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**Place-based and race-based exclusion from mortgage loans: New
evidence from the Netherlands**

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Abstract*

In most West-European countries outright ownership is the exception and most households are highly dependent on mortgage loans to be able to become and to sustain homeownership. Do place and race matter in mortgage loan applications? This paper presents evidence from mortgage markets in the Dutch cities of Arnhem, The Hague and Rotterdam, suggesting that place, and to a lesser extent also race, do matter. In general, race and place are not factors of direct exclusion, but (1) zip codes are included in credit scoring systems, and (2) both place and race are significant factors in the assessments by loan officers because applicants who do not meet all formal criteria are more often accepted (“overrides”) for indigenous Dutch and low-risk neighbourhoods than for ethnic minorities and high-risk neighbourhoods. In addition, a “national mortgage guarantee” is compulsory for loan applications in high-risk neighbourhoods and thereby used as a substitute for redlining, comparable to the compulsoriness of private mortgage insurance in the US. Some lenders also engage in direct redlining by rejecting low-risk “national mortgage guarantee” loans in high-risk neighbourhoods, a practice potentially explained by transaction cost economizing. Since the high-risk neighbourhoods in all three cities accommodate relatively large shares of ethnic minority groups, they are hit twice: through place-based and through race-based exclusion. In other words, place-based disparate treatment results in race-based disparate impact. The paper ends with some policy implications focusing in particular on how the state can monitor and prevent both forms of exclusion, thereby removing possible barriers to homeownership.

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Introduction

In society people are not only excluded on the basis of race but also on the basis of place (Aalbers, 2005b; Kasinitz, 2000). The mortgage market is no different; in fact, it is exactly highly developed and institutionalized markets like the mortgage market that have a tendency to exclude (Engelen, 2001). In this paper I answer the question to what extent place-based and race-based exclusion take place in the Dutch mortgage market, and I relate these findings to the debate on the importance of the neighborhood in exclusion processes. My primary interest is in place-based exclusion, but since place-based and race-based forms of exclusion tend to interact, it is important to discuss both forms. Race-based exclusion is clearly related to debates about racial discrimination, while place-based exclusion is more related to debates about segregation and neighborhood effects. Place-based exclusion in the mortgage market often takes the form of redlining. Therefore, in the next section I will relate discussions on redlining to those on the significance of place, and in particular the neighborhood, in exclusion processes. The subsequent section discusses the research approach followed in a study on place-based and race-based exclusion in three Dutch cities: Arnhem, The Hague and Rotterdam. The next section discusses the role of credit scoring in mortgage loan applications, building on the existing literature on mortgage loan applications, credit scoring, street-level bureaucracy and gatekeepers, as well as on the results of the present study. Subsequent sections discuss the scope of race-based and place-based exclusion in the three researched cities. The concluding section links the empirical results and the discussion on credit scoring to the debate on the significance of place, and to a lesser extent race, in exclusion processes.

Although discrimination based on place, and in particularly race, is clearly prohibited in the Netherlands, there are no specialized laws against mortgage market discrimination, making it far less clear what is and what is not allowed in mortgage lending. Hence, I refer to “exclusionary practices” and “exclusion” rather than to “discrimination”. Rather than necessarily referring to an absolute outcome, exclusion approaches focus on processes and institutions; the conceptualisation of exclusion recognises that people’s living conditions depend not just on their personal and household resources, but also on the available collective resources (Room, 1999). I do believe that some forms of exclusion described in this paper, such as de facto redlining, are in fact forms of legally prohibited discrimination, but this paper is not the place to explicate and discuss what is and what is not considered discrimination according to the Dutch legal regulation.

The significance of place in exclusion processes

Discussions on redlining have taken place primarily in the US and have been connected to debates on the causes of segregation and to debates on forms of racial discrimination. Massey & Denton (1993) distinguish between three factors that cause segregation: prejudice, discrimination and discriminatory institutionalized government policies. In addition to discrimination, Kaufman (1998) names the transformation of the economy and fragmented government policies as causes of segregation. Galster (1992) explicitly names redlining as a form of discriminatory practice leading to segregation. Redlining practices constitute a *landscape of power* (see Zukin, 1991) and demonstrate not only how “private investment shapes cities”, but also how “social ideas (and laws) shape private investment” (Jacobs 1961: 313). Redlining in this view is mainly a form of (institutionalized) discrimination and a cause of segregation. Gratz (1989: 108) defines redlining as follows: “the de-facto policy practiced by banks and insurance companies under which a red line is drawn around a neighborhood in which loans and insurance policies will not be written.” Gratz claims that redlining is directly and indirectly encouraged by the federal government through its financial support to the suburbs. Mollenkopf (1983), Jackson (1985), Detlefsen (1997), Rusk (1999: 82-100), and many others have demonstrated how the *Federal Housing Administration* (FHA) stimulated suburban homeownership and disadvantaged prospective homebuyers in the cities (see also Walker, 1981). Wilson (1996) highlights the interaction between public and private actors, and shows how Black households are hit twice: through place-based *and* through race-based exclusion (see also Harvey, 1977: 132; Kasinitz, 2000; Massey & Denton, 1993). Today, FHA loans are actually responsible for increasing homeownership among Black households (Turner & Skidmore, 1999; Wyly & Holloway, 1999). However, even if we control for income, Black households significantly more often rely on FHA-insured loans. The assumption is that Black households rely on FHA-insured loans because it is more difficult for them to acquire loans in the non-insured mortgage market (Wyly & Holloway, 1999). Ross & Tootell (2004) demonstrate that applicants in low-income neighborhoods are

more often forced to take out private mortgage insurance in order to get a mortgage loan application approved; redlining exists when loan applicants did not apply for private mortgage insurance. Research from the 1970s, 1980s and early 1990s clearly shows the existence of redlining (e.g., Bradford & Rubinowitz, 1975; Ahlbrandt, 1997; Tomer, 1980; Dedman, 1988; Bradbury, Case & Dunham, 1989; Shlay, 1989; Dymski & Veitch, 1994). Nevertheless, one should note that community and legal struggles against redlining (see Squires, 1992) have diminished these practices somewhat. Recent research in the US shows that race-based exclusion clearly takes place, but that place-based exclusion is often harder to prove and more contingent on the metropolitan area in which research takes place as well as on individual bank policies (for an overview of the debate see Ross & Yinger, 2002).

While research on race-based exclusion in the Dutch housing market is scarce and focused on the rental market (for a short overview, see Aalbers, 2002) comparable research on race-based exclusion in the Dutch mortgage market is virtually nonexistent. Research on place-based exclusion in the Dutch mortgage market has demonstrated the existence of redlining in the Netherlands in the late 1990s, in particular in the city of Rotterdam (Aalbers, 2005a). This research has also demonstrated a strong correlation between redlined neighborhoods and neighborhoods predominantly accommodating ethnic minority groups (Aalbers, 2007b). In this case, place-based exclusion implies indirect race-based exclusion as ethnic minority groups are hit disproportionately hard by redlining practices. Even though the key factor in exclusion is clearly place-based, the underlying cause may be race-based as mortgage lenders may use zip code as a proxy for race, in particular since race is a more controversial variable for exclusion than place.

