

Hunting for hotspots - unequal urbanisation in the Swedish countryside

Lena Magnusson Turner

Institute for housing- and urban research, Uppsala University

E-mail: lena.magnusson@ibf.uu.se

Abstract

The dichotomy urban rural has become less obvious. Counterurbanisation has opened up for mobility from urban to rural areas. It is not about large flows of movers. Often it implies a marginal increase in some population groups. Several reasons have been put forward to explain counterurbanisation but there are still no satisfactory explanations. A burning question is the effects of an unbalanced housing market in urban areas. This study deals with counterurbanisation and how it can be understood and explained by a focus on housing market conditions. The approach captures the interdependency among urban and rural housing markets. In that approach hotspots is a central concept. A hotspot is a place with great natural beauty far away from metropolitan areas. The process is initiated in a place with loss of population, decreasing house prices and suddenly the place is transformed to an attractive hotspot. The first question is if hotspots have grown in rural parts of Sweden? If so, which factors explain this development? A critical question is if hotspots are long-standing sustainable or just a "may-fly"? To address these questions a longitudinal database is used. Important are physical and socioeconomic transformations of places. Tobin's q is used for analysis of house prices. Results will add knowledge to countryside development at a geographical level where people live there everyday life.

Introduction

During the last half a decade the dichotomy of urban - rural has become less obvious, although the image of the Swedish countryside as a rolling extensive landscape with clean air or a stagnating backyard lacking prospect continue to live on. Counterurbanisation has opened up for a mobility of urban residence to rural areas. Urbanisation is a sign of modernisation, industrialization and mobility. It also embodies a transformation of the social environment, political organisation and division of work. The counterurbanisation trend was first identified in the United States and is now apparent in many countries. Counterurbanisation is a significant factor accounting for the redistribution of population between and within areas (Champion 1994, Elliot 1997 and Stockdale, Finlay and Short 2000). There are two distinct trends a) a movement of employment to rural areas and b) a movement of people to rural areas who then commute to urban areas. Counterurbanisation has been associated with moves made by middle class families, either retired or families with children. Some of the municipalities function as commuting or retirement communities and some other as growth municipalities be-

cause of entrepreneur activities and site attributes (Dahms 1994). Especially retirement moves can be labelled as quality of life moves - a move to areas with warm winters, attractive landscape, good services, social cohesion and a slow pace of life (Champion 2001).

Counterurbanisation is not about large flows of movers into a municipality or a place, not even an increase in population. Instead, counterurbanisation often implies a marginal increase in some population groups as middle aged or elderly. Counterurbanisation sometimes also means that a concentration at one geographical level occurs simultaneously with dispersion at another level. Several reasons have been put forward to explain counterurbanisation, political, economically as well as social. But as Kontuly (1998) emphasis, there are still no satisfactory explanations for the phenomenon counterurbanisation. However, a burning question is the direct effects of an unbalanced housing market in cities and urban areas. The argument is that counterurbanisation also can be described as a process initiated by increasing prices on single family houses in cities and a trend among young families with children to move out from the cities, not to the most rural countryside but to the countryside close to metropolitan areas. Often the direction of the move goes towards places that prior have been characterized as a depressed area with loss of population, but in recent times once again has been built on. These places have a vast environmental potential and every so often, good commuting opportunities. An appropriated concept for these places is *hotspots*.

The concept hotspots have several connotations. In biology the concept refer to "locations with a concentration of species diversity, endemic species, rare and endangered species, or other biological attributes" (Lepczyk, Hammer, Stewart and Radeloff 2007). In geography hotspots are neighbourhoods of values that are significantly higher or different from surrounding areas (Ord and Getis, 2001)

Experiences during the last years have shown a variation in migration pattern that give good chances for a growth of attractive places, so called hotspots. The existence of hotspots is a highly relevant issue, so is also the explanation to their growth. The central and critical question is whether the growth of hotspots on the countryside is long-standing sustainable or just a "mayfly". The answer to this question is of vital importance for both rural and urban planning, physical as well as social and economical. From a theoretical point of view, hotspots often grow unexpectedly and appear side by side with places termed as degenerated or deprived. Something happens or even something out of the ordinary has occurred and suddenly the negative trend has come to a halt (Ord and Getis, 2001).

