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TOWARDS A GEOGRAPHIC MODEL OF RESIDENTIAL DISINVESTMENT:
RESIDENTIAL MORTGAGE LENDING PATTERNS IN THE OKLAHOMA
CITY METROPOLITAN AREA

The University of Oklahoma

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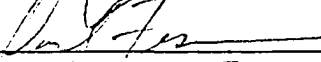
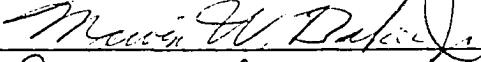
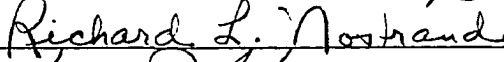
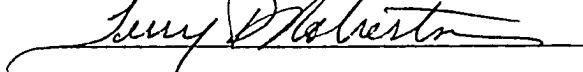
TOWARDS A GEOGRAPHIC MODEL OF RESIDENTIAL DISINVESTMENT:
RESIDENTIAL MORTGAGE LENDING PATTERNS IN
THE OKLAHOMA CITY METROPOLITAN AREA

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements for the
degree of
DOCTOR OF PHILOSOPHY

BY
JOHN ALEXANDER MENARY
Norman, Oklahoma
1982

TOWARDS A GEOGRAPHIC MODEL OF RESIDENTIAL DISINVESTMENT:
RESIDENTIAL MORTGAGE LENDING PATTERNS IN
THE OKLAHOMA CITY METROPOLITAN AREA

APPROVED BY

DISSERTATION COMMITTEE

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.	iii
LIST OF TABLES.	vi
LIST OF ILLUSTRATIONS	vii
ABSTRACT.	ix
 Chapter	
I. INTRODUCTION	1
Outline of the Study.	4
II. ECONOMIC AND SOCIAL UNDERPINNINGS OF RESIDENTIAL DISINVESTMENT.	9
Introduction.	9
Monocentric City Theory: A Spatial Economic Perspective.	11
A Socio-Spatial Perspective on Residential Phenomena.	17
Economic Aspects of Housing and Neighborhood Change.	22
Neighborhood, Segregation and Neighborhood Change: A Socio-Spatial Perspective.	30
Residential Segregation and Disinvestment: A Socio-Economic Perspective	34
Summary	48
III. THE GEOGRAPHICAL STRUCTURE OF MORTGAGE LENDING IN THE OKLAHOMA CITY METROPOLITAN AREA: A CASE STUDY IN RESIDENTIAL DISINVESTMENT	54
Introduction.	54
Demographic and Economic Factors: A Spatial Profile of the Oklahoma City SMSA.	56

Chapter	Page
An Analysis of Mortgage Lending: The Metropolitan Level	65
An Analysis of Mortgage Lending Patterns.	77
The Intra-Metropolitan Level.	80
Discussion and Summary.	84
IV. THE FORM OF THE PROCESS OF RESIDENTIAL DISINVESTMENT: TOWARDS A CRITICAL GEOGRAPHICAL MODEL.	91
Introduction.	91
Some Preliminary Concepts and Definitions	92
A Perspective on Critical Reasoning	97
Housing and Finance: A Critical Perspective	99
The Emergence of Urban Residential Disinvestment.	110
The Form of the Public-Private Residential Land Use Partnership	114
The Reification of Social Values.	118
Residential Disinvestment as a Geographical Phenomena.	121
Elements of a Geographic Model of Disinvestment.	126
Summary	140
V. CONCLUSION	145
Methodological Questions For Future Research	158
BIBLIOGRAPHY	166

LIST OF TABLES

Table	Page
1. Percentage Of Building Permits Issued For Single-Family Dwelling Units By Municipalities Within The Oklahoma City Metropolitan Area Between 1976 And 1980.	61
2. Municipalities With The Largest Percentage Of Multi-Family Unit Building Permits Within The Oklahoma City SMSA, 1976-1980.	62
3. Twenty Largest Commercial Banks Within The Oklahoma City SMSA By Size Of Deposits In 1979	67
4. Annual Number Of Mortgage Loans By Type For The Oklahoma City Metropolitan Area	68
5. Annual Value Of Mortgage Loans By Loan Type For The Oklahoma City Metropolitan Area	68
6. Areaal Distribution Of Residential Mortgage Money For Oklahoma City And Suburban Municipalities By Percentage Of Total Dollars Loaned Annually.	74
7. Results Of Regression Analysis For The Metropolitan Area	80
8. Results Of Correlation Analysis For Central City And Suburban Census Tracts, 1976-1979	81
9. Results Of Multiple Regression Analysis At The Intra-Metropolitan Level For Central City And Suburban Census Tracts By Total Dollars Loaned	83
10. Demand-Supply Side Factors	130
11. Measures of Neighborhood Commitment.	135
12. Measures of Investor Commitment.	136
13. Measures of Local Political Factors.	136

LIST OF ILLUSTRATIONS

Figure		Page
1.	The Oklahoma City and the Metropolitan Area 1970 Census Tracts.	57
2.	Population and Resources in Relation to Neighborhood Space.	131
Map		
1.	Oklahoma City Urbanized Area Average Annual Rate of Population Change 1970-1979	58
2.	Oklahoma City Urbanized Area Average Annual Rate of Household Change 1970-1979.	59
3.	Oklahoma City Urbanized Area Per Capita Income 1978	63
4.	Oklahoma City Urbanized Area Change in Per Capita Income 1970-1979	64
5.	Value of Residential Mortgage Loans for Oklahoma City, 1976 ('000S Dollars)	69
6.	Value of Residential Mortgage Loans for Oklahoma City, 1977 ('000S Dollars)	70
7.	Value of Residential Mortgage Loans for Oklahoma City, 1978 ('000S Dollars)	71
8.	Value of Residential Mortgage Loans for Oklahoma City, 1979 ('000S Dollars)	72
9.	Total Value of Residential Mortgage Loans for Oklahoma City, 1976-1979.	73

Map		Page
10	Oklahoma City Urbanized Area Recipients of Government Issued Mortgages Loans 1976-1979	76
11.	Mortgage Deficiency Index for the Oklahoma City Urbanized Area 1976 (Logarithmic Transformation).	85
12.	Mortgage Deficiency Index for the Oklahoma City Urbanized Area 1977 (Logarithmic Transformation).	86
13.	Mortgage Deficiency Index for the Oklahoma City Urbanized Area 1978 (Logarithmic Transformation).	87
14.	Mortgage Deficiency Index for the Oklahoma City Urbanized Area 1979 (Logarithmic Transformation).	88

TOWARDS A GEOGRAPHICAL MODEL OF RESIDENTIAL DISINVESTMENT:
RESIDENTIAL MORTGAGE LENDING PATTERNS IN
THE OKLAHOMA CITY METROPOLITAN AREA

ABSTRACT

by John Alexander Menary, PH.D.
The University of Oklahoma, 1982

The objective of this study is to develop a geographic explanation for residential disinvestment. The literature of traditional urban socio-economic research offers an individualistic, disaggregate account of this phenomenon, but the findings are confusing and incomplete. In part, this is because rational economic choice and consumer demand are insufficient to explain spatial disparities in financing within an urban area. In addition there is little research linking consumer demand and socio-economic factors with housing and finance variables and processes.

To fill this void a geographical analysis of the pattern of residential mortgage lending was performed for the metropolitan Oklahoma City area. The principle findings of this study are the following: First, disinvestment is a more complex spatial aspect of redlining, the elements of which cannot be explained adequately simply in terms of an urban-suburban typology; second, a more comprehensive explanation of disinvestment is offered which synthesizes and integrates the demand and supply factors within

a theoretical framework derived from orthodox and critical theory, and;
third, the theoretical discussion is the first explicit geographical account
of disinvestment. A geographic model is proposed which solicits some
variables connecting personal factors with public and private housing-
finance institutional behavior.

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TOWARDS A GEOGRAPHIC MODEL OF RESIDENTIAL DISINVESTMENT:
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CHAPTER I

Introduction

Housing for urban residents is an important policy issue at the national, state, and local levels in the United States. A critical factor in housing is the availability of mortgage financing for prospective home buyers. Housing varies, however, by location, age, quality, size, and other characteristics that affect its value and mortgagability. Similarly, home buyers vary according to personal characteristics that influence their ability to borrow funds for a home purchase. The interactions among personal, housing, and finance characteristics, in turn, affects the location pattern of residents or the social geography within urban areas. This study contributes to urban social geography by addressing complex issues of urban residential location, the availability of mortgage funds, and constraints on the location of urban residents.

Social geography treats the social interactive processes operating in a spatial context, and the consequences of these behaviors as reflected in a spatial pattern (Brunn, 1978). The behavioral processes may be associated with individuals, groups, or institutions, such as businesses, churches, governments, financial institutions, and voluntary associations which find expression in a social context. The emphasis on location as an influence on individual and group behavioral processes and the resulting locational pattern is one distinguishing feature of social geography.

Social geography's concern for the relationship(s) between location and behavior entails some provocative and controversial theorizing about the city, social well-being, inequality and conflict. As yet there is no theory explaining the socio-spatial structure of the American city, which is accepted universally. In this connection, two principal geographical perspectives characterize the field: a traditional or nomological and a critical, neo-Marxist approach.¹ As recognized by Hay (1979, p. 22) these two perspectives produce:

...a nomological geography which seeks, for example to understand the workings of urban rent theory as positivistically observed,...and a critical geography which

¹Nomological is a philosophical term defining the mode of reasoning characterizing the explanation of human behavior such as classical and neoclassical economics. Critical theory consists of two, not necessarily divergent literature bodies: institutional theory and neo-Marxist theory. In general, the first group focuses on the influences of institutions upon the urban structure by examining the class relationship among landlord, tenants, real estate representatives, and financial lending institutions. The second group, varies from the first group because of a concern for society, the political economy and capital flows. There is a definite desire on the part of both perspectives to rectify major conceptual and technical errors revolving around location. Both approaches challenge the ability of orthodox theory, which is aspatial and atemporal, to resolve urban as well as regional problems.

points to the extent to which present urban rent systems are themselves transformations of the capitalist system, but which admits that some of its features may indeed be "invariant regularities"....

Hay's (1979) comment is instructive because it raises another problem. To date, geographers have not addressed the influence of empirical geographic research on public policy. For example, each of the perspectives focuses on a similar subject matter, like land values. There is some doubt then as to which of these is relevant to the explanation of the distribution of residential land use activities and, in turn, the socio-spatial structure of the city. If these two perspectives offer differing explanations of the same subject matter, they can produce different implications for urban policy design.

Recently, Herbert and Smith (1979) have noted the possible convergence of the theoretical approaches. Research emphasizes the social and political-economic processes acting as constraints on privatistic or individual choice and decision making. One objective of the research is the construction of a theoretical framework which describes and explains the interrelations among the structure of society, of the political economy, of finance-housing related institutions, of the decision-making processes of the involved actors and the resulting constraints on choice, opportunities, and accessibility.

The major thesis of this study is that the critical or neo-Marxist account of urban processes complements the tradition nomological explanations. Rather than to question whether one perspective is more appropriate for public policy designed to resolve the question of disinvestment, this study tries to supply some reasons why both approaches are important.

Formally stated, the objectives of the study are three-fold. First, the study synthesizes the relevant American literature of urban science upon which can be founded an analysis of redlining. Second, an empirical study identifies the spatial pattern of mortgage lending and disinvestment in metropolitan Oklahoma City. Third, as an illustration of the problematic nature of redlining analysis the metropolitan Oklahoma City analysis suggests the need for a theoretical framework which would guide the selection of data and techniques required for a more comprehensive assessment of redlining.

Outline of the Study

The traditional or nomological accounts of urban residential land values and location, are closely affiliated with both classical and neoclassical micro-economics, urban sociology, human ecology, and urban geography. Chapter II reviews the traditional micro-level spatial economic propositions and empirical findings relevant to housing finance.

However much urban geographers discuss and analyze the spatial form of urban residential areas, the economic and social (ecological) perspectives remain both intact but separate. For instance, on the one hand, there are empirical studies of urban land values and the housing sub-market, fashioned on the basis of spatial economics. These investigations process a large number of endogenous spatial and economic variables such as distance, land values, and house prices, relating changes in these factors to changes in exogenous factors or externalities like the level of public and private goods and services. Other empirical studies similarly analyze a large number of variables representative of human ecology concepts like ethnic status, family status, and socio-economic status. Two sets of empirical

findings emerge: one concerned with spatial economic separation, the other with socio-spatial separation. This state of affairs is displayed in the analysis of residential location, neighborhood change, residential segregation, and, more recently, residential disinvestment or red lining.

The findings of these studies are disputed for three reasons. First, the studies presume that the individual is able and willing to manipulate space or location by moving freely from one location to another. For example, when faced with neighborhood deterioration, residents are assumed to merely relocate. Second, discussions of the patterns of neighborhood change seldom included a consideration of the institutional factors influencing these patterns. For instance, until recently little research focused on the role played by financial institutions and, specifically, mortgage lending practices (Palm, 1979). Even geographic studies of declining central-city neighborhoods do not identify the types of behavioral processes influencing residential and financial patterns. Third, the association between the individual decision-making process and other social, political and economic processes is not a well understood topic.

Recent studies by geographers have started to focus on the contribution urban public policies make to neighborhood change. Still little emphasis is placed on understanding the effects of private policy. Boddy (1976) in an examination of building societies in Newcastle-upon-Tyne, argues that any analysis of urban processes is superficial unless there is an examination of the role played by private financial institutions. Boddy found that mortgage lenders named specific areas considered red-lined in which no property would be accepted as loan security. Similarly, Harvey and Chatterjee (1974), in their analysis of mortgage lending behavior in Baltimore housing markets, conclude that in Baltimore the ability to secure

a residential mortgage is not only income-related, but also a function of the policies of both financial and governmental institutions. There is emerging some consensus that the policies of private and public institutions are a widespread urban phenomenon which contribute to investment in some neighborhoods at the expense of disinvestment in some others. The geographical form of the supply of mortgage money is one index of the association between institutional policies and disvestment decision-making.

A central theme is the relationship between institutional behavior and the spatial form of the distribution of residential mortgage money (Palm, 1979). Chapter III examines this relationship in a descriptive study of the Oklahoma City metropolitan area. The evidence tentatively suggests that residential disinvestment is taking place. There is reason to be cautious however. There is a sector of the metropolitan area which, consistently over the study period is allocated a large proportion of the total dollars loaned. This sector extends through the northwestern quadrant of the metropolitan area as well as the inner city. There is some question then whether a strict 'urban' definition of disinvestment is accurate.

An economic index of mortgage deficiency is constructed using the variables of income, owner-occupancy, and the total number of households. When the variables are tested in the absence of any spatial considerations, the economic factors are significant. When the index is applied spatially the results are confusing. At the metropolitan level, the variables account for a decreasing proportion of the variation in mortgage lending over the study period. Doing a comparable investigation of Oklahoma City itself with the surrounding suburban municipalities, the variables remain significantly associated, but they account for a larger proportion of the variation in

Oklahoma City. Finally, when the distribution of government-insured loans is taken into account, another indicator of residential disinvestment (Palm, 1979), the largest number of these are found in the southern and eastern suburban municipalities and in the northeastern and southern half of Oklahoma City itself.

A primary reason for theorizing about the geographical pattern of urban phenomena like mortgage lending is the desire to uncover an explanation. The association between income and mortgage levels suggests increasing inequality in the level of mortgage lending between certain innercity and suburban areas. A correlation with racial-ethnic factors, which were not available for the Oklahoma City study, could also be related to this inequality. These personal variables suggest a need to account for these relationships. Possible explanations found in the literature revolve around institutional processes, in addition to the more conventional economic, political, and managerial processes.

Recent critical attempts to design a theoretical structure to account for the processes underlying the observed geographical form are reviewed in Chapter IV. Essentially efforts are oriented towards a reformulation of the major concepts and themes permeating the more orthodox free-market approach to the distribution of residential spatial activities. By contrast, this reformulation embeds the concept of a market within a conceptualization of the capitalist society and the state, a capital accumulation process, and the internal evolution of the geographical form of metropolitan land use. The built environment is perceived as a reified social and political-economic system defined by the interactions of both individual, group, and institutional decision makers as manifested by the

urban land use pattern.

Residential phenomena are discussed in reference to housing-finance processes. In the reformulation, the spatial and temporal patterns remain an expression of differential locational comparative advantage. When viewed from this perspective housing and neighborhood community are analyzed as an expression of a social form, the housing-finance market, and the interaction between individual and institutional forces. The spatial patterns entail not only the set of political, economic, and institutional mechanisms but indicate the cyclical nature of the processes responsible for creating, extracting, and aggregating physical and human capital. The chapter concludes with some guidelines for the development of a suitable but rudimentary model.

By way of conclusion Chapter V summarizes the main thesis elucidated in the text, and points to future avenues of research. In a preliminary fashion the arguments of traditional and critical theory are, in theory at least, complementary. The contradictions revealed by advocates of critical theory suggest a need for a more extensive investigation into individual behavior in general, and particularly the behavioral processes in the financial sector. In addition, careful attention must be focused on the types of reasoning, models and policy devices which may be applied to alter human behavior.

ECONOMIC AND SOCIAL UNDERPINNINGS OF RESIDENTIAL DISINVESTMENT

CHAPTER II

Introduction

Since the 1960's, urban models have emerged largely from urban economics. The investigation of urban patterns under the rubric of economic geographic theory is partially a reflection of the importance of economic reasoning. Urban sociological and geographic models have also evolved but from a human ecological perspective. Each field has contributed empirical findings and various hypotheses regarding urban patterns. This chapter considers the classical spatial economic and socio-spatial theory and empirical hypotheses.

It is useful here to classify the available knowledge on the modern city and its geographical dimensions into at least two types of studies. One approach uses distance, measured in terms of transportation costs, as an explanatory variable of individual and household location. In theoretical terms, this approach stresses the familiar concept of accessibility. A residence-work relationship is reduced to the tendency of individuals and households to minimize their transportation costs. In relating the transportation factor with the residence factor, these models

introduce a trade-off relationship between transport costs and housing costs within a household's budget. Most characteristic are the models of Alonso (1960, 1965), Wingo (1961), Muth (1969), Kain (1968), and Beckmann (1969, 1973). These efforts will henceforth be referred to interchangeably as the "trade-off" or "accessibility" models. The disaggregate models of the 1970's extend the reasoning espoused in these models.

A second major approach attacks the singular significance attached to work location and, consequently, the importance of residence-work accessibility. To such theorists, the cost of journey to work is just another constraint on the final locational decision of the individual or of the household. Accessibility is a secondary priority because the primary concern is the choice of a house, the selection of a residential neighborhood and the variation in the residential or environmental quality of life. This approach is characterized by the arbitrage and filtering models (Palm, 1981).

Both types of inquiry focus on the individual or household in a monocentric city wherein a free housing market is operating. They deal with the social, (political and economic forces) but as externalities.

In both instances, a principal concern is to identify the relationships among locations at the micro- and macro-level, respectively, and their efforts on different levels of behavior. For example, various types of spatially differentiated (census) data are available: socio-economic status (e.g., house values, income), family status, and ethnic status. These data are aggregated, disaggregated, subjected to various quantitative techniques, and mapped at a variety of scales. An implicit purpose of such empirical analyses is to contribute to a theory which demonstrated that the characteristics and activities of individuals or households determine the structure of the urban landscape or the urban spatial pattern.

The spatial interaction thrust and the relevance of land are both evident in the theory of residential land use and location decision making. Normally, the distribution of land rent based on accessibility is a significant factor in explaining the distribution of residential land use as well as how individuals make residential locational decisions. Also, residential location analysis describes the forces which push and pull residents from one neighborhood to another and/or from the central city to suburbia. Succession or transition of the residential populations in (residential) neighborhoods at the intra-urban level is a further dimension of the general spatial interaction processes.

A variety of empirical hypotheses ascribe reasons for the distribution of residential land use. The intent of the following review is not simply to offer a comprehensive synthesis of the theoretical and empirical findings, but to suggest a reasonably cogent narrative appropriate for the explanation of urban residential disinvestment.¹

Monocentric City Theory: A Spatial Economic Perspective

The publication of Alonso's (1960) research heralded the theoretical development of a disaggregated, micro-spatial approach to residential land use. Alonso's (1960) approach consists of a static equilibrium utility-maximization model incorporating budget constraints describing a process through which households and firms compete for particular lots of land in a way that will maximize efficiency and satisfaction for the

¹A detailed review of the models and empirical results in urban economic and social research over the past decade is provided by Goldstein (1980) and Frisbie (1980). Readers who desire a greater historical perspective are referred to Carter (1980) and Rhind and Hudson (1980).

competitors. Competition for location and size of lot is expressed through a bid-rent function for each household (and/or firm). A market equilibrium is achieved when efficiency is maximized for every bidder subject to available income.

Unfortunately, this spatial-economic equilibrium model is not sufficient to derive market equilibrium when urban firms are also present. For this purpose, firms and households are represented by families of bid prices, and the slopes differ locationally. Consequently, the steepness of the bid function will determine the distance of the establishment from the city center. Thus, the establishments with steeper bid-price curves locate closer to the center.

During the same period as Alonso's model was developed Wingo (1961) made a similar contribution. Again, this is a static equilibrium model employing a market mechanism through which households minimize their location costs by choosing between the size and accessibility of a site. The preference for each of these is treated as independent parts of the model, while rent and transportation costs are assumed to be complementary.

Alonso treats space and accessibility preferences as interrelated. This is probably the fundamental difference between the Wingo and Alonso models. Nevertheless, in addition, the Wingo model gives in-depth treatment to the pivotal factor of transport costs. This gives a distinctive character to the Wingo model.

The individual household equilibrium solution is a combination of the locational rent (which is equal to the savings in transportation costs) and the size of lot (which is derived from the demand function for residential land) at each distance from the city center. Associated with

the household equilibrium solution in the monocentric city is the population density gradient described as a continuously declining slope from the city center to the periphery. To attain market equilibrium, which assures that the total available land is allocated among households, the demand for land at each distance from the city center must equal the supply at that location (given the distribution of locational rents is consistent with individual equilibrium). The market equilibrium solution occurs when the total city population equals the integral of the density of the population over the area of the city.

A later study by Kain (1968) incorporates the general theory of location common to all previous equilibrium models, and emphasizes transportation in the same fashion as the Wingo model. The model proves the hypothesis that households substitute journey-to-work expenditures for site expenditures, and that this substitution depends primarily on household preferences for low-density rather than high-density residential services.²

One of the most complete analyses of residential location using the static micro-economic equilibrium approach was presented by Richard Muth (1969)

²The model reaches an equilibrium solution by maximizing the utility of individual households through minimizing the total location costs. The constraints imposed upon the solution include not only the income of the household, but also its preferences for residential space and the unit price of residential space. Equilibrium is achieved where there is an incremental increase in transportation costs over the additional distance. At that point those locations which minimize the household's locational costs for each quantity of residential space are obtained. In addition, the household's required expenditures for each quantity of residential space is found. All this information is used to obtain a unique locational solution for each household. Total location costs are divided by the quantity of residential space to derive the price the household must pay per unit for residential space. This price information allows for the household's locational solution. Given the price of all other goods and services, the household's preference for residential space, its preference for all other good and services and its income, the household's consumption of residential space is uniquely determined.

in his Cities and Housing. Muth's approach differs from Alonso's in two important ways. First, Muth uses the idea of "housing services," which resembles the bundle of attributes notion proposed by Lancaster (1966), because this combines land, size of the housing structure, and other selected dimensions of the value of housing. Alonso only considers location and size of the residential lot. Second, in contrast to Alonso, Muth includes household income as one of the determinants of the transportation expenditures.

Muth's analysis assumes that as distance from the CBD increases, the household will bid less for each new location. Extending the analysis to include changes in income relative to changes in the bid-rent function, as income increases the equilibrium distance will move from the center. Also, household residences will be stratified along radii from the CBD such that families with higher incomes reside at a greater distance from the center than lower income families.

Finally, Beckmann's (1969, 1973) model can be considered to some extent a special variant of Alonso's theory. Beckmann demonstrates a market solution, by hypothesizing that land rent and residential density at each location are determined so that higher income groups tend to locate further from the center of the city (the sole location of employment). The hypothesis accounts for the observation that poor families reside in a central city where land generally commands higher prices, while the wealthier families settle in the city periphery on less expensive land. Later refinements of the model allow Beckmann (1974, 1978) to show that commuting distance increases with income when tastes are assumed equal; and that distance determines the rent, density, and income functions of the

monocentric city (assuming a Pareto income distribution). The model provides a clear, if not completely analyzed, solution of the rent, density, and income variables, while partially explaining the monocentric form of the city.

Spatial economists have devised a wide array of accounts founded on one type of model of the city wherein all employment is concentrated in a central business district (CBD) with residential activities distributed around this CBD. The basic monocentric model is the basis for most theoretical and empirical research dealing with topics such as property value determinants, the supply and demand for housing, and studies of segregation and discrimination.³

³Some of these extensions include the Muth (1968), Mills (1972), addition of a housing production function; Oi (1976) has introduced variable hours of work; Hockman and Ofek (1977), the value of time in consumption, and more than one earner in the family; Stull (1974) zoning; Galster (1977), discrimination; Polinsky and Shavell (1976), urban amenities. The addition of housing production to the basic model results in a land price gradient and a housing price gradient. Approaching the city center, there is a strong increase in the capital/land ratio. To elaborate, Oi finds that if an increase in wages leads to a residential move away from the CBD (as empirical work indicates), then the lower price of land generates a substitution effect increasing the demand for non-work-day leisure. Hockman and Ofek find that households of working wives, will locate closer to the CBD than households of nonworking wives, unless the share of housing consumed by the former is markedly larger than the share consumed by the latter. Stull examines the optional zoning regulations which maximize the total revenue of a developer who owns all land in an open city (one in which population is not fixed). In the optimum on the boundary of the manufacturing zone, the producer's bid price for lots in the boundary of the residential zone is equal to the money value of the total negative neighborhood externality effect of a marginal extension of the manufacturing boundary. Helpman and Pines show that Stull's conditions for developer revenue maximization coincide with the conditions of a social optimum: when each local authority imposes zoning regulations so as to maximize its local land value (See also Mills, 1980; Henderson, 1977; Anas and Dendrinos, 1976). In addition to these studies, Quigley (1979), Rubinfeld (1977), and Polinsky and Rubinfeld (1977) review the property value literature and the supply and demand for housing. Yinger (1979b) reviews studies on racial aspects of the housing market. Ingram (1979) examines the simulation literature; and Bourne (1980) the geographic aspects of housing.

Variously titled as spatial equilibrium or taste-preference models, they are used to analyze a variety of residential issues (Scott, 1980). By way of summation, the basic assumptions underlying this model of the monocentric city are simple. There is a flat, featureless plain with one central point. Transportation costs are equal in all directions; and, in theory, all travel radiates to and from the central point. The population is given, and they are assumed to be price takers, not price makers. Applying marginal analysis a primary focus is a demonstration of what conditions allow an individual or household to maximize revenues and/or satisfaction while minimizing costs. Underlying these models is a classical economic theory of value and rent that is used to account for the relationship between the quantity of housing and of land and the prices of these factors as they influence the locational choices of consumers (Amedeo and Golledge, 1975). The driving force in the model, utility and/or profit maximization, results in the competition for land and housing. In equilibrium, this competition will create differential locational rent (Goldstein, 1980).

The fundamental reasoning is that individuals or households construct internalized sets of ordered consumption preferences (Papageorgiou, 1978). Each person or household, in accordance with these preferences and a fixed budget, will choose an actual consumption set maximizing the person's total utility or level of satisfaction, subject to the constraints imposed by the budget. This utility level, for any urban resident or family, is dependent on three separate components: 1) the quantity of residential space consumed by the household, 2) total distance from the residence to various metropolitan destinations, and 3) the aggregate of all other goods and services consumed. In terms of expenditures, the household's budget is

allocated to three different items: 1) residential land rent, 2) transportation costs, and 3) all other goods and services. Each individual or family then seeks a residential location maximizing total utility. This involves searching for an equilibrium location (that must fully exhaust the individual's or the family's budget) such that any further reallocation of the budget among expenditures or relocation results in a decrease in the individual's or family's total level of satisfaction.

A Socio-Spatial Perspective on Residential Phenomena

Many of the analyses of urban residential land use, development, and choice rest upon micro-economic assumptions about individual or household decision making associated with the resource allocation mechanism of the housing submarket. The operation of these two concerns within the market determines the configuration of residential land use patterns, and, though the evidence is scarce, does appear to influence the distributional pattern of neighborhoods.

This section essentially extends the monocentric city conceptualization reviewed so far, but focuses on the application of a macro-level ecological perspective incorporating the socio-economic determinants of neighborhood as a factor influencing the consumer's locational choice. The theoretical and empirical evidence discussed here is based on the hypothesis that: neighborhoods undergo a change or transition, and the pattern of these changes is directly associated with the movement of consumers outward from the CBD through the intra-metropolitan residential structure. Still the intra- and inter-neighborhood dynamics and neighborhood resilience to socio-spatial change are controversial topics.

Several urban social models note explicitly, if not implicitly, the importance of the neighborhood. The Burgess model is one of the more noteworthy models. Two other significant proposals are Hoyt's (1939) radial sector and the Harris and Ullman (1945) multiple nuclei models.

