The Impact of Capital on Crime

The Impact of Capital on Crime: Does Access to Home Mortgage Money Reduce Crime Rates?^{*}

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Abstract

Research Summary:

Home mortgage loans today are more readily available in urban neighborhoods and cities are safer than has been the case in decades. Community reinvestment advocates and law enforcement authorities have long contended that access to financial services and homeownership are critical to neighborhood stability, all of which contribute to lower crime rates. But no systematic research has explored the relationship between lending and crime. This study utilizes mortgage loan, census, and Uniform Crime Report data to examine the impact of lending on crime in Seattle, Washington communities, controlling for several neighborhood characteristics. We also examine the impact of loans made by lenders covered by the Federal Community Reinvestment Act to determine whether fair lending policy has an independent effect. The findings show that increased mortgage lending is significantly associated with lower crime levels and that the relationship is even stronger for lending by CRA-covered institutions.

Policy Implications:

This research advances our understanding of the linkages among financial services, neighborhood social organization, and crime. The findings suggest that community reinvestment can effectively complement human capital development as an alternative to incarceration for combating crime. We offer specific recommendations for strengthening the Community Reinvestment Act and related fair lending rules in order to stabilize the communities to which many ex-offenders return and reduce neighborhood crime.

KEYWORD: community reinvestment, social disorganization, neighborhood crime, mortgage lending

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At the New Millennium mortgage loans were far more readily available than ever before to low-income borrowers, racial minorities, and residents of low-income and minority communities. Cities were also safer, and perceived to be safer by their residents, than had been the case in years (Federal Financial Institutions Examination Council 2003; Grogan and Proscio 2000).We suspect that these facts are not unrelated and that this connection is not fortuitous.

Access to credit reflects, at least in part, important public policy initiatives including enforcement of the Federal Fair Housing Act which prohibits racial discrimination in mortgage lending and the Community Reinvestment Act which bans redlining in mortgage lending (Gramlich 1998; Joint Center for Housing Studies 2002; National Community Reinvestment Coalition 2001; Schwartz 1998).¹ While racial discrimination persists in mortgage markets today (Turner et al. 2002), it appears that fair lending policy has had the intended effect.

The perception and reality of safer streets also reflects, again at least in part, the contribution of public policy. As Grogan and Proscio (2003:23, 29) observed in reference to the South Bronx—the site of Paul Newman's notorious movie, *Fort Apache-The*

¹The Federal Fair Housing Act (42 U.S.C. §§ 3601-19 (1994)) prohibits discrimination on the basis of race, color, religion, sex, familial status, national origin, or disability in the provision of housing and housing related services, including housing finance. HUD is the primary enforcement agency though plaintiffs can file lawsuits in the courts or complaints with the U.S. Department of Justice. If found in violation of the law, defendants can be fined or issued cease and desist orders.

The Community Reinvestment Act (12 U.S.C. §§ 2901-2908 (2001)) requires depository institutions to serve the credit needs of their entire service areas, including low- and moderate-income neighborhoods. The Act is enforced by the four primary federal financial institutions regulatory agencies: the Federal Reserve Board, Federal Deposit Insurance Corporation, Comptroller of the Currency, and Office of Thrift Supervision. When financial institutions covered by the Act submit an application to their regulator to merge with or purchase another institution, change their deposit insurance, open or close a branch, or alter their business in any significant manner, regulators are required to consider the community reinvestment record of that institution. Third parties have the opportunity to challenge those applications and frequently community-based organizations and other advocacy groups have done so. Regulators can approve, deny, or temporarily delay consideration of the application. While applications are rarely denied, it is less unusual to delay consideration and request that the lender attempt to resolve the differences with the challenging party. Such delays can be costly and, therefore, provide incentives for lenders to negotiate reinvestment agreements in order to have the challenge removed.

Bronx—"it is a place where lower-income people can live affordably in tranquility and safety...government was, throughout, an indispensable part of the solution."

Is the association between lending and crime coincidental? What is the relationship between access to capital and community crime rates? This study begins to address this question by examining the relationship between one critical form of capital, home mortgage lending, and violent and property crime rates across neighborhoods in a U.S. city in 2000. This cross-sectional analysis is the first to explore the possible connections between lending and crime.

Community development practitioners, city officials, and residents of many communities have long contended that both access to capital and safe streets are essential for healthy neighborhoods. Access to capital and lower crime rates have been pointed to as critical for the comeback many cities have experienced in recent years (Grogan and Proscio 2000). It is intuitively plausible that where home mortgage money is readily available crime rates would be relatively low. If economic resources are plentiful, there is less incentive to resort to crime. But to date there has been no empirical confirmation of such a relationship.

What has been confirmed empirically is that a range of neighborhood characteristics, independent of the traits of individual residents, are linked to crime. They include economic factors such as poverty, unemployment, public assistance, and homeownership along with demographic characteristics like population turnover, number of young males, and single parent families. Access to capital and particularly home mortgages would likely affect several of these neighborhood characteristics. More lending obviously means more homeownership. Homeownership is associated with lower levels of poverty and population instability (Long 1988; South and Crowder 1998). More importantly, however, mortgage lending may have an independent effect on neighborhood crime by introducing capital into communities. The link between mortgage lending and crime, however, has yet to be established.

