Thesis Bachelors' Project

'Hosting Mega Events and Urban Development'

A study on the long-term impacts of mega-events on urban development of hosting cities.

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Title page

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Summary

This paper aims to describe the impacts of hosting a mega event on the urban development of a city. The study arises from multiple studies on the economic impacts of Olympic games and events that are alike. The paper describes events under the denominator mega events to get a grasp of what a mega event is and defining the mega event within the context of this study. The mega events were described as large-scale events that have a centre of interest that is heavily based upon tourism and leisure and are short-term events with long-term consequences for the hosting cities. In the selection of mega events four prerequisites were determined, the events are focussed on tourism and leisure, are short-term with a long-term impact, have high initial costs and consist of a bidding process. The eventual selected mega events that will be used for analysis were, ECCs, Olympic games, UEFA European and FIFA world Championship.

The indicators for urban development were determined through different relevant theories, such as the 'four quadrant model' and the 'Keynesian model of determination of the income of the national economy'. The indicators that are used for further analysis are: Population development, Number of visiting tourist, GDP (per capita), Unemployment, Total workforce, Wholesale and retail trade, housing price per sq/m. and Investment in real estate (development).

The process of raw data to usable variables for statistical analysis were explained. The statistical analysis consisted out of 10 regression analyses to determine whether hosting an event has an impact on urban development. This resulted in two models that were significant, and the actual hosting of an event had a very weak positive (in the case of housing prices) correlation of 2,7% and a very weak negative (in the case of investment in Real estate development) correlation of -2,7%.

The study concludes that hosting an event does not have a significant impact on the urban development of a city. There is no real impact either positive or negative on urban development based on the selected variables when hosting an event. But the initial investment by the city or government has to be fulfilled and is in terms of urban development 'wasted money'.

Explanation of Acronyms

EC:	European Commission
ECC:	European Capital of Culture
FIFA:	Fédération Internationale de Football Association
GDP:	Gross Domestic Product
IOC:	International European Committee
MSE:	Mega Sports Event
SQ/M:	Square metre
UEFA:	Union of European Football Associations

Glossary

Control cities:	Cities that did not host an event within the context of this study.
Experimental cities:	See Hosting cities.
GDP per Capita:	The gross domestic product of a city divided by the number of inhabitants.
Global event:	An event that has an international impact.
Hosting cities:	Cities that hosted a mega event.
Initial costs:	Upfront costs or investment.
Natural growth:	The total sum of births minus deaths in a city within a specific time-period.
Net-Migration:	The total sum of in-migration minus out-migration in a city within a specific time-period.
Mega Event:	An event hosted by a city that has a large impact on multiple levels such as demographic, economic and politically.
Mega Sport Event:	A sports event that is of international size with international contesters.
Real estate development:	The construction of real estate for commercial or private use.
Real estate investment:	The process of investing in commercial real estate (office, retail, industrial and residential) with the intention of gaining interest through monthly rents
Workforce:	Total number of employees in a city within a certain time-period.

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1. Introduction

1.1 Background

The Olympic Games, the FIFA World Cup and the UEFA European championship all are prestigious global sports events held once every four years (The Olympic Games in this case divided in the summer and winter event), in which the best athletes of the world compete for the first place and a gold medal. During these global events whole nations are encouraging their national team or national athletes, whilst attending or at home watching these games, hoping for a first place or gold medal during the length of the global event.

During the length of the global event the hosting city or country has an opportunity to show its best side to a worldwide audience. This makes the global event not only a prestigious event for the athletes but also for the country. This translates in a long period of preparation, research and conceptualizing the global event resulting in a bid on hosting such a global event. Take the Olympic Games for instance which start at the invitation phase where future candidate cities are invited to participate in a bid on the next Olympic games and initial ideas are discussed. The second phase, or the candidature process, contains the host city election in a span of two years. In this phase the cities participate, as follow up on the invitation phase, that decided to commit to bid on the next Olympic Games. The candidature process is divided in three stages; Stage 1: Vision, the concept of the games and strategy; stage 2: Governance, legal process and funding; stage 3: Games delivery, experience and venue legacy. The last stage also consists out of the final election of the host city (International Olympic Committee, n.d.).

The city that gets elected to host the next Olympic Games can then start developing the arenas, infrastructure, accommodations, et cetera in the new Olympic city. The construction of the Olympic city, as is reflected in the bid of the hosting cities, is a multi-billion-euro development. Regarding recent research these bids for the Olympics are rising quickly throughout the years. The initial bids of the early 2000s such as Sydney (2000) 2.5 billion and Athens (2004) 3 billion are no way near more recent initial bids of London (2012) 15 billion and Sochi (2014) 22 billion. Furthermore, research concludes that in every case the initial bid, or costs, are overrun with an average of 156% throughout all the Olympic Games (Flyvberg, Stewart, & Budzier, 2016). If the cost overruns are compared to large development projects that are alike cost wise such as roads (20%), bridges and tunnels (34%) and rail (45%) there is a striking difference (Flyvberg, Holm, & Buhl, 2002). Due to these high costs it is that, the hosting of the Olympic Games has a major impact on the city and region.

The impacts on the short- and long-run of hosting the Olympic Games are researched thoroughly, mainly in the field of economics. On the short-run the impacts mainly result in benefits such as, higher income, higher employment rates and higher sales within the city and region (Baade & Matheson, 2016). However, on the long-run there are predominantly constraints faced by the cities that hosted the Olympic games (Coates & Humphreys, 2008). These constraints consist of long term expenses for maintenance of specialized underused arenas, high redevelopment costs to repurpose stadiums and even impoverishment which could have extensive negative effects on the region as a whole (Farrar, 2010) (Sky Sports, 2015) (Baade & Matheson, 2016). These constraints are in a vast contrast with the expected benefits, such as a legacy of new sporting facilities for future generations and improvement of liveability of the city, that are presumed by the cities that bid on hosting the Olympic games (Baade & Matheson, 2016). The referred literature has an extensive view of the economic impacts on hosting the Olympics with little regard to urban development. The question rises if hosting global events such as the Olympic Games have an impact on the urban development of the host city and region and to what extend?

1.2 Research problem

Regarding the introduction the research problem will be formulated as:
What are the long-term impacts of global events on urban development within the hosting cities?
To answer such a complex question the central question as stated above will be divided into three secondary questions. These secondary questions are formulated as:
1. How do we understand mega events?
2. What are long-term impacts on urban development and how can they be measured?
3. Are there statistical significant differences between cities that hosted global events and runner up cities?

1.3 Outline

The first chapter of this paper introduces the topic of this research and delivers background information regarding the motivation to write within the context of 'long-term impacts of global events on urban development of hosting cities'. In addition, the first chapter provides the central research problem and question and the three sub-questions it has been divided in. The second chapter consists out of the theoretical framework that outlines the theoretical approaches that will be used within this study. The conceptual model that derived from the theoretical framework induces a visual explanation of the research parameters and research process. The previous explained chapters and paragraphs conclude in a hypothesis that elaborates on the general expectation of the results of this study. The third chapter contains the methodology of this study with regards to the research methods, data collection and ethical considerations. The fourth chapter elaborates upon the definition and prerequisites of a mega event and results in a list of chosen hosting cities that will be used in statistical analysis. The fifth chapter embodies the long-term impacts on urban development and will result in a list of indicators that will be used to collect data. The sixth chapter introduces the control cities and will mainly be focused on the statistical analysis of the impacts on urban development in 'experimental' and 'control' cities. The last chapter will contain the conclusions of the research, recommendations for further research and reflection on the research process.

2. Theoretical Framework

The global events as referred to in this research will contain mainly mega sports events (MSEs) and European Capitals of Culture (ECCs). The main prerequisites for global events or these MSEs and ECCs as referred to in the study of Hartman and Zandberg (2015) is that they carry out legacies of a certain magnitude. Within the legacies there is a certain discrepancy between the projected legacy and the actual achieved legacy within the hosting city. The legacy of an MSE and ECC depends upon several indicators such as demographic and economic factor (Hartman & Zandberg, 2015). Urban development is a new perspective on the rather economic impact studies on a regional and city level with regards to hosting a global event. This leads to the fact that the studies which were referred to in the introduction concentrate on economic indicators to ascertain whether a hosting city experienced a positive economic outcome on the long-term. In order to focus this study on urban development the outcomes and frameworks of these previous studies are taken into account (Baade & Matheson, 2016) (Coates & Humphreys, 2008) (Billings & Holladay, 2012). Since economic growth and urban development are interlinked certain economic variables, as been used within former studies, will be needed to study the impact on urban development. The Keynesian model of the determination of the income of the national economy ties this economic aspect with urban growth. The theory states that changes in the collective income within an urban region will result in changes within employment and the business activity within the region (Harvey & Jowsey, 2004). 'The Logic is as follows: Aggregate demand growth affects investment spending, and investment spending affects the rate of technical progress; consequently, aggregate demand growth affects technical progress and output growth' (Palley, 1996). The link between the economic aspect and real estate development, as a part of urban growth, is explained throughout the 'four-quadrant model'. The 'four quadrant model' divides the real

estate sector in four interlinked categories; the first is the property market in which rents are determined through demand and supply; the second is the asset market in which real estate assets are valued by interest rates and the former determined rents; the third is the construction market which reacts to a change in the price per asset, for example higher asset prices leads to more construction and vice versa; the fourth quadrant is an example of the unique aspect of the real estate market, due to lag within the adjustment of supply to demand the real estate market it will always work under disequilibrium conditions, this quadrant represents the level of over- or undersupply within the real estate market (DiPasqualle & Wheaton, 1992). The 'four-quadrant model' implicates that a rise in investment will lead to higher real estate values and induces new construction and thus a growth of urban development. Furthermore, the urban growth of a region can be derived from the gentrification of a city or region. The concept of gentrification was first brought under the attention by Glass in 1964 and is explained as the process of investing in a city which leads to growth within the middle and high-class members of society in that region. The growth of more sophisticated members within a region leads to a higher economic output. The indicators of gentrification lie within the change of the industrial sector of a city, which changes from manufacturing to a more service orientated industry. In addition, the working class (manual labour) is increasingly substituted by white collar professionals such as, managers and technical workers (Hamnett, 2003) (Ley, 1996). Regarding the theories that were referred to in this paragraph there is a common approach to be derived. All theories consist out of mutual propositions that lead to urban growth or decline. These propositions can be divided into multiple levels; the first are demographic propositions; the second being economic conditions; and the last being real estate specific stipulations.

2.1 Conceptual model

In this paragraph the conceptual model of this research will be explained. The conceptual model is displayed in figure 1.

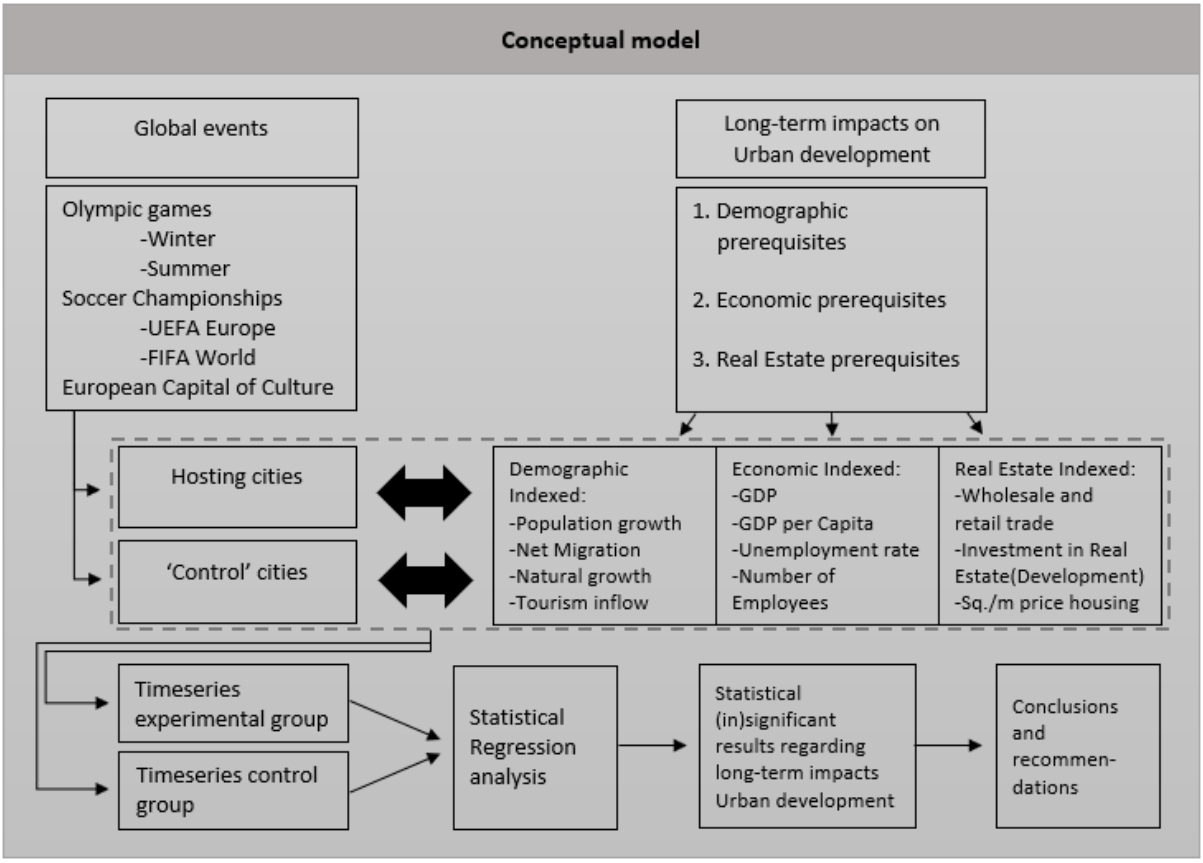

Figure 1: Conceptual model

The fundamentals of the conceptual model or framework lie within the prerequisites of a global event and the long-term impacts on urban development. Global events are construed as events that have a global impact, for this research these are limited to three groups and are identified as; the first being Olympic games; the second being soccer championship such as, UEFA Europe cup and FIFA World cup; and the last being European capitals of culture. Within these global events the cities that hosted are selected. Within the next step cities within Europe from different countries of the same size (considering population and GDP) are randomly chosen and act as 'control' cities. Within the aspect of urban development three base indicators are used to research the phenomenon of urban development; 1. Demographic prerequisites with variables such as the population growth, migration flows and tourism; 2. Economic prerequisites with variables such as, GDP, unemployment rates and number of employees; 3. Real Estate prerequisites with variables such as, Wholesale and retail trade figures, investment in fixed assets and housing prices per square metre. All the gathered information will be merged in a timeseries representing the variables in time. Per variable data will be collected from five years before the event, the year of hosting the event and five years after the event combined in a dataset for both hosting (or experimental) and 'control' cities. Within the dataset the data per variable in the five years before the event will be used to calculate an average or base year (T-0 = 100) from which the variables in the following years will be indexed. This leads to two indexed timeseries, per event edition, one experimental group (hosting cities) and one control group (control cities). Variables from both groups will be analysed trough a regression analysis. The (in-)significant results of the statistical analysis will be used to ascertain whether global events have negative or positive long-term impacts on the urban development of hosting cities. The results of the statistical analysis and the results throughout the research will be used to write a conclusion and answer the main research question. Furthermore, the last chapter of the study contains recommendations for further research.

2.2 Hypotheses

This paragraph will focus on the general expectation of the outcome or hypotheses of the research based on preliminary exploration of the main subject. Regarding the studies as referred to in the background analysis and theoretical framework there is extensive evidence that economic benefits when hosting a global event, on the long-term, are lower than projected or even completely absent. This is mainly due to the impoverishment because of underuse of the developed real estate, high maintenance cost and even higher redevelopment costs (Baade & Matheson, 2016) (Farrar, 2010). Furthermore, there is a substantial interlinkage of economic prosperity and the growth of urban development because favourable economic conditions induce in higher investments, increase in real estate construction and gentrification (Palley, 1996) (DiPasqualle & Wheaton, 1992) (Ley, 1996). *This leads to the presumption or hypotheses that global events could have a negative impact on long-term urban development of hosting cities*.

3. Methodology

This section describes the research methods, kinds of data collection, the data analysis and ethical consideration regarding this research. The thesis is structured in a way which could be divided into three parts regarding the methodology. The first part consists out of the secondary literature analysis. In this part the main components of this study are explained and limited to a certain extent, in other words to keep the research within the composed parameters. The first part in this research consist out of the explanation and limitation of mega-events within this study. Furthermore, it defines the long-term impacts on urban development and sets the boundaries to what extend these long-term impacts are measured. The second part consists mainly out of secondary data collection and analysis of the chosen parameters from the first part. The second part commences by selecting a control group through a simple random sample of European cities that are comparable to the hosting cities. For both the hosting (or experimental) and control group secondary data is collected for the variables: Population, Net-migration, Natural Growth, Number of Tourists, GDP, GDP per capita, Unemployment,

Number of employees, Wholesale and retail trade figures, Housing price per square metre, Investment in Real Estate and Investment in Real Estate development. All the data will be gathered in a timeseries within the timespan from 2000 to 2018 for each city per variable. This data will be merged into a consolidated overview and indexed based upon the time the event took place (hosting cities) or based upon the presumed time of event through random selection (control cities). This indexation will be formed by taking into account 11 years of the total timeseries, five years previous to the event, five years after the event and the year of the event itself. The five years before the event and the year of the event will serve as a base year by calculating the average of those six years and equals 100 (T0 = 100). The five years after the event will serve as the indexation (T1-T5) and will show the difference with the 'six-year average' base year. The secondary data analysis will contain statistical regression analyses of the indexed results. The dependent variables of these statistical regression model will be the variables as suggested previously, the independent variables will be the remaining variables with as main variable the dummy variable of hosting (1) and control cities (0). The second part will result in descriptive statistics. The third part will mainly thrive on the inferential statistics to draw conclusions and answer the main research question. Furthermore, there will be recommendations for further research and a reflection on the research process.

Reliability

The reliability of this research is a quality indicator which holds the fact that if the research is executed again by a different researcher in a different period it would lead to the same results. This is guaranteed by the interim feedback by the supervisor and peer-review process. Furthermore, the reliability of the research is enhanced by composing the theoretical framework, the multiple revisions of the analysis and the re-editing of the study after feedback and reviews.

Validity

The validity of this research holds the drawing of the correct conclusions, the generalizing of results and the usage of the right concepts. The validity of this research is guaranteed through the fact that the results are based upon existing studies and existing theories. Furthermore, through the large sample size with regards to the population. Last but not least, the concepts used within the study are referred to in the glossary which limits the meaning of certain concepts to one explanation.

4. Understanding Mega Events

In this chapter the key factors of mega events are explained to get a grasp of what a mega event is and defining the mega event within the context of this study. Furthermore, the prerequisites of mega events are explored to ascertain whether an event can be qualified as a mega event or not. These prerequisites are used to establish a list of mega events and eventual hosting cities or 'experimental cities' that can be used to analyse the impact of these events on urban development.

In order to research the effects of mega events on the hosting cities these so called 'global events' need to be determined to use the results of those events and execute statistical analysis. In general, mega-events can be determined as large-scale events that have a centre of interest heavily based upon tourism and leisure. Furthermore, mega events are short-term events, often lasting one week to a month, with long-term consequences for the hosting cities (Roche, 1994). These long-term consequences cover but are not limited to demographic, economic and urban aspects of cities and will be explained in the next chapter. A mega event in the light of this research is aimed at positioning a city in a global context through national and international media coverage by hosting the event with the assumption that the global context has long-term positive effects within the previously explained indicators on the city and greater region (Roche, 1994) (Burbank, Andranovich, & Heying, 2002). In addition, the hosting of a mega event has high initial costs (Flyvberg, Stewart, & Budzier, 2016).

Mega events have the mutual aspect that in order to host such an event the city has to enter a bidding process which is led by a central institution, in the case of the ECC the European commission (EC), Olympic games (IOC) the International Olympic committee, European Championship the UEFA and world championship the FIFA. This mutual aspect differs the mega event from governmental led events on a national or local level in which the national or local government points out where certain events should be held, without a certain bidding process. The bidding process as described by Roche (1994) consists out of three phases that need to pass in order to host the mega event. The first phase, pre-bid phase, in which cities conceptualize their plans and central theme, arrange political commitment and study the feasibility for the mega event. This first phase concludes, when outcomes are positive, in an actual bid on hosting the event in the future. The second phase, post-bid phase, often introduced by the election of the city through the central institution contains the re-evaluation of plans, organizational planning and the actual implementation of the plans (for instance the development of sport facilities, infrastructure, et cetera). The final phase, post-event phase, with the focus on monitoring, evaluation and redeveloping or re-purposing structures.

When selecting mega events for research the events should comply on the previously stated prerequisites. The events should be focussed on tourism and leisure, are short-term with a long-term impact, have high initial costs and in order to host such an event there should be a form of a bidding process. In the process of selecting mega events three events were chosen that comply with previously stated prerequisites to be the focus of this study. The chosen mega events are, ECCs, Olympic games (winter and summer edition), UEFA European Championship and FIFA world Championship. Regarding the soccer championships the decision has been made to only include the city that hosted the championship final. During the phase of the preliminary results the decision was made to focus on European cities that hosted the events mainly because of lack of solid data and higher transparency and quality of the data. These decisions concluded in a list of selected cities that predominantly consist out of ECCs. Furthermore, the list exists out of, the European cities that hosted the Olympic games, UEFA European and FIFA world Championship.

The cities that were eventually selected and used for secondary analysis on key indicators are shown in table 1 'Hosting cities by event and hosting year'. The selected cities will be used as 'experimental cities' within the statistical analysis in chapter six.

Number	Year	Hosting City	Country	Event
1	2005	Cork	Ireland	Cultural Capital
2	2006	Patras	Greece	Cultural Capital
3	2007	Sibiu	Romania	Cultural Capital
4	2007	Luxembourg	Luxembourg	Cultural Capital
5	2008	Liverpool	UK	Cultural Capital
6	2008	Stavanger	Norway	Cultural Capital
7	2009	Vilnius	Lithuana	Cultural Capital
8	2009	Linz	Austria	Cultural Capital
9	2010	Essen	Germany	Cultural Capital
10	2010	Pécs	Hungary	Cultural Capital
11	2011	Turku	Finland	Cultural Capital
12	2011	Talinn	Estonia	Cultural Capital
13	2012	Guimaraes	Portugal	Cultural Capital
14	2012	Maribor	Slovenia	Cultural Capital
15	2013	Marseille	France	Cultural Capital
16	2013	Kosice	Slovakia	Cultural Capital
17	2004	Athens	Greece	Olympic Summer games
18	2006	Turin	Italy	Olympic Winter games
19	2010	London	UK	Olympic Summer games
20	2004	Lisbon	Portugal	UEFA European Championship final
21	2006	Berlin	Germany	FIFA World Championship final
22	2008	Vienna	Austria	UEFA European Championship final

Table 1: Hosting cities by event and hosting year

In table 1 all 22 'experimental cities' are shown. In addition, the table contains (from left to right) the city numbers with regards to the topographical map of figure 2, the year that the city hosted the event, the name of the city, the country and the event that took place. Within the 22 'experimental cities' there are 16 cities that hosted the ECC, three that hosted the Olympic games (winter and summer) and another three that hosted the soccer championship final (European or world). The 22 'experimental cities' are shown in a topographical perspective in figure 2 'hosting cities' that can be found on the next page (see appendix 1).