Objectives

This study deals with the meaning of place, countryside development, urbanisation and gentrification on the Swedish countryside, has two objectives. The first object is to analyse and establish the occurrence of hotspots in the north of Sweden. The north of

Sweden is an established region consisting of five counties. The motive for a focal point on the north of Sweden is obvious. Sweden is a country where the economic activity and progress differ between north and south. The natural recourses are to a large extent found in the northern part, but industrialization and the subsequent urbanization are less prevalent in the north. Sweden has also a physical structure with all metropolitan areas located to the southern part and just a few larger cities in the north. In other words, Northern Sweden lacks the type of cities that have a function as hubs for the economic growth in a region.

The second objective follows the first one. There are strong reasons to expect hotspots in the north of Sweden. The second object is to explain and understand the prevalence and development of hotspots in terms of place characteristics. To get away from average values at municipal level that hide great variations in trends, explanations to alterations in growth will be search for at a low geographical level. Low geographical level is here defined as localities and residential areas.

This study aims at answering a number of research questions:

- Are there any hotspots in the northern part of Sweden?
- How can hotspots be understood and explained?
- How useful is the concept of counterurbanisation? And who are the counterurbanists?
- Is the development of hotspots in weak regions long-standing sustainable?

Theoretical background

As early as in 1960's Harald Swedner encapsulated the ongoing social changes in rural Sweden. He emphasised an urbanisation of the countryside, more people on the countryside employed in traditional urban industries, a greater social interaction between urban and rural population, equal access to information in urban and rural areas and last but not least a levelling of incomes and reduction in inequalities in consumerisms among urban and rural areas. With these postulates as starting point Swedner forecasted a reduction in differences between urban and rural living, which had characterised the Swedish society in centuries (Dahlström 1968). At the entrance to 1990's Johannisson, Persson and Wiberg (1989) concluded that Swedners prophecy had relevance for the main body of the Swedish countryside. They argued that the countryside carried urban character features, and it was no way back to a more traditional countryside concerning lifestyle, branch of activities etc.

Naturally counterurbanisation is an important feature in the process of a more urban way of life in the Swedish countryside. Counterurbanisation is often described simply as a process of deconcentration of population. However several factors have helped counterurbanisation. Some can be mentioned, as technological changes allowing people to work from home and at the same time encouraging a rural lifestyle but not so-

cial isolation. Improvements in infrastructure have also been of great importance for counterurbanisation.

When making use of the concept hotspot in analysing counterurbanisation, it is important to emphasise that the establishment of hotspots is a process. Every now and then these hotspots appear side by side with places termed as degenerated or deprived. A British study analyzing the social changes in 22 hotspots in Great Brittan, identified five factors influencing that process (The Royal Bank of Scotland Group, 2006). The most important factor was, initially, low prices on the housing market. The other four factors was a significant increase in housing construction, an overtime increase in prices on the housing market, urban renewal, in migration of a young population and finally good transports. In the most extreme cases the process is initiated in a place characterized by loss of population, an aging population and decreasing prices on the housing market. But suddenly something happen and the place is transformed to an attractive hotspot (Meen and Meen, 2003). The intriguing question is how to explain these processes. Magnusson and Turner (2003) found in their research of counterurbanisation a strong relation between demography and potential for rural municipalities. In the real long term, Magnusson and Turner (2003, page 57) concluded "dynamic is to be found in loosing municipalities with a net in-migration of middle aged households with children. They are households with an increasing personal income and with a potential to create new jobs and to stimulate the society through a higher consumption and other activities".

That process has an important ramification for the housing market. Demand on housing in shrinking municipalities will increase as a result of expected increases in family size and the creation of new, young households. Sweden has a comparative high fertility rate, 1,9 in 2008. The fertility rate is especially high in metropolitan areas and larger cities with tight housing market (SCB, 2009). It is nevertheless clear that a welcoming housing market and an ample access to it-technique, combined with increasing affordability problems in high growth municipalities, makes this new pattern much more likely. If so, the situation in every shrinking municipality may be less desperate in the not so distant future.