Establishing such a link is critical. Anti-crime policy in the past decade has focused heavily on tougher law enforcement and longer prison terms. Many researchers reject this approach and call for investing in human capital and communities as a more effective strategy (Hagan 1994; Miller 2000; Sampson 2001). As budget deficits have

skyrocketed, some governors and other elected officials are looking to alternatives to incarceration (von Zielbauer 2003). Such approaches are attractive for a variety of reasons. They can be more humane. They may save tax dollars. But unless they can be demonstrated to reduce crime, they are unlikely to become mainstream policy. This study is the first systematic effort to examine the link between one form of neighborhood investment, mortgage lending (and policy influencing lending activity), and crime.

SOCIAL DISORGANIZATION AND URBAN CRIME

Social disorganization theory has emerged as the critical framework for understanding the relationship between community characteristics and crime in urban areas. According to the theory, certain neighborhood factors can lead to social disorganization, defined as the inability of a community to realize the common values of its residents and maintain effective social controls (Kornhauser 1978:120). Social disorganization, in turn, can cause crime.

Residential (in)stability is one community characteristic believed to promote social (dis)organization. Residential stability in communities lowers crime rates by promoting social organization and heightened levels of supervision or social control; stable neighborhoods are more likely to have thriving businesses and effective neighborhood organizations as well as residents that know one another, interact on a regular basis, and look out for and protect each other's property. On the other hand, communities with high turnover rates tend to have lower levels of social organization, lower levels of supervision and social control, and therefore higher crime rates (Sampson and Groves 1989; Warner and Rountree 1997). Kasarda and Janowitz (1974:330) argue that, since assimilation of newcomers into the social fabric of local communities is a temporal process, residential mobility operates as a barrier to the development of extensive friendship networks, kinship bonds, and local associational ties.

An important correlate of residential stability is homeownership. Homeownership is critical in promoting stability and organization in communities. Studies show that neighborhoods where residents tend to own their own homes have lower crime rates than neighborhoods where most residents are renters, controlling for poverty, racial composition, and other factors. Alba, Logan and Bellair (1994:412), for instance, find

that owning a home enables residents to live in safer communities. According to their study, homeowners reside in communities where violent crime rates are nearly 250 (per 100,000) units lower than in communities where comparable renters reside.

With increased lending to minority and economically disadvantaged households over the last decade, homeownership rates for these groups are at an all time high. In 2000, African-American homeownership climbed to nearly 48 percent and the Hispanic homeownership rate reached 46 percent—both record highs. White homeownership also was at an all time high at 74 percent (U.S. Department of Housing and Urban Development 2000). There is a clear link between mortgage lending, homeownership, and residential instability; mortgage loans promote homeownership (without a mortgage homeownership would be financially impossible for the vast majority of families) and reduce residential instability in the long run—all of which correlate with lower crime rates.

Social disorganization theory also focuses on the effect of economic factors on neighborhood crime. Access to capital and particularly home mortgages would likely affect poverty, income and wealth inequalities, and other economic-related factors in addition to homeownership and residential instability.

Most importantly, however, access to home loans may have a direct effect on crime by introducing capital and the expectations it can bring into communities. That is, lending can have an independent effect on crime, above and beyond its contribution to homeownership and other neighborhood factors. Access to, or the absence of, mortgage lending sends a signal to residents, business owners, and others in a community that their neighborhood is growing or is in decline. The level of mortgage lending activity has a symbolic value that translates into very real material differences in attitudes towards, and the quality of life in, a community. When residents learn that their neighbors cannot secure loans or can only secure government insured loans, or when they see banks closing and check-cashers opening up, such developments indicate to many that the area is in trouble. Alternatively, when conventional financial services actively market their products and residents are able to secure loans, this signals that the neighborhood is on an upward trajectory. A consequence of the direction a neighborhood is headed may well be

increasing or decreasing crime rates (National Commission on Neighborhoods 1979; von Hoffman 2003).

Previous research has investigated the relationship between crime and residential mobility, poverty, unemployment, and other factors. To date, however, no study has systematically examined the impact of mortgage lending on crime. This is due, in part, to the fact that most social disorganization studies focus exclusively on intra-neighborhood influences on crime. Social disorganization theory as traditionally conceptualized is hampered by a restricted view of community that fails to account for the larger political and structural forces that shape communities (Bursik and Grasmick 1993:52; Dreier et al. 2001; Kubrin and Weitzer 2003; Orfield 2002; Sampson and Wilson 1995:48; Squires 2002). As Sampson (2001:102) asserts, "...neglecting the vertical connections (or lack thereof) that residents have to extra-communal resources and sources of power obscures the structural backdrop to community social organization." A more complete framework would incorporate the role of extra-community institutions (such as mortgage lenders and other financial institutions) and the wider political environment in which local communities are embedded. Neighborhoods differ greatly in their ties to external decision makers (Guest 2000) and hence in their capacity to lobby city government and businesses to invest in the community.

Moreover, many community characteristics hypothesized to underlie crime rates, such as residential instability, concentration of the poor, family disruption, and weak social networks and social control, appear to stem directly from planned governmental policies at local, state, and federal levels as well as private investment. Redlining and disinvestment by banks, fueled by regulatory initiatives (or lack thereof) may contribute to crime through neighborhood deterioration, forced migration via gentrification, and instability. Alternatively, increased mortgage lending and effective regulation (e.g., enforcement of fair lending and community reinvestment requirements) may reduce crime directly, by introducing capital into communities, or indirectly, by promoting homeownership and reducing residential instability in the long run.