A fundamental concern for the Burgess model of "concentric zones" is the analysis of urban expansion. All the processes of expansion are best illustrated by a series of concentric circles or zones where these indicate that the influence of a large city center, over the surrounding peripheral suburban area, diminishes with increasing distance (Rhind and Hudson, 1980).⁴ Social differentiation is polarized toward the city center and can be measured by comparing the averages of a social indicator like poverty for all of the circular zones. Aside from the loop containing the

⁴A similar idealized formulation can be derived using economic instead of sociological principles. In fact, the formation of such concentric rings also is a result of a bid rent function. Land value or rent is defined as negative transport costs due to accessibility. Moreover, various economic activities derive utility from a piece of land, and the greater this utility, the higher the rent an activity is willing to pay. Thus, under competitive conditions, each piece of land is allocated ultimately to its highest bidder so that throughout the system, rents are maximized. If a city with one central business district is assumed, this rent maximizing pattern results in the formation of a concentric land use pattern around that center. This occurs because the utility derived from land by each activity has a different slope, and the intersection of the utility representing bid rent functions defines the boundaries of each ring. The economic explanation of the concentric zones hypothesis might seem inconsistent with the original Burgess formulation and the particular uses he assigned to each ring. This inconsistency springs from the fact that if there actually is such a bidding process, the land around the central business district should be used by those activities whose demand for central land is high, but which could not pay quite as much as the highest bidders that obtained the central locations. In the Burgess formulation, however, the rings around the center are the transitional zone occupied by poor housing and deteriorating structures, and the workers' housing zones where residences and industry are located in close proximity. Yet, the inconsistency does not really exist because such areas exhibit high rents while actually being occupied by poor families and blue collar workers. This explanation was first provided by Hawley (1950).

CBD, each successive zone represents residential areas characterized by income. For example, the second zone, or the zone of transition, contains poor and old residential property and run-down areas that have been invaded by business and light manufacturing as the CBD expands. The third zone, that of working men's homes, includes residences in close proximity with industrial plants. These homes have the double advantage of low rents and ease of commuting to work. The fourth zone is a high-class residential area, while the fifth is one of residential suburbs and satellite developments within commuting distance to the central city.

The effects of growth and decline are two-fold. On the one hand, as growth occurs, each zone tends to extend its area by invading the next outer zone in an "invasion-succession" sequence. On the other hand, if there is a decline of population, the outer zones tend to remain stationary while the transistional zone recedes into the loop thereby creating commercial and residential slums.

Hoyt's radial sector theory is directly related to the Burgess hypothesis, but it concentrates on the areal pattern of, and shifts in, residential location. The principle argument is that different income groups tend to live in distinct areas which, instead of occupying entire rings around the Central Business District, are sectors around it. There are well-defined, sector-shaped, high-income residential areas adjoined on one or both sides by middle-income areas. High, medium, and low income households and residential areas correspond to high, medium, and low housing purchase or rental prices. Low income areas usually occupy completely isolated sectors at the other side of the city. Once the low and middle income sectors are established, they tend to keep their character. High

income groups, however, tend to expand outward and gradually abandon the areas adjacent to the core. These are then invaded by lower income groups.

Growth occurs along main transportation routes or, in general, along the lines of least resistance. Movement is either towards another existing urban center or towards the periphery where no barriers to expansion are present. This tendency is strengthened by new retail establishments, industry, banks, and so on, which are also moving outward; and it can continue so long as it is not slowed down by the decisions of property developers.

Viewing the radial sector theory from the perspective of residential location, excessive emphasis is given to the high income group's importance in dictating patterns of urban expansion and residential succession. Still, Hoyt's work provides the first systematic empirical evidence that: a) spatial variations in land values within the urban area actually bear a close relationship to its land use patterns, b) these land use patterns change, over time, as a result of land value patterns, c) the patterns of values change in turn because of the new land uses, and d) the intensity of uses changes over time following changes in land values. Hoyt's approach also is a considerable improvement over that of Burgess because it allows the location of different activities at equal distances from the center of the city, while permitting an uneven rate of growth and succession. In addition, it takes into account the existing transportation network, other urban nuclei, and other special attractions such as the location of the wealthy and/or political influential.

These two models, like the spatial economic models, assume a city that has but one dominant center, although the sector hypothesis makes

provision for the existence of alternative urban centers. The problem of the monocentric assumption was modeled by Harris and Ullman (1945) following McKenzie's (1925) challenge. McKenzie observed that there is a series of nuclei present in the pattern of urban land uses (Palm, 1981). Harris and Ullman argue that these nuclei develop from one of two sources. They may be pre-existing agglomerations which become urban nuclei because the areas between them are filled through urban growth; or they may be new centers which develop to provide certain types of goods and services required because the urban area increases in size. The functional composition of these nuclei vary among metropolitan areas because of the different origins.

The rise of separate nuclei reflects the coming together of four conditions: 1) the need for specialized facilities by certain activities; 2) the economics of scale which arise from the grouping of certain like activities (for example, retail and financial districts); 3) diseconomies of scale, which develop when certain activities are detrimental to each other (e.g., factory and high income residential development); and, 4) the inability of certain activities to afford the high rents of the most desirable sites.

In the search for order in the urban centers of America, the urban sociological approach, characterized by an ecological perspective has persisted for over half a century. Consider one interesting appraisal offered by Hawley (1981, p. 425):

The Burgess (1926) concentric zone conception has exhibited a remarkable persistence. The only significant departure from the model was Hoyt's (1939) early modification which called attention to occasional radial land use sectors overlaying zones. The survival of the Burgess concept is not due to researchers having deserted the subject. Indeed, improvements in data sources and data-processing equipment have enabled scholars to revisit the concentric zone cum sector pattern with larger

samples and more sophisticated analytical techniques than were formerly available.... Although several studies have called attention to minor deviations from and needed refinements to the pattern, they have confirmed that the distribution of housing types and of the occupational, educational, and family characteristics of city residents exhibit a gradient pattern of variation from low to higher values with distance from the central business district. That is a finding of some interest, for it suggests that the assumptions underlying the model are as pertinent in the third quarter as in the first quarter of the century. One might have expected that the great changes in transportation and communication which have occurred during the past 50 years would have so altered the determinants of accessibility that a different pattern would have emerged or, alternatively, that the model is now applicable only on a larger territorial scale.

Economic Aspects of Housing and Neighborhood Change

The fields of housing and neighborhood change embrace a wide range of phenomena which have been analyzed from an economic perspective. For housing there are two main levels of interest: 1) the determinants of the behavior of individuals and households on the demand side and of firms on the supply side and 2) the determinants of housing market phenomena.

Briefly, the housing demand of individuals can conveniently be analyzed in three stages: The formation of the household, the propensity to move, and the choice of residence. The first has traditionally been regarded as primarily a demographic problem and as a result insufficient attention has been paid to economic factors such as the size and price of housing. Considerable attention has been paid to modeling the choice of location, house size, and type. Each of these phenomena can be studied with reference to individual houses or groups of houses or with reference to the distribution existing within a given area (deLeeuw, 1976; deLeeuw and Struyk, 1975).

On the supply side, the behavior of property developers and landlords is conceptually more straightforward, though in practice it is strongly influenced by non-market factors, such as expectations, interest

rates, taxes, subsidies, and the like.⁵

At the level of individual behavior, at least from a theoretical standpoint, there do not seem to be any basic analytical problems. On the demand side, the existence of many relevant non-economic factors (such as social and demographic variables) effectively subdivides the market into a number of competing groups. Ignoring the intrinsic heterogeneity of housing, a utility-maximizing model of the traditional kind can be constructed. Maximizing utility subject to the household budget constraint (for housing and all other goods) obtains an equilibrium condition: the price per unit of housing space must equal its marginal utility. In this

⁵Although demand studies of the housing market have become increasingly sophisticated and are generally consistent with what is known about household location and housing choice in urban areas, the supply side is given rather superficial treatment. Supply comes from new construction, conversion of existing capital, and maintenance decisions of owners. Problems on the supply side are related to the unobservability of a single housing quantity, to the difficulty in observing the behavior of suppliers, and to the complex interactions among various segments of the housing market. Various demand studies demonstrate the responsiveness of household demand to housing-to-income differences and to intra-metropolitan price variations that arise from site location. In a recent article, Büttler and Beckmann (1980) explicitly obtain an engineering cost function. Büttler and Beckmann incorporate factors into their housing market that have been neglected previously. They derive the structural frame cost of a housing unit as a function of the area of a ceiling, the height of the building, and the span width between supporting elements. Their engineering cost function is used to derive the supply of housing from profit-maximizing behavior of landlords or building owners. Demand functions for housing are derived from log-linear utility functions. This yields a housing space demand with unit elasticity and exponential densities with respect to distance from the CBD. Finally, equating of supply and demand for housing space yields equilibrium in the housing market. They find that housing rent in equilibrium is an increasing function of population, income, height of story, and fixed structural cost. Land rent in equilibrium is not affected by the fixed structural cost or height of story. The model is not empirically estimated, but the functions developed are solved numerically using "best guesses" of the parameters. The price per unit of land exceeds the rent of a housing unit where the building density is high, and vice versa where density is low. The results are presented in the absence of binding land use constraints. In spite of its sophisticated approach, it is still a rather simplified view of the supply side. For more detailed discussion see Bourne (1980), Quigley (1979) and Goldberg and Allan (1978).

case, the equilibrium condition states that the output of housing should be increased until the marginal revenue product is equal to cost of the factors of production.

The principle features of the housing commodity which distinguish it from most goods traded in the economy are its relatively high cost of supply, its durability, its heterogeneity, and its locational fixity.⁶ Many commodities exhibit one of these features; however, it is the interaction of these distinguishing characteristics which complicates (theoretical and empirical) analysis of the housing market.

Together, durability, heterogeneity and fixity indicate that a housing market is really a collection of closely related, but segmented,

⁶The high costs of supplying single-family housing imply that housing is expensive, that a demand for rental housing exists, and that mortgage repayment makes owner-occupied housing an attractive instrument of wealth accumulation (Hughes, 1980). In addition, it makes the level of new construction of dwelling units and the occupancy costs for perspective purchasers quite sensitive to macro-economic monetary policy. The durability of housing suggests that there are fairly narrow bounds to the rate of disinvestment in existing structures. Housing lasts a long time; older structures may become obsolete, but they do not necessarily lose substantial market value because of their vintage. Housing services (the flows of consumption) are emitted by a configuration of residential housing (the stock) over an extended period of time (Bourne, 1976).

Together, supply cost and durability indicate that it is typically expensive to convert a unit in the existing stock (suggesting that the supply curve for housing services is inelastic) even over relatively extended periods (even if the elasticity of supply of newly constructed units is rather large) (Bourne, 1976). The heterogeneity of housing indicates that housing units differ in a number of important dimensions, quantitatively and qualitatively, and thus that units commanding the same market price may be viewed as substantially different by both suppliers and demanders.

Locational fixity suggests that the spatial characteristics of housing units--their location with respect to other dwelling units, with respect to employment, shopping centers, and neighborhood amenities--are purchased jointly with structural characteristics (Bourne, 1976). Locational fixity also suggests that dwelling units may differ greatly in their accessibility to sites of production or consumption activities, a factor which has been emphasized in the literature.

submarkets for particular packages of underlying commodities, differentiated by size, physical arrangement, and location (Bourne, 1976). These submarkets are connected in a complex way. For example, at the neighborhood level, differences in prices between submarkets cannot exceed the short-run cost of converting a housing unit from one submarket to another. If there were no location-specific component of the housing commodity, then at various sites differences in prices within any housing submarket could not exceed transport cost differentials for the marginal consumer. A price-inelastic demand for some of the attributes jointly purchased, however, combined with an inelastic supply in the short run, may make the structure of housing prices still more complex. In the extreme, if the demand for some locational aspect of housing services is relatively price-inelastic and if the supply of dwellings is fixed, the equilibrating forces of substitution in demand will not equate prices over space to marginal transport differentials. The equilibrating competition of consumers may permit significant segmentation of the market over locations, while the equilibrating competition of suppliers may allow for the segmentation of the market over types of housing accommodations. Thus, the derivation of an equilibrium solution is problematic.

In the analysis of neighborhood change, the major determinants viewed from spatial-economic perspective, are the externality effects. Externality effects are the by-products of consumption and production activities that have an effect on the utility of others.⁷ They tend to be

⁷More specifically, externality effects are unpriced effects on others of the activities of households, firms, and governments. Useful distinctions here involve those between 1) negative and positive externalities and 2) asymmetric and reciprocal externalities (Cox, 1979). Negative externality effects are unpriced costs; in other words, there are certain

more or less spatially concentrated in their impact on residential environments. There is, for example, the airport imposing noise on surrounding residents as a by-product of its production of airport services. Alternatively, a resident's attractive garden and smartly painted house provide benefits for neighbors, even though these were not so intended and can therefore be regarded as by-products.

Most diagnoses of residential land use change in American cities suggest that real private incomes, measured in terms of the consumption of private goods and public services, can be increased only at the expense of residential (or environmental) quality. Income arises as a particularly critical correlate of individual preferences for a residential environment. This is modeled as a trade-off between various aspects of residential

costs that households, firms, governments impose on others as a by-product of their activity and for which they do not provide any compensation. A factory, for instance, may pollute the air in a residential neighborhood and impose cleaning costs and health care costs on residents without offering any compensation for those costs. In the case of negative externalities, the producer literally externalizes costs. Positive externality effects, on the other hand, are unpriced benefits; i.e., there are certain benefits that people provide for others as a by-product of their activity and for which they do not receive any monetary compensation from those beneficiaries. For example, a residential developer who refrains from constructing blocks of apartments at their maximally efficient height in order that adjacent residents can continue to enjoy a scenic vista is providing certain utilities for those residents without collecting any fee for his service. There is, literally, an externalization of benefits, to neighboring residents as a result of the developer's actions. This is in contrast to the benefits internalized by the developer: the price he or she receives from investors in the apartments. Governments are also producers of positive and negative external effects. For example, while charged with the responsibility of providing sewage service in exchange for taxes, governments provide uninternalized benefits for some landowners by locating sewer lines close to raw, developable land. They provide uninternalized costs for others, however, by locating the municipal sewage treatment plant close by. To the extent that consequent changes in land values result in equivalent increases or decreases in taxes paid, then the government could internalize the costs and benefits of its activities. Generally, however, this is not the case.

environments and private income. It is hypothesized, for instance, that wealthier people have more intense preferences for quiet and clean air than do the less affluent. Conflicts over the location of public services, industrial parks, and airports are instances which polarize groups according to income: upper income groups are anxious to keep out forms of physical capital investment that they regard as leading to a deterioration in residential quality; lower income groups are anxious to attract capital investment which they consider less in terms of the environmental problems and more in terms of the jobs and increased income possibilities they create (Cox, 1979).

Income also has implications for the residential quality experienced by different individuals. For instance, the rich are able to outbid the poor for housing in more desirable neighborhoods and to substitute private alternatives for the goods normally provided by governments. Locational adjustments provide individuals a means to improve their socio-economic well-being. In the literature, two forms of adjustment receive the most attention: 1) the filtering process and 2) the arbitrage model.

Referred to as the principle dynamic aspect of the housing market, the filtering concept is of import because it is the means by which changes in neighborhood status occur (Bourne, 1976). The term "filtering" implies any change in either a) the physical structure (e.g., the home), b) the individual and social structure household, or c) the matching of the two.

The filtering process is argued to occur as higher income individuals vacate their present dwellings and locations for newer ones, creating a price-depressing surplus. For instance, a given housing unit will, during its structural life, filter down into the hands of successively

lower income occupants, resulting in a corresponding price decline.⁸

In financial circles, the term arbitrage (Palm, 1979) refers to the simultaneous buying of securities in one market at a low price and selling them at a higher price in another market. A parallel situation is asserted to be operating when changes occur in the demand for housing (and mortgages) in low income areas. These changes are related to an actual augmented pressure for additional housing as the population increases and the supply dwindles; but the changes may be founded simply on the basis of expectations (Little, 1980).

As an illustration of the underlying logic of the model, suppose that a relatively uniform housing stock is occupied by two income groups, one-half low-income and the other half high-income. The space occupied by each is separate but continuous. In the high-income space the house prices are higher near the center, decreasing toward the periphery. A similar situation, in reverse, occurs in the low-income space. There the lowest house prices are in the center, increasing toward the boundary adjacent to the high-income area.

Changes in demand or supply induce low-income residents to purchase homes on the former high-income side of the boundary. High-income residents, operating on the expectation that a change in house values is imminent, sell in a depressed market. The boundary shift in turn negatively impacts formerly secure housing in the interior of the high-income area.

At some point the continuation of locational adjustments establish an equilibrium factor payment level, at which time no one individual can increase income by relocating within the set of known market

⁸For a comprehensive discussion see Bourne (1980).

alternatives. Only by the expansion of housing market alternatives would incomes be increased. The search for new alternatives by residents then has two conceptually distinct, though concurrent, effects: integration of hitherto independent markets and the spatial expansion of existing markets.

Residential quality receives expression in both wages and income from land. For instance, as neighborhoods change in their social composition, the rich may withdraw their children from public schools and send them to private ones. The educational process, for which local government is responsible, is a matter of investing in human capital resources because most jobs are linked to educational training and credentials. Parents who realize this know that residential location is fraught with important consequences for the future income prospects of their children; this adds to the premium placed on housing.

Summarily, the economic analysis of the residential environment is composed of two aspects: public provision of goods and the externality effects associated with these public goods (Cox, 1979). Goods and services provided by some level of government include, among others, education, law and order, land use planning, clean air and water, labor conditions, and highways. Each of these affects the residential environment. For example, the cleanliness of the air may owe much to anti-pollution ordinances; the education of children will certainly be dependent on the quality of local schools; and the security of homes depends on the efficiency of local police and fire services, while the possible deterioration of the building fabric of a neighborhood will depend on the degree to which local government enforces housing codes.

In evaluating the residential quality experienced by people, preferences constitute only one of two concepts. There is also the residen-

tial environment itself, which more or less satisfies these preferences. The neighborhood is an expression of this residential environment; its social significance is a topic which has attracted the attention of sociologists. The next section examines some of their findings.

Neighborhood, Segregation and Neighborhood Change:

A Socio-Spatial Perspective

Neighborhood life was first described by Wirth (1938) in dealing with the effects of urbanization, and more recently by Milgram (1976). One review of these early impacts asserts that:

...city life is overstimulating compared with rural life. Surrounded by more people than they can enjoy and more stimuli than they can absorb, urbanites isolate themselves emotionally from their environment and from other people. They become impersonal and superficial in many of their relationships and relatively indifferent to much of what happens around them. Accordingly, they remain relatively uninvolved with neighbors and neighborhood events. As a result, the neighborhood normative social order is fragile and not compelling (Milgram, 1976; cited in Finsterbusch, 1980).

Later research established this view of urban life to be an exaggeration. Urban residents possess social networks (Fischer et al., 1977; Hunter, 1978), and normative social orders of considerable strength (Whyte, 1955; Gans, 1962; Suttles, 1968). Neighborhoods exhibit homogeneity and a certain amount of sociability (Gans, 1961, 1962). Not all social classes have their social networks tied to the neighborhood (Wellman and Leighton, 1979; Wellman, 1979); yet where social orders are strongest they are dependent on class and/or ethnic norms.

There is a feeling that the contemporary neighborhood is a community of limited liability (Janowitz, 1967); that is, inhabitants demand more than they are willing to invest and when the neighborhood fails to

provide their needs they reduce their involvement or relocate.

Factors which are cited as eroding the relevance of neighborhood are three-fold.⁹ First, neighborhoods declined as a focus of ethnic and cultural homogeneity; second, they declined because of the decentralization of residential land use associated with changes in transportation and communication technology and separation of work place and residence; and, third, neighborhoods are differentially effected by government and private sector policies in the form of urban renewal and residential disinvestment. In spite of these factors, some neighborhoods still persist, possessing unusual vitality and strong social networks.

Considerable research has sought to determine the extent of social networks and contacts in cities. Dating back to Wirth (1938), the urban condition is viewed as conducive to superficial, nonobligating, and transitory social relations; and yet, not conducive to intimate association (Finsterbusch, 1980). This view has been modified by showing that urbanites are involved actively in social networks (Key, 1965); but only a minority of urban residents, however, are involved in their neighborhood (Wellman, 1972). This gives rise to the hypothesis that most neighborhoods are superficial places for social relations. Instead, they are a source of family aid and security while offering a sense of place by helping the individual to survive isolation and alienation (Finsterbusch, 1980).

⁹The citation of these factors should not be interpreted as omitting the work of such scholars as Keller (1968), Ley (1974), Theodorson and Theodorson (1969), Mann (1968), and Coleman (1978) who have attempted, so far unsuccessfully, to derive a consensus about the definition of neighborhood.

One reason for the lack of intimate neighbor relationships is the person's ability to satisfy social needs internally by family relations and by having accessibility to friends beyond the neighborhood (Keller, 1968). Nevertheless, there are exceptions to the rule that family and nonneighbors offer sufficient social ties. Children, handicapped and the elderly, as well as others lacking accessibility, are dependent upon neighbors for social relations.

The neighborhood provides for resident needs in terms of security and status. Security is provided in three ways: by keeping out people; by controlling public behavior of people; and by identifying friends, aliens, and neutrals (Jacobs, 1961; Suttles, 1968; Ley, 1974; Wilson, 1968). Neighborhoods also confer status and the presumption of respectability as measured by the structural and service-level conditions (e.g., architectural style and age of housing, cultural and recreational interests) (Ross, 1962; Coleman, 1978; Hunter, 1975).

There is no consensus as to the ways in which residents are attached to their neighborhood. At least three dimensions are applied to the measurement of attachment levels: satisfaction with the neighborhood, neighborhood social ties, and the desire to stay or relocate. The empirical evidence on these dimensions is as varied as the level of attachment.

Several studies find that neighborhood satisfaction is related to the amount and intensity of social contacts, length of residency, and home ownership (Irving, 1978; Janowitz and Kasarda, 1974; Hutchison, 1977; Ermuth, 1974; Hunter, 1974; Philliber, 1976; Marans and Rodgers, 1975; Nathanson, 1964). In addition to these variables, perceptions of neighborhood conditions and quality as well as positive perceptions of neighbors play an

important role (Butler et al., 1969; Campbell et al., 1976; Foote et al., 1960; Fisher et al., 1977; Lansing et al., 1970; Galster and Hesser, 1979; Lee and Guest, 1979). Accessibility, pollution (e.g., traffic, noise, air), and crime are other features of neighborhood satisfaction (Butler et al., 1969; Campbell et al., 1976; Hartnagel, 1979; Kasl and Harburg, 1972; Lee and Guest, 1979; Marans and Rodgers, 1975). Lee and Guest (1979) note that neighborhood satisfaction is higher in the suburbs than in the central city and is higher for whites than blacks.

Length of residency emerges as a prominent factor determining intimacy and frequency of neighborhood social ties (Fischer et al., 1977; Gates et al., 1973; Smith et al., 1954). Other familial characteristics are significant: children (Fischer et al., 1977; Greer, 1956), working wives (Fischer et al., 1977; Gans, 1961), and social class (Fischer et al., 1977; Fischer and Jackson, 1976; Gates et al., 1973; Janowitz and Kasarda, 1974; Smith et al., 1954). When these characteristics and properties associated with home ownership (e.g., house, value, median neighborhood income, median house value) are taken into account, the latter does not have a direct effect on social ties (Fischer et al., 1977). Finally, neighborhood social ties are greater in neighborhoods which 1) are racially, ethnically, or occupationally homogeneous; 2) are suburban; 3) have large amounts of local, organized activity; and 4) have low crime rates (Finsterbusch, 1980).

The desire to remain in a neighborhood is strongly related to neighborhood satisfaction and social ties (Back and Smith, 1977; Galster and Hesser, 1979; Foote et al., 1960; Fernandez and Dillman, 1979; Hutchinson, 1977; Reupath, 1974; Speare et al., 1974), length of residency and home ownership (Pickvance, 1973; Rossi, 1955; Morrison, 1967;

Meyers et al., 1967). Other important factors are house value, residential quality, age and structure of home, and the crime rate (Droettboom et al., 1971). Reasons for relocating are: desire to own a home (Barrett, 1973), the need for more space (Stegman, 1969), dissatisfaction with the social environment (Rossi, 1955), and attitudes toward the residents of the neighborhood (Campbell et al., 1976).

Residential Segregation and Disinvestment:

A Socio-Economic Perspective

Among the strongest forces of change faced by residential areas in this century has been the outmigration or decentralization of higher-income groups to newer peripheral housing, leaving a less affluent population behind. Intrusions of unwanted facilities, the aging and technological obsolescence of units also contribute to a weakened housing demand in most existing neighborhoods. Negative externalities created by neighborhood conditions (such as increases in crime, declining quality of schools, cut-backs in public services, nonresidential uses of neighboring properties, the lowering of the socio-economic status of the neighbors, and discrimination) tend to reduce the viability of a neighborhood.

The decentralization of employment and outmigration of commercial functions (retail stores, restaurants, and personal service establishments) also has weakened neighborhood viability (Palm, 1981; Scott, 1980). The latter activities are sensitive to the incomes of their clientele and have departed central city locations as higher income residents have moved into the suburbs. Frequently, just the possibility of change in the income or racial characteristics of a neighborhood is perceived by lending

institutions as sufficient reason to disinvest. Once decisions are made by lending institutions about whether or not to invest or to continue investing in a neighborhood the decision itself becomes a change agent affecting both land values and house prices. In this connection, three areas of research are noteworthy. There is the sociological literature on segregation, the economic research on housing discrimination, and studies of red-lining or residential disinvestment. Each of these are examined in turn.

Under the rubric of segregation there is a vast body of urban social research which describes the spatial separation of blacks and whites.¹⁰ Generally, the basic motivating premise for these studies is the existence of a close relationship between spatial and socio-economic distance (Irving, 1978).

Frisbie (1980, pp. 188-189) categorizes the segregation research on American cities as follows:

By far the greatest amount of attention has been devoted to the descriptive documentation of the levels of segregation and of trends over time obtained by comparing a temporal sequence of cross-sectional observations. A smaller group of studies has attempted to ascertain the determinants and the consequences of spatial separation of subpopulations. Finally, substantial efforts have been made to evaluate, and to improve, the measurement of segregation.

The sociological research suggests that the level of residential segregation by race has not met with a major overall diminuation in either SMSA's, urbanized areas, or central cities.¹¹ Nevertheless, there is

¹⁰There is currently a growing interest in the ethnic segregation of Spanish origin groups. For instance, see Grebler et al. (1970), Krivo (1980) and Massey (1979a, 1979b).

¹¹Levels of residential segregation by race have remained high over the past three or four decades. Outside the South, small declines were recorded in the 1950-1960 decade. Somewhat greater declines occurred in all

relatively less concern for the social and spatial effects of residential segregation.¹² Some early studies, influenced by the socio-psychological literature on interracial contact, conclude that residential segregation enhances the probability of racial and class polarities (Pettigrew, 1969; Van der Zanden, 1972). For example, there is a strong level of association between residential and school segregation (Wilson and Taeuber, 1978).

A very limited amount of social research is available on the relationship between residential segregation and housing cost differentials. Frisbie (1980, p. 195), in summarizing the findings of this literature, writes:

Most research indicating that minorities pay more for comparable housing has focused on blacks in a single city.... An exception is the work... which shows blacks occupying lower quality housing vis-a-vis whites, but with narrowing racial differences between the two

regions, including the South, in the 1960-1970 interval thereby bringing the mean value of the index of segregation (dissimilarity) to a point a little below the quite high 1940 average (Sorenson et al., 1975; Van Valey et al., 1977). Research which prior to the 1970 census suggested a possible increase in segregation (Clemence, 1967; Farley and Taeuber, 1968) was based on a limited sample of cities and was not subsequently supported. Much on the decline in the 1960s apparently was due to low segregation scores of areas that achieved SMSA status between 1960 and 1970 (Van Valey et al., 1977).

¹²A notable exception here are the studies of the fiscal consequences occasioned by white suburbanization and black concentration. For example, see Roof and Spain (1977) who found that outside the South suburban blacks possess a higher socioeconomic status than their central city counterparts, yet the converse is true in the South. In addition, Frey (1980) found for northern cities that decreases in city revenue-producing capacity directly attributable to both black in-migration and white flight are not found to be large in either the late 1950s or late 1960s, and that the effect of these streams has decreased over time. However, the black nonmigrating population has come to have a more significant influence on both the economic and demographic structures of central cities.

points in time.... Finally, research involving both blacks and the Spanish origin populations in a large number of SMSAs shows that Black and Spanish origin households are likely to pay more rent than Anglos, and the degree of residential segregation is the strongest predictor (of those included in the study) of this inequality.... But in regard to purchased housing, residential segregation turns out not to be a useful predictor....

Studies which analyze residential segregation differentiate racial and ethnic segregation to derive the following socially oriented, but conflicting, explanations:

1. Segregation is at least partially a function of socio-economic differentials; that is, large proportions of racial and ethnic subpopulations do not have sufficient economic resources to afford residence in affluent neighborhoods inhabited by the "white" population (Marshall and Jiobu, 1975; MacDonald et al., 1976).

2. Only a small proportion of residential segregation can be accounted for by economic factors; that is, there is little by way of a significant relationship between racial residential segregation and education, occupation, or income attainment (Farley, 1977; Massey, 1979b; Hermalin and Farley, 1973).

3. Spatial separation decreases as socioeconomic status of the ethnic minority increases (Massey, 1979; Lieberson, 1963).

