

Bachelor project: Tales of cities

Comparing the regional role of Zwolle and Dordrecht through their economic policy

Understanding the ongoing urban development of Zwolle and Dordrecht through the lens provided by the concepts of Borrowed Size and Strength of the City Region.



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Summary

This thesis compares the regional role of Zwolle and Dordrecht, this is done by looking through the lens of the concept of borrowed size (Alonso, 1973). This concept is applicable to the city of Dordrecht, a city in the province of Zuid-Holland in the Netherlands. The concept of borrowed size means that Dordrecht borrows its size from Rotterdam, a much larger city, located next to Dordrecht. The comparison is also made by looking through the lens of the strength of the city region (Parr, 2005). The city of Zwolle has a comparable number of inhabitants and surface area to Dordrecht. However, the concept of borrowed size is not applicable to Zwolle. Due to its stronger city region, Zwolle can still be economically vital, although it does not borrow its size from a city nearby. These are some of the conclusions found in this thesis by researching the following research question:

How do the concepts of 'borrowed size' and the 'strength of the city region' apply to the ongoing urban development of Zwolle and Dordrecht?

In order to perform a fair comparison of the two cities and their ongoing urban development, the coalition agreement of the two municipalities were compared. These coalition agreements are documents created by the municipal council, they include the developmental plans of the municipal council. Through reviewing these documents, the influence of the concepts of borrowed size and the strength of the city region, on the ongoing urban development can be unveiled and compared, between the two cities.

The thesis, furthermore, concludes that Zwolle is trying to keep the people in the city, while, in the meantime, Dordrecht is trying to keep knowledge in the city, in order to economically grow. Spatially, Dordrecht is trying to solve problems in the lacking neighbourhoods outside of the city centre. Zwolle, however, is trying to keep the city centre, the centre of a broader regional development. Therefore, this thesis can conclude that the strength of the city region and the effects that the concept of borrowed size, does have a spatial influence on the economic policy formulation of the municipality.

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1. Introduction

1.1 Background

The concept of borrowed size is gaining currency in Dutch policy making of moderate-size cities (Platform 31, 2015). According to this concept, cities that are located close to a larger city, can enjoy a beneficial balance between agglomeration advantages and disadvantages (Alonso, 1973). A good Dutch example of a city that benefits from borrowed size is Dordrecht. Dordrecht has 118,899 inhabitants, so in a Dutch perspective, this is a moderate-size city (UNSD, 2015). Dordrecht is a city in the urban environment of the Randstad. Dordrecht is about 20 kilometres away from Rotterdam, the Netherlands' second city in number of inhabitants. Because Rotterdam has over 600.000 inhabitants (UNSD, 2015), it is likely that Dordrecht borrows Rotterdam's size according to Alonso's (1973) definition.

Differently from Dordrecht, Zwolle is located in the rural province of Overijssel. The city has 123,861 inhabitants (UNSD, 2015) and is because of its similar size, comparable to Dordrecht. Zwolle has no larger cities close-by it, Zwolle functions as a regional motor. Many of the surrounding villages, indeed, depend on the city of Zwolle for employment opportunities and the larger scale facilities it provides (e.g. healthcare, shopping areas, secondary schooling etc.). Zwolle, therefore, does not benefit from borrowed size according to Alonso's (1973) definitions, like Dordrecht does. The city of Zwolle can thank their economic vitality to the strength of their city region.

Because the differences between Zwolle and Dordrecht in terms of location are so apparent, it is relevant to research whether this difference can be recognised through the economic policy of the two cities as well. The economic policy of a municipality is a certifying indicator of the economic vitality of a municipality (Louw et al., 2003). Through comparing municipal economic policy, the regional significance and strength of the city region of the two cities will be unveiled. The dependence of the city's surroundings on the city, is brought to light in this thesis. Their economic policy will tell different tales about how their different role within their own region is perceived by policy makers. Besides this, the economic policy of the two municipalities is reflected into the two different urban development strategies.

This research is relevant because of the increasing popularity of the concept of borrowed size introduced by Alonso (1973) in Dutch policy making. Meijers and Burger recently scrutinized this concept (2017). Municipalities that include moderate-size cities can look at how the two different situations (i.e. a city influenced by borrowed size and a city with a strong regional role) influence the city and their urban development strategies.

1.2 Research problem

This thesis aims to unveil whether the borrowed size of Dordrecht and the strength of the city region of Zwolle can be recognised in their economic policy. The municipal council of the two municipalities might not be aware enough of their regional role and might, therefore, not produce the most suitable economic policy, for its regional role. This thesis aims to uncover whether this is the case.

This leads to the research question:

- How do the concepts of Borrowed Size and the Strength of the City Region apply to the ongoing urban development of Zwolle and Dordrecht?

1.3 Structure of the thesis

This thesis is structured as follows:

To begin with, on the second page of this thesis, a summary of the complete thesis is provided. On the following page a table of contents is provided to keep at hand. In the following introduction the relevance of the research is given and the most important concepts are explained in a brief way. For a more elaborate explanation and review of previous research, refer to the theoretical framework. All the used research is discussed here, the research is divided up in three categories, the concept of borrowed size, the strength of the city region, and economic policy.

Thirdly, starting on page eight, the methodology and data collection tools are unveiled. A conceptual model, which explains the different influences on economic policy on a municipal level is provided too. Fourthly, the results of the research are presented, starting off, by proving that Dordrecht does indeed borrow its size from Rotterdam. Afterwards the strength of the city region of Zwolle is proved. The final section of the results will actually compare the coalition agreements of the municipality of Zwolle and Dordrecht, and to what extent the concepts of borrowed size and strength of the city region can be recognized in these documents. Furthermore, in the final section, the conclusions of this thesis are presented and some recommendations are given for further research. Afterwards, a reflection on the research and some recommendations are provided.