Identifying hotspots in North of Sweden

It is essential to have a longitudinal approach to be able to pursue the establishment of hot sports. Main focus in this study is on housing markets dynamics and population developments from 2004 to 2006; with some retrograde to year 2002. Several central questions in research about counterurbanisation and hotspots are also asked here: How many households are moving? Who stays and who moves out as well as in? From where do they come and to where do they go? And how will relative prices on housing in rural areas affect migration pattern and the interdependency among urban and rural housing markets. Price on single family houses and household mobility are central

variables in this study. The price will be used as an indicator of economic activities going on in different geographically defined places. The lowest geographical level hotspots that can be searched for is neighbourhood level. Prices that will be used are standardised prices, so called Tobin's q . Tobin's q is a measure of housing market affordability and is the quota selling price in relation to basic value. Prices on single family houses and alterations in prices will be analyzed from 2004 to 2006 and relative changes in price will be used as one central indicator of hotspots (Berg and Berger 2006).

Methods and data

The following empirical study has a quantitative approach where the interplay between structure of the housing market and household mobility is analysed. Central issues are relative prices on housing, socioeconomic dynamics at different places and neighbourhoods as well as the mobility pattern. The study will give tentative answers to questions about socioeconomic structure and changes in that structure by way of household mobility. Important variables are related to the housing market (type of building, type of owner, geographical location, the environment, price etc.) and the households' resources (disposable income, education, previous location, etc.). The overall object is to determine the existence of hotspots in the North of Sweden.

The empirical source for this study is the database Geosweden and data on Tobin's q . That base includes micro-data for the resident population of Sweden during the years 1990-2006, updated yearly. Geosweden is built from different databases maintained by Statistics Sweden for the production of official statistics. Four of the databases are updated annually: (1) education, income and employment; (2) child academic performance; (3) personal details of all people registered by the tax authority; and (4) geographic coordinates for all legally registered resident/dwelling unit combinations. A fifth database, a property tax register, is updated every fourth year; it has data which refer to the state of affairs in 1990, 1995, 2000 and 2006. Geosweden includes data for select variables for the period 1990-2006 for all 10 million plus individuals who at some point during the period resided in Sweden and were registered in the Swedish social security system. The database has geographical resolution to the level of 100 x 100 meter cells. Given its geographical variables, it is possible to characterize the physical and social residential environment of a given individual at a very low geographical level. It is also possible to work across levels of analysis (e.g., individuals within households; residence within neighbourhoods) and so to use multi-level analytical methods, as called for by some of the research questions.

Several geographical levels are represented in Geosweden. Of particular interest here are municipalities and Small Area Market Statistics (SAMS) areas, devised by Statistics Sweden. SAMS units are defined with respect to the similarity of housing structure in terms of tenure form and house type. The SAMS units have been used previously to

represent housing areas and the units have been found to correspond well with resident conceptions of the geographical limits of their neighbourhood. Thus, Geosweden allows the creation of “neighbourhood” variables suitable for questions addressed here. The existence of hotspots will be investigated on SAM’S level. Since data on Tobin’s q have almost the same geographical information as Geosweden it is possible to merge information on Tobin’s q with Geosweden.

There are different ways to empirically identify or define hotspots. Ord and Getis (2001) introduced a measure which they used to test for spatial autocorrelation and association. The measure is called G^* and was applied on local statistics to identify hotspots or clusters that signify something out of the ordinary had occurred in one or more regions. G^* statistics was also applied by Lepczyk, Hammer, Stewart and Radeloff (2007) in a study on hotspots of housing growth in the North Central United States during 1940 – 2000. Their objectives was to determine where housing growth hotspots existed and if hotspots changed in space and over time, but also to test for whether hotspots differed due type of measurements and scale of analysis.

At present stage in this study a simpler technique compared to G^* statistics to define and later on indentify hotspots is applied. The average standardised selling price i.e. Tobin’s q is used as a benchmark. Since the prices is standardised it is possible to make comparisons in space and over time. Tobin’s q is the quota between market price and production costs, and just for single family houses. Productions costs are assumed to vary to a limited extent between regions in Sweden. On the other side, the market price for a single family house located in different regions but with same size and quality, can vary considerably. For example Tobin’s in attractive neighbourhoods in Stockholm city might up to 20 times higher than in also attractive neighbourhoods but in medium or smaller municipalities.