It is surprising that the discrepancy among the theoretical results have received little attention. For example, Frisbie (1980, p. 191) speculates the results may be a consequence of the "historically more disadvantaged position of blacks compared to other minorities, the timing of black migration to cities, and their greater visibility." Nevertheless, it is uncertain whether these same factors account for the difference between blacks and Hispanics as well as they do for blacks when they are

compared to European immigrants.

A related argument is that whites exit certain urban sub-areas (i.e., central city) in which there is a large and/or growing black population perceived as an economic and/or political threat. The center-periphery bifurcation frequently is described by race-selective patterns (Farley, 1977, Schnore et al., 1976; Marshall and Stahura, 1979). The white flight hypothesis, however, must be evaluated as a reliable explanation in relation to recent empirical evidence. For example, Marshall and Stahura (1979, pp. 308-309) tested three alternative hypothesis:¹³

(1) the flight hypothesis which postulates that whites leave to avoid emergent problems they associate with blacks and also assumes that severity of this perceived impact increases steadily as the black population increases; (2) the tipping hypothesis which differs from the first (linear) hypothesis in that it assumes that whites are unconcerned with the relative size of the black population and/or its rate of increase up to a certain point; and (3) an interaction hypothesis which proposes that flight will occur only if whites are presented with a large and rapidly growing black population.

Frisbie (1980, p. 102) summarizes their findings:

Relating white suburban population change between 1960 and 1970 to the corresponding percent change in the black population and relative size of the black suburban population in 1960, Marshall and Stahura found: (1) the interaction hypothesis to be supported in small suburbs (under 25,000); (2) in medium and large suburbs only percent black has any independent impact on white growth; and (3) no support for the tipping effect. Perhaps most important is the finding that although the relative size and rate of increase of the black population are related to slower white growth, in no case did the white population cease to grow in small and medium size suburbs--a result not consistent with the flight hypothesis. Additional evidence is adduced by . . . [a] test of competing explanations of white suburbanization in 112 large metropolitan areas. The major finding was that structural characteristics of metropolitan areas are the dominant constraints on white decisions to move to the suburbs" Further, the out-movement of whites is weakly or not

¹³See also Frey (1979).

at all related to the relative size of the black population, central city tax rates, riots, school closings, or strikes by municipal employees. Crime rates do have a modest relationship with central city to suburb movement, but not with settlement of in-migrants in suburbs. ...these results fail to support either a "flight from blacks" hypothesis or others based on push factor assumptions.... The variable most strongly (and positively) associated with white suburbanization was the construction of new suburban dwelling units.

The movements of households and mortgage capital, however, are argued to take place within, and are constrained by, discriminatory practices created by institutional and government policies (Palm, 1981; Pahl, 1975; Williams, 1982).

The literature on prejudice and discrimination is founded on the individual choice approach.¹⁴ This economic research explores two types of discrimination: price discrimination and exclusion.¹⁵ The former occurs when a person specifically charges members of one group more than members

¹⁴It is important to emphasize that the models do not measure prejudice and discrimination spatially. It is true that the models are variants of the monocentric city model; but prejudice, though it varies with distance from the CBD, is itself inflexible or constant. Thus, at any given location an prejudiced person will be equally prejudiced living in the CBD or in a suburb. Discrimination is the observed behavior which expresses the attitude of prejudice; it signifies, on the part of one individual or group, the denial of certain rights or opportunities given to other individuals or groups, regardless of the legal qualifications which the group has for those rights or opportunities. A detailed review of the theoretical structure of the models is provided in Yinger (1979a).

¹⁵Some precise definition of terms is critical. First, prejudice is defined as a fixed (i.e., inflexible) attitude held by an individual about members of a social group. As defined, it is not evident whether or not an individual in possession of this attitude belongs to the given social group, or if the person is able to express this attitude to single members of an opposing social group or if it must be manifested to all members simultaneously. The definition is extended to compensate for spatial deficiencies. Prejudice is an inflexible attitude possessed by an individual or a group connotating an aversion or negative externality toward another individual, group, or place, regardless of the attributes attached to these. For example, it is not necessarily accurate to say that the closer blacks come to whites, the greater is the likelihood the latter will relocate (Yinger, 1976).

of another group for equivalent products.¹⁶ The latter takes place when someone refuses to allow members of a certain group to enter into any type of interaction (i.e., social, economic, spatial) with another person or with another group.

The empirical literature which addresses the problem of prejudice and discrimination does not read as a comprehensive body of structured scientific investigations. Collectively, it is a variety of essentially static, economic hypotheses on the pattern of black and white residential segregation and black-white price differentials.¹⁷

In response to pattern, preliminary evidence suggest that blacks are more centralized than whites. This evidence is not consistent with a model based only on prejudice (Yinger, 1979a; Courant and Yinger, 1977; Courant, 1978; Reid, 1977; Kain and Quigley, 1975; Mills, 1972). Evidence which indicates low-income whites are more suburbanized than high income blacks is consistent with models based on discrimination. Exclusion tends to cluster blacks in the city center, with high-income blacks residing in a more central location than low-income whites.

Findings on the issue of black-white price differentials for comparable housing are slightly more conclusive, but inconsistent. The findings of these investigations are appended here:

¹⁶This discussion does not incorporate all aspects of discrimination in the capital markets such as the issue of credit for single women. Rather, it deals only with the literature on red-lining or residential disinvestment.

¹⁷These are studies of other minority groups which are party to prejudice and discrimination. Most studies concentrate on blacks. For a review of other minorities see Frisbie (1980).

1. Whites pay less for housing in the boundary zone than in the interior of an all white area (King and Mieszkowski, 1973).
2. Whites pay less in ghetto, transition, and central city all white areas than in the white suburbs (Yinger, 1979).
3. Blacks pay more in the ghetto than in the boundary zone (King and Meiszkowski, 1973).
4. Blacks pay less annually to live in the ghetto (Galster, 1977).
5. Middle-class black households pay less annual rent for every increase in the white population (Yinger, 1979).
6. Blacks pay less for low-quality and more for high-quality housing and services in the ghetto than in the suburbs (Schafer, 1978).
7. Blacks at the boundary pay the same rent that whites pay in a white suburb, but both pay more in the ghetto than whites do in the white interior (King and Mieszkowski, 1973).
8. Blacks consume smaller quantities of housing attributes than whites with similar income levels and life-style characteristics.
9. Blacks are less likely to own houses than are whites with similar life-cycle and socioeconomic characteristics (Kain and Quigley, 1972, 1975; Birnbaum and Weston, 1974; Straszheim, 1975).
10. The probability, for recent movers, of buying a house is lower for blacks than for whites (Kain and Quigley, 1975).
11. Prices decline as the percentage of blacks increases in both white areas and boundary areas (Yinger, 1978).
12. Prices decline with every increase in the black population in a ghetto census tract (Yinger, 1978).

13. There is a price differential of varying amounts in the boundary zone of both submarkets (King and Mieszkowski, 1973; Schafer, 1978; Yinger, 1978).

14. Price differentials tend to increase with the quality of the neighborhood services (Galster, 1977).

15. Prices are higher in the boundary zone and the ghetto than in the white interior (Yinger, 1978).

16. Prices in the ghetto may be greater more frequently than in the suburban areas; and the prices of units are more frequently less in central city white areas.

Considerable controversy has developed over the past few years concerning another form of discrimination, red-lining or residential disinvestment. The former term evolves out of a long history of overt discrimination. For instance, officials of the former Housing and Home Finance Agency (HHFA) recommended in their administrative manuals that certain areas of the city be withheld from mortgage loan consideration because of poor risk. It is purported that red lines were actually drawn on maps in HHFA offices to designate these areas (Palm, 1981). Similarly, the Federal Home Loan Bank Board provides statistics to mortgage lending institutions on various neighborhoods in American cities which it had classified as high risk and low risk neighborhoods.¹⁸ Areas classified as

¹⁸More recently, the Federal National Mortgage Association (FNMA) and the Federal Home Loan Mortgage Corporation (FHLMC) can and do refuse to purchase loans in certain areas. The areas experiencing the greatest refusals are 1) where Housing and Urban Development 235 default rates are high, resulting in boarded-up houses in the neighborhood even though the general area may have sound housing, and 2) where most financing is through Federal Housing Administration or Veterans Administration loans. The willingness or refusal by these secondary mortgage market agencies to purchase mortgage loans further influences the determination of whether or not a borrower receives a mortgage (Palm, 1981).

high risk were predominantly black neighborhoods and were the areas in which loans were not to be made.

Lately, community groups, individual citizens and city governments, are concerned with the issue of mortgage lending practices (Palm, 1979; Darden, 1977; Dingemans, 1979). Some recent evidence indicates that several urban (i.e., central city) areas are experiencing serious difficulties obtaining new mortgage money. This has led to the accusation that the old practice of denying loans to certain neighborhoods within the central city has, either advertently or inadvertently, re-emerged as a private sector policy on the part of some, or perhaps all, lending institutions. Neighborhood groups charge that lenders refuse to make mortgage and/or home improvement loans available to certain neighborhoods solely on the basis of perceived risk. In the few instances where spatial variation in lending activity is documented, lenders assert that lending money is too risky, and constitutes an unsound business practice.

The act of proving risk is difficult because there is no public data base which shows the rates of default and foreclosure by location (Francis et al., 1976). The difficulty of measuring risk is augmented further by lending institution criteria used to establish loan to value ratios. Neighborhood groups argue that lenders who are protecting themselves from perceived risk erect unreasonable and discriminatory barriers to potential borrowers in selected neighborhoods. For example, a low loan to value ratio requires a higher down payment. When variation in loan to value ratio is documented, the lenders defend the practice on the grounds that a low loan to value ratio gives them a greater assurance that the borrower will not default. The lender is able to draw upon private institutional data in defense of their argument. Data on the establishment of loan to value

ratios, are not easy to obtain outside the institutional setting.

Collectively, the little analytical literature there is invokes an extraordinary variety of factors to describe the diminishing attractiveness of selected central city neighborhoods for mortgage investment (Kollias, 1976; White, 1976). Few studies are geographical in nature. Some studies deal only with the central city, while others include the entire metropolitan area (Stegman, 1972). Frequently these five areas are analyzed separately as two distinct locales. The findings which follow comprise the bulk of the literature and, like the previous studies, consist of an eclectic collection of essentially static descriptions:

1. Central city areas received fewer conventional single-family loans (Dingemans, 1979).
2. Sometimes racial composition is a significant variable in accounting for the distribution of mortgage lending in some cities (e.g., Philadelphia, Washington, D.C., Los Angeles) more so than others (e.g., New York City, Pittsburgh) (Vitarello et al., 1975; Ahlbrandt, 1975; Urban-Suburban Study Group, 1975; United States Senate, 1975).
3. In the decision to invest or disinvest, home ownership is not as important an explanatory variable as income, crime, and vacancy rates.
4. Demand for housing credit is derived from home ownership and is directly related to owner-occupancy income (Sledge, 1976).
5. Demand for loans is lower in central cities and is directly related to changes in housing supply (Benston, 1978; 1979).
6. Metropolitan neighborhoods in which few loans are made contain few residents making a loan application (Benston, 1978).
7. Some lenders concentrate their mortgage activity in expanding suburban municipalities, while others limit their activity to central cities (United States Senate, 1975).

8. The overall home loan denial rate is slightly higher in the central city than in the suburbs; and, even in areas where denial rates are high, a majority of applicants receive a loan.

9. Defaults on FHA and VA loans are directly related to income.

10. The incidence of loan default is related positively to the age of the housing structure (von Furstenburg and Green, 1974).

11. Minority-owned lending institutions sustain higher foreclosure rates, substantially higher than non-minority lenders and have adopted more cautious lending practices.

12. Defaults exceeding the national average are concentrated in the Northeast and North Central regions in the older central cities suggesting that lending involves more risk in these areas than in suburban jurisdictions in these and other regions, as well as in innercity areas of other regions.

The economic literature on residential segregation and price discrimination introduces the concepts of prejudice and discrimination (in various combinations) into equilibrium models. Usually a critical component is the specification of black-white housing price differentials (Goldstein, 1980). An extensive, yet inconclusive, body of findings demonstrate the extent to which the income or race of housing and neighborhood occupants affects the prices or demographic composition of the occupants of nearby houses and neighborhoods (Bailey, 1966; Segal, 1979; Yinger, 1979). Empirical studies have found household income and race, followed by life-cycle characteristics, to be the variables which best define neighborhoods or changes in them. One uncertain aspect of this research is the role played by economic and political processes in

distributing the consequences of, and changes in, wealth and population.

In addition, the economic analysis of private and publicly provided goods tends to center on the application of hedonic price theory to the evaluation of neighborhood quality (Segal, 1979).¹⁹ This procedure involves two stages. First, the effect on property values of prevailing levels of local public good (e.g., public safety or school quality) is determined by regressing property value on a set of explanatory characteristics. Second, a willingness-to-pay or demand function is estimated by examining how different socio-economic groups evaluate small changes in the level of housing and neighborhood quality. The demand function is used to determine how members of a given socio-economic group are affected by, or what they would be willing to pay to have (or to avoid), one more unit of the good (or bad) in question.²⁰ Disinvestment is treated

¹⁹As a result of this problem, the hedonic approach to evaluating housing has been developed. This hypothesis assumes that a commodity can be viewed as a bundle of characteristics or attributes for which implicit prices can be derived from prices of different versions of the same commodity containing differing levels of specific characteristics. The ability to so disaggregate a commodity and price its components facilitates the construction of price indexes and the measurement of price change across differing versions of the same commodity. Several issues arise in trying to implement such a program: 1) What are the relevant characteristics of a commodity bundle? 2) What are the implicit prices to be estimated from the available data? 3) How are the resulting estimates to be used to construct price or quality indexes for a particular commodity? 4) What meaning, if any, is to be given to the resulting constructs? 5) What do such indexes measure and under what conditions do they measure it unambiguously? (Ohta and Griliches, 1975).

Hedonic pricing studies also make inappropriate supply-side assumptions. For example, some models assume continuous price-distance functions; while others do not incorporate discontinuities at neighborhood boundaries into the analyses; and still others exclude the possibility that interactions among types of externalities may provide a source of discontinuity (Segal, 1979).

²⁰Surprisingly little empirical research has examined the effect of nonconforming land uses on housing and neighborhood. The paucity of evidence is surprising because the presumed presence of this externality is

analytically in this fashion (Yinger, 1979a).

What emerges is a system of spatial relationships where individual consumers and neighborhoods are affected by the locational choices of others. Frequently, households achieve some improvement in their level of economic well-being by moving. For instance, there are new possibilities of income expansion flowing from the expansion and integration of the housing and mortgage markets.

The search by households for alternative residential locations appears as an influential factor in the development of differential rates of profit among neighborhoods. Where the differential is sufficiently steep to provide the possibility of gain (e.g., increase in social and economic well-being), some movement of residents and concomitantly mortgage capital, is likely to transpire. In theory, consumer demand is seen to stimulate changes in the level of housing, of mortgage money, and of public facilities which enhance the neighborhood quality. As individual socio-spatial mobility barriers are overcome (in response to demand), factor prices in the old and new neighborhoods should converge on an equilibrium value.

The implications of a structure of locational interdependencies are serious for at least two theoretical reasons. First, as neighborhoods

frequently used as a pretext for zoning. The few existing studies (Crecine et al., 1967; Reuter, 1973; Kain and Quigley, 1970; Stull, 1975; Grether and Mieszkowski, 1978) are inconclusive. For example, Crecine et al. (1967) found no systematic evidence of the adverse effects of nonresidential land use on the values of single-family residences, Kain and Quigley (1970) and Stull (1975) found the converse. Li and Brown (1978), in a study of suburban Boston, found commercial centers to have a definite two-fold impact on contiguous property values. Accessibility to them is valued by neighboring households and positively affects property values; the traffic congestion and unsightliness of these centers have a negative effect, though this effect decreases quickly with distance. The combined force of these two effects demonstrates that housing values, ceteris paribus, peak at distances of one-fifth mile from commercial establishments.

become integrated and expand, individual welfare is affected by neighborhood change (Cox, 1979; Palm, 1981). Second, there are socio-spatial redistributive effects. For example, as households exit a neighborhood of low residential quality to one of a higher quality, house prices of those in the destination area decline at a decreasing rate, while those in the origin area decline at an increasing rate. Similarly, for the perspective of mortgage capital it should be that capital moves from areas of low profitability to areas of high profitability. In theory, this makes capital more scarce in its area of origin and so raises profit or interest rates there; at the same time, capital becomes less scarce in the area of destination, tending to somewhat depress profit rates there. The locational choices of individuals affect mortgage investment and disinvestment via their impact on demand and supply.

Summary

The available knowledge on the contemporary city consists of two types of models dealing with consumer demand for residential space. First there are those inquiries that describe and account for intra-urban individual and household choice and decision-making behavior in the context of a free market in a monocentric city. The spatial effects of economic behavior are discussed peripherally in terms of distance and externalities. Preoccupied with determining least-cost locations general equilibrium theory is the fundamental basis of urban economic theory and one way to enumerate the conditions associated with the residential locational choice.

Land rent theory is basic to most models. It gives some notion of how value is assessed and distributed. In addition, it shows how competitive bidding in a market economy assists individuals and activities to sort

themselves out in accordance with land rent assignments. This is extended to formulate models of the residential location decision-making process. Accessibility (i.e., distance) is a critical variable in allocating land for residential activities, and households to neighborhoods. Accessibility is determined with respect to the journey-to-work and is measured in terms of economic costs, time costs, or both.²¹ More advanced spatial equilibrium models consider the interrelationships among the amount of land desired, income, and various aspects of residential quality (Papageoriou, 1978; Scott, 1980; Richardson, 1977). A second approach is slightly less concerned with determining a strictly economic least-cost solution as it is preoccupied with the influence of other social factors associated with the influence neighborhoods have on locational choice. Usually, modeling on this account is derived from an ecological tradition (Palm, 1981).

The approaches of urban sociologists challenge accessibility as the leading factor in the residential location decision pointing to the social significance of the neighborhood. One example is the arbitrage model. It is a modification of the accessibility model, but introduces the notion that the very presence of ethnic or racial minorities may contribute or detract from the value or price of land (Palm, 1981). This model evaluates dwelling

²¹The use of either criterion results in variable analytical results. For instance, suppose transportation cost is measured directly in monetary terms and is the primary criterion in a land rent analysis. Low-income households are located near their place of employment. There are two reasons for this. First, they spend most of their income on rent, food, and other basic necessities; and second, these expenditures leave less actual money for transportation purposes. High-income households, even though they may have the same expenditures, can afford to reside at greater distances from the city center. Of course, this presumes that these households want to make high levels of expenditures for transportation. Suppose, now, that time is the criterion. The wealthy who consider time a more expensive commodity choose a residential location near the city center.

unit properties and household location as well as modifications to the house price estimate, in response to the location of the property within a housing submarket defined according to the racial and/or ethnic composition of neighborhood residents (Palm, 1979). Elasticities for specific housing and neighborhood characteristics vary among a set of relatively segregated populations given a set of demographic or racial preferences. Research tends to revolve around two central themes: the issue of whether or not black households pay more than white households for comparable dwelling units and the effects of neighborhood racial change on individual property values.

The ecological perspective continues to have some merit for two reasons (Hawley, 1981; Palm, 1981). First, it partially explains the trend to the periphery--although it does not consider the household's willing trade-off between access and environmental considerations. The theory also accounts for the existence of gray areas in proximity to the central city.

A second reason partially accounts for the inclusion of urban ecological research in this study. Early on, such research suggested that a primary reason for residential differentiation was associated with the value of residential land (Frisbie, 1980). This value is a combination of three factors--land values, the location of other activities, and the time and money costs of transportation to urban activity centers. Since households cannot compete successfully with the more intensive land uses such as business and industry, they are relegated to less accessible sites with lower values. Whenever residences are found on high-value land, they are usually in a deteriorated condition. This is because the land is kept in housing only for speculation, i.e., in the expectation of more profitable uses. Such

places are occupied by low income households and thus there is the paradox of high income families living on low rent land away from the central city, while low income families occupy high rent lands closer to central locations (Rhind and Hudson, 1980).

The human ecologists have also been more interested in residential location because of the interrelationship of the social and spatial dimensions. This concern connects individual housing choice with the selection of a neighborhood. Hoyt's research implies that the choice of house type is only one part of a residential location decision. The consumer is also faced with the problem of locating the residence. This involves attitudes toward the journey to work; the time and cost of commuting have to be traded off against the relative benefits of living in alternative communities that meet, within budgetary constraints, family needs. The lower the family or individual income, the more constrained will be the choice. Thus, lower-status people live closer to their work than people of high status.

Although perhaps less analytically sophisticated, a scenario emerging from the urban sociological and geographical analyses is somewhat consistent with the urban economic model. Residential patterning is based on the attributes of neighborhood residents such as education, occupation, and income, and of neighborhood structural characteristics like locational rent (or value) and the quality of housing. This spatial pattern is a product of the differing abilities of various income groups to bear the transportation costs of the journey-to-work. For example, lower income workers, because of their restricted budgets, must live close to their work (concentrated in the inner city around the central business district and

along the rail and water routes radiating outward from it). Similarly, the higher income or upper-status groups possess greater latitude in the decision to locate their homes in areas of higher residential amenity--away from their places of work, away from the smoke and dirt of industry, and close to amenity features such as lakeshore and open space.

In the aggregate, the extent to which these findings yield a fully determinate explanation of housing and neighborhood change is tenuous and problematic. In the first instance, the factors which account for neighborhood succession assumes housing includes a bundle of socio-economic attributes. For example, a housing purchase entails the right to use and exchange the land and the housing structure subject to legal restraints like zoning ordinances and building codes, and the right to consume public goods and services (while also expending obligatory tax liabilities). Presuming a household possesses a well-defined attitude for the socioeconomic status of the neighbors, such neighborhood qualities as the level of income and of racial composition of adjoining neighbors and neighborhoods are dimensions of the housing attribute bundle. Consequently, if neighborhood change is associated with disinvestment it is an outcome of consumers' decisions to move.

In the second instance, residential change also is an expression of both internal and external forces. To illustrate, internal forces reflect a neighborhood's ability to resist physical and social encroachments as structures grow older and depreciate. Combined with high vacancy rates and augmented maintenance costs resulting from the structure's age, there is the threat of obsolescence as newer, more fashionable residential alternatives become available. Moreover, over time children grow up, leave home and exit a neighborhood. Younger, lower socioeconomic level families may move into

the neighborhood. Frequently, the older residents remaining behind feel alienated and become less concerned about the upkeep of their property. The neighborhood becomes more susceptible to decline with physical and social maturation. External factors reinforce this process. These include the encroachment of nonresidential uses, such as conversions of properties to commercial, office, or institutional functions. Highway projects can similarly create an undesirable intrusion. Subsequently, it would seem that neighborhood change, and subsequently disinvestment, are a natural outcome of alterations in the residential mobility and the life cycle.

Urban residential disinvestment is a form of discrimination. Usually it is defined in terms of a decrease over time in the number of loans made to an urban, relative to a suburban, neighborhood for the purpose of purchasing, refinancing, maintaining, or rehabilitating residential property (Palm, 1979). The literature reviewed in this chapter would suggest that disinvestment is a socio-economic concept whose unifying properties are the behavior of consumers and mortgage lenders and the geographic locations of households. Given the current emphasis placed on consumer demand for housing as some function of economic factors like income, housing price and housing quality it is not peculiar to expect that an economic orientation would dominate the analysis of residential mortgage lending. Surprisingly, little geographical, let alone economic, evidence accounting for the spatial variation in the distribution of mortgage money is available. The next chapter makes a minor attempt to enlarge the existing body of research findings by presenting a descriptive geographical analysis of mortgage lending patterns in the Oklahoma City metropolitan area.

THE GEOGRAPHICAL STRUCTURE OF MORTGAGE LENDING IN THE
OKLAHOMA CITY METROPOLITAN AREA: A CASE
STUDY IN RESIDENTIAL DISINVESTMENT

CHAPTER III

Introduction

The institutional decision, known as red-lining, that loans will not be made in certain high-risk neighborhoods, regardless of the credit rating and financial stability of the prospective buyers, is not a new phenomenon. Nevertheless, since the early 1970s, various studies charge, inferentially, that mortgage lenders are discriminating among certain urban residential neighborhoods (Agelasto and Listokin, 1975; California Center for Real Estate and Urban Economics, 1975; Palm, 1979; Vandel, 1975).

The fundamental issues underlying the redlining debate are disinvestment and discrimination. Members of the lending institutions defend their practices by arguing that loan policies and lending performance are a result, not a cause, of housing stock deterioration and property owner disinvestment. By contrast community groups contend that antiurban lending standards exist and that they are founded not on facts but rather on subjective perceptions of loan officers. An economic analysis of the level of and distribution of mortgage loan activity as well as neighborhood

viability would assist in changing the policies of lending institutions. This study deals only with one aspect of the redlining phenomenon: disinvestment.

Urban disinvestment refers to a mortgage lending practice which, supposedly, favors suburban residential neighborhoods to the disadvantage of inner city properties (Palm, 1979). The pioneer studies of disinvestment in older cities in the Frostbelt reviewed in Chapter II, however, offer little conclusive geographical evidence that it is located necessarily within inner city neighborhoods. Recently an urban economic study of Los Angeles observed that the variation in mortgage lending among census tracts is associated strongly with changes in economic inequality, measured in terms of income and home ownership (Richardson and Gordon, 1979). This chapter examines this hypothesis for the Oklahoma City metropolitan area. This study attempts to discern the extent to which redlining may be taking place in a newer Sunbelt city.

The study is divided into two major sections. The first describes the metropolitan level spatial patterns associated with the demographic and economic features of the total metropolitan area. The second section identifies the spatial pattern of mortgage lending at the metropolitan and intra-metropolitan levels using a Mortgage Deficiency Index proposed by Richardson and Gordon (1979). An analysis of the spatial pattern of mortgage lending activity reveals that disinvestment is not only an urban but also a suburban phenomenon within metropolitan Oklahoma City; and suggests that the decisions of lending officials may be influenced by factors other than economic variables like income and home ownership.

Demographic and Economic Factors: A Spatial
Profile of the Oklahoma City SMSA

The study area is defined as Oklahoma City and the surrounding municipalities in Oklahoma county (See Figure 1). Descriptive demographic and financial data were collected, in accordance with the Home Mortgage Disclosure Act. The 20 largest banks and six largest savings and loan associations with assets over ten million dollars were selected. Data measuring income, households, and owner occupancy at the census tract level were taken from the Oklahoma City Office of Research and Economic Development (ORED) data files.¹

Some useful background data for the entire Oklahoma City SMSA is worth noting here as it will be incorporated in later discussions. Total population increased between 1960 and 1979, with the average annual rate of change increasing to 2.25% in the decade 1970-1979 from 1.27% between 1960-1970 (Map 1). The total number of households increased between 1970-1979 at an average annual rate of 2.2% while the size of households decreased at an annual rate of 0.94% (Map 2). The change in the number of households by

¹The use of socioeconomic and residential quality data are kept to a minimum in this study. This is because reliable data on these variables are difficult to acquire between censuses for the study area. The variables of income, number of households, and percent owner occupancy taken from the ORED data files are taken to be relatively accurate. The use of the data from this source is preferable for a study of 1979. In a discussion with George Daily of the City of Oklahoma City Office of Research and Economic Development (ORED), it became apparent that, due to financial reasons, Oklahoma City planning officials are able to collect and tabulate, annually, detailed socioeconomic statistics at the census tract level. Most of the data used is aggregated to either metropolitan level or census tract level. These data determined the ORED data is relatively reliable. A comparison of the ORED data files on income, households, and population statistics with preliminary, but unpublished, 1980 Census Statistics indicates that the ORED data is sufficiently more representative than 1970 Census data.