In this paper I want to focus on the way location contributes to other forms of exclusion. The work of Wilson (1987; 1996) and Massey & Denton (1993) and the literature on neighborhood effects focus on this question. US studies have demonstrated that place matters, that is, the neighborhood has an independent influence on exclusion outcomes, for example in job search, social mobility and social behavior (e.g., Briggs, 2005; *Housing Policy Debate*, 1995; *Housing Studies*, 1997). Research in EU countries has been much more cautious in singling out the neighborhood as a causal factor in exclusionary processes (e.g., Friedrichs, 1998; *Housing Studies*, 1997; Musterd et al., 2003). One reason for this is the intermediating role played by the welfare state. It provides not only for lower segregation in EU welfare regimes than in the US liberal welfare regime (Musterd & Ostendorf, 1998), but also for a smaller significance of place in EU countries than in the US, as poverty neighborhoods in most European cities are not such deprived areas as US ghettos (Wacquant, 1996). It is important to also note that ethnic concentrations in most European cities are not very stable. Musterd and colleagues show that a concentration of problems in a certain neighborhood does not automatically implicate the neighborhood as the causal factor in obstructing social mobility of the poor. Neighborhood effects are rather limited in scope; welfare state interventions neutralize possibly developing neighborhood effects for the poor, but “this effect is not neutralized for the less poor” who may actually experience neighborhood effects by living in a poor neighborhood (Musterd et al., 2003: 891).

While earlier neighborhood effects studies have focused primarily on employment and social mobility, the present paper conceptualizes place-based exclusion in the mortgage market as another type of neighborhood effect. If the existence of any form of place-based exclusion can be demonstrated, it can be concluded that the neighborhood matters. Then, the neighborhood would make a difference for the individual mortgage loan applicant because it can either enable or constrain someone to reach a better position in life. This paper focuses on the mechanism fostering exclusion; the question how the resulting pattern of exclusion in return changes the neighborhood is picked up elsewhere (Aalbers, 2006a). This study is to some extent vulnerable to Briggs’ (2003) comment on neighborhood effects studies in that they tend to exclude other possible important factors located at other scales. To surmount this problem, the present paper can be supplemented by other studies focusing on exclusion in mortgage markets on different scales (Aalbers, 2005b; 2005c; 2006a; 2007a).

Research approach

Demonstrating place-based or race-based exclusion is not the same as demonstrating for instance segregation. Firstly, data on segregation, if collected by a population register or a Census-type institution, is quite readily available. Secondly, even though residents, landlords, mortgage lenders, local government and other actors may all in some way accelerate or lower segregation, their general aim is not to lower or increase the representation of segregation in segregation indices. The same actors also play a role in place-based and race-based exclusion in the mortgage market, but there is one main difference. Mortgage

lenders have an interest in lowering the representation of exclusion; therefore, they will try to ensure that research of the mortgage market does not demonstrate exclusion. One obvious way of accomplishing this goal is by not excluding on racial or geographical grounds. Alternatively, lenders may show calculated behavior by engaging in exclusion which is not easily demonstrated, thereby diminishing the probability of being charged with discrimination. The legal system and research have to keep up with mortgage lenders' practices in order to demonstrate and counteract potentially exclusionary practices.

Different methods have been used to document race-based and place-based exclusion in mortgage markets. Most of this research comes from the US, with research methods and approaches developing alongside legal changes. The CRA (1977) and the HMDA (1975) not only prohibited different forms of exclusion, but also enabled researchers to access the data of mortgage lenders. Most research was and still is based on statistical analysis of this data, often in combination with other sources, such as Census data. Despite possible strengths of showing both types of exclusion, much controversy has surrounded this type of research. Ross & Yinger (2002) provide a useful summary of the debate, asserting that current research successfully demonstrates race-based exclusion but not the existence of redlining practices. One main explanation is that most research has not focused primarily on place, but on race. Another explanation emphasizes that mortgage lenders have found ways to by-pass suspicion of redlining by granting mortgage loans in the "good" part of a Census tract and withholding it from the "bad" part. The tactics employed include: discouraging applications from certain areas, not including certain areas in their "catchment area" (relevant for CRA-regulations), or charging higher fees in "bad" neighborhoods. Paired testing approaches are also used in mortgage exclusion research, but these approaches are very laborious and hard to use in cases where little previous research has been done, as is the case in the Netherlands. Infiltration and participation in mortgage lending organizations is another possible option; to my knowledge this approach has not been used in examining race-based and place-based exclusion in the mortgage market. The results of such research would be rich in detail and could possibly contribute greatly to our understanding of the mechanisms behind exclusion by mortgage lenders, but these approaches are extremely labor-intensive, the possible results very unsure, and the conclusions limited to one case.

Because of these disadvantages, but also because similar data is not available in the Netherlands, the present study has followed a different approach, namely in-depth, semi-structured interviews with real estate agents and mortgage intermediaries. Interviews with mortgage lenders (directors, managers, loan writers) would also have been possible, but previous research has shown that mortgage lenders are often not willing to share knowledge regarding exclusion in the mortgage market. Real estate agents and mortgage intermediaries (often called realtors and mortgage brokers) in the past were more willing to share their knowledge and experiences as they have no direct interest in withholding this information. For agents and intermediaries any type of exclusion makes their work harder, so they are often more willing than lenders to disclose information. Often they do have a stake in remaining anonymous because they value a good relationship with lenders and do not want to be known as the one who was "snitching" on or informing against lenders. Most agents and intermediaries are willing to be interviewed provided they remain anonymous.

Real estate agents and mortgage intermediaries have been interviewed in three different cities: Arnhem, The Hague and Rotterdam. Rotterdam and The Hague are the second and third largest cities in the country with respectively 600,000 and 475,000 inhabitants within their municipal borders (roughly double for their respective agglomerations). These two cities were chosen for a number of reasons. Firstly, as relatively big cities, differences between neighborhoods tend to be bigger (scale effect); secondly, these cities have large shares of ethnic minority groups; thirdly, ethnic residential segregation is more pronounced there than in other Dutch cities (including Amsterdam, the largest city); and lastly, because there were indications that exclusion might be taking place in these cities, either based on previous research – as is the case for Rotterdam (Aalbers, 2005a) – or on newspaper articles – as is the case for The Hague (Haagsche Courant, 2003; Mulder & Yagmur, 2003). For Amsterdam, previous research did not demonstrate redlining (Aalbers, 2005b) and no such articles have been published. The city of Arnhem (140,000 inhabitants within the municipal borders and about 250,000 in the agglomeration) was selected because it would be interesting to see if mortgage exclusion is limited to the large cities in the west of the country with large shares of ethnic minorities, or if it also takes place in smaller cities in other parts of the country with smaller ethnic minority populations. Arnhem was selected over other cities because it still has a sizeable ethnic minority population (20.9%), which is also somewhat more segregated than in other smaller cities.