The geographical area in focus here is the neighbourhood. The total number of neighbourhoods in Sweden according to the SAMS definition is just above 9 000. About 1 200 are located in the North. In some areas only a few transactions took place in 2002, 2004 and 2006. Consequently, Tobin’s is then less reliable as a benchmark for the whole neighbourhood.

First, Tobin’s q is classified in four categories 1) below 0.5 2) 0.5 – 0.8 3) 0.8 – 1.2 4) above 1.2. The critical value is sat to .8, even if value 1 states a selling price corresponding to the construction price and everything below tells a selling price lower then construction price and everything above 1 a selling price higher the construction price. However, it is common to set the critical value to .8 instead of 1. The reason is a wish to have a marginal for miscalculation is Tobin’s q due to lack of empirical data covering all housing attributes that gives the complete explanation to a selling price (Magnusson and Turner 2006). Second, the average Tobin’s q year 2002, 2004 and 2006 in all neighbourhoods in North of Sweden are categorised. Not all of them are included in

this study. Excluded are neighbourhoods in municipalities labelled as larger cities. This type of municipalities has a housing market and labour market comparable to larger cities in the south of Sweden.

Neighbourhoods with different prices on single family houses and subsequently different attractiveness are not equally distributed in the North of Sweden. However, the northern part of the country is not unique. Prices on single family houses vary to a great extent even in the middle and south of Sweden, so do also neighbourhood attractiveness. But, compared to the rest of Sweden the northern part has a greater number of sparsely populated municipalities. And in that type of municipalities, especially inland municipalities, prices on single family houses are fairly low. The same can be said about manufacturing municipalities. Neighbourhoods with high prices on single family houses, i.e. Tobin's q above .8, is most of all found in larger cities.

However, it is good reason to pay special attention to the neighbourhoods in Northern Sweden that even if they not are to be found in larger cities have prices on single family house around or above Tobin's q 0.8. Some of these neighbourhoods can be found in sparsely populated municipalities, in commuter municipalities or in other municipalities, with more than 25 000 inhabitants. In table 1 emerges the distribution of neighbourhoods with different Tobin's q in type of municipality in 2006. The municipalities are divided in categories based on structural parameters such as population, commuting patterns and economic structure. The classification is made by the Swedish Association of Local Authorities.

Table 1 Type of municipalities and share of neighbourhoods in categories of Tobin's q in Northern Sweden, 2006

Type of municipality	Tobin's q 2006				Total
	0 - 0,5	0,5 - 0,8	0,8 - 1,2	1,2 -	
Large cities	13	24	33	31	446
Commuter municipalities	34	56	10	0	50
Sparsely populated municipalities	92	6	2	1	267
Manufacturing municipalities	8	0	0	0	8
Other municipalities, more than 25 000	38	44	16	2	228
Other municipalities, 12 500 - 25 000	76	23	1	0	111
Other municipalities, less than 12 500	67	28	6	0	18
Total	45	25	17	13	1 128

Source: Geosweden 2009

Just above 90 percent (92) of all neighbourhoods in sparsely populated municipalities have a Tobin's q below 0.5 and more than 30 percent (31) of all neighbourhoods in larger cities, a type of municipalities assuredly not included in this study, has a Tobin's q above 1.2.

Type of municipalities and number of neighbourhoods included in the study, is presented in table 2 below. However, Tobin's q has not been possible to estimate for all these neighbourhoods because of no selling of single family houses 2002, 2004 and 2006. One other reason is homogenous neighbourhoods with just multifamily houses.

Table 2 Type of municipalities and number of neighbourhoods, 2006

Type of municipality	Number of municipalities	Number of neighbourhoods
Commuter municipalities	3	52
Sparsely populated municipality	30	308
Manufacturing municipalities	1	8
Other municipalities, more than 25 000	7	234
Other municipalities, 12 500 - 25 000	4	125
Other municipalities, less than 12 500	2	18
Total	47	745

Source: Geosweden 2009

The number of municipalities in this study is 47. Most of them are defined as sparsely populated municipalities. The definition of such a municipality is less the 20 000 inhabitants and less the 7 inhabitants per square kilometre (SCB, 2009).

