Lending patterns in poor neighborhoods☆,☆☆

Francisca G.-C. Richter *, Ben R. Craig

Federal Reserve Bank of Cleveland, PO Box 6387, Cleveland, OH 44101-1387, United States

A R T I C L E   I N F O

A B S T R A C T

Concentrated poverty has been said to impose a double burden on those that confront it. In addition to an individual's own financial constraints, institutions and social networks of poor neighborhoods can further limit access to quality services and resources for those that live there. This study contributes to the characterization of subprime lending in poor neighborhoods by including a spatial dimension to the analysis, in an attempt to capture social – endogenous and exogenous interaction – effects differences in poor and less poor neighborhoods. The analysis is applied to 2004–2006 census tract level data in Cuyahoga County, home to Cleveland, OH, a region that features urban neighborhoods highly segregated by income and race. The patterns found in poor neighborhoods suggest stronger social effects inducing subprime lending in comparison to less poor neighborhoods.

© 2013 Elsevier B.V. All rights reserved.

1. Introduction

Concentrated poverty has been said to impose a double burden on those that confront it. One's own financial constraints may prevent or reduce access to good education, health, and financial services as well as good jobs. In addition, institutions and social networks of poor neighborhoods can further limit access to quality services and resources for those that live there. Less than four decades ago the institutional practice of redlining limited access to credit in poor neighborhoods. Redlining was a term to denote banks' unwillingness to lend to individuals based on where they lived and regardless of their own creditworthiness. Low income neighborhoods were red lined on a map signaling boundaries to the issuance of credit in these areas. During the 1970's, fair lending legislation was enacted to revert discriminatory practices and ensure fair and impartial access to credit (Caldwell, 1995). With the recent expansion of mortgage credit and securitization, the relationship between neighborhood poverty and access to credit changed dramatically. Poorer neighborhoods throughout the nation, that during the redlining days would have had little to no credit availability, experienced a large drop in mortgage application denial rates and an expansion of subprime credit from 2002 to 2005. This expansion took place in the midst of relative income and employment declines.[1] As was the case during the redlining era, these neighborhoods have been negatively impacted

---

[1] Mian and Sufi (2009) quantify this credit expansion paired with relative income and employment decline for what they call subprime zip codes. They define zip codes as subprime (prime) if their share of low-credit score consumers (FICO score below 660 as of 1991) is in the highest (lowest) quartile, within their respective county. Subprime zip codes, in comparison to prime ones, have lower median income, higher poverty rates, lower education levels, higher unemployment rates and a large fraction of minority population.

by the distinct borrowing and lending patterns they experienced. However, unlike the pre-70's case, characterizing the relationship between borrowing/lending and neighborhood poverty is more challenging than displaying evidence of redlined maps. Calem et al. (2004) identify a positive relationship between high rates of subprime lending and characteristics of low income neighborhoods in seven cities between 2002 and 2007. They point to the share of neighborhood minority and low educational level as consistently and negatively related to higher subprime shares, even when controlling for credit and equity risk. Squires et al. (2009) find that the level of racial segregation at the metropolitan level is positively related with the rate of subprime lending in 2006, even after controlling for percent minority, low credit scores, poverty, and median home value. They also suggest that general education levels seem to be an important protective factor against high rates of subprime lending. A qualitative study by Pittman (2008) uses in-depth interviews to inquire why black borrowers tend to disproportionately hold higher priced mortgage products even when controlling for creditworthiness. Her work suggests borrowers' decisions were shaped by the informal and formal advice they received, and that social networks may be at play in determining different outcomes between borrowers. Along the same lines Reid (2010) interviews 80 borrowers in two California communities to explore how mortgage market institutions interacted with localized social networks in shaping loan choices for minority borrowers. Her interviews reveal that borrowers turned to their social networks and relations in the neighborhood to identify local mortgage brokers who would be willing to work with them.

This study contributes to the characterization of subprime lending in poor neighborhoods by adding a spatial dimension to the analysis, in an attempt to capture social effect differences in poor and less poor neighborhoods. Our variable of interest is the rate of non-depository subprime lending taking place in Cuyahoga County, home to Cleveland, OH during the 2004–2006 period. Non-depository subprime loans are subprime loans according to Home Mortgage Disclosure Act (HMDA) data that were issued by an independent mortgage company or a subsidiary of a bank, and likely facilitated by a mortgage broker. We take 2004 as our starting point because, according to McCoy (2007), due to a 2002 amendment to HMDA regulation, lenders are required to disclose pricing information for all loans originated after January 1, 2004 with rate spreads 3% points above a comparable maturity US Treasury security for first lien loans. We focus on Cleveland and suburbs, a region that features a mix of neighborhoods, ranging from highly segregated and persistently poor, to those of mid to high income and racially diverse.[2] A 2004 Government Accounting Office report on consumer protection concludes that much of the predatory lending problem lies with non-depository finance companies and that homebuyer education, counseling, and disclosures have limited effectiveness in deterring predatory lending (Wood, 2004).

The paper proceeds by outlining a set of social and non-social hypotheses that may explain the spatial relationship between non-depository subprime lending and neighborhood poverty.[3] This is followed by Section 3 in which we discuss issues and limitations encountered when working with aggregate data and the lack of social network data. Section 4 explains the spatial model and data. Results are discussed in Sections 5 and 6 present concluding remarks.

2. Neighborhood poverty and subprime lending

People are connected to others through social links. These can originate in the family, neighborhood, work environment, or through their sense of affiliation to groups with common beliefs, ethnicity, status, etc. Since the poverty status of individuals is likely to influence social ties formation, the influence of social environments on individual decisions and group outcomes may differ among poor and non-poor groups. Over the past three decades, social science researchers have developed concepts and models to formally explore the effects of social interactions on individual behavior and outcomes. Manski (2000) proposes three non-exclusive hypotheses for why one might observe individuals in the same social environment behaving similarly. This framework has become standard in the literature and are used here to describe potential factors underlying the relationship between subprime lending rates and neighborhood poverty.

- Correlated effects (related to individual poverty – non social): individuals in the same group tend to display similar borrowing outcomes because they have similar individual characteristics or face similar institutional environments. Income and credit scores are examples of such characteristics. An individual's low credit scores and savings will reduce her chances of qualifying for prime products. Lack of access to good education is an institutional constraint likely to make for less sophisticated borrowers. These characteristics, more prevalent among the poor, may explain in part why similar borrowing/lending patterns are observed in poor neighborhoods.
- Exogenous or contextual interactions (related to concentrated poverty – social): the propensity of an individual to take out a subprime loan varies with the exogenous characteristics of the group. Independent of a particular borrower's income or education level, by living in a poor neighborhood (group income is low) he may have been more exposed to location or group-based marketing of subprime products. Low neighborhood credit scores may induce a contextual effect on subprime lending rates by attracting more marketing of subprime products in comparison to areas with higher scores. Anecdotal accounts of sales presentations by mortgage brokers in social and religious gatherings provide an example of marketing strategies based on contextual factors that may induce similar borrowing behaviors.

---

[2] In fact, a study by Sethi and Somanathan (2001) ranks Cleveland third out of thirty major metropolitan areas in terms of a racial dissimilarity index that accounts for income differences.

[3] In what follows, 'subprime lending' will be used to refer to non-depository subprime lending.