In these three cities the size of the owner-occupied sector is relatively small. This is not a special feature of these cities, but typical of most cities in the Netherlands, where larger cities in general have a smaller owner-occupied sector. While the country's homeownership rate has passed the 50 percent boundary only at the beginning of this century, homeownership rates in Arnhem (37%) and The Hague (42%) still remain somewhat, and in Rotterdam (25%) significantly lower. Ethnic minorities tend to live in neighborhoods with relatively low rates of homeownership. For example, in Arnhem 20.9 percent of the residents are ethnic minorities and the most ethnically diverse neighborhood (with 44 percent ethnic minority inhabitants), Presikhaaf-West, has a significantly lower homeownership rate (16%). Similar situations occur in the other ethnically diverse neighborhoods in all three cities. The Spangen neighborhood in Rotterdam has the most extreme situation: 75.6 percent of the residents are ethnic minorities (31.5% for the city) and the homeownership rate is only 7 percent. In general, homeownership rates are much higher among indigenous Dutch (57%) than among ethnic minority groups. The Surinamese (27%) and Turkish (20%) are already lagging behind, while the Antillean (16%) and Moroccan (9%) homeownership rates are much lower (SCP et al., 2005). To a large degree this corresponds to income levels; ethnic minorities tend to have lower incomes and the homeownership rates among lower income households are much lower. Only among Antilleans homeownership rates are falling, which may be a result of the influx of Antilleans whose incomes tend to be considerably lower than those of settled Antilleans. Homeownership rates among Moroccans and Turks have increased rapidly since the mid 1990s, and anecdotal evidence suggest that it is mostly Turks buying houses in many of the neighborhoods with high percentages of ethnic minorities. Thus, although ethnic minority homeownership rates are very low, in ethnically diverse neighborhoods the share of ethnic homeownership, and in particular of Turkish homeownership, is higher than that of indigenous Dutch homeownership. Partly due to a very favorable tax treatment of mortgage interest rate deduction, outright ownership rates in the Netherlands are relatively low among both indigenous Dutch and ethnic minorities. In low-income and ethnically diverse neighborhoods outright ownership is even lower as low-income homeowners tend to need a large mortgage loan with a long maturity period to be able to buy a house, despite the relatively low real estate prices in these neighborhoods. In The Hague and Rotterdam, houses tend to be sold for 40 to 70 percent of the average value for the city (data for Arnhem is missing), which is partly a result of ethnically diverse neighborhoods having relatively low shares of single-family dwellings and of larger dwellings.

In all three cities, agents and intermediaries were not selected randomly, but approached because they are either located in neighborhoods with relatively large ethnic minority populations or because they consider these neighborhoods their "working area". Both agents and intermediaries were researched on the internet, in telephone books, in the yellow pages, and to a lesser extent in local newspapers. In the case of real estate agents, it was often possible to view the houses for sale on the internet, and to select the relevant agents in this way. The agents selected included agents associated with NVM (the largest network covering about 70% of the market), ones associated with smaller networks and those working independently of any network. Some agents were specialized in a specific part of the city, but others, often larger companies, work all over the city. Many mortgage intermediaries were part of franchise chains; others were independent. Within the larger organizations, agents specialized in the relevant neighborhoods were selected. In addition, both ethnic minority and indigenous Dutch agents and intermediaries were selected. In The Hague and Rotterdam, a number of Turkish and to a lesser extent Surinamese respondents, mostly real estate agents, were included. In Arnhem, no ethnic minority agents seemed to be active in the market. In total 30 in-depth interviews were undertaken. Seven others were asked but were not willing to be interviewed – usually they indicated to be too busy or not to be interested.

The next section will introduce and discuss the loan application process. Subsequent sections will present the results of the in-depth interviews. Quotes from the interviews illustrate the main findings. The evidence presented is of course not solely based on these quotes, but also on the other interviews. In general, the empirical results presented here are either based on all interviews or on almost all interviews. In case a small majority or even a minority of the interviewees expressed a opinion not backed by the other interviewees, these findings are either disregarded or, if presented, it is made clear that this view is not shared by all interviewees.

The loan application process: Credit scoring, gatekeepers and street-level bureaucrats

Mortgage loans are a form of credit. Even though credit is clearly related to money and the distinction between the two can seem blurry, it is important to realize that “money functions effectively when people trust money as an institution”, while for credit to function, “the creditor has to trust a specific debtor” (Carruthers, 2005: 363). Judging a mortgage loan application is all about how much a lender trusts a potential borrower. Most importantly, mortgage lenders assess the loan-to-value (LTV) and loan-to-income (LTI) ratios. In addition, security and source of income are taken into account; it is more difficult to get a mortgage loan with a temporary contract of employment or when self-employed, than with a permanent or fixed contract. The LTV-ratio and LTI-ratio in combination with the type of contract determine the likelihood that an applicant will be able to pay a mortgage, but moneylenders also attempt to assess whether an applicant is willing to pay it back (Aalbers, 2005c). How people have handled past payments is essential information often acquired by lenders from credit registers. Other variables used to approximate the willingness to pay often include zip code, marital status, bank account, credit card and telephone connection. All “enabling” and “willingness” variables are usually statistically analyzed with the use of credit scoring systems in order to make predictions about future payment behavior. Credit scoring can be defined as “statistically based management tools for forecasting the outcome of extending credit to individuals” (Batt & Fowkes, 1972: 191; cited in Leyshon & Thrift, 1999: 444). This implies that credit scoring includes both individual and group membership data. Since our focus here is on place-based and race-based exclusion in the mortgage market, the zip code is an interesting factor. According to a Dutch textbook for bankers “If a zip code is in a “better” neighborhood, it receives more points than an address in a reconstruction area” (NIBE, 1995, authors’ translation). Even though credit decisions are not taken solely on the basis of the zip code, it can be the decisive factor in a mortgage loan application. All others equal, an application in a “bad” neighborhood may be rejected while granting a loan to an application in a “good” neighborhood. The result is place-based exclusion and can be considered an indirect form of redlining – rejecting a mortgage loan application based solely on location. Thus, credit scoring has not really eliminated redlining; it has replaced “old-style redlining maps”, but it may implement de facto redlining by including the zip code as a variable possibly leading to exclusion. Likewise, if race or race-related factors (ethnicity, country of birth, nationality etc.) are included in credit scoring systems, a rejection may be considered race-based exclusion in some cases. In both cases these systems reinforce forms of financial exclusion and the perceptions of financial organizations as “self-supporting social constructs” (Aalbers, 2005c; Leyshon & Thrift, 1997; Stuart, 2003: p. 173).

Before discussing patterns of race-based and place-based exclusion it is important to understand how credit scores are used in assessing mortgage loan applications. The applicants’ data, information acquired by the mortgage lender (like data from credit registers) and data from the mortgage lender are analyzed together in a credit scoring system. In the US, credit scores are often used to differentiate in marketing, closing fees and interest rates. In this system of risk-based pricing, applicants who are defined as “high risk” by the lender are not necessarily prohibited from acquiring a mortgage loan, but may be accepted for a higher price than applicants defined as “low risk”. In the Netherlands, risk-based pricing is only applied by a few lenders with very small yet growing market shares (Aalbers, 2006b). The largest lenders, all general banks, use credit scoring systems to differentiate between three groups: low-risk borrowers who should be granted a mortgage loan, high-risk borrowers who should be rejected, and mid-risk borrowers whose applications will be assessed by a loan officer or loan writer. The last group is known as the “grey area”; applicants in this group do not live up to the formal acceptance criteria of banks. Their credit score is either barely too low or they just fall outside one of the other limits set by the lender (for example the LTV-ratio). Because these applicants do not represent high risks, a loan writer has to interpret all relevant information and make an assessment based on judgment, routines, common knowledge, rules of thumb, *fingerspitzengefühl* (literally: fingertip sensitivity; cf. having a sure instinct about something, an intuitive understanding), gut feelings and possibly also additional criteria.