The definition of hotspots is derived from an assumption that formation of hotspots is a process. However, there is no estimated time for that process. Here five years are assumed to be long enough to at least capture tendencies to formation of hotspots. To be considered as a hotspot in this study a neighbourhood has to change from a category below 0.8 to a category above 0.8 during 2002 until 2006, and also remain in the higher category. The results are presented in table 3 below.

Table 3 Tobin's q 2002, 2004 and 2006 in neighbourhoods in Northern Sweden

Tobin's q 2002	Tobin's q 2004	Tobin's q 2006				Total
		0 - 0.5	0.5 - 0.8	0.8 - 1.2	1.2 -	
0 - 0.5	0 - 0.5	342	21	0		363
	0.5 - 0.8	14	27	2		43
	0.8 - 1.2	0	1	0		1
0.5 - 0.8	0 - 0.5	23	23	0	1	47
	0.5 - 0.8	13	91	24	0	128
	0.8 - 1.2	0	2	8	0	10
	1.2 -	0	1	0	0	1
0.8 - 1.2	0.5 - 0.8		4	6	1	11
	0.8 - 1.2		1	4	1	6
	1.2 -		0	0	1	1
1.2 -	0.5 - 0.8				1	1
	0.8 - 1.2				1	1
Total						

Source: Geosweden 2009

Table 3 gives a detailed presentation of how Tobin's q is changing in neighbourhoods in Northern Sweden between 2002 and 2006. In 2002 there are two neighbourhoods in the lowest category i.e. Tobin's q between 0 – 0.5, improving its position between 2002 and 2004. These neighbourhoods are moving on to Tobin's q category 0.5 – 0.8 in 2004 and further on to category 0.8 – 1.2 in 2006. In 2002 there are in total 32 neighbourhoods in Tobin's q category 0.5 – 0.8. In 2004 24 of them stayed in the same category and 8 moved on to Tobin's q category 0.8 – 1.2. In 2006 all 32 neighbourhoods are found in Tobin's q category 0.8 – 1.2. In 2002 there are 6 neighbourhoods in Tobin's q category 0.8 – 1.2. In 2006 5 of them moved on Tobin's q category 0.8 – 1.2 and 1 to category 1.2 or higher.

It is obvious that some neighbourhoods in Northern Sweden have grown to attractive areas. In table 4 the type of municipality where these neighbourhoods are located, is presented.

Table 4 *Provisional hotspots in Northern Sweden 2006*

Type of municipality	Hotspot 2006		Total
	No	Yes	
Commuter municipalities	92 (48)	8 (4)	100 (52)
Sparsely populated municipalities	98 (301)	2 (7)	100 (308)
Manufacturing municipalities	100 (8)	0	100 (8)
Other more than 25 000	88 (205)	12 (29)	100 (234)
Other 12 500 - 25 000	99 (124)	1 (1)	100 (125)
Other less than 12 500	94 (17)	6 (1)	100 (18)
Total	94 (703)	6 (42)	100 (745)

Source: Geosweden 2009

It is also obvious that same neighbourhoods in the Northern Sweden claim an overtime increase in prices on the housing market, as least measured as Tobin's q. Out of 745 neighbourhoods 6 percent is here classified as hotspots. Most of them are neighbourhoods in municipalities with more than 25 000 inhabitants (but less the 50 000). So far, they can be termed provisional hotspots or promising places. The next question to explore here is if these neighbourhoods also have had an in migration of a young population. There are some others indicators for hotspots like housing construction and good transportation. But these indicators will be analysed and discussed later on.

How to explain the genesis of hotspots or promising places?

The explanation to why some places experience a shift from depressed to promising places or hotspots, is looked for in the socioeconomic composition and how that composition is changed over time. The measured used as an indicator whether a place, or as here a neighbourhood, is a cut above the usual development with outmigration and decreasing market prices on single family houses is, as have been explained above, the standardised selling price Tobin's q.

After identifying neighbourhoods with an increase in prices between 2002 and 2006 the next stage here is to analyse if the socioeconomic composition follow the same track.

Slightly more than 550 000 individuals lived in Northern Sweden in year 2006, exclusive of larger cities. In the following analysis that group is labelled total population. Out of these 7 percent (35 300) lived in neighbourhoods provisionally defined as hotspots. The age composition in neighbourhoods defined as hotspots or not, is illustrated in table 5.

