Disentangling processes of neighbourhood change: Towards a better understanding of upgrading and downgrading of neighbourhoods in the highly-regulated context of the Netherlands
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Over recent decades, upgrading and downgrading patterns have changed significantly in many Western cities. Many neighbourhoods have witnessed a transformation from disadvantaged areas with poor housing conditions to popular high-end neighbourhoods. Although this process of inner-city revaluation, or gentrification as it is called, was originally observed in just a small number of neighbourhoods (Glass, 1964), the process has extended significantly and is now seen as one of the biggest forces shaping contemporary cities (Lees et al., 2008; Doucet, 2014). Nevertheless, many neighbourhoods still face decline. Large housing estates in particular, which were planned and built in the urban periphery after the Second World War, have been associated with downgrading (Rowlands et al., 2009; Van Gent, 2009), although this has also been observed in centrally-located neighbourhoods.

Upgrading and downgrading processes have received a great deal of academic and professional attention and are without a doubt one of the most popular topics in urban studies (Lees et al., 2008). Different approaches can be identified in the literature, which focus on varying factors influencing upgrading and downgrading. The structural analysis of neighbourhood change started with ecological models of the Chicago School (Burgess, 1925/1974; Hoyt, 1939), which assumed that the general trend in neighbourhood change was downward: housing stock quality would decline over time and affluent households would consequently move away to higher-quality (newer) neighbourhoods and they would in turn be replaced by lower-income households. However, the models were challenged in the 1960s when a revaluation of historic, inner-city neighbourhoods was observed (Glass, 1964). Fifty years have passed since the coining of the term gentrification and its causes and consequences have been much debated ever since. Traditionally, gentrification was explained based on demand-side approaches where the preferences and decision-making processes of households were central (e.g. Ley, 1986; 1996; Hamnett, 1991; Butler and Robson, 2001), or supply-side approaches, which give the operation of housing markets and capital a key role (e.g. Smith, 1979; 1996). While
scholars searched for an amalgamation of these approaches, Lees (2000, p. 390) argued that through this ‘theoretical logjam’, the role of institutional actors in gentrification had long been side-lined. Nevertheless, since the early 2000s, scholars increasingly focused on the role of policies and interventions of governing actors in gentrification (e.g. Wyly and Hammel, 2005; Lees, 2008; Uitermark et al., 2007).

This dissertation focuses on processes of upgrading and downgrading in the highly-regulated context of the Netherlands. The aim of this research is twofold. The first objective is to acquire a better understanding of how processes of upgrading and downgrading manifest themselves, while the second aim is to gain insight into the way in which the highly-regulated context of the Netherlands contributes to these processes. These aims are related to two gaps which were identified in the literature on neighbourhood change.

Firstly, many studies about neighbourhood change present the development of neighbourhoods in an orderly progression. For instance, there are several – rather mechanistic – stage models in the gentrification literature that assume that gentrification passes through successive stages, which are characterized by different types of households moving in and out and different phases of physical improvement (e.g. Clay, 1979; Gale, 1979; Hackworth and Smith, 2001). Such models argue that social and physical neighbourhood change are closely related or even synonymous: socio-economic changes are assumed to go hand-in-hand with physical changes. Moreover, a key role is attributed to residential mobility, while incumbent processes – changes in the socio-economic status of sitting households – are often ignored. For instance, it is widely agreed that gentrification is driven by successive in-migration of high-income households, leading to the replacement of lower-income groups (e.g. Smith, 1996; Lees et al., 2008). At the same time, downgrading is often related to the in-migration of low-income and the out-migration of high-income households (e.g. Andersson and Brämå, 2004; Van Ham and Clark, 2009). Few studies actually untangle the relationship between social and physical neighbourhood change and between residential mobility and neighbourhood change. This dissertation addresses these relationships in three Dutch cities and argues that processes of neighbourhood change are more differentiated than assumed.

Secondly, it was already acknowledged in the 1990s that processes of neighbourhood change could be very place-specific (Van Weesep, 1994). However, the role of context has long been side-lined in neighbourhood research, especially in
gentrification studies. In this respect, Lees (2000; 2012) urged scholars to pay attention to the ‘geography of gentrification’, i.e. the spatial and temporal dimensions of gentrification. Despite growing attention to the context-dependency of neighbourhood change (Lees, 2012), most studies focus on Anglo-Saxon contexts – especially the US and UK – which are characterized by specific institutional arrangements, which differ from Continental-European countries, such as the Netherlands (Hochstenbach et al., 2014). Anglo-Saxon contexts are characterized by more liberal attitudes towards neighbourhood development and private capital often plays a central role. In contrast, many Continental-European countries have stronger welfare states, interventionist governments with their urban and housing policies and presence of social housing (Van Kempen and Murie, 2009). These institutional arrangements often lead to milder forms of upgrading and downgrading (Doucet, 2014). Therefore, neighbourhood change cannot be understood without addressing the role of governing actors.