In bureaucratically organized organizations, the authority to take decisions is placed in the hands of appointed people (Weber 1946:196), like loan writers. These appointed people are directly linked to the dominant groups in society, because it is their decisions they have to implement (Dahrendorf, 1993) and they have the power to increase or decrease existing inequalities in society. Pahl (1970; 1977) and others refer to these people as “gatekeepers” or “urban managers” because they control vital resources in society. This view, known as the “managerialist thesis”, claims that gatekeepers have an independent influence on the distribution of scarce resources. Although Pahl is heavily criticized for assigning a too powerful role for

urban managers and a too small role for their superiors, his basic premise that those who make the final decisions have discretionary power over resources is useful in analyzing mortgage loan applications. It is true that the application process is mostly guided by formalized and institutionalized rules, diminishing the role of the loan writer or loan writer. It is also true that the loan writer is to some extent a gatekeeper: deciding how to standardize non-standardized information (see Stuart, 2003), deciding the fate of mortgage applications in the before-mentioned “grey area” and cutting the knot in borderline cases. Again, this does not deny the fact that loan writers are steered by people with more power. The relative size of this “grey area” depends on the lender. Some lenders have a large pool of not directly accepted, but possibly acceptable, applicants; while other lenders do not directly reject only cases with very small deviations to the acceptance criteria. Whatever the size of the “grey area”, the loan writer performs a gatekeeper function. These gatekeepers are sometimes located at a regional office of a lender (as is the case at most of the general banks) and sometimes at the national level (as is the case at specialized mortgage banks and at most non-bank mortgage lenders, such as insurance companies).

Even though loan writers work in the private sector, they are quite similar to Lipsky’s “street-level bureaucrats”. Lipsky (1980) sees their role in terms of discretion, and argues that most street-level bureaucrats will be inclined to make good decisions most of the time, but like other people, they are also prone to make errors of judgment and can – both actively and passively – give in to privileging, prejudicing, stereotyping and routinizing. People who are more unlike the street-level bureaucrat or the gatekeeper are more likely to be afflicted. Lipsky explicitly mentions income, race and language, and implicitly age, gender and residence, while I would like to add nationality, religion, life style, looks/appearance and level of education, as possible discretionary variables. It may very well be the case that street-level bureaucrats compound the problem of being poor (Lipsky 1980: 60). They are more amenable to information that endorses their decisions than to information that delegitimizes their decisions. Because not all information can be codified or standardized and because rules are never fully waterproof and often emendable, loan writers (like street-level bureaucrats) are in charge of making key decisions. On the basis of interviews with real estate and mortgage lending professionals complemented by a quasi-experiment, Stuart (2003: chapter 3) demonstrates how information regarding a potential borrower can be explained and used in different ways. He argues that credit scoring has not changed the essential choices that loan writers face and his quasi-experiment shows that two loan writers may judge one application differently.

Through the loan application process and credit scoring, lenders try to quantify risk (Aalbers, 2005c; Stuart, 2003) and to manage trust and risk by reducing their vulnerability and uncertainty, or both (Carruthers, 2005: 363). Lenders often also make an additional step to externalize their risk emanating from the unpredictability of the borrower making mortgage payments consistently. In the Netherlands lenders are provided with an instrument to externalize their risk and hence avert problems of trust. This instrument is the *Nationale Hypotheek Garantie* (NHG, national mortgage guarantee), a state-initiative that redirects default risk from the lender to the administrator of the NHG, a state-backed non-profit organization. Borrowers pay a one-off premium to the administrator and lenders provide a discount on the going interest rate. In case of repeated default, lenders can ask the administrator to take over the loan; the administrator will try to collect as much money as possible from the borrowers and pays off the rest of the loan with the equity acquired from the premiums (see Aalbers, 2005a: 568). Since the NHG was and is meant to promote homeownership in particular among low- and moderate-income households, the NHG comes with a ceiling of 250,000 euros [318,000 US dollars]; that is, NHG-loans can only be acquired on mortgage loans of less than 250,000 euros in 2006 (240,000 euros in 2005). The NHG is a powerful institution. First, because the ceiling is relatively high if one considers that the average sales price of a house in the Netherlands is about 225,000 euros [286,000 US dollars]; second, because more than 65 percent of mortgage loans under the NHG-ceiling are closed with NHG. Consequently, the share of NHG-loans is generally higher in neighborhoods where most houses are sold under 250,000 euros, such as most ethnically diverse neighborhoods. Finally, the NHG is a powerful institution because lenders tend to follow NHG guidelines. For example, if the NHG widens or tightens their maximum LTV or LTI, most lenders will follow suit, especially for standardized loans under the NHG-ceiling. This does not mean lenders have exactly the same guidelines as the NHG, but for loans under 250,000 euros they are usually only somewhat wider than NHG guidelines. As we will see in the next sections, the NHG also plays a pivotal role in (non-) exclusion in the Dutch mortgage market.

Race-based exclusion

Based on the interviews with real estate agents and intermediaries in Arnhem, The Hague and Rotterdam, it can be concluded that race-based exclusion is limited to a number of special cases; applicants are never solely rejected because they are not indigenous Dutch or have a non-Dutch nationality, but two other practices do turn up. First, applicants whose credit scores fall into the “mid-risk grey area” have a bigger chance of being rejected if they have a non-Dutch nationality, belong to an ethnic minority group, were born outside of the Netherlands, or have a foreign surname:

Ethnic minorities are not directly discriminated: it's not like ‘you are Turkish and therefore you won't get a mortgage’. But applications of ethnic minorities are screened more rigorous. First, it takes longer before an application is handled and second it is often rejected on trifling matters. What is very noticeable is that there is less flexibility with the acceptance criteria for ethnic minorities than there is for [indigenous] Dutch people. (real estate agent from The Hague, authors' translation from interview quote)

There is a “grey area” in which banks can decide whether to approve or reject applications – borderline cases. If your applicant has a non-Dutch surname, you have a smaller chance of getting accepted than with a Dutch surname. (real estate agent from Rotterdam, authors' translation from interview quote)

Lenders don't select on race or ethnicity; that is too risky. But what you do see is that they are harder on applicants with foreign surnames. If everything is 100% correct, they will not reject, but if their credit score is just too low to be pre-approved, a second assessment round takes place, and then having a foreign surname means bad luck and a Dutch surname good luck. And then they can reject the application because you don't fulfill the highest standards. It is very clear that ethnic minorities are disadvantaged in the second assessment round. (mortgage intermediary from The Hague, authors' translation from interview quote)

The exclusion of people who do not fulfill the formal acceptance criteria can be considered unimportant as these people are not excluded solely on race-based criteria; they apparently did not comply with all necessary requirements. According to Immergluck, who refers to “grey area” applicants who are accepted as “overrides”, this type of race-based exclusion should not be disregarded or ignored:

Other concerns about credit scoring are based on the issues of inconsistent overrides or second reviews (...) In the case of overrides, if lenders override credits cores more easily for some groups than others, they are guilty of disparate impact discrimination. (...) In 1999, the department [of Justice] complaint against Deposit Guaranty National Bank in Mississippi. The department alleged that the lender allowed individual loan officers to override automated underwriting decisions in an inconsistent way. Black applicants were more than three times as likely to be rejected as similarly situated white applicants. The settlement called for 250 applicants to share in a \$3 million fund and for the bank to tighten up its override procedures” (Immergluck, 2004: 107, 195).