Table 5 Age composition in 2006, total population

Age groups 2006	Hotspots		Total
	No	Yes	
0-6 years	3 (14 305)	3 (968)	3 (15 273)
7 – 19 years	17 (85 863)	16 (5 652)	17 (91 515)
20 – 29 years	8 (40 097)	9 (3 269)	8 (43 366)
30 – 44 years	17 (87 441)	19 (6 819)	18 (94 260)
45 – 64 years	31 (153 404)	30 (10 583)	31 (163 987)
65 – 79 years	17 (82 077)	16 (5 519)	16 (87 596)
80+ years	7 (35 141)	7 (2 504)	7 (37 646)

Source: Geosweden 2009

The age composition is almost the same in neighbourhoods characterised as hotspots as in other neighbourhoods. Other socioeconomic indicators are income and education. In table 6 a-c) disposable per consumption unit, income from salary for age group 25 - 64 years and share of university degree also for age group 25 – 64 years is presented. In our time it is more likely to have a degree from university after the age of 25 than before.

Table 6a Disposable income in 2006, total population

Hotspots	Disposable income (ppp), average	Disposable income (ppp), std deviation	N
No	155 400	137 000	428 687
Yes	167 700	161 900	30 749
Total	156 200	138 800	459 436

Source: Geosweden 2009

Table 6b Income from salary and share of population with a university degree, age 25-64 in 2006

Hotspots	Income from salary, aver- age	Income from sal- ary, std deviation	University degree, per- cent	Total
No	186 500	144 300	21	258 172
Yes	204 000	173 400	27	18 815
Total	187 700	146 500	22	277 000

Source: Geosweden 2009

Neighbourhoods classified as hotspots have a different socioeconomic composition compared to other neighbourhoods. The average disposable income is significant

higher ($p < 0.05$) so also income from salary ($p < 0.05$). Even share of population in age 25 – 64 with a university degree is higher in hotspots neighbourhoods compared to other neighbourhoods; 27 percent and 21 percent respectively.

The interesting question to answer is what processes generates this transformation. One answer is the dynamic on the housing market in form of in migration to these hotspots or promising places. Defined as in migrants in the following analysis are all individuals moving between neighbourhoods during the period 2002 – 2006. Population are all individuals not moving between neighbourhoods during the same period. In table 7 a-b) appears the alteration caused by the population dynamic on the housing market.

Table 7a Disposable income in 2006 among population and in migrants, total population

Hotspots	In migrant 2002-2006	Disposable income (ppp), average	Disposable income (ppp), std deviation	Total
No	Population	155 700	140 400	361 895
	In migrant	153 500	117 100	66 792
Yes	Population	168 400	171 100	23 660
	In migrant	165 600	126 900	7 089

Source: Geosweden 2009

Table 7b Income from salary and share of population with a university degree, age 25-64 in 2006

Hotspots	In migrant 2002-2006	Income from salary, average	Income from salary, std deviation	University degree, percent	Total
No	Population	189 300	145 600	22	216 364
	In migrant	172 300	136 400	20	41 808
Yes	Population	206 200	179 300	27	14 379
	In migrant	196 900	153 700	26	4 436

Source: Geosweden 2009

The in migrants to neighbourhoods categorised as hotspots have a higher disposable income (ppp) and for age group 25-64 years a higher income from salary as well a higher share of individuals with a university degree, compared to in migrants to other neighbourhoods. However, for both in migrants to hotspots and to other neighbourhoods disposable income and salary are lesser then for the population. So also share of individuals with a university degree. Those differences do not oppose the conclusion

that in migration reinforce the socioeconomic distinction between hotspots and other neighbourhoods.

From a demographic perspective more expensive and probably more attractive neighbourhoods are distinguished by a population with a higher average disposable income (ppp or purchasing power parity) and somewhat longer education. Further indicators are the income distribution. Almost 25 percent of all individuals in hotspots belong to the fifth income quintile compared to 20 percent for individuals in other neighbourhoods. Among the in migrants that difference is somewhat larger.