Such a claim is not farfetched. Metropolitan statistical areas (MSAs) with relatively high levels of mortgage lending have relatively low crime rates. Among MSAs with populations greater than 500,000, the bivariate correlation between average home

loan amount and crime is statistically significant and negative (r = -.265, p < .05) While this correlation at the national level is suggestive, a more appropriate analysis of the lending-crime relationship would be at the neighborhood level within cities. Crime is a local phenomenon and social disorganization theory is couched at the neighborhood level, as the main processes linking social environments and crime depend, at least to some extent, on interaction with others who live nearby (Sampson 1986). For this reason, we conducted a study of lending and crime across neighborhoods in one city, Seattle, Washington. With a population of over 550,000 and non-whites accounting for 30 percent, Seattle is fairly representative of cities in the United States and has been the focus of numerous studies of community crime rates (Crutchfield 1989; Kubrin 2000; Miethe and McDowall 1993; Warner and Rountree 1997). This study builds on that literature. We examine the direct effects of lending on crime, controlling for a range of variables traditionally associated with neighborhood crime rates.

Sampson and Wilson (1995:54) emphasize the importance of analyzing crime at the neighborhood level and the policy context in which crime occurs when they contend: "On the basis of our theoretical framework, we conclude that community-level factors…are fruitful areas of future inquiry, especially as they are affected by macrolevel public policies regarding housing, municipal services, and employment." We agree wholeheartedly. To date no research has examined the effects of home mortgage lending practices on urban crime rates. In fact, there is very little overlap in the lending and crime literatures and policy debates, despite the widespread assumptions by many advocates about such a relationship. Thus, this is the first study to systematically document the impact of access to capital on crime.

DATA AND METHODS

To test the impact of lending on crime, regression analyses were performed using data on home mortgage loans in conjunction with census and crime data for census tracts

in Seattle. Census tracts approximate neighborhoods and are the smallest geographic level for which the home mortgage lending and crime data are available.²

Data on lending come from Home Mortgage Disclosure Act (HMDA) reports for 2000. HMDA reports provide individual loan-level data including demographic information on the applicant; type of loan applied for (e.g., conventional or government insured); purpose of the loan (e.g. home purchase, home improvement, refinancing); dollar amount of the loan; whether the loan was made by a CRA-covered institution; disposition of the application (e.g. application denied, loan originated); and census tract, county, and metropolitan area in which the property is located. Annual HMDA reports are required of banks, savings institutions, credit unions, and other for-profit mortgage lenders with a significant presence in any metropolitan area (e.g. a branch bank). Banks, savings institutions, or credit unions must report if their assets total more than \$32 million (this figure is adjusted annually according to the consumer price index). Other for profit mortgage lenders must report if their assets exceed \$10 million or they made 100 or more loans in the previous year (Federal Financial Institutions Examination Council 2003).

HMDA has become a principle data set for mortgage lending research in recent years. Virtually all redlining and related studies use HMDA data in the analyses (Hillier 2003:141). According to Federal Reserve Board economist Glenn Canner, approximately 80 percent of all home purchase mortgage loans are captured by HMDA. Most of the excluded loans are originated by smaller lenders who do not meet the threshold requirements for HMDA reporters, and these loans tend to be in non-metropolitan areas. HMDA is clearly the superior publicly available data set and it is a reliable source for mortgage lending in urban communities. As Canner observed, HMDA "is the best we have" (Canner 2003).

We examine single-family home purchase loans. Our focus is on the amount of loan dollars given to home buyers, rather than the simple number of loans originated, because this is a better measure of the aggregate investment in various neighborhoods. Loan amount is an explicit indicator of the dollars invested in the community. For

 $^{^{2}}$ Seattle has 123 tracts, 3 of which are excluded from the analyses because they do not have adequate size populations (i.e., they have populations of less than 1,000). This population size requirement allows one to

example, two neighborhoods could each have received 30 new mortgage loans in a given year but in one community the average loan amount could be twice as large as in the other community. As such, the number of loans would be a misleading indicator of the relative investment in those two neighborhoods. Also given the multiplier effect of any investment including mortgage loans (Williamson, Imbroscio, and Alperovitz 2002), average dollar amount is a better indicator of the level of neighborhood investment. Thus, our lending variable of interest is the average HMDA loan dollar amount per home buyer (created by dividing the total dollar amount of loans in a census tract by the total number of loans originated). Because CRA-covered institutions have an explicit legal mandate to serve low- and moderate-income neighborhoods, and thus may have a greater impact on crime than mortgage lenders generally, we use another measure that reflects the average loan amount for CRA lenders (per home buyer).³ The first measure captures the effect of lending practices on crime while the second measure reflects the impact of public policy.

Eleven variables were constructed from the census to reflect critical neighborhood differences. They are:

(1) poverty rate, defined as the percentage of persons living below the poverty level;

(2) percent on public assistance, defined as the percentage of householdsreceiving public assistance (including (a) supplementary security incomepayments made by Federal or State welfare agencies to low-income persons whoare aged 65 years old or over, blind or disabled, (b) aid to families with dependentchildren, and (c) general assistance);

construct reliable rates.