But overrides are not the only form of race-based exclusion; applicants can also be rejected because they don't have a permanent resident status in the Netherlands, but only a “residence permit for *limited* time”. This often affects people who are married either to a person with Dutch nationality or to a person with a “residence permit for *unlimited* time”:

With a residence permit for limited time, banks are difficult. They want a permit for unlimited time. Some banks are willing to finance a smaller percentage based on a permit for limited time, but then you need to make a large down-payment, which is often not possible. (real estate agent from The Hague, authors' translation from interview quote)

The situation we often face is that we have Turkish people of whom either the man or the woman has the Dutch nationality, but the other has a permit for limited time. That is very difficult to finance. No bank is willing to do that, except for the Rabobank. If all papers and

information are correct and up to the criteria, Rabobank recently indicated it is willing to do it. ING is willing to do it as well, but only for Surinamese and Chinese people, because they have more trust that they can stay here or that they will pay off the loan. (real estate agent from The Hague, authors' translation from interview quote)

What we see a lot in this neighborhood is that one partner of a couple has a permit for limited time and that banks feel that's too risky to accept the application. I understand their problem: they are afraid the partner has to leave the Netherlands if the permit runs out. But in reality, it's really a formality because they will get a permit for unlimited time after a number of years if they stay married. (mortgage intermediary from Arnhem, authors' translation from interview quote)

Mortgage lenders consider people with a residence permit for limited time a high risk, because they have a higher incidence of leaving or being forced to leave the country. Also, it is impossible to get a mortgage loan with NHG if (part of) the loan depends on the income of a person with a residence permit for limited time. In absence of explicit legal prohibition, the lenders can also make a strong case for not granting these applications. As this situation is not clarified in the Dutch legal system it remains open to interpretation; there is a possibility that it is indirectly legally prohibited. Agents and intermediaries often understand the lenders' policies in this regard, but also indicate that people with a residence permit for limited time usually do not leave the country because they made a deliberate choice to settle in the Netherlands (buying a house is an indication of this "settling mentality"), and that they obtain a permanent residence status after five years if they remain married. It is striking that, according to a small majority of the interviewees, some lenders are willing to make an exception for people from China or Surinam, but not for people from Turkey or Morocco (the two largest migrant groups in the Netherlands). There are two possible explanations for this behavior. First, Turkish and Moroccan people may be considered high-risk borrowers based on lenders' default data. Second, bias and stigma play a role, because in (media) discourse Turkish and in particular Moroccan people are more often considered "problematic groups" than Chinese and Surinamese people.

Place-based exclusion: Bank's policies

Place-based exclusion takes different forms, some more subtle than others: (1) the NHG is required for loans in some neighborhoods but not in others, sometimes even for properties over the NHG-ceiling; (2) loan applications that are assessed by a loan officer, because they fall in the grey area of credit scoring, are routinely rejected in some neighborhoods; (3) applications that would normally be automatically accepted based on the credit score are rejected in some neighborhoods; and (4) lenders use high threshold levels excluding large parts of neighborhoods. In this section I will highlight the different practices implemented by banks; in the subsequent section I will discuss the neighborhoods to which these practices apply. These neighborhoods are considered high-risk either because of high default rates or because lenders expect that real estate prices will fall. Valuation of the properties is not the problem as houses in high-risk neighborhoods do not have exceptionally low assessed values, but are usually only somewhat lower than sales prices, just like in other neighborhoods.

The first practice of exclusion is the requirement of the NHG (see "The loan application process" section) as a prerequisite for acquiring a mortgage loan in high-risk neighborhoods in The Hague and Rotterdam. Even though the NHG is meant as a voluntary guarantee, the largest mortgage lenders make NHG compulsory for mortgage loan applications in what they consider "high-risk" neighborhoods, comparable to the necessity of private mortgage insurance in some US neighborhoods. In Arnhem the situation is different from The Hague and Rotterdam because in Arnhem lenders often *prefer* to make loans in "high-risk" neighborhoods with NHG, but they do not make NHG *compulsory* for acquiring a loan in these neighborhoods.

As long as it is with NHG, it's no problem. But because NHG is the standard, lenders want to provide loans with NHG. If you don't live up to the NHG standard, it is hard but not impossible to get a mortgage loan. (mortgage intermediary from Arnhem, authors' translation from interview quote)

In that price segment [i.e., apartments in low-priced neighborhoods] lenders do not accept an application without NHG. For them, the real estate in these areas is not interesting and the borrower is not interesting, so they want more security and NHG provides them with that security. (mortgage intermediary from The Hague, authors' translation from interview quote)

The basic rule is that if an application can be financed with NHG, you need to apply for it with NHG. Without NHG it is out of the question for houses under 250,000 euros [318,000 US dollars] in these neighborhoods. And that is very understandable because the risks here may be a bit bigger, so NHG becomes indispensable. (real estate agent from Rotterdam, authors' translation from interview quote)

The implications for borrowers in high-risk neighborhoods in The Hague and Rotterdam are not necessarily negative. Even though they pay a premium for acquiring a loan with NHG, the resulting interest rate is lowered and therefore their monthly expenses are lower. However the NHG-compulsoriness does have two disadvantages. First, loan applications which do meet formal acceptance criteria of the lender but do not meet NHG-criteria can still be excluded, as NHG-acceptance criteria have functionally replaced lenders' criteria. In general, most lenders apply acceptance criteria that are somewhat wider and more flexible than the NHG-acceptance criteria, enabling people who almost, but not completely, live up to NHG-criteria to acquire a loan without NHG. Due to compulsory NHG clearance this relatively small group of people is excluded from acquiring a loan in specific neighborhoods. Although lenders have no obligation to grant a mortgage, rejecting applications that meet the bank's formal criteria in certain neighborhoods but not in others constitutes indirect legally prohibited exclusion. Second, a group of loan applicants is excluded because their desired property is more expensive than is allowed with a NHG-loan. Since the NHG comes with a ceiling of 250,000 euros [318,000 US dollars]; that is, NHG-loans can only be acquired on mortgage loans of less than 250,000 euros:

We have a new housing development within this neighborhood with single-family dwellings and the prices are higher than the NHG-ceiling, and that causes quite some problems. 'Because of the neighborhood, because of the street, we won't do it', is what lenders tell me. And I'm telling them that it's a whole block of newly constructed homes, but that makes no difference to them. They say 'in this neighborhood, we only accept applications with NHG', but that's impossible because of the ceiling. And that's really incredible. Luckily, we know now that Bouwfonds [a mortgage lender] is willing to finance these homes. (real estate agent from The Hague, authors' translation from interview quote)

The result is a Catch-22-situation in which applicants are required to acquire NHG, but also prohibited from acquiring NHG – it is a double-bind, or the paradox of “logical irrationality” (see Heller, 1961). There are not many homes priced over 250,000 euros in the neighborhoods where lenders apply the compulsory NHG practice, but some single-family dwellings, in particular relatively new homes in the Schilderswijk neighborhood in The Hague, are sold for over 250,000 euros. Buyers unable to make a large down-payment may have trouble finding a mortgage loan. Some lenders make an exception for these homes because they realize it does not make sense to make NHG compulsory if it is impossible to acquire NHG. The problem is that potential buyers in most cases will not know about the differences in the policies of the different lenders because lenders do not make the compulsory NHG requirement public. Since prospective buyers usually only have a number of weeks to arrange a mortgage loan, and because it may also take some weeks to hear back from a lender, it may be impossible to ask other lenders after the first one has rejected an application.

A second form of place-based exclusion, found in all three cities, is akin to the first type of race-based exclusion. Applicants who fall into the “mid-risk grey area” of credit scores are excluded in “high-risk” neighborhoods of all three cities, but not in other neighborhoods (just like applicants with a foreign surname or non-Dutch nationality are more likely to be excluded):

In these neighborhoods, everything has to be correct, 100%, 200% correct, and then if you live up to all the criteria, you will get your mortgage. But, if one small detail is not up to the criteria of the lender, they will reject your application because of that. At least that is what they say; in practice, small deviations of the criteria are usually no problem at all, but if these deviations are

for properties in what they call high-risk neighborhoods you can forget about them. (mortgage intermediary from Rotterdam, authors' translation from interview quote)

Sometimes I have the feeling that they are really looking for a reason to turn down an application from the Presikhaaf or Malburgen neighborhoods. So, applicants that are in the "grey area" will not be accepted in Presikhaaf, but they will be accepted in most other neighborhoods. (mortgage intermediary from Arnhem, authors' translation from interview quote).