While the role of governing actors in neighbourhood change has been addressed in highly-regulated contexts with strong traditions in neighbourhood interventions such as the Netherlands (e.g. Uitermark et al., 2007; Musterd and Ostendorf, 2008; Van Gent, 2013), many studies only focus on one type of governing actor or treat governing actors as one group which are assumed to follow shared objectives in neighbourhood development. While these studies provided important insights into the relationship between governing actors and neighbourhood change, multiple actors are often involved in creating neighbourhood change, such as national and local governments, private developers and housing associations. In addition, governance arrangements increasingly provided room for residents to participate in decision-making processes. It is likely that the actors involved have different goals and priorities, leading to diverse outcomes in regeneration strategies and, consequently, differing processes of neighbourhood change. Moreover, upgrading and downgrading processes are not only context-dependent at the national scale, but also at the scale of the city or even the neighbourhood (Lees, 2000; 2012). So, this dissertation examines the way in which governing actors – the national government, local governments and housing associations – contribute to neighbourhood change in three neighbourhoods in two Dutch cities. The aim is to understand how goals of different actors in generating neighbourhood upgrading result in different regeneration strategies, to what extent residents have contributed to these strategies through participating in decision-making processes in neighbourhood governance, and how this resulted in different processes of neighbourhood change.
1.1 Studying neighbourhood change

The study of upgrading and downgrading has a long history: since the beginning of the twentieth century, scholars have been examining the trajectories, causes and consequences of neighbourhood change. This section starts by elaborating on the concepts of upgrading and downgrading. Then the relationship between residential and social mobility and neighbourhood change is discussed. This section concludes by discussing institutional approaches to neighbourhood change, as the aim of the second part of this dissertation is to gain insight into the way in which governing actors contribute to these processes.

1.1.1 Upgrading and downgrading

In the academic literature, processes of neighbourhood change often encompass a variety of changes to a neighbourhood’s socio-economic and/or physical environment (e.g. Grigsby et al., 1987; Musterd, 1991; Temkin and Rohe, 1996; Van Criekingen and Decroly, 2003; Aalbers, 2006; Lees et al., 2008). Downgrading may refer to a decline in a neighbourhood’s socio-economic status or educational level, a decline in the quality of the housing stock and public space, a decrease in a neighbourhood’s liveability or a drop in real estate values, a decline in amenities and facilities and/or a rise in the level of crime and nuisance. However, although many studies about neighbourhood change focus on only one of these dimensions (social or physical) (Walks and Maaranen, 2008a), they often assume a close relationship between social and physical changes (Grigsby et al., 1987). Empirical evidence investigating this relationship is consequently scarce. To be clear, downgrading may occur absolutely, or relative to city-wide changes (Lupton and Power, 2004). Furthermore, downgrading does not necessarily have to be measured objectively, as it can also be experienced subjectively, when residents or other actors have the feeling that their neighbourhood is experiencing a downward development (Aalbers, 2006).

Logically, upgrading then refers to an absolute or relative increase in a neighbourhood’s socio-economic and/or physical environment and can be measured both objectively or experienced subjectively. Since the 1960s, most – if not all – attention within upgrading studies has been paid to gentrification, which was originally defined as a spontaneous process in which individual homeowners restored dwellings in disinvested inner-city neighbourhoods (Glass, 1964). What nowadays constitutes gentrification,
however, has evolved significantly (Lees et al., 2008; Doucet, 2014). In its broadest sense, gentrification can be defined as the “production of space for – and consumption by – a more affluent and very different incoming population” (Slater et al., 2004, p. 1145). This ‘incoming population’ is generally composed of young, highly-educated professionals, living in small-sized non-familial households and creating a neighbourhood ambience that reflects their tastes and values (Clay, 1979; Butler and Robson, 2001; Lees et al., 2008). Davidson and Lees (2005) suggest that the defining characteristics of gentrification should also include capital reinvestment, landscape change and direct or indirect displacement of low-income groups. However, nowadays gentrification takes many different forms, such as super-gentrification, new-build gentrification, family gentrification, rural gentrification and state-led gentrification (e.g. Hackworth and Smith, 2001; Davidson and Lees, 2005; Lees et al., 2008). So, it would be an understatement to argue that gentrification is a highly-differentiated concept.