³ There is now substantial evidence that CRA is having the intended impact. In a review of CRA related research, the Brookings Institution found that in the 1990s home purchase mortgage lending to low-income and minority households and neighborhoods increased faster than home purchase mortgage lending generally (Haag 2000). The U.S. Department of the Treasury reported similar findings with the greatest increases coming after the regulation implementing the CRA was strengthened in 1995. In addition, the Treasury report found greater increases in communities where there had been at least one CRA agreement signed by a lender with a community group (Litan et al. 2001). Schwartz (1998a) drew similar conclusions in a nationwide study comparing the lending record of financial institutions that signed CRA agreements with those that had not. Bostic and Robinson (2002) found that the number of conventional home purchase loans going to low- and moderate-income and minority borrowers and areas increased significantly in urban counties with the introduction of new CRA agreements, though these effects were most pronounced in the first two years the agreements were in place. The Joint Center for Housing Studies (2002:135-136) found that CRA-regulated lenders make a higher share of their loans to lower-income people and communities, and to minority markets than do non-regulated institutions.

(3) median household income;

(4) unemployment rate, defined as the percentage of unemployed persons ages 16 and over;

(5) percent black, defined as the percentage of non-Hispanic blacks in the population;

(6) percent young males, defined as the percentage of young males, ages 14-24;

(7) percent female-headed households, defined as the percentage of family households headed by females with no husband present and with children 17 and under;

(8) divorce rate, defined as the percentage of divorced persons ages 15 and over;(9) residential mobility rate, defined as the percentage of persons ages 5 and over who have changed residences in the past 5 years;

(10) renters rate, defined as the percentage of occupied housing units that are occupied by renters (as opposed to home owners); and

(11) median housing value, defined as the median housing value for owner occupied housing units.

The social disorganization literature has demonstrated that these characteristics are related to community crime rates (Krivo and Peterson 1996; Kubrin 2000; Morenoff, Sampson and Raudenbush 2001; Warner and Rountree 1997).

An important variable that classifies tracts as within or not within the Seattle central business district (CBD) is included in the analyses because few and atypical persons live in CBD tracts. In Seattle today, CBD residents tend to be urban professionals with high incomes or people who are poor and homeless. Controlling for whether tracts are in or outside the CBD minimizes the likelihood that unique characteristics of this area will distort the results (Crutchfield, 1989; Kubrin 2000).

Data to compute total, violent, and property crime rates at the census tract level come from Seattle Police Department annual reports. Following common practice, three-year (99-01) average crime rates (per 1,000 population) were calculated to minimize the impact of annual fluctuations. The violent crime rate sums the murder, rape, robbery, and assault rates whereas the property crime rate is calculated as a sum of the burglary, larceny, and auto-theft rates.

Previous community level studies have had to address problems of multicollinearity among the independent variables. To diagnose potential collinearity, we examined variance inflation factor (VIF) scores which confirmed the high collinearity between the following disadvantage-related variables: poverty rate, percent on public assistance, median household income, unemployment rate, and percent black, and the following residential mobility variables: residential mobility rate, renters rate, and percent young males. Using these diagnostics and previous research as a guide, we adopted a strategy of confirmatory factor analysis and hypothesized that an interpretable two-factor solution will represent the intercorrelations among indicators of disadvantage and residential mobility. The results supported this hypothesis. For disadvantage, all factor loadings were above .65 (poverty rate = .90, percent households on public assistance = .82, median household income = -.82, unemployment rate = .79, and percent black = .68), and the factor has an eigenvalue of 3.2. For residential mobility, all factor loadings were above .70 (residential mobility rate = .95, renters rate = .93, and percent young males = .73), and the factor has an eigenvalue of 2.3. The disadvantage and residential mobility factors were used along with percent young males, percent female-headed households, divorce rate, central business district, and the home mortgage lending measures to predict Seattle neighborhood crime rates.⁴

A final issue has to do with the causal ordering of the lending-crime relationship. While we have argued that lending affects crime, a case could be made for reverse causal effects—that is, crime could affect lending. In other words, the relationship between lending and crime could be bidirectional. If this is true, standard linear regression models are problematic; these models assume that errors in the dependent variable are uncorrelated with the independent variables. When this is not the case, such as when relationships between variables are bidirectional, linear regression using OLS no longer provides optimal model estimates. For this reason, we test the relationship between lending and crime using two-stage least-squares regression (2SLS), a common practice in neighborhood research (Bellair 2000; Markowtiz et al. 2001).⁵ One challenge with 2SLS

⁴ Histograms and descriptive statistics indicate that all of the variables excluding percent divorced were skewed and needed to be logged in the analyses.

⁵ Two-stage least-squares regression uses instrumental variables that are uncorrelated with the error terms to compute estimated values of the problematic predictor (the first stage), and then uses those computed

is identifying instrumental variables—those that influence the independent but not the dependent variable (see discussion in Bellair 2000). However, we identified an effective instrumental variable: age of the housing stock (defined in the Census as the average median year in which the homes were built for each census tract). The age of the housing stock affects lending practices, as older homes generally have lower market value, but does not affect crime rates. The 2SLS regression models are run in SPSS and the results reported below are adjusted to account for the effect of crime on lending. Consequently, we are able to take into consideration the bidirectional nature of the relationships between lending and crime.⁶

FINDINGS

The main finding is that lending is associated with crime. As will be shown below, this relationship holds after controlling for a range of neighborhood socioeconomic variables—most importantly, after accounting for homeownership and residential mobility—and after adjusting for the reciprocal effects of crime on lending. The relationship is strongest where CRA lending is involved.