Again, one may dispute if this is really a form of exclusion, but following Immergluck's (2004) reasoning, inconsistent use of overrides – granting "grey area" applications from certain neighborhoods but not from others – may just as well imply disparate impact.

In a third example, some lenders in The Hague and Rotterdam, but not in Arnhem, do reject loan application from certain neighborhoods even if they live up to both NHG-criteria and the lenders' formal acceptance criteria:

I recently filed an application with NHG at Fortis ASR [a mortgage lender] for an apartment. And to my surprise it is rejected because of the collateral. Very strange because the valuation report puts down almost the same value as it was sold for – and then, the application meets NHG-criteria and Fortis' criteria. (real estate agent from The Hague, authors' translation from interview quote)

Several times it happened that banks do reject loans that live up to all requirements. ING [bank] has also indicated that they do that in these neighborhoods; but there are other banks that do the same. (mortgage intermediary from The Hague, authors' translation from interview quote)

Nowadays banks often say that they don't reject applications purely because of the zip code, but what they actually do is rejecting applications for parts of a zip code area. That means that instead of excluding entire zip code areas, they only exclude smaller areas within a zip code area. ABN-AMRO does that, and so does ING. But they don't tell us the borders of their zip code policy. It is a trial-and-error process, so to say. (real estate agent from Rotterdam, authors' translation from interview quote)

ABN-AMRO [bank] also has a zip code policy, but they don't want to disclose it. They want you to file an application first and then you have to wait if they accept it, even though you know it's correct according to their formal criteria. So, that is too risky. But the thing is: you can not be sure that they will reject an application because of the zip code. They may reject one application from that area and accept the second one, even though both applications are criteria-proof and NHG-proof. (mortgage intermediary from The Hague, authors' translation from interview quote)

This third form of place-based exclusion is in fact the hardest form. In contrast to the first form, this form of exclusion does not work as a substitute for redlining, but is a form of de facto redlining. In contrast to the second form, it does not exclude a small group of people who fall into the "mid-risk grey area", but effectively excludes a group of people that actually live up to the formal acceptance criteria as well as to the NHG-criteria. After having discussed the fourth form of place-based exclusion, I will discuss some of the implications of both the third and fourth forms.

The fourth form, reported by most interviewees in Rotterdam and The Hague but not in Arnhem, relates to a small number of lenders who reject loan applications under a certain threshold, for instance 100,000 euros [127,000 US dollars], even if they live up to NHG-criteria:

The SNS bank is really problematic. At some point they just said 'we don't accept any properties under 100,000 euros'. This means that you cannot do business with them in some parts of the city. (real estate agent from The Hague, authors' translation from interview quote)

There are a couple of banks that don't grant any mortgages under 100,000 or 75,000 euros. SNS bank does that; Fortis too. But increasingly ING bank is doing the same. So what they basically do is not granting any mortgages on apartments in certain neighborhoods. Because almost all those cheap houses are apartments in neighborhoods like Schilderswijk, Transvaal and Laak. (mortgage intermediary from The Hague, authors' translation from interview quote)

Fortis ASR is the clearest case. They sent someone here to explain their new policies and he just told me that they won't finance anything up to 75,000 euros [95,000 US dollars] estimated value – that means that we are talking about houses that are sold for up to 90,000 euros [114,000 US dollars]. That may seem impossible for some people, but in Rotterdam-South many small apartments are in this price range. (mortgage intermediary from Rotterdam, authors' translation from interview quote)

The threshold levels used by these lenders are exceptionally high considering that the average house prices in some neighborhoods are below 100,000 euros. Analytically, excluding a lower price segment of the market (the fourth form of place-based exclusion) may be different from excluding certain neighborhoods within that market (the third form); however, as most houses in this price segment are located in “high-risk” neighborhoods, the effect is indirect place-based exclusion. One British bank, with a small but growing share of the Dutch mortgage market, has implemented a threshold policy of 100,000 euros estimated value in three out of the twelve provinces of the Netherlands: the densely populated provinces of Utrecht, North-Holland (including the Amsterdam metropolitan area), and South-Holland (including the metropolitan areas of The Hague and Rotterdam). It affects about half of the country's 16.4 million inhabitants. Another foreign bank, a Belgian lender with a small but growing share of the Dutch mortgage market did initially exclude the big Dutch cities. Under pressure from the largest mortgage intermediary franchise companies the bank did backtrack and started granting mortgages in the big cities, but not in all zip code areas within these cities.

An alternative practice, akin to excluding lower price segments, is implemented by one bank in both The Hague and Rotterdam, but again according to the interviewees not in Arnhem; this bank requires higher down-payments under a certain price threshold. Real estate agents and mortgage intermediaries indicated that this, in effect, also constitutes exclusion because it is very rare in the lower price segments of people can make such large down-payments. It is possible that lenders use price thresholds as a proxy for place-based exclusion; yet, it is also possible that lenders do not consider certain neighborhoods, but certain price segments of the market “high-risk”, for instance if more people with a relatively small loan default. Another possibility is that these price segments are considered “not-profitable” rather than “high-risk”; that is, fixed expenses per loan (overhead, loan administration, loan servicing) in combination with proportional yields, may make small loans less attractive for lenders, suggesting a transaction costs explanation (see below).

As both price thresholds and de facto redlining (the third and fourth form) take place “outside” the formal acceptance criteria, the procedures for assessing mortgage loan applications seem to be not entirely clear or transparent. These threshold and neighborhood criteria are not publicly disclosed or advertised. Acceptance criteria, as distributed to mortgage intermediaries, sometimes include threshold policies, but neighborhood criteria are never included. Rejection letters usually make no mention that the neighborhood is the cause for exclusion; only in exceptional cases have lenders specifically pinpointed the location. Intermediaries often check rejection letters with the responsible loan writer. Often, the loan writer tells the intermediary on the phone what s/he did not want to write down: the application is rejected because the neighborhood or zip code is considered “high-risk” or “not-well sealable”. In other words, even though most rejection letters do not give indications of redlining, the fact that applications which meet the banks' formal acceptance criteria are only rejected in certain neighborhoods or zip code areas, together with the fact that loan officers often admit the neighborhood or zip code as grounds for exclusion to intermediaries personally, does imply a form of de facto redlining.

A rational reason for rejecting certain applications is that they are considered “high-risk” or “not-profitable” (notwithstanding the possibility of violating the law, which may make this behavior less rational in practice). However, it is hard to consider rejecting an application with NHG a rational decision. The NHG not only provides borrowers with a discount on the interest rate, but also provides lenders with a 0% solvency weight. In other words, contrary to other types of loans, lenders do not have to hold equity capital against outstanding loans with NHG. Due to this guarantee lenders are generally eager to approve loans with NHG and also they are able to provide an interest discount to borrowers. At least two possible

reasons may account for the seemingly non-rational behavior of excluding NHG-proof applications. First, as with thresholds, lenders may consider the relation between proportional yields and fixed expenses unsatisfactory because the profits may be too small compared to other investments and company benchmarks. Second, if default rates in a certain neighborhood are disproportionately high, a lender may exclude these neighborhoods despite the fact that NHG will cover any possible negative difference between the outstanding loan and the selling price. One lender has indicated that the NHG does indeed fully cover possible losses, but it does not compensate for servicing and labor costs. Both explanations can be seen in terms of transaction costs. Transaction costs are the costs of negotiating, securing and completing transactions in a market economy (Coase, 1937) and stem from uncertainty and information asymmetry embedded in social relations (Nee, 2005: 66). Transaction cost economizing (Williamson, 1981) can be the lender's competitiveness strategy in order to increase profitability. Especially the combination of transaction cost economizing and low profitability may induce lenders to reject even seemingly profitable low-risk loan applications.