2. Theoretical framework

This thesis will explore two concepts considered crucial in urban development planning. First of all, the concept of borrowed size, which is the most important for the success of Dordrecht's economy, afterwards the concept of the strength of the city region which is mostly responsible for the economic success of Zwolle. The concepts of borrowed size, revised by Meijers and Burger (2017), and the concept of the strength of the city region (Parr, 2005) are the guides to understanding the differences between Zwolle and Dordrecht. Two seemingly similar cities, but with vastly different economic and regional structures (e.g. commuting networks, areas of distribution, etc.). The concepts of borrowed size and strength of the city region are relevant since they are responsible for the two city's economic prosperity.

2.1 Borrowed size

In his influential research on the concept of borrowed size, Alonso (1973) differentiates how cities economically function and their dependence on other surrounding cities. According to Alonso (1973), the concept of borrowed size is strictly applicable to cities that are smaller than the cities neighbouring it, and concerns cities located in a polycentric metropolitan area, such as the Randstad. Alonso (1973) emphasizes that borrowed size is one-way-traffic. He also stated that cities that are in such an area, can enjoy the balance between agglomeration advantages and disadvantages. These criteria vary from exposure to environmental pollution to crime rates.

Being a relatively smaller city close to a bigger one, is one of the criteria of experiencing borrowed size. This is due to the effects agglomeration has on cities. Dense urban areas can often enjoy many agglomeration benefits such as an elaborate labour-market with high numbers of supply and demand. In a more spread out or smaller urban area, a mismatch in demand and supply might occur, which obviously has a negative effect on the city's economy. However, this perception might be a little outdated since information streams like the internet, have changed how our economy works in a significant manner. People can work from home and be in contact with the opposite side of the planet instantly. Therefore Alonso's (1973) criteria should be updated. Alonso's (1973) classic and original criteria of the balance between agglomeration advantages and disadvantages were; level of congestion; shopping and entertainment facilities; easy access to other centres; business facilities.

But recent revision of these criteria by, among others, Meijers and Burger (2017), added some criteria such as the occurrence of agglomeration shadow. Polèse and Shearmur (2006) mention that the criterion of being a smaller city next to a larger one, should be handled with more nuance. According to them, cities can borrow size from cities that are the same size but have for example different functions. Borrowing size also means borrowing the negative aspects of being a large city, such as congestion, crime and exposure to environmental pollution.

Meijers and Burger (2017) scrutinise the concept by Alonso (1973) and look at it from a modern perspective. Their main findings is that being a smaller city next to a larger city is perhaps a less prominent requirement for borrowed size as it used to be, because of the increasing connectivity of cities, especially in densely populated areas like the Netherlands. Meijers and Burger (2017) also introduce the concept of agglomeration shadow. A smaller city next to a larger one might also be limited by the size of the neighbouring city, since development can skip the smaller city and be attracted by the larger sales market provided by the neighbouring larger city.

To summarize, the following variables influence the level of borrowed size:

- Size of the city (i.e. number of inhabitants and surface area)

- Polycentric or metropolitan nature of the city
- Balance between agglomeration advantages and disadvantages
 - Level of congestion
 - Exposure to environmental pollution
 - Crime rates
 - Safety perception
 - Proximity of basic facilities
 - Agglomeration shadow

2.2 City region

Some cities do not have significant borrowed size but still can be economically vital, for example because of the strong role the city plays in its region. The concept of the city region (Parr, 2005) suggests that the economic prosperity of a city can be recognised through the strength of the city region.

The city region in Parr's (2005) definition distinguishes three zones. The City zone (C) the Surroundings of the city (S) and the City Region (CR), a combination of the previous two. The strength of the city region is determined by capital flows, trade flows and employment flows. These three flows are of an economic nature and are, therefore, all interlinked. The labour-market flows will influence for example the capital flows, but the capital flows will influence the trade flows, etcetera.

The interaction between the C and S zone, indeed, can tell a tale about, for example, the city's trade flows, labour-market flows and capital movements. This conception of the city region is regarded as the adequate scale for the implementation of economic policy (Rodríguez-Pose, 2007). Chu and Chu (2000) researched prevailing employment sectors in different types of cities (i.e. rural cities, metropolitan cities) and these prevailing employment sectors can be tested on the cases of Zwolle and Dordrecht.

Herrschel and Newman (2004) stress that social and economic cohesion, are very important factors of the strength of a city region. Economic cohesion means the willingness to work together and to create initiatives to do this in the best ways possible (Herrschel & Newman, 2004). Social cohesion is of vast importance for a strong city region as well, the inhabitants of the whole CR execute most of their daily activities within the CR. This will result in a higher social cohesion, especially people's perception of the social cohesion (Herrschel & Newman, 2004).

To summarize, the following variables influence the strength of the city region:

- Prevailing employment sectors
- Commuting networks
- Regional cohesion
 - Corporate initiative
 - Social cohesion

2.3 Economic policy

Dutch citizens can vote on a municipal level for their councilmembers every four years. This was last done in March 2014. These elected councilmembers, whom belong to different political parties, must form a coalition, in which they make compromises to create a coalition agreement. In this so-called coalition agreement, the ambition of the councilmembers is displayed for the following four years (Louw et al., 2003). From the information given and the tone of the documents, a lot can be learned about the points of view of the councilmembers and their priorities (Groenendijk, 1990). The municipality council has the responsibility to create a destination plan for the land of the municipality

and keep it up-to-date with possibly changing wishes of the inhabitants. These plans differ across the Dutch municipalities because of regional differences in for example prevailing industries, the number of inhabitants and existing division of land use (Louw et al., 2003).

