The External Relations of Nordic Cities: A New Geography in the Making?

The rise of the knowledge economy and the application of new technologies have played central roles in the increased focus on cities, both in policy terms and in spatial research over the past three decades. Globally, a number of cities are considered as nodal points in the emergence and the intersection of different kinds of ‘flows’, such as capital, commodities, knowledge and information, labour, tourism and cultural symbols. These flows are travelling along infrastructure routes such as roads, railways, airlines and, increasingly, telecommunication linkages. In this light, the emerging network of flows between cities can be useful in learning more about how cities function in economic, social and cultural terms. In addition, it can also help us to imagine a geography of cities that is not only based on distances and place-based indicators such as the number of inhabitants, GDP or infrastructural endowment, but rather on the ‘inter-connectivity’ of cities, which we will take a closer look at in this issue of Nordregio News.

Considering this, it is not surprising that we can recognise a growing demand for handy information about the relative global reach of a select number of cities. However, at closer inspection we need to realise that to study such flows empirically, and to give robust indications about the external relations of the city at hand, is a challenging task.
In this issue we follow the increasing interest in the external relations of cities in an increasingly globalised world. In the first article *The Elusive Question of Global Cities and Cities in Networks*, Brita Hermelin from the University of Linköping, discusses the conceptual and theoretical foundations and methodological underpinnings of the major scientific achievements in this direction. She also reflects on current findings from a Nordic perspective as well as their explanatory power.

The second article, *Mapping Global Cities and Business Networks from a Nordic Perspective*, by Lukas Smas, presents some results from a recent Nordregio-study in which the external relations of four Nordic capital regions have been analysed in national, Norden, European and global contexts. He also draws particular attention to some policy implications, his most notable claim is to focus much more on the city’s role and function in such inter-city networks rather than to focus primarily on its place-based assets.

Fredrik Johansson from the Stockholm Chamber of Commerce argues in the final article *Overcoming Distance Through Attractiveness* that the concept of distance is more and more dispensable for the formulation of regional development strategies. Rather, it is important to identify opportunities to strengthen the region’s attractiveness and to deal with the Stockholm’s growth potential in a smart manner.

We hope you enjoy reading this issue of Nordregio News!

Peter Schmitt  
Senior Research Fellow  
and the Editorial Board of Nordregio News
The Elusive Question of Global Cities and Cities in Networks

By Brita Hermelin

Globalisation, urbanisation and networks represent important fundamental processes in the recent and current restructuring of society. These three key words imply uneven spatial and geographical development of resources and human settlements that are deeply involved in the emergence and consolidation of world cities and global cities. In recent decades, the globalisation of cities has been studied intensively and global cities are defined in various ways.

An often-cited point of departure for both research and popular debate on global cities is Saskia Sassen’s influential book The Global City (Sassen, 1991). This book presents a global city thesis developed from statements about the combination of spatial dispersal (i.e., globalisation) and spatial integration (i.e., urbanisation). Global cities are powerful locations that command and control centres of networks. The definition and recognition of a global city is not dependent on the sheer size or the magnitude of a city. The global city has power over economic resources and holds powerful positions in networks.

In her work, Sassen (1991) proposes London, New York and Tokyo as major global cities. Since this book was published, many different models for ranking global cities have been developed and employed. An example of a recent ranking published by a global management company puts the following 10 cities in the top positions: New York, London, Paris, Tokyo, Hong Kong, Los Angeles, Chicago, Seoul, Brussels and Washington DC (A. T. Kearney, 2012).

Saskia Sassen’s global city thesis has exerted a strong influence on research within the Globalization and World Cities (GaWC) Research Network. GaWC has developed into an important source of inspiration in the debate on global cities, both in research and in policy. It has also given rise to more critical comments on the perspective and the methodology defined by this research network.

Core elements of GaWC’s theory and method
GaWC is an international and open research network that presents itself as “the leading academic think-tank on cities in globalization” (GaWC, 2 Oct 2012). Over approximately 15 years, more than 250 different researchers have published their work on the GaWC website. This research is aimed at developing understanding of the geogra-
The world ... is a city-centred world of flows in contrast to the more familiar state-centred world of boundaries” (GaWC, 2 Oct 2012). This means that the world map should be drawn based on the pattern of power positions of cities and this is what Peter Taylor and other researchers in GaWC aim to do.