Generally speaking, with the exception of the NHG-compulsoriness in The Hague and Rotterdam, different lenders tend to have different policies. Someone rejected by one lender may be accepted by another lender, effectively lessening the impact of place-based exclusion. However, as the reasons for rejection are not identified, prospective borrowers, but to some degree also mortgage intermediaries, have no insights in these policies, and may not always know which lender to approach in which kind of situation. Aside from questions of social justice and discrimination that these exclusionary practices raise, they also raise the question of disclosure. If acceptance criteria were public and clearly stated, people could easily find out which lender they should or should not approach. Prospective borrowers would not lose valuable weeks of waiting for a rejection letter and thereby possibly losing their chance to buy the house of their choice.

Place-based exclusion: Excluded neighbourhoods

The different forms of place-based exclusion discussed in the previous section essentially exclude the same neighborhoods in each city. However, neighborhoods or zip code areas are usually not fully excluded; that is, not all applications living up to both the bank's formal criteria and to NHG criteria in a certain neighborhood are habitually rejected. This selectivity increases the lack of transparency and clarity discussed in the previous section. At least two possible reasons may apply. First, lenders may use micro-level assessment of neighborhoods and risk, making distinctions not only *between* but also *within* neighborhoods and zip code areas. Second, lenders may very well be aware of possible charges of redlining or "zip code discrimination" (as it is sometimes called in the Netherlands) and therefore do not reject all applications within one neighborhood or zip code area. Hereby the lender creates the possibility of counterclaiming possible redlining charges of "structural rejection based on the zip code" by showing that in fact mortgage loans have been granted within a certain neighborhood or zip code area.

In Arnhem, the problems of place-based exclusion are rather limited to greater difficulty of obtaining a loan and to the selective rejection of review cases in certain neighborhoods, such as Presikhaaf, Malburgen, Klarendal, and to a lesser extent also Arnhemse Broek and Spijkerviertel (Figure 1). Within Presikhaaf problems often occur in the western part and much less in the eastern part (also known under the name Over Het Lange Water). In The Hague, the different types of place-based exclusion take place in the neighborhoods: Schilderswijk, Transvaal, Laakkwartier, and to a lesser extent also in Rustenburg-Oostbroek and Zuiderpark (Figure 3). Within Laakkwartier, the Molenwijk area is more affected than the Nieuw Spoorwijk area. In Rotterdam, the number of neighborhoods facing place-based mortgage application exclusion is much larger than in Arnhem or The Hague. Large parts of Rotterdam-West and Rotterdam-South, but also smaller parts of Rotterdam-North face such problems (Figure 5).¹

In all three cities the exclusions take place in neighborhoods with the highest share of ethnic minorities (compare Figures 1-6; see Table 1); place-based disparate treatment results in race-based disparate impact. This does not necessarily imply race as a deliberate factor in place-based exclusion;

¹ In Rotterdam-West: Spangen, Tussendijken, Bospolder, Delfshaven, Nieuwe Westen and Middelland, and to a lesser extent also Schiemon, Oude Westen and Oud Mathenesse. In Rotterdam-South: Feijenoord, Afrikaanderwijk, Bloemhof, Hillesluis and Tarwewijk, and to a lesser extent also Strevelswijk, Oud Charlois, Carnisse, Pendrecht and Beverwaard. In Rotterdam-North: to a lesser extent (Oud) Crooswijk, Oude Noorden, Liskwartier and Agniesebuurt.

however, neighborhoods which are considered “high-risk” are nevertheless disproportionately – and in The Hague and Rotterdam also predominantly – inhabited by ethnic minority groups. The numbers of low-income people, unemployed people and people on social benefits are in general also higher in the excluded neighborhoods than in other areas of the city. Selling prices tend to be lower and housing turnover higher in the excluded neighborhoods (Table 1). The housing stock in most such neighborhoods consists of less single-family dwellings and less owner-occupied dwellings than the city’s average. One possible explanation for redlining found in some of the literature is that lenders exclude neighborhoods with low shares of owner-occupied housing because they lack information on price developments or default rates in these neighborhoods (Immergluck, 2004; Ross & Yinger, 2002). In economic terms: exclusion is caused by information asymmetry (Stiglitz & Weiss 1981). However, in all three cities, at least one of the neighborhoods hit by exclusionary practices has an average or relatively large share of owner-occupied dwellings (see Table 1) ruling out information asymmetry explanations in this respect.

Conclusions

Place-based and race-based exclusion take place in Arnhem, The Hague and Rotterdam, but only to a limited degree. Both types of exclusion occur within the context of credit scoring: applicants may be rejected, approved or assessed by a loan officer. The loan officer looks at those applications which do meet formal requirements but have a credit score which is too low, by only a small margin, for automatic approval. A loan officer has a gatekeeper role in assessing these “in-between” applications and decides based on additional guidelines, rules of thumb, gut feelings and what is considered common knowledge in the field. Mortgage lenders and loan officers do not just act in a rational, conscious, logically quantifiable manner; exclusionary practices are rooted in culture and in social institutions (Bradford & Shlay, 1996; see also Lipsky, 1980; Aalbers, 2005c; Stuart, 2003). Members of ethnic minority groups, and applications who apply for what lenders consider “high-risk” neighborhoods, have a bigger chance of being rejected by the loan officer than other applicants. Whether this is a result of additional criteria that the loan officer implements or a result of prejudice is unknown, but it is likely that loan officers work with an additional list of “high-risk” zip codes, as there are numerous signs of this practice. Furthermore, most lenders do not want to grant mortgages on loans without *Nationale Hypotheek Garantie* (NHG, national mortgage guarantee) in “high-risk” neighborhoods. In The Hague and Rotterdam NHG is a requirement and in Arnhem it is a preference. In this sense the connection between NHG and place-based exclusion is similar to the connection between private mortgage insurance (PMI) and place-based exclusion found in the study by Ross & Tootell (2004). NHG (Netherlands) or PMI (US) is a necessary condition in low-income, ethnic-minority zip codes. Without NHG and PMI redlining practices would be in place; thus, by making NHG or PMI compulsory in some neighborhoods it functions as a substitute for redlining. In addition, some lenders create a Catch-22 situation, or double-bind, by making NHG compulsory not just for loan applications under 250,000 euros [318,000 US dollars], but also for applications over 250,000 euros which is formally impossible due to the 250,000 euros ceiling. Moreover, the NHG is a powerful institution also in a different sense; it sets the industry standards for mortgage loans below 250,000 euros leading lenders to follow, yet not exactly copy, NHG guidelines.