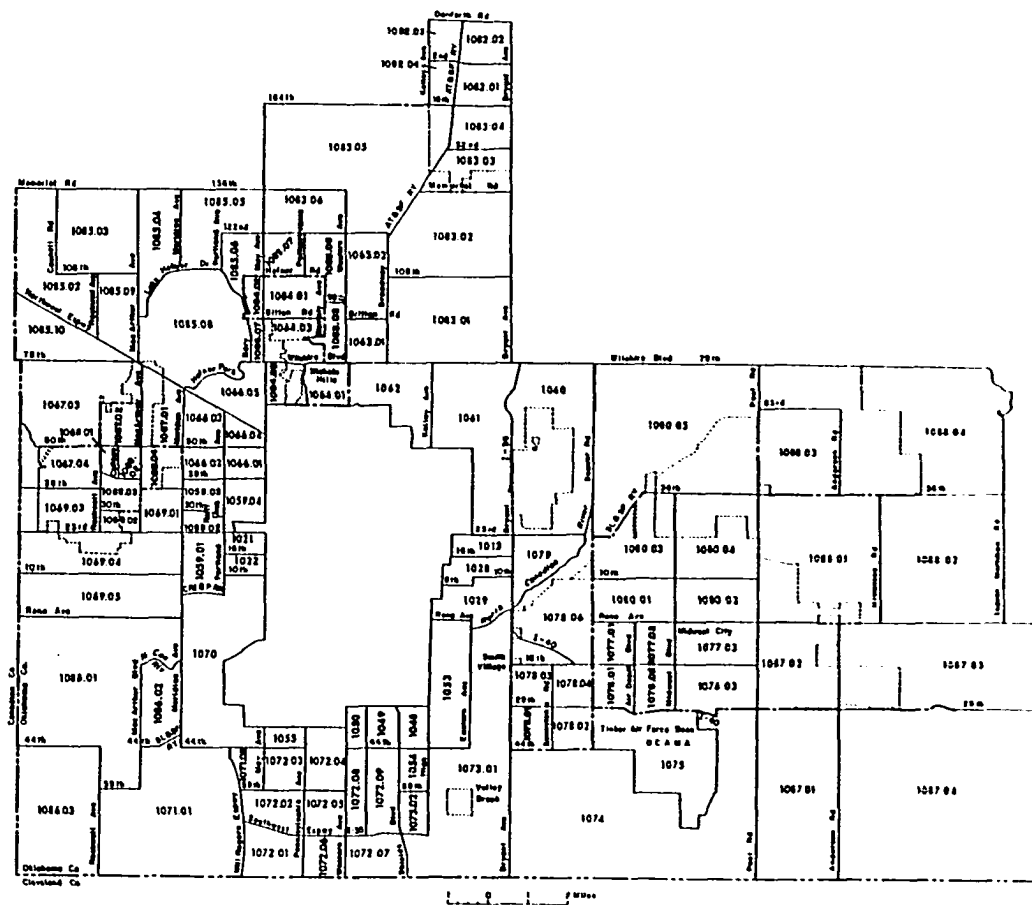
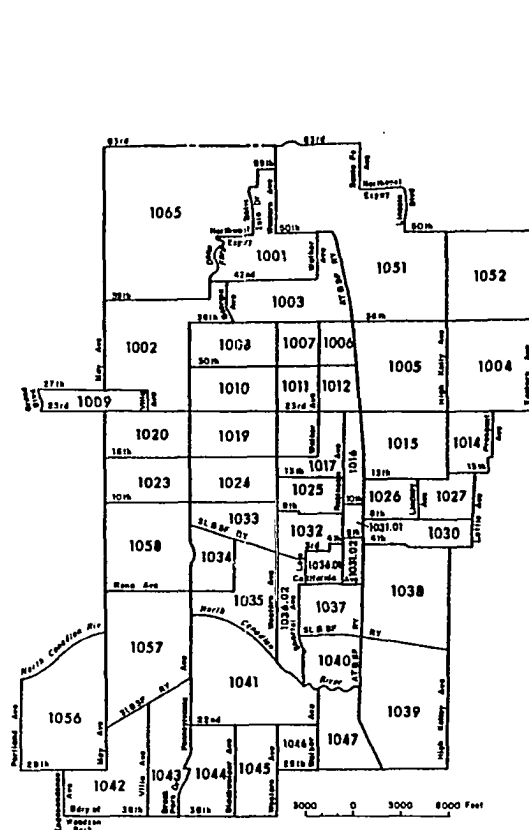
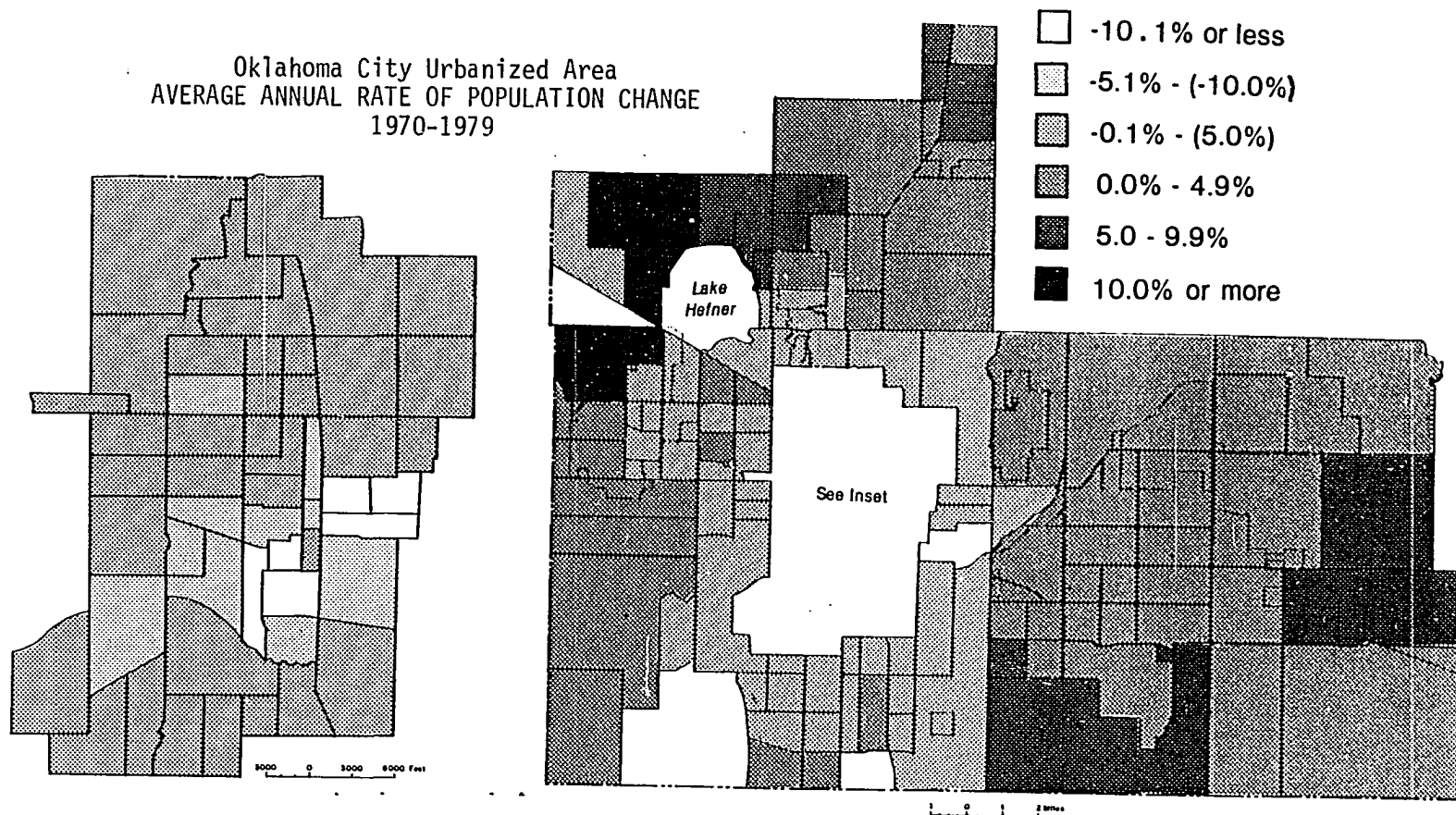


Figure 1: The Oklahoma City (on the left) and the Metropolitan Area (on the right)
1970 Census tracts.

MAP 1

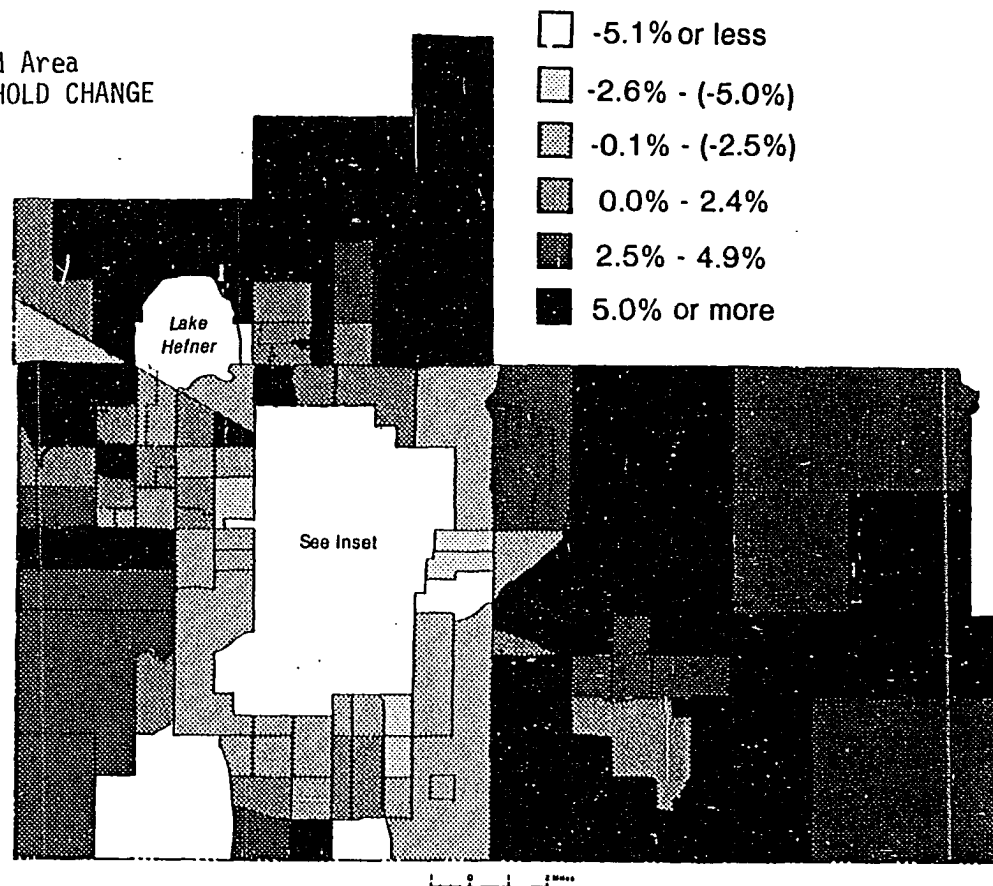
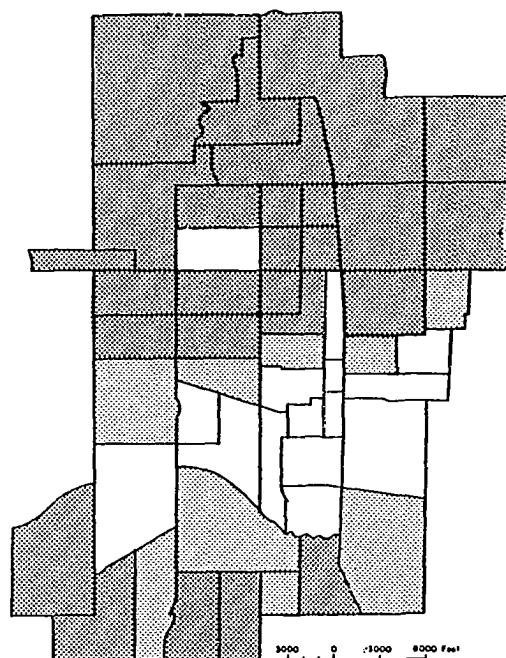


Sources: The Oklahoma City Office of Research and Economic Development,
National Data Planning Corporation.

1970 CENSUS TRACTS

MAP 2

Oklahoma City Urbanized Area
AVERAGE ANNUAL RATE OF HOUSEHOLD CHANGE
1970-1979



Sources: The Oklahoma City Office of Research and Economic Development.
National Data Planning Corporation.

1970 CENSUS TRACTS

census tract for the entire metropolitan area is mapped for the period 1970-1979. As the map indicates those areas with large increases are situated in the north and northwesterly quadrants of Oklahoma City itself and the suburban areas. A similar increase is noted for the south and southeastern suburban census tracts. Subsequent declines in household change took place in the southern and central census tracts of Oklahoma City per se.

During the study period the total number of households increased, but much of this activity took place in the suburban municipalities surrounding Oklahoma City. Building permit data indicate a decline in the number of single-family permits issued within Oklahoma City between 1976 through the end of 1979 (Table 1).

Suburban housing-related construction appears to be concentrated in the municipalities of Edmond, Moore, Yukon, Midwest City, and Norman. Overall, figures tend to indicate a slight increase in the share of single-family housing construction activity in these municipalities, rising from a low of 42.7% in 1976 to a high of 56.4% in 1979.

Data for the first six months of 1980 suggests that this decline is far from subsiding; but a change in inner city housing types might also be influential. This is substantiated, tentatively, by the marked increase in the percentage of multi-family housing permits issued (Table 2). Similar increases are noted for Norman and Edmond, Oklahoma City's two largest residential suburbs.

Building permit data are not indicators of housing starts because permits are also issued for home improvements. Nevertheless, they are generally indicative of the location of housing-related construction

TABLE 1

PERCENTAGE OF BUILDING PERMITS ISSUED FOR SINGLE-FAMILY DWELLING
UNITS BY MUNICIPALITIES WITHIN THE OKLAHOMA CITY
METROPOLITAN AREA BETWEEN 1976 AND 1980

Municipality	1976	1977	1978	1979	1980 ¹
Oklahoma City	56.6	46.9	48.4	41.8	33.5
Edmond	15.0	13.1	7.5	10.5	9.9
Moore	9.0	12.3	13.9	3.4	25.2
Yukon	7.2	6.2	5.3	6.3	5.2
Midwest City	2.7	2.6	4.5	4.7	6.9
Choctaw	2.5	3.0	3.4	1.8	2.7
Mustang	1.7	2.9	3.1	3.1	3.5
El Reno	1.7	2.1	1.6	3.1	1.4
Norman	1.3	9.4	10.0	12.4	11.3
Bethany	1.0	1.0	1.4	1.0	1.3
Del City	0.6	0.2	0.1	0.1	0.2
Central City	56.6	46.9	48.4	41.8	33.5
Suburbs	42.7	52.8	50.8	56.4	67.6

SOURCE: Central Oklahoma Home Builders Association, Oklahoma City, 1980.

¹Data available for first six months of 1980.

TABLE 2

MUNICIPALITIES WITH THE LARGEST PERCENTAGE OF
MULTI-FAMILY UNIT BUILDING PERMITS WITHIN THE
OKLAHOMA CITY SMSA, 1976-1980

Municipality	1976	1977	1978	1979	1980 ¹
Oklahoma City	51.4	40.3	36.9	52.2	67.8
Norman	22.9	42.3	48.7	5.9	24.2
Edmond	19.2	12.0	N/A ²	27.3	N/A
Moore	N/A	N/A	5.4	4.7	N/A
Yukon	N/A	N/A	3.4	3.5	N/A
Midwest City	N/A	N/A	1.4	5.1	N/A

¹Data available only for the first six months of 1980.

²N/A designates "not available."

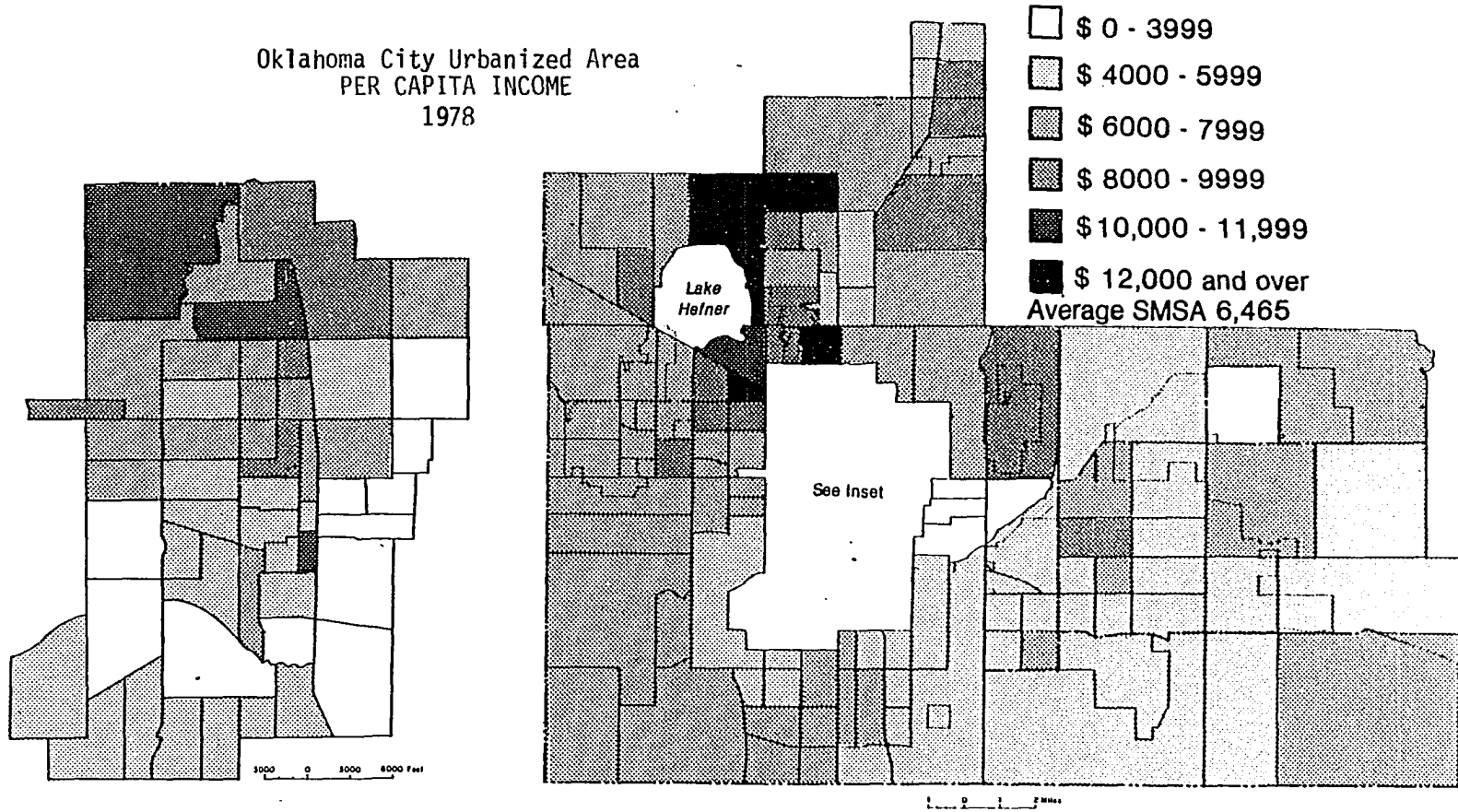
activity. It is expected that there should be a close correlation between the location of building-related activity and volume of mortgage loans. In this connection, there should be some association with a change in the number of suburban single-family households.

Consider now the metropolitan pattern of per capita income and income change (Maps 3 and 4). Although income increased proportionally, throughout the metropolitan area, most likely because of inflation, two noteworthy trends emerge:

1) In the northwestern quadrant of Oklahoma City itself, and in the metropolitan municipalities of The Village, Nichols Hills, Warr Acres, and Edmond, there is a increase in per capita income, which appears to be slightly greater than the increase in the other parts of metropolitan area and the central city areas.

MAP 3

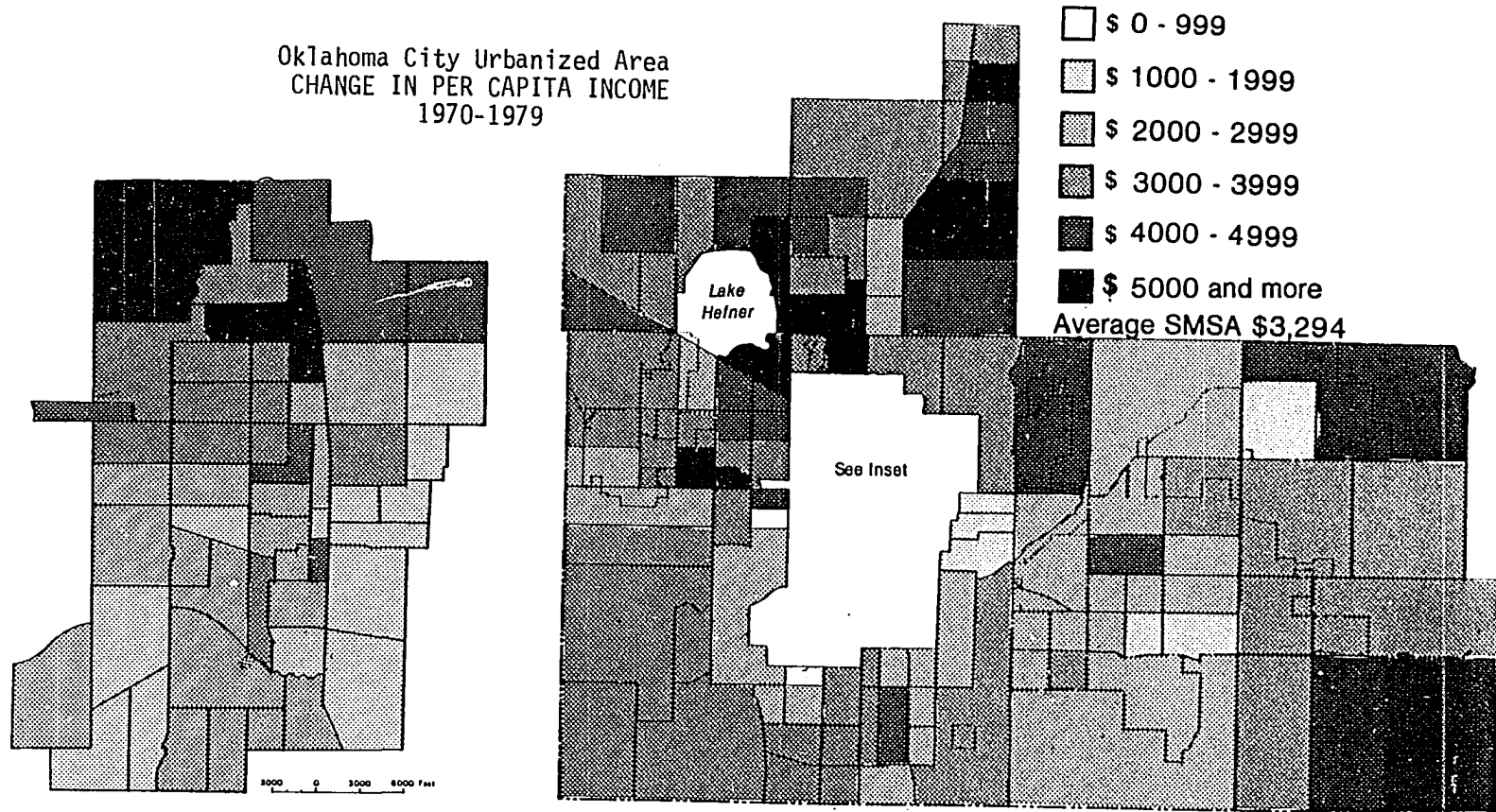
Oklahoma City Urbanized Area
PER CAPITA INCOME
1978



Sources: The Oklahoma City Office of Research and Economic Development.
National Data Planning Corporation.

1970 CENSUS TRACTS

MAP 4



64

Sources: The Oklahoma City Office of Research and Economic Development.
National Data Planning Corporation.

1970 CENSUS TRACTS

2) The areas which tend to receive the smallest increase in per capita income, are located immediately adjacent but south of the Oklahoma City Central Business District.

The spatial patterns associated with the housing and income data suggests that there is an increase in rate of household and income change and an increase in the number of households as distance increases from the CBD; but that this is biased directionally to the north-northwest and south-southeast. The southern Oklahoma City census tracts immediately adjacent to the CBD seem to have experienced a change in land use from residential to commercial. In the census tracts located at the southern periphery of Oklahoma City itself the data suggest that there is a slight increase in income, population and the number of households.

An Analysis of Mortgage Lending: The Metropolitan Level

The first phase of the analysis describes the geographical pattern of residential mortgage lending. To accomplish this, the largest banks and savings and loan associations (SLAs) were identified for the Oklahoma City metropolitan area.² As of December, 1979, there were approximately 75

²The Home Mortgage Disclosure Act does not request private mortgage holding companies and credit unions, like the Tinker Credit Union, to collect mortgage-related data. Whether or not these institutions are significant participants in the daily exchange between consumers and suppliers of mortgage monies remains to be seen. Collecting data from these institutions, while it might be useful, would be very time consuming for one individual. As it turned out, the collection of the Home Mortgage Disclosure Act information was time consuming. Certain lending institutions had a difficult time finding the data, even though the institutions are legally required to make it available to the public. Other institutions had not finished compiling the 1979 data at the time the study was being prepared. In spite of these difficulties, approximately 55 of the 76 lending institutions responded. This translates to slightly more than 85 percent of the total number of institutions legally required to report mortgage lending information.

banks and 10 SLAs located in the metropolitan area. After ranking the banks, in terms of total deposits for 1979, a decision was made to use only the 20 largest banks (Table 3).³ These 20 banks have at their disposal roughly 75 percent of the total capital deposits of the 75 banks in the SMSA. This suggests that the remaining institutions would not substantially change the observed aggregate patterns. Using a similar procedure the largest savings and loan associations were chosen. Since there are fewer thrift institutions that meet the Home Mortgage Disclosure Act requirements only three-fourths of the total number of institutions were included in the analysis.

The Home Mortgage Disclosure Act (HMDA) of 1976 states that all lending institutions with assets in excess of ten million dollars, and which are situated in a metropolitan area, are required annually to collect, tabulate and publicize statistics on the type and number of mortgage loans they originate by census tract.⁴

³Preliminary analysis of mortgage statements and the institutional reports of condition reveals that Oklahoma City savings and loan associations are more heavily involved in lending money for residential purposes while their counterparts, the commercial banks, tend to lend primarily for commercial reasons. This is not unique, and is in keeping with the original purpose for which savings and loan associations were developed nationally. This is to make money available for residential loans. For this reason, all the 6 SLAs are used, and most of the HMDA data originates from this source. Obviously, not all the banks ignore the residential market. This selection does seem to be justifiably representative of the banking industry's contribution.

⁴This legislation is separate from the Community Reinvestment Act of 1977 (CRA). The latter legislation only requires a lending institution to outline on a map the local community they serve, and a listing of the types of credit extended to residents of that community. The Act is ambiguous and its utility is dubious. Most CRA statements presented by Oklahoma City lending institutions consisted of a scaled-down, xerox map of the entire metropolitan area and a list of the types of available loans. The CRA, in contrast to the HMDA, contains absolutely no statistical data.

TABLE 3

TWENTY LARGEST COMMERCIAL BANKS WITHIN THE OKLAHOMA CITY
SMSA BY SIZE OF DEPOSITS IN 1979

	Percentage Share of Deposits
1. First National Bank and Trust	22.37
2. Liberty National Bank and Trust	16.62
3. Fidelity National Bank	8.16
4. Citizen's National Bank	2.67
5. Union Bank and Trust	2.33
6. Federal National (Shawnee)	2.30
7. United Oklahoma Bank	2.24
8. Security National (Norman)	2.11
9. Penn Square	2.00
10. Central National	1.78
11. American National (Shawnee)	1.75
12. Guaranty Bank and Trust	1.58
13. Oklahoma National Bank	1.44
14. Friendly National Bank	1.29
15. City National Bank (Oklahoma City)	1.28
16. Founders Bank and Trust	1.12
17. American Exchange Bank (Norman)	1.08
18. Grant Square	1.03
19. Southwestern Bank and Trust	1.03
20. First National of Bethany	1.03

SOURCE: Office of Economic Research, Federal Reserve Bank of
Kansas City, Kansas City, Kansas, 1979.

The next step is to ascertain the total number of loans (Table 4) and total value of loans (Table 5) for the entire metropolitan area by type. Table 6 reveals the distribution of mortgage money allocated to Oklahoma City and the surrounding suburban municipalities. The areas with the largest total amounts are located in the northwestern sector of Oklahoma City and the northwestern suburban municipalities (Maps 5 to 9). Conversely,

TABLE 4

ANNUAL NUMBER OF RESIDENTIAL MORTGAGE LOANS BY TYPE FOR THE
OKLAHOMA CITY METROPOLITAN AREA

Loan Type	1976	1977	1978	1979
Conventional	2,985	9,124	9,192	5,429
FHA	60	34	221	1,134
Non-Occupant	40	46	278	459
Home Improvement	815	1,378	1,330	2,378

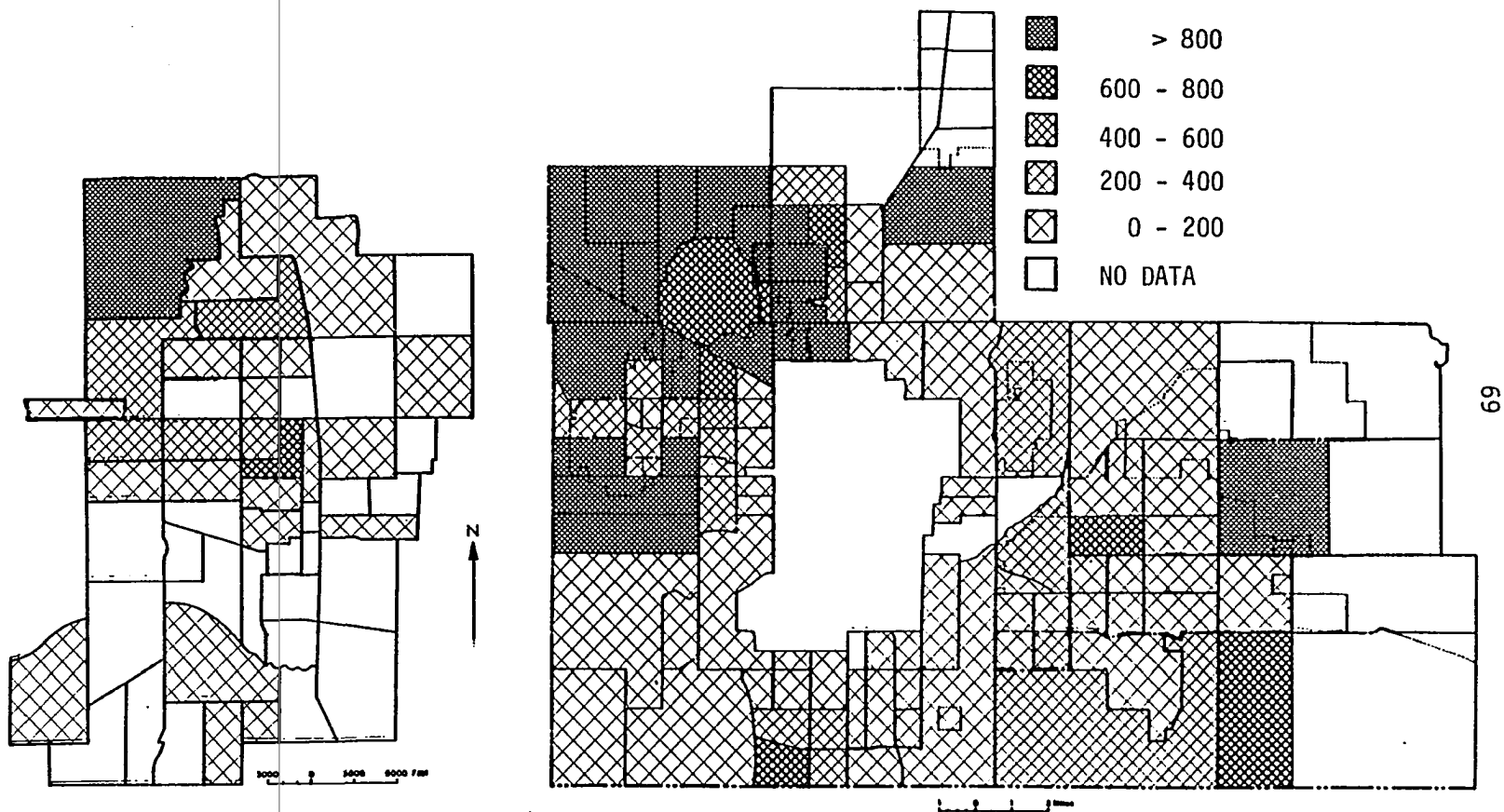
SOURCE: Federal Home Mortgage Disclosure statements for
Oklahoma City banks and savings and loan associations.