In this chapter the term mega events were described as large-scale events that have a centre of interest that is heavily based upon tourism and leisure and are short-term events with long-term consequences for the hosting cities. In the selection of mega events four prerequisites were determined, the events are focussed on tourism and leisure, are short-term with a long-term impact, have high initial costs and consist of a bidding process. The eventual selected mega events that will be used for analysis were, ECCs, Olympic games, UEFA European and FIFA world Championship. Furthermore, the decision has been made to include only European cities due to higher transparency and better access to data. The eventual list of 'experimental cities' consists out of 16 cities that hosted the ECC, three that hosted the Olympic games and three that hosted the final of soccer championships.

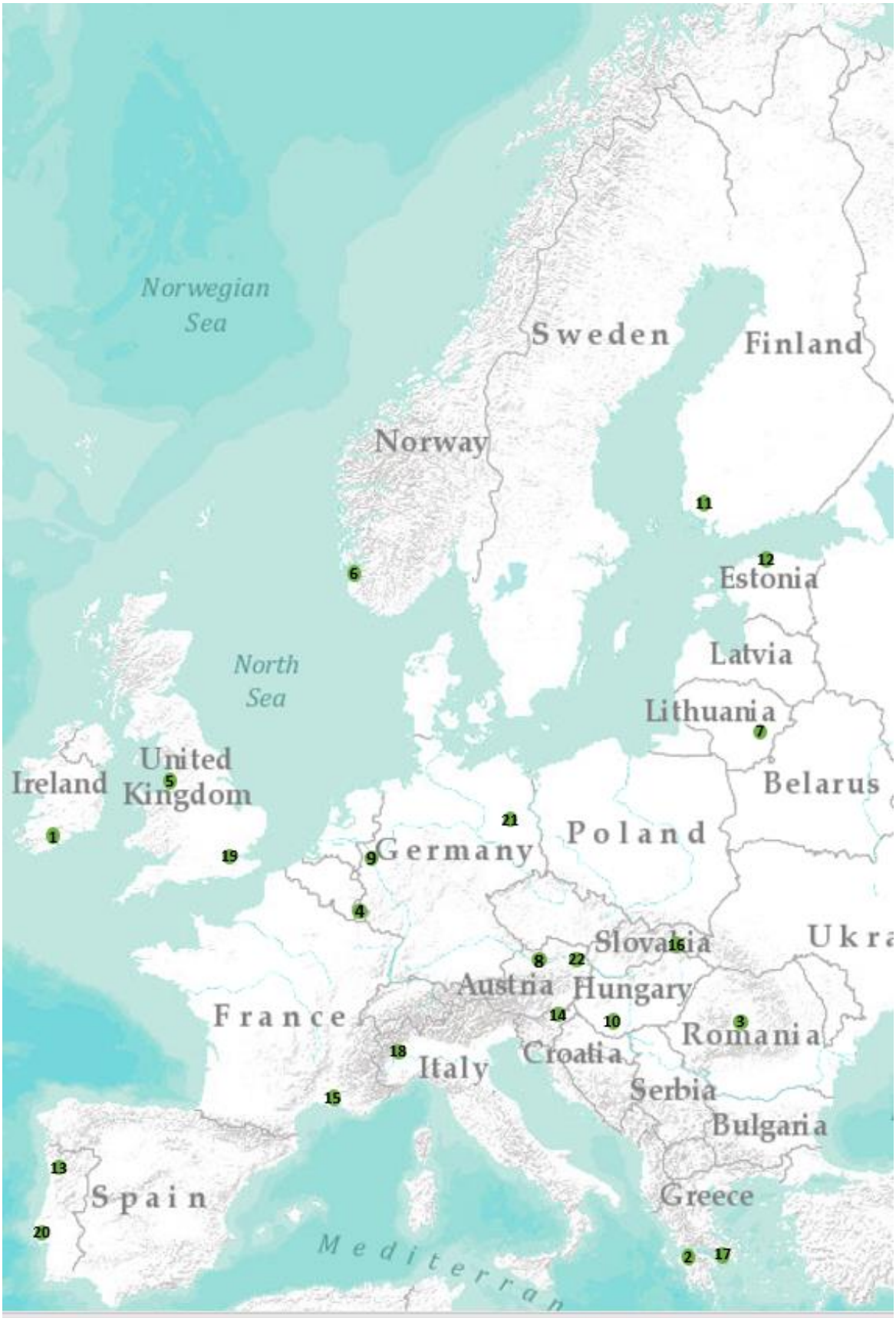

Figure 2: Hosting cities in a topographical perspective

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5. Measuring long-term impacts on urban development

This chapter sets the outline for the key aspects and indicators that will be used for further statistical analysis. Firstly, the key indicators for the demographic aspects will be determined. Secondly, the key indicators for the economic aspects will be composed. Last but not least, this chapter will shed a light on the indicators for the real estate aspects. All indicators will be explained based upon theory.

As been referred to in the paragraph considering the background of the research problem the global events such as the MSE and ECC cities and countries enter the bidding process with the perspectives of benefits and growth. These benefits, regarding the short-run, mainly result in an increase of income, employment and sales within the city (Baade & Matheson, 2016). The perspectives on the long-run however aren't often as good as the short-run as previously explained and need to be thoroughly studied to indicate whether the hosting cities improve in the field of urban development. Regarding the previous chapter mega events should be focussed on tourism and leisure, in order to study this on the long term the number of tourists will be used as an indicator for urban growth. Furthermore, the decision was made to include population development, net-migration and natural growth as demographic indicators for urban growth which are referred to in the study of S. H. Preston as common measures for the rate of urbanization of cities (Preston, 1979).

To measure long term-impacts of global events on urban development a list of key indicators needs to be established. As referred to in the theoretical framework of this paper the economic growth of a city and urban development are interlinked. Within the Keynesian model of the determination of the income of the national economy the link between economic growth and urban development is formed. The theory states that changes in the collective income within an urban region will result in changes within employment and the business activity within the region (Harvey & Jowsey, 2004). Palley (1996) elaborates upon this theory further by adding a cycle in which the growth of aggregate demand increases spending and investment by, per example, corporations. The event of the growth of spending and investment leads to a higher rate of technical progress within the city. Thus, the increase of aggregate demand within a city leads to the growth of output and eventually urban growth. This leads to a couple of key indicators of urban growth on an economic level, gross domestic product and gross domestic product per capita both indicators of the total output of a city. These indicators will suggest urban growth when they increase, because the growth of output equals urban growth. The combination of unemployment rates and total employment will indicate the business activity of a city, in this case growth of the total employment and decrease of unemployment suggests further urban development. In addition, the gross added value of wholesale and retail trade will indicate the same business activity. Furthermore, within the indicators of investment both investment in real estate and real estate development will be used to determine urban growth. Both investment categories suggest in the case of an increase that the demand of real estate (commercial and private) is rising.

Both real estate and real estate development can be explained by the 'four-quadrant model' (DiPasqualle & Wheaton, 1992). The 'four-quadrant model', as shown in figure 3, implicates that a rise in investment will lead to higher real estate values and induces new construction and thus a growth of urban development.

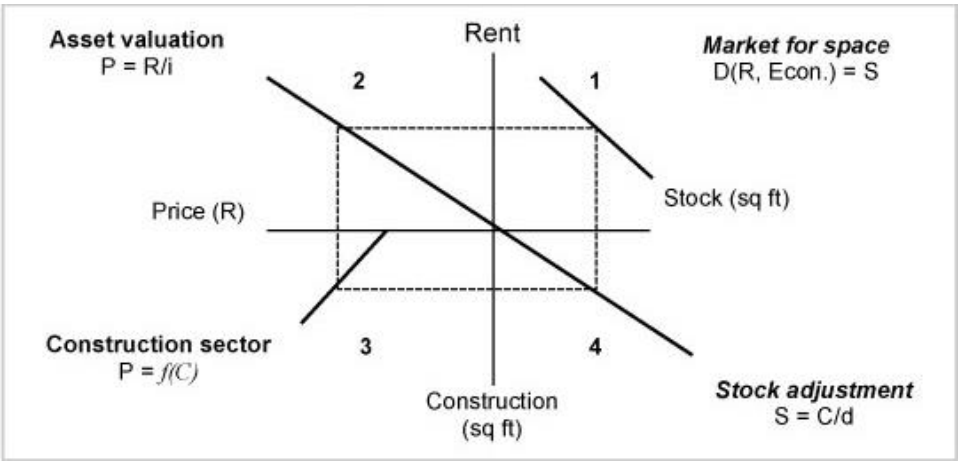

Figure 3: Four Quadrant model *(Boshoff, 2013).*

The 'four quadrant model' indicates that certain alterations within the valuation of real estate will directly affect the construction sector. Regarding this aspect the decision was made to implement average housing prices per square metre as an indicator for urban growth. In addition the theory behind the model proves the previously selected Investment in real estate and real estate development as viable indicators of urban growth.

In total there are three different aspects which will be researched and used for statistical analysis. The first being; Demographic aspects with the key indicators: Population development and Number of visiting tourists. The second being; Economic aspects with the key indicators: GDP, GDP per capita, Unemployment rate and Number of Employees (total workforce). And the third one being; Real estate aspects with the key indicators: Wholesale and retail trade, average housing price per square metre, Investment in real estate and Investment in real estate development. The data will be collected in time series ranging from 2000 – 2018 for all key indicators.

Within this chapter the indicators for urban development were determined through different relevant theories. The indicators are referred to as: Population development, Number of visiting tourist, GDP (per capita), Unemployment, Total workforce, Wholesale and retail trade, housing price per sq/m. and Investment in real estate (development). These 10 distinctive indicators will be used in the next paragraph to execute statistical regression.

6. Statistical analysis of differences hosting and control cities

This chapter will contain the explanation, composing and executing of the statistical analysis. This will include the explanation of the used variables, control cities, process of statistical analysis and the eventual results of the statistical regression

In order to execute statistical analysis, the indicators of urban growth within 'experimental' cities will be compared with the urban indicators of urban growth within 'control' cities. This control group consist out of cities that have not hosted one of the events as been described in chapter four. The control cities were randomly selected throughout Europe solely based upon the size in population and GDP. The control group consists out of 25 cities and are displayed in figure 4. The control cities are shown in a topographical perspective in figure 5 (see appendix 1).

List of control cities			
	City	Country	NUTS
A	Antwerp	Belgium	BE21
B	Sofia	Bulgaria	BG41
C	Brno	Czech Republic	CZ06
D	Aalborg	Denmark	DK05
E	Frankfurt	Germany	DE40
F	Hamburg	Germany	DE60
G	Cologne	Germany	DEA2
H	Thessaloniki	Greece	EL52
I	Malaga	Spain	ES61
J	Toulouse	France	FR62
K	Lyon	France	FR71
L	Bologna	Italy	ITH5
M	Riga	Latvia	LV0
N	Budapest	Hungary	HU10
O	Groningen	Netherlands	NL11
P	Rotterdam	Netherlands	NL33
Q	Warsaw	Poland	PL12
R	Wroclaw	Poland	PL51
S	Porto	Portugal	PT11
T	Cluj-Napoca	Romania	RO11
U	Bratislava	Slovakia	SK01
V	Tampere	Finland	FI19
W	Oulu	Finland	FI1D
X	Malmö	Sweden	SE22
Y	Gothenburg	Sweden	SE23

Figure 4: Control cities by country and NUTS category

For both experimental and control cities the data of the different indicators of urban growth will be gathered in a timeseries. The timeseries will be indexed. The average of the first five years prior to the event plus the year of the event will serve as baseline (=100) the following five years will be indexed on the base year. This leads to two indexed timeseries, per event edition, one experimental group (hosting city) and one control group (control cities) and makes them comparable to each other. From each group the differences in the individual indicators between T0 and T5 will be used for statistical regression analysis (see appendix 2). The results of the data analysis and indexation of the different variables (indicators) are shown in appendix 3. The variables and values that accompany the variables that will be used for statistical analysis are shown in appendix 4. In order to conduct statistical analysis and determine whether a city in the dataset is a hosting or control city a binary (or dummy) variable is entered. This variable has the value of '1' in case of a hosting city and the value '0' in the case of a control city. The variables 'net-migration' and 'natural growth' as referred to in the theoretical framework were discontinued due to the fact that these variables biased the dataset because both variables have the possibility to become a negative or positive value and tend change between both values year-on-year.

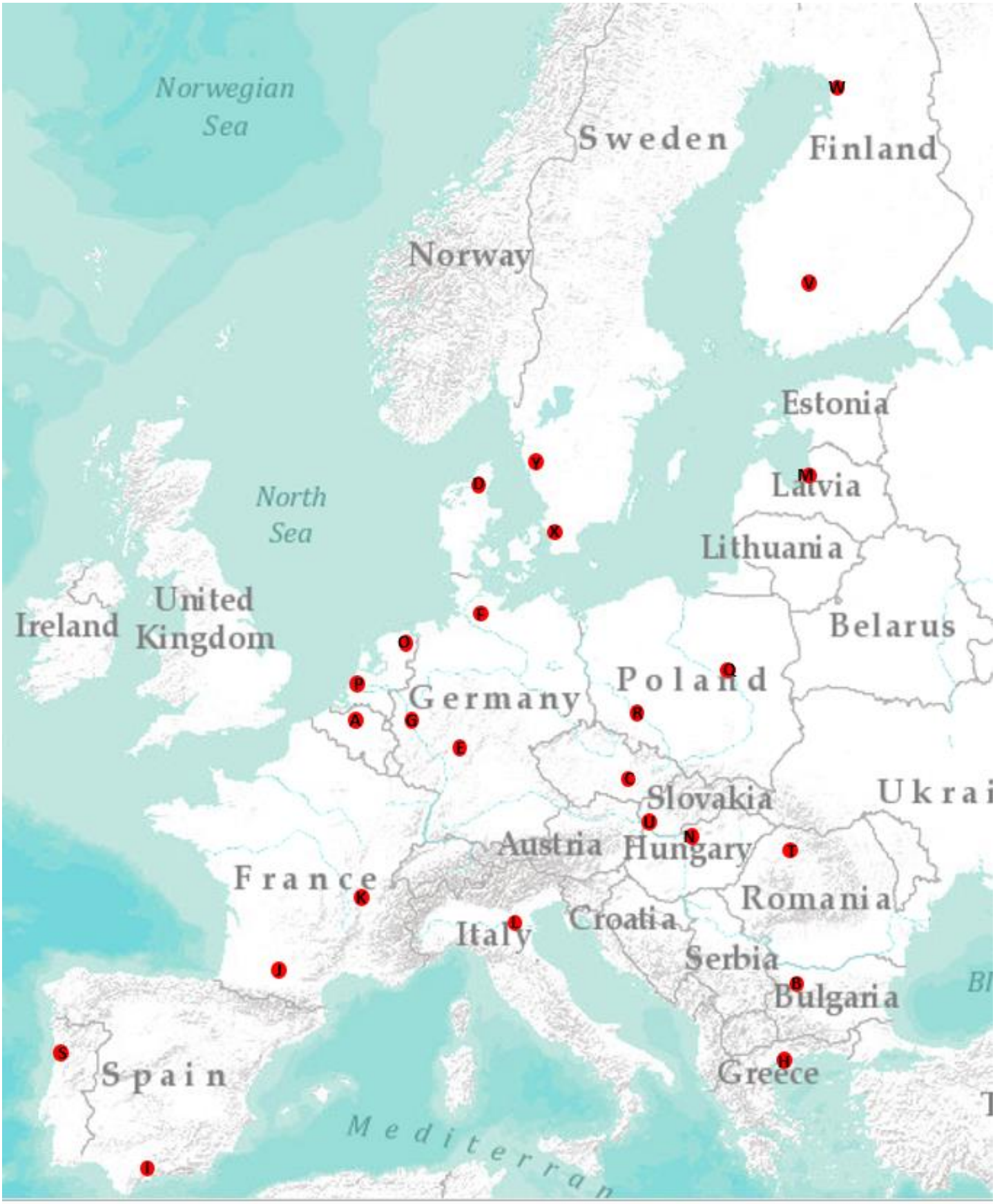

Figure 5: Control cities in topographical perspective

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Because of the complexity and size of the dataset and number of variables the decision was made to execute 10 statistical regression analyses (see appendix 5). Within each analysis all different variables (excluding the dummy variable) were set as the dependent variable. The Null-hypothesis for the statistical regression is: 'In the population there is no linear correlation between the dependent variable on one hand and the independent variables (Dummy variable) on the other'. All the models for the ten regression analyses turned out to be significant (95% confidence interval), which leads to the fact that the null hypotheses is rejected. It can be confirmed with a 95% certainty there is a correlation between the variables. In figure 6 an example of the regression analysis with number of tourist as dependent variable is shown.

Model Summary (Numbertourists)

R	*R-Square*	*Adjusted R-Square*	*Std. Error*
,68	,46	,31	21,18

ANOVA (numbertourists)

	Sum of Squares	*Df*	*Mean Square*	*F*	*Sign.*
Regressie	13572,23	10	1357,22	3,03	,007
Residu	16146,94	36	448,53		
Totaal	29719,17	46			

Coëfficiënten (numbertourists)

	Unstandardized Coefficients		*Standardized Coefficients*		
	B	*Std. Error*	*Bèta*	*t*	*Sign.*
(Constante)	29,60	7,27	,00	4,07	,000
Hostingcity	10,11	7,68	,20	1,32	,196
popdevelopment	2,85	1,83	,59	1,56	,127
GDP	-3,21	,91	-3,16	-3,51	,001
GDPpCAP	3,26	1,00	3,45	3,25	,003
Employment	,32	,73	,09	,43	,666
Workforce	,65	,77	,22	,84	,405
Wholesaleretail	-,24	,30	-,22	-,80	,430
SQMPrice	-,05	,18	-,05	-,27	,788
InvRE	,02	,05	,06	,32	,751
InvREDev	,09	,16	,15	,56	,580

Figure 6: Statistical regression Number of tourist as dependent variable

Further analysis showed that the dummy variable of hosting and control cities in most models was insignificant. Which leads to believe that hosting an event does not have an impact on the indicators of urban growth. However, within two models (with the variables investment in real estate development and housing price per SQ/M as dependent variables) the dummy variable was significant. In the case of real estate development, the hosting of an event has a weak negative correlation with the variable (-2,7%) and in the case of housing prices SQ/M the hosting of an event has a weak positive correlation with the variable (2,7%).

Within this chapter the control cities that were used to compare with the hosting cities were introduced. Furthermore, the process of raw data to usable variables for statistical analysis were explained. The statistical analysis consisted out of 10 regression analyses to determine whether hosting an event has an impact on urban development. This resulted in two models that were significant, and the actual hosting of an event had a very weak positive (in the case of housing prices) correlation of 2,7% and a very weak negative (in the case of investment in Real estate development) correlation of -2,7%.

7. Conclusion, reflection and recommendations

This Chapter will contain the main conclusions of the study on the impact of hosting a mega event on urban development. Furthermore, it will include recommendations for further research and reflection on the research process.

7.1 conclusion

Regarding the results of chapter six hosting an event has in most cases no effect on the urban development of the hosting city when it is compared to control cities. In two out of the ten executed regression analysis the hosting of an event has a minor correlation or in statistical terms very weak correlation with the other variables. When reviewing these results, one might think that the actual effect of hosting an event has little to no impact on urban development with 95% confidence. In addition, the actual hosting of the games will come at the cost of a high initial investment, as referred to in the introduction. The question rises if the initial investment of hosting such an event is high, and the potential gains are negligible what would be the point of hosting an event in the first place. This question also partially confirms the hypothesis that is stated at the beginning of this paper. There is no real impact either positive or negative on urban development based on the selected variables when hosting an event. But the initial investment by the city or government has to be fulfilled and is in terms of urban development 'wasted money'. However, the results of this study are less striking than the results of other studies on this matter (Baade & Matheson, 2016) (Farrar, 2010).

7.2 Recommendations

The research on urban development is heavily based upon economic and demographic indicators. In order to get a wider perspective on the subject it might be good to analyse political aspects and personal experience of inhabitants of these cities. The latter being an indicator of 'happiness' of the inhabitants before, during and after the event took place in order to see if the public opinion changes.

7.3 Reflection

When reflecting on the study there are some parts which could be done differently to get a better end result. Firstly, and mainly the distribution of time. The dataset that is the backbone of this paper has costed a lot of time which leaded to the fact that there was limited time to write the actual thesis. Secondly, it would be wise to make a clearer framework of the thesis to avoid doing research and investing time in certain part of the analysis which are not belonging to the core of this study. Last but not least, the more thorough preliminary analysis of data to ascertain whether certain data is available or not.

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Appendix

'Hosting Mega Events and Urban Development'

A study on the long-term impacts of mega-events on urban development of hosting cities.

Table of contents

Appendix 1 Merged topographical perspective of Hosting and Control cities

This appendix includes the lists of cities that hosted and the cities that did not host an event which were used for statistical analysis (Figure A). Furthermore, the appendix includes a topographical perspective of both hosting and control cities (Figure B).