Means, standard deviations, and bivariate correlations for all variables are presented in Table 1. The average mortgage loan amount per homebuyer across Seattle neighborhoods was \$212,000 while the average CRA mortgage loan amount per homebuyer was slightly higher at \$215,000. Consistent with crime patterns throughout the U.S., property offenses comprise the majority of reported crimes in Seattle in 2000. Average rates for property and violent crime, respectively, are 83.85 and 8.36 per 1,000 population. As expected, the explanatory variables, and particularly disadvantage, have positive relationships with violent and property crime, excluding percentage of femaleheaded households. More importantly, similar to the relationship found at the MSA level, mortgage lending is significantly negatively associated with crime. As the average loan amount per homebuyer increases in neighborhoods, violent and property crime rates

values to estimate a linear regression model of the dependent variable (the second stage). Since the computed values are based on variables that are uncorrelated with the errors, the results of the two-stage model are optimal.

⁶ An additional concern in neighborhood research is that of spatial dependence, which has been an issue in some studies. However, previous research on Seattle has indicated that spatial autocorrelation is not a problem in neighborhood crime analyses (Kubrin 2000).

decrease (r = -.43, r = -.25). The relationship is even stronger for average CRA loan amount and crime (r = -.47, r = -.30). These correlations once again suggest initial support for a mortgage lending-crime relationship.

TABLE 1 ABOUT HERE

The relationships between disadvantage and crime and lending and crime can be visually illustrated. Figure 1 plots the distributions of disadvantage and crime in Seattle neighborhoods. As can be seen, crimes are not randomly distributed but are clustered primarily in the center of the city. Furthermore, the darkest areas of the map—which indicate those neighborhoods with the highest disadvantage levels—experience the greatest number of crimes.

FIGURES 1 and 2 ABOUT HERE

Figure 2 displays the association between home mortgage lending and crime. In this figure, the darkest areas of the map represent the highest crime areas (low: < 73.13 crimes per 1,000; moderate: 73.14 – 182.05 crimes per 1,000; high: 182.06 – 443.23 crimes per 1,000; extreme: > 443.24 crimes per 1,000). The different size circles capture lending activity. As Figure 2 shows, areas with greater lending activity, where the average home mortgage loan amount per homebuyer is greater, have lower crime rates. Once again we see support for a lending-crime relationship. At issue, however, is whether the significant negative association between lending and crime will remain after controlling for other community characteristics known to be associated with crime. To determine this, we turn to the regression results.

Table 2 displays the 2SLS regression results for the average loan amount per homebuyer and crime, controlling for other community characteristics as well as adjusting for the reciprocal effect of crime on lending. As expected, disadvantage, residential mobility, the divorce rate, and central business district are all significantly positively associated with violent and property crime rates. More importantly, however, even after controlling for these factors, greater home mortgage lending is significantly associated with lower violent crime levels ($\beta = -.215$, p < .05) in Seattle neighborhoods (but not lower property crime levels). For a given tract, as the average loan amount increases by \$10,000, the violent crime rate decreases by 9.1 violent crimes per 1,000 population. In a typical Seattle census tract which has roughly 5,000 residents, a \$10,000 increase in the average loan amount would result in 45 fewer violent crimes per year. This reduction is substantial, particularly considering that violent crimes include murder, rape, robbery, and assault.

One potential concern is the correlation between median housing value and average loan amount (see Table 1), as home purchase loans are based on the market value of the property being bought. While the correlation between these variables is strong, collinearity diagnostics indicate that including both variables in the regression analyses does not produce harmful collinearity. The VIFs for median housing value and average loan amount are 5.1 and 4.9, respectively, well below conventional problematic threshold (Kennedy 1992:183). However, to further test the independent effect of lending on crime, we ran additional analyses that explore the relative impact of each variable, as shown in Table 3. Model 1 includes average loan amount but excludes median housing value while Model 2 includes median housing value but excludes average loan amount. As indicated in Table 3, housing value is not significant in any of the models but lending is significant in the violent crime model, consistent with the basic finding that lending has an independent effect on crime. This effect holds after controlling for several neighborhood factors including housing value.

TABLE 2 ABOUT HERE

TABLE 3 ABOUT HERE

The effects of lending on crime are even greater for mortgage loans made by CRA-covered institutions. Regression results for average CRA loan amount per homebuyer and crime are displayed in Table 3. Once again, average loan amount is negatively associated with violent crime rates ($\beta = -.301$, p < .01) but in this case, it is also negatively associated with property crime rates ($\beta = -.262$, p < .05). For a given tract,

as the average CRA home mortgage loan increases by \$10,000, the crime rate decreases by 12.1 violent and 6.4 property crimes per 1,000 residents. In a typical Seattle neighborhood such an increase would result in nearly 60 fewer violent and 32 fewer property crimes each year. Again, an examination of the comparative effects of median housing value and average CRA loan amount reveals that loan amount, rather than home value, is the significant variable, as indicated in Table 5. In addition, the adjusted R² is higher in the models that include average loan amount than in those reporting median housing value.