1.1.2 Residential and social mobility and neighbourhood change
What most studies on neighbourhood change have in common is the key role they attribute to residential mobility in neighbourhood upgrading and downgrading, while incumbent processes – changes in the socio-economic status of sitting residents – are often overlooked. As early as the early twentieth century, scholars assumed a close relationship between residential mobility and neighbourhood change, when the structural analysis of neighbourhood change was initiated with ecological models of the Chicago School. Particularly well-known are the invasion and succession theory of Burgess (1925/1974) and the filtering theory of Hoyt (1939). Both theories argue that chain reactions in residential movement take place from low quality areas (city centre) to newer, higher-quality neighbourhoods. Burgess (1925/1974) assumed that this chain reaction was caused by an invasion of lower-income households into the lowest quality parts, leading to out-migration of sitting households towards higher-quality areas. Hoyt (1939) argued that chain reactions were caused by ageing of the housing stock, as the attractiveness of dwellings would decrease over time. This drove households to move to newer, higher-quality neighbourhoods. Although these approaches have been criticized, for instance, because there was a lack of attention to choices and preferences of households (Bassett and Short, 1980) and later gentrification studies showed a revaluation of aged neighbourhoods (Glass, 1964), these approaches have been quite influential. Although the causes and consequences of gentrification have been debated
ever since the term was coined by Ruth Glass (1964), residential mobility has been a defining characteristic of most – if not all – definitions of gentrification: it is widely agreed that gentrification is driven by successive in-migration of a ‘new’ group of residents (Clay, 1979; Smith, 1996; Lees et al., 2008). It is argued that these residents have high incomes, are highly-educated and possess high levels of social and cultural capital (Ley, 1996; Bridge, 2001; Butler and Robson, 2001). In addition, there have been a large number of studies focusing on out-migrants of gentrifying neighbourhoods, which argued that gentrification led to negative effects such as displacement of low-income households (Atkinson, 2000; Newman and Wyly, 2006; Lees, 2008). Nevertheless, other scholars challenged displacement by arguing that out-migrants often left the neighbourhood voluntarily (Freeman, 2005; McKinnish et al., 2010). A central role has also been attributed within downgrading studies to residential mobility: downgrading is often related to selective in-migration of low-income and out-migration of high-income households, and high mobility is often seen as a trigger of neighbourhood decline (see for instance Andersson and Bråmå, 2004; Van Ham and Clark, 2009).

What many studies tend to overlook is that neighbourhood change may also occur as a result of incumbent processes. This is largely due to a lack of data: most studies use aggregated data to examine neighbourhood change, which makes it difficult to distinguish whether neighbourhood change occurs by in-, out- or non-migrants (Lupton and Power, 2004). Incumbent processes of neighbourhood change can firstly relate to a physical process in which households (re)invest in the housing stock of their neighbourhood (Clay, 1979; Galster, 1987; Van Criekingen and Decroley, 2003). Clay (1979) argues that incumbent upgrading in terms of physical investments is important as it reflects neighbourhood confidence. On the other hand, incumbent processes can relate to changes in the socio-economic status of sitting households of a neighbourhood (Grigsby et al., 1987; McKinnish et al., 2010). Although there is little empirical evidence of socio-economic changes of sitting households, some exceptions can be made. For instance, McKinnish et al. (2010) showed that non-migrants possess higher income levels than in-migrants and consequently suggested the existence of incumbent upgrading. Furthermore, Bailey (2012) demonstrated that – among other factors – changes in the socio-economic status of sitting residents mitigated the effects of mobility on spatial segregation patterns.
1.1.3 Institutional approaches to neighbourhood change

In many countries, especially within Continental Europe, housing regimes and neighbourhood development are – to a certain degree – regulated by governmental institutions. In such contexts, it is therefore important to take the role of governing actors into account in understanding neighbourhood change (Van Kempen and Özüekren, 1998; Bolt et al., 2008). Although the role of governing actors has long been side-lined in gentrification research (Lees, 2000), institutional approaches in neighbourhood change in general date back to the 1960s, when Rex and Moore (1967) introduced their managerialist approach. They introduced the concept of ‘housing classes’, which determine the accessibility of housing markets. This study was influential because it paid attention to mechanisms determining the accessibility of housing markets (Meulenbelt, 1997; Van Kempen and Özüekren, 1998). In addition to a household’s socio-economic status, Rex and Moore argued that accessibility is determined by allocation rules of public and private actors. The managerialist approach was extended by Pahl (1975; 1983), who emphasized the role of ‘gatekeepers’ in housing markets, which may be, for instance, (local) governments, housing associations, estate agents or real estate developers. The argument is that gatekeepers influence housing allocation and production in owner-occupied, privately rented and socially rented housing. As a result, gatekeepers determine which households move into which dwellings and consequently impact processes of neighbourhood change. This dissertation focuses on the role of the national government, local governments and housing associations in generating neighbourhood change, as these are the most important ‘gatekeepers’ in the context of the Netherlands. The remainder of this section therefore discusses the role of these actors in more detail.