Although GaWC represents many different research projects, GaWC’s ‘brand’ is frequently related to one major project in which Peter Taylor has taken an important lead. This involves a specific methodology of quantitative analysis of the world city network and for which collection of data has been conducted for the years 2000, 2004, 2008 and 2010. These rounds of empirical investigations have also inspired a number of spin-off projects. One example is discussed in Lukas Smas’ article Mapping Global Cities and Cities in Networks.

Sassen’s (1991) statement about global cities being key locations for spatial integration of finance and specialized service is operationalized in the data compilations of GaWC through the mapping of headquarters and offices of particular sectors of major advanced producer service (APS). The data have been obtained through web sites of major transnational APS companies. The offices of each company are translated into numeric values, from the highest (5) for global headquarters to the lowest (1) for small local offices. The location patterns of offices of these companies represent interlocking networks (Taylor, 2004).

The sectorial structure of the selection of companies has largely been intact between the years for the empirical data collection and the 2008 collection comprised 200 companies in the following sectors: 75 banking and finance companies, and 25 each of accountancy, advertising, law, management, and media. Thereby banking and financial companies dominate the sample. The locations of offices of these firms are recorded for 525 cities worldwide. The data for the individual office (ranked 1–5) of companies for each city is arranged in a matrix with 525 rows for the cities and 200 columns for the companies. These values are then included in an algorithm to calculate the interconnectivity of cities. This value is claimed to be an approximation of the strength of cities’ external relations (Taylor, 2004; Taylor et al., 2011). This methodology for sampling, collection of data, translation of offices into numeric values and calculation of the interconnectivity of cities are referred to as the GaWC methodology.
The mapping of global cities

The GaWC methodology is used in a large number of publications by Taylor and others. The results from these calculations are used to describe what is regarded as “... a metageographical transition called globalization and in which cities are playing a key role” (Taylor, 2004; p. 194). The results are presented in tables, lists, figures and stylized maps.

Although these numeric exercises and the maps may be conceived as a descriptive work, it is also important to consider that it is far from value-neutral to draw a world map of global cities. Typically, a global city is related to positive values. A global city may be thought of as a dynamic and attractive environment that plays important and powerful roles. If you want to be in 'the middle of the action', a global city is the place to be. Thus, cities marked on GaWC's world maps with low values of 'global cityness' or those not included at all may be associated with opposite features; i.e., to be static, unattractive, and unimportant places to be bypassed.

According to the list of the 50 global cities with the highest connectivity in GaWC’s investigation from 2008, 27 were European cities, and one (Johannesburg) was located in Africa. The top five cities are London, New York, Hong Kong, Paris, and Singapore. One of the Nordic capitals, Stockholm, is present on this 'top list' of 50 global cities (Taylor et al., 2011; p. 25). Obviously, some parts and spots of the world are made very visible by GaWC's maps, while others are made invisible.

The innovative factor puts Nordic cities on the map

Taylor et al. (2011) offers an extensive description of GaWC data compiled for 2008. Stockholm is ranked number 33 for all sectors, 32 for financial services, 17 for advertising and 22 for management. This is the only city in the Nordic countries with a position among the most connected cities worldwide. Comparisons between the Nordic cities based on the same data illustrate the connectivity of Stockholm in contrast to other cities in the Nordic countries, with its high values for far-reaching relations beyond the geographical constraints of the Nordic countries and Europe. In this comparison, Stockholm has far more intensive connections to major cities in China and New York, compared to other cities in the Nordic region (Hermelin, 2011).

It is also important to note that different views on the data from 2008 produce different rankings of cities. This gives grounds to assume that the results from the calculations of city connectivities are sensitive to the selection of industries, as well as the selection of cities included in the database.

Taylor writes, “...financial and business services are currently leading economic sectors that are dominating world city network formation, but firms in these sectors are by no means the only 'world city networkers'” (Taylor, 2004; p. 94). Based on this observation, I want to argue that
the data compilation by GaWC has excluded important ‘world city networkers’, i.e., companies in sectors that are strongly relevant for the theories this research is based on. The sector I have in mind is information and communication technology services (ICT; this sector is not included in GaWC’s databases). ICT is a core activity in recent and current waves of innovations and it is the critical infrastructure of the interconnectivities of cities. Sassen and others also stress the important role of cities for innovations.

In a recent study of the Nordic cities discussed in Lukas Smas’ article, firms were selected from two different industrial sectors. First, financial and market services. This includes banking, insurance, legal, and accounting services, management, and advertising. The second sector is ICT. The content of financial market services conforms to the selection of sectors in the GaWC methodology, while the inclusion of ICT services means including economic activities not considered by GaWC.