List of hosting cities				List of control cities			
	Hosting City	**Country**	**NUTS**		**Control City**	**Country**	**NUTS**
1	Cork	Ireland	IE02 (IE025)	**A**	Antwerp	Belgium	BE21
2	Patras	Greece	EL63	**B**	Sofia	Bulgaria	BG41
3	Sibiu	Romania	RO12	**C**	Brno	Czech Republic	CZ06
4	Luxembourg	Luxembourg	LU0	**D**	Aalborg	Denmark	DK05
5	Liverpool	UK	UKD7	**E**	Frankfurt	Germany	DE40
6	Stavanger	Norway	NO04	**F**	Hamburg	Germany	DE60
7	Vilnius	Lithuana	LT0	**G**	Cologne	Germany	DEA2
8	Linz	Austria	AT31	**H**	Thessaloniki	Greece	EL52
9	Essen	Germany	DEA1 (DEA13)	**I**	Malaga	Spain	ES61
10	Pécs	Hungary	HU23	**J**	Toulouse	France	FR62
11	Turku	Finland	FI1C	**K**	Lyon	France	FR71
12	Talinn	Estonia	EE	**L**	Bologna	Italy	ITH5
13	Guimaraes	Portugal	PT11	**M**	Riga	Latvia	LV0
14	Maribor	Slovenia	SI03	**N**	Budapest	Hungary	HU10
15	Marseille	France	FR82 (FR824)	**O**	Groningen	Netherlands	NL11
16	Kosice	Slovakia	SK04	**P**	Rotterdam	Netherlands	NL33
17	Athens	Greece	EL30	**Q**	Warsaw	Poland	PL12
18	Turin	Italy	ITC1	**R**	Wroclaw	Poland	PL51
19	London	UK	UKI	**S**	Porto	Portugal	PT11
20	Lisbon	Portugal	PT17	**T**	Cluj-Napoca	Romania	RO11
21	Berlin	Germany	DE3	**U**	Bratislava	Slovakia	SK01
22	Vienna	Austria	AT13	**V**	Tampere	Finland	FI19
				W	Oulu	Finland	FI1D
				X	Malmö	Sweden	SE22
				Y	Gothenburg	Sweden	SE23

Figure A: List of hosting and control cities

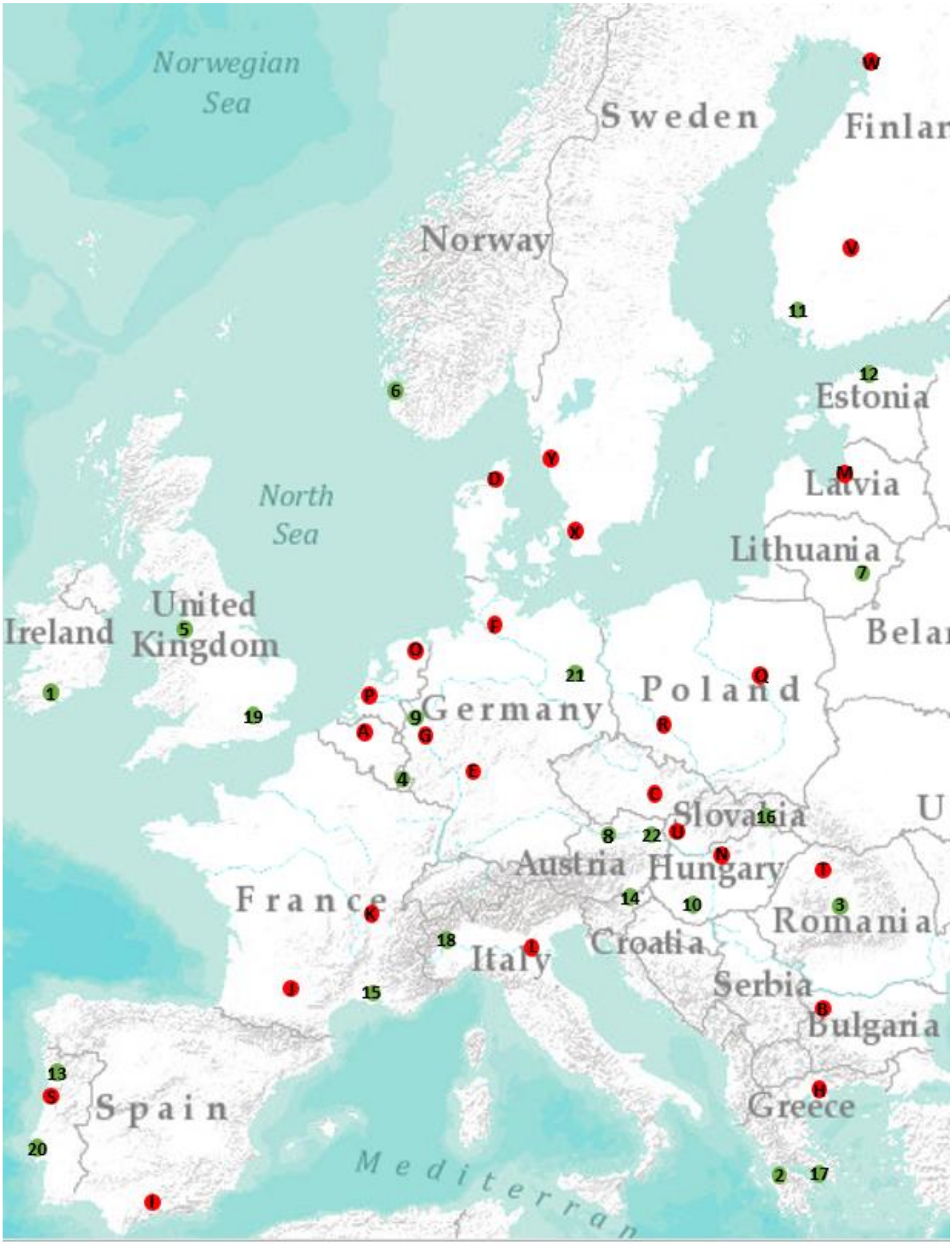

Figure B: A topographical perspective on hosting and control cities

Appendix 2 Timeseries, indexation and statistical data

The timeseries, the indexation of those timeseries and the methodology behind this dataset will be explained visually in this appendix. The indicators of urban development as been referred to in chapter five are used to create timeseries within a span of 18 years from the year 2000 onwards. For every individual indicator a timeseries will be composed. The data that will be used will be limited to the year of the event, five years previous to the event and five years after the event. The year of the event and five years previous to the event will be used to calculate an average base year (or T0) by the sum of values divided by six from which point the indexation will initiate. The five years after the event will be indexed through calculating the difference with the base year of the index in mind (value per year*100/ divided by average base year). These years will be referred to as T1-T5. The values that will be used for the different variables (indicators) will be calculated by the difference between T5 and T0. The visual explanation is shown in figure C.

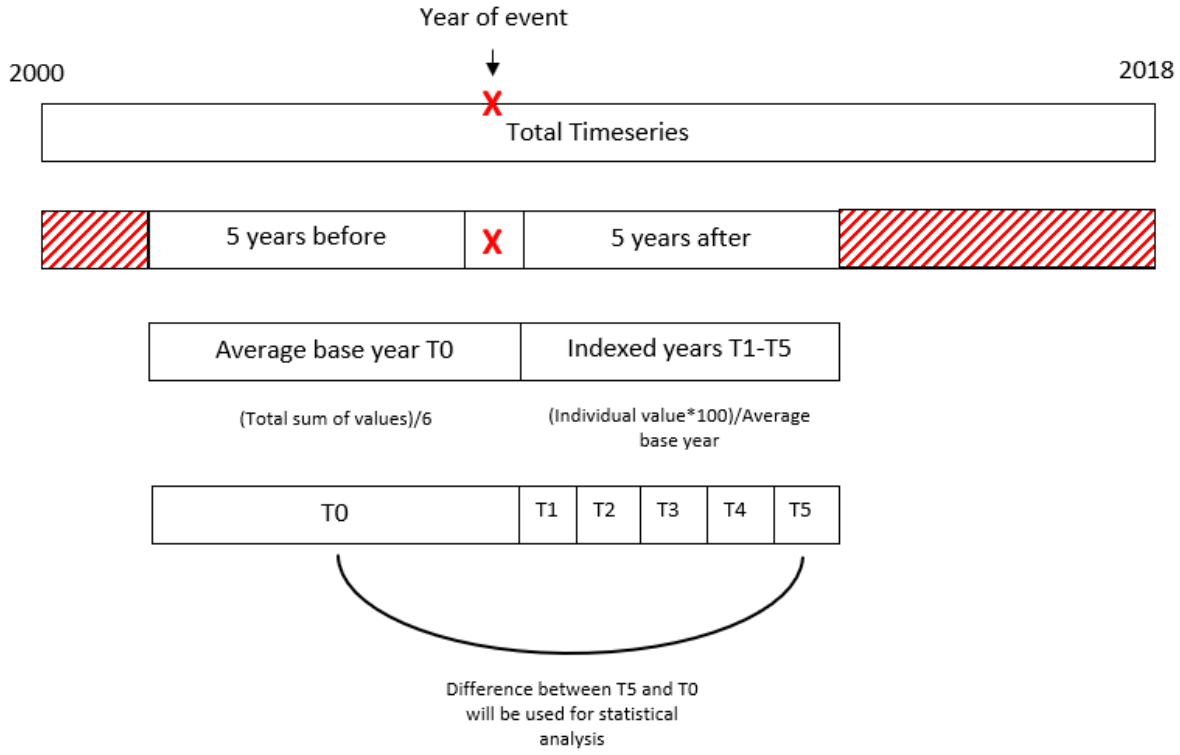

Figure C: Visual explanation of timeseries, indexation and statistical data

Appendix 3A Consolidated indexed results hosting cities

1. Demographic aspects

Population development							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	583.232	616.315	632.896	650.787	658.978	660.660
	Index	*100,00*	*105,67*	*108,52*	*111,58*	*112,99*	*113,28*
EL63	Patras	701.699	694.901	693.549	692.990	692.269	690.904
	Index	*100,00*	*99,03*	*98,84*	*98,76*	*98,66*	*98,46*
RO12	Sibiu	2.539.175	2.524.628	2.526.062	2.524.418	2.522.692	2.360.578
	Index	*100,00*	*99,43*	*99,48*	*99,42*	*99,35*	*92,97*
LU0	Luxembourg	461.938	485.238	492.149	502.100	512.400	524.900
	Index	*100,00*	*105,04*	*106,54*	*108,69*	*110,92*	*113,63*
UKD7	Liverpool	451.079	457.500	461.400	465.700	470.200	471.800
	Index	*100,00*	*101,42*	*102,29*	*103,24*	*104,24*	*104,59*
NO04	Stavanger	663.257	696.166	706.823	718.543	728.934	741.284
	Index	*100,00*	*104,96*	*106,57*	*108,34*	*109,90*	*111,76*
LT0	Vilnius	3.260.326	3.097.282	3.028.115	2.987.773	2.957.689	2.932.367
	Index	*100,00*	*95,00*	*92,88*	*91,64*	*90,72*	*89,94*
AT31	Linz	1.400.091	1.409.253	1.410.222	1.413.866	1.418.498	1.425.422
	Index	*100,00*	*100,65*	*100,72*	*100,98*	*101,31*	*101,81*
DEA1/DEA13	Essen	582.478	567.263	565.900	566.862	569.884	573.784
	Index	*100,00*	*97,39*	*97,15*	*97,32*	*97,84*	*98,51*
HU23	Pécs	962.816	940.585	931.215	925.180	917.492	909.130
	Index	*100,00*	*97,69*	*96,72*	*96,09*	*95,29*	*94,42*
FI1C	Turku	1.150.625	1.159.823	1.161.486	1.161.882	1.161.706	1.160.491
	Index	*100,00*	*100,80*	*100,94*	*100,98*	*100,96*	*100,86*
EE	Talinn	1.338.458	1.325.217	1.320.174	1.315.819	1.313.271	1.315.944
	Index	*100,00*	*99,01*	*98,63*	*98,31*	*98,12*	*98,32*
PT11	Guimaraes	3.706.502	3.666.234	3.644.195	3.621.785	3.603.778	3.584.575
	Index	*100,00*	*98,91*	*98,32*	*97,71*	*97,23*	*96,71*
SI03	Maribor	1.095.164	1.097.198	1.094.709	1.093.545	1.092.193	1.091.159
	Index	*100,00*	*100,19*	*99,96*	*99,85*	*99,73*	*99,63*
FR82/FR824	Marseille	1.976.530	2.006.069	2.016.622	2.026.120	2.035.414	2.043.352
	Index	*100,00*	*101,49*	*102,03*	*102,51*	*102,98*	*103,38*
SK04	Kosice	1.600.445	1.613.672	1.615.542	1.617.347	1.620.413	1.624.140
	Index	*100,00*	*100,83*	*100,94*	*101,06*	*101,25*	*101,48*
EL30	Athens	3.902.763	3.952.793	3.971.441	3.982.602	3.990.727	3.999.457
	Index	*100,00*	*101,28*	*101,76*	*102,05*	*102,25*	*102,48*
ITC1	Turin	4.242.830	4.285.466	4.332.069	4.356.322	4.362.041	4.364.309
	Index	*100,00*	*101,00*	*102,10*	*102,67*	*102,81*	*102,86*
UKI	London	7.945.099	8.362.977	8.477.285	8.605.577	8.759.408	8.868.066
	Index	*100,00*	*105,26*	*106,70*	*108,31*	*110,25*	*111,62*
PT17	Lisbon	2.675.292	2.732.440	2.745.623	2.759.501	2.775.675	2.792.105
	Index	*100,00*	*102,14*	*102,63*	*103,15*	*103,75*	*104,37*
DE3	Berlin	3.389.087	3.404.037	3.416.255	3.431.675	3.442.675	3.278.346
	Index	*100,00*	*100,44*	*100,80*	*101,26*	*101,58*	*96,73*
AT13	Vienna	1.636.790	1.680.135	1.689.995	1.702.855	1.717.084	1.741.246
	Index	*100,00*	*102,65*	*103,25*	*104,04*	*104,91*	*106,38*

Net-Migration							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	5.177	11.972	12.353	2.113	-4.730	-4.708
	Index	*100,00*	*231,25*	*238,61*	*40,82*	*-91,37*	*-90,94*
EL63	Patras	-1.230	-375	-436	-481	-943	-2.104
	Index	*100,00*	*30,49*	*35,45*	*39,11*	*76,67*	*171,06*
RO12	Sibiu	-2.095	1.660	-1.067	-12	-537	1.121
	Index	*100,00*	*-79,23*	*50,93*	*0,57*	*25,63*	*-53,50*
LU0	Luxembourg	5.425	7.056	7.585	7.660	11.004	10.036
	Index	*100,00*	*130,05*	*139,81*	*141,19*	*202,83*	*184,99*
UKD7	Liverpool	-257	-78	825	1.101	2.373	51
	Index	*100,00*	*30,39*	*-321,43*	*-428,96*	*-924,55*	*-19,87*
NO04	Stavanger	4.611	6.148	7.192	6.213	8.088	6.137
	Index	*100,00*	*133,34*	*155,98*	*134,75*	*175,41*	*133,10*
LT0	Vilnius	-29.687	-77.944	-38.178	-21.257	-16.807	-12.327
	Index	*100,00*	*262,56*	*128,60*	*71,60*	*56,61*	*41,52*
AT31	Linz	2.103	-356	2.486	3.590	6.305	10.013
	Index	*100,00*	*-16,93*	*118,20*	*170,69*	*299,79*	*476,09*
DEA1/DEA13	Essen	353	1.255	3.333	5.673	5.799	10.679
	Index	*100,00*	*355,19*	*943,30*	*1605,57*	*1641,23*	*3022,36*
HU23	Pécs	-1.553	-1.605	-870	-2.760	-4.042	-3.045
	Index	*100,00*	*103,36*	*56,03*	*177,74*	*260,30*	*196,09*
FI1C	Turku	3.301	2.910	2.035	1.526	838	1.936
	Index	*100,00*	*88,16*	*61,65*	*46,23*	*25,39*	*58,65*
EE	Talinn	-1.739	-3.682	-2.642	-733	2.410	1.030
	Index	*100,00*	*211,73*	*151,93*	*42,15*	*-138,59*	*-59,23*
PT11	Guimaraes	-9.442	-15.729	-16.127	-11.711	-13.233	-12.600
	Index	*100,00*	*166,58*	*170,80*	*124,03*	*140,15*	*133,44*
SI03	Maribor	159	-2.081	-1.163	-439	-142	-245
	Index	*100,00*	*-1310,18*	*-732,21*	*-276,39*	*-89,40*	*-154,25*
FR82/FR824	Marseille	-2.659	659	658	1.146	780	723
	Index	*100,00*	*-24,78*	*-24,74*	*-43,10*	*-29,33*	*-27,19*
SK04	Kosice	-883	-2.128	-1.818	-1.828	-1.750	-1.730
	Index	*100,00*	*241,04*	*205,93*	*207,06*	*198,23*	*195,96*
EL30	Athens	12.503	13.906	4.286	2.920	811	-3.972
	Index	*100,00*	*111,22*	*34,28*	*23,36*	*6,49*	*-31,77*
ITC1	Turin	22.374	55.512	34.012	16.363	12.668	4.656
	Index	*100,00*	*248,11*	*152,02*	*73,13*	*56,62*	*20,81*
UKI	London	37.735	33.556	48.476	74.759	28.462	25.437
	Index	*100,00*	*88,93*	*128,47*	*198,12*	*75,43*	*67,41*
PT17	Lisbon	15.103	6.944	7.347	9.745	9.207	10.305
	Index	*100,00*	*45,98*	*48,65*	*64,52*	*60,96*	*68,23*
DE3	Berlin	7.093	12.024	15.395	10.609	16.891	45.961
	Index	*100,00*	*169,52*	*217,05*	*149,57*	*238,14*	*647,99*
AT13	Vienna	13.689	9.038	11.158	11.977	22.301	23.141
	Index	*100,00*	*66,02*	*81,51*	*87,49*	*162,91*	*169,04*

Natural Growth							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	3.566	4.609	5.538	6.078	6.412	6.129
	Index	*100,00*	*129,24*	*155,29*	*170,44*	*179,80*	*171,87*
EL63	Patras	-752	-977	-123	-240	-422	-865
	Index	*100,00*	*129,98*	*16,36*	*31,93*	*56,14*	*115,08*
RO12	Sibiu	-2.339	-226	-577	-1.714	-2.368	-2.294
	Index	*100,00*	*9,66*	*24,67*	*73,27*	*101,23*	*98,07*
LU0	Luxembourg	1.639	2.001	1.983	2.114	1.820	2.150
	Index	*100,00*	*122,09*	*120,99*	*128,98*	*111,04*	*131,18*
UKD7	Liverpool	935	2.181	2.632	3.342	2.959	1.711
	Index	*100,00*	*233,26*	*281,50*	*357,43*	*316,47*	*182,99*
NO04	Stavanger	3.511	4.509	4.528	4.178	4.262	4.211
	Index	*100,00*	*128,42*	*128,96*	*118,99*	*121,38*	*119,93*
LT0	Vilnius	-13.139	-11.444	-10.769	-10.479	-11.626	-9.883
	Index	*100,00*	*87,10*	*81,96*	*79,75*	*88,48*	*75,22*
AT31	Linz	1.524	1.325	1.158	1.042	619	1.816
	Index	*100,00*	*86,92*	*75,97*	*68,36*	*40,61*	*119,13*
DEA1/DEA13	Essen	-2.595	-2.618	-2.371	-2.651	-1.899	-1.839
	Index	*100,00*	*100,89*	*91,37*	*102,16*	*73,18*	*70,87*
HU23	Pécs	-4.594	-5.107	-5.165	-4.928	-4.320	-5.217
	Index	*100,00*	*111,17*	*112,43*	*107,27*	*94,04*	*113,57*
FI1C	Turku	-620	-1.247	-1.639	-1.702	-2.053	-3.253
	Index	*100,00*	*201,02*	*264,21*	*274,37*	*330,95*	*524,40*
EE	Talinn	-928	-1.394	-1.713	-1.933	-1.336	-1.339
	Index	*100,00*	*150,22*	*184,59*	*208,30*	*143,97*	*144,29*
PT11	Guimaraes	498	-6.310	-6.283	-6.296	-5.970	-4.980
	Index	*100,00*	*-1.266,64*	*-1.261,22*	*-1.263,83*	*-1.198,39*	*-999,67*
SI03	Maribor	123	-408	-1	-913	-892	-840
	Index	*100,00*	*-331,71*	*-0,81*	*-742,28*	*-725,20*	*-682,93*
FR82/FR824	Marseille	9.337	9.617	8.352	8.418	8.534	8.230
	Index	*100,00*	*103,00*	*89,46*	*90,16*	*91,40*	*88,15*
SK04	Kosice	5.384	3.998	3.623	4.894	4.567	4.973
	Index	*100,00*	*74,26*	*67,29*	*90,90*	*84,83*	*92,37*
EL30	Athens	3.751	4.742	6.875	5.205	7.919	7.386
	Index	*100,00*	*126,43*	*183,30*	*138,78*	*211,14*	*196,93*
ITC1	Turin	-11.367	-8.909	-9.759	-10.644	-10.400	-11.302
	Index	*100,00*	*78,38*	*85,86*	*93,64*	*91,50*	*99,43*
UKI	London	81.728	33.556	48.476	74.759	28.462	25.437
	Index	*100,00*	*41,06*	*59,31*	*91,47*	*34,83*	*31,12*
PT17	Lisbon	6.483	6.239	6.531	6.429	7.223	5.795
	Index	*100,00*	*96,24*	*100,74*	*99,17*	*111,41*	*89,39*
DE3	Berlin	-3.448	194	25	391	1.159	1.695
	Index	*100,00*	*-5,63*	*-0,73*	*-11,34*	*-33,61*	*-49,16*
AT13	Vienna	859	822	1.702	2.252	1.861	2.359
	Index	*100,00*	*95,71*	*198,18*	*262,22*	*216,69*	*274,67*

Number of Tourists							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	2.468.000	2.958.000	3.098.000	3.238.000	3.120.500	3.003.000
	Index	*100,00*	*119,85*	*125,53*	*131,20*	*126,44*	*121,68*
EL63	Patras	402.595	487.307	479.604	460.508	441.412	422.316
	Index	*100,00*	*121,04*	*119,13*	*114,39*	*109,64*	*104,90*
RO12	Sibiu	779.170	1.023.023	859.527	898.820	1.166.422	1.345.818
	Index	*100,00*	*131,30*	*110,31*	*115,36*	*149,70*	*172,72*
LU0	Luxembourg	960.472	938.313	907.531	854.700	935.000	1.023.900
	Index	*100,00*	*97,69*	*94,49*	*88,99*	*97,35*	*106,60*
UKD7	Liverpool	713.199	817.133	687.640	975.188	1.245.000	1.412.000
	Index	*100,00*	*114,57*	*96,42*	*136,73*	*174,57*	*197,98*
NO04	Stavanger	1.305.654	1.581.685	1.480.809	1.686.507	1.925.614	1.898.337
	Index	*100,00*	*121,14*	*113,42*	*129,17*	*147,48*	*145,39*
LT0	Vilnius	589.912	569.601	633.625	1.090.318	1.199.914	1.316.696
	Index	*100,00*	*96,56*	*107,41*	*184,83*	*203,41*	*223,20*
AT31	Linz	1.165.227	1.306.313	1.335.630	1.400.333	1.385.397	1.420.412
	Index	*100,00*	*112,11*	*114,62*	*120,18*	*118,89*	*121,90*
DEA1/DEA13	Essen	3.610.674	4.063.599	4.234.076	4.275.949	4.403.183	4.479.836
	Index	*100,00*	*112,54*	*117,27*	*118,43*	*121,95*	*124,07*
HU23	Pécs	593.227	513.975	746.187	812.023	883.508	937.859
	Index	*100,00*	*86,64*	*125,78*	*136,88*	*148,93*	*158,09*
FI1C	Turku	1.396.719	1.451.342	1.418.055	1.401.406	1.386.491	1.466.213
	Index	*100,00*	*103,91*	*101,53*	*100,34*	*99,27*	*104,98*
EE	Talinn	2.375.773	2.839.895	2.980.865	3.087.070	3.112.143	3.324.914
	Index	*100,00*	*119,54*	*125,47*	*129,94*	*130,99*	*139,95*
PT11	Guimaraes	1.793.319	1.924.054	2.068.393	2.273.360	2.438.442	2.644.120
	Index	*100,00*	*107,29*	*115,34*	*126,77*	*135,97*	*147,44*
SI03	Maribor	574.078	609.506	609.925	645.592	672.170	699.057
	Index	*100,00*	*106,17*	*106,24*	*112,46*	*117,09*	*121,77*
FR82/FR824	Marseille	9.733.306	11.109.188	11.454.159	11.334.200	11.858.973	12.408.044
	Index	*100,00*	*114,14*	*117,68*	*116,45*	*121,84*	*127,48*
SK04	Kosice	618.733	599.282	677.778	799.445	822.389	845.992
	Index	*100,00*	*96,86*	*109,54*	*129,21*	*132,91*	*136,73*
EL30	Athens	1.075.754	1.163.768	1.343.154	1.328.163	1.461.993	1.371.397
	Index	*100,00*	*108,18*	*124,86*	*123,46*	*135,90*	*127,48*
ITC1	Turin	1.818.038	2.315.194	2.733.823	2.845.531	2.932.204	2.699.211
	Index	*100,00*	*127,35*	*150,37*	*156,52*	*161,28*	*148,47*
UKI	London	5.739.631	6.526.004	6.581.475	6.637.417	6.693.835	6.750.733
	Index	*100,00*	*113,70*	*114,67*	*115,64*	*116,62*	*117,62*
PT17	Lisbon	1.277.388	1.478.177	1.647.835	1.690.405	1.645.991	1.704.908
	Index	*100,00*	*115,72*	*129,00*	*132,33*	*128,86*	*133,47*
DE3	Berlin	4.306.621	5.151.064	5.378.766	5.771.771	6.253.231	6.750.736
	Index	*100,00*	*119,61*	*124,90*	*134,02*	*145,20*	*156,75*
AT13	Vienna	917.897	1.195.945	1.142.961	1.228.052	1.270.724	1.370.390
	Index	*100,00*	*130,29*	*124,52*	*133,79*	*138,44*	*149,30*