Louw et al. (2003) wrote an article called ‘Spatial development policy: changing roles for local and regional authorities in the Netherlands’. This research provides a great insight on the Dutch spatial planning and how the responsibilities on this subject are divided between the three levels of governance in the Netherlands. Louw et al. (2003) describe how municipalities in the Netherlands are governed and how they interact and work together horizontally (i.e. with other municipalities) and vertically (i.e. with provinces or national governments).

Furthermore Groenendijk (1990) discusses the actions taken by Dutch provinces to try to coordinate decisions made by its municipalities on economic policy. This research will be helpful for this thesis because a municipality is not an independent government and it is, therefore, important to understand the way provinces and municipalities interact among each other and with the national government (Groenendijk, 1990).

2.4 Conceptual model

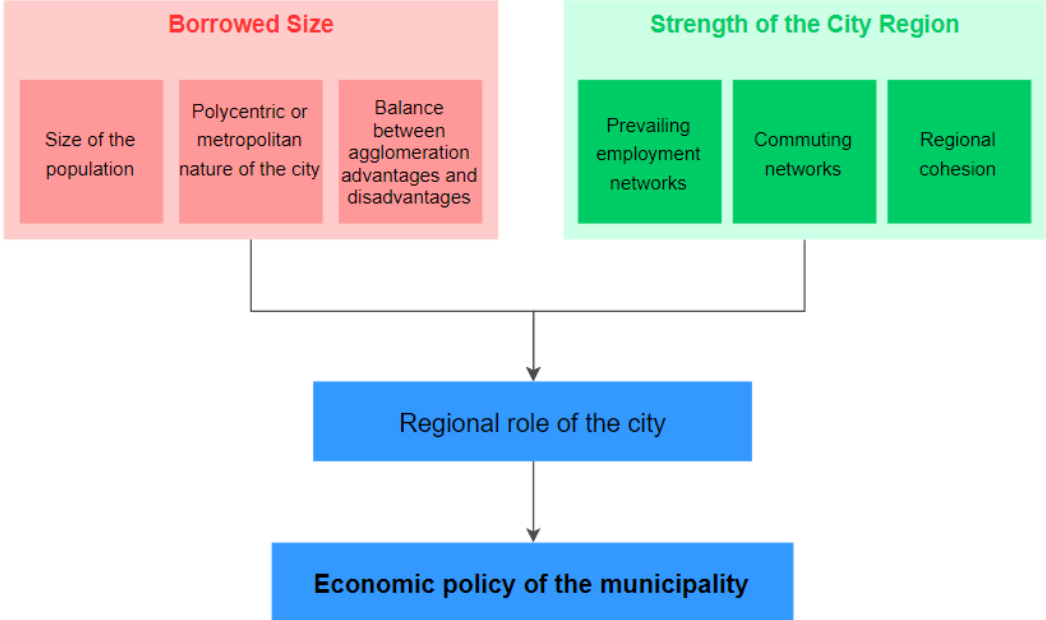


Figure 1. Conceptual model visualization

In the model above (Figure 1) some of the factors influencing the economic policy in a Dutch municipality are shown in a simplified way. This thesis unveils the influence of the concept of borrowed size and the strength of the city region on the economic policy. This was done by investigating the three variables determining the concept of borrowed size (i.e. size of the population, polycentric or metropolitan nature of the city, balance between agglomeration advantages and disadvantages) according to Alonso (1973). These variables influence the regional role of the city, which in turn influences the economic policy of the municipality.

Another indicator of the economic regional role of the city is the strength of the city region. This concept by Parr (2005) translated to three variables (i.e. prevailing employment streams, commuting networks and regional cohesion). The regional role of the city will influence the way the economic policy of the municipality is formulated.

3. Methodology

3.2 Hypotheses

Hereafter follow the hypotheses that will be tested in this research. These coordinate with the three sub sections of the fourth section, the results of the thesis.

1. Dordrecht can lean on Rotterdam because of its borrowed size, where Zwolle cannot because of the lack of borrowed size.
2. Zwolle has a stronger city region and is therefore less dependent on cities surrounding it than Dordrecht.
3. The strength of the city region and the presence of borrowed size influence the economic policy of the municipality.

3.3 Data collection

In order to have an overview of the economic policies of the two cities, data provided by the municipalities of Zwolle and Dordrecht was used. The coalition agreements of the municipal councils were helpful for this thesis to create a more in-depth understanding of the decisions made. These documents have to follow the national standards provided by the Dutch government.

Data from the CBS and national governmental institutions such as “*Studiegroep Openbaar Bestuur*” are helpful. Their reports on the trends in local-scaled planning created a useful insight. The CBS collects data on different spatial levels (i.e. level of neighbourhoods, cities, police districts, COROP areas, provinces and on a national level). In the Netherlands groups of municipalities are subdivided into the so called COROP areas. These areas are set up to include the most important commute streams (CBS, 2015a). Therefore, statistics collected by the Dutch Statistics Bureau (CBS) on COROP-scale will be used to represent the city regions. Data from the CBS was also used in order to create GIS maps to show the relative position of Dordrecht and Zwolle.

The region of Zwolle has a regional collaboration group. Data, such as reports on the collaboration’s occupations will provide an insight on the regional initiative. While the organisation ‘Regio Zwolle’ does produce a lot of economic reports and articles it is important to keep in mind that they might be biased at times since they might be used as encouragements. Still, the information can be useful but the possible bias is to be kept in mind.