TABLE 4 ABOUT HERE

TABLE 5 ABOUT HERE

These results demonstrate the effects of home mortgage lending on crime. Even after controlling for disadvantage, mobility, housing value, and other important correlates of community crime, and taking into account the reciprocal relationship between lending and crime, average loan amount and particularly average CRA loan amount are significantly associated with lower crime rates in Seattle neighborhoods. Further support for the lending-crime relationship is evident given the increase in the adjusted R^2 when the lending variables are included. For example, without the average loan amount variable, the adjusted R^2 for total crime is .64; adding the lending variable results in a higher adjusted R^2 of .71. The same is true regarding the CRA lending variable. In sum, mortgage lending activity reduces the incidence of violent and property crime in Seattle communities.

CONCLUSION AND DISCUSSION

Investment matters and policy counts. Where mortgage capital is more readily available, crime rates are lower. This relationship holds even after taking into account those factors that have long been understood to influence crime (e.g. poverty, residential instability, divorce, etc.). And the impact is greater for those loans most influenced by public policy requiring lenders to be responsive to traditionally underserved urban

markets. That is, mortgage loans made by lenders under the jurisdiction of the Community Reinvestment Act are more strongly associated with crime rates than are mortgage loans generally.

The benefits of access to capital and credit are fairly clear to individuals seeking to buy a home. Without a mortgage loan, the vast majority of homeowners today would be renters. Homeownership, in addition to providing stable shelter, is also critical for wealth accumulation for most families. Half of all homeowners in the U.S. hold 50 percent or more of their net wealth in home equity (Joint Center for Housing Studies 2002b:7). But the benefits also accrue to neighborhood residents who did not apply for a loan in any given year or who are not homeowners. Where mortgage loans are more available and homeownership rates are higher, property values tend to be higher as well, including that of homes owned by longstanding residents. Neighborhoods with relatively high levels of homeownership often have better public services (including public schools), safer streets, and other amenities that all residents share. Homeowners tend to be more satisfied with their communities, more engaged in voluntary organizations and political activities, and generally more committed to their communities (Rohe et al. 2000). Again, others in the community who have not recently taken out a mortgage loan or who are renters benefit from what are in fact neighborhood effects of homeownership. Homeownership is not a universal elixir for urban ills. Families trapped in a high-priced predatory loan from which they cannot escape or in a declining neighborhood where they are unable to sell their home do not benefit and they often lose considerable financial resources, including their homes, in the worst cases. Renters are priced out of the market are often forced to relocate. And racial minorities do not enjoy the same level of benefits due to racial discrimination and its associated costs in urban housing markets. But in general, access to mortgage capital and the homeownership it brings has important neighborhood as well as individual family effects (Denton 2001).

The findings of this study have important implications for social theory, social policy, and future social research. Theoretically, the findings reinforce, and are reinforced by, the social disorganization perspective. As the theory posits, actions by local residents (e.g., supervising neighborhood youth, forming neighborhood watch groups, and organizing to secure economic resources) contribute to the quality of life within a

community. But maximizing the impact of such local activity requires tools that can only be provided by institutional actors outside the local community. As Sampson (2001:109) argues, "...policies at the political and macrosocial level are extremely important; recognizing that community social action is possible does not absolve policymakers of the responsibility for seeking equality of opportunities among neighborhoods."

In terms of policy, the findings are also consistent with what many community development professionals have long maintained (Grogan and Proscio 2000). Crime rates are lower in the presence of economic resources, including homeownership, and where poverty rates are low. Stability of the local population, often facilitated by homeownership, and the presence of social capital or networks of reciprocity (e.g. neighborhood associations, political organizations, fraternal societies) contribute to lower crime rates (Putnam 2000: 307-318). Access to mortgage money, and particularly those funds provided by lenders who have an obligation under the CRA to serve low-income communities, reinforces many of these neighborhood characteristics, but more importantly, has an independent effect as well.

The impact of mortgage lending on crime bolsters the arguments of those advocating alternatives to incarceration as a crime prevention strategy. Rose and Clear (1998) have demonstrated that increasing incarceration rates above selected thresholds in attempts to reduce neighborhood crime actually increases crime rates in subsequent years. They suggest that this pattern reflects the further withdrawal of vital resources that make any neighborhood work. Offenders are parents and spouses who are trying to raise their children and keep their families intact. They are also workers who contribute to the neighborhood economy. Among the problems confronting former inmates upon their release is finding a place to live and the means to support themselves (Travis, Solomon, and Waul 2001). A relatively small share of this population may be in a position to purchase a home but that is not the case with the entire population. Yet, many of these individuals return precisely to the communities that have traditionally been underserved by financial institutions. Investment in human capital (e.g. job training, formal education, job placement) is often a critical need for this population. Investment in their communities can also facilitate their re-entry.

Community reinvestment advocates have long argued that among the benefits of access to capital for residents of distressed neighborhoods are lower crime rates. Our findings provide empirical support for this often taken-for-granted assumption. It is significant, both statistically and substantively, that where availability of mortgage money is greater, crime rates are lower. Equally important is the finding that loans covered by the CRA have an even stronger relationship with crime.