Further research

The tables above indicate a relationship between on one hand disposable income, salary and education and on the other hand Tobin's q . There are reasons to assume that increasing prices on single family houses also involve a transformation similar to suburbanisation, to be exact, the urban lifestyle is moving out from cities to small places and rural area.

One explanation to this development has to be search for in place attractiveness, like scenic places or neighbourhoods. In next stage of this study it is important to make a distinction between neighbourhoods in semi urban areas and neighbourhoods in rural areas, like in sparsely populated municipalities. The explanations to why a neighbourhood in a semi urban area and in a rural area respectively is transformed to an attractive hotspot are assumed to differ.

Some areas are attractive for retired persons, some others for families with children with preferences for living in close proximity to the nature. The neighbourhoods here identified as provisional hotspots fulfil the criteria for hotspots in one respect: over time increasing prices on single family houses. In the next stage the neighbourhoods will be further analysed to give an answer to the question about the occurrence of urban renewal.

The socioeconomic analyses above are cursory. The next stage will enter deeper into questions like: From where did the in migrants move? To which type of neighbourhoods are they moving? Do they become commuters? Of special interest is whether neighbourhoods, here identified as provisional hotspots, attract young in migrants. Other important question is if the in migrants can be defined as counterurbanists. And also; If depressed areas in Northern Sweden are transformed to hotspots, is that development long-standing sustainable?

References

- Berg, Lennart and Tommy Berger (2006) The Q theory and the Swedish housing market – an empirical test, *Journal of Real Estate Finance and Economics*, (33) 4:329-344.
- Champion, Anthony G. (2001) A Changing Demographic Regime and Evolving Polycentric Urban Regions: Consequences for the Size, Composition and Distribution of City Population, *Urban Studies*, 38 (4):657-677.
- Champion, Anthony G. (1994) Population change and migration in Britain since 1981: evidence for continuing deconcentration, *Environment and Planning A*, 26:1501-1520.
- Database Geosweden (2009).
- Dahlström, Edmund (red) (1968) *Svensk samhällsstruktur i sociologisk belysning*. Stockholm: Svenska Bokförlaget.
- Dahms, Fredic A. (1994) 'Dying Villages', 'Counterurbanization' and the Urban Field - a Canadian Perspective, *Journal of Rural Studies* 11 (1): 21-33.
- Elliot, James R. (1997) Cycles within the System: Metropolitanisation and Internal Migration in US, 1965-90, *Urban Studies*, 34 (1): 21-41.
- Johannisson, Bengt, Lars Olof Persson and Ulf Wiberg (1989) *Urbaniserad glesbygd – verklighet och vision*. Arbetsmarknadsdepartement. Ds 1989:22.
- Kontuly, Thomas (1998) Contrasting the counterurbanisation experience in European nations, in Paul Boyle and Keith Halfacree (eds.) *Migration into rural areas. Theories and issues*. Chichester: John Wiley & Sons, Inc.
- Lepczyk, Christopher A., Roger B. Hammer, Susan I Stewart and Volker C Radloff (2007) spatiotemporal dynamics of housing growth hotspots in the North Central U.S. from 1940 to 2000. *Landscape Ecology* 22:939-952.
- Magnusson, Lena and Bengt Turner (2006) På spaning efter "hotspots" i norra Sverige – en förstudie. Uppsala universitet, Institutet för bostads- och urbanforskning. Memo.
- Magnusson, Lena and Bengt Turner (2003) Countryside Abandoned? – Suburbanisation and Mobility in Sweden?, *European Journal of Housing Policy* 3 (1):35-60.
- Meen, David and Geoffrey Meen (2003) Social Behaviour as a Basis for Modelling the Urban Housing Market: A Review, *Urban Studies* (40) 5-6: 917-935.
- Ord, J. Keith and Arthur Getis (2001) Testing for local spatial autocorrelation in the presence of global autocorrelation. *Journal of regional science*, 41(3):411-432.
- SCB (2009) Statistic Sweden's homepage www.scb.se.
- Stockdale, Aileen, Allan Finlay and David Short (2000) Repopulation of rural Scotland: opportunities and threat, *Journal of Rural Studies* 16 (2):243-257.
- The Royal Bank of Scotland Group (2006) www.rbs.co.uk/firsthome.