All the sources mentioned above, except for Regio Zwolle, are semi-governmental institutions of the Netherlands. This makes these sources credible and reliable. Therefore data collected on a national level will always handle the same units and standards.

Ethics

Since this thesis will be based on secondary data, there are not many ethical aspects to consider, when it comes to collecting the data. However, when analysing the data it is important to remain objective at all times. This research will be done by an ‘outsider’ whom has no (personal) attachment to either of the regions nor the explored theme.

4. Results

This section of the thesis is divided in three sub sections, in the first section the fact that Dordrecht borrows its size from Rotterdam is proved. The second sub section proves that Zwolle has a stronger city region. In the final sub section, the way the concepts of borrowed size and the strength of the city region can be recognized in the municipal economic policy is unveiled.

4.1. Dordrecht Borrows Size from Rotterdam

According to the concept of borrowed size by Alonso (1973) a smaller city next to a larger one can enjoy a beneficial balance of agglomeration advantages and disadvantages. To find out whether this is the case for Zwolle and Dordrecht, the concept will be viewed through a modern point of view provided by Meijers and Burger (2017) among others.

4.1.1 Same number of inhabitants, different locations

The first two requirements for borrowed size according to Alonso (1973) are being a relatively small city and the location of the city. The city should be located in a polycentric or metropolitan area. Zwolle has 123,861 inhabitants and is a moderate-sized city in Dutch contexts, it is located in the province of Overijssel. It is a city in a more rural area. This is visible in Figure 2. The region where Zwolle is located is called Salland.