Firstly, governmental actors strongly influence tenure structures of housing markets. Especially in highly-regulated contexts such as the Netherlands and Sweden, the government has provided large numbers of social housing for low-income households (Musterd and Ostendorf, 2008; Andersson and Turner, 2014). Allocation criteria, such as income level, household characteristics and time of registration, determine the type of household that moves into a neighbourhood. Neighbourhoods with large proportions of social housing have often been associated with downgrading, due to high proportions of low-income households and related social problems (see for instance Rowlands et al., 2009; Van Gent, 2009; Posthumus, 2013).
Secondly, at the scale of the neighbourhood, national and local governments influence neighbourhood change through area-based regeneration policies and interventions, both in Anglo-Saxon and Continental-European contexts – albeit in different forms and intensity (see for instance Andersson and Musterd, 2005; Wyly and Hammel, 2005; Musterd and Ostendorf, 2008; Lees, 2008). From the 1980s onwards, regeneration policies and interventions increasingly had a pro-gentrification character: both in North-America and Europe, encouraging higher-income households to move into low-income neighbourhoods has become a popular policy goal (Lees, 2008). This process is referred to as ‘state-led gentrification’\footnote{Instead of ‘state-led gentrification’, these policies and interventions have also been referred to as ‘social mixing’, ‘urban revitalization’ or ‘urban renaissance’. While the terms in fact refer to similar processes (bringing higher-income people into low-income neighbourhoods), the latter are less loaded with a class-based tone. Consequently, these terms are favoured by policymakers and scholars who take a less critical or class-based view of the process (Lees, 2008; Bridge et al., 2012; Doucet, 2014).}. The promotion of gentrification by governmental actors has been linked to processes of rescaling and fragmentation of the state as a result of neo-liberalization (Hackworth and Smith, 2001; Smith, 2002). Neo-liberalization was characterized by a shift towards market-oriented and market-dependent approaches, and policies shifted towards liberalization and reductions in funding for welfare and affordable housing. Although neo-liberalization is at work in many countries, there are differences between contexts in terms of pace, intensity and effects (Peck and Tickell, 2002). Through the presence of stronger welfare states and interventionist governments, neo-liberalization has been mild in Continental-Europe compared to Anglo-Saxon contexts (Van Kempen and Murie, 2009; Doucet, 2014). Again in these contexts, governing actors nevertheless increasingly adopted gentrification as a regeneration strategy. For example, in the Netherlands, neighbourhood regeneration strategies shifted from focusing on providing affordable housing to stimulating socio-economic differentiation, based on the assumption that this leads to less segregated neighbourhoods (Uitermark et al., 2007; Lees, 2008; Musterd and Ostendorf, 2008).

Besides governments, institutional actors such as housing associations have also been identified as important actors in generating neighbourhood change. In a number of countries, housing associations have been selling off parts of their social housing stock, thereby stimulating gentrification. A well-known example is the United Kingdom, where housing associations privatized a significant proportion of social housing, made possible by the Right-to-Buy legislation (Van Gent, 2010b). A similar tendency has been observed
in Sweden (Andersson and Turner, 2014). In the Netherlands, housing associations have also been important actors in generating neighbourhood change. This was related to their deregulation in 1995, which implied that financial support of the government disappeared (Blessing, 2013). As the maintenance and construction of social housing are unprofitable investments, housing associations have to generate income from commercial activities such as selling off social housing and conversion of social housing into privately rented housing. Thereby, housing associations became important actors in encouraging gentrification (Priemus, 2003).

Finally, residents have increasingly been included as ‘stakeholders’ in decision-making processes in policies and interventions for neighbourhood upgrading (Kokx and Van Kempen, 2009; Bailey, 2010). Opportunities for residents to participate in policy arenas have been linked to the shift from government to governance as a result of neoliberalization, which created opportunities for actors, such as private developers and housing associations, to participate in neighbourhood governance. These local partnerships usually also include some form of resident participation (Andersen and Van Kempen, 2003; Taylor, 2007; Uitermark and Duyvendak, 2008), as it is thought that it creates opportunities and benefits for both residents and other stakeholders (Robinson et al., 2005; Taylor, 2007).

This research starts from the premise that a better understanding is needed about the different actors involved in neighbourhood governance to understand institutional approaches to neighbourhood change.

1.2 Research questions

This dissertation consists of two parts. The first part explores and disentangles patterns of neighbourhood upgrading and downgrading in the highly-regulated context of the Netherlands, while the second part provides insight into the way in which governing actors contribute to neighbourhood change. The first part explores patterns of social and physical upgrading and downgrading of neighbourhoods and aims to provide insight into the relationship between these processes in three Dutch cities: Amsterdam, The Hague and Tilburg. The first research question is therefore:

(1) What is the relationship between processes of social and physical upgrading and downgrading of urban neighbourhoods?
The first part also aims to gain insight into the relationship between residential and social mobility and neighbourhood change in Amsterdam, The Hague and Tilburg. Accordingly, the second research question is:

(2) What is the relationship between neighbourhood upgrading and downgrading and residential and social mobility of residents?

The relationship between the first and second research question is visualised in a conceptual schematic diagram in Figure 1.1.

The goal of the second part of this dissertation is to explore the way in which governing actors contribute to neighbourhood change. The aim is firstly to provide insight into goals of different governing actors – the national government, local governments and housing associations – in generating neighbourhood upgrading, to understand to what extent these goals vary between actors and how this results in diverse processes of neighbourhood change. This part focuses on the neighbourhoods of Transvaal and Oosterpark in Amsterdam and Rustenburg in The Hague and starts from the premise that processes of neighbourhood change can be very place-specific. The third research question is:

(3) What are goals of governing actors for policies and interventions in generating neighbourhood upgrading and how do different goals result in place-specific regeneration strategies and diverse processes of neighbourhood change?