2. Economic aspects

Gross Domestic Product							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	24.675.666.667	30.901.000.000	33.525.000.000	30.646.000.000	29.686.000.000	28.809.000.000
	Index	*100,00*	*125,23*	*135,86*	*124,20*	*120,30*	*116,75*
EL63	Patras	9.029.500.000	11.244.000.000	11.365.000.000	10.890.000.000	10.671.000.000	9.611.000.000
	Index	*100,00*	*124,53*	*125,87*	*120,60*	*118,18*	*106,44*
RO12	Sibiu	9.186.833.333	16.427.000.000	14.151.000.000	14.332.000.000	14.720.000.000	15.148.000.000
	Index	*100,00*	*178,81*	*154,04*	*156,01*	*160,23*	*164,89*
LU0	Luxembourg	30.773.680.000	36.758.120.000	38.467.960.000	40.177.800.000	43.164.600.000	44.112.100.000
	Index	*100,00*	*119,45*	*125,00*	*130,56*	*140,26*	*143,34*
UKD7	Liverpool	8.832.833.333	10.837.000.000	10.435.000.000	10.019.000.000	9.961.000.000	10.093.000.000
	Index	*100,00*	*122,69*	*118,14*	*113,43*	*112,77*	*114,27*
NO04	Stavanger	39.117.135.651	41.336.557.347	41.726.000.000	46.527.000.000	47.104.000.000	46.210.000.000
	Index	*100,00*	*105,67*	*106,67*	*118,94*	*120,42*	*118,13*
LT0	Vilnius	28.476.360.350	28.027.659.500	29.721.407.600	30.858.832.200	31.938.453.400	33.068.303.600
	Index	*100,00*	*98,42*	*104,37*	*108,37*	*112,16*	*116,13*
AT31	Linz	45.401.166.667	49.592.000.000	52.574.000.000	53.979.000.000	55.425.000.000	57.149.000.000
	Index	*100,00*	*109,23*	*115,80*	*118,89*	*122,08*	*125,88*
DEA1/DEA13	Essen	21.556.000.000	24.146.000.000	22.817.000.000	22.997.000.000	23.627.000.000	24.248.000.000
	Index	*100,00*	*112,02*	*105,85*	*106,68*	*109,61*	*112,49*
HU23	Pécs	6.338.000.000	6.429.000.000	6.313.000.000	6.426.000.000	6.531.000.000	6.592.000.000
	Index	*100,00*	*101,44*	*99,61*	*101,39*	*103,05*	*104,01*
FI1C	Turku	35.658.500.000	38.108.000.000	38.161.000.000	38.696.000.000	38.919.000.000	40.159.000.000
	Index	*100,00*	*106,87*	*107,02*	*108,52*	*109,14*	*112,62*
EE	Talinn	15.302.567.417	17.934.892.300	18.932.277.700	19.766.304.000	20.347.699.000	21.098.288.300
	Index	*100,00*	*117,20*	*123,72*	*129,17*	*132,97*	*137,87*
PT11	Guimaraes	49.711.166.667	49.404.000.000	50.776.000.000	52.740.000.000	54.462.000.000	56.542.000.000
	Index	*100,00*	*99,38*	*102,14*	*106,09*	*109,56*	*113,74*
SI03	Maribor	16.057.166.667	16.007.000.000	16.595.000.000	17.077.000.000	17.653.000.000	17.910.733.800
	Index	*100,00*	*99,69*	*103,35*	*106,35*	*109,94*	*111,54*
FR82/FR824	Marseille	64.117.500.000	67.912.000.000	69.171.000.000	70.409.160.900	71.669.484.880	72.952.368.659
	Index	*100,00*	*105,92*	*107,88*	*109,81*	*111,78*	*113,78*
SK04	Kosice	13.820.000.000	15.619.000.000	16.445.000.000	16.823.000.000	17.309.184.700	17.809.420.138
	Index	*100,00*	*113,02*	*118,99*	*121,73*	*125,25*	*128,87*
EL30	Athens	76.519.000.000	94.039.000.000	104.334.000.000	112.008.000.000	116.717.000.000	116.001.000.000
	Index	*100,00*	*122,90*	*136,35*	*146,38*	*152,53*	*151,60*
ITC1	Turin	114.440.833.333	128.808.000.000	129.164.000.000	120.669.000.000	125.313.000.000	128.104.000.000
	Index	*100,00*	*112,55*	*112,87*	*105,44*	*109,50*	*111,94*
UKI	London	426.007.000.000	464.664.000.000	527.617.000.000	600.295.000.000	559.973.000.000	571.900.424.900
	Index	*100,00*	*109,07*	*123,85*	*140,91*	*131,45*	*134,25*
PT17	Lisbon	52.323.200.000	59.469.000.000	62.134.000.000	65.590.000.000	67.279.000.000	66.245.000.000
	Index	*100,00*	*113,66*	*118,75*	*125,36*	*128,58*	*126,61*
DE3	Berlin	86.839.333.333	94.675.000.000	99.302.000.000	99.267.000.000	103.292.000.000	108.143.000.000
	Index	*100,00*	*109,02*	*114,35*	*114,31*	*118,95*	*124,53*
AT13	Vienna	69.373.000.000	76.313.000.000	78.130.000.000	80.748.000.000	81.982.000.000	83.118.000.000
	Index	*100,00*	*110,00*	*112,62*	*116,40*	*118,18*	*119,81*

GDP per Capita							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	42.198	50.138	52.971	47.091	45.049	43.606
	Index	*100,00*	*118,82*	*125,53*	*111,59*	*106,75*	*103,34*
EL63	Patras	12.877	16.181	16.387	15.715	15.415	13.911
	Index	*100,00*	*125,66*	*127,26*	*122,03*	*119,71*	*108,03*
RO12	Sibiu	3.623	6.507	5.602	5.677	5.835	6.417
	Index	*100,00*	*179,62*	*154,64*	*156,72*	*161,07*	*177,14*
LU0	Luxembourg	66.505	75.753	78.163	80.020	84.240	84.039
	Index	*100,00*	*113,91*	*117,53*	*120,32*	*126,67*	*126,37*
UKD7	Liverpool	19.570	23.686	22.615	21.517	21.208	21.438
	Index	*100,00*	*121,03*	*115,56*	*109,95*	*108,37*	*109,54*
NO04	Stavanger	58.954	58.482	58.070	63.829	63.544	61.480
	Index	*100,00*	*99,20*	*98,50*	*108,27*	*107,79*	*104,28*
LT0	Vilnius	10.485	11.985	14.358	14.341	15.694	16.545
	Index	*100,00*	*114,31*	*136,94*	*136,78*	*149,68*	*157,80*
AT31	Linz	32.416	35.190	37.281	38.178	39.073	40.093
	Index	*100,00*	*108,56*	*115,01*	*117,77*	*120,53*	*123,68*
DEA1/DEA13	Essen	37.028	42.566	40.320	40.569	41.459	42.260
	Index	*100,00*	*114,95*	*108,89*	*109,56*	*111,97*	*114,13*
HU23	Pécs	6.584	6.835	6.779	6.946	7.118	7.251
	Index	*100,00*	*103,81*	*102,96*	*105,49*	*108,11*	*110,12*
FI1C	Turku	30.990	32.857	32.855	33.305	33.502	34.605
	Index	*100,00*	*106,02*	*106,02*	*107,47*	*108,10*	*111,67*
EE	Talinn	11.435	13.534	14.341	15.022	15.494	16.033
	Index	*100,00*	*118,35*	*125,41*	*131,36*	*135,49*	*140,20*
PT11	Guimaraes	13.412	13.475	13.933	14.562	15.112	15.774
	Index	*100,00*	*100,47*	*103,89*	*108,58*	*112,68*	*117,61*
SI03	Maribor	14.662	14.589	15.159	15.616	16.163	16.414
	Index	*100,00*	*99,50*	*103,39*	*106,51*	*110,23*	*111,95*
FR82/FR824	Marseille	32.434	33.853	34.300	34.751	35.211	35.702
	Index	*100,00*	*104,38*	*105,75*	*107,14*	*108,56*	*110,08*
SK04	Kosice	8.634	9.679	10.179	10.402	10.682	10.965
	Index	*100,00*	*112,11*	*117,90*	*120,48*	*123,73*	*127,01*
EL30	Athens	19.594	23.791	26.271	28.124	29.247	29.004
	Index	*100,00*	*121,42*	*134,08*	*143,53*	*149,26*	*148,02*
ITC1	Turin	26.964	30.057	29.816	27.700	28.728	29.353
	Index	*100,00*	*111,47*	*110,58*	*102,73*	*106,54*	*108,86*
UKI	London	53.674	55.562	62.239	69.757	63.928	64.490
	Index	*100,00*	*103,52*	*115,96*	*129,96*	*119,11*	*120,15*
PT17	Lisbon	19.545	21.764	22.630	23.769	24.239	23.726
	Index	*100,00*	*111,35*	*115,79*	*121,61*	*124,02*	*121,39*
DE3	Berlin	25.623	27.813	29.068	28.927	30.003	32.987
	Index	*100,00*	*108,55*	*113,44*	*112,89*	*117,10*	*128,74*
AT13	Vienna	42.345	45.421	46.231	47.419	47.745	47.735
	Index	*100,00*	*107,26*	*109,18*	*111,98*	*112,75*	*112,73*

Unemployment (100-unemployment %)							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	95,98	95,70	95,10	93,60	87,90	85,70
	Index	*100,00*	*99,70*	*99,08*	*97,52*	*91,58*	*89,29*
EL63	Patras	89,43	90,10	90,10	90,20	88,10	82,40
	Index	*100,00*	*100,75*	*100,75*	*100,86*	*98,51*	*92,14*
RO12	Sibiu	91,68	91,50	89,30	89,70	89,20	90,50
	Index	*100,00*	*99,80*	*97,40*	*97,84*	*97,29*	*98,71*
LU0	Luxembourg	96,12	95,66	94,69	93,36	93,91	93,60
	Index	*100,00*	*99,52*	*98,52*	*97,13*	*97,70*	*97,38*
UKD7	Liverpool	93,32	91,60	90,00	89,70	90,10	90,50
	Index	*100,00*	*98,16*	*96,45*	*96,12*	*96,55*	*96,98*
NO04	Stavanger	96,72	97,40	97,80	97,30	96,80	96,90
	Index	*100,00*	*100,71*	*101,12*	*100,60*	*100,09*	*100,19*
LT0	Vilnius	91,89	82,19	84,61	86,64	88,23	89,30
	Index	*100,00*	*89,44*	*92,08*	*94,28*	*96,02*	*97,18*
AT31	Linz	96,10	96,10	96,60	96,70	95,70	95,90
	Index	*100,00*	*100,00*	*100,52*	*100,62*	*99,58*	*99,79*
DEA1/DEA13	Essen	91,37	93,20	93,50	93,60	93,60	94,10
	Index	*100,00*	*102,01*	*102,33*	*102,44*	*102,44*	*102,99*
HU23	Pécs	89,70	87,10	87,90	90,70	92,20	91,90
	Index	*100,00*	*97,10*	*97,99*	*101,11*	*102,79*	*102,45*
FI1C	Turku	92,28	92,50	91,60	90,60	90,00	90,90
	Index	*100,00*	*100,23*	*99,26*	*98,18*	*97,53*	*98,50*
EE	Talinn	90,27	90,03	91,40	92,68	93,83	93,27
	Index	*100,00*	*99,73*	*101,25*	*102,66*	*103,94*	*103,32*
PT11	Guimaraes	88,07	82,60	85,00	86,20	87,80	90,20
	Index	*100,00*	*93,79*	*96,52*	*97,88*	*99,70*	*102,42*
SI03	Maribor	92,98	88,60	88,90	89,70	91,01	93,20
	Index	*100,00*	*95,29*	*95,61*	*96,47*	*97,88*	*100,23*
FR82/FR824	Marseille	90,50	89,90	89,00	89,40	89,70	90,00
	Index	*100,00*	*99,34*	*98,34*	*98,78*	*99,12*	*99,45*
SK04	Kosice	82,70	83,40	85,00	86,78	88,00	88,50
	Index	*100,00*	*100,85*	*102,78*	*104,93*	*106,41*	*107,01*
EL30	Athens	71,22	90,90	91,50	92,20	93,30	90,90
	Index	*100,00*	*127,63*	*128,48*	*129,46*	*131,00*	*127,63*
ITC1	Turin	95,03	95,80	94,90	93,20	92,50	92,40
	Index	*100,00*	*100,81*	*99,86*	*98,07*	*97,33*	*97,23*
UKI	London	91,47	91,40	93,10	93,70	94,40	94,70
	Index	*100,00*	*99,93*	*101,79*	*102,44*	*103,21*	*103,53*
PT17	Lisbon	93,52	91,40	91,40	91,00	91,70	90,20
	Index	*100,00*	*97,73*	*97,73*	*97,31*	*98,05*	*96,45*
DE3	Berlin	82,33	83,60	84,80	86,30	87,20	88,30
	Index	*100,00*	*101,54*	*103,00*	*104,82*	*105,91*	*107,25*
AT13	Vienna	90,80	91,20	91,70	91,90	91,10	90,70
	Index	*100,00*	*100,44*	*100,99*	*101,21*	*100,33*	*99,89*

Number of employees/Workforce							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	1.319.833	1.494.900	1.624.400	1.608.600	1.474.000	1.404.300
	Index	*100,00*	*113,26*	*123,08*	*121,88*	*111,68*	*106,40*
EL63	Patras	254.567	259.600	260.700	262.000	258.500	236.100
	Index	*100,00*	*101,98*	*102,41*	*102,92*	*101,55*	*92,75*
RO12	Sibiu	994.600	1.008.800	979.800	878.500	853.200	863.000
	Index	*100,00*	*101,43*	*98,51*	*88,33*	*85,78*	*86,77*
LU0	Luxembourg	192.067	201.800	214.800	218.600	222.400	233.700
	Index	*100,00*	*105,07*	*111,84*	*113,81*	*115,79*	*121,68*
UKD7	Liverpool	630.807	628.500	619.200	626.600	646.400	635.900
	Index	*100,00*	*99,63*	*98,16*	*99,33*	*102,47*	*100,81*
NO04	Stavanger	329.433	356.800	362.900	372.100	382.400	382.300
	Index	*100,00*	*108,31*	*110,16*	*112,95*	*116,08*	*116,05*
LT0	Vilnius	1.389.083	1.224.200	1.225.700	1.244.400	1.264.300	1.288.000
	Index	*100,00*	*88,13*	*88,24*	*89,58*	*91,02*	*92,72*
AT31	Linz	664.333	694.800	701.300	707.200	704.800	712.700
	Index	*100,00*	*104,59*	*105,56*	*106,45*	*106,09*	*107,28*
DEA1/DEA13	Essen	2.239.783	2.288.900	2.299.200	2.313.100	2.323.700	2.338.200
	Index	*100,00*	*102,19*	*102,65*	*103,27*	*103,75*	*104,39*
HU23	Pécs	337.917	323.600	324.800	339.300	357.200	359.800
	Index	*100,00*	*95,76*	*96,12*	*100,41*	*105,71*	*106,48*
FI1C	Turku	513.500	507.500	489.700	480.700	476.900	478.000
	Index	*100,00*	*98,83*	*95,37*	*93,61*	*92,87*	*93,09*
EE	Talinn	598.967	591.000	596.600	599.500	613.100	612.300
	Index	*100,00*	*98,67*	*99,60*	*100,09*	*102,36*	*102,23*
PT11	Guimaraes	1.609.567	1.454.800	1.485.900	1.497.100	1.517.800	1.580.300
	Index	*100,00*	*90,38*	*92,32*	*93,01*	*94,30*	*98,18*
SI03	Maribor	492.799	463.400	467.800	469.000	469.600	495.800
	Index	*100,00*	*94,03*	*94,93*	*95,17*	*95,29*	*100,61*
FR82/FR824	Marseille	1.907.067	1.969.500	1.906.300	1.934.700	1.944.000	1.950.221
	Index	*100,00*	*103,27*	*99,96*	*101,45*	*101,94*	*102,26*
SK04	Kosice	617.917	639.500	651.400	664.900	677.300	682.989
	Index	*100,00*	*103,49*	*105,42*	*107,60*	*109,61*	*110,53*
EL30	Athens	1.562.020	1.683.500	1.713.000	1.727.900	1.760.800	1.732.900
	Index	*100,00*	*107,78*	*109,67*	*110,62*	*112,73*	*110,94*
ITC1	Turin	1.780.233	1.802.400	1.827.100	1.797.700	1.784.600	1.802.100
	Index	*100,00*	*101,25*	*102,63*	*100,98*	*100,25*	*101,23*
UKI	London	3.737.217	3.996.800	4.157.800	4.250.400	4.382.700	4.483.800
	Index	*100,00*	*106,95*	*111,25*	*113,73*	*117,27*	*119,98*
PT17	Lisbon	1.248.400	1.232.900	1.238.500	1.247.200	1.271.700	1.233.400
	Index	*100,00*	*98,76*	*99,21*	*99,90*	*101,87*	*98,80*
DE3	Berlin	1.421.000	1.474.100	1.484.100	1.525.300	1.470.600	1.499.500
	Index	*100,00*	*103,74*	*104,44*	*107,34*	*103,49*	*105,52*
AT13	Vienna	717.250	745.300	755.100	761.800	768.500	781.600
	Index	*100,00*	*103,91*	*105,28*	*106,21*	*107,15*	*108,97*

3. Real Estate aspects

Wholesale and retail trade							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	2.753.475.000	3.790.790.000	4.313.690.000	4.114.350.000	3.613.090.000	3.863.010.000
	Index	*100,00*	*137,67*	*156,66*	*149,42*	*131,22*	*140,30*
EL63	Patras	2.052.378.333	2.449.950.000	2.754.080.000	2.312.040.000	2.229.150.000	1.947.630.000
	Index	*100,00*	*119,37*	*134,19*	*112,65*	*108,61*	*94,90*
RO12	Sibiu	1.599.630.000	2.738.310.000	2.406.310.000	1.586.080.000	1.261.420.000	2.372.370.000
	Index	*100,00*	*171,18*	*150,43*	*99,15*	*78,86*	*148,31*
LU0	Luxembourg	4.373.806.667	5.834.980.000	5.374.450.000	6.145.370.000	7.261.650.000	7.016.980.000
	Index	*100,00*	*133,41*	*122,88*	*140,50*	*166,03*	*160,43*
UKD7	Liverpool	5.926.576.667	5.118.190.000	5.642.080.000	5.605.610.000	5.843.110.000	5.849.800.000
	Index	*100,00*	*86,36*	*95,20*	*94,58*	*98,59*	*98,70*
NO04	Stavanger	4.059.268.137	5.098.414.867	5.596.530.000	6.356.170.000	6.364.020.000	6.376.280.000
	Index	*100,00*	*125,5993617*	*137,8704193*	*156,5841375*	*156,7775221*	*157,079547*
LT0	Vilnius	6.435.291.667	7.809.820.000	8.749.400.000	9.638.470.000	10.251.160.000	10.593.720.000
	Index	*100,00*	*121,36*	*135,96*	*149,78*	*159,30*	*164,62*
AT31	Linz	7.338.166.667	8.096.000.000	8.602.000.000	8.713.000.000	8.694.000.000	9.158.000.000
	Index	*100,00*	*110,33*	*117,22*	*118,74*	*118,48*	*124,80*
DEA1/DEA13	Essen	4.184.593.333	6.578.410.000	5.036.970.000	5.075.070.000	5.745.580.000	6.405.120.000
	Index	*100,00*	*157,2054791*	*120,3694027*	*121,2798854*	*137,3031868*	*153,064336*
HU23	Pécs	910.508.333	969.050.000	912.560.000	896.040.000	917.730.000	894.170.000
	Index	*100,00*	*106,43*	*100,23*	*98,41*	*100,79*	*98,21*
FI1C	Turku	4.842.016.667	5.275.170.000	5.132.690.000	5.155.930.000	5.134.350.000	5.115.352.905
	Index	*100,00*	*108,9457217*	*106,0031461*	*106,4831114*	*106,0374293*	*105,6450908*
EE	Talinn	3.038.850.000	3.623.800.000	3.836.700.000	3.873.700.000	3.833.200.000	3.995.000.000
	Index	*100,00*	*119,25*	*126,25*	*127,47*	*126,14*	*131,46*
PT11	Guimaraes	9.257.255.000	9.670.830.000	9.819.410.000	10.149.350.000	10.331.023.365	10.515.948.683
	Index	*100,00*	*104,47*	*106,07*	*109,64*	*111,60*	*113,60*
SI03	Maribor	2.400.211.667	2.324.120.000	2.399.820.000	2.479.540.000	2.602.890.000	2.636.467.281
	Index	*100,00*	*96,83*	*99,98*	*103,31*	*108,44*	*109,84*
FR82/FR824	Marseille	11.114.350.000	12.037.820.000	11.838.210.000	12.061.952.169	12.289.923.065	12.522.202.611
	Index	*100,00*	*108,31*	*106,51*	*108,53*	*110,58*	*112,67*
SK04	Kosice	2.648.408.333	3.118.550.000	3.248.100.000	3.133.000.000	3.216.024.500	3.301.249.149
	Index	*100,00*	*117,75*	*122,64*	*118,30*	*121,43*	*124,65*
EL30	Athens	16.578.088.000	19.768.090.000	20.692.510.000	22.819.030.000	24.611.770.000	22.859.990.000
	Index	*100,00*	*119,24*	*124,82*	*137,65*	*148,46*	*137,89*
ITC1	Turin	20.016.933.333	21.874.100.000	22.040.500.000	21.017.600.000	20.864.500.000	21.573.300.000
	Index	*100,00*	*109,28*	*110,11*	*105,00*	*104,23*	*107,78*
UKI	London	61.264.280.000	63.525.890.000	74.631.570.000	84.327.120.000	76.419.190.000	77.328.578.361
	Index	*100,00*	*103,69*	*121,82*	*137,64*	*124,74*	*126,22*
PT17	Lisbon	10.821.380.000	11.405.590.000	11.950.870.000	12.675.200.000	12.736.270.000	13.170.180.000
	Index	*100,00*	*105,40*	*110,44*	*117,13*	*117,70*	*121,71*
DE3	Berlin	11.170.641.667	12.255.540.000	11.944.500.000	12.039.970.000	12.025.400.000	12.448.700.000
	Index	*100,00*	*109,71*	*106,93*	*107,78*	*107,65*	*111,44*
AT13	Vienna	7.080.000.000	7.845.000.000	8.096.000.000	8.602.000.000	8.713.000.000	8.694.000.000
	Index	*100,00*	*110,81*	*114,35*	*121,50*	*123,06*	*122,80*