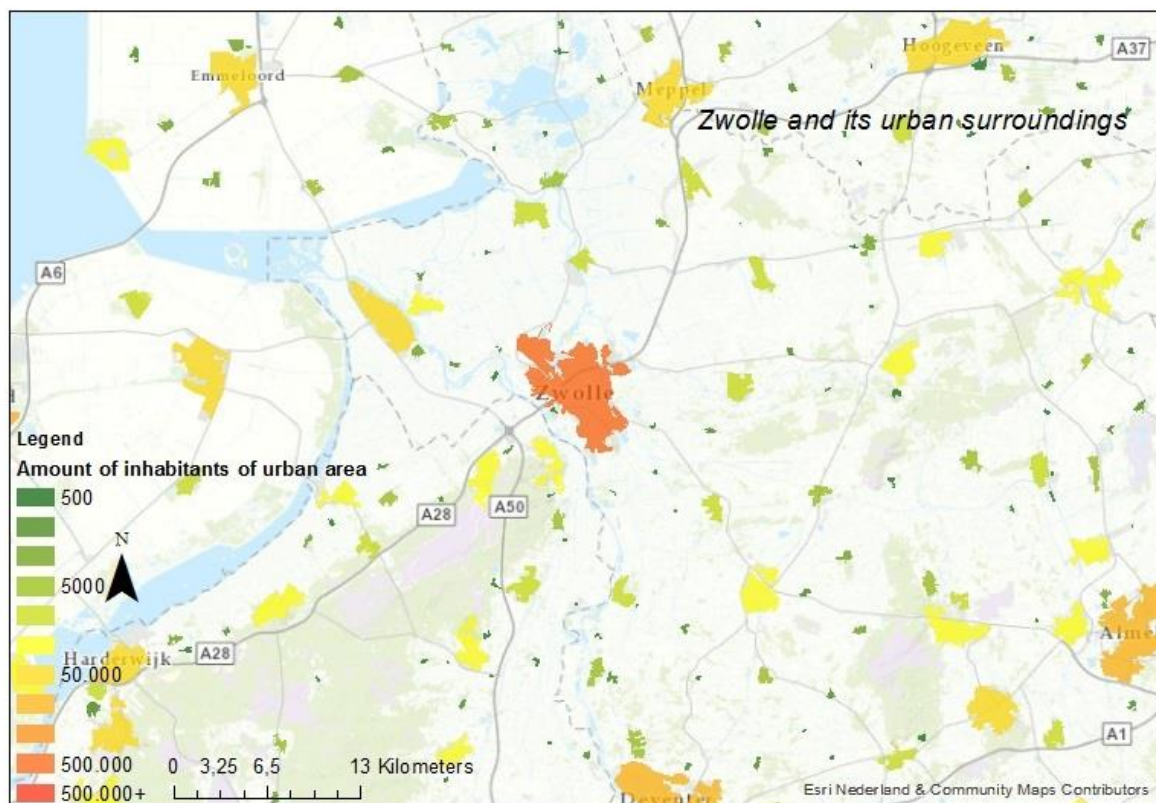


Figure 2. Zwolle and its urban surroundings. Data source: CBS, 2011

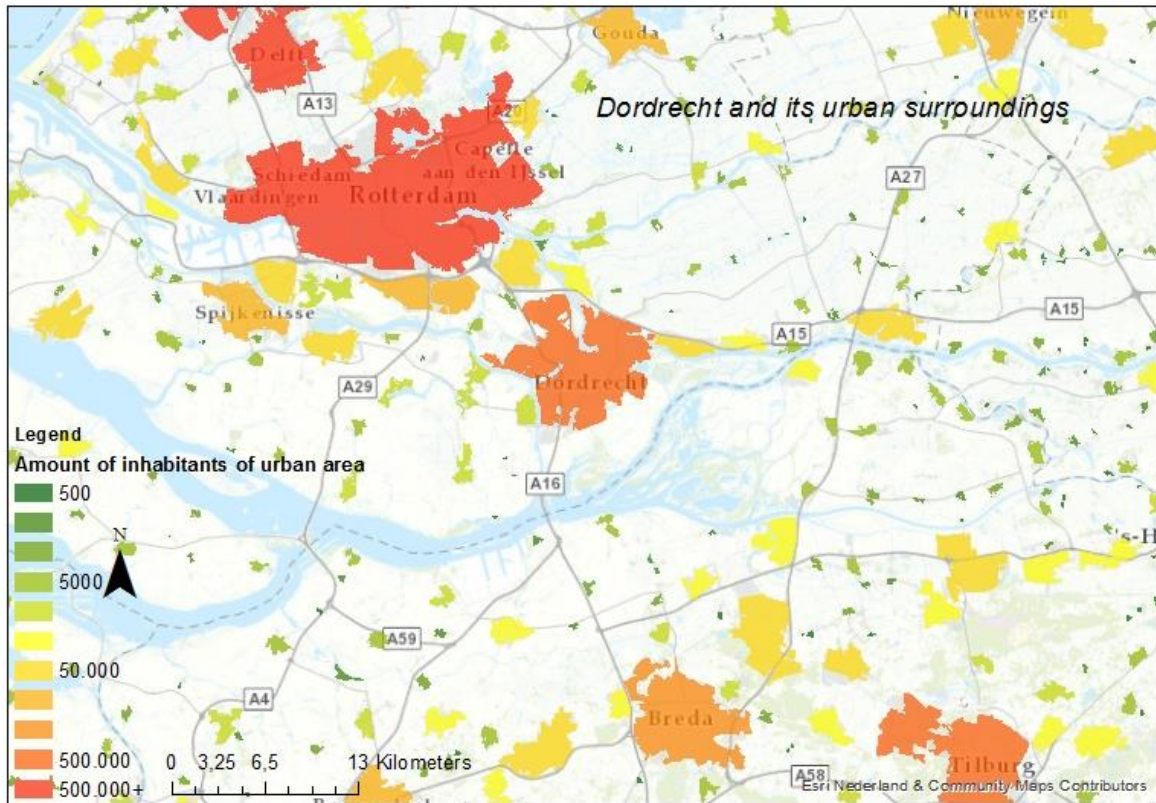


Figure 3. Dordrecht and its urban surroundings. Data source: CBS, 2011

Dordrecht has 118,899 inhabitants and is a moderate-sized city in Dutch contexts, it is located in the province of Zuid-Holland. The city is close to Rotterdam and part of the Randstad, as visible in Figure 3 above. The Randstad is a metropolitan area where about 7 million people live, it consists of four cities and one of those cities is Rotterdam, where Dordrecht borrows its size from. Therefore, Dordrecht is part of a metropolitan area, Zwolle is not. This adds to the fact that Dordrecht borrows size and Zwolle does not.

4.1.2 The balance between agglomeration advantages and disadvantages

Level of congestion

Dordrecht has a worse congestion problem than Zwolle. Commuters in the municipality of Dordrecht travel on average 42.5 hours a year to and from their employment address while they travel on average 1943 kilometre per year. In the municipality of Zwolle, the average travel time to and from the employment address is 41.5 hours per year. But the commuters in Zwolle travel on average 2232 kilometres a year (CBS, 2015b). In Table 1 the average time and distance commuters in Zwolle and Dordrecht per year is displayed. In Dordrecht people cover a smaller distance but spend more time doing so, this points out a worse congestion problem in Dordrecht over Zwolle.

	Zwolle	Dordrecht
Average commuting time per year (hours)	41.5	42.5
Average commuting distance per year (kilometres)	2232	1943

Table 1. Data source: CBS, 2015b

This difference can be explained by the amount of congestion in Dordrecht and the surrounding municipalities. Dordrecht however has a smaller congestion problem than Rotterdam. Rotterdam is the second city of the Netherlands when regarding number of inhabitants. Rotterdam's seaport is

one of the largest ports of the world and this traffic on water is translated to land traffic in Rotterdam. This freight traffic on top of the normal urban traffic in a major city creates congestion which makes Dordrecht's congestion seem smaller in comparison (Slack & Frémont, 2003).

Exposure to environmental pollution

The exposure to environmental pollution is another agglomeration disadvantage introduced by Alonso (1973). Alonso (1973) however did not stress its importance as much as Meijer and Burger (2017) did. The amount of particulate matter in the air is one of the best quantitative ways of looking at the exposure to environmental pollution in a certain place. In Table 2 the amount of particulate matter in the air of Zwolle and Dordrecht is displayed. This difference is explained by the dense industrial activity of Rotterdam and Dordrecht. Zwolle does not have industrial activity close-by on such a scale. This is one of the main reasons the air in Zwolle is relatively clean.

	Zwolle	Dordrecht
Concentration of particulate matter in the air ($\mu\text{g}/\text{m}^2$)	<i>19 to 20</i>	<i>20 to 22</i>

Table 2. Data source: RIVM, 2016

Crime rates and safety perception

Another agglomeration disadvantage which can be a representative of borrowed size is an increased crime rate as argued by Polèse and Shearmur (2006). Increased crime represents social problems within a city. In Table 3 the crime rates of Zwolle and Dordrecht are displayed, showing a vast difference. Inhabitants of the police district of Zwolle (IJsselland) and Dordrecht (Zuid-Holland-Zuid) were asked if they sometimes feel unsafe in the city centre, in the shopping areas and in public transportation, the results are visible in Table 4. This data is collected per police district by the CBS. These districts are made up of areas which comparable numbers of inhabitants.