The results of the study indicate that the inclusion of ICT service firms in the calculations makes a fundamental difference to the results. When ICT service activities are put in the centre for the calculations, global cities on the top of GaWC’s ranking, i.e., London and New York, are given more subordinate positions. Given the good reasons to include ICT services – currently the most dynamic and critical source of innovation and economic growth – the alternative rankings and patterns of global cities in the working paper gives us something very interesting to think about in claims about the world city network pattern.

The Nordic countries have a strong position in ICT services, which means that the inclusion of this sector makes Nordic cities more visible on maps of world city networks. Given the claim that visual images like maps have implications for our understanding of the world, such repositioning may make a difference.
Literature to The Elusive Question of Global Cities and Cities in Networks


GaWC (Globalization and World Cities Research Network) website. Available through http://www.lboro.ac.uk/gawc/ (2 Oct 2012)


Cities are important strategic nodes in the global network economy, not least in terms of current policy discussions about city competitiveness. Their importance has resulted in numerous ranking and benchmarking studies focused on internal conditions and city assets. Research, however, has stressed global urban analysis, which examines how cities develop through external relations. Studying Nordic capital regions from such an approach raises questions about established geographical patterns and prevailing mental maps of the networks within which Nordic cities are embedded. A recent study by Nordregio, for example, shows important connections between the Nordic capital regions and not only cities in the new member states of the EU, but also cities in Central and South America and Asia. Recognising these relations has policy implications. It might therefore be time to rethink urban policy-making based on bounded territories and move beyond traditional city borders towards network-focused policies.

Grasping cities’ external relations

For the past three years, Nordregio has sought to grasp the external relations of the Nordic capital regions. Our study has been inspired by the work of the Globalization and World Cities Research Network (GaWC), presented in Hermelin’s article. We have analysed so-called intra-firm office networks in order to anticipate ‘service flows’ between cities. Since a direct measurement of the countless flows between firms (and cities) is hardly possible, this method can be used as a proxy for analysing the intensity of knowledge-based flows between office locations and, more generally, between cities in the world economy. The resulting network of intercity relations thus helps us to analyse advanced producer services firms as key actors in the world-city network formation. Intra-office networks are defined by the physical location and functional importance of an office belonging to the same firm.

Nordregio designed a ‘modified Nordic-based bottom-up study’ and collected data on office locations and functions from 30–40 firms, in each studied sector, for the Nordic capital regions of Copenhagen, Helsinki, Oslo and Stockholm. In contrast to GaWC studies (i.e. Taylor et al 2010) that use global lists of large firms as a starting point (in this sense ‘top-down’), we used a ‘bottom-up approach’ (see also Hall and Pain 2006). In this case, a bottom-up approach means...
that the Nordic capital regions were used as starting points, and then firms were identified. Only so-called ‘non-local firms’, which have at least one office in the Stockholm capital region and at least one other office elsewhere, were included. The study focused on two aggregated sectors within advanced producer services. The first comprised financial and market service firms, including financial and insurance activities, legal and accounting activities, activities of head offices, management consultancy activities and advertising and market research. The other sector was Information and Communication Technology (ICT) service firms including telecommunications, computer programming, consultancy and related activities, and information services. Only ICT service firms with a clear focus on services were included in the study.

A Nordic network of city regions

The capital regions dominate the Nordic network of cities. This is not surprising, especially given that the regions are functionally demarcated according to labour markets and commuting patterns. The Stockholm capital region, for example, extends beyond the county administrative border and includes Uppsala, the fourth largest municipality in Sweden (see Map 1).
In relative terms, the comparatively strong global significance of Stockholm, followed by Copenhagen and then Oslo and Helsinki, is confirmed both by our bottom-up and other top-down studies. The Stockholm capital region is the financial and market services hub in the Nordic area, but within the ICT service sector, each Nordic capital region is crucial. There are, however, stronger intercity connections between the Nordic capital regions, compared with intercity connections within each state. This is especially prominent within the ICT service sector (as displayed in Map 2).

Map 2 Nordic intercity connections from a Stockholm perspective illustrated as a conceptual map. Large circles represent high intercity connectivity, i.e. that the city has stronger intercity connections with Stockholm, than a city with a smaller circle. The large green circles of Oslo and Helsinki mean the cities are highly interconnected with Stockholm through the ICT service sector.
Our study indicates that the Nordic national urban systems are relatively monocentric, in that the capital regions clearly dominate. One explanation for this might be the unitary nature of the Nordic nation states compared, for instance, with federal systems. Another important aspect to consider is the relatively small size of the Nordic cities and states. The integrated history of the Nordic states has, as pointed out by Hermelin (2010), resulted in relatively dense economic, social, and cultural connections. This (comparatively) small and well-integrated market might require only a small number of offices from the firm’s strategic decision-makers’ point of view. In other words, many transnational firms serve the Nordic market with only one office located in the capital region, or one office for the entire Nordic market.