TABLE 5

ANNUAL VALUE OF RESIDENTIAL MORTGAGE LOANS BY LOAN TYPE
FOR THE OKLAHOMA CITY METROPOLITAN AREA

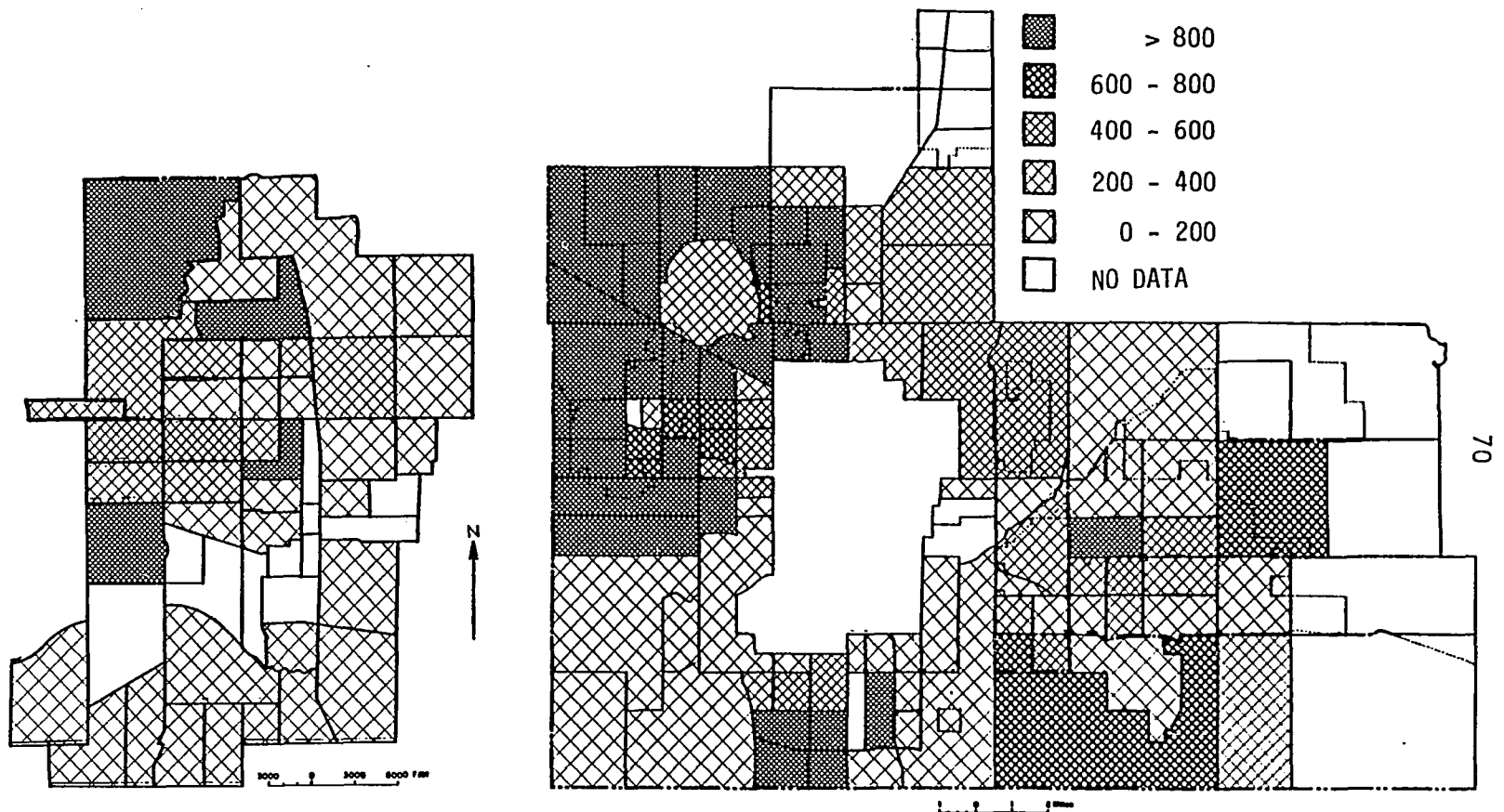
Loan Type	1976	1977	1978	1979
Conventional	93,853,302	203,997,199	261,630,865	215,658,282
FHA	1,273,450	1,154,900	7,163,165	41,802,339
Non-Occupant	1,295,950	1,264,850	9,570,018	17,319,179
Home	5,171,840	7,766,479	9,453,624	16,594,593

SOURCE: Federal Home Mortgage Disclosure statements, Oklahoma
City banks and savings and loan associations.



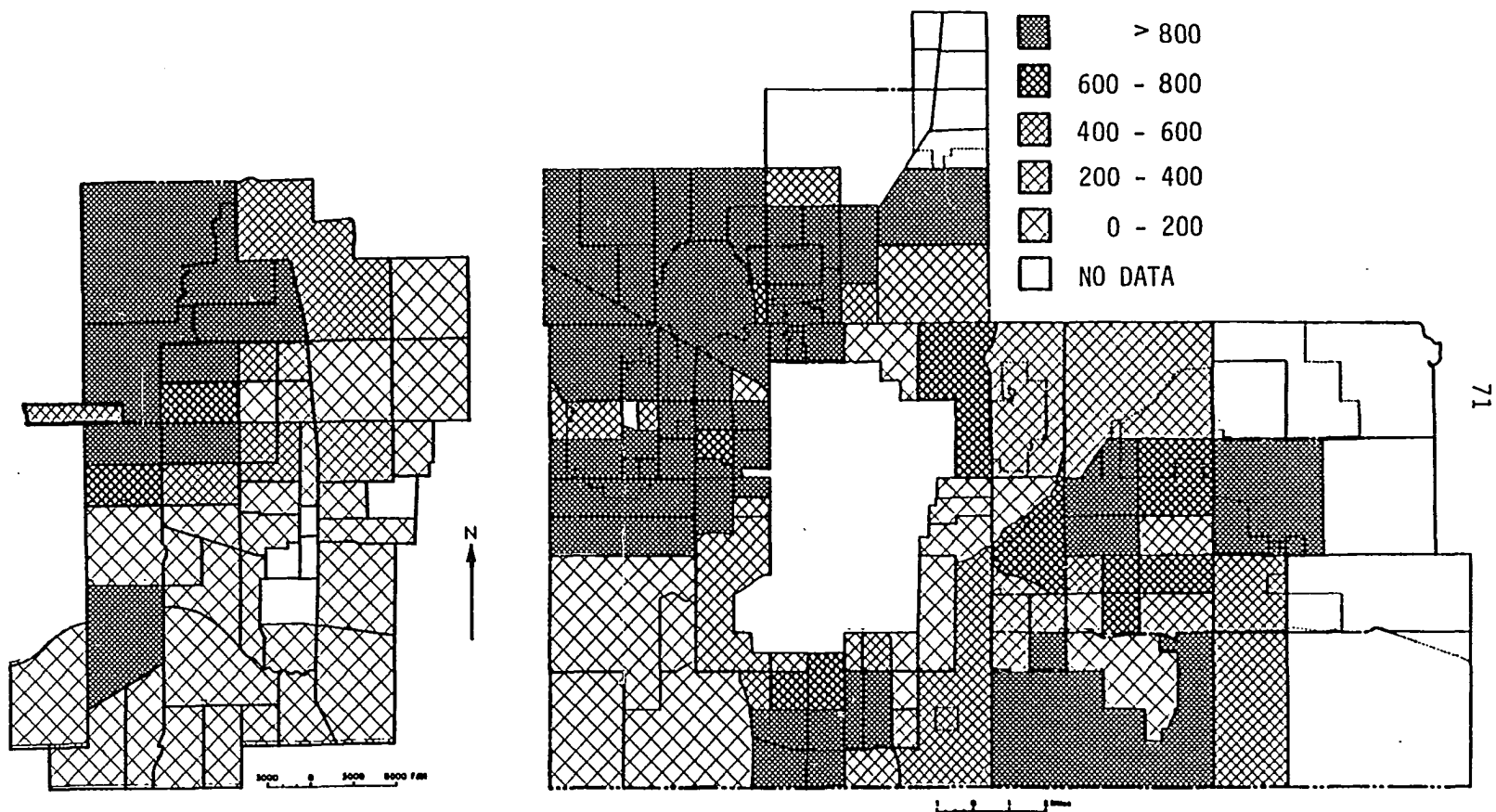
MAP 5:

VALUE OF RESIDENTIAL MORTGAGE LOANS FOR OKLAHOMA CITY, 1976 ('000S DOLLARS)



MAP 6:

VALUE OF RESIDENTIAL MORTGAGE LOANS FOR OKLAHOMA CITY, 1977 ('000S DOLLARS)



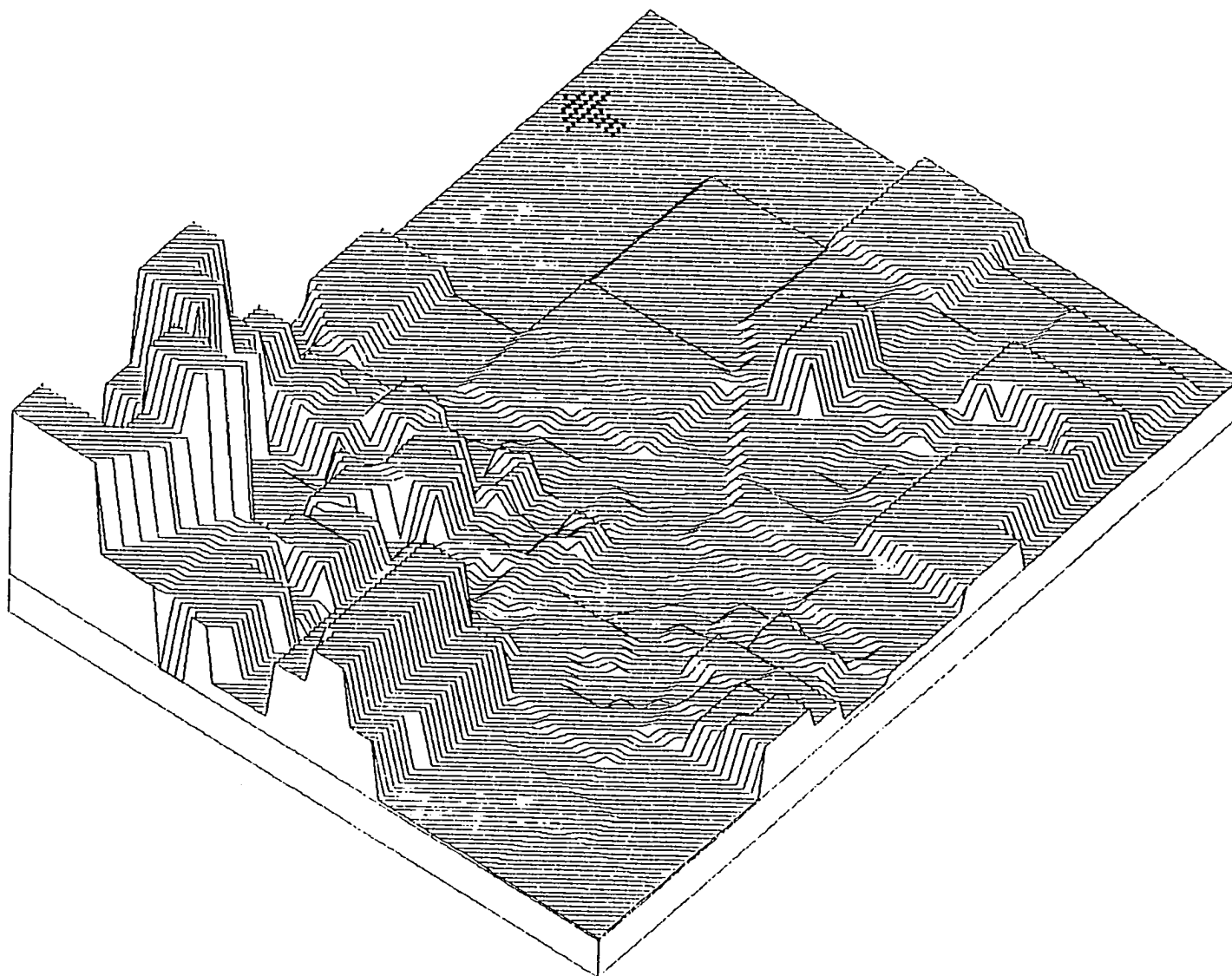
MAP 7:

VALUE OF RESIDENTIAL MORTGAGE LOANS FOR OKLAHOMA CITY, 1978 ('000S DOLLARS)



MAP 8:

VALUE OF RESIDENTIAL MORTGAGE LOANS FOR OKLAHOMA CITY, 1979 ('000S DOLLARS)



MAP 9:

TOTAL VALUE OF RESIDENTIAL MORTGAGE LOANS FOR OKLAHOMA CITY, 1976 - 1979

TABLE 6

AREAL DISTRIBUTION OF RESIDENTIAL MORTGAGE MONEY FOR OKLAHOMA
CITY AND SUBURBAN MUNICIPALITIES BY PERCENTAGE
OF TOTAL DOLLARS LOANED ANNUALLY

Year	Oklahoma City	Northwestern Sector of Oklahoma City	Suburbs within SMSA	Northwestern Sector of Suburbs within SMSA	Outside SMSA
1976	4.0%	3.2%	75.6%	63.5%	20.4%
1977	3.9%	2.6%	70.8%	52.9%	33.1%
1978	6.9%	4.5%	69.5%	53.1%	30.5%
1979	8.9%	4.7%	62.3%	43.5%	28.8%

SOURCE: Federal Home Loan Mortgage Disclosure statements for Oklahoma City banks and savings and loan associations.

those areas receiving relatively less mortgage money are located in the southern census tracts of Oklahoma City itself and also in the southeastern and northeastern quadrants of the suburbs.

Proportionately, between 1976 and 1979 the percentage of money allocated to Oklahoma City itself rose from 4.0 percent in 1976 to 8.9 percent in 1979. Simultaneously, the proportion received by suburban municipalities, within the metropolitan area, declined from 75.6 percent to 62.3 percent. As Table 6 indicates, the greatest proportion of the money was allocated to the northwestern sector of the metropolitan area.⁵

Prior to the Home Mortgage Disclosure Act, disinvestment was identified by the presence of large numbers of FHA-insured mortgages. FHA

⁵The amount given to the northwestern section of Oklahoma City gradually increased from 3.2 percent to 4.7 percent. The amount going to the northwestern sector of the suburbs declined to 43.5 percent from 63.5 percent.

activity is a signal that a neighborhood is changing and may indicate a high-risk area in which it is unsound to make loans (Palm, 1979).⁶

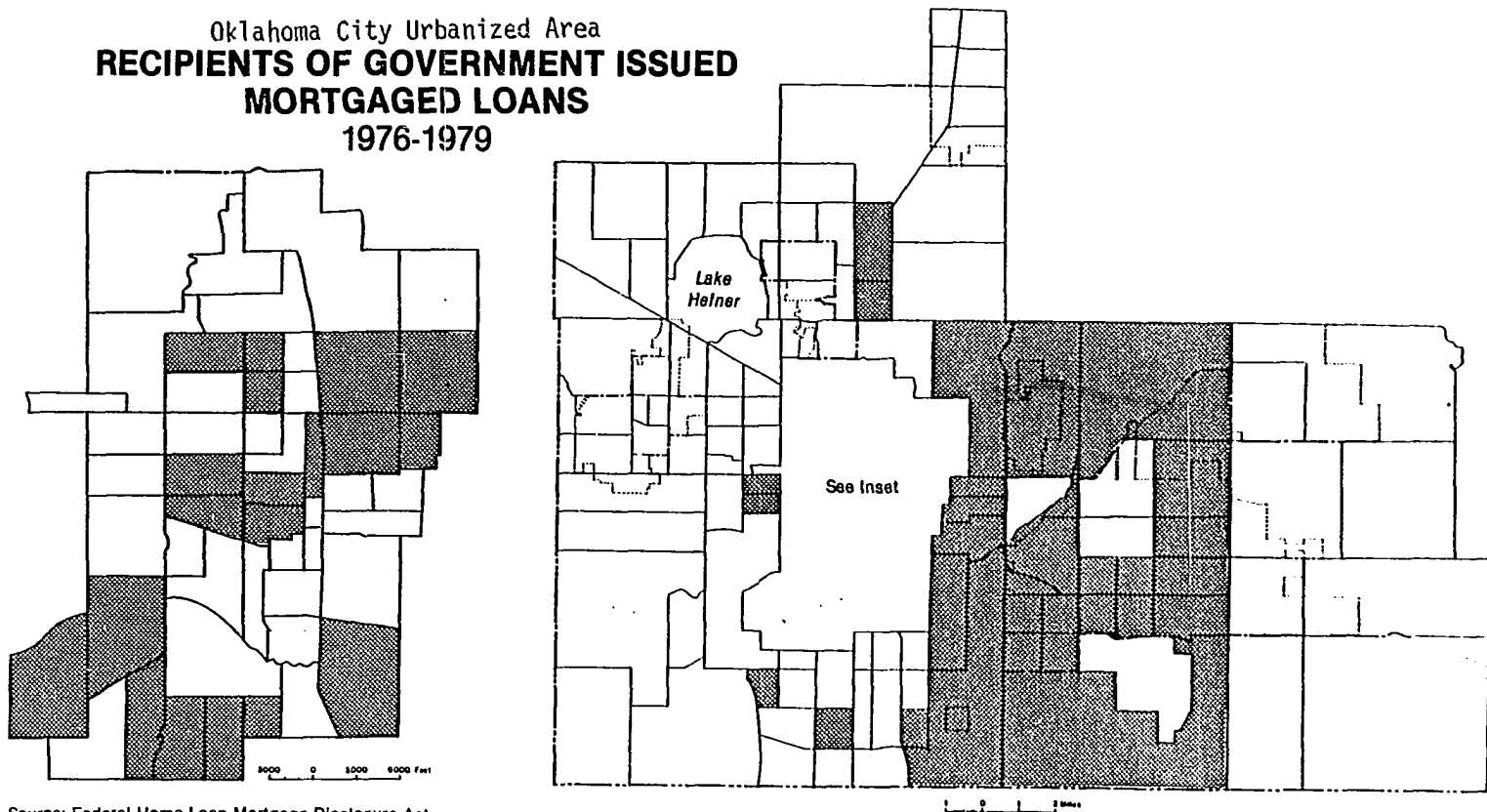
Unfortunately, the separation of government-insured loans into Federal Housing Administration (FHA) and Veterans Administration (VA) loans is not required under the HMDA. VA loans may constitute a substantial proportion of the FHA activity. In the case of Oklahoma City, the presence of a military installation, Tinker Air Force Base, influences the reliability of the FHA statistics as a signal of neighborhood change. For this reason, the data used here are defined as government-insured loan activity and includes both FHA and VA loans. Thus, the distribution of government-insured loans by census tracts was examined for Oklahoma City and the surrounding municipalities (Map 10).

Government-insured loans were unevenly distributed over the metropolitan area. FHA and VA loan data was available for only 76 census tracts, 15 census tracts, or 9.0 percent, received no government-insured loans. Thirty-six census tracts, or 21.6%, had less than 10 percent of their mortgages insured through the government, bringing to 30.5 percent of the census tracts with 10 percent or less government-insured mortgages. Of the remaining census tracts, 25 census tracts received over 50 percent government-insured loans.

⁶Government-insured mortgage activity increased from a meager 1.3 percent of the total dollars loaned in 1976 to 14.0 percent by the end of 1979. During the same period, home improvement loans experienced a gradual increment to 5.7 percent from 5.0 percent. The small percentage of loans allocated to home improvement is not sufficient to warrant separate analysis. A tentative analysis reveals that those census tracts with the largest amount of these loans are found in the Heritage Hills Historic Preservation District in Oklahoma City and throughout the suburban census tracts.

MAP 10:

Oklahoma City Urbanized Area
**RECIPIENTS OF GOVERNMENT ISSUED
MORTGAGED LOANS**
1976-1979



Source: Federal Home Loan Mortgage Disclosure Act.

1970 CENSUS TRACTS

Comparatively, in the central city only eight census tracts, or 13.8 percent, did not receive a government-insured loan, while nine census tracts, held a similar status in the suburban areas. Of the census tracts receiving over 50 percent government-insured loans, 20.7 percent are located in Oklahoma City. This compares to 11.9 percent in the suburban areas. Only 12.1 percent of the inner city tracts received less than 10 percent government-insured mortgages, compared to 26.6 percent in the suburban localities.

Recipients of government-insured mortgages (Map 10) are situated in Oklahoma City and the census tracts immediately adjacent to Oklahoma City in the northeastern, eastern, and southwestern sectors of the metropolitan area. The census tracts receiving the largest percentage of government assistance are found in those census tracts located nearest the CBD of Oklahoma City. There is virtually no government-insured activity in the northwestern sector of the Oklahoma City metropolitan area.

An Analysis of Mortgage Lending Patterns

Many agencies and groups involved with the problem of disinvestment use a dollars loaned per capita index as a measure of mortgage deficiency. Some agencies define census tracts as mortgage deficient areas where new mortgage lending was below \$250 per capita or roughly 50 percent of the average dollars loaned per capita. To pinpoint disinvestment, a more sensitive criterion is needed because many areas have few mortgages because they are predominantly industrial or commercial in character. Furthermore, the use of dollars loaned biases the index against cheap housing areas. This is especially noteworthy in older neighborhoods with lower housing

valuations and low loan-to-value ratios (Richardson and Gordon, 1979).

Writing on the critical defects of a dollars loaned per capita index, Richardson and Gordon (1979, pp. 26-27) remark:

...First, it does not adjust for the variation in the number of households among census tracts, which makes it especially vulnerable when land uses are predominantly non-residential. Secondly, it takes no account of the housing tenure distribution, i.e., variations in the relative share of owner-occupied and rented dwelling units. Many residential census tracts contain mainly apartments, so that a single family dwelling loans per capita index might indicate mortgage deficiency where none was present. Most serious of all, the loans per capita index does not standardize for differences in demand conditions among census tracts. It is well known that income is the most powerful determinant of housing demand, while per capita income levels differ widely among census tracts. The inclusion of income effects recognizes that it is effective demand which counts in measuring the demand for owner-occupied houses.

The demand for home loans will be lower in low-income neighborhoods, while household incomes will be lower among households with minority, aged or female heads. The absence of loans in a poor minority area might be evidence of disinvestment, but an alternative explanation may be simply the absence of creditworthy loan applications. The two factors may operate simultaneously. It is important to separate out their individual effects.

Richardson and Gordon (1979) argue that indices of mortgage deficiency, such as total dollars loaned per capita, are suspect because they fail to take account of variations in effective demand, the product of poverty and economic inequality. They propose a mortgage deficiency index which is designed to identify the significant determinants of metropolitan census tract variation in total mortgage dollars loaned for Los Angeles. Formally, this is defined as follows:

$$\text{MDI} = \frac{\text{Total \$ loaned}}{\text{Number of households} \times \text{median family income} \times \text{percentage of households in owner occupancy.}}$$

The lower income areas in Oklahoma City itself and adjoining southeastern sectors of the metropolitan area suggest that these areas might be possible locations of disinvestment. In these areas it is hypothesized that there should be a direct relationship between the variables listed above and total dollars loaned in mortgages. To determine if such a direct relationship exists the Richardson and Gordon Mortgage Deficiency Index was applied to discover how responsive mortgage lending is to income, the number of households, and owner occupancy. The regression coefficients, when interpreted as elasticities, would indicate which variables are significant determinants of variations in total dollars loaned.

Subsequently, the MDI was tested and mapped for the Oklahoma City metropolitan area. By contrast with the Los Angeles study, the three denominator variables (income, the number of households, and the owner occupancy share) were also regressed against dollars loaned at two levels: the metropolitan area and the intra-metropolitan level.⁷

At the metropolitan level, the degree of association between the variables constituting the Mortgage Deficiency Index are determined by performing a regression analysis. The results of this analysis, summarized in Table 7, indicate that:

1. mortgage lending in census tracts is primarily responsive to income, but the degree of responsiveness declines between 1976 and 1979;
2. owner occupancy is negatively related to mortgage lending, and;

⁷The intra-metropolitan level is separated into the Oklahoma City census tracts and the census tracts of the suburban municipalities, excluding Norman.

TABLE 7

RESULTS OF REGRESSION ANALYSIS FOR THE METROPOLITAN AREA¹

Year	Income	Number of Households	Owner Occupancy	R ²	F-Value
1976	+7.26	+0.38	-1.36	0.43	21.85
1977	+6.81	+0.55	-1.07	0.45	23.55
1978	+4.70	+0.45	-0.68	0.31	13.03
1979	+3.43	+0.37	-0.53	0.25	9.73

NOTES: N = 125 census tracts, DF = 3.

¹Analysis computed by Statistical Analysis System (SAS) General Linear Model (GLM) procedures.

3. the explanatory power of these variables declines significantly during the study period.

The Intra-Metropolitan Level

Metropolitan Oklahoma City was then divided into a central city-suburban dichotomy by disaggregating the census tracts into two groups: Oklahoma City itself and the suburbs (See Figure 1).⁸ This spatial division is used here for three reasons: first, it corresponds to existing jurisdictional divisions, particularly for urban policy and planning matters; second, the dichotomy approximates, crudely perhaps, the bifurcation between the central city and suburbs discussed frequently in the urban literature and implicit in the definition of urban disinvestment; and third, because this

⁸The dichotomy applied here between older urban and newer suburban communities for metropolitan Oklahoma City may not reflect completely the dichotomy as conceived in the literature. The large size of the city itself has forced those working in a planning-information capacity in the city to

study is interested in determining to what extent differential locational comparative advantages are operating to influence the spatial pattern of mortgage lending.

A correlation analysis was performed to discover if there are any differences in the degree of association between mortgage lending and the level of household income, home ownership, and the number of owner occupied households within and between the central city and suburban census tracts (Table 8). The results suggest that:

1. mortgage lending is associated positively with all three

TABLE 8

RESULTS OF CORRELATION ANALYSIS FOR CENTRAL CITY
AND SUBURBAN CENSUS TRACTS, 1976-1979¹

Location	Total Dollars			
	1976	1977	1978	1979
<u>Central City</u>				
Income	+0.56	+0.70	+0.60	+0.62
Owner occupancy	+0.32	+0.39	+0.50	+0.44
Number of households	+0.14	+0.27	+0.50	+0.69
N = 51				
<u>Suburbs</u>				
Income	+0.42	+0.36	+0.32	+0.18
Owner occupancy	-0.08	-0.07	-0.11	+0.13
Number of households	-0.07	-0.00	+0.04	+0.10
N = 74				

¹All correlations are with total dollars loaned by census tract.

advance a typology which correlates with the dichotomy employed in this analysis.

variables in the central city more so than the suburbs; and

2. in the suburbs mortgage lending is negatively correlated with owner occupancy and the number of households (for the years 1976 to 1978).

A regression analysis was then performed to determine the extent to which the variables are related (Table 9). The results vary somewhat from those obtained at the metropolitan level. They show that:

1. mortgage lending is responsive to income in the central city and the suburbs but only in 1976 and 1977;

2. the number of households variable offers little explanatory significance in the central city (perhaps due to an increase in multi-family units), yet it remains important in the suburbs;

3. the variable of owner occupancy is related negatively to total dollars loaned in the central city and suburbs for 1976 and 1977; but it is related negatively in the suburbs for 1978 and 1979; and

4. in the central city the amount of variation accounted for by these variables is greatest with income being the most significant factor, while in the suburbs all three variables are significant, but the amount of variation explained declines over time.