Average housing price per square metre							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	1.671,33	2.536,83	2.669,34	2.505,29	1.885,32	1.894,05
	Index	*100,00*	*151,79*	*159,71*	*149,90*	*112,80*	*113,33*
EL63	Patras	2.195,08	2.893,33	2.945,41	2.864,40	2.711,05	2.601,11
	Index	*100,00*	*131,81*	*134,18*	*130,49*	*123,51*	*118,50*
RO12	Sibiu	493,10	632,70	668,13	708,88	750,00	774,75
	Index	*100,00*	*128,31*	*135,50*	*143,76*	*152,10*	*157,12*
LU0	Luxembourg	3.390,08	3.618,80	3.727,00	3.972,00	4.141,00	4.314,00
	Index	*100,00*	*106,75*	*109,94*	*117,17*	*122,15*	*127,25*
UKD7	Liverpool	1.202,46	1.257,45	1.201,43	1.169,06	1.147,89	1.120,50
	Index	*100,00*	*104,57*	*99,91*	*97,22*	*95,46*	*93,18*
NO04	Stavanger	21.843,89	32.467,33	35.770,67	38.642,33	38.751,33	38.208,67
	Index	*100,00*	*148,63*	*163,76*	*176,90*	*177,40*	*174,92*
LT0	Vilnius	1.413,00	1.166,00	1.208,00	1.196,00	1.198,00	1.283,00
	Index	*100,00*	*82,52*	*85,49*	*84,64*	*84,78*	*90,80*
AT31	Linz	2.255,73	2.515,60	2.577,97	2.848,25	2.931,41	3.014,57
	Index	*100,00*	*111,52*	*114,29*	*126,27*	*129,95*	*133,64*
DEA1/DEA13	Essen	1.288,34	1.385,00	1.440,00	1.440,00	1.495,00	1.565,00
	Index	*100,00*	*107,50*	*111,77*	*111,77*	*116,04*	*121,47*
HU23	Pécs	207.958,92	189.000,00	183.500,00	176.500,00	189.000,00	188.000,00
	Index	*100,00*	*90,88*	*88,24*	*84,87*	*90,88*	*90,40*
FI1C	Turku	1.778,61	1.912,92	1.941,62	2.009,57	1.969,38	1.979,23
	Index	*100,00*	*107,55*	*109,16*	*112,99*	*110,73*	*111,28*
EE	Talinn	1.212,00	1.088,00	1.199,00	1.422,00	1.546,00	1.566,00
	Index	*100,00*	*89,77*	*98,93*	*117,33*	*127,56*	*129,21*
PT11	Guimaraes	987,83	920,00	890,00	900,00	980,00	1.016,00
	Index	*100,00*	*93,13*	*90,10*	*91,11*	*99,21*	*102,85*
SI03	Maribor	1.264,17	1.200,00	1.000,00	1.050,00	1.070,00	1.055,45
	Index	*100,00*	*94,92*	*79,10*	*83,06*	*84,64*	*83,49*
FR82/FR824	Marseille	2.589,07	3.496,00	3.774,00	3.700,00	3.940,50	4.196,63
	Index	*100,00*	*135,03*	*145,77*	*142,91*	*152,20*	*162,09*
SK04	Kosice	979,00	920,00	946,00	932,00	1.015,00	1.073,00
	Index	*100,00*	*93,97*	*96,63*	*95,20*	*103,68*	*109,60*
EL30	Athens	2.168,51	2.372,37	2.578,67	2.604,71	2.628,16	2.508,34
	Index	*100,00*	*109,40*	*118,91*	*120,12*	*121,20*	*115,67*
ITC1	Turin	2.140,08	2.230,47	2.188,88	2.017,40	2.092,05	2.110,87
	Index	*100,00*	*104,22*	*102,28*	*94,27*	*97,76*	*98,64*
UKI	London	6.438,06	7.005,86	7.977,71	8.992,27	10.679,66	10.754,42
	Index	*100,00*	*108,82*	*123,91*	*139,67*	*165,88*	*167,04*
PT17	Lisbon	1.795,77	1.855,01	1.879,13	1.927,98	1.953,05	1.922,29
	Index	*100,00*	*103,30*	*104,64*	*107,36*	*108,76*	*107,05*
DE3	Berlin	1.709,16	1.800,00	1.900,00	2.000,00	2.050,00	2.250,00
	Index	*100,00*	*105,31*	*111,17*	*117,02*	*119,94*	*131,64*
AT13	Vienna	3.260,67	3.948,43	4.275,00	4.631,25	5.373,43	5.818,75
	Index	*100,00*	*121,09*	*131,11*	*142,03*	*164,80*	*178,45*

Investment in Real Estate							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	1.127.525.167	1.453.530.000	1.709.740.000	1.749.600.000	1.207.590.000	1.384.270.000
	Index	*100,00*	*128,91*	*151,64*	*155,17*	*107,10*	*122,77*
EL63	Patras	930.700.000	1.536.320.000	1.411.460.000	1.141.180.000	825.410.000	634.960.000
	Index	*100,00*	*165,07*	*151,66*	*122,62*	*88,69*	*68,22*
RO12	Sibiu	34.861.667	92.550.000	83.440.000	79.380.000	56.770.000	105.740.000
	Index	*100,00*	*265,48*	*239,35*	*227,70*	*162,84*	*303,31*
LU0	Luxembourg	2.450.580.000	3.003.820.000	2.895.370.000	2.963.580.000	3.195.180.000	3.503.460.000
	Index	*100,00*	*122,58*	*118,15*	*120,93*	*130,38*	*142,96*
UKD7	Liverpool	2.283.133.333	1.265.060.000	1.109.740.000	920.880.000	922.670.000	1.196.900.000
	Index	*100,00*	*55,41*	*48,61*	*40,33*	*40,41*	*52,42*
NO04	Stavanger	2.825.667.768	3.549.020.680	3.895.760.000	4.057.220.000	4.180.150.000	3.880.360.000
	Index	*100,00*	*125,60*	*137,87*	*143,58*	*147,93*	*137,33*
LT0	Vilnius	1.110.151.667	761.350.000	792.390.000	839.270.000	977.610.000	1.240.840.000
	Index	*100,00*	*68,58*	*71,38*	*75,60*	*88,06*	*111,77*
AT31	Linz	2.583.116.667	2.754.000.000	2.968.000.000	3.099.000.000	3.023.000.000	3.026.000.000
	Index	*100,00*	*106,62*	*114,90*	*119,97*	*117,03*	*117,15*
DEA1/DEA13	Essen	17.972.333.333	18.579.430.000	18.711.900.000	19.626.440.000	19.402.710.000	19.857.750.000
	Index	*100,00*	*103,38*	*104,12*	*109,20*	*107,96*	*110,49*
HU23	Pécs	292.505.000	193.000.000	662.160.000	496.720.000	498.660.000	539.720.000
	Index	*100,00*	*65,98*	*226,38*	*169,82*	*170,48*	*184,52*
FI1C	Turku	2.876.113.333	2.908.480.000	2.386.860.000	2.112.530.000	2.251.720.000	2.072.032.744
	Index	*100,00*	*101,13*	*82,99*	*73,45*	*78,29*	*72,04*
EE	Talinn	157.511.000	49.812.000	129.072.000	162.703.000	486.430.000	705.323.500
	Index	*100,00*	*31,62*	*81,94*	*103,30*	*308,82*	*447,79*
PT11	Guimaraes	2.272.008.333	1.476.260.000	1.673.930.000	1.641.140.000	1.549.892.616	1.463.718.587
	Index	*100,00*	*64,98*	*73,68*	*72,23*	*68,22*	*64,42*
SI03	Maribor	715.170.000	453.100.000	450.580.000	465.440.000	436.070.736	408.554.673
	Index	*100,00*	*63,36*	*63,00*	*65,08*	*60,97*	*57,13*
FR82/FR824	Marseille	6.793.733.333	7.138.160.000	7.365.090.000	7.455.680.607	7.547.385.478	7.640.218.320
	Index	*100,00*	*105,07*	*108,41*	*109,74*	*111,09*	*112,46*
SK04	Kosice	505.776.667	424.560.000	470.010.000	456.144.705	442.688.436	429.629.127
	Index	*100,00*	*83,94*	*92,93*	*90,19*	*87,53*	*84,94*
EL30	Athens	4.595.040.000	5.285.660.000	6.608.760.000	6.796.770.000	4.903.910.000	4.467.320.000
	Index	*100,00*	*115,03*	*143,82*	*147,92*	*106,72*	*97,22*
ITC1	Turin	6.918.666.667	8.085.300.000	7.930.000.000	7.266.300.000	8.157.300.000	7.696.600.000
	Index	*100,00*	*116,86*	*114,62*	*105,02*	*117,90*	*111,24*
UKI	London	10.349.265.000	10.834.140.000	11.345.660.000	14.698.120.000	13.621.000.000	13.864.815.900
	Index	*100,00*	*104,69*	*109,63*	*142,02*	*131,61*	*133,97*
PT17	Lisbon	2.614.836.229	2.762.867.029	2.814.370.000	2.863.060.000	2.391.360.000	2.077.150.000
	Index	*100,00*	*105,66*	*107,63*	*109,49*	*91,45*	*79,44*
DE3	Berlin	3.006.785.393	3.047.430.000	3.396.080.000	3.531.030.000	3.605.760.000	3.513.260.000
	Index	*100,00*	*101,35*	*112,95*	*117,44*	*119,92*	*116,84*
AT13	Vienna	4.864.333.333	4.700.000.000	4.783.000.000	4.824.000.000	5.090.000.000	4.874.000.000
	Index	*100,00*	*96,62*	*98,33*	*99,17*	*104,64*	*100,20*

Investment in Real Estate Development							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
IE025	Cork	1.220.441.667	2.543.790.000	2.255.940.000	1.531.970.000	653.070.000	451.750.000
	Index	*100,00*	*208,43*	*184,85*	*125,53*	*53,51*	*37,02*
EL63	Patras	787.361.667	880.010.000	691.880.000	652.280.000	620.410.000	446.330.000
	Index	*100,00*	*111,77*	*87,87*	*82,84*	*78,80*	*56,69*
RO12	Sibiu	599.296.667	1.598.490.000	1.366.260.000	1.084.280.000	818.400.000	1.045.120.000
	Index	*100,00*	*266,73*	*227,98*	*180,93*	*136,56*	*174,39*
LU0	Luxembourg	1.592.235.000	1.915.290.000	1.914.230.000	1.930.740.000	2.123.710.000	2.033.750.000
	Index	*100,00*	*120,29*	*120,22*	*121,26*	*133,38*	*127,73*
UKD7	Liverpool	2.020.220.000	1.593.820.000	1.614.520.000	1.721.440.000	1.745.040.000	1.672.040.000
	Index	*100,00*	*78,89*	*79,92*	*85,21*	*86,38*	*82,77*
NO04	Stavanger	2.230.006.999	2.800.874.556	3.074.520.000	3.545.770.000	3.282.310.000	3.217.230.000
	Index	*100,00*	*125,60*	*137,87*	*159,00*	*147,19*	*144,27*
LT0	Vilnius	2.089.023.333	1.470.840.000	1.814.430.000	1.786.090.000	2.079.830.000	2.424.540.000
	Index	*100,00*	*70,41*	*86,86*	*85,50*	*99,56*	*116,06*
AT31	Linz	3.159.166.667	3.186.000.000	3.348.000.000	3.380.000.000	3.480.000.000	3.565.000.000
	Index	*100,00*	*100,85*	*105,98*	*106,99*	*110,16*	*112,85*
DEA1/DEA13	Essen	863.381.667	868.000.000	722.380.000	858.080.000	770.220.000	803.810.000
	Index	*100,00*	*100,53*	*83,67*	*99,39*	*89,21*	*93,10*
HU23	Pécs	343.140.000	280.760.000	261.280.000	285.000.000	303.870.000	282.410.000
	Index	*100,00*	*81,82*	*76,14*	*83,06*	*88,56*	*82,30*
FI1C	Turku	2.384.728.333	2.248.080.000	2.228.890.000	2.224.100.000	2.286.800.000	2.287.028.680
	Index	*100,00*	*94,27*	*93,47*	*93,26*	*95,89*	*95,90*
EE	Talinn	1.122.000.000	1.151.600.000	1.155.700.000	1.102.100.000	1.097.800.000	1.090.300.000
	Index	*100,00*	*102,64*	*103,00*	*98,23*	*97,84*	*97,17*
PT11	Guimaraes	2.999.995.000	2.408.740.000	2.255.230.000	2.322.310.000	2.239.867.995	2.160.352.681
	Index	*100,00*	*80,29*	*75,17*	*77,41*	*74,66*	*72,01*
SI03	Maribor	1.079.293.333	870.450.000	974.370.000	968.210.000	966.360.000	948.868.884
	Index	*100,00*	*80,65*	*90,28*	*89,71*	*89,54*	*87,92*
FR82/FR824	Marseille	3.320.175.000	3.369.990.000	3.239.780.000	3.234.272.374	3.228.774.111	3.223.285.195
	Index	*100,00*	*101,50*	*97,58*	*97,41*	*97,25*	*97,08*
SK04	Kosice	1.466.940.000	1.470.440.000	1.659.180.000	1.416.720.000	1.415.161.608	1.413.604.930
	Index	*100,00*	*100,24*	*113,10*	*96,58*	*96,47*	*96,36*
EL30	Athens	5.153.012.000	4.837.770.000	7.760.260.000	6.285.010.000	4.149.370.000	4.160.440.000
	Index	*100,00*	*93,88*	*150,60*	*121,97*	*80,52*	*80,74*
ITC1	Turin	5.414.983.333	6.560.300.000	7.021.300.000	6.296.500.000	6.400.000.000	6.502.800.000
	Index	*100,00*	*121,15*	*129,66*	*116,28*	*118,19*	*120,09*
UKI	London	17.522.590.000	19.958.550.000	22.578.520.000	25.998.840.000	25.442.960.000	26.333.463.600
	Index	*100,00*	*113,90*	*128,85*	*148,37*	*145,20*	*150,28*
PT17	Lisbon	2.757.946.000	2.835.530.000	2.865.060.000	3.058.900.000	3.071.180.000	2.844.510.000
	Index	*100,00*	*102,81*	*103,88*	*110,91*	*111,36*	*103,14*
DE3	Berlin	2.670.750.000	2.648.220.000	2.759.430.000	2.745.840.000	3.106.220.000	3.376.910.000
	Index	*100,00*	*99,16*	*103,32*	*102,81*	*116,31*	*126,44*
AT13	Vienna	3.051.500.000	3.243.000.000	3.154.000.000	3.153.000.000	3.304.000.000	3.375.000.000
	Index	*100,00*	*106,28*	*103,36*	*103,33*	*108,27*	*110,60*

Appendix 3B Consolidated indexed results control cities

1. Demographic aspects

Population development							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	1.759.724	1.806.634	1.817.033	1.828.927	1.838.863	1.853.092
	Index	*100,00*	*102,67*	*103,26*	*103,93*	*104,50*	*105,31*
BG41	Sofia	2.121.444	2.126.182	2.127.498	2.129.855	2.132.634	2.133.731
	Index	*100,00*	*100,22*	*100,29*	*100,40*	*100,53*	*100,58*
CZ06	Brno	1.645.464	1.643.258	1.646.898	1.657.593	1.666.778	1.671.993
	Index	*100,00*	*99,87*	*100,09*	*100,74*	*101,30*	*101,61*
DK05	Aalborg	579.297	580.272	581.057	582.632	585.499	587.335
	Index	*100,00*	*100,1683939*	*100,3039031*	*100,5757846*	*101,0706952*	*101,3876314*
DE40	Frankfurt	2.523.042	2.453.180	2.449.511	2.449.193	2.457.872	2.484.826
	Index	*100,00*	*97,23*	*97,09*	*97,07*	*97,42*	*98,49*
DE60	Hamburg	1.736.982	1.770.629	1.772.100	1.774.224	1.705.700	1.718.187
	Index	*100,00*	*101,94*	*102,02*	*102,14*	*98,20*	*98,92*
DEA2	Cologne	4.343.044	4.333.015	4.361.724	4.422.371	4.439.416	4.445.187
	Index	*100,00*	*99,77*	*100,43*	*101,83*	*102,22*	*102,35*
EL52	Thessaloniki	1.901.966	1.925.437	1.922.590	1.912.624	1.903.360	1.893.878
	Index	*100,00*	*101,23*	*101,08*	*100,56*	*100,07*	*99,57*
ES61	Malaga	7.798.177	8.212.968	8.276.008	8.332.080	8.377.810	8.393.175
	Index	*100,00*	*105,32*	*106,13*	*106,85*	*107,43*	*107,63*
FR62	Toulouse	2.758.419	2.862.707	2.881.756	2.903.420	2.926.592	2.954.157
	Index	*100,00*	*103,78*	*104,47*	*105,26*	*106,10*	*107,10*
FR71	Lyon	5.796.357	5.963.736	6.021.346	6.065.959	6.117.229	6.174.040
	Index	*100,00*	*102,89*	*103,88*	*104,65*	*105,54*	*106,52*
ITH5	Bologna	4.207.612	4.331.343	4.341.240	4.377.487	4.446.354	4.450.508
	Index	*100,00*	*102,94*	*103,18*	*104,04*	*105,67*	*105,77*
LV0	Riga	2.287.975	2.208.840	2.191.810	2.162.834	2.120.504	2.074.605
	Index	*100,00*	*96,54*	*95,80*	*94,53*	*92,68*	*90,67*
HU10	Budapest	2.842.138	2.897.317	2.925.500	2.951.436	2.971.246	2.940.818
	Index	*100,00*	*101,94*	*102,93*	*103,85*	*104,54*	*103,47*
NL11	Groningen	572.244	573.614	573.459	574.092	576.668	579.036
	Index	*100,00*	*100,24*	*100,21*	*100,32*	*100,77*	*101,19*
NL33	Rotterdam	3.497.405	3.563.935	3.577.032	3.600.011	3.622.303	3.650.222
	Index	*100,00*	*101,90*	*102,28*	*102,93*	*103,57*	*104,37*
PL12	Warsaw	5.154.712	5.204.495	5.217.587	5.240.483	5.257.680	5.276.119
	Index	*100,00*	*100,97*	*101,22*	*101,66*	*102,00*	*102,36*
PL51	Wroclaw	2.880.105	2.876.855	2.875.180	2.869.579	2.868.338	2.864.624
	Index	*100,00*	*99,89*	*99,83*	*99,63*	*99,59*	*99,46*
PT11	Porto	3.716.816	3.705.980	3.693.585	3.687.224	3.666.234	3.644.195
	Index	*100,00*	*99,71*	*99,37*	*99,20*	*98,64*	*98,05*
RO11	Cluj-Napoca	2.731.673	2.719.719	2.717.532	2.598.877	2.594.823	2.590.220
	Index	*100,00*	*99,56*	*99,48*	*95,14*	*94,99*	*94,82*
SK01	Bratislava	597.387	612.682	618.380	625.167	633.288	641.892
	Index	*100,00*	*102,56*	*103,51*	*104,65*	*106,01*	*107,45*
FI19	Tampere	1.320.184	1.330.371	1.334.293	1.338.973	1.344.565	1.349.600
	Index	*100,00*	*100,77*	*101,07*	*101,42*	*101,85*	*102,23*
FI1D	Oulu	1.297.096	1.297.324	1.298.773	1.299.468	1.300.846	1.300.462
	Index	*100,00*	*100,02*	*100,13*	*100,18*	*100,29*	*100,26*
SE22	Malmö	1.291.603	1.320.160	1.335.936	1.351.257	1.367.017	1.383.653
	Index	*100,00*	*102,21*	*103,43*	*104,62*	*105,84*	*107,13*
SE23	Gothenburg	1.846.321	1.892.328	1.904.563	1.921.924	1.942.677	1.963.466
	Index	*100,00*	*102,49*	*103,15*	*104,09*	*105,22*	*106,34*

Net-Migration							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	9.653	5.925	9.023	6.460	5.937	5.241
	Index	*100,00*	*61,38*	*93,47*	*66,92*	*61,50*	*54,29*
BG41	Sofia	5.369	9.091	7.916	6.997	6.359	4.625
	Index	*100,00*	*169,31*	*147,43*	*130,31*	*118,43*	*86,14*
CZ06	Brno	1.128	3.460	9.605	6.483	3.298	2.153
	Index	*100,00*	*306,87*	*851,88*	*574,99*	*292,51*	*190,95*
DK05	Aalborg	605	1.539	1.930	3.305	1.992	2.216
	Index	*100,00*	*254,5204*	*319,18412*	*546,58214*	*329,43771*	*366,48291*
DE40	Frankfurt	-2.079	6.252	11.005	18.330	38.592	19.680
	Index	*100,00*	*-300,75*	*-529,38*	*-881,74*	*-1.856,43*	*-946,68*
DE60	Hamburg	8.866	1.811	2.533	11.907	12.422	15.391
	Index	*100,00*	*20,43*	*28,57*	*134,30*	*140,11*	*173,60*
DEA2	Cologne	14.208	32.536	65.784	18.614	15.854	14.327
	Index	*100,00*	*229,00*	*463,02*	*131,01*	*111,59*	*100,84*
EL52	Thessaloniki	5.226	-2.923	-7.221	-6.338	-5.065	-5.064
	Index	*100,00*	*-55,94*	*-138,19*	*-121,29*	*-96,93*	*-96,91*
ES61	Malaga	91.744	33.154	28.342	21.880	-2.649	-20.080
	Index	*100,00*	*36,14*	*30,89*	*23,85*	*-2,89*	*-21,89*
FR62	Toulouse	26.725	13.679	16.394	17.246	22.768	20.795
	Index	*100,00*	*51,18*	*61,34*	*64,53*	*85,19*	*77,81*
FR71	Lyon	24.804	25.168	8.543	16.746	21.817	22.808
	Index	*100,00*	*101,47*	*34,44*	*67,51*	*87,96*	*91,95*
ITH5	Bologna	41.803	17.102	46.127	78.573	15.214	13.406
	Index	*100,00*	*40,91*	*110,34*	*187,96*	*36,39*	*32,07*
LV0	Riga	-12.495	-7.946	-22.367	-34.477	-35.640	-20.077
	Index	*100,00*	*63,59*	*179,00*	*275,92*	*285,23*	*160,68*
HU10	Budapest	20.287	33.001	31.475	26.532	21.568	20.462
	Index	*100,00*	*162,67*	*155,15*	*130,79*	*106,32*	*100,86*
NL11	Groningen	384	-812	3	1.897	1.967	1.235
	Index	*100,00*	*-211,64*	*0,78*	*494,44*	*512,68*	*321,89*
NL33	Rotterdam	6.075	2.995	10.931	13.241	18.508	17.643
	Index	*100,00*	*49,30*	*179,93*	*217,95*	*304,65*	*290,41*
PL12	Warsaw	13.008	12.461	15.529	13.019	15.612	15.308
	Index	*100,00*	*95,80*	*119,38*	*100,09*	*120,02*	*117,68*
PL51	Wroclaw	-489	1.532	-908	1.495	1.568	4.708
	Index	*100,00*	*-313,40*	*185,75*	*-305,83*	*-320,76*	*-963,11*
PT11	Porto	-5.208	-13.129	-6.308	-16.582	-15.729	-16.127
	Index	*100,00*	*252,11*	*121,13*	*318,42*	*302,04*	*309,68*
RO11	Cluj-Napoca	201	1.820	-411	655	1.363	467
	Index	*100,00*	*906,22*	*-204,65*	*326,14*	*678,67*	*232,53*
SK01	Bratislava	1.981	4.229	4.758	6.161	6.308	6.410
	Index	*100,00*	*213,51*	*240,22*	*311,06*	*318,48*	*323,63*
FI19	Tampere	1.861	2.265	2.660	3.929	3.220	3.483
	Index	*100,00*	*121,70*	*142,92*	*211,10*	*173,01*	*187,14*
FI1D	Oulu	-1.855	-71	-131	863	-344	-1.122
	Index	*100,00*	*3,83*	*7,06*	*-46,52*	*18,54*	*60,49*
SE22	Malmö	7.587	13.544	13.079	12.887	13.018	9.002
	Index	*100,00*	*178,52*	*172,39*	*169,86*	*171,59*	*118,66*
SE23	Gothenburg	8.756	7.825	12.661	15.410	15.939	23.159
	Index	*100,00*	*89,36*	*144,59*	*175,99*	*182,03*	*264,48*