Some lenders reject applications that meet both NHG-criteria and the lender’s criteria, solely based on the neighborhood, which is de facto a redlining policy. However, lenders do not reject all applications, suggesting that they make their selection on a smaller scale, or that they deliberately accept some applications in order not to be accused of redlining or “zip code discrimination”. Some lenders also work with very high thresholds, excluding all applications under 100,000 euros [127,000 US dollars] for example, primarily affecting the same neighborhoods that are excluded under zip code policies. Even though most of the excluded neighborhoods, by either the zip code policy or the threshold policy, have relatively low shares of owner-occupied housing, explanations that focus on information asymmetries are not entirely accurate as some of these neighborhoods have average or above average shares of owner-occupied housing. A valid explanation for the exclusion of applications that meet NHG-criteria is that of transaction cost economizing (Williamson, 1981). It asserts that lenders may even reject seemingly profitable low-risk loan applications if the associated transaction costs are considered too high, especially if these loans were already considered to yield low profits. Furthermore, the fact that not only Dutch lenders engage in such exclusionary practices, but also Belgian and British lenders active in the Dutch mortgage market (and significant players in their respective home countries) may very well imply that exclusion in European mortgage markets is not limited to the Netherlands.

The neighborhoods considered as high-risk by lenders all have a relatively large share of ethnic minorities. In fact, in all three cities the neighborhoods with the highest shares of ethnic minorities suffer from exclusion and all excluded neighborhoods have large shares of ethnic minorities. This observation does not necessarily imply that place is used as a proxy for race in exclusion policies, but it does imply that ethnic minority groups are hit twice: through place-based *and* through race-based exclusion. In other words, place-based disparate treatment results in race-based disparate impact. It turns out that not only in the US context, but also in the Dutch context, race and place are increasingly intertwined (notwithstanding the fact that most ethnic minorities in the Netherlands live in neighborhoods with indigenous Dutch majority). Whatever the case may be, the neighborhood plays a causal role: place-based exclusion in the mortgage market constitutes a neighborhood effect as location plays a role determining who can obtain a mortgage and who cannot. This decision may very well be a result of a relatively large share of high-risk borrowers in a certain neighborhood, but since exclusion is performed both on an individual basis *and* on a neighborhood basis, the neighborhood may be the decisive factor in the rejection of a mortgage loan application.

Markets depend on formal and informal rules. The formal rules, like constitutions, laws and property rights, provide the fundamental rules of the game and specify the rules for competition and cooperation in markets (North, 1990). When formal rules are at odds with the interest and identity of the lenders, opposition norms may take over and govern the actions of individual lenders (Nee, 2005: 59). This behavior, exemplified by race-based and place-based exclusion in the mortgage market, increases the cost of monitoring and enforcing formal rules. Contrary to what classical economists have assumed, markets need “maintenance” in order to function smoothly and on a non-exclusive basis. Indeed, as Polanyi (1944) has claimed, regulation is not only a necessary component of capitalist societies, but one that actually facilitates the workings of markets. Markets depend on these formal rules, even though some actors may be somewhat restrained by these rules. Social institutions are necessary for stable markets. The “neoliberalization” of mortgage markets has only increased the need for government action; as markets have become more open, governments tend to allocate more money to equalize the bad distributional effects (Rodrik, 1997). This does not necessarily imply that an open mortgage market by definition needs more and more rules through time. Mortgage companies can try to preserve their “regulatory capture” (Fligstein, 2001) by preventing excrescence and thereby rendering additional state regulation unnecessary. By maintaining regulatory capture, through self-imposed constraints or self-regulation, lenders can decide the rules of the game instead of government bodies. This may limit the role of the state, and in practice states may even stop monitoring a self-regulated market. However, in order to prevent exclusionary practices, the state needs to continue monitoring the market to observe if lenders comply with self-regulation, and also to see if self-regulation is sufficient.

Recently, the Dutch Association of Banks has included redlining in their Code of Conduct as a ‘no-go’. However, it is likely that the state needs to take action to make sure inclusion is warranted and that mortgage lenders do not replace redlining by other exclusionary practices. The state can work with existing laws, such as the *Wet Gelijke Behandeling* [Law on Equal Treatment], and work on the implementation of specialised laws on credit and financing, such as US legislations HMDA and CRA. In addition, clients should have the right to know what information was decisive for the resulting rejection. At present, banks can deny mortgage applications without publicly stating the grounds for denial or allocation of mortgage capital. Legally, non-transparency in application procedures should lead to a reversal in the burden of proving exclusion. Banks that cannot clearly show why an application was rejected should make it clear they are not discriminating certain groups or redlining certain neighbourhoods (Rodrigues, 1997). The legal obligation for banks to justify why they deny certain applications is not sufficient to stop redlining. It is important to reach out to real estate agents, mortgage agents and to segments of the population which run the risk of being excluded. Finally, the state could also play an important role by sponsoring research on fair lending, redlining, mortgage application, and housing market exclusion and discrimination.

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Figure 1 Place-based exclusion in Arnhem

Figure 2 **Ethnic minorities in Arnhem**

Figure 3 Place-based exclusion in The Hague

Figure 4 **Ethnic minorities in The Hague**

Figure 5 **Place-based exclusion in Rotterdam**

Figure 6 **Ethnic minorities in Rotterdam**

Table 1 **Key statistics**

	Residents	Ethnic minorities (%)	Dwellings	Owner-occupied (%)	Single-family dwellings (%)	Pre-war dwellings (%)	Housing turnover (%) ²	Average selling price in euros ³	Social benefits (%) ⁴	Out of work (%) ⁵
Arnhem:	141,599	20.9	63,718	37	52	24	13.7	189,046	6.7	10.5
Presikhaaf-West	8,859	44.0	3,840	16	32	0	16.5		10.4	18
Presikhaaf-East	6,396	18.1	3,339	47	46	0	11.5		4.1	18
Klarendal	7,663	32.4	3,651	20	40	40	16.5		13.0	22
Malburgen-West	3,683	43.4	1,744	20	43	10	27.4		12.4	30
Malburgen-East (North)	4,693	34.3	2,120	28	64	14	16.8		13.0	30
Malburgen-East (South)	8,757	46.4	3,643	10	41	2	15.1		15.8	30
The Hague:	472,087	30.2	225,772	42	19	44	8.1	189,008	6.7	6.1
Schilderswijk	32,941	78.1	11,924	16	11	30	6.5	131,667	18.0	12.3
Transvaal	14,677	75.4	6,003	22	3	65	12.0	99,645	15.5	21.0
Laakkwartier	37,033	41.6	16,968	37	10	67	9.2	106,662	7.8	5.2
Rotterdam:	596,597	31.5	286,967	25	22	34	18.9	184,200	6.5	9
Spangen	9,644	75.6	4,307	7	1	84	18.6	116,500	10.7	16
Tarwewijk	11,635	51.3	6,021	22	7	83	27.4	117,400	7.6	15
Bloemhof	13,755	53.7	6,434	13	30	81	17.9	88,000	9.6	15
Hillesluis	11,565	66.4	4,980	14	4	80	22.2	120,800	9.5	15

² Housing turnover in Arnhem refers to turnover per year; in The Hague it refers to turnover per year in owner-occupied housing; and in Rotterdam it refers to the share of people living in the neighborhood for less than 24 months.

³ 1 Euro is about 1.27 US dollars (May 11, 2006).

⁴ In Arnhem and The Hague this refers only to social security benefits (and not unemployment benefits); in Rotterdam this refers to both social security and unemployment benefits, but only to people who are dependent on these benefits for at least 3 years.

⁵ Each city uses a different definition. Therefore, the cities *cannot* be compared, but one can compare neighborhoods within one city.