The results derived from the Mortgage Deficiency Index were then plotted by census tract for the years 1976 to 1979. Maps 11 to 14 present the spatial pattern associated with the areas of mortgage deficiency. This pattern indicates that:

1. the census tracts deficient in residential mortgage money are situated in the older urban core of the city directly north and south of the

TABLE 9

RESULTS OF MULTIPLE REGRESSION ANALYSIS AT THE INTRA-METROPOLITAN LEVEL FOR CENTRAL CITY AND SUBURBAN CENSUS TRACTS BY TOTAL DOLLARS LOANED¹

Year	Income	Number of Households	Owner Occupancy	R ²	F-Value	PR >F
<u>Central City Census Tracts</u>						
1976	+8.8*	+0.18	-1.38*	0.49	6.52	0.003
	pr > t = (0.0005)		pr > t = (0.71)	pr > t = (0.09)		
1977	+7.2*	+0.62	-0.70	0.48	6.24	0.004
	pr > t = (0.002)		pr > t = (0.20)	pr > t = (0.35)		
1978	+3.5*	+0.54	+0.85	0.50	6.83	0.002
	pr > t = (0.07)		pr > t = (0.22)	pr > t = (0.22)		
1979	+3.05*	+0.68*	+0.49	0.48	6.32	0.003
	pr > t = (0.07)		pr > t = (0.07)	pr > t = (0.40)		
<u>Suburban Census Tracts</u>						
1976	+6.6*	+0.37*	-1.34*	0.32	9.6	0.001
	pr > t = (0.0001)		pr > t = (0.06)	pr > t = (0.001)		
1977	+5.5*	+0.50*	-1.03*	0.30	8.93	0.001
	pr > t = (0.0001)		pr > t = (0.003)	pr > t = (0.004)		
1978	+3.8*	+0.40*	-0.87*	0.21	5.62	0.001
	pr > t = (0.0002)		pr > t = (0.009)	pr > t = (0.006)		
1979	+2.5*	+0.30*	-0.65*	0.15	3.84	0.01
	pr > t = (0.003)		pr > t = (0.02)	pr > t = (0.01)		

NOTES: Central City Census Tracts: N = 23 census tracts; DF = 3.
Suburban Census Tracts: N = 65 census tracts; DF = 3.

¹Analysis computed by using Statistical Analysis System GLM package. Values in parentheses are probabilities that the coefficients equal zero. Coefficients marked with * are significant at the .90 level.

CBD;

2. located in the newer suburban census tracts almost in a complete circle around the older core areas are found mortgage deficient census tracts;

3. those census tracts which are experiencing a reasonably high level of mortgage lending activity are located in the northwestern sector on the boundary of the metropolitan area;

4. during 1976 and 1979 there was an area within the older urban core adjacent to the CBD which increased in size and apparently experienced an increase in the level of mortgage activity.

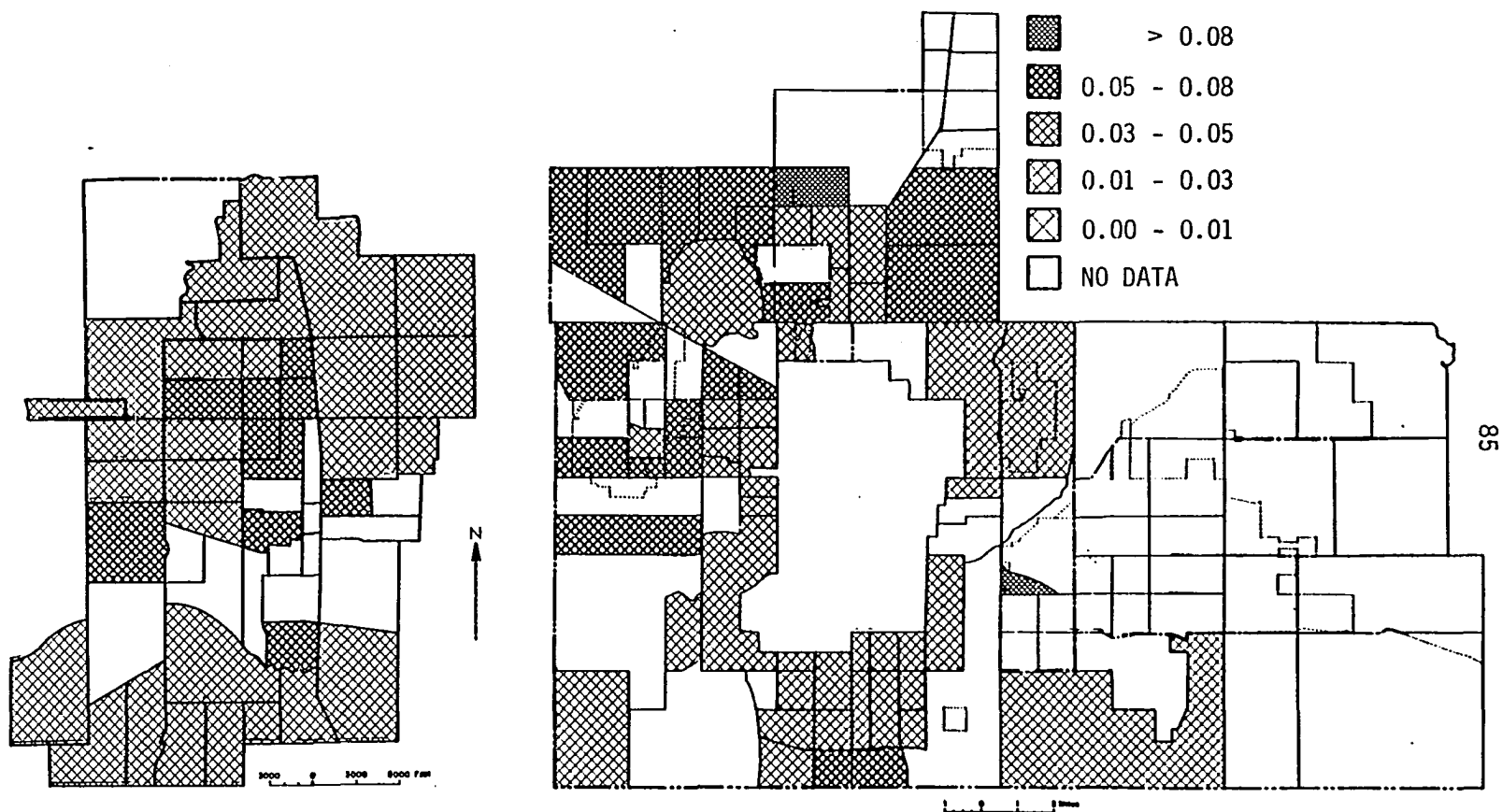
Discussion and Summary

If permitted to conceive of mortgage deficient areas as indicators of disinvestment, then the spatial analysis suggests that:

1. disinvestment is extending beyond the older urban part of Oklahoma City into the newer suburban municipalities of metropolitan Oklahoma City;

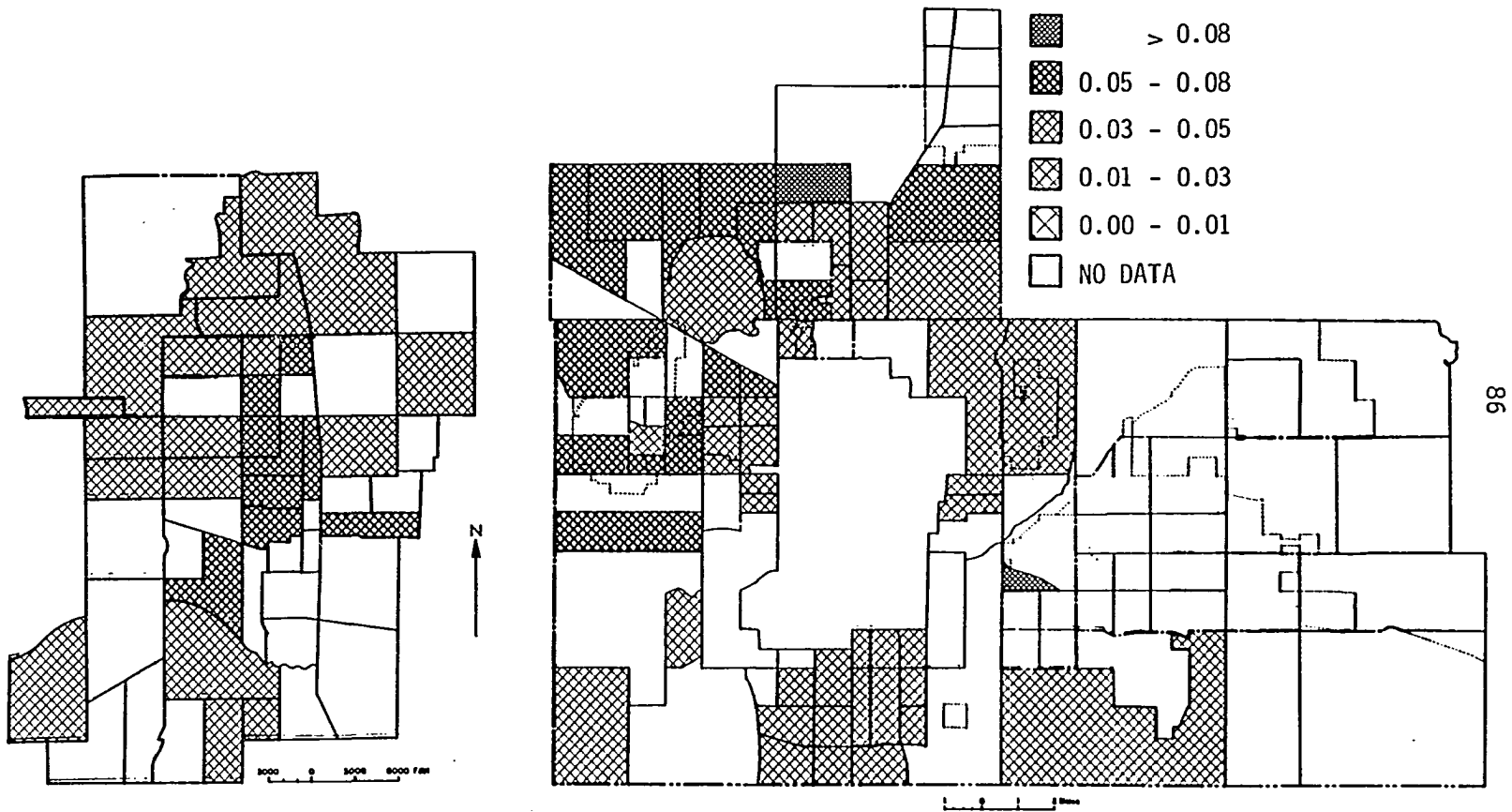
2. within Oklahoma City itself, there is developing an area to the northwest of the CBD, and another in southern Oklahoma City, which, over time, has increased in size while also experiencing what seems to be an increased level of mortgage lending activity;

3. while statistically lending activity is, in general, more responsive to central city rather than suburban income levels, when the areas of mortgage deficiency are mapped, the locational pattern tends to suggest that there are other factors operating to influence institutional decisions regarding who are mortgage loan recipients, and



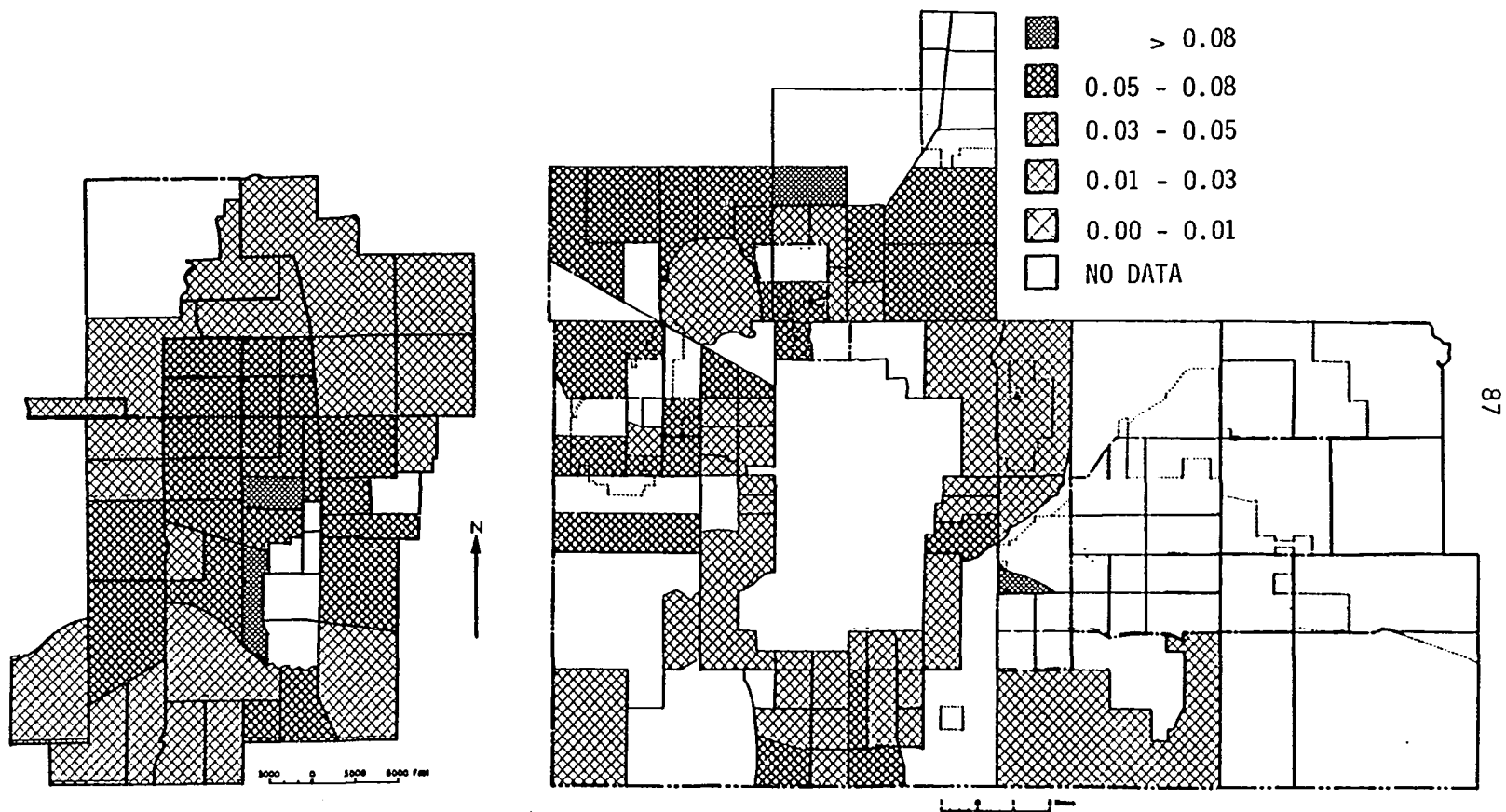
MAP 11:

MORTGAGE DEFICIENCY INDEX FOR THE OKLAHOMA CITY URBANIZED AREA, 1976 (LOGARITHMIC TRANSFORMATION)



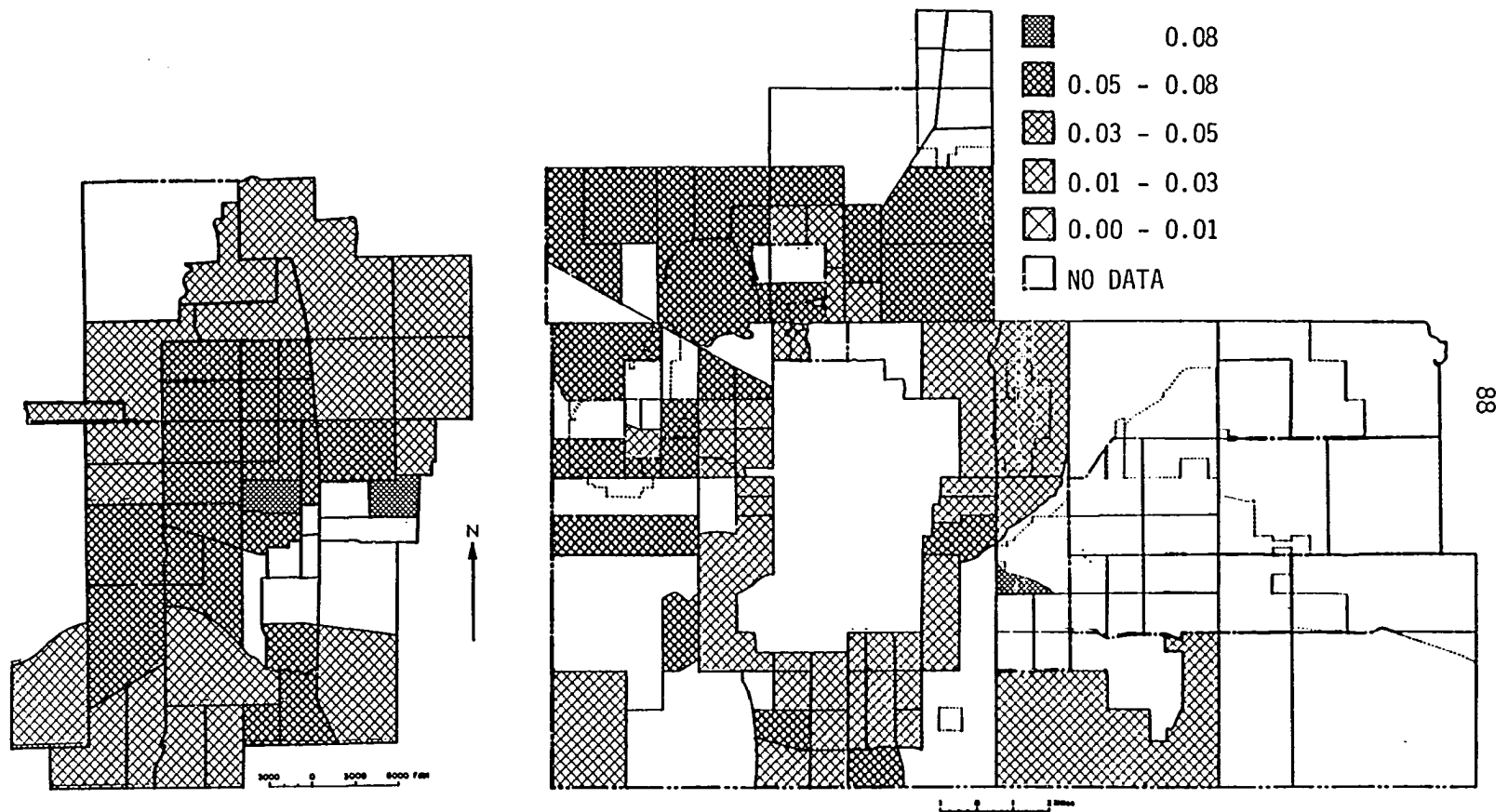
MAP 12:

MORTGAGE DEFICIENCY INDEX FOR OKLAHOMA CITY URBANIZED AREA, 1977 (LOGARITHMIC TRANSFORMATION)



MAP 13:

MORTGAGE DEFICIENCY INDEX FOR THE OKLAHOMA CITY URBANIZED AREA, 1978 (LOGARITHMIC TRANSFORMATION)



MAP 14:

MORTGAGE DEFICIENCY INDEX FOR THE OKLAHOMA CITY URBANIZED AREA, 1979 (LOGARITHMIC TRANSFORMATION)

4. within metropolitan Oklahoma City lending officials favor both new suburban communities and a few selected older, inner city neighborhoods.

The public and private dimensions deserve some consideration. At present, Oklahoma City is encouraging the formation of neighborhood preservation districts, like Heritage Hills, which may influence further the direction and spread of revitalization. The analysis provided here in suggesting that disinvestment extends into the newer suburban communities raises the possibility that the newer suburban communities may, if they do not already, desire the enactment of similar legislation, for their municipalities in order to attract greater amounts of mortgage funds. Whether or not this occurs remains to be seen. The implementation of policies, like neighborhood preservation, probably will encourage lending institutions to participate in the revitalization of older urban neighborhoods. Indirectly this political action may be influential as a determinant of mortgage lending activity, and subsequently a factor responsible for the spatial pattern of investment and disinvestment.

Currently, savings and loan associations as well as other lending institutions are expanding their market areas to acquire new suburban deposits while they are also continuing to acquire central city deposits. Principally the geographical pattern indicates those areas which lenders might consider for future investment. Indirectly the results could also be of assistance in the decision of where to locate new savings and loan and bank branch offices. In all likelihood different land use activities in different newer suburban communities as well as within the older, urban areas of Oklahoma City are in competition for mortgage funds.

The analysis of the spatial pattern of metropolitan Oklahoma City mortgage lending extends the research of earlier studies demonstrating that the MDI is a useful indicator of the spatial pattern of disinvestment. In turn, this spatial pattern may be indicative of other determinants of redlining. Some simple spatial (and temporal) associations founded on the disclosure data and census data are not sufficient to assess the impact of redlining.⁹ Further analysis is required to identify the pattern of actual discrimination, to differentiate actual from perceived risk, and to discern the degree to which lending policies are either the result, or the cause, of redlining.

Aware of the tentative nature of these findings, it is beneficial to locate the analysis of mortgage lending activity and redlining within a wider theoretical framework than is provided by the literature reviewed in Chapter II. This would also assist in the delineation of data and applicable techniques necessary to provide a more comprehensive assessment of the redlining phenomenon, its determinants, and its impact on metropolitan economic growth, neighborhood change, and land use development.

⁹Future analyses must investigate the urban-suburban dichotomy and propose a scientific typology which correlates with that proposed in the literature. The large land area of Oklahoma City itself has made it necessary to apply a dichotomy which is comparable to what is used in the urban science literature. A more complex typology may be more applicable depending on the nature of the research. Certainly some effort is required to establish a typology for urban areas which can be used in a more general fashion to unite theory with practice. In this sense, the spatial delineation of an urban-suburban dichotomy does not fit many relatively young cities like Oklahoma City.

THE FORM OF THE PROCESS OF RESIDENTIAL
DISINVESTMENT: TOWARDS A CRITICAL
GEOGRAPHIC MODEL

CHAPTER IV

Introduction

The Oklahoma City study presented in Chapter III provides a description of the pattern of home mortgage lending in one metropolitan area. What is observable and directly related to land does not fully explain this pattern. The spatial pattern entails a number of unobservable processes and phenomena as well. The traditional literature reviewed in Chapter II provides some partial explanations for the observable features. The critical perspective which is described and applied in this chapter offers some insight into the unobservable aspects of the spatial pattern and the processes underlying it.

During the past decade there has developed a body of critical social theory. The Marxist literature on the political economy is only one component of this research. A second approach emphasizes the institutional forces which influence spatial form and process. Each perspective provides a unique theoretical interpretation of the existing social, economic and political empirical evidence. An apparent convergence of objectives occurs

with efforts to show how the social milieu influences personal activities through institutions and the reification of social values as personal motivational forces. Such may be the case with the value of homeownership.

The critical perspective is especially profound for those issues where the use of private and public sector funds is a sensitive political and economic concern. Efforts to explain the spatial pattern associated with mortgage lending in the Oklahoma City metropolitan area falls in this public-private sphere. To date, no cogent critical theory of housing-finance, disinvestment, or the connections between them is available. In this chapter, the focus of attention is the case of ascertaining what concepts and relationships are important, and how these might be tested empirically in the future.

Frequently the literature is confusing in part because of a different vocabulary. There is, however, another reason. Critical theory is not only interested in the observable and quantitative aspects of reality. Concern is to understand the form of behavioral processes, or how and why behaviors change. To help clarify matters, some frequently used concepts are defined in the first section. Section two summarizes the critical perspective on housing and finance. The third section proposes some connections between the form of the housing-finance process and disinvestment behavior. The final section examines the methodological implications of the proposed conceptual structure.

Some Preliminary Concepts and Definitions

The description of the housing finance process and the geographical nature of disinvestment behavior, proposed in the following section

is built on certain concepts and a particular view of reality. Some comment on these two aspects of critical reasoning as applied in the proposal is in order.

An essential concept is the dual form of value which distinguishes a use from an exchange value (Harvey, 1973). For instance, a house possesses simultaneously a use value as a place in which to live and an exchange value as a commodity that can be traded, directly or indirectly, for other commodities (Rhind and Hudson, 1980).¹

The dual value form, though, is hardly novel. Economists have drawn the distinction between use and exchange value. Traditionally they do not apply it to distinguish between products and commodities,² or use it

¹Value theory in classical economics is formulated for two reasons. One purpose is to show that not all goods which possess a use-value command an exchange-value. The latter are determined by the ratio of a product to money price, rather than by the relative ease by which it can be produced. Wealth then is measured in terms of availability (i.e., quantity) and accessibility (i.e., distance) to the most valued products. The rate of capital accumulation is dependent, however, on the quantity of income expended toward producing more goods, or on other, non-productive (i.e., non-commodity) uses (e.g., land, home).

A second objective is to link the question of who receives income with how expenditures are made to demonstrate the interdependent nature of value, capital accumulation, and distribution. Prices are derived from labor, land, and capital inputs. But there is ambiguity over the extent to which labor is the measure, or the cause (i.e., source) of value. Depending on which of these two possibilities is chosen, the meaning of profit is interpreted differently.

²There is an important distinction which must be made here between the concepts of product and commodity. All economies produce products; only in capitalism do products take the form of commodities. Commodities are produced mainly, if not entirely, for exchange. Both products and commodities have use value; only commodities have exchange values. In a subsistence economy, producers produce for their own consumption. In capitalism, all production is for exchange. Products embody different kinds of labor, for example, the specific labor of a tailor, or a carpenter. When they are exchanged as commodities, relative value ratios are established which make these separate products freely transformable into one another. A coat becomes a table which becomes a machine, since they all exchange at determinate ratios. The specific labor (and workmanship) is stripped away, and

to derive locational rent.³ Nor are they interested with what is occurring implicitly within the production and consumption of commodities represented by the translation of use values into exchange values.⁴

ratios are determined in relation to an abstract of undifferentiated labor. What determines the ratio is the amount of socially necessary labor time required to produce one commodity relative to another (Desai, 1980). The commodity is the direct unity of use value and exchange value and at the same time it is a commodity only in relation to other commodities. The exchange process of commodities, is the real relation that exists between them. This is the social process which is carried on by individuals independently of one another, but they take part in it only as commodity owners (Marx, 1859, pp. 41-43, cited in Harvey, 1973).

³Marx viewed rent as contingent upon mode of production or society (Scott, 1980). A capitalist society is divided into two classes: the capitalist class, who own the means of production, and the working class, who own their labor power, their capacity to work. The latter sell their labor to obtain the necessities of life. Over time, the exchange aids the process of production giving rise to a surplus value which is greater than the initial input of labor. The production owners not only recoup the capital advanced to initiate production and pay for labor but also a surplus value, the difference between the value advanced originally and that resulting at the end of a production period. This surplus can then be distributed in the form of profits, dividends, rents, and so on (Rhind and Hudson, 1980).

Rent is one economic form in which property is realized. A capitalist society needs property because otherwise there could not be private ownership of the means of production. Any tax on production, like locational rent, is a portion of surplus value which is paid in order to maintain a legal right to own land. At this juncture it is useful to consider different categories of rent which could arise in a capitalist mode of production: differential rent, monopoly rent, and absolute rent (see Walker, 1974).

First, there is differential rent. This arises simply from the difference between an individual firm's production price for a commodity and the general production price of that commodity in a given sphere of production. Differential rent cannot enter into the price of production or consumption because it is part of the excess profits which accrue to certain producers because of their location. These can be claimed by landowners in the form of rent (Rhind and Hudson, 1980). Harvey (1973, p. 181) summarizes thus:

"differential rent takes on its meaning in a relative space which is structured by differentials in productive capacity at different locations and which is integrated spatially through transport cost relations. Differential rent, it seems, cannot be conceptualized without projecting a relative space. But differential rent is created...through the operation of the capitalist mode of production in the

context of the institution of private property."

Monopoly rent arise when it is possible to charge a monopoly price for a commodity; that is, a price independent of either the price of production or the value of the commodity. Harvey argues that such rents arise only through substantial imperfections in spatial competition.

Absolute rent is distinguished from monopoly rent in that, of itself, it gives rise to a monopoly price in contrast to an independently determined monopoly price arising from conditions of monopoly within a sector of production. One necessary condition for the existence of absolute rent is some barrier to the over-all equalization of the rate of profit between sector (e.g., legislative restrictions, the guarantee of a minimal return or fair market value before landowners will sell their land) (Rhind and Hudson, 1980).

⁴Three alterations are noteworthy. First, there is the manner by which a use value for one person becomes a use value for another:

...The commodity is a use value, but as a commodity it is not a use value. It would not be a commodity if it were a use value for its owners, that is, a direct means of satisfaction of his own needs. For its owner it is on the contrary a non-use value, that is merely a physical depository of exchange value or simply a means of exchange. Use value is an active carrier of exchange value for its owner only in so far as it is an exchange value. The commodity therefore has still to become an exchange value...a use value for others. Since it is not a use value to its owner, it must be a use value to other owners of commodities. If this is not the case, then the labour expended on it was useless labour and the result accordingly is not a commodity (Marx, 1859, pp. 41-43, cited in Harvey, 1973).