The final research question focuses on how the inclusion of residents in decision-making processes of governing actors has provided opportunities for residents to influence neighbourhood regeneration strategies, and aims to understand how residents consequently contributed to neighbourhood change. This part focuses on the neighbourhood of Transvaal in Amsterdam. The final research question is:

(4) How and to what degree have residents been included in decision-making processes in policies and interventions for neighbourhood upgrading and to what extent have residents thereby contributed to neighbourhood change?
A conceptual schematic diagram visualizing the relationship between the third and fourth research question is presented in Figure 1.1.

**Figure 1.1** Conceptual schematic diagram of the relationships between the research questions of this dissertation.

1.3 **Research data and methods**

This dissertation consists of an embedded case-study using mixed methods. The first part is a citywide analysis of neighbourhood change, as it addresses processes of upgrading and downgrading in the cities of Amsterdam, The Hague and Tilburg and makes use of quantitative research data and methods. The second part concerns a neighbourhood analysis, as it focuses on the role of governing actors and resident participation in neighbourhood upgrading and makes use of a combination of qualitative data and methods.

1.3.1 **Quantitative data and methods**

*Data*

In order to explore and disentangle patterns of neighbourhood upgrading and downgrading and residential mobility, data was used from the Social Statistical Database (SSD) of Statistics Netherlands and from Kadaster, a government agency that compiles all real estate transactions in the Netherlands. The SSD includes data on the entire
registered population for the period 1999 to 2008\(^2\) and registers data on income from employment, benefits and pensions, as well as residential trajectories and individual and household characteristics such as ethnicity, age and gender. The data which was used was based on all individuals in Amsterdam, The Hague and Tilburg\(^3\). Data at neighbourhood level was obtained by aggregating individual data.

The dataset of Kadaster contains transaction values of owner-occupied housing, as well as rental units converted to owner-occupied housing, for the period 1999 to 2006. Transaction values are included for different types of housing (apartments, terraced houses, corner houses, detached houses and semi-detached houses), averaged at the neighbourhood level. One constraint of using this dataset is that real estate values of social housing are not included. However, Visser and Van Dam (2006) observed that social housing does not significantly influence real estate values, although this may vary regionally. Another constraint is that the dataset does not include square metre values, as real estate values are based on the sale price of different types of housing.

The national neighbourhood classification is the lowest geographical level at which neighbourhood data of Statistics Netherlands and Kadaster are available. In addition, regeneration strategies of governing actors often focused on the national spatial units classification. This was also the case in this dissertation’s case studies. For these reasons, this dissertation adheres to this classification. The neighbourhoods of the national classification are generally socially and physically homogeneous areas that are often clearly delimited by streets, railroad lines or waterways (Statistics Netherlands, 2010). The boundaries are determined by municipalities. As Amsterdam is the largest and most densely populated city, the average neighbourhood population is highest: 11,781 inhabitants (2011). Tilburg and The Hague have an average neighbourhood population of respectively 6729 and 6008 inhabitants. However, the neighbourhoods vary in size: from a population of 150 to two neighbourhoods with over 20,000 inhabitants.

**Social upgrading and downgrading**

Social upgrading and downgrading of neighbourhoods are often measured through examining income data (e.g. Grigsby et al., 1987; Musterd, 1991; Bourne, 1993; Meulentbelt, 1997; Hulchanski, 2010). A number of studies have also addressed

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\(^2\) However, at the time of writing chapter 2, data of the SSD was only available for the period 1999 to 2006.

\(^3\) Although institutional households are excluded, as well as people who were born or died between 1999 and 2008.
occupational, educational and/or unemployment data (e.g. Butler and Robson, 2001; Ley, 2003; Walks and Maaranen, 2008b; Kitchen and Williams, 2009; Davidson and Lees, 2010). In gentrification studies in particular, occupational and educational data are often used, as gentrification is associated with the emergence of a new middle-class working in the tertiary or quaternary sector (Hamnett, 1991). This dissertation measures social upgrading and downgrading by examining income data, as the level of earnings mainly drives the consumption sector and generally determines choice in housing and neighbourhoods (Bourne, 1993). Moreover, educational and occupational data are not available at neighbourhood level in the Netherlands.

This dissertation uses ‘standardised net income per household’ as the key indicator (averaged per neighbourhood), as it corrects for differences in size and composition of households of a neighbourhood. Incomes are converted to that of a household of one person, which facilitates comparison between neighbourhoods. Standardized net income per household is calculated through dividing the total net household income (from work, benefits and pensions) by an equivalence factor\(^4\), derived from Statistics Netherlands.