Natural Growth							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	4.549	4.474	2.871	3.476	2.972	3.587
	Index	*100,00*	*98,36*	*63,12*	*76,42*	*65,34*	*78,86*
BG41	Sofia	-9.771	-7.775	-5.559	-4.218	-5.262	-7.123
	Index	*100,00*	*79,57*	*56,89*	*43,17*	*53,85*	*72,90*
CZ06	Brno	-2.200	180	1.090	2.702	1.917	1.726
	Index	*100,00*	*-8,18*	*-49,56*	*-122,85*	*-87,16*	*-78,47*
DK05	Aalborg	-55	-754	-355	-438	-156	-320
	Index	*100,00*	*1379,268293*	*649,3902439*	*801,2195122*	*285,3658537*	*585,3658537*
DE40	Frankfurt	-8.633	-9.921	-11.323	-9.651	-11.638	-9.858
	Index	*100,00*	*114,92*	*131,16*	*111,79*	*134,81*	*114,19*
DE60	Hamburg	-1.488	-340	-409	317	65	694
	Index	*100,00*	*22,85*	*27,49*	*-21,30*	*-4,37*	*-46,64*
DEA2	Cologne	-5.576	-3.827	-5.137	-1.569	-2.180	-3.350
	Index	*100,00*	*68,63*	*92,12*	*28,14*	*39,09*	*60,08*
EL52	Thessaloniki	2.261	76	-2.745	-2.926	-4.417	-5.475
	Index	*100,00*	*3,36*	*-121,40*	*-129,40*	*-195,34*	*-242,13*
ES61	Malaga	28.606	29.886	27.730	23.850	18.014	15.780
	Index	*100,00*	*104,48*	*96,94*	*83,38*	*62,97*	*55,16*
FR62	Toulouse	4.633	5.370	5.270	5.926	4.797	4.209
	Index	*100,00*	*115,90*	*113,74*	*127,90*	*103,53*	*90,84*
FR71	Lyon	30.238	32.442	36.070	34.524	34.994	33.843
	Index	*100,00*	*107,29*	*119,29*	*114,17*	*115,73*	*111,92*
ITH5	Bologna	-6.155	-7.205	-9.880	-9.706	-11.060	-15.768
	Index	*100,00*	*117,06*	*160,52*	*157,69*	*179,69*	*256,18*
LV0	Riga	-11.595	-9.084	-6.609	-7.853	-10.259	-9.715
	Index	*100,00*	*78,34*	*57,00*	*67,73*	*88,48*	*83,78*
HU10	Budapest	-8.908	-4.818	-5.539	-6.722	-7.725	-7.397
	Index	*100,00*	*54,08*	*62,18*	*75,46*	*86,72*	*83,03*
NL11	Groningen	804	657	630	679	401	604
	Index	*100,00*	*81,73*	*78,37*	*84,47*	*49,89*	*75,14*
NL33	Rotterdam	12.065	10.102	12.048	9.051	9.411	9.523
	Index	*100,00*	*83,73*	*99,86*	*75,02*	*78,01*	*78,93*
PL12	Warsaw	-362	5.211	7.367	4.178	2.827	1.140
	Index	*100,00*	*-1.438,18*	*-2.033,21*	*-1.153,08*	*-780,22*	*-314,63*
PL51	Wroclaw	-1.388	-3.207	-4.693	-2.736	-5.282	-3.114
	Index	*100,00*	*231,11*	*338,19*	*197,17*	*380,64*	*224,41*
PT11	Porto	3.914	734	-53	-4.408	-6.310	-6.283
	Index	*100,00*	*54,08*	*62,18*	*75,46*	*86,72*	*83,03*
RO11	Cluj-Napoca	-4.128	-4.007	-4.933	-4.709	-5.966	-5.144
	Index	*100,00*	*97,07*	*119,51*	*114,08*	*144,53*	*124,62*
SK01	Bratislava	1.456	1.469	2.029	1.960	2.296	2.071
	Index	*100,00*	*100,89*	*139,35*	*134,62*	*157,69*	*142,24*
FI19	Tampere	770	1.657	2.020	1.663	1.815	2.085
	Index	*100,00*	*215,19*	*262,34*	*215,97*	*235,71*	*270,78*
FI1D	Oulu	1.591	1.520	826	515	-40	-883
	Index	*100,00*	*95,55*	*51,92*	*32,37*	*-2,51*	*-55,51*
SE22	Malmö	38	2.232	2.242	2.873	3.618	3.901
	Index	*100,00*	*5.848,03*	*5.874,24*	*7.527,51*	*9.479,48*	*10.220,96*
SE23	Gothenburg	4.245	4.410	4.700	5.343	4.850	5.491
	Index	*100,00*	*103,90*	*110,73*	*125,88*	*114,27*	*129,37*

Number of Tourists							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	685.677	796.532	872.914	903.442	912.476	921.601
	Index	*100,00*	*116,17*	*127,31*	*131,76*	*133,08*	*134,41*
BG41	Sofia	427.373	675.087	731.543	608.413	571.959	597.416
	Index	*100,00*	*157,96*	*171,17*	*142,36*	*133,83*	*139,79*
CZ06	Brno	948.952	1.020.340	1.101.438	1.075.670	1.004.482	951.931
	Index	*100,00*	*107,52*	*116,07*	*113,35*	*105,85*	*100,31*
DK05	Aalborg	573.906	564.253	572.660	571.187	613.302	616.123
	Index	*100,00*	*98,31801724*	*99,78289127*	*99,52622903*	*106,8645388*	*107,3561157*
DE40	Frankfurt	3.337.950	3.695.303	3.732.863	3.884.790	4.110.077	4.225.778
	Index	*100,00*	*110,71*	*111,83*	*116,38*	*123,13*	*126,60*
DE60	Hamburg	2.735.302	3.351.706	3.561.446	3.819.427	4.082.166	4.428.365
	Index	*100,00*	*122,54*	*130,20*	*139,63*	*149,24*	*161,90*
DEA2	Cologne	4.306.252	4.988.289	5.123.097	5.134.795	5.269.840	5.408.437
	Index	*100,00*	*115,84*	*118,97*	*119,24*	*122,38*	*125,60*
EL52	Thessaloniki	1.136.738	1.180.636	1.163.520	1.212.718	1.233.636	1.337.738
	Index	*100,00*	*103,86*	*102,36*	*106,68*	*108,52*	*117,68*
ES61	Malaga	9.952.390	10.371.418	10.241.862	10.218.907	9.584.247	9.939.105
	Index	*100,00*	*104,21*	*102,91*	*102,68*	*96,30*	*99,87*
FR62	Toulouse	3.893.008	4.233.077	4.023.749	4.849.775	4.963.377	4.889.486
	Index	*100,00*	*108,74*	*103,36*	*124,58*	*127,49*	*125,60*
FR71	Lyon	7.541.619	7.818.038	7.966.551	8.288.533	8.362.196	8.434.524
	Index	*100,00*	*103,67*	*105,63*	*109,90*	*110,88*	*111,84*
ITH5	Bologna	6.522.309	6.938.111	6.752.061	6.533.065	6.671.732	7.112.796
	Index	*100,00*	*106,38*	*103,52*	*100,16*	*102,29*	*109,05*
LV0	Riga	367.676	642.551	611.246	360.023	433.764	521.702
	Index	*100,00*	*174,76*	*166,25*	*97,92*	*117,97*	*141,89*
HU10	Budapest	555.592	630.157	615.596	632.045	659.442	716.752
	Index	*100,00*	*113,42*	*110,80*	*113,76*	*118,69*	*129,01*
NL11	Groningen	355.700	443.400	394.600	438.700	406.000	411.600
	Index	*100,00*	*124,66*	*110,94*	*123,33*	*114,14*	*115,72*
NL33	Rotterdam	2.061.299	2.278.927	2.429.793	2.499.203	2.634.134	2.715.792
	Index	*100,00*	*110,56*	*117,88*	*121,24*	*127,79*	*131,75*
PL12	Warsaw	1.471.043	1.983.029	2.292.724	2.335.117	2.299.110	2.495.900
	Index	*100,00*	*134,80*	*155,86*	*158,74*	*156,29*	*169,67*
PL51	Wroclaw	1.492.654	1.702.302	1.729.373	1.906.310	2.119.749	2.477.925
	Index	*100,00*	*114,05*	*115,86*	*127,71*	*142,01*	*166,01*
PT11	Porto	1.617.785	1.843.113	1.853.203	1.786.320	1.924.054	2.068.393
	Index	*100,00*	*113,93*	*114,55*	*110,42*	*118,93*	*127,85*
RO11	Cluj-Napoca	643.723	578.155	655.670	701.351	747.617	800.277
	Index	*100,00*	*89,81*	*101,86*	*108,95*	*116,14*	*124,32*
SK01	Bratislava	326.268	379.670	348.128	425.879	491.663	514.083
	Index	*100,00*	*116,37*	*106,70*	*130,53*	*150,69*	*157,56*
FI19	Tampere	1.695.131	1.887.422	1.963.678	2.038.605	2.084.038	1.970.351
	Index	*100,00*	*111,34*	*115,84*	*120,26*	*122,94*	*116,24*
FI1D	Oulu	2.515.811	2.628.223	2.564.167	2.595.853	2.535.324	2.544.304
	Index	*100,00*	*104,47*	*101,92*	*103,18*	*100,78*	*101,13*
SE22	Malmö	2.029.772	2.131.242	2.238.364	2.106.038	2.118.039	2.180.035
	Index	*100,00*	*105,00*	*110,28*	*103,76*	*104,35*	*107,40*
SE23	Gothenburg	3.731.854	4.030.458	4.264.456	4.456.189	4.766.270	4.736.325
	Index	*100,00*	*108,00*	*114,27*	*119,41*	*127,72*	*126,92*

2. Economic aspects

Gross Domestic Product							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	70.196.333.333	76.516.000.000	78.951.000.000	80.981.000.000	82.851.661.100	84.765.534.471
	Index	*100,00*	*109,00*	*112,47*	*115,36*	*118,03*	*120,75*
BG41	Sofia	8.284.166.667	14.784.000.000	17.205.000.000	17.560.000.000	18.381.000.000	19.989.000.000
	Index	*100,00*	*178,46*	*207,69*	*211,97*	*221,88*	*241,29*
CZ06	Brno	12.349.500.000	17.315.000.000	19.505.000.000	22.865.000.000	21.188.000.000	22.274.000.000
	Index	*100,00*	*140,21*	*157,94*	*185,15*	*171,57*	*180,36*
DK05	Aalborg	21.631.000.000	22.603.000.000	22.880.000.000	23.281.000.000	23.765.000.000	24.043.050.500
	Index	*100,00*	*104,49*	*105,77*	*107,63*	*109,87*	*111,15*
DE40	Frankfurt	54.351.500.000	58.993.000.000	60.755.000.000	63.667.000.000	66.587.000.000	68.757.000.000
	Index	*100,00*	*108,54*	*111,78*	*117,14*	*122,51*	*126,50*
DE60	Hamburg	87.284.333.333	95.145.000.000	91.715.000.000	94.578.000.000	95.872.000.000	98.017.000.000
	Index	*100,00*	*109,01*	*105,08*	*108,36*	*109,84*	*112,30*
DEA2	Cologne	153.846.333.333	169.687.000.000	177.395.000.000	183.129.000.000	187.926.979.800	192.850.666.671
	Index	*100,00*	*110,30*	*115,31*	*119,03*	*122,15*	*125,35*
EL52	Thessaloniki	30.747.166.667	28.092.000.000	25.807.000.000	24.172.000.000	23.771.000.000	23.716.000.000
	Index	*100,00*	*91,36*	*83,93*	*78,62*	*77,31*	*77,13*
ES61	Malaga	132.892.833.333	146.322.000.000	146.132.000.000	144.664.000.000	139.724.000.000	137.391.000.000
	Index	*100,00*	*110,11*	*109,96*	*108,86*	*105,14*	*103,38*
FR62	Toulouse	71.631.166.667	77.314.000.000	77.354.000.000	81.067.000.000	83.757.000.000	85.626.000.000
	Index	*100,00*	*107,93*	*107,99*	*113,17*	*116,93*	*119,54*
FR71	Lyon	151.968.200.000	170.023.000.000	179.930.000.000	186.986.000.000	192.795.000.000	186.381.000.000
	Index	*100,00*	*111,88*	*118,40*	*123,04*	*126,87*	*122,64*
ITH5	Bologna	136.564.833.333	144.413.000.000	142.532.000.000	143.796.000.000	146.840.000.000	149.693.000.000
	Index	*100,00*	*105,75*	*104,37*	*105,30*	*107,52*	*109,61*
LV0	Riga	12.101.166.667	22.654.000.000	24.309.000.000	18.713.000.000	17.759.000.000	20.172.000.000
	Index	*100,00*	*187,21*	*200,88*	*154,64*	*146,75*	*166,69*
HU10	Budapest	39.572.333.333	51.993.000.000	46.428.000.000	48.510.000.000	48.952.000.000	48.073.000.000
	Index	*100,00*	*131,39*	*117,32*	*122,59*	*123,70*	*121,48*
NL11	Groningen	20.876.333.333	24.792.000.000	29.806.000.000	26.440.000.000	28.520.000.000	29.541.000.000
	Index	*100,00*	*118,76*	*142,77*	*126,65*	*136,61*	*141,50*
NL33	Rotterdam	136.993.500.000	137.832.000.000	139.670.000.000	145.983.000.000	150.675.000.000	152.459.594.700
	Index	*100,00*	*100,61*	*101,95*	*106,56*	*109,99*	*111,29*
PL12	Warsaw	55.420.333.333	67.456.000.000	78.579.000.000	82.576.000.000	85.283.000.000	87.292.000.000
	Index	*100,00*	*121,72*	*141,79*	*149,00*	*153,88*	*157,51*
PL51	Wroclaw	27.973.666.667	33.438.000.000	33.416.000.000	34.780.000.000	36.248.000.000	35.681.000.000
	Index	*100,00*	*119,53*	*119,46*	*124,33*	*129,58*	*127,55*
PT11	Porto	46.940.333.333	50.844.000.000	49.997.000.000	48.538.000.000	49.404.000.000	50.776.000.000
	Index	*100,00*	*108,32*	*106,51*	*103,40*	*105,25*	*108,17*
RO11	Cluj-Napoca	12.462.833.333	14.418.000.000	14.527.000.000	15.157.000.000	16.232.000.000	17.250.000.000
	Index	*100,00*	*115,69*	*116,56*	*121,62*	*130,24*	*138,41*
SK01	Bratislava	18.135.500.000	20.805.000.000	21.113.000.000	22.248.000.000	22.819.000.000	23.914.312.000
	Index	*100,00*	*114,72*	*116,42*	*122,68*	*125,83*	*131,86*
FI19	Tampere	33.280.800.000	37.177.000.000	38.696.000.000	42.386.000.000	44.183.000.000	41.019.000.000
	Index	*100,00*	*111,71*	*116,27*	*127,36*	*132,76*	*123,25*
FI1D	Oulu	35.578.833.333	38.607.000.000	39.283.000.000	40.008.000.000	40.550.000.000	40.446.000.000
	Index	*100,00*	*108,51*	*110,41*	*112,45*	*113,97*	*113,68*
SE22	Malmö	37.707.500.000	43.113.000.000	47.871.000.000	45.298.000.000	39.332.000.000	46.951.000.000
	Index	*100,00*	*114,34*	*126,95*	*120,13*	*104,31*	*124,51*
SE23	Gothenburg	68.310.166.667	79.890.000.000	83.151.000.000	82.840.000.000	86.960.000.000	90.864.000.000
	Index	*100,00*	*116,95*	*121,73*	*121,27*	*127,30*	*133,02*

GDP per Capita							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	39.872,33	42.352,80	43.450,50	44.277,87	45.055,92	45.742,75
	Index	*100,00*	*106,22*	*108,97*	*111,05*	*113,00*	*114,72*
BG41	Sofia	3.905,49	6.953,31	8.086,96	8.244,69	8.618,92	9.368,10
	Index	*100,00*	*178,04*	*207,07*	*211,11*	*220,69*	*239,87*
CZ06	Brno	7.508,81	10.536,99	11.843,48	13.794,10	12.711,95	13.321,83
	Index	*100,00*	*140,33*	*157,73*	*183,71*	*169,29*	*177,42*
DK05	Aalborg	37.340,19	38.952,42	39.376,52	39.958,33	40.589,31	40.935,84
	Index	*100,00*	*104,32*	*105,45*	*107,01*	*108,70*	*109,63*
DE40	Frankfurt	21.555,63	24.047,56	24.802,91	25.995,09	27.091,32	27.670,75
	Index	*100,00*	*111,56*	*115,06*	*120,60*	*125,68*	*128,37*
DE60	Hamburg	50.243,06	53.735,14	51.754,98	53.306,69	56.206,84	57.046,76
	Index	*100,00*	*106,95*	*103,01*	*106,10*	*111,87*	*113,54*
DEA2	Cologne	35.438,16	39.161,42	40.670,84	41.409,69	42.331,46	43.384,15
	Index	*100,00*	*110,51*	*114,77*	*116,85*	*119,45*	*122,42*
EL52	Thessaloniki	16.161,48	14.589,93	13.423,04	12.638,13	12.488,97	12.522,45
	Index	*100,00*	*90,28*	*83,06*	*78,20*	*77,28*	*77,48*
ES61	Malaga	17.000,38	17.815,97	17.657,31	17.362,29	16.677,87	16.369,37
	Index	*100,00*	*104,80*	*103,86*	*102,13*	*98,10*	*96,29*
FR62	Toulouse	25.939,15	27.007,30	26.842,66	27.921,21	28.619,30	28.984,92
	Index	*100,00*	*104,12*	*103,48*	*107,64*	*110,33*	*111,74*
FR71	Lyon	26.205,77	28.509,48	29.882,02	30.825,46	31.516,72	30.187,85
	Index	*100,00*	*108,79*	*114,03*	*117,63*	*120,27*	*115,20*
ITH5	Bologna	32.454,64	33.341,39	32.832,09	32.848,98	33.024,81	33.635,04
	Index	*100,00*	*102,73*	*101,16*	*101,22*	*101,76*	*103,64*
LV0	Riga	5.310,96	10.256,06	11.090,83	8.652,07	8.374,90	9.723,30
	Index	*100,00*	*193,11*	*208,83*	*162,91*	*157,69*	*183,08*
HU10	Budapest	13.912,86	17.945,22	15.870,11	16.436,07	16.475,24	16.346,81
	Index	*100,00*	*128,98*	*114,07*	*118,14*	*118,42*	*117,49*
NL11	Groningen	36.468,97	43.220,70	51.975,82	46.055,34	49.456,53	51.017,55
	Index	*100,00*	*118,51*	*142,52*	*126,29*	*135,61*	*139,89*
NL33	Rotterdam	39.174,20	38.674,11	39.046,34	40.550,71	41.596,47	41.767,21
	Index	*100,00*	*98,72*	*99,67*	*103,51*	*106,18*	*106,62*
PL12	Warsaw	10.741,47	12.961,10	15.060,41	15.757,33	16.220,65	16.544,74
	Index	*100,00*	*120,66*	*140,21*	*146,70*	*151,01*	*154,03*
PL51	Wroclaw	9.714,13	11.623,11	11.622,23	12.120,24	12.637,28	12.455,74
	Index	*100,00*	*119,65*	*119,64*	*124,77*	*130,09*	*128,22*
PT11	Porto	12.628,93	13.719,45	13.536,17	13.163,83	13.475,41	13.933,39
	Index	*100,00*	*108,64*	*107,18*	*104,24*	*106,70*	*110,33*
RO11	Cluj-Napoca	4.565,70	5.301,28	5.345,66	5.832,13	6.255,53	6.659,67
	Index	*100,00*	*116,11*	*117,08*	*127,74*	*137,01*	*145,86*
SK01	Bratislava	30.341,22	33.957,26	34.142,44	35.587,29	36.032,58	37.255,97
	Index	*100,00*	*111,92*	*112,53*	*117,29*	*118,76*	*122,79*
FI19	Tampere	25.206,70	27.944,84	29.001,13	31.655,60	32.860,44	30.393,45
	Index	*100,00*	*110,86*	*115,05*	*125,58*	*130,36*	*120,58*
FI1D	Oulu	27.430,43	29.758,95	30.246,24	30.787,98	31.172,02	31.101,25
	Index	*100,00*	*108,49*	*110,27*	*112,24*	*113,64*	*113,38*
SE22	Malmö	29.184,01	32.657,41	35.833,30	33.522,86	28.772,14	33.932,64
	Index	*100,00*	*111,90*	*122,78*	*114,87*	*98,59*	*116,27*
SE23	Gothenburg	36.985,11	42.217,84	43.658,83	43.102,64	44.762,97	46.277,35
	Index	*100,00*	*114,15*	*118,04*	*116,54*	*121,03*	*125,12*