Second, to acquire a use value there must exist a specific need which requires a mutual exchange among individuals. As Harvey (citing Marx, 1859, pp. 41-43) notes:

the use values of commodities become use values by a mutual exchange of places: they pass from the hands of those for whom they were a means of exchange into the hands of those for whom they serve as consumer goods. Only as a result of the universal alienation of commodities does the labour contained in them become useful labour.... To become use-values commodities must be altogether alienated; they must enter into the exchange process; exchange however is concerned merely with their aspect as exchange values. Hence only by being realized as exchange values can they be realized as use values....

Third, this reduction of products to a general value formula hides an historical process which:

...converts craftsmen into the proletariat divorced from their means of production.... The process of division of

A Marxian derivation of the dual value form is situated, theoretically within a conception of the capitalist mode of production or society. Society is an unobservable historical construct that is endowed with physical properties. It can progress temporally, and have spatial expression because of some central economic process (Scott, 1980). The internal logic of this process is determined by a set of interrelationships, giving society an appearance similar to a closed system, reproducing in a self-determinate way the condition of its own existence and dissolution. Comparatively, individuals interact in a variety of ways, but always with the objectives of production and reproduction of their own physical being as well as that of society. In this way the production and consumption of the material necessities of life constitutes a social process distinguishable by the division of society into nonlaborers and laborers.

The term accumulation refers to how a society creates, expands, and distributes its means of economic and social well-being. The idea goes beyond its normal usage in economics because it incorporates consumption patterns (e.g., neighborhood, public facilities), the occupational order, the organization of work, and other social phenomena. By definition, process of accumulation assumes the existence of some form of society in which individual and socioeconomic values (e.g., particularly profit maximization) occupy a place of prominence.

Finally, there is the neighborhood community. Slightly more difficult to define because common language applies the phrase differently.

labor reduces a particular man to a particular operation. ...Skill is reduced to common, homogeneous, undifferentiated labor, the only thing that commonly characterizes specific types of labor is that it is human labor (Desai, 1980, p. 36).

Nonetheless, here it refers to the interpersonal social, economic and political bonds people build with one another. It can exist mentally in an a priori way; but physically it is something which is slowly created over time, and may wax, wane, or be absent altogether. A sense of neighborhood community grows stronger as it is built up over time and is measured in terms of such features as kinship, residence in the same neighborhood, and shared occupation.

A Perspective on Critical Reasoning

A focal point for critical reasoning is the form of the behavioral processes underlying a spatial form. In this connection, a fundamental issue is the concept of process or movement itself, the differences and similarities among forms and processes, and how they are observed and measured. As applied here, movement is cyclical or wave-like, in form.

Critical literature suggests that there are observable linkages between the cycles of housing construction and finance, as well as residential land use development, (Whitehand, 1977; Walker, 1981; Parkes and Thrift, 1980). Efforts to model the cyclical and dynamic aspects of these linkages have not been too plentiful. One proposed structure is the wave-stage model which is not yet operational (Walker, 1981).⁵ Traditional statistical

⁵The theoretical exposition of the stages of urban development included within a wave/stage model is instructive. Documented elsewhere it charts the interaction of two general sets of forces - decentralization and concentration and the choices of two sets of actors - consumers-suppliers (Walker, 1981; Gordon, 1980).

Cities have concentrated both kinds of forces and they have proven useful (if not always successful) in containing their volatile interactions (Mollenkopf, 1981). On the other hand, cities concentrate the capital, workers, production technology, and marketing organization. These agglomerations necessitate the creation of accessible residential concentrations (Castells, 1977). On the other hand, the participants for whom these processes were paramount sought to develop a sense of neighborhood community

analyses have been applied with some success but usually only when measuring continuous phenomena (Wilson, 1981; Mishan, 1980; Wilson, 1980).⁶

One of the major contributing factors for this relatively low level of success is the absence of a dynamic theory of behavior. Efforts designed to address residential disinvestment behavior must devise an appropriate dynamic theory of behavioral process that defines different types of behavior, and accounts for the form of the behavioral process(es) which produce a spatial form.

Since there may be many behavioral processes operating, critical theory's concern is to differentiate the mechanism which prescribes the observable spatial form. Implicit in the critical analysis of space and time is the argument of discontinuous or recurrent form. For example, there are housing and neighborhood communities which appear to jump over industrial and commercial land uses, and by contrast, industrial and commercial land uses that displace residential land uses. In addition, there are social problems like poverty which are recurrent historically.

Traditional urban theory argues that the question of discontinuity is often simply an aspect of disequilibrium. The amount of time involved,

among the people and themselves; but this is founded a commitment to the prevailing rule of profit-maximization.

⁶The typical mode of analysis is the comparison of static states, especially by economists, or the comparison of stationary ergodic states, especially by geographers (Wilson, 1980). Such comparisons suggest tendencies for movement "toward" a solution over "time" (i.e., equilibrium). This methodology is, however, quite distinct from a truly dynamic analysis. The techniques of comparative statics contrast a set of initial and final conditions; but these make no pretense of considering, nor can they be made to show, how these conditions come into being or can be achieved. In this respect, the inherently dynamic nature of the phenomenon to be explained is abstracted from the urban reality; and while other critical analyses endorse an historical perspective, this only serves to enhance the actual situation as it is (historically, socially, and economically) determined by the past.

however, is a crucial factor: how much time is necessary to re-establish an equilibrium? (Scott, 1980). In attacking traditional urban analyses, the critical perspective argues discontinuity reflects a type of social stability which is the rule rather than the exception. A basic proposition is that over time behavioral process(es) possess an invariant form which produces a discontinuous or wave-like spatial form on the urban landscape. Supplementing the recurrent spatial form hypothesis is the proposition that the observable spatial form of the processes of land use development (e.g., industrial, commercial, and residential) possess similar qualitative features because of the presence of one complex, organized social structure. In turn, this social form is manifested through a unique arrangement of economic and political institutions, behaviors and practices or policies.

In the next section, a conscious effort is made to provide a theoretical framework. This conceptual structure, however, is designed to explain how recurrent spatial forms with similar qualitative features could emerge on the urban landscape even though there may be a wide range of environmental conditions with a considerable quantitative (e.g., size, distance, magnitude) variation.

Housing and Finance: A Critical Perspective

Under traditional analyses the price of housing is determined primarily by the structure of the housing market forces, which includes not only the retail market for homes and apartments but also much of the land market, the construction industry, the materials industry, and finance capital. When housing and neighborhood community are viewed as a necessity and a commodity (Segal, 1979; Hughes, 1980; Michelson, 1980; Agnew, 1981), their value is influenced by both people's ability and willingness to pay.

In turn, this affects the profit expectations of the various housing and mortgage suppliers. For instance, if the price of existing housing is much lower than the cost of producing new housing, it will not be profitable to produce new housing. Indeed, it may not be profitable to keep some existing housing on the market. The shortage may force some people to share and may eventually drive the price of existing housing closer to the cost of producing new housing (Stone, 1980).

Rising housing costs and limited incomes have a depressing effect on the local housing and mortgage markets, while also exerting an upward pressure on wages and inflation.⁷ Businessmen in the housing and finance markets may appear indifferent as to whether the price of housing and mortgage money leaves households with enough income to pay for other necessities; but they do want buyers who are able and willing to pay their price (Slawson, 1981). In turn, labor unions and non-union workers struggle for higher wages to afford the housing payments as well as other consumer items. The price of housing and mortgage money then enters into the determination of the level of wages, but in a contradictory way. The interests of some capitalists are advanced by higher wages, while the interests of other capitalists as employers are served by lower wages.

The relationship of housing costs to wages and living conditions appears no different from the cost of food, clothing, or other commodities. It might seem that there is no conflict between the requirements of the labor, mortgage and housing markets. For example, housing is itself a product of labor, the level of wages should simultaneously and consistently

⁷For a discussion of this point in terms of inflation, see Slawson (1981).

determine both the cost of producing housing and the level of income. In fact, housing possesses certain characteristics that distinguish it both individually and socio-economically from other commodities, and gives it a pivotal role in determining living standards. Probably it is these features which make it and finance inherently problematical. These possibilities are considered in turn.

An important property of housing is that since it is a bulky, immobile, and durable good it is rarely purchased in amounts other than a whole dwelling unit and usually it is used for a considerable period of time. In the short run, these characteristics make it extremely difficult for a family to alter the quantity, quality, or amount spent for housing. Increases in housing costs usually must be offset by reduction in other expenditures, rather than reductions or substitutions in housing consumption. For example, when property taxes rise, a family cannot readily give up their living room or switch to a cheaper brand of bathroom to offset the increase.

The cost of housing also affects the family's overall standard of social well-being through its determination of where a family can live. This relationship influences the physical quality of the housing people are able to obtain, the amount of dwelling space they have, and the type of neighborhood community in which they reside. The influence over locational choice implies that the amount a household can and will pay for housing affects both its physical and social accessibility to public facilities, social services, private sector employment as well as private goods and services.

Since housing is so durable, in an economy where housing is a commodity (i.e., produced for exchange and held for its value in exchange

rather than only as a useful product), it is generally bought and sold many times during its useful life. This means that at every point subsequent to its initial production and sale, the socio-economic (e.g., market) value of a residential structure is determined by its actual cost of production, financing and replacement cost adjusted for depreciation. In addition, its market value includes the value of the land, (i.e., the rent-generating potential of the particular location). At the time that housing is initially built, the value of the land amounts to a fraction of the total value created in producing the building. Subsequent to the initial production and sale of the housing, not only does the value of the land and home change considerably as the rent-producing potential of the location changes; but the value has an additional psychological-financial dimension (e.g., home as an investment). This point is discussed in the next section.

Slow conversion of housing has no special consequence by itself. Nonetheless, it is significant because this feature unites housing and finance. In turn this relationship provides one linkage between the individual and the finance sector. The actual costs for a particular home do not involve the direct payment of the sales price or market value to the seller in one lump sum. Instead incremental payments are made to the financiers over a certain period of time. On top of this incremental payment system, however, there is the payment of interest or profit--a form of rent --to the investors as well as property taxes and various maintenance expenses.

Over the last 50 years a principle strategy to assure housing availability is to promote long-term, fixed-rate, low down payment mortgage loans (Stone, 1980). The original intent was to alter the distribution of housing opportunities in two ways: 1) economically, by lessening the

monthly payments for a given size loan and reducing the personal savings needed to buy; and 2) politically, by promoting the illusion of ownership through the reality of debt. By so doing, stimulating the demand for houses and mortgages, which would then contribute to overall economic growth as well as benefit the construction and lending sectors.

The financial sector is in the business of making a profit; and because it is, it is not interested in making foolish investment decisions. These concerns must be underwritten by two further points: 1) they are not investing specifically with their own capital; rather, they are using consumer funds; and 2) money must always be moving if it is to generate more money.

Investment entails the commitment of resources to acquire further wealth and well-being. A central concern of investors is the best way to enhance wealth and well-being. A strategic approach to investing suggests a search for those investments (e.g., housing, securities, pension funds) where the investor is able to achieve a (locational) comparative advantage. One payoff to good investment analysis arises when the opportunity exists to achieve an above normal level of performance, profit or surplus value. In those markets and locations where the characteristics indicate a low probability of a superior performance level, the prospects are probably limited that a satisfactory payoff will arise, no matter how good is the analyses of investment opportunities.

Usually the thrifts finance housing construction, while banks are involved in other types of industrial and commercial construction activity. This situation is changing which makes their rate of participation in the housing money market variable and dependent upon the perceived profit

attractiveness of the construction alternatives(Business Week, 1981a).

In the mortgage market, there are two fundamental sources of mortgage origination: 1) those who originate them for the purpose of keeping them in their own investment portfolios and 2) those who originate them with the intention of selling them to other investors. This latter group views a mortgage as an investment security--just as some investors look upon bonds and stocks as marketable investment securities --except that they have a much narrower range of people and institutions to whom they can sell. The major portfolio investors are the thrifts. They are concerned mainly with the interest income they receive on money they have loaned and it must be adequate to pay interest on the savings they have received from the depositors as well as to cover their losses on bad loans, to pay the overhead, and leave a fair margin of profit.

A portfolio lender, strictly from the standpoint of business judgement, cannot ignore the quality of the assets underlying the loans. If the loans go bad and the assets are of poor quality, losses will be suffered. On the other hand, a lender who originates mortgages to sell them to other investors--as, for example, to an insurance company, pensions fund, commercial bank, or the Federal National Mortgage Association --may not be interested primarily in interest income on the loan. Most secondary market investors do not possess the means or the desire to become entangled with service problems like monthly mortgage collections, following up on the problem loans, and so on,because of the costs. A mortgage banker, confronted with the same kind of rising costs that have plagued other business concerns, may not be eager to make loans in

problem areas because of these servicing problems. It is advantageous then to secure loans which are of good quality and which cause few servicing problems.

Historically residential mortgage lending has been a rather localized and specialized business, involving investors who could directly evaluate and monitor both the properties and the borrowers. The intent of mortgage insurance, plus the gradual standardization of mortgages, was to open up the market by making mortgages more attractive and less risky to investors who might be far away from a property and to attract new investors into the mortgage markets.

Even though local thrift institutions, and now mortgage companies still originate the loans, they sell the mortgages to other investors--life insurance companies, pension funds, banks, or even thrift institutions in other parts of the country. The local lenders act as collectors of the monthly payments or conduits of mortgage capital moving money among various places and investors. Local originators of mortgages are trying to become less dependent on a borrower paying off a loan. Funds are attracted from more sources and directed to local areas with high demand.

These activities occur in the secondary mortgage markets and through the Federal Reserve System transactions in the Open Market. The larger private investors, like pension funds, continue to regard mortgages as too risky and unfamiliar, even more so with the new variable interest rates (Business Week, 1981a). Government-backed agencies then have become the primary investors in the secondary mortgage market. Now the effects of the recession are influencing the number of thrift institutions, even to the extent of closing some of them. What is important here is the gradual

movement of savings deposits away from these lending institutions to more profitable investments. Leaving variable quantities of money with which to work; and making the mortgage market a more uncertain environment.

The interplay of all finance institutions has two very important consequences: first, it augments the total demand for credit in the economy; and second, because residential finance is no longer a relatively separate, insulated and lucrative component of the finance system, the institutions influencing the competition for money and credit are difficult to discover (Stone, 1980).

The rapid and massive build-up of residential mortgage debt is an essential contributor to and component of economic growth; but it has grown considerably faster over the last century than the ability to repay it.⁸ While the growth of mortgage credit contributes to the growth and

⁸In the late 1970s, as corporate and government borrowing leveled off, residential debt accounted for an astounding 38 percent of the total increase in debt in the economy. The ratio of mortgage debt to disposable income, which had climbed from 27 percent in 1950 to 46 percent in 1960 and 48 percent in 1970, soared to 55 percent by 1975 and 61 percent in 1978. In the mid-1960s and again in 1975 more than one percent of all homeowners were 60 days or more behind on their mortgage payments. During the 1960s the number of mortgage foreclosures per year doubled from about 50,000 to about 100,000 and by 1975 had increased to over 140,000, which was about one-half of one percent of all mortgaged structures, most of them homes and apartment buildings. There was a high increase in the construction of conventional housing, subsidized housing, condominiums, resort and retirement communities. There was also a large amount of speculation in land and existing buildings, as rents and house prices spiraled upward. The changes in mortgage financing thus gave a substantial boost to the real growth of the economy and also to the unprecedented inflation and the overblown credit bubble. On the other hand, when government monetary policy has sought to contain inflation by reducing the supply of credit, the new mortgage institutions, especially the federally backed agencies, have only intensified competition for scarce credit, leading to even higher interest rates throughout the system. Higher interest rates not only added to inflation but also led to further withdrawals of savings deposits, as savers pursued the higher returns available elsewhere. Increased withdrawals from thrift institutions substantially offset the additional housing funds raised through the capital markets and so weakened a number of small local thrifts

profitability of the entire housing industry, increasing dependence on credit and the increase in competition for funds makes the production of new housing and the cost of a home purchase more sensitive to the supply and cost of mortgage money. High production costs and the absence of corporate giants with internal sources of funds to be used in the housing sector mean that more money is borrowed to finance the construction of new housing (Stone, 1980). Fluctuations in interest rates make it difficult to devise economically feasible housing projects and to obtain construction financing.⁹ Rising interest rates have tended to reduce the willingness of lenders to make construction loans because these loans (and the interest on them) are paid off through a long-term process that is dependent not only on when the housing is completed but when it is sold. In turn, mortgage loans must be

that they were saved only by being absorbed by large financial institutions. Attempts of mortgage lenders and housing developers to compete more effectively for funds during periods of economic contraction have not been fully successful, but they have contributed to higher housing costs, higher interest rates generally, and greater concentration in the mortgage industry (Stone, 1980).

⁹Until recently, savings and loan associations were required by law to put most of their money into housing, but they could adjust the mix between construction loans and long-term mortgages. Commercial banks have no such restrictions; construction loans have been extremely attractive to them when other short-term interest rates are low, but when corporations and the government have increased the competition for the funds of commercial banks, builders and developers have tended to get squeezed out because it is harder for them to pass on higher interest costs. This is partly because their heavy dependence on debt makes the cost of a new house much more dependent on the interest rate than is the price of a manufactured good or the budget of a government. Large corporations and governments can also easily pass on higher costs because they have more of a monopoly than housing developers. The lengthening of mortgage terms, intended to reduce the monthly cost of mortgage payments, has made the payments much more sensitive to interest rates. When interest rates double from five percent to 10 percent, the monthly payments on a ten-year loan increase by only 32 percent, but payments on a 20-year loan go up by 46 percent and on a 30-year loan by 64 percent.

repaid by residents out of their incomes. The increased sensitivity of housing to short-term and long-term interest rates have led to ups and downs in housing production; as interest rates have varied, the total supply of credit and housing's share of credit has also varied.¹⁰

The mortgage system, while it made substantial housing production possible during the postwar period, its annual instability has inundated construction industry leaving it permeated with small, labor-intensive firms that could easily enter and leave but which, for the most part, could never develop factory technology and achieve economies of scale. More significantly, a downward turn in the business cycle leads to local economic problems if the inability of buyers to obtain and afford long-term mortgages leaves developers with houses they could not sell and lenders with uncollectable construction loans.¹¹

¹⁰Many investors other than thrift institutions and small savers now have billions of dollars tied up with the mortgage system. In particular, large commercial banks--the linchpins of finance capital--became deeply enmeshed in direct construction loans, in loans to REITs, and in securities of federal and state housing credit agencies. The stability of the structure of residential debt is thus increasingly vital for the stability of the entire financial structure of capitalism. But the stability of the housing debt system depend upon continued mortgage payments from people in existing housing and affordable long-term mortgages for new housing being built with short-term construction loans. Since 1966, increasing competition for loans has caused a steady, long-term rise in the general level of interest rates on top of the short-term fluctuations. Periods of tight money have been increasingly severe, with interest rates soaring higher each time and housing credit being restricted ever more sharply. As interest rates on saving accounts have become less competitive, wealthier depositors have withdrawn savings to invest in more profitable instruments offered by commercial banks, the federal government, and industrial corporations. In addition to the problems of the thrift institutions, increased corporate borrowing left commercial banks with less inclination and ability to continue to make construction loans whenever credit was restricted and short-term interest rates rose.

¹¹As Stone (1980) illustrates some of the local problems that arise during these difficult period. For example, the real estate bubble of the early 1970s burst in 1973. Over the next three years increased mortgage defaults reflected the worst financial disaster since the early 1930s. Over-

The final element in the mortgage system is the increased vulnerability of those financial institutions that have specialized in long-term mortgages, savings and loan associations and mutual savings banks--the so-called thrift institutions. In the past, long-term, fixed interest rate mortgages offered lenders the same rate of return year after year regardless of what happened to interest rates since the loan was made. This was not a problem for diversified lenders, such as commercial banks, which did not have most of their funds tied up in such long-term loans. It would not be a problem for thrift institutions if they obtained their funds on a long-term, fixed interest rate basis. The potential difficulty arises because thrift institutions have obtained money almost entirely from savings accounts, which have been attractive investments for many people because they offer liquidity as well as security and geographical convenience. Those who want to be able to withdraw their funds quickly--small savers who must meet unexpected expenditures and wealthier savers in order to shift their money into more profitable investments--benefit from savings accounts.

building plus soaring development costs and rising interest rates resulted in a 40 percent drop in housing starts in 1973. With the addition of tight money and rising unemployment, housing construction plunged 40 percent more through 1974 and into 1975. Many developers who had begun projects before the collapse ran out of money before they finished. Lenders refused to provide more money because they now had little money to lend and because they knew that there would be no market for the housing even if the project were finished. The financial system did not, of course collapse. Many real estate developers went out of business and individual and institutional investors probably absorbed at least a billion dollars in losses from the assorted loan defaults, bankruptcies, and reorganizations. Many of the largest commercial banks offset some of their losses by forcing financially strapped city and state governments to refinance their own outstanding debts at extremely high interest rates. The governments, in turn, had to cut back on public services, thus forcing the mass of people into the position of indirectly paying for many of the losses associated with the financial collapse. The eventual recovery of the economy did restore the profitability of much of the foreclosed real estate, though in much reduced versions.

The Emergence of Urban Residential Disinvestment

Obviously not all the private institutions and linkages are identified above. The complex web of relationships among them may be documented partially in the literature on large business organizations. Another concern, however, are the public or government institutions, their practices or policies and their connection to private sector investment strategies. Over the years a public-private partnership has emerged to focus on the construction of urban infrastructure (Business Week, 1981; Bennett, 1980). In the American context, the pursuit of wealth from property is so significant, that it is surprising to note little by way of an analysis on the connection between the public and private aspects of housing and finance.

To begin with it is reasonable to expect a logic of conservatism toward housing, and a reason for the mutual defense of a neighborhood community. Simple risk avoidance generates a reinforcing conservatism. For example, financiers find it wiser to accept trends than to alter them and, intentionally or not, to channel people and capital into segregated residential districts. This is typically carried to the point where the institutions themselves become promoters of discrimination. There is more than lower risk to be had from residential differentiation. For one, it pays to promote it as a kind of commodity differentiation to increase sales. It also pays to promote mutually supportive land values in order to secure the maximum level of rent; property investors would be foolish to dilute such values by randomly mixing people. In addition, if people are sorting themselves out from the top down, suppliers have a parallel interest in helping the diligent rise to the top in their areas so it can be skimmed off. Finally, building large tracts of homogenous housing units helps to lower costs. For an

example, see Business Week, 1981.

Housing is the end result of a socioeconomic process. The quantity, quality, status, and form of housing result from the combination of four systems: the production of housing as a durable (i.e., fixed) commodity, the social-spatial distribution of this product, the distribution of people and their place in production, and the correspondence system between these two distribution systems (Castells, 1977). The finished product is purchased within the context of an ideological system wherein a house is exalted as of great significance and a symbol of status (Agnew, 1981). This tends to reinforce the value of housing as well as to give the ideological system material form in terms of a residential configuration. Viewed in this manner, the status of housing must be comprehended relative to the social processes which define its material form.

Buying a house is an expensive proposition for most people. In capitalist societies in order to obtain use values (including status values) one must command exchange values. A house takes on a value as a commodity; specifically, it acquires a potential source of profit because it is transformed into the form of built-up equity to become a source of financial security, Sternleib (1972, p. 39, cited Agnew, 1981) has made this point as follows:

For all but the most affluent in our society, a house is not only a home, it is typically a major repository of capital investment and stored equity. As an imaginative architect will testify, houses are purchased to be sold not to be lived in. Their ultimate sale represents the edge which makes Social Security and Old Age Pensions endurable.

Empirical research into the "house as an investment" is sparse and mainly American in focus. Available evidence, however, suggest that homeownership does not invariably entail treatment of the house as an investment

(Hughes, 1980; Agnew, 1981).

In an extensive study of house purchase decisions in several Californian communities Wertham et al. (1965) found that their informants held two concepts of investment. The first of these was making a profit and the second was protecting the equity. All respondents accepted the notion of their houses as investments in the second sense, and those buyers who were lower to middle income recipients tended to express interest in their houses as investments in the first sense. This reflects the greater possibilities for profit in the local settings in which the poorer respondents are concentrated (Wertham et al., 1965, p. 137, cited in Agnew, 1981). Perin (1977, cited in Agnew, 1981) in her study similarly notes the pervasiveness of an investment posture on the part of American homeowners.

The concept of a neighborhood community entails the social ideal of the projected and extended individual (Cox, 1981). It is analogous to a three-dimensional structure where the individual household and dwelling are seen as being projected onto neighbors, streets, local businesses, schools, and governmental institutions. Consequently, the ideal meaning of a neighborhood community is personalized and particularized placing it beyond a monetary value. For those experiencing it there can be no adequate substitutes.

The ideal meaning of a neighborhood community and its value derive in the first place from the people living there and from the mutually reinforcing ties of trust, friendship, sociability, and security. People are valued for their own sake and for the contribution they make to a place-bound community (Cox, 1981).

Interactions occur within the context of a specific place. Local buildings, parks, even landscape views, elicit responses which reflect their attachment to a localized community. Neighborhood as community is not only people; it is people relating to one another in the context of a specific place.

An ideal neighborhood economy should reflect these ties of reciprocity. Buying and selling are indelibly stained by considerations of neighborhood community. For example, a neighborhood storeowner is not only regarded as a merchant; he is also a member of the neighborhood community and expected to give credit to accepted members. Selling to someone who has neighborhood community ties is more important than getting the highest price; homes are bought by kin or children of existing members at a lower price than that which could be obtained in a metro-wide market. Local credit institutions feel a first obligation to the community rather than to maximizing profits.

There is no way in which the ideal neighborhood community can be understood except in relation to the social-historical values of capitalism. Social beliefs and values provide a necessary matrix of resources and the exigencies by which people relate to each other more as buyers and sellers and who compel the use of those resources in the construction of community. In addition, local social status, independent of occupational status, home ownership and income provides some insulation against the negative images imposed by antiurban factions. In this connection, the neighborhood community is perceived as a sanctuary offering some of the good rural life and protecting the individual from the harsh urban life. For example, it is a source of job market information, housing assistance, and a home-away-from-

home feeling that aids adaptation into a turbulent built environment (Cox, 1981).

To the extent that neighborhood functions as a haven, it is because the individual home functions as such. The way is then open for an alternative perspective. In short, there is a view of the neighborhood community as a commodity, access to which has been acquired by rent or home purchase. Economic exchange value becomes the critical standard. If the commodity should deteriorate in terms of its capacity to provide consumer satisfaction, then rights of access to it can be sold and rights of access to a more adequate substitute purchased elsewhere.¹²

The Form of the Public-Private Residential Land Use Partnership

The private-public partnership is one means of producing urban land and housing. It is expressed in terms of a relationship or contradiction between economic and political allocation processes, and private or individual decision-making (Scott, 1980). Consider the case of residential location.

The development of urban residential land represents a means of accumulation, which presupposes a relatively footloose free to choose consumer willing to cut neighborhood community ties and move to a new location. At the same time, the individual is expected to be concerned with property values and to be willing to protect their property and investments but also to liquidate at one point and invest elsewhere. In this view,

¹²The property value studies mentioned in Chapter II take this as a fundamental behavioral tenet. For example, they show that such resources as school quality, public safety, and quiet are indeed reflected in home values. This is a perspective which believes in commodifiability at least in principle (Cox, 1981; Scott, 1980). Moreover, it is a conception within which the normative ideas of externality, compensation, and formal cost-benefit analysis rest more comfortably.

neighborhoods are places where people move in and move out affected but not affected by any social or economic considerations.

To some degree this is accomplished by transforming neighborhood communities to make them progressively less place-bound. For example, the homogeneity of housing and neighborhood and the use of automobile and telecommunication devices facilitate the maintenance of long-distance ties with friends and relatives (Toffler, 1981). Further, mass education and the mass media tend to integrate and homogenize ideals or values so location is relatively insignificant. Social ties reinforcing a sense of neighborhood community occur more within status groups than between localized groupings. Simultaneously, there is a careful and sustained cultivation of the values of individualism, acquisitiveness, and occupational achievement (Cox, 1981). Careers come before friends. The neighborhood community, through a mechanism of appreciating-depreciating home values, becomes a stepping stone to higher levels of consumption elsewhere.

In a context of a convergence of social and individual values systems there is a drive to eliminate socio-spatial barriers by integrating 1) residential and social mobility and 2) the real estate market through intervening institutional forces to put place-bound communities at risk. For example, instead of arranging sales informally with friends-of-friends sellers seek to maximize prices through the services of a professional real estate broker or, at the very least, by advertising in the local newspaper (Palm, 1979; Cox, 1981). The local savings and loan institution reorients its competitive and interaction activities away from the immediate neighborhood and towards the metropolitan area and nation as a whole (Slawson, 1981). As community becomes separated from place, so the metropolitan housing and

finance markets become more integrated. People in the neighborhood are increasingly exposed to its vicissitudes and insecurities.

Through institutional practices like advertising, and policies favoring homeownership a vast new service market is opened which is enhanced by removing the barriers posed by place-boundedness and by, simultaneously, cultivating the individual as a consumer. Nevertheless, one effect of the interaction of these forces is that neighborhoods are made obsolescent, a process that is directly contrary to the logic of place as community (Cox, 1981). Financial decisions regarding mortgage loans reflect and intensify further this effect.