Social upgrading and downgrading are measured relative to city-wide change. This can be explained by the fact that standardised net household incomes increased significantly between 1999 and 2008: from 14,302 to 19,294 in Amsterdam, from 14,888 to 19,566 in The Hague and from 14,530 to 18,651 in Tilburg. Income levels of all neighbourhoods increased simultaneously, so nearly every neighbourhood would be classified as upgrading when it would be measured absolutely. Yet, neighbourhoods have hierarchical positions within cities, as incomes in some neighbourhoods increased faster than in others. Since this research is concerned with changes in this hierarchy, social upgrading and downgrading are measured in comparison with other neighbourhoods.

Social upgrading and downgrading are calculated as follows: social grading\(^{=}\frac{\text{mean neighbourhood income in year } x}{\text{mean neighbourhood income in year } y}/\frac{\text{mean city income in year } x}{\text{mean city income in year } y}\). A neighbourhood was classified as upgrading when the growth of the neighbourhood income is more than half a standard deviation above the growth of the mean city income between 1999 and 2008\(^5\). A neighbourhood was deemed to be downgrading when the growth of its income level was more than half a standard deviation below the average city level. When the growth of the

\(^{4}\) The formula for the equivalence factor, \(E\), is: \(E = [A + (0.8C)]^{0.5}\), where \(A\) is the number of adults and \(C\) the number of children in a household (Statistics Netherlands, 2011).

\(^{5}\) 2006 in chapter 2.
income level was between half a standard deviation below and above the average city level, a neighbourhood was considered to be keeping in pace with the city's overall development.

ArcMap was used to produce maps that display patterns of social upgrading and downgrading in Amsterdam, The Hague and Tilburg.

Physical upgrading and downgrading

Although most studies on neighbourhood change focus on the socio-economic dimension of neighbourhoods, a number of scholars examined the physical dimension as well. Some scholars studied changes in the built environment, for instance, in terms of the percentage of renovated housing or the evolution of the mean rent level (e.g. Musterd, 1991; Hammel and Wyly, 1996; Van Crieckingen and Decroly, 2003). Others examined tenure conversions from rent to owner-occupancy (e.g. Boterman and Van Gent, 2014) or changes in the real estate value of dwellings (e.g. Musterd and Van der Oord, 2008; Walks and Maaranen, 2008a). This dissertation measures physical upgrading and downgrading by examining real estate data.

Physical upgrading and downgrading were calculated for different types of dwelling; next, the weighted average of the real estate value per dwelling type was calculated. The data was checked for extreme outliers and, in order to ensure reliability, a minimum of 30 transactions was required for each neighbourhood. In addition, two three-year periods were compared. The first period was based on transaction values from 1998 to 2000, with a total of 48,516 transactions in the three urban cores. The second period was based on values from 2005 to 2007, with a total of 59,149 transactions. These periods are referred to as 1999 and 2006.

Physical neighbourhood changes are calculated in the same way as social neighbourhood change: physical grading=(mean neighbourhood real estate value in year x/mean neighbourhood real estate value in year y)/(mean city real estate value in year x/mean city real estate value in year y). A neighbourhood was defined as upgrading when the growth of the neighbourhood real estate is more than half a standard deviation above the growth of the mean city real estate value between 1999 and 2006. When the growth of the real estate value was more than half a standard deviation below the average city level, the neighbourhood was considered to be downgrading. A neighbourhood was classified as keeping in pace with the city's overall development when the growth of the real estate value was between half a standard deviation below and above the average city level.
ArcMap was used to produce maps that display patterns of physical upgrading and downgrading of neighbourhoods in Amsterdam, The Hague and Tilburg.

Residential mobility
The second research question addresses the relationship between social upgrading and downgrading and residential mobility. Residential mobility reflects the percentage of individuals that moved to another neighbourhood between 1999 and 2008. Neighbourhoods were classified as ‘high mobility’ when the percentage of individuals moving was half a standard deviation above the citywide percentage of individuals that moved. When the percentage of individuals that moved was half a standard deviation below the citywide level, the neighbourhood was classified as ‘low mobility’. When the percentage of individuals that moved was between half a standard deviation above and below the citywide percentage, the neighbourhood was classified as ‘average mobility’.

In addition, income developments of in-migrants, out-migrants and non-migrants of neighbourhoods were examined and related to neighbourhood income development. So, incomes of all in-migrants, out-migrants and non-migrants were calculated and aggregated to the neighbourhood level for each year. Moreover, in order to provide a better understanding of the contribution of in- and out-migrants to neighbourhood change, income developments of in-migrants after in-migration and of out-migrants before out-migration were examined.

1.3.2 Qualitative data and methods
In order to address the third and fourth research question, a combination of qualitative data and methods was used. These include semi-structured interviews with urban and housing professionals and residents in a selected number of neighbourhoods. In addition, participant observation in the neighbourhoods was conducted, consisting of informal conversations with residents and attendance of neighbourhood activities. Moreover, the research drew on analysis of written resources, such as policy documents of the national and local government and housing associations concerning the regeneration of neighbourhoods and resident participation, and the analysis of local websites and newspapers.