Unemployment (100-unemployment %)							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	94,40	93,90	93,90	93,90	94,10	94,20
	Index	*100,00*	*99,47*	*99,47*	*99,47*	*99,68*	*99,79*
BG41	Sofia	89,37	96,00	97,10	95,90	93,10	92,50
	Index	*100,00*	*107,42*	*108,65*	*107,31*	*104,18*	*103,51*
CZ06	Brno	92,72	92,90	94,80	95,90	93,50	92,50
	Index	*100,00*	*100,20*	*102,25*	*103,43*	*100,84*	*99,77*
DK05	Aalborg	93,62	93,60	93,60	93,70	93,80	94,60
	Index	*100,00*	*99,98*	*99,98*	*100,09*	*100,20*	*101,05*
DE40	Frankfurt	88,00	91,80	92,70	93,30	94,30	95,40
	Index	*100,00*	*104,32*	*105,34*	*106,02*	*107,16*	*108,41*
DE60	Hamburg	90,37	92,90	92,80	93,00	94,70	94,70
	Index	*100,00*	*102,80*	*102,69*	*102,91*	*104,80*	*104,80*
DEA2	Cologne	93,60	94,70	95,20	96,10	96,30	96,40
	Index	*100,00*	*101,18*	*101,71*	*102,67*	*102,88*	*102,99*
EL52	Thessaloniki	89,65	80,20	73,80	69,80	71,30	74,00
	Index	*100,00*	*89,46*	*82,32*	*77,86*	*79,53*	*82,54*
ES61	Malaga	84,62	74,70	72,20	69,90	65,60	63,80
	Index	*100,00*	*88,28*	*85,33*	*82,61*	*77,53*	*75,40*
FR62	Toulouse	92,53	91,20	92,20	91,90	91,70	91,40
	Index	*100,00*	*98,56*	*99,64*	*99,32*	*99,10*	*98,78*
FR71	Lyon	92,44	92,20	92,70	93,70	93,70	91,60
	Index	*100,00*	*99,74*	*100,28*	*101,36*	*101,36*	*99,09*
ITH5	Bologna	96,05	94,80	93,00	91,60	91,60	92,20
	Index	*100,00*	*98,70*	*96,82*	*95,37*	*95,37*	*95,99*
LV0	Riga	88,58	93,90	92,30	82,50	80,50	83,80
	Index	*100,00*	*106,00*	*104,20*	*93,13*	*90,87*	*94,60*
HU10	Budapest	95,48	95,50	93,50	91,10	91,00	90,50
	Index	*100,00*	*100,02*	*97,92*	*95,41*	*95,30*	*94,78*
NL11	Groningen	95,05	95,10	96,00	95,20	94,70	93,20
	Index	*100,00*	*100,05*	*101,00*	*100,16*	*99,63*	*98,05*
NL33	Rotterdam	95,38	92,00	91,60	92,20	92,90	94,40
	Index	*100,00*	*96,45*	*96,03*	*96,66*	*97,40*	*98,97*
PL12	Warsaw	87,48	94,00	92,50	92,10	92,00	92,00
	Index	*100,00*	*107,45*	*105,73*	*105,28*	*105,16*	*105,16*
PL51	Wroclaw	88,13	88,90	88,70	90,90	93,00	94,50
	Index	*100,00*	*100,87*	*100,64*	*103,14*	*105,52*	*107,22*
PT11	Porto	90,90	87,20	86,80	83,70	82,60	85,00
	Index	*100,00*	*95,93*	*95,49*	*92,08*	*90,87*	*93,51*
RO11	Cluj-Napoca	94,72	93,50	94,90	95,40	95,90	96,20
	Index	*100,00*	*98,72*	*100,19*	*100,72*	*101,25*	*101,57*
SK01	Bratislava	95,00	93,60	94,00	94,30	94,90	95,80
	Index	*100,00*	*98,53*	*98,95*	*99,26*	*99,89*	*100,84*
FI19	Tampere	89,08	91,20	92,20	93,50	93,50	91,00
	Index	*100,00*	*102,38*	*103,50*	*104,96*	*104,96*	*102,16*
FI1D	Oulu	89,77	90,60	90,50	90,10	90,00	89,60
	Index	*100,00*	*100,93*	*100,82*	*100,37*	*100,26*	*99,81*
SE22	Malmö	92,80	91,80	92,90	92,60	91,30	91,20
	Index	*100,00*	*98,92*	*100,11*	*99,78*	*98,38*	*98,28*
SE23	Gothenburg	92,75	92,30	92,00	92,40	93,40	93,50
	Index	*100,00*	*99,51*	*99,19*	*99,62*	*100,70*	*100,81*

Number of employees/Workforce							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	741.950	750.600	760.300	750.800	767.100	771.200
	Index	*100,00*	*101,17*	*102,47*	*101,19*	*103,39*	*103,94*
BG41	Sofia	871.950	1.008.700	1.038.700	1.022.900	1.004.900	973.600
	Index	*100,00*	*115,68*	*119,12*	*117,31*	*115,25*	*111,66*
CZ06	Brno	738.383	745.900	768.000	773.000	758.000	757.100
	Index	*100,00*	*101,02*	*104,01*	*104,69*	*102,66*	*102,53*
DK05	Aalborg	273.850	264.700	268.100	267.800	272.900	267.500
	Index	*100,00*	*96,66*	*97,90*	*97,79*	*99,65*	*97,68*
DE40	Frankfurt	1.190.700	1.186.200	1.182.500	1.176.600	1.179.300	1.219.400
	Index	*100,00*	*99,62*	*99,31*	*98,82*	*99,04*	*102,41*
DE60	Hamburg	792.050	847.200	863.500	829.000	837.600	849.100
	Index	*100,00*	*106,96*	*109,02*	*104,67*	*105,75*	*107,20*
DEA2	Cologne	1.959.400	1.997.800	2.023.900	2.139.300	2.137.400	2.158.133
	Index	*100,00*	*101,96*	*103,29*	*109,18*	*109,08*	*110,14*
EL52	Thessaloniki	734.033	643.300	584.600	547.700	557.100	591.100
	Index	*100,00*	*87,64*	*79,64*	*74,62*	*75,90*	*80,53*
ES61	Malaga	2.975.317	2.913.100	2.852.700	2.777.000	2.643.500	2.558.300
	Index	*100,00*	*97,91*	*95,88*	*93,33*	*88,85*	*85,98*
FR62	Toulouse	1.153.550	1.194.900	1.226.200	1.218.800	1.209.400	1.232.400
	Index	*100,00*	*103,58*	*106,30*	*105,66*	*104,84*	*106,84*
FR71	Lyon	2.379.720	2.518.300	2.556.600	2.569.800	2.571.700	2.555.000
	Index	*100,00*	*105,82*	*107,43*	*107,99*	*108,07*	*107,37*
ITH5	Bologna	1.867.633	1.891.700	1.884.600	1.853.000	1.854.500	1.863.400
	Index	*100,00*	*101,29*	*100,91*	*99,22*	*99,30*	*99,77*
LV0	Riga	938.017	1.015.600	1.008.800	876.800	828.800	840.600
	Index	*100,00*	*108,27*	*107,55*	*93,47*	*88,36*	*89,61*
HU10	Budapest	1.209.517	1.224.100	1.200.100	1.176.100	1.184.100	1.219.600
	Index	*100,00*	*101,21*	*99,22*	*97,24*	*97,90*	*100,83*
NL11	Groningen	274.683	284.900	287.400	284.000	280.200	275.500
	Index	*100,00*	*103,72*	*104,63*	*103,39*	*102,01*	*100,30*
NL33	Rotterdam	1.741.683	1.701.700	1.683.000	1.693.500	1.715.300	1.755.400
	Index	*100,00*	*97,70*	*96,63*	*97,23*	*98,49*	*100,79*
PL12	Warsaw	2.061.250	2.440.800	2.287.100	2.361.900	2.405.700	2.362.700
	Index	*100,00*	*118,41*	*110,96*	*114,59*	*116,71*	*114,62*
PL51	Wroclaw	1.114.117	1.073.400	1.038.100	1.075.300	1.114.900	1.213.300
	Index	*100,00*	*96,35*	*93,18*	*96,52*	*100,07*	*108,90*
PT11	Porto	1.667.050	1.588.300	1.581.200	1.510.400	1.454.800	1.485.900
	Index	*100,00*	*95,28*	*94,85*	*90,60*	*87,27*	*89,13*
RO11	Cluj-Napoca	1.078.467	1.079.300	1.077.200	1.113.800	1.122.000	1.134.700
	Index	*100,00*	*100,08*	*99,88*	*103,28*	*104,04*	*105,21*
SK01	Bratislava	318.367	308.800	309.200	311.400	326.500	327.600
	Index	*100,00*	*97,00*	*97,12*	*97,81*	*102,55*	*102,90*
FI19	Tampere	582.300	580.600	591.600	612.100	614.000	595.000
	Index	*100,00*	*99,71*	*101,60*	*105,12*	*105,44*	*102,18*
FI1D	Oulu	535.033	535.900	531.100	533.100	526.200	519.600
	Index	*100,00*	*100,16*	*99,26*	*99,64*	*98,35*	*97,12*
SE22	Malmö	585.633	611.000	634.200	648.600	636.500	643.400
	Index	*100,00*	*104,33*	*108,29*	*110,75*	*108,69*	*109,86*
SE23	Gothenburg	891.633	913.800	918.000	932.900	944.800	959.000
	Index	*100,00*	*102,49*	*102,96*	*104,63*	*105,96*	*107,56*

3. Real Estate aspects

Wholesale and retail trade							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	14.247.433.333	14.549.000.000	14.954.600.000	15.112.300.000	15.159.148.130	15.206.141.489
	Index	*100,00*	*102,12*	*104,96*	*106,07*	*106,40*	*106,73*
BG41	Sofia	1.850.940.000	3.035.920.000	3.326.870.000	3.339.130.000	3.526.850.000	3.794.180.000
	Index	*100,00*	*164,02*	*179,74*	*180,40*	*190,54*	*204,99*
CZ06	Brno	2.203.696.667	3.094.170.000	3.406.970.000	3.657.500.000	3.387.140.000	3.673.070.000
	Index	*100,00*	*140,41*	*154,60*	*165,97*	*153,70*	*166,68*
DK05	Aalborg	3.317.581.667	3.352.820.000	3.484.470.000	3.690.190.000	3.723.880.000	3.754.043.428
	Index	*100,00*	*101,06*	*105,03*	*111,23*	*112,25*	*113,16*
DE40	Frankfurt	8.002.650.000	8.150.100.000	8.398.460.000	8.881.410.000	9.392.220.000	9.556.583.850
	Index	*100,00*	*101,84*	*104,95*	*110,98*	*117,36*	*119,42*
DE60	Hamburg	18.578.168.333	21.967.570.000	21.153.460.000	21.100.140.000	21.325.820.000	21.813.620.000
	Index	*100,00*	*118,24*	*113,86*	*113,57*	*114,79*	*117,42*
DEA2	Cologne	21.814.388.333	22.971.230.000	23.639.760.000	24.051.091.824	24.469.580.822	24.895.351.528
	Index	*100,00*	*105,30*	*108,37*	*110,25*	*112,17*	*114,12*
EL52	Thessaloniki	6.988.325.000	6.028.220.000	5.015.430.000	4.781.310.000	4.968.640.000	4.952.980.000
	Index	*100,00*	*86,26*	*71,77*	*68,42*	*71,10*	*70,88*
ES61	Malaga	25.954.516.667	29.083.400.000	28.656.400.000	29.286.800.000	28.954.600.000	28.210.400.000
	Index	*100,00*	*112,06*	*110,41*	*112,84*	*111,56*	*108,69*
FR62	Toulouse	11.492.701.667	12.135.740.000	11.906.870.000	12.428.400.000	12.584.320.000	12.582.930.000
	Index	*100,00*	*105,60*	*103,60*	*108,14*	*109,50*	*109,49*
FR71	Lyon	26.258.596.000	28.816.830.000	29.754.490.000	30.789.580.000	31.442.010.000	30.574.060.000
	Index	*100,00*	*109,74*	*113,31*	*117,26*	*119,74*	*116,43*
ITH5	Bologna	24.701.750.000	25.998.600.000	25.515.000.000	25.166.000.000	26.277.700.000	26.888.500.000
	Index	*100,00*	*105,25*	*103,29*	*101,88*	*106,38*	*108,85*
LV0	Riga	3.153.876.667	5.183.740.000	5.485.240.000	4.587.460.000	4.400.030.000	4.845.820.000
	Index	*100,00*	*164,36*	*173,92*	*145,45*	*139,51*	*153,65*
HU10	Budapest	6.911.501.667	9.442.320.000	7.455.810.000	7.956.650.000	8.387.150.000	8.035.570.000
	Index	*100,00*	*136,62*	*107,88*	*115,12*	*121,35*	*116,26*
NL11	Groningen	2.041.166.667	2.196.000.000	2.172.000.000	2.017.000.000	2.105.000.000	2.227.000.000
	Index	*100,00*	*107,59*	*106,41*	*98,82*	*103,13*	*109,10*
NL33	Rotterdam	26.107.500.000	27.985.000.000	28.877.000.000	30.221.000.000	31.006.746.000	31.812.921.396
	Index	*100,00*	*107,19*	*110,61*	*115,76*	*118,77*	*121,85*
PL12	Warsaw	13.208.105.000	16.511.230.000	18.405.890.000	18.727.130.000	20.151.980.000	20.722.100.000
	Index	*100,00*	*125,01*	*139,35*	*141,79*	*152,57*	*156,89*
PL51	Wroclaw	5.434.766.667	6.264.730.000	6.468.370.000	6.568.600.000	6.760.350.000	6.929.358.750
	Index	*100,00*	*115,27*	*119,02*	*120,86*	*124,39*	*127,50*
PT11	Porto	8.483.216.667	9.429.470.000	9.515.350.000	9.493.610.000	9.670.830.000	9.819.410.000
	Index	*100,00*	*111,15*	*112,17*	*111,91*	*114,00*	*115,75*
RO11	Cluj-Napoca	2.334.430.000	1.856.110.000	1.427.470.000	2.603.860.000	2.495.340.000	2.757.160.000
	Index	*100,00*	*79,51*	*61,15*	*111,54*	*106,89*	*118,11*
SK01	Bratislava	4.268.538.333	4.519.760.000	4.921.020.000	5.069.070.000	4.983.080.000	5.165.959.036
	Index	*100,00*	*105,89*	*115,29*	*118,75*	*116,74*	*121,02*
FI19	Tampere	3.928.608.000	4.652.130.000	4.343.470.000	4.726.640.000	5.172.690.000	4.741.450.000
	Index	*100,00*	*118,42*	*110,56*	*120,31*	*131,67*	*120,69*
FI1D	Oulu	4.068.201.667	4.402.880.000	4.624.850.000	4.598.590.000	4.763.380.000	4.683.980.000
	Index	*100,00*	*108,23*	*113,68*	*113,04*	*117,09*	*115,14*
SE22	Malmö	6.042.988.333	7.152.920.000	7.734.510.000	7.844.560.000	6.748.500.000	8.040.640.000
	Index	*100,00*	*118,37*	*127,99*	*129,81*	*111,67*	*133,06*
SE23	Gothenburg	12.006.676.667	14.509.830.000	14.751.660.000	14.616.910.000	15.036.190.000	15.575.989.221
	Index	*100,00*	*120,85*	*122,86*	*121,74*	*125,23*	*129,73*

Average housing price per square metre							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	2.670,24	2.607,00	2.664,35	2.683,00	2.701,79	2.728,80
	Index	*100,00*	*97,63*	*99,78*	*100,48*	*101,18*	*102,19*
BG41	Sofia	476,31	676,76	732,26	738,12	763,21	795,27
	Index	*100,00*	*142,08*	*153,73*	*154,96*	*160,23*	*166,96*
CZ06	Brno	1.337,25	1.605,87	1.673,32	1.592,12	1.639,88	1.692,36
	Index	*100,00*	*120,09*	*125,13*	*119,06*	*122,63*	*126,55*
DK05	Aalborg	13.633,33	14.500,00	15.000,00	16.500,00	19.000,00	20.500,00
	Index	*100,00*	*106,36*	*110,02*	*121,03*	*139,36*	*150,37*
DE40	Frankfurt	3.618,10	3.724,99	3.747,34	3.852,27	3.948,58	4.300,00
	Index	*100,00*	*102,95*	*103,57*	*106,47*	*109,13*	*118,85*
DE60	Hamburg	3.470,23	3.737,68	3.552,93	3.606,22	3.627,86	3.646,00
	Index	*100,00*	*107,71*	*102,38*	*103,92*	*104,54*	*105,07*
DEA2	Cologne	1.969,94	2.066,53	2.114,06	2.156,34	2.201,63	2.252,26
	Index	*100,00*	*104,90*	*107,32*	*109,46*	*111,76*	*114,33*
EL52	Thessaloniki	2.528,90	2.250,74	1.944,81	1.767,27	1.652,55	1.562,41
	Index	*100,00*	*89,00*	*76,90*	*69,88*	*65,35*	*61,78*
ES61	Malaga	2.478,47	2.572,47	2.541,97	2.536,90	2.455,85	2.407,70
	Index	*100,00*	*103,79*	*102,56*	*102,36*	*99,09*	*97,14*
FR62	Toulouse	2.129,65	2.274,00	2.274,00	2.550,00	2.555,10	2.550,00
	Index	*100,00*	*106,78*	*106,78*	*119,74*	*119,98*	*119,74*
FR71	Lyon	1.997,96	2.261,36	2.358,04	2.458,85	2.563,97	2.754,00
	Index	*100,00*	*113,18*	*118,02*	*123,07*	*128,33*	*137,84*
ITH5	Bologna	3.366,70	3.317,49	3.403,74	3.327,22	3.313,96	3.347,10
	Index	*100,00*	*98,54*	*101,10*	*98,83*	*98,43*	*99,42*
LV0	Riga	1.082,49	2.317,00	1.939,00	875,00	899,00	943,00
	Index	*100,00*	*214,04*	*179,12*	*80,83*	*83,05*	*87,11*
HU10	Budapest	726,63	800,22	770,92	773,23	774,01	766,34
	Index	*100,00*	*110,13*	*106,10*	*106,41*	*106,52*	*105,47*
NL11	Groningen	1.823,86	1.835,63	1.999,00	2.003,00	2.022,00	2.041,00
	Index	*100,00*	*100,65*	*109,60*	*109,82*	*110,86*	*111,91*
NL33	Rotterdam	2.057,14	2.024,00	1.950,00	1.954,00	1.976,00	2.284,00
	Index	*100,00*	*98,39*	*94,79*	*94,99*	*96,06*	*111,03*
PL12	Warsaw	1.122,62	1.372,26	1.439,50	1.505,71	1.535,83	1.581,90
	Index	*100,00*	*122,24*	*128,23*	*134,12*	*136,81*	*140,91*
PL51	Wroclaw	1.003,55	1.182,55	1.207,38	1.211,00	1.248,54	1.286,00
	Index	*100,00*	*117,84*	*120,31*	*120,67*	*124,41*	*128,15*
PT11	Porto	1.052,53	1.065,74	1.093,45	1.086,93	1.062,49	1.062,49
	Index	*100,00*	*101,26*	*103,89*	*103,27*	*100,95*	*100,95*
RO11	Cluj-Napoca	1.421,70	1.260,00	1.159,20	1.071,00	945,00	1.008,00
	Index	*100,00*	*88,63*	*81,54*	*75,33*	*66,47*	*70,90*
SK01	Bratislava	1.741,83	1.660,00	1.648,00	1.693,00	1.790,00	1.896,00
	Index	*100,00*	*95,30*	*94,61*	*97,20*	*102,77*	*108,85*
FI19	Tampere	2.029,31	2.098,78	2.122,56	2.146,60	2.170,91	2.195,50
	Index	*100,00*	*103,42*	*104,60*	*105,78*	*106,98*	*108,19*
FI1D	Oulu	1.929,38	1.930,41	1.949,71	1.969,21	1.943,61	1.904,74
	Index	*100,00*	*100,05*	*101,05*	*102,06*	*100,74*	*98,72*
SE22	Malmö	1.298,00	1.908,65	2.112,20	2.094,50	2.118,10	2.286,25
	Index	*100,00*	*147,05*	*162,73*	*161,36*	*163,18*	*176,14*
SE23	Gothenburg	1.858,04	2.051,55	2.144,67	2.275,62	2.545,00	2.683,02
	Index	*100,00*	*110,42*	*115,43*	*122,47*	*136,97*	*144,40*

Investment in Real Estate							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	4.019.266.667	4.697.200.000	4.225.000.000	4.252.381.380	4.279.940.213	4.307.677.650
	Index	*100,00*	*116,87*	*105,12*	*105,80*	*106,49*	*107,18*
BG41	Sofia	91.636.667	196.910.000	673.470.000	684.370.000	346.330.000	509.060.000
	Index	*100,00*	*214,88*	*734,94*	*746,83*	*377,94*	*555,52*
CZ06	Brno	699.571.667	1.038.460.000	1.485.490.000	1.575.230.000	1.093.040.000	1.366.930.000
	Index	*100,00*	*148,44*	*212,34*	*225,17*	*156,24*	*195,40*
DK05	Aalborg	1.461.313.333	1.566.090.000	1.522.010.000	1.422.520.000	1.606.850.000	1.598.815.750
	Index	*100,00*	*107,17*	*104,15*	*97,35*	*109,96*	*109,41*
DE40	Frankfurt	4.346.070.000	5.860.490.000	5.404.910.000	5.528.820.000	5.763.960.000	5.952.441.492
	Index	*100,00*	*134,85*	*124,36*	*127,21*	*132,62*	*136,96*
DE60	Hamburg	2.265.838.333	3.181.290.000	3.161.120.000	3.128.920.000	3.160.410.000	3.260.060.000
	Index	*100,00*	*140,40*	*139,51*	*138,09*	*139,48*	*143,88*
DEA2	Cologne	7.798.838.333	9.083.130.000	7.864.300.000	7.955.525.880	8.047.809.980	8.141.164.576
	Index	*100,00*	*116,47*	*100,84*	*102,01*	*103,19*	*104,39*
EL52	Thessaloniki	3.892.506.667	1.639.220.000	1.740.260.000	1.048.300.000	396.720.000	283.280.000
	Index	*100,00*	*42,11*	*44,71*	*26,93*	*10,19*	*7,28*
ES61	Malaga	5.666.683.333	7.295.700.000	8.010.000.000	8.515.050.000	8.802.200.000	9.016.450.000
	Index	*100,00*	*128,75*	*141,35*	*150,27*	*155,33*	*159,11*
FR62	Toulouse	5.427.250.000	5.857.600.000	5.628.200.000	6.043.300.000	5.857.400.000	5.847.700.000
	Index	*100,00*	*107,93*	*103,70*	*111,35*	*107,93*	*107,75*
FR71	Lyon	10.494.320.000	13.206.600.000	14.824.300.000	16.181.000.000	16.112.500.000	14.757.800.000
	Index	*100,00*	*125,85*	*141,26*	*154,19*	*153,54*	*140,63*
ITH5	Bologna	9.257.750.000	8.003.600.000	8.071.200.000	7.729.900.000	8.090.500.000	7.283.100.000
	Index	*100,00*	*86,45*	*87,18*	*83,50*	*87,39*	*78,67*
LV0	Riga	562.806.667	2.329.570.000	2.005.390.000	1.101.670.000	734.760.000	774.470.000
	Index	*100,00*	*413,92*	*356,32*	*195,75*	*130,55*	*137,61*
HU10	Budapest	1.975.165.000	2.682.820.000	2.244.570.000	1.695.640.000	1.293.860.000	537.760.000
	Index	*100,00*	*135,83*	*113,64*	*85,85*	*65,51*	*27,23*
NL11	Groningen	1.022.333.333	1.334.000.000	1.390.330.000	1.269.000.000	995.560.000	964.470.000
	Index	*100,00*	*130,49*	*136,00*	*124,13*	*97,38*	*94,34*
NL33	Rotterdam	8.824.831.667	5.010.000.000	5.356.000.000	6.780.000.000	6.813.900.000	6.847.969.500
	Index	*100,00*	*56,77*	*60,69*	*76,83*	*77,21*	*77,60*
PL12	Warsaw	2.146.145.000	2.682.450.000	2.329.570.000	1.992.960.000	1.958.130.000	2.289.760.000
	Index	*100,00*	*124,99*	*108,55*	*92,86*	*91,24*	*106,69*
PL51	Wroclaw	684.303.333	777.510.000	703.100.000	822.970.000	752.390.000	782.485.600
	Index	*100,00*	*113,62*	*102,75*	*120,26*	*109,95*	*114,35*
PT11	Porto	2.744.847.683	2.104.430.000	1.858.140.000	1.775.320.000	1.476.260.000	1.673.930.000
	Index	*100,00*	*76,67*	*67,70*	*64,68*	*53,78*	*60,98*
RO11	Cluj-Napoca	67.353.333	219.830.000	70.680.000	102.440.000	82.150.000	73.270.000
	Index	*100,00*	*326,38*	*104,94*	*152,09*	*121,97*	*108,78*
SK01	Bratislava	994.508.333	1.030.150.000	897.930.000	1.153.070.000	1.199.192.800	1.247.160.512
	Index	*100,00*	*103,58*	*90,29*	*115,94*	*120,58*	*125,40*
FI19	Tampere	2.481.964.000	3.219.950.000	3.183.880.000	3.705.440.000	3.714.370.000	2.972.560.000
	Index	*100,00*	*129,73*	*128,28*	*149,29*	*149,65*	*119,77*
FI1D	Oulu	3.242.850.000	3.711.230.000	3.447.750.000	3.211.670.000	3.213.240.000	3.078.030.000
	Index	*100,00*	*114,44*	*106,32*	*99,04*	*99,09*	*94,92*
SE22	Malmö	1.707.165.000	2.934.490.000	4.055.780.000	3.117.880.000	2.408.190.000	2.628.090.000
	Index	*100,00*	*171,89*	*237,57*	*182,63*	*141,06*	*153,94*
SE23	Gothenburg	4.262.186.667	5.221.490.000	4.797.800.000	5.310.770.000	5.493.370.000	5.747.713.031
	Index	*100,00*	*122,51*	*112,57*	*124,60*	*128,89*	*134,85*