**Global and European connections**

When viewing Europe from the north, it appears that the Iron Curtain has rusted away. The European map of intercity connections does, however, appear a little different depending on which sector we consider. London stands out as the financial and market services hub of Europe but, when considering other European cities, a rather balanced west–east picture emerges. It appears that Nordic capital regions are well interconnected with the growing markets in Eastern Europe through the financial and service markets. However, the ICT service sector displays a rather different geographical pattern, with a stronger orientation towards Western Europe, with Paris as its European hub (see Map 3).

Perhaps the most interesting and surprising results are found on the global scale. Our Nordic bottom-up approach gives comparatively more weight to cities in the BRIC states and other rapidly growing city regions in Africa and the Middle East, Central and South America, West/South-west Asia, in comparison with top-down approaches. The intercity connectivity patterns differ, however, both between the Nordic capital regions and between sectors. For example, the financial and market service connections of firms located in Stockholm seem to have a location pattern consistent with other top-down approaches and displays a rather traditional pattern. The ICT service sector, in contrast, displays quite a different pattern with strong connections to South American and East Asian cities, which the case Stockholm illustrates (see Map 3).

Singapore is, interestingly, a global hub for the ICT service sector with offices in the Nordic capital regions. Other important cities outside Europe from a Stockholm perspective are dispersed throughout the globe: Bangalore, Beijing, Tokyo, Sydney, and Sao Paulo.
It is important to bear in mind that not all cities in the world were included in the study and that important ICT hubs such as Boston and San Francisco were excluded. Another important aspect is that these maps and findings need to be understood as representations of strategic decision-makers within transnational firms that are based, for instance, in Singapore or Paris and thus do not necessarily consider the global market potentials of their firm from a Nordic point of view.

Map 3 European and global intercity connections beyond the Nordic area, from a Stockholm perspective illustrated as a conceptual map. Large dots represent high intercity connectivity, i.e. that the city has stronger intercity connections with Stockholm, than a city with a smaller dot. The large green circles of Paris and Singapore mean that the cities are highly interconnected with Stockholm through the ICT service sector.
Research and policy implications

Mapping and analysing global cities and business networks from a Nordic perspective challenges established geographical representations and maps as well as traditional policy frameworks. A focus on the external relations of cities and on networking firms and their strategic practices, instead of on absolute place-based attributes or internal city conditions, has implications for policy-making. To formulate relevant urban policies in the current global network economy, it is important to recognise that city regions develop through transnational business networks, and base their policy-making on external (as well as internal) analysis cutting across national, Nordic, European, and global scales and territories. However, policies, programmes, and projects with EU Structural Funds remain particularly eye-catching examples of organisation from an absolute territorial perspective.

Another difficulty with discussing policies based on research on cities’ external relations is that neither ‘high’ nor ‘low’ values of inter-city connectivities provide any concrete indication of a city’s economic performance, socio-economic well-being, or competitiveness. Nonetheless, a fundamental message for policy-making is that there is a need to take into fuller consideration such ‘relational representations’. Before formulating network-oriented policies to complement ‘place-based policies’, it is important to interrogate the constitution of the networks and relations and what could be done to optimise them.

From a research perspective, the modified Nordic bottom-up approach complements the results of other methodological approaches and provides additional network geographies of cities sensitive to scales and sectors. In this way, it contributes to the ongoing development of research approaches and analysis of the external relations between cities. The Nordic study has generated a significant amount of data that can be analysed and presented in various ways, but it also has the same methodological and structural limitations as the underlying methods of GaWC, which have been intensively debated – but also improved in several ways. In addition to more nuanced extensive methodologies, further research needs to include, in particular, qualitative in-depth studies in order to better understand the rationales behind the observed intra-firm networks. It is important for future global urban research to go beyond structures to focus on practices and to explore the contents of the ‘spaces of flows’ and the networkers.
Literature to Mapping Global Cities and Business Networks from a Nordic Perspective


Overcoming Distance Through Attractiveness

By Fredrik Johansson

Political discussions in Sweden about distance and location seem endless. The issue not only arises in the debate over our internal challenges (north/south, centre/periphery), but is also a recurring theme in discussions about Swedish competitiveness. However, changes in the global network economy make absolute distances and locations less important, instead more fundamentally raising the question of a place's attractiveness.

