Regions Networking for Innovative Transport Solutions	38	06-mar	58	European
European Network of Cities and Regions for the Social Economy	11	07-mar	47	European

Networks	Members in the data set (inter-connectedness score)	Data on membership accessed	Total members	Range
ALDA Association of Local Democracy Agencies	17	07-mar	46	European
Intercultural Cities Network	28	11-mar	41	International
CLIP Cities for local integration policy	27	08-mar	35	European
Major cities of Europe it users group	29	12-mar	35	European
Balkinet	27	19-mar	32	International
European Network of Social Authorities	9	11-mar	31	European
Alliance of European cultural cities	11	19-mar	30	European
European Metropolitan Transport Authorities	27	11-mar	28	European
MEDCITIES	9	18-mar	28	International
ENTP Pilot Cities New Towns	8	18-mar	26	European
Conference of Atlantic Arc Cities	16	19-mar	23	International
IFGRA International Federation of Green Regions Association	3	11-mar	22	European
Network of Urban Forums for Sustainable Development	16	18-mar	20	European
Delice (food cities)	13	11-mar	19	European
Nordic City Network	10	18-mar	17	European
Eurotowns	3	07-mar	16	European
European Regeneration Areas Network, Quartiers en Crise	8	11-mar	15	European
Banlieus d'europe	7	07-mar	12	European
Baltmet	10	19-mar	10	European
International Regions Benchmarking Consortium	5	19-mar	10	International
European Cities Against Drugs	47	11-mar		European
European Green Cities Network	8	07-mar		European

Uninvestigated Networks	Reason for exclusion
UCLG - council of European municipalities and regions CEMR	sub-network
congress of local and regional authorities of Europe	sub-network
Alliance of the Alps	all under 100 000 inhabitants
Brundtland city energy network	no membership list
Centre for Development and Environment in the Arab Region and Europe	wrong scale
EURADA	wrong scale
ENTER NETWORK EUROPEAN NETWORK FOR TRANSFER OF EUROPEAN PROJECT RESULT	no membership list

Eurocities Knowledge Society Forum	sub-network
EUREGIO MAAS RIJN	no membership list
European cities for drug prevention ECDP	no membership list
European Heritage Network	sub-network
European Housing Ecology Network	sub-network
EUROPEAN MOVEMENT INTERNATIONAL	wrong scale
DNUBE CITIES	no membership list
Europe Latin America urban cooperation program	wrong scale

APPENDIX II

The population of cities (pop_city) is gathered from the data set urb_vlca from Eurostat Urban Audit: "Reduced set of data collected for 570 cities", at the most recent year available.

Germany, Netherlands, Lithuania, Portugal, Romania, Sweden 2011. Belgium, Bulgaria, Greece, Latvia, Luxembourg, Norway, Poland, Slovakia, Slovenia, Switzerland, UK 2008. Ireland, Italy, Denmark 2004. France 2006. Turkey, Croatia 2001

Except for:

Albania: Instituti i Statistikës, Tiranë, read on 2013-03-25. Available at: http://www.instat.gov.al/en/themes/population.aspx?tab=tabs-5

Bosnia and Hercegovina: Federal Office of Statistics of the Federation of Bosnia and Hercegovina. Read on 2013-03-25. Available at http://www.fzs.ba/saopcenja/2012/14.2.1.pdf

Finland: Befolkningsdatasystemet 2012, read on 2013-03-25, Available at: http://www.stat.fi/tup/suoluk/suoluk_vaesto_sv.html

Iceland: statistics Iceland 2011, read on 2013-03-25. Available at http://www.statice.is/?PageID=1173&src=/temp_en/Dialog/varval.asp?ma=MAN03106%26ti=Population+by+urban+nuclei%2C+age+and+sex+1+January+2011-2013%26path=../Database/mannfjoldi/Byggdakjarnar/%26lang=1%26units=Data

Moldova: National bureau of statistics of the republic of Moldova 2013, Read on 2013-03-25. Available at:
http://statbank.statistica.md/pxweb/Dialog/view.asp?ma=POP0103_EN&ti=Resident+population,+as+of+January1+by+Districts+and+cities+and+Years&path=../quicktables/EN/02%20POP/POP01/&lang=3

Serbia: Statistical office of the republic of Serbia 2011, read on 2013-03-25. Available at: http://media.popis2011.stat.rs/2011/prvi_rezultati.pdf

Ukraine: State statistics Service of Ukraine, read on 2013-03-25. Available at: http://www.ukrstat.gov.ua/

APPENDIX III

Effect of EU membership years at different RAI scores, calculated for the mean of EU membership years 36.

RAI score	Effect of EU membership years on networking activity	Effect of EU membership years on networking connectivity
1	-2,844	-189,036
2	-2,628	-174,384
3	-2,412	-159,732
4	-2,196	-145,08
5	-1,98	-130,428
6	-1,764	-115,776
7	-1,548	-101,124
8	-1,332	-86,472
9	-1,116	-71,82
10	-0,9	-57,168
11	-0,684	-42,516
12	-0,468	-27,864
13	-0,252	-13,212
14	-0,036	1,44
15	0,18	16,092
16	0,396	30,744
17	0,612	45,396
18	0,828	60,048
19	1,044	74,7
20	1,26	89,352
21	1,476	104,004
22	1,692	118,656
23	1,908	133,308
24	2,124	147,96
25	2,34	162,612
26	2,556	177,264
27	2,772	191,916
28	2,988	206,568
29	3,204	221,22
30	3,42	235,872
30,5	3,528	243,198

Formula networking activity: 0,006*RAI*EUmem-0,085*EUmem

Formula interconnectedness: 0,407*RAI*EUmem-5,658*EUmem

APPENDIX IV

Equations

Integration

$$Netact = x_1 + x_2 EUmem + x_3 pop + x_4\, pop\_c + x_5 GDPc + x_6\, GDPc\_city$$

Regional autonomy

$$Netact = x_1 + x_2 RAI + x_3 pop + x_4\, poprel + x_5 GDPc + x_6\, GDPc\_city$$

Globalization

$$Netact = x_1 + x_2 Worldcity + x_3 pop + x_4\, pop\_c + x_5 GDPc + x_6\, GDPc\_city$$

Interaction

$$Netact = x_1 + x_2 EUmem + x_3 RAI + x_4 RAI * EUmem + x_5 pop + x_6\, poprel + x_7 GDPc + x_8 GDPc\_city$$