This latter finding suggests some important modifications of that critical federal law. Changes in the structure of financial services industries have, over time, limited the impact of the law. CRA applies to depository institutions, principally banks and savings or thrift institutions. When the CRA was enacted in 1977, banks and savings institutions made the overwhelming majority of all mortgage loans. Today they account for approximately one-third of these loans (Insurance Information Institute 2003:29). Mortgage banking affiliates of depositories, independent mortgage banks and brokers, securities firms, insurance companies, and other providers of financial services now make the majority of all mortgage loans. The Financial Services Modernization Act of 1999, which broke down several post –Depression era barriers that separated banking, securities, and insurance, has facilitated the entry of each of these industries into the business of the others. But the CRA has not kept pace and so the share of loans subject to relatively greater federal scrutiny has declined (Joint Center for Housing Studies 2002). Policy makers, in other words, are neglecting significant regulatory responsibilities.

The solution would be for Congress to amend the CRA so that it applied to all significant actors in the mortgage market, including the non-depository institutions that are not covered by the law. The CRA Modernization Act (H.R. 4893, 106th Congress, 2nd Session) would accomplish this objective. Whether this proposal receives a serious hearing in Congress remains to be seen.

Finally, the politics and relevant social science findings suggest important avenues for future research. An obvious starting point would be a longitudinal investigation of the lending-crime relationship. Time series analyses would enable researchers to flesh out the relationship suggested by our two-stage regression models. Additional case studies are also needed. This would be particularly helpful in larger cities and those with higher crime rates. The impact of other forms of investment, both private

and public, also needs to be explored. Small business lending data have been publicly available since 1997 and could be analyzed in conjunction with local crime rates. Public investment in schools, transportation, housing hospitals, police and elsewhere may well influence selected crimes. Clearly, there are many fruitful directions research could take.

Policy oriented research is vital because it can provide handles for addressing crime. It is very difficult to alter the number of young males in a city or the racial composition of a metropolitan area. But it is possible to alter the number and share of loans going to traditionally underserved neighborhoods, revise school funding formulas, or hire more police. Ideally, such investments will be based increasingly on solid empirical research findings and decreasingly on common sense or political influence.

This study is the first to investigate the link between investment and crime and it has established an empirical connection between mortgage lending and neighborhood crime rates. Perhaps most importantly, we found that this link is affected by policy decisions. Given these findings, we anticipate this initial exploratory investigation will serve as a springboard to further neighborhood research on investment and crime.

13	1 14	2 15	3 16	4 17	5 18	6 19	7	8	9	10	11	12
1. Tot. crime ra .58*	te 1.00 17	.85* .47*	.99* .61*	.69* 28*	.42* 28*	65* 33*	.52*	.46*	.63*	.63*	.69*	.27*
2. Violent crime .54*	e rate .10	1.00 .42*	.81* .46*	.78* 44*	.61* 43*	73* 47*	.61*	.66*	.80*	.51*	.64*	.38*
3. Property crin .57*	ne rate 20*	.47*	1.00 .62*	.66* 26*	.38* 25*	62* 30*	.49*	.42*	.59*	.63*	.69*	.25*
4. Poverty rate .71*	.07	.23*	.34*	1.00 47*	.58* 42*	84* 44*	.65*	.60*	.89*	.65*	.73*	.58*
5. % public assi .17	stance .47*	.28*	.18	40*	1.00 45*	50* 47*	.33*	.51*	.67*	.12	.27*	.22*
6. Median hous 73*	ehold inco .01	ome 34*	33*	.65*	.60*	1.00 .62*	57*	52*	82*	67*	80*	52*
7. Unemployme .49*	ent Rate 04	.20*	.40*	38*	29*	30*	1.00	.51*	.76*	.46*	.49*	.34*
8. % black .27*	.38*	.25*	.15	39*	36*	36*		1.00	.71*	.24*	.34*	.29*
9. Disadvantage .55*	e factor .20*	.29*	.35*	51*	45*	46*			1.00	.48*	.62*	.43*
10. Residential .95*	mobility r 45*	ate .20*	.40*	28*	18*	19*				1.00	.90*	.57*
11. Renters rate .93*	34*	.31*	.39*	33*	26*	28*					1.00	.51*
12. % young ma .73*	ales 07	25*	01	48*	44*	45*						1.00
13. Residential 1.00	mobility f 40*	factor .09	.32*	37*	27*	28*						
14. % female he	eaded hou 1.00	seholds .09	38*	23*	37*	36*						
15. Divorce rate	e	1.00	.41*	10	12	15						
16. Central busi	iness distr	ict (0=no) 1.00	12	.06	.01						
17. Median ho	usehold va	alue		1.00	.87*	.89*						

Table 1: Correlations and Descriptives for All Variables

18. Average HMDA loan \$ per home buyer						1.00	.99*						
19. Av	erage CR	A HMDA	A loan \$ j	per home	buyer		1.00						
Х	0	92.59 .04	8.36 .11	83.85 .07	.12 \$255	.03 \$212	\$47 \$215	.04	.08	0	.56	.50	.07
SD	1.00	106.37 .04	12.89 .03	94.96 .26	.10 \$92	.03 \$63	\$16 \$66	.02	.10	1.00	.14	.23	.06

Note: Means and standard deviations are based on unlogged values. p < .05

Table 2: 2SLS Regression Results for Average HMDA Loan \$ per Homebuyer and Crime