New geographies and organization of businesses

One of Sweden’s most influential entrepreneurs in the past thirty years was the late Jan Stenbeck, who, through his ideas and visions, was essential in transforming Swedish society. Stenbeck used his resources and entrepreneurial talent and skills to reform industries: private television and radio, telecom companies, media enterprises, dotcoms. A key approach for Stenbeck was to challenge existing state-controlled monopolies and provide market-based alternatives. It is fair to say that he successfully led a private sector charge against old, resistant institutions.

Stenbeck’s motto was that politics beats economy – politicians can always make decisions against companies or markets – but, he added, technology beats politics. This was also his business credo. Satellite transmission transformed a de jure state television monopoly into a virgin market for freewheeling broadcasters of mixed quality. Mobile telecommunications made state control over telecom infrastructure impossible, or at least pointless.

Inspired by new research on cities’ external relations, I would add that politics may still have control over territory, and that territory has significant implications for the economy (i.e. for the business environment), but that technology – and the shift in how the global economy operates – makes absolute distance less important. A key challenge for policy-making is thus to use the control over territories to create attractive places with well-functioning institutions that can appeal to a critical mass of people and firms.

Globalization is reshaping the nature of trade and international capitalism, while the growing knowledge content in production makes people more important and machinery less so. This combination diminishes the importance of distance. What once were bilateral chains of production and distribution has evolved into complex, often
global, networks where the value of the final product is developed in numerous countries, and where access to imports is as important as access to markets/exports.

A Swedish-designed product, produced in China, using raw materials from Russia, marketed and sold in Germany is different from a product designed, sourced and produced in Sweden and then sold to Germany. Another example is the new but already classical "Designed in California" branding of the iPhone (assembled in China by a Taiwanese company, with the various parts of the phone sourced from numerous places around the world).

This economy of complex networks of design, production and distribution makes absolute distances and locations less important. Instead the real challenges lie in designing and co-ordinating these transnational business networks – and that can be done from California or from Stockholm.

Take Skype as an example. One of its founders, Niklas Zennström, stated that disregarding national boundaries was an important part of the company philosophy from the start. In an interview for Wired in 2010, he said:

“We made sure from day one that Skype was an international business – we were incorporated in Luxembourg, we had software developers in Estonia, we moved to London. The internet has no country boundaries.”[1]

Stockholm – competing to collaborate

This is the global environment that cities and nations have to cope with. To be distinctive, a city needs to be an attractive location for firms, potential employees and their families. This is something that is, of course, very much determined by politics.

The Stockholm capital region is growing fast. Stockholm and Oslo are the two fastest growing cities in Western Europe, and it is predicted that this will continue for at least the next decade. The challenge will be to cope with this growth while maintaining attractiveness. In a knowledge-based economy, attracting the right talent is a crucial factor and a competitive game in a global market, where absolute distance matters less and the attractiveness of cities and regions becomes more important.

The Stockholm Chamber of Commerce is fully aware that the main challenge for our members and the business community in the region will be to recruit highly educated people. All forecasts show that there will be a growing shortage of highly educated people towards the end of the 2020s. To attract talent will therefore be the name of the game for the near future, not least because this goal will be fuelled further by disadvantageous demographic situations in many Western countries.
Looking to the future

From my perspective, there are some more reflections to be made. First, Stockholm’s importance for the development of Sweden is substantial – and growing. The success of the region has always been important for the country as a whole, but in the next decades it will become even more critical, as reflected in the current demographic and economic statistics and forecasts.

More than 60 per cent of Sweden’s current population growth is taking place in the wider region of Stockholm. Even though less than 30 per cent of the population lives here, more than a third of the country’s GDP is produced in the region. Looking further ahead, we have calculated that 40 per cent of Sweden’s total economic growth until 2030 will happen in the Stockholm capital region.

A second reflection is that there is a need to fully leverage the opportunities from enhanced integration into northern Europe. There is a need to better link together the Nordic cities to create a wider integrated economic area. In doing so, we can enhance the diversity and critical mass of our market potential and make the Nordic region even more attractive. It is important for both politicians and business to understand that few things are more important for Stockholm than the success of Copenhagen, Helsinki and Oslo.

I am optimistic about the future of the wider Stockholm region. We are doing well, and we have the opportunity to become one of the most attractive regions in the world. This will, however, require good political leadership on all levels – local, regional, national and European.