	Zwolle	Dordrecht
Crimes per 1000 people in 2014	<i>63.8</i>	<i>74.4</i>

Table 3. Data source: CBS, 2014a

Sometimes experience a feeling of unsafety (%):	Police district IJsselland	Police district Zuid-Holland-Zuid
City centre	<i>11.6</i>	<i>14.6</i>
Shopping area	<i>8.5</i>	<i>11.9</i>
Public transportation	<i>12.8</i>	<i>16.1</i>

Table 4. Data source: CBS, 2014b

Not only is crime in relative numbers worse in Dordrecht, it is also experienced to be worse by the inhabitants, this in another criterion stressed by Meijer and Burger (2017) which fits the conclusion of Dordrecht having borrowed size from Rotterdam.

Proximity of basic facilities

In Dordrecht most basic facilities are, on average, closer by than in Zwolle. Some examples of this are visible below. This shows one of the agglomeration advantages Dordrecht has over Zwolle. Facilities are closer by as is visible in table 5.

Average distance to nearest: (km)	General practitioner	Day-care service	Train station	Cinema	Firefighter station	Supermarket
Dordrecht	<i>0.8</i>	<i>0.8</i>	<i>3.4</i>	<i>5.1</i>	<i>1.9</i>	<i>0.7</i>
Zwolle	<i>1.4</i>	<i>1.0</i>	<i>5.4</i>	<i>6.3</i>	<i>2.3</i>	<i>1.1</i>

Table 5. Data source: CBS, 2017a

Agglomeration shadow

Meijers and Burger (2017) also introduce the concept of agglomeration shadow. A smaller city next to a larger one might also be limited by the size of the neighbouring city. Development will skip the smaller city and be attracted by the larger sales market of the larger city. This conception of agglomeration is another example of an agglomeration disadvantage. Dordrecht is the victim of this concept for sure, this can be visualized when looking at the growth of Dordrecht, Zwolle and Rotterdam. In Table 6 the growth in number of inhabitants since 1997 is shown. According to Meijer and Burger (2017) this difference can be explained by the agglomeration shadow of Rotterdam.

Number of inhabitants since 1997	Zwolle	Dordrecht	Rotterdam
Absolute increase	23623	1473	48234
Relative increase	23.18%	1.12%	8.18%

Table 6. Data source: CBS, 2017b

To conclude, it was proven that Dordrecht borrows its size from Rotterdam, Zwolle does not borrow its size. The first hypothesis can be confirmed.

4.2. Zwolle has a stronger City Region

If a city lacks in borrowed size, the economic vitality of the city does not necessarily suffer from that. One of the reasons a city might still be economically successful is the strength of the city region. Dordrecht might be influenced by agglomeration shadow (Meijers & Burger, 2017) which might negatively influence Dordrecht's economy, Zwolle does not have this problem. In fact, Zwolle might create agglomeration shadow for its surroundings.

4.2.1 Prevailing employment sectors

Does trade occur between the city and its surrounding zone (S) or between other cities? In this context, the concept of 'trade' is approached on a consumer's level. If the S zone of a C is depended on the C zone, the city region is strong (Parr, 2005). Because the Dutch Statistics Bureau (CBS) does not collect data on where people that live in certain areas shop, because this nearly impossible to collect, it is challenging to substantiate that the trade flows between Zwolle and its S zone are bigger than Dordrecht's and its S zone. It is useful, however, to look at the kinds of jobs and companies that prevail in both cities, to determine whether they have a regional function or not. When looking at prevailing employment sectors, it is apparent that industry prevails in Dordrecht, which is very likely due to the port of Rotterdam. More of the prevailing employment sectors can be seen in Table 7. In Zwolle healthcare is prevailing, which is typical for a city in a more rural setting (Chu & Chu, 2000). Furthermore, in Zwolle the sector of agriculture prevails which obviously belongs to a rural city. The prevailing sector of project management and financial services in Dordrecht, shows the more urban nature of the city, Dordrecht is located close to the Randstad, the economic heart of the Netherlands.

	Zwolle	Dordrecht
Prevailing employment sectors	<i>Healthcare</i>	<i>Industry</i>
	<i>Agriculture</i>	<i>Project management (construction work)</i>
		<i>Financial services</i>

Table 7. Data source: CBS, 2016

4.2.2 Commuting to the city

Labour-market flows can determine if the people living in Zwolle and Dordrecht work there as well. If the people living in the CR do not work in that CR, the CR is not self-sufficient when it comes to the labour-market. This phenomenon can be researched when looking at commuter flows. In Table 8 the average distance the inhabitants of the city of Zwolle and Dordrecht cover to their place of employment. The distances show that people whom work in the C zone of Zwolle, come from further away. So the C zone of Zwolle has a larger attraction in its S zone than Dordrecht's C zone to its own S zone.

	Zwolle	Dordrecht
Average commuting distance	<i>14.8</i>	<i>12.5</i>

Table 8. Data source: CBS, 2014c

4.2.3 Regional initiative

Another factor of the strength of the city region which Parr (2005) somewhat neglects, is the presence of regional initiative. This can be expressed by the corporate world or by the judgment of the city by the inhabitants. Zwolle has a collaboration between twenty municipalities surrounding and including the municipality of Zwolle. 'Regio Zwolle' is a corporate initiative. The 'Regio Zwolle's' main aim is to connect the municipalities, which lay in four different provinces, Overijssel, Gelderland, Flevoland and Drenthe, to create an economically attractive environment (Studiegroep

Openbaar Bestuur, 2016). They align negotiation standards to form a strong base and create equal opportunity throughout the region (Regio Zwolle, 2017). The fact that this kind of cooperation even exists, shows that Zwolle has a stronger city region and that is even felt in the corporate world, not just by local governments or the inhabitants. Dordrecht is part of the collaboration group of Rotterdam, instead of Dordrecht having their own similar collaboration.