Semi-structured interviews were held with 27 urban professionals and 6 residents and focused on the period 1999-2013. In general, the interviews lasted about 90 minutes.

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6 Neighbourhoods constructed after 1999 are excluded.
All interviews were recorded, fully transcribed and analysed using the statistical software program Atlas.ti. The urban and housing professionals are (or were) employed at the Municipality of Amsterdam (5 respondents), Municipality of The Hague (7 respondents), housing associations (14 respondents) and a welfare institution in Amsterdam (1 respondent). The professionals are (or were) employed at different spatial scales – from strategic to very practical – in order to obtain a comprehensive and diverse selection of respondents. Appendix A provides a more detailed overview of the respondents.

Interviews with urban and housing professionals addressed the following topics: (1) perceived development of the neighbourhood over the past decades; (2) policies and interventions of actors involved; (3) goals and motivations for these policies and interventions; (4) how and to what degree residents have been involved in the initiation, formulation and implementation of the policies and interventions; and (5) perceived effects of their policies and interventions on the neighbourhood and those of other actors. Appendix B provides a topic list of the interviews with urban professionals.

Interviews with residents addressed the following topics: (1) resident participation in the neighbourhood in general; (2) participation activities of the resident in particular; (3) respondents’ evaluation of how and to what degree residents were involved in decision-making processes in policies and interventions for neighbourhood upgrading; and (4) respondents’ evaluation of how and to what degree residents have consequently contributed to neighbourhood change. Appendix B provides a topic list of the interviews with residents.

1.4 Research cases

1.4.1 Amsterdam, The Hague and Tilburg

The first part of this dissertation explores patterns of neighbourhood upgrading and downgrading in three Dutch cities: Amsterdam, The Hague and Tilburg (Figure 1.2). These cities were selected for two reasons. Firstly, the Municipalities of Amsterdam, The Hague and Tilburg – as well as Platform Corpovenista⁷, Platform31 and Kadaster – participated in the overall research project of which this dissertation forms a part. Together with the University of Amsterdam, these organizations formed a research

⁷ Platform Corpovenista is a collaboration between 14 Dutch housing associations, focusing on research and sharing knowledge concerning urban and neighbourhood development.
consortium of the project entitled *Changing households and ‘functions’ of neighbourhoods* (see Musterd et al., forthcoming).

Second, Amsterdam, The Hague and Tilburg are different types of cities. Amsterdam and The Hague are located in the metropolitan region called the Randstad. Amsterdam is the largest and The Hague is the third-largest city in the Netherlands, with a population of about 800,000 and 505,000 inhabitants respectively (2013). Tilburg is located in the south of the Netherlands and has a population of about 208,000 inhabitants. Tilburg is consequently a medium-sized Dutch city.

Table 1.1 presents key characteristics of the three cities. In addition to variations in size and location, the cities have different social, economic and housing market contexts. Amsterdam is characterized by a large social housing sector: 47 percent of the housing stock consists of social housing, while respectively 28 and 25 percent are privately rented and owner-occupied (2012). Amsterdam is known for its strong economic position and the city is characterized by significant commercial and service industries (Musterd et al., 2006). Not surprisingly, the housing market is generally characterized by high demand and in no other Dutch city gentrification is as visible as it is in Amsterdam.

The Hague is characterized by a comparatively smaller social housing stock: 33 percent of the housing stock is socially rented, while respectively 19 and 46 percent are privately rented and owner-occupied. When compared to Amsterdam, this implies that governing actors have fewer possibilities to intervene in the housing stock. The Hague is one of the most segregated cities of the Netherlands, with both poor and affluent neighbourhoods (Bolt et al., 2002; Pinkster, 2006). The Hague is the governmental centre of the Netherlands and its labour market is characterized by an extensive public sector.

Similar to The Hague, Tilburg’s social housing stock is comparatively small (33 percent), while respectively 10 and 57 percent are privately rented and owner-occupied. Tilburg is strongly characterized by its industrial past. The city emerged from a conglomeration of smaller villages and consequently lacks a major historical centre. Although the economy has diversified since the 1960s, it still focuses on manufacturing and transport. Compared to Amsterdam and The Hague, Tilburg’s housing market is characterized by lower demand and lower prices. From this perspective, Tilburg offers an interesting opportunity to explore to what extent gentrification has ‘trickled down’ the urban hierarchy.
Figure 1.2 Location of Amsterdam, The Hague and Tilburg in the Netherlands

![Map of The Netherlands showing the locations of Amsterdam, The Hague, and Tilburg.](image)

Source: Statistics Netherlands (own adaptation)