Investment in Real Estate Development							
NUTS Code	**City**	T=0	T=1	T=2	T=3	T=4	T=5
BE21	Antwerp	3.506.483.333	3.741.000.000	3.713.800.000	3.817.700.000	3.877.981.483	3.939.214.811
	Index	*100,00*	*106,69*	*105,91*	*108,88*	*110,59*	*112,34*
BG41	Sofia	442.638.333	959.350.000	1.204.620.000	1.457.650.000	1.040.130.000	1.146.120.000
	Index	*100,00*	*216,73*	*272,15*	*329,31*	*234,98*	*258,93*
CZ06	Brno	765.926.667	1.190.140.000	1.320.640.000	1.591.200.000	1.553.050.000	1.681.620.000
	Index	*100,00*	*155,39*	*172,42*	*207,75*	*202,77*	*219,55*
DK05	Aalborg	1.269.235.000	1.330.540.000	1.302.650.000	1.310.550.000	1.357.920.000	1.352.488.320
	Index	*100,00*	*104,83*	*102,63*	*103,26*	*106,99*	*106,56*
DE40	Frankfurt	2.897.635.000	3.545.290.000	3.593.360.000	3.843.200.000	4.062.630.000	4.278.355.653
	Index	*100,00*	*122,35*	*124,01*	*132,63*	*140,21*	*147,65*
DE60	Hamburg	1.828.366.667	1.836.630.000	1.861.300.000	1.981.720.000	2.112.520.000	2.209.790.000
	Index	*100,00*	*100,45*	*101,80*	*108,39*	*115,54*	*120,86*
DEA2	Cologne	4.249.296.667	5.013.700.000	5.229.460.000	5.483.611.756	5.750.115.287	6.029.570.890
	Index	*100,00*	*117,99*	*123,07*	*129,05*	*135,32*	*141,90*
EL52	Thessaloniki	1.832.905.000	754.220.000	712.380.000	605.520.000	499.700.000	432.110.000
	Index	*100,00*	*41,15*	*38,87*	*33,04*	*27,26*	*23,58*
ES61	Malaga	16.273.066.667	16.843.600.000	13.548.900.000	11.240.200.000	9.383.000.000	7.926.500.000
	Index	*100,00*	*103,51*	*83,26*	*69,07*	*57,66*	*48,71*
FR62	Toulouse	4.477.710.000	5.011.450.000	4.917.310.000	5.206.280.000	5.043.610.000	5.001.580.000
	Index	*100,00*	*111,92*	*109,82*	*116,27*	*112,64*	*111,70*
FR71	Lyon	7.895.394.000	9.408.310.000	10.493.550.000	11.696.820.000	12.356.100.000	11.990.180.000
	Index	*100,00*	*119,16*	*132,91*	*148,15*	*156,50*	*151,86*
ITH5	Bologna	7.474.566.667	6.832.900.000	6.471.700.000	6.318.400.000	5.815.500.000	5.805.100.000
	Index	*100,00*	*91,42*	*86,58*	*84,53*	*77,80*	*77,66*
LV0	Riga	744.995.000	2.032.300.000	2.212.520.000	1.308.110.000	796.180.000	1.068.900.000
	Index	*100,00*	*272,79*	*296,98*	*175,59*	*106,87*	*143,48*
HU10	Budapest	1.642.056.667	1.904.500.000	1.602.830.000	1.459.900.000	1.469.020.000	1.295.710.000
	Index	*100,00*	*115,98*	*97,61*	*88,91*	*89,46*	*78,91*
NL11	Groningen	736.000.000	839.000.000	888.000.000	927.000.000	782.000.000	760.000.000
	Index	*100,00*	*113,99*	*120,65*	*125,95*	*106,25*	*103,26*
NL33	Rotterdam	7.904.166.667	6.596.000.000	6.765.000.000	6.898.000.000	6.966.980.000	7.036.649.800
	Index	*100,00*	*83,45*	*85,59*	*87,27*	*88,14*	*89,02*
PL12	Warsaw	2.948.295.000	4.165.820.000	5.148.570.000	5.719.310.000	5.622.860.000	5.327.220.000
	Index	*100,00*	*141,30*	*174,63*	*193,99*	*190,72*	*180,69*
PL51	Wroclaw	1.884.301.667	2.175.310.000	2.109.590.000	2.289.270.000	2.384.980.000	2.456.529.400
	Index	*100,00*	*115,44*	*111,96*	*121,49*	*126,57*	*130,37*
PT11	Porto	3.023.266.667	3.088.370.000	2.845.110.000	2.485.740.000	2.408.740.000	2.255.230.000
	Index	*100,00*	*102,15*	*94,11*	*82,22*	*79,67*	*74,60*
RO11	Cluj-Napoca	1.054.073.333	1.056.480.000	791.320.000	1.076.900.000	1.090.000.000	1.114.810.000
	Index	*100,00*	*100,23*	*75,07*	*102,17*	*103,41*	*105,76*
SK01	Bratislava	934.655.000	894.380.000	909.060.000	1.037.550.000	1.039.230.000	1.091.191.500
	Index	*100,00*	*95,69*	*97,26*	*111,01*	*111,19*	*116,75*
FI19	Tampere	1.712.472.000	2.171.770.000	2.331.930.000	2.568.000.000	2.748.630.000	2.496.720.000
	Index	*100,00*	*126,82*	*136,17*	*149,96*	*160,51*	*145,80*
FI1D	Oulu	2.332.540.000	2.500.670.000	2.443.370.000	2.428.390.000	2.449.890.000	2.529.450.000
	Index	*100,00*	*107,21*	*104,75*	*104,11*	*105,03*	*108,44*
SE22	Malmö	1.849.400.000	2.499.240.000	2.737.480.000	2.659.230.000	2.467.250.000	2.955.030.000
	Index	*100,00*	*135,14*	*148,02*	*143,79*	*133,41*	*159,78*
SE23	Gothenburg	3.526.401.667	3.859.910.000	3.923.830.000	4.093.970.000	4.362.320.000	4.512.383.808
	Index	*100,00*	*109,46*	*111,27*	*116,09*	*123,70*	*127,96*

Appendix 4 Output statistical analysis

1. Hosting cities

	Difference between T5 - T0										
	Demographic indicators		Economic indicators				Real Estate indicators				Dummy
	Population development	*Number of Tourists*	*GDP*	*GDP per Capita*	*Employment*	*Workforce*	*Wholesale retailtrade*	*average housing price*	*investment in RE*	*Investment in RE development*	*Dummy variable*
Cork	13,28	21,68	16,75	3,34	-10,71	6,40	40,30	13,33	22,77	-62,98	1
Patras	-1,54	4,90	6,44	8,03	-7,86	-7,25	-5,10	18,50	-31,78	-43,31	1
Sibiu	-7,03	72,72	64,89	77,14	-1,29	-13,23	48,31	57,12	203,31	74,39	1
Luxembourg	13,63	6,60	43,34	26,37	-2,62	21,68	60,43	27,25	42,96	27,73	1
Liverpool	4,59	97,98	14,27	9,54	-3,02	0,81	-1,30	-6,82	-47,58	-17,23	1
Stavanger	11,76	45,39	18,13	4,28	0,19	16,05	57,08	74,92	37,33	44,27	1
Vilnius	-10,06	123,20	16,13	57,80	-2,82	-7,28	64,62	-9,20	11,77	16,06	1
Linz	1,81	21,90	25,88	23,68	-0,21	7,28	24,80	33,64	17,15	12,85	1
Essen	-1,49	24,07	12,49	14,13	2,99	4,39	53,06	21,47	10,49	-6,90	1
Pécs	-5,58	58,09	4,01	10,12	2,45	6,48	-1,79	-9,60	84,52	-17,70	1
Turku	0,86	4,98	12,62	11,67	-1,50	-6,91	5,65	11,28	-27,96	-4,10	1
Talinn	-1,68	39,95	37,87	40,20	3,32	2,23	31,46	29,21	347,79	-2,83	1
Guimaraes	-3,29	47,44	13,74	17,61	2,42	-1,82	13,60	2,85	-35,58	-27,99	1
Maribor	-0,37	21,77	11,54	11,95	0,23	0,61	9,84	-16,51	-42,87	-12,08	1
Marseille	3,38	27,48	13,78	10,08	-0,55	2,26	12,67	62,09	12,46	-2,92	1
Kosice	1,48	36,73	28,87	27,01	7,01	10,53	24,65	9,60	-15,06	-3,64	1
Athens	2,48	27,48	51,60	48,02	27,63	10,94	37,89	15,67	-2,78	-19,26	1
Turin	2,86	48,47	11,94	8,86	-2,77	1,23	7,78	-1,36	11,24	20,09	1
London	11,62	17,62	34,25	20,15	3,53	19,98	26,22	67,04	33,97	50,28	1
Lisbon	4,37	33,47	26,61	21,39	-3,55	-1,20	21,71	7,05	-20,56	3,14	1
Berlin	-3,27	56,75	24,53	28,74	7,25	5,52	11,44	31,64	16,84	26,44	1
Vienna	6,38	49,30	19,81	12,73	-0,11	8,97	22,80	78,45	0,20	10,60	1

2. Control cities

	Difference between T5 - T0										
	Demographic indicators		Economic indicators				Real Estate indicators				Dummy
	Population development	*Number of Tourists*	*GDP*	*GDP per Capita*	*Employment*	*Workforce*	*Wholesale retailtrade*	*average housing price*	*investment in RE*	*Investment in RE development*	*Dummy variable*
Antwerp	5,31	34,41	20,75	14,72	-0,21	3,94	6,73	2,19	7,18	12,34	0
Sofia	0,58	39,79	141,29	139,87	3,51	11,66	104,99	66,96	455,52	158,93	0
Brno	1,61	0,31	80,36	77,42	-0,23	2,53	66,68	26,55	95,40	119,55	0
Aalborg	1,39	7,36	11,15	9,63	1,05	-2,32	13,16	50,37	9,41	6,56	0
Frankfurt	-1,51	26,60	26,50	28,37	8,41	2,41	19,42	18,85	36,96	47,65	0
Hamburg	-1,08	61,90	12,30	13,54	4,80	7,20	17,42	5,07	43,88	20,86	0
Cologne	2,35	25,60	25,35	22,42	2,99	10,14	14,12	14,33	4,39	41,90	0
Thessaloniki	-0,43	17,68	-22,87	-22,52	-17,46	-19,47	-29,12	-38,22	-92,72	-76,42	0
Malaga	7,63	-0,13	3,38	-3,71	-24,60	-14,02	8,69	-2,86	59,11	-51,29	0
Toulouse	7,10	25,60	19,54	11,74	-1,22	6,84	9,49	19,74	7,75	11,70	0
Lyon	6,52	11,84	22,64	15,20	-0,91	7,37	16,43	37,84	40,63	51,86	0
Bologna	5,77	9,05	9,61	3,64	-4,01	-0,23	8,85	-0,58	-21,33	-22,34	0
Riga	-9,33	41,89	66,69	83,08	-5,40	-10,39	53,65	-12,89	37,61	43,48	0
Budapest	3,47	29,01	21,48	17,49	-5,22	0,83	16,26	5,47	-72,77	-21,09	0
Groningen	1,19	15,72	41,50	39,89	-1,95	0,30	9,10	11,91	-5,66	3,26	0
Rotterdam	4,37	31,75	11,29	6,62	-1,03	0,79	21,85	11,03	-22,40	-10,98	0
Warsaw	2,36	69,67	57,51	54,03	5,16	14,62	56,89	40,91	6,69	80,69	0
Wroclaw	-0,54	66,01	27,55	28,22	7,22	8,90	27,50	28,15	14,35	30,37	0
Porto	-1,95	27,85	8,17	10,33	-6,49	-10,87	15,75	0,95	-39,02	-25,40	0
Cluj-Napoca	-5,18	24,32	38,41	45,86	1,57	5,21	18,11	-29,10	8,78	5,76	0
Bratislava	7,45	57,56	31,86	22,79	0,84	2,90	21,02	8,85	25,40	16,75	0
Tampere	2,23	16,24	23,25	20,58	2,16	2,18	20,69	8,19	19,77	45,80	0
Oulu	0,26	1,13	13,68	13,38	-0,19	-2,88	15,14	-1,28	-5,08	8,44	0
Malmö	7,13	7,40	24,51	16,27	-1,72	9,86	33,06	76,14	53,94	59,78	0
Gothenburg	6,34	26,92	33,02	25,12	0,81	7,56	29,73	44,40	34,85	27,96	0

Appendix 5 statistical regression of variables

1. Population development as independent

Model-samenvatting (popdevelopment)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,95	,90	,88	1,87

ANOVA (popdevelopment)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	1162,26	10	116,23	33,21	,000
Residu	126,01	36	3,50		
Totaal	1288,26	46			

Coëfficiënten (popdevelopment)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	-,11	,78	,00	-,15	,884
Hostingcity	-,46	,69	-,04	-,66	,514
InvREDev	-,01	,01	-,09	-,77	,448
InvRE	,00	,00	-,08	-,97	,339
SQMPrice	,01	,02	,06	,77	,445
Wholesaleretail	,07	,02	,31	2,93	,006
Workforce	,13	,07	,21	1,98	,056
Employment	-,17	,06	-,23	-2,94	,006
GDPpCAP	-,49	,06	-2,49	-8,27	,000
GDP	,45	,06	2,11	7,86	,000
numbertourists	,02	,01	,11	1,56	,127

2. Number of tourists as independent

Model-samenvatting (numbertourists)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,68	,46	,31	21,18

ANOVA (numbertourists)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	13572,23	10	1357,22	3,03	,007
Residu	16146,94	36	448,53		
Totaal	29719,17	46			

Coëfficiënten (numbertourists)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	29,60	7,27	,00	4,07	,000
Hostingcity	10,11	7,68	,20	1,32	,196
popdevelopment	2,85	1,83	,59	1,56	,127
GDP	-3,21	,91	-3,16	-3,51	,001
GDPpCAP	3,26	1,00	3,45	3,25	,003
Employment	,32	,73	,09	,43	,666
Workforce	,65	,77	,22	,84	,405
Wholesaleretail	-,24	,30	-,22	-,80	,430
SQMPrice	-,05	,18	-,05	-,27	,788
InvRE	,02	,05	,06	,32	,751
InvREDev	,09	,16	,15	,56	,580

3. GDP as independent

Model-samenvatting (GDP)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,99	,99	,98	3,33

ANOVA (GDP)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	28365,49	10	2836,55	255,67	,000
Residu	399,41	36	11,09		
Totaal	28764,90	46			

Coëfficiënten (GDP)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	2,62	1,31	,00	2,00	,053
Hostingcity	,02	1,24	,00	,02	,985
popdevelopment	1,42	,18	,30	7,86	,000
numbertourists	-,08	,02	-,08	-3,51	,001
GDPpCAP	1,03	,05	1,11	20,80	,000
Employment	,13	,11	,04	1,16	,254
Workforce	,07	,12	,02	,57	,572
Wholesaleretail	-,12	,04	-,11	-2,87	,007
SQMPrice	,01	,03	,01	,28	,778
InvRE	,01	,01	,03	1,17	,251
InvREDev	,01	,03	,02	,37	,714

4. GDP per Capita as independent

Model-samenvatting (GDPpCAP)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,99	,99	,99	3,09

ANOVA (GDPpCAP)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	33040,51	10	3304,05	345,25	,000
Residu	344,52	36	9,57		
Totaal	33385,03	46			

Coëfficiënten (GDPpCAP)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	-1,25	1,27	,00	-,99	,330
Hostingcity	-,05	1,15	,00	-,04	,967
popdevelopment	-1,34	,16	-,26	-8,27	,000
numbertourists	,07	,02	,07	3,25	,003
GDP	,89	,04	,83	20,80	,000
Employment	-,08	,11	-,02	-,71	,481
Workforce	-,10	,11	-,03	-,86	,395
Wholesaleretail	,15	,04	,13	4,20	,000
SQMPrice	-,02	,03	-,02	-,79	,437
InvRE	,00	,01	-,01	-,40	,692
InvREDev	,01	,02	,02	,42	,674

5. Employment as independent

Model-samenvatting (Employment)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,80	,64	,55	4,84

ANOVA (Employment)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	1526,14	10	152,61	6,51	,000
Residu	843,46	36	23,43		
Totaal	2369,61	46			

Coëfficiënten (Employment)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	-2,23	1,97	,00	-1,13	,265
Hostingcity	,28	1,80	,02	,15	,879
popdevelopment	-1,14	,39	-,84	-2,94	,006
numbertourists	,02	,04	,06	,43	,666
GDP	,28	,24	,96	1,16	,254
GDPpCAP	-,18	,26	-,69	-,71	,481
Workforce	,72	,13	,86	5,49	,000
Wholesaleretail	-,05	,07	-,15	-,67	,505
SQMPrice	,04	,04	,17	1,10	,280
InvRE	-,02	,01	-,20	-1,37	,180
InvREDev	-,02	,04	-,15	-,68	,498

6. Workforce as independent

Model-samenvatting (Workforce)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,88	,78	,72	4,52

ANOVA (Workforce)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	2583,39	10	258,34	12,65	,000
Residu	735,00	36	20,42		
Totaal	3318,39	46			

Coëfficiënten (Workforce)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	-1,09	1,87	,00	-,59	,562
Hostingcity	1,70	1,65	,10	1,03	,312
popdevelopment	,76	,38	,47	1,98	,056
numbertourists	,03	,04	,09	,84	,405
GDP	,13	,23	,38	,57	,572
GDPpCAP	-,21	,24	-,66	-,86	,395
Employment	,63	,11	,53	5,49	,000
Wholesaleretail	,09	,06	,24	1,38	,175
SQMPrice	-,03	,04	-,10	-,82	,420
InvRE	,00	,01	,03	,28	,779
InvREDev	,06	,03	,32	1,94	,061

7. Wholesale and retail trade as independent

Model-samenvatting (Wholesaleretail)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,89	,80	,74	11,72

ANOVA (Wholesaleretail)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	19495,90	10	1949,59	14,18	,000
Residu	4948,12	36	137,45		
Totaal	24444,02	46			

Coëfficiënten (Wholesaleretail)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	1,39	4,86	,00	,29	,776
Hostingcity	3,56	4,31	,08	,83	,415
popdevelopment	2,75	,94	,63	2,93	,006
numbertourists	-,07	,09	-,08	-,80	,430
GDP	-1,52	,53	-1,65	-2,87	,007
GDPpCAP	2,17	,52	2,54	4,20	,000
Employment	-,27	,40	-,08	-,67	,505
Workforce	,58	,42	,21	1,38	,175
SQMPrice	,10	,10	,12	1,05	,300
InvRE	,01	,03	,02	,18	,861
InvREDev	,01	,09	,02	,15	,884

8. Price per square metre as independent

Model-samenvatting (SQMPrice)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,78	,61	,50	19,49

ANOVA (SQMPrice)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	21085,72	10	2108,57	5,55	,000
Residu	13678,57	36	379,96		
Totaal	34764,28	46			

Coëfficiënten (SQMPrice)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	10,66	7,89	,00	1,35	,185
Hostingcity	14,54	6,82	,27	2,13	,040
popdevelopment	1,33	1,72	,26	,77	,445
numbertourists	-,04	,15	-,04	-,27	,788
GDP	,28	,97	,25	,28	,778
GDPpCAP	-,82	1,04	-,80	-,79	,437
Employment	,72	,66	,19	1,10	,280
Workforce	-,58	,71	-,18	-,82	,420
Wholesaleretail	,29	,27	,24	1,05	,300
InvRE	,08	,05	,26	1,67	,103
InvREDev	,45	,13	,71	3,56	,001

9. Investment in Real Estate as independent

Model-samenvatting (InvRE)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,76	,58	,46	67,97

ANOVA (InvRE)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	227855,35	10	22785,54	4,93	,000
Residu	166296,37	36	4619,34		
Totaal	394151,72	46			

Coëfficiënten (InvRE)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	-60,91	26,31	,00	-2,32	,026
Hostingcity	10,68	25,18	,06	,42	,674
popdevelopment	-5,79	5,98	-,33	-,97	,339
numbertourists	,17	,53	,05	,32	,751
GDP	3,89	3,34	1,05	1,17	,251
GDPpCAP	-1,46	3,65	-,42	-,40	,692
Employment	-3,12	2,28	-,24	-1,37	,180
Workforce	,71	2,50	,07	,28	,779
Wholesaleretail	,17	,97	,04	,18	,861
SQMPrice	,94	,56	,28	1,67	,103
InvREDev	-,13	,52	-,06	-,25	,806

10. Investment in Real Estate Development as independent

Model-samenvatting (InvREDev)

R	*R-kwadraat*	*Bijgestelde R-kwadraat*	*St.-schattingsfout*
,89	,79	,74	21,96

ANOVA (InvREDev)

	Som van kwadraten	*vr.gr.*	*Gemiddelde kwadraat*	*F*	*Sign.*
Regressie	67286,52	10	6728,65	13,95	,000
Residu	17367,73	36	482,44		
Totaal	84654,25	46			

Coëfficiënten (InvREDev)

	Niet-gestandaardiseerde coëfficiënten		*Gestandaardiseerde coëfficiënten*		
	B	*St.fout*	*Bèta*	*t*	*Sign.*
(Constante)	-15,04	8,76	,00	-1,72	,094
Hostingcity	-23,36	7,17	-,27	-3,26	,002
popdevelopment	-1,49	1,94	-,18	-,77	,448
numbertourists	,10	,17	,06	,56	,580
GDP	,41	1,10	,24	,37	,714
GDPpCAP	,50	1,18	,31	,42	,674
Employment	-,51	,75	-,09	-,68	,498
Workforce	1,49	,77	,30	1,94	,061
Wholesaleretail	,05	,31	,02	,15	,884
SQMPrice	,58	,16	,37	3,56	,001
InvRE	-,01	,05	-,03	-,25	,806