The inhabitants of the city of Zwolle rate the social cohesion in the city with a 6.6 while the social cohesion of Dordrecht is only rated with a 6.2 (CBS, 2017c). This lower social cohesion rating shows that Zwolle, as a more rural city, is more of a lone wolf, whereas Dordrecht is more part of the Randstad network.

To conclude, the second hypothesis can be confirmed as well. Zwolle indeed has a stronger city region and is therefore less dependent on cities surrounding it than Dordrecht is.

4.3. Recognition of the concepts in the economic policy

4.3.1 Attracting start-ups and youngsters

When comparing the coalition agreement of the municipalities of Zwolle and Dordrecht, one of the most striking differences is the tone with which the policy is written. It becomes clear that Zwolle is economically in a better place. The municipality is occupied with maintaining the economic prosperity. The word 'strong' is often used when describing the city and its region (Gemeente Zwolle, 2014). Dordrecht is claiming to be in economic headwind, which is contrasting to how Zwolle sees itself (Gemeente Dordrecht, 2014).

Another difference is the main focus of the councils. Zwolle is busy to improve the education provided in the city and attracting start-ups to keep the city young and innovative. This is important for a city with a strong regional significance or a strong city region. To attract employees and companies, the city has to be an attractive place to settle. It is more important to be unique and 'young'. Dordrecht does not have to focus on attracting start-ups since these kind of companies are more attracted to settling in Rotterdam, provided they can afford to do so, because Rotterdam is (internationally) known and hipper. So this difference in policy approach can be explained by the fact that Zwolle has a stronger city region than Dordrecht.

4.3.2 Education and housing

When it comes to education, Dordrecht is more focussed on matching the provided education with the existing labour-market. This match is one of the aspects of a strong city region. If the labour-market of a city is not somewhat self-sufficient, the city region is not strong. This problem, of having a mismatch in the education and labour-market, is not mentioned at all in the coalition agreement of the municipality of Zwolle. Zwolle is trying to improve education in general at offer in the whole region. The municipality of Zwolle wants to facilitate students from outside of the municipality coming to the city of Zwolle to go to school. Graduates should be kept within the city or region, to keep investments (in education) local to benefit from them.

One of the main focuses of the municipality of Zwolle is resolving the mismatch on the housing-market. The housing-market is one of supply and demand. Zwolle has a shortage in cheap housing. This supply and demand market can be seen as a trade flow, one of the flows in the city region concept by Parr (2005). Zwolle wanting to resolve this mismatch shows that the city is focussed on itself. It could be expected that a city that borrows size would deviate this mismatch to surrounding cities, while a city with a strong city region will be more focussed on itself (Rodríguez-Pose, 2007).

4.3.3 Spatial differences in the economic policies

The municipality of Zwolle is spatially focusing on the inner city. This is the place where the heart of the region beats (Gemeente Zwolle, 2014). The municipality of Dordrecht focuses on renewing some of the lagging neighbourhoods and on keeping the industrial areas of the city persistent (Gemeente Dordrecht, 2014). This difference shows that Zwolle is really approaching policy from a regional point of view, the municipal council is really trying to keep the inner city the centre of the region. Dordrecht, however, is focussing on being part of the region and developing with Rotterdam instead of being the main developer, which Zwolle is in its region. Zwolle however is obviously developing in a much slower pace than Rotterdam.

Overall it seems like Dordrecht is wants to solve some problems (e.g. resolving the mismatch between education and the work field, renewing lagging neighbourhoods), while Zwolle is trying to improve some of its stronger points. Zwolle is trying to distinguish itself from other provincial cities, its competitors, while Dordrecht is trying to keep investments within the city, minimize the leak of

investment to surrounding cities. Furthermore, Dordrecht is trying to keep up with the cities around it, while Zwolle is more of a lone wolf.

4.3.4 Opposing the expectations

Some aspects of the economic policy of the municipalities of Zwolle and Dordrecht contradicts the expectations connected to the concepts of borrowed size and the strength of the city region. The municipality of Dordrecht for instance also mentions the collaboration with more rural parts of Noord-Brabant, the province south of Zuid-Holland (Gemeente Dordrecht, 2014). The municipalities wants to improve its ties with the rural area south of the city, this rural area is suitable for recreation (Gemeente Dordrecht, 2014). In this sense Dordrecht might be trying to create its own city region.

The municipality of Zwolle also pays attention to trying to be a more influential city on a national scale (Gemeente Zwolle, 2014). Strictly, according to Parr (2005) definitions this would not be a point of interest for a city with a strong city region. In Dutch contexts, however, it is reasonable to want to be of significance on a national scale.

Therefore, the third and final hypothesis can be confirmed as well. The strength of the city region and the effect of borrowed size do indeed influence the economic policy formulation of the municipality.

5. Conclusions

5.1 Findings on the concept of borrowed size and the strength of the city region

The cities of Zwolle and Dordrecht are similar in their number of inhabitants and surface area, but that is about all. Dordrecht borrows size from Rotterdam and other cities in the Randstad area. A combination of agglomeration advantages and disadvantages proves that Dordrecht does borrow size and that Zwolle does not according to Alonso (1973), Meijer and Burger (2017) and Polèse and Shearmur (2006).

Zwolle is more of a stand-alone city than Dordrecht, Zwolle must lean on the size of its region for economic vitality. When looking at prevailing employment sectors, commuting networks and regional cohesion (Herrschel & Newman, 2004), the strength of the city region was determined (Parr, 2005). Zwolle is a regional motor. It was concluded that Zwolle has a stronger city region than Dordrecht.