	Total Crime			Violent Crime			Property Crime		
Determinants	Beta	b	SE	Beta	b	SE	Beta	b	SE
Disadvantage	.317***	.222	.058	.503***	.559	.092	.265**	.182	.059
Residential mobility	.319***	.240	.058	.214**	.255	.091	.338***	.248	.058
% Female-headed households	136	113	.066	.096	.126	.103	158	127	.066
Divorce rate	.152**	3.441	1.270	.126*	4.519	1.994	.155**	3.410	1.274
Central business district	.287***	.761	.195	.222**	.934	.307	.292***	.756	.196
Median housing value	.062	.049	.089	.123	.154	.139	.046	.036	.089
Average HMDA loan \$ amount	148	392	.290	215*	905	.456	134	348	.291
Constant		5.35***	1.393		5.76**	2.187		5.0***	1.40
Adjusted R ²		.71			.72			.69	

* p < .05 ** p < .01 *** p < .001

	Total	Crime	Violer	nt Crime	Prope	Property Crime		
Determinants	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2		
Disadvantage	.317*** .223 (.058)	.320*** .228 (.065)	.504*** .561 (.092)	.519*** .577 (.093)	.266** .182 (.058)	.267** .186 (.066)		
Residential mobility	.315*** .237 (.058)	.294** .210 (.065)	.207** .246 (.091)	.222** .247 (.092)	.335*** .246 (.058)	.310** .216 (.065)		
% Female-headed households	147^ 121 (.064)	007 005 (.070)	.076 .099 (.100)	.139 .170 (.100)	165* 134 (.064)	018 014 (.071)		
Divorce rate	.153** 3.466 (1.265)	.228*** 5.036 (1.395)	.129* 4.596 (1.994)	.158** 5.432 (1.985)	.156** 3.428 (1.268)	.235*** 5.069 (1.411)		
Central business district	.273*** .723 (.182)	.313*** .843 (.204)	.194** .813 (.287)	.192** .807 (.290)	.281*** .728 (.182)	.325*** .856 (.206)		
Median housing value		.046 .036 (.052)		028 034 (.074)		.051 .038 (.053)		
Average HMDA loan \$ amount	098 259 (.159)		115^ 484 (.251)		096 250 (.160)			
Constant	4.7*** (.835)	3.46*** (.305)	3.8** (1.316)	1.48*** (.434)	4.6*** (.837)	3.33*** (.308)		
Adjusted R ²	.71	.64	.71	.70	.70	.62		

Table 3: 2SLS Regression Results Comparing Effects of Housing Value and Lending on Crime^a

^a: Entries are standardized coefficients and unstandardized coefficients followed by standard

errors in parenthesis. ^p<.06 * p < .05 ** p < .01 *** p < .001

Table 4: 2SLS Regression Results for Average CRA HMDA Loan \$ per Homebuyer and	t
Crime	

	Total Crime			Violent Crime			Property Crime			
Determinants	Beta	b	SE	Beta	b	SE	Beta	b	SE	
Disadvantage	.329***	.226	.058	.511***	.564	.092	.277**	.186	.058	
Residential mobility	.312***	.232	.058	.209**	.249	.091	.331***	.240	.058	
% Female-headed households	143	116	.065	.095	.124	.103	165*	131	.066	
Divorce rate	.151**	3.342	1.257	.122*	4.327	1.982	.154**	3.322	1.263	
Central business district	.276***	.757	.197	.210**	.922	.311	.281***	.750	.198	
Median housing value	.177	.138	.092	.202	.252	.145	.161	.122	.092	
Average HMDA CRA loan \$ amount	276*	697	.289	301**	-1.217	.456	262*	645	.291	
Constant		6.7***	1.38		7.2***	2.177		6.4***	1.39	
Adjusted R ²		.71	•		.72	•		.69	•	

	Total	Crime	Violer	nt Crime	Proper	Property Crime		
Determinants	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2		
Disadvantage	.326*** .224 (.058)	.320*** .228 (.065)	.508*** .560 (.092)	.519*** .577 (.093)	.274** .184 (.059)	.267** .186 (.066)		
Residential mobility	.304*** .226 (.058)	.294** .210 (.065)	.200* .239 (.091)	.222** .247 (.092)	.324*** .235 (.058)	.310** .216 (.065)		
% Female-headed households	168* 137 (.064)	007 005 (.070)	.067 .087 (.102)	.139 .170 (.100)	188* 149 (.064)	018 014 (.071)		
Divorce rate	.155** 3.448 (1.262)	.228*** 5.036 (1.395)	.127* 4.520 (1.997)	.158** 5.432 (1.985)	.158** 3.416 (1.265)	.235*** 5.069 (1.411)		
Central business district	.248** .679 (.191)	.313*** .843 (.204)	.177* .780 (.303)	.192** .807 (.289)	.255*** .681 (.192)	.325*** .856 (.206)		
Median housing value		.046 .036 (.052)		028 034 (.074)		.051 .038 (.053)		
Average HMDA CRA loan \$ amount	130* 327 (.153)		134* 542 (.242)		129* 317 (.154)			
Constant	5.1*** (.805)	3.46*** (.305)	4.1*** (1.274)	1.48*** (.434)	4.9*** (.807)	3.33*** (.308)		
Adjusted R ²	.71	.64	.71	.70	.69	.62		

 Table 5: 2SLS Regression Results Comparing Effects of Housing Value and CRA

 Lending on Crime^a

^a: Entries are standardized coefficients and unstandardized coefficients followed by standard

errors in parenthesis. * p < .05 ** p < .01 *** p < .001

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