Table 1.1 Characteristics of the cities

<table>
<thead>
<tr>
<th></th>
<th>Amsterdam</th>
<th>The Hague</th>
<th>Tilburg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population core city</strong> (2013)</td>
<td>799,275</td>
<td>505,855</td>
<td>208,525</td>
</tr>
<tr>
<td><strong>Housing stock</strong> (2012, in %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socially rented</td>
<td>47</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>Privately rented</td>
<td>25</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Owner-occupied</td>
<td>28</td>
<td>46</td>
<td>56</td>
</tr>
<tr>
<td><strong>Real estate value</strong> (2009, in euro)</td>
<td>293,499</td>
<td>207,362</td>
<td>210,622</td>
</tr>
<tr>
<td><strong>Income</strong>¹ (2008, in euro)</td>
<td>19,294</td>
<td>19,566</td>
<td>18,651</td>
</tr>
<tr>
<td><strong>Ethnic background</strong> (2013, in %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dutch</td>
<td>49</td>
<td>51</td>
<td>76</td>
</tr>
<tr>
<td>Non-Western</td>
<td>35</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td>Western</td>
<td>16</td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

¹ Standardized net household income from work, benefit and pensions.

Source: Statistics Netherlands, Kadaster, O&S Amsterdam, Municipality of The Hague and Municipality of Tilburg.
1.4.2 Transvaal, Oosterpark and Rustenburg

The third research question addresses the role of governing actors in generating neighbourhood upgrading in three centrally-located, pre-war constructed neighbourhoods: Transvaal and Oosterpark in Amsterdam (Figure 1.3) and Rustenburg in The Hague (Figure 1.4). These neighbourhoods were selected because they had – to some extent – similar positions in the 1990s: the neighbourhoods were characterized by a weak position in the housing market and low socio-economic status. These neighbourhoods have consequently been subjected to state-led gentrification initiatives by local government and housing associations. An important difference between Transvaal and Oosterpark, on the one hand, and Rustenburg, on the other hand, is that Transvaal and Oosterpark are characterized by a large social housing stock (respectively 67 and 61 percent, 2012), while Rustenburg’s housing stock is dominated by owner-occupied housing (61 percent). These differences impact the extent to which governing actors are able to intervene in these neighbourhoods, as chapter 4 demonstrates.

Finally, the fourth research question addresses the role of residents in the shaping of regeneration strategies in the neighbourhood of Transvaal in Amsterdam. During Transvaal’s regeneration, varying forms of resident participation were introduced, ranging from top-down organized participation to bottom-up initiatives. Transvaal therefore provides an interesting case to explore how the organization of resident participation has changed and what this has meant for the opportunities of residents to influence regeneration plans and subsequent processes of neighbourhood change.

1.5 Reading guide

This dissertation consists of four empirical studies, each addressing a different research question. These studies are described in the following chapters. The relationships between the chapters are indicated in Figure 1.5. All studies have been published in or submitted to an international peer-reviewed journal and were copied in full in this dissertation.

Chapter 2 unscrambles the relationship between social and physical upgrading and downgrading of neighbourhoods in the urban regions of Amsterdam, The Hague and Tilburg. The findings of this chapter indicate that social and physical neighbourhood change develop simultaneously in only a relatively small number of neighbourhoods,
Figure 1.3 Location of Oosterpark and Transvaal in Amsterdam

![Map of Amsterdam showing Oosterpark and Transvaal](image)

Legend:
- Location of neighbourhoods
  - Oosterpark
  - Transvaal
  - Other neighbourhoods

Source: Statistics Netherlands (own adaptation)

Figure 1.4 Location of Rustenburg in The Hague

![Map of The Hague showing Rustenburg](image)

Legend:
- Location of neighbourhood
  - Rustenburg
  - Other neighbourhoods

Source: Statistics Netherlands (own adaptation)
which are found at the top and bottom of the housing market hierarchy, while the majority of the neighbourhoods demonstrate a more complex relationship.

Chapter 3 explores the relationship between residential mobility and neighbourhood change. This chapter examines income developments of in-migrants, out-migrants and non-migrants of neighbourhoods in Amsterdam, The Hague and Tilburg. The findings demonstrate that in- and out-migration are not the only processes at work and that changes in the socio-economic status of non-migrants are of importance in processes of upgrading and downgrading as well.

Chapter 4 addresses the role of governing actors in generating neighbourhood upgrading in Transvaal and Oosterpark in Amsterdam and Rustenburg in The Hague. This chapter demonstrates that power inequalities between actors involved, and the different objectives and priorities of actors result in processes of negotiation. This leads to diverse regeneration strategies and, as a result, varying processes of neighbourhood change.

Chapter 5 explores how and to what degree residents have been included in decision-making processes in policies and interventions for neighbourhood upgrading and to what extent residents have consequently contributed to neighbourhood change. This chapter focuses on Transvaal in Amsterdam and shows that despite urban professionals’ high ambitions about resident participation and the establishment of varying mechanisms, residents’ achievements in shaping long-term, strategic policy plans for neighbourhood upgrading remain limited.

Finally, chapter 6 synthesizes the findings of the previous chapters, reflects on the findings and discusses directions for future research.

Figure 1.5 Conceptual schematic diagram of the relationships between the chapters.