5.2 Findings on the different regional roles of Zwolle and Dordrecht

Zwolle has a far greater regional role than Dordrecht. This is because Zwolle has a stronger city region. Dordrecht however is part of a way stronger metropolitan area. The Randstad is a metropolitan area of much larger significance than the region of Zwolle. Therefore, the difference in regional roles, between the actual cities themselves, should be regarded with nuance. Although, Dordrecht strictly spoken is not part of the Randstad, the city borrows its size from Rotterdam.

5.3 Findings on the differences in economic policy of the two municipalities

Striking were the differences in the way the policy was formulated by the two municipal councils. The effects of the borrowed size that Dordrecht enjoys were evident, in the fact that Dordrecht is focussing on matching the provided education with the labour-market (Rodríguez-Pose, 2007). This shows that there is a leak of knowledge to Rotterdam, a typical borrowed size problem (Meijer & Burger, 2017).

Zwolle, however, is busier with resolving the mismatch of the housing problem. Therefore, the difference is that Zwolle tries to keep the people in the city to grow (Louw et al., 2003). Dordrecht is trying to keep knowledge in the city to grow. Spatially, Dordrecht is trying to solve problems on the edges of the city, while Zwolle is trying to make and keep the city centre the region's centre. The strength of the city region and the effects of borrowed size, influence the economic policy of the municipalities.

To put these conclusions in a broader (Dutch) context, a generalization can be made. It can be concluded that Dutch cities of a moderate size, located close to larger cities might borrow their size. In the Dutch context, this could include e.g. cities like Gouda, Haarlem, Assen or Amersfoort. Cities that do not necessarily enjoy borrowed size and that might thank their economic health to a stronger city region could be Groningen or Middelburg.

5.4 Reflections

The strengths of this research include that the conclusions were derived from literature sources. The data derived directly from CBS or municipal authorities, this leaves no room for estimations or personal interpretations from second hand sources. However, that is also one of the weaknesses of this research. The interpretation can be helpful and a different point of view can shed new light on a certain subject. The concepts of borrowed size by Alonso (1973) and the concept of the strength of the city region by Parr (2005) are somewhat overlapping, they are also each other's opposites, which sometimes creates tension when researching the concepts.

5.5 Recommendations

For further research, researching more cases could be recommended. Take, for instance, more cities close to the Randstad area and cities that are not. By doing this, the hypotheses can be confirmed with more certainty. It can also be very interesting to look at the spatial initiative of the inhabitants of the municipalities. How do the inhabitants see the city, how are they trying to change and use the destination plans?

References

- Alonso, W. (1973). Urban zero population growth. *Daedalus*, 102, 191–206.
- CBS (2011). *Bevolningskernen in Nederland in 2011*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2014a). *Geregistreerde criminaliteit; soort misdrijf, regio*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2014b). *(On)veiligheidsbeleving; regio*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2014c). *Banen werknemers en afstand woon-werk; woon- en werkregio's*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2015a). *Coropgebieden 2015*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2016). *Banen van werknemers in december; economische activiteit (SBI2008), regio*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS, (2015b). *Personenmobiliteit in Nederland; vervoerwijzen en reismotieven, regio's*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2017a). *Nabijheid voorzieningen; afstand locatie, regionale cijfers*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2017b). *Regionale kerncijfers Nederland*. Den Haag: Centraal Bureau voor de Statistiek.
- CBS (2017c). *Leefbaarheid en overlast in buurt; regio's*. Den Haag: Centraal Bureau voor de Statistiek.
- Chu, S.C.K. & Chu, L. (2000). A modeling framework for hospital location and service allocation. *International Transactions in Operational Research*, 7(6), 539-568.
- Gemeente Dordrecht (2014). *Politiek akkoord 2014-2018*. Gemeente Dordrecht: Dordrecht.
- Gemeente Zwolle (2014). *Coalitie akkoord 2014-2018*. Gemeente Zwolle: Zwolle.
- Groenendijk, J.G. (1990). Coordination of urban economic development policies in the Netherlands. *Tijdschrift voor Economische en Sociale Geografie*, 81(4), 289-299.
- Herschel, T. & Newman, P. (2004). *Governance of Europe's City Regions: Planning, Policy & Politics*. 2nd Edition. Oxon: Routledge.
- Louw, E., van der Krabben, E. & Priemus, H. (2003). Spatial development policy: changing roles for local and regional authorities in the Netherlands. *Land Use Policy*, 20(4), 357-366.
- Meijers, E.J. & Burger, M.J. (2017). Stretching the concept of 'borrowed size'. *Urban Studies*, 54(1), 269-291.
- Parr, J. (2005). Perspectives on the city-region. *Regional Studies*, 39(5), 555-566.
- Platform 31 (2015). *Van agglomeratiekracht naar netwerkkracht*. Den Haag: Platform 31.
- Polèse, M. & Shearmur, R. (2006). Growth and location of economic activity. *Growth and Change* 37(3), 362–395.
- Regio Zwolle (2017) *Bestuurlijke samenwerking*. Accessed on 25-05-2017 via <http://regiozwolle.info/over-regio-zwolle/bestuurlijke-samenwerking/>. Zwolle: Regio Zwolle

RIVM (2016). Monitoringsrapportage NSL. 2016. Bilthoven: Rijksinstituut voor Volksgezondheid (RIVM)

Rodríguez-Pose, A. (2008). The rise of the 'city-region' concept and its development policy implications. *European Planning Studies*, 16(8), 1025-1046.

Slack, B. & Frémont, A. (2003). Transformation of port terminal operations: from the local to the global. *Transport Reviews*, 25(1)

Studiegroep Openbaar Bestuur (2016). *Maak verschil – Krachtig inspelen op regionaal-economische opgaven*. Den Haag: Studiegroep Openbaar Bestuur.

United Nations (2015). *City population by sex, city and city type*. United Nations Statistics Division (UNSD).