So far the reasoning suggests then that residentially-linked phenomena are more than the observed aggregate consequences of past and present individual and institutional decision-makers. Two problematic aspects are significant. The (ageographical) logic of supply and demand, and the principles of profit appropriation call for functionally efficient, centralized land use patterns; but the private ownership of urban land diffuses or decentralizes land use (Roweis and Scott, 1978). On the other hand, land use and land value allocations are not determined solely by individual competition in the housing-finance market. There is a reciprocal set of public forces (Slawson, 1981; Scott, 1980).

Contemporary government institutions occupy a sphere of collective action that operates to protect the individual and to minimize damaging conflicts among different levels of private interest (Scott, 1980; Dear and Clark, 1978). Conflict is most apparent on two levels. First, controversy occurs at the neighborhood level where housing and neighborhood change are directly observable. Second, beyond the neighborhood, there is a concern for

issues of taxation, employment, inflation and the funding of capital projects (i.e., facilities and improvements) and social services. Decisional outcomes have an effect on residents because the burden of provision is shifted to them.

An economic allocation process leads away from concentration and dispersion. A political allocation process is constantly transforming this process while it produces simultaneously, further decentralization due to the alterations it makes to the distribution of differential residential locational advantages.

Consider one case of urban public policy and planning: residential public policy-planning interventions are temporary measures designed as a reactive response to past and present circumstances. As a consequence of the inherently restricted legal scope of the political sector, each specific round of intervention sparks off new types of circumstances and pathologies (Scott, 1980). The ability to control legally the observable symptoms of these is permissible; but they can never explain and abolish the fundamental logic that produces them. Each time that researcher and legislators intervene to alter a given predicament, the whole urban investment structure is moved forward to a new time period and new stage of development where the structural complexity is burdened with predicaments that begin to manifest themselves and demand yet further rounds of intervention, carrying the urban system forward to still another more complex stage of development, and so on, in repetitive sequence (Scott, 1980).

It would be a mistake, however, to believe that the individual is mere machine responding to political and economic forces in a mechanical fashion. For example, selling a home in an area which is no longer fashionable

in order to buy in areas where addresses convey status; or selling where home values are declining so as to buy into areas regarded as good investments (Cox, 1981). As a person comes to regard their living place as a commodity affecting market capacities and individual consumption so there is increasing resentment of any threat to the value of their property posed by external forces of intervention. Where the losses threatened are sufficiently large coalitions emerge in opposition. By implication the government is expected to protect and sustain wealth accumulation and social well-being. These expectations represent value imperatives that are, supposedly, defined by the citizens. Legal means are employed to preserve these values, even though the values may not reflect necessarily those of the contemporary citizenry.

The Reification of Social Values

The public-private partnership entails a concern for social and economic values underlying the observable consequences of political and economic decisions. Traditional reasoning is deterministic and positivistic in nature (Slawson, 1981)¹³ Conceptualizing proceeds

¹³Spatial economic determinism and positivism are fundamental micconceptions incorporated into contemporary economics. The former refers to the search for mathematical formulations of how economic and locational variables are determined supposedly by others. The latter means the use of objective data like prices, in the formulations. For instance, a seller's value and reasons for setting a price, and the purpose behind a supplier's actions are normative or subjective. This means it is difficult, if not impossible, to discern the movements of prices without understanding the reason why people change prices. Some reasons like status, envy, fear, insecurity, greed, custom and patriotism are possible candidates ignored by objective measures. Similar information could aid in understanding the price and income relationships among professional services and assist in designing policy measures to alter the existing situations.

on the idea that personal life is an outcome of individual decisions. A person is affected by others through economic forces arising from the interactions with others. This is a view of a socially, historically and spatially isolated autonomous person (Mollenkopf, 1981).

People may be independent, interdependent and indifferent as a consequence of some commodity exchange process. Critical theory is quick to point out that the practice of life is anchored in a social order which legitimizes certain social beliefs or myths in people's minds. Even society itself is reified as an actual component of people's everyday lives. One illustration is the privatistic and competitive bases of housing-finance relations.

Over a period of years, interpersonal relations among consumers and suppliers in the housing-finance market have become reified in terms of exchange values as a set of objective, impersonal conditions. This effects significantly self-image and self-evaluation (Mollenkopf, 1981). In the first instance, objects are endowed with an exchange value status as well as a personal use value status. The quest for investments, property, and home ownership reflects a desire to command exchange value status. In the second place, people evaluate themselves as mediated by the evaluation of others. (Into this latter group there must be included persons and institutions that are related directly to the housing-finance process.) The idea that people use things, as a means of self-evaluation or as an expression of identity (e.g., the home), implies people see other people as objects. This view is partially a personal construct; but it is also a social construct which people learn through interaction with others. This introduces the argument that people do not experience life in the abstract context of mass society.

Researchers, whether critical or otherwise are not immune. Knowledge is acquired and people live in social worlds, in which meaning is attributed to acts and events through communication and interaction with rather limited numbers of people. In everyday life such social worlds provide the setting for a definition of material needs and the identification of status objects. The spread of the practice of the personal life can be either enhanced or impeded depending on the relative insulation of the social worlds from outside influences.

At the same time, it must be noted that empirical findings on social values and beliefs are only tentative. For example, survey research indicates that across a range of social groups (in both North American and European countries) there is considerable confusion and inconsistency about values and beliefs (Agnew, 1981). For instance, American researchers find respondents generally unable to articulate clear interpretations of various social issues in an ideological context. When asked to explain why they behave as they do, people are not able to do this and become very annoyed when questioned in this regard (Collins, 1980).

The limited amount of research into the values and beliefs of groups like political leaders and corporation executives also points to the existence of an ambiguous rather than clearly ordered personal consciousness. Conclusions then are tentative because some research has found these leaders to possess less fragmented and more consistent belief systems (Agnew, 1981).

Available evidence does suggest, however, that only those sharing societal power (e.g., researchers, planners, politicians, business executives) need develop consistent values; and that fragmentation and inconsistency in belief systems on the part of mass publics help ensure the continuance of the

social order and prevent the emergence of oppositional ideologies (Agnew, 1981).

The roots of some general process of reification are deep and difficult to ascertain. The critical argument is that people come to accept what exists as necessarily legitimate--not consciously as a result of moral reflection but unthinkingly as a result of continuous involvement in everyday life. Over several generations there has been an increasing acceptance of a variety of practices and policies (e.g., property, objective inquiry) and an active framing of expectations in reference to an increasingly dominant set of social meanings and values. The values of homeownership and neighborhood community contributes to personal well-being in two ways. First, the possession of a home in a desirable neighborhood community offers a major physical object for use as an indicator of status and source of personal autonomy. Second, the house is an exchange value insofar as it is a commodity that can be bought and sold. To this extent it is an expression of the reification process in space and over time, linking housing and finance. This is understood in terms of the exchange value because the commodifiability of the home as an investment unites the past human and finance capital outlays, which went into building the house, in the form of physical capital. This capital serves as a guarantee of personal independence and future security.

Residential Disinvestment as a Geographical Phenomena

What then can be said regarding residential disinvestment? To begin, values of homeownership, property (rights) and neighborhood have an indirect affect on locational differentiation. For example, people believe that the home and its location function not only as a use value but as a source

to exchange value, usually the most important single asset of family wealth.

As passive "sorter and arranger" of uses, the land market spreads users out according to their ability and willingness to pay, as in all conventional (differential) rent-locational models. This subsumes both the pull of cheap land and lower taxes in the suburbs and the push of high-priced land in the central city, due to concentration or to competition from higher-valued uses (e.g., offices out-bidding manufacturing) (Rhind and Hudson, 1980). Similarly, investment capital, is dependent on a flow of mortgage capital through the property development circuit not only into housing, but also the public infrastructure and other private uses. This is at least consistent with consumer demand from a use value perspective. Presuming these mechanisms function in at least a neutral way (i.e., that disinvestment is at least profitable, capital is moving and the government is playing its role), certain lending institution attitudes and behaviors are probably operative. What is significant is the active way in which the institutions intervene and transmit investment through land development process and in so doing give rise to disinvestment. Participants influence demand by land speculation and directing mortgage capital flows (Walker, 1981).¹⁴

The finance sector is very relevant. Infrequently elaborated in the literature, it is significant because it entails both an economic and a social relation. The mortgage money circuit illustrates how the investors

¹⁴Land speculation has been a hallmark of American urbanization, equalled nowhere else in the advanced capitalist countries until the recent past. What is loosely known as land speculation--where it is not merely a perjorative for land investment--consists of two active forces: the manipulation of land and land uses to create rents (the main source of profits in property investment) and self-sustaining property bubbles. The former falls into three categories: the directing of users, infrastructure, and

prefer to receive profits, not in terms of commodities but in terms of money. One reason is because the investor originally advanced money capital. It is essential for the money user (e.g., lending institution) to recover the initial expenditures plus a profit in monetary terms. After this recovery the user is free and the investor may reuse the money directly by investing in the same activity, some other activity, or indirectly by purchasing goods and services.

The analysis of physical capital and/or improvements to it associated with production and consumption of housing reveals at least one contradiction (Harvey, 1978). On the one hand, physical capital enhances the productivity in turn contributing to the accumulation of capital. On the other hand, it is an observable expression of a use-value which is converted into an exchange-value (i.e., home and property as physical assets). What does this contradiction signify?

The exchange value on a home is contained in the actual use value which can be recouped only by sustaining the use value throughout the duration of the home and of the mortgage loans. As a use-value the fixed capital cannot readily be changed. It tends to constrain productivity at a certain location in space and time. For example, when new and more productive fixed capital is produced (e.g., new suburban housing) before the old is obsolete, the exchange value with the old (e.g., inner city housing) is devalued. The devaluation of investment capital in the built environment need not necessarily destroy the use values which comprise the built environment. The use,

buildings toward one's own property (for differential rents), the creation of artificial security (for monopolistic, absolute rents), and the redistribution of state revenues and related phenomena (redistributional rents) (Walker, 1974).

however, must be revalued as fixed capital so as to function as a new commodity, as in the process of revitalization or gentrification. Resistance to this devaluation would check the increase in productivity and restrict further capital accumulation. To overcome this the pursuit of new and more productive forms of fixed capital is undertaken in the suburbs, directed by the search for a relative surplus value, thus accelerating the devaluations of older homes and neighborhoods.

The role of financial institutions is magnified because they are a link among various economic sectors in space and over time. In the long run, a process of residential decentralization takes place which involves an alteration of the differential features of fixed, human and finance capital. For example, technological and infrastructural alterations bifurcate the geographical structure of land use into many different capital extensive and capital intensive intra-metropolitan centers.

As capital intensification proceeds forward through time and over space, and as the level of income and scale of home ownership expands, mortgage capital expands correspondingly in quantity. As the quality of housing and neighborhood communities becomes standardized, the homogeneity of mortgage money does not necessarily pursue a similar fate. Mortgage money is advanced on the basis of income.

The property investor--appearing in various guises as housing developer, landowner, shopping center builder, transit line owner, or industrialist--operates where the city is being most actively constructed under a principle of (profit) maximization. This may be achieved simply by correctly anticipating the market: buying cheap land, and waiting for the city to provide the public infrastructure. By the apparently passive act of

waiting, of idling land until it is ripe for development, property investors either force up land values by creating artificial scarcity, or by forcing other developers, users, and the public infrastructure to jump over their idle lands. Instead of waiting quietly, however, some property developers work actively to pull and push land use activities throughout the city. They can do this in several ways: 1) by directly drumming up demand, (e.g., selling suburbia); 2) by creating a focus with mutually reinforcing advantages, as is done by big industry or big shopping mall developers; 3) by influencing infrastructural arrangement like transit lines, highways and sewer lines; and 4) by underpricing services (e.g., flat-rate charges to every location) (Walker, 1981).

Property investment also has an effect on the central city the other main locus of housing and financial activity. Traditionally, land values have been inflated near the center, owing to monopolistic behavior, idle land, mutually reinforcing expectations and periodic investment booms. These drove users, who might otherwise be able to pay for central space, to look elsewhere.

Where inner city residential districts are considered marginal and risky investments, or where no conversion to higher uses is imminent and investment funds are consciously withheld, the pursuit of exchange value by all property owners makes it difficult to constrain the encroachment of non-residential uses. People are coerced into finding residential enclaves of exclusion and stability. The actions of large property investors, particularly the institutions which finance most property transactions, compound the general effect either by withholding funds from poor areas (e.g., inner city neighborhoods) or by allocating funds for neighborhood conversion.

This means the inner city disinvestment and suburban investment processes are intimately related in space and time. The value of profitability, influences mortgage lenders such that they invest systematically mortgage money in the profitable neighborhood communities and land uses while they disinvest simultaneously in other communities and other land use activities. Such a process is self-reinforcing. For example, as poor inner city neighborhoods deteriorate, suburbs prosper; and conversely as suburbs decline, so undoubtedly will the amount of mortgage money as it is shifted elsewhere (e.g., to inner city and non-metropolitan areas).

Elements of a Geographic Model of Disinvestment

The theoretical structure proposed above to explain residential disinvestment is in no sense complete and definitive. Provisionally, the fabric of a theory of urban-suburban residential disinvestment behavior, is provided; but there remain some noteworthy conceptual and methodological problems. The loose amalgam of propositions entails no reduction in the emphasis placed on empirical investigations. In fact it attempts to synthesize and integrate the two perspectives. This final section elaborates on the components of a geographic model founded on such a synthesis.

A typical analysis of urban spatial structure already carries with itself a formidable burden of fundamental theory dominated by economics. This theory exists at different levels of abstraction, of which the neighborhood is probably the lowest.

Most models founded on this theory investigate interrelations among manufacturing, public sector, and residential land use change. They do not reflect, however, the social and spatial processes, conceiving of these

only in terms of externalities and distance from a central point. Moreover they ignore the temporal processes operating in the urban landscape. In general, the models are functional accounts that are largely untested, and which are insensitive to urban policy and planning objectives. Frequently, the models are interested in consumer or individual choice and/or demand, de-emphasizing the supply side and the interaction between supply and demand.

In part these difficulties are due to the multiplicity and diversity of processes operating on and through the urban (residential) landscape. Current models say little about the underlying processes themselves because these models are essentially static descriptions of the landscape. In addition, the models are founded on a non-dynamic theory of human behavior.

Not only are the processes complex, but their affect(s) vary in space and over time. Some processes are continuous, others are cumulative and mutually reinforcing and still others are independent. Each process has its own distinct logic with a unique spatial geometry, reflecting different spatial covariances evident over a limited range of spatial aggregations.

At this juncture it is beneficial to summarize some of the components of the model, to suggest some variables corresponding to these elements and to propose some problems for future investigation. Each of these is discussed in turn.

In the orthodox perspective, a process of neighborhood decline and disinvestment originates with lowered expectations of return. Real estate investments yield a return from three principal sources:

1. capital appreciation of the housing stock,
2. tax shelters through deductions, particularly depreciation,

and

3. positive cash flows.

In a declining neighborhood capital appreciation is minimal and buildings are almost completely depreciated so that the return is shifted gradually to cash flows alone. During the initial stages of decline cash flows are lowered either through revenue reductions, which indicate demand is softened, or through increases in the cost of supplying housing services.

The actual demand side forces which precipitate decline and disinvestment are enumerated as follows:

1. Demand softening is encouraged by a variety of exogenous conditions which can be either pull factors (i.e., the positive conditions) or push factors (i.e., negative internal conditions).
2. Reduced demand results in filtering causing unit rents and prices to decline to levels which are affordable by the poor.
3. On the supply side increases in capital and operating costs, which affect the cash flows of the property owner-landlord in turn affect the cost of supplying a unit of housing services.

For a partial listing of the variables in question see Table 1.

In the critical perspective the decline process may begin in a white neighborhood where speculators, property owners and financial institutions are assumed to cooperate to exploit low income markets by creating an environment wherein racial transition is taking place. Lenders encourage the transition through the underwriting of government insured or guaranteed loans.

Conventional lenders create a financial vacuum in which high-cost, short-term mortgages prevail. Gradually, lenders are able to withdraw their capitals by:

1. reselling the loans in the secondary market while continuing to make some profits by servicing a contract, or
2. acquiring the proceeds of government insurance claims upon default.

Once the decline process is started, it becomes self-generating. Neighborhoods, particularly within the inner city, which have undergone racial transition lose their upwardly mobile residents as a result of housing stock turnover. Lack of financial supports results in accelerated deterioration perpetuating low income housing shortages and generating a demand for low income households to move into these transitional neighborhoods. This precipitates decline while sustaining a flow of capital to property owners, landlords and lending institutions.

The question of disinvestment is introduced representationally in Figure 2. Within metropolitan space, there exist both a population matrix, and a resource matrix. The precise relationship between these two distributions is rather problematic however. As yet, most studies have concentrated solely upon one aspect of location: either resources to population, or populations to resources, but not both simultaneously.

To begin with the distribution of population, residential location, neighborhood change, and disinvestment involve some question of class relations. Disinvestment may be understood via the context of neighborhood spaces, which are simply spatial representations of the housing sub-markets, owner-occupation, private rental housing. For this reason, disinvestment is an artefact of production due to the sorting undertaken by the housing market.

The city itself is a complex, organized spatial form built by a web of private and public sector institutions which pursue different economic

TABLE 10

Demand - Side Forces

Influences on relative attractiveness of suburbs and central city:

A. Pull Factors (to suburbs)

1. availability of new housing.
2. movement of jobs and industry from core.
3. easier accessibility to work and shopping in suburbs.

B. Pull Factors (from central city)

1. increase in crime.
2. increases in air pollution.
3. intrusion of nonconforming uses.
4. disinvestment by government: services levels decline, decreased public safety, fewer new public facilities.
5. change in poor composition.

Supply - Side Factors

Relative increase in capital operating costs associated with:

1. maintenance and repair costs caused by aging, physical obsolescence, vandalism, thefts (which increase unit labor and marketing costs) and rapid turnover (which increases refurbishing costs).
2. fuel costs, making it more expensive to heat older, high-ceilinged, poorly-insulated structures.
3. fire-theft insurance becomes expensive or unavailable to reflect higher risk.
4. property taxes may be high because of a lag in reassessment of non-appreciating markets or assessment on the basis of another use considered the highest-best use.
5. mortgage rates may be higher because of higher perceived risks of default.

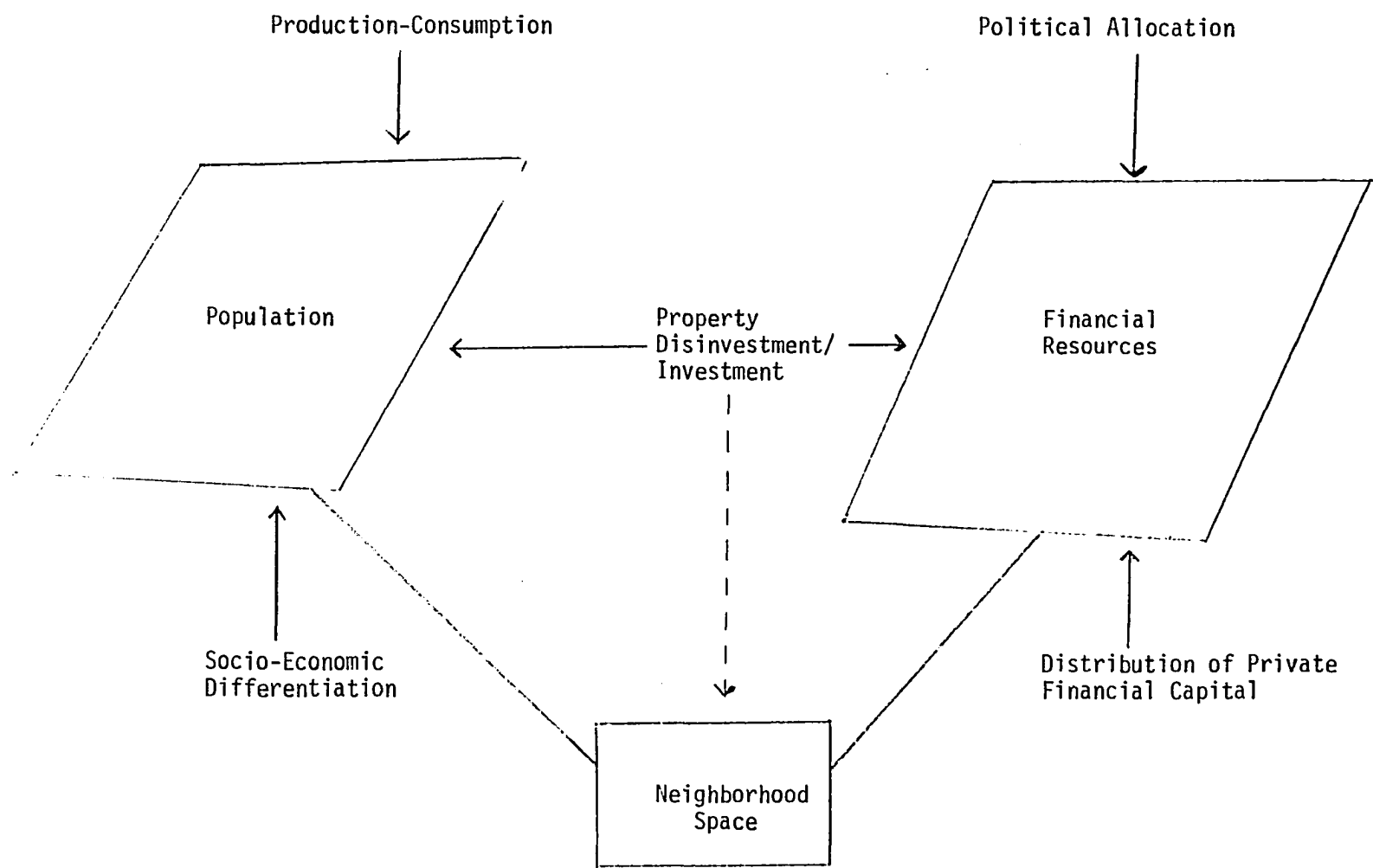


FIGURE 2: Population and Resources in relation to Neighborhood Space.

and political objectives. Residential disinvestment behavior entails a linkage to the analysis of the capital accumulation process, particularly through the institutional policies of housing and finance. These organizations assemble and transform resources to achieve expanding production, exchange, and profit (if they are in the private sector), or useful but not necessarily marketable goods and services (if they are public or non-profit).

At the intraurban level, resource inputs are related to social outputs. Probably the most important point is that resources are distributed frequently in ways that have spatial consequences; but spatial variations in need should also be considered. An example of this is found where allocation policies, which are spaceless in formulation, play a major role in directing certain types of household (such as single-parent families) and racial-ethnic groups to the inner areas, and then limiting their ability to move away.

Included in this analysis is the changing role and structure of business enterprises and local, state and federal government. These demand careful analysis because how they interact to overcome their problems is not always noticeable. For example, in the past and even more recently, institutions have been used to reorganize local government. These institutional changes alter the behavior (e.g., relative power) of different social groups, while policies like reindustrialization and revitalization affect the behavior of investors attracting them away from neighborhoods and even the housing-finance sector.

Just as the broader outlines of the accumulation process shape and circumscribe institutional structures, so the mosaic of such structures make

up the city and establish the parameters for a third analytical concern: political alliance formation, mobilization, and conflict. Research on political movements and alliances is rarely based on structural distinctions in any clear way. Instead, potential political alliances and their underlying values are hardly ever linked to the operation of public and private institutions. In some respects, political interests are defined by government (rather than the reverse which is traditionally assumed). For instance, public housing tenants, neighborhood associations, municipal service recipients, and urban property owners. These groups find their political vocabulary in the language of program design, forms of participation, and constitutional authority. Over time, the interests and alliances congeal into fixed political and economic relations which may even become institutions (e.g., neighborhood associations, real estate agencies, lending institutions, advertising firms). The wide array of organizations exert their own peculiar impact; entrepreneurship, brokering and negotiating, interest marketing and organizational maintenance all contribute a special flavor to larger political tensions. At the same time they internalize the larger tensions to a considerable degree as do the urban development agencies. In this connection, analyses of their resource base and the way institutions allocate them, their source of legitimacy and the constituencies to which they respond are principle concerns in understanding political alliances and their relations to disinvestment.

Finally, there is the level of the individual consumer-supplier: how people interact with each other on a day-to-day basis. The network of social, economic and political ties is obviously shaped by all the previously mentioned levels, for people interact on the basis of where they live, where

they work, which social stratum (with attendant culture) they belong to, and which institutions they join (whether by necessity or choice). In distinction to higher levels, these attributes are not determined impersonally. People can and do take a hand shaping their own ties; but society, operating through the institutions circumscribe this ability, sometimes it does not completely succeed. Even in the worst of cases, new connections have always been possible. For instance, the urban development patterns broke down kinship patterns, religious associations, and fixed status groups, opening the way for new self-created social relations.

It is very difficult to assess both the population and resource matrices together. Either a static population is assumed, to which resources and facilities are supplied, or else a static resource base is assumed within which population movements occur. This approach though simply suggests that those households which are most mobile may buy their way into the areas where the best resources (e.g., the most modern schools) are located. The problem with this analysis is that it greatly underestimates the ability of particular groups to manipulate the process of provision in favour of particular localities.

In the metropolitan context, there are different types of behavior and practices which entail values that are not understood and accepted, universally. Values, both personal and social, entertain certain ideas on the nature of and relationship(s) among man, society and the environment. Some of these ideas are transmitted, historically, to become a component of contemporary behavior.

The opposition of the use and exchange values (in the dual value form) establishes a contradiction, specifying the integrity of two sets of

values which ground the ideal meaning of housing and neighborhood community in the concrete experiences of housing-finance. Residential land use and disinvestment are linked to the actors responsible for the creation of spatial differentiation; and the individual is connected to social action via the commodity aspects of a home and a neighborhood community. This is one distinct type of dialectic hereafter referred to as a micro-dialectic, which is one set of observable opposites used to measure neighborhood commitment and disinvestment (See Tables 11, 12, and 13) (Hampden-Turner, 1982).

TABLE 11	
MEASURES OF NEIGHBORHOOD COMMITMENT	
A.	<u>Individual and Household Characteristics</u>
	Racial-ethnic composition
	Income
	Education
	Occupation
	% Owner-occupied households
	Vacancy rate
	% Elderly households
	Membership in voluntary associations
	% Public Housing
B.	<u>Financial Consideration</u>
	Individual credit history
	Difficulty of female household heads obtaining loans
	Property values or house prices
	Rent levels
	Age of housing

TABLE 12

MEASURES OF INVESTOR COMMITMENT:

- A. Property Owner Behavior in a Given Neighborhood
- % Absentee ownership
 - % Single-family and multi-family
 - Conversion of single-family to multi-family units
 - Non-residential land use
 - Landlord characteristics: income, education, ethnicity
 - Turnover in owner-occupied loans
- B. Lender Behavior in a Given Neighborhood
- Mortgage to deposit ratio
 - Proportion of loan applications accepted
 - % conventionally financed home sales
 - % lending institutions active in the neighborhood
 - % non-conventional lenders (i.e., individuals and others outside the S & L and banking system)
 - Financial indicators: interest rates, effective yields, loan-to-value ratio
 - Loan defaults and renter delinquencies
-

TABLE 13

MEASURES OF LOCAL POLITICAL FACTORS

- Property tax increases
- decline in service level (includes increase in crime, air pollution, poor transportation system, etc.)
- Ease of rezoning
- Public land assembly
- Historic-preservation neighborhoods

There is a second kind of contradiction called the macro-dialectic. By contrast with the micro-dialectic, the opposites portrayed in the macro-dialectic are implicit or unobservable. The rhetoric distinguishes them as opposing values ranging on some continuum and indicating varying degrees of right and wrong, good and bad, win and lose, zero-sum, freedom and equality, domination and independence, and synthesis-fragmentation.

Where critical arguments go askew perhaps is in their failure to address the mode of reasoning applied in traditional models as well as their own accounts. The two types of dialectic mentioned above serve to establish a problem context for further theoretical analysis.

In a recent article Burnett (1981) argues for inductive causal-explanatory modeling. The goal is to identify all those variables influencing intra-urban group behavior at a specific time and scale of analysis, and to specify how they affect behavior. The intent here is to go beyond attempts to fit parsimoniously the data to existing theory or to append new evidence in accordance with current theory.

To be even more ambitious, it also appears necessary to move beyond this type of identity thinking. Certainly correlating concepts with specific empirical referents is an essential phase of analysis. Still another analytic stage is non-identity reasoning. The ideal meaning of a concept like neighborhood community is not necessarily, rationally identifiable with its object. Critical theory then purports to demonstrate this point descriptively. To describe what is empirically observable and to compare it with what ought to be a rational identity at some location in space-time is one way to see how non-identity thinking views the relation between, for instance, the concept of a home and the actual home itself.

The differences and similarities establish a context for further analysis.

Of related interest is the way identity thinking when applied in a policy setting makes unlike things appear to be alike. For instance, to suggest that individual qualities of human labor and places are homogeneous and are equal in value or price, is to make unlike things equal. In traditional economic theory, value appears as a natural property of a commodity. This overlooks the fact that commodities are social objects, which differ from their properties as things. Only use-values are properties of objects. When only use-values are properties to assert that an object fulfills its concept is to say that unlike personal objects are equal. Really only the exchange value is the form in which the value is manifested, and this is a social phenomenon.

Reification then refers to the social relation among people which appears as the form of a property of an object. This is not the same as saying that a relation among people is a relation among objects. A use-value is a non-reified concept which appears only when a concept is identical with its object. In a capitalist society, however, non-reified properties appear only in the social form of reified concepts.

By implication the ability to know and understand the form of behavioral processes is difficult because the process of reification constrains the formation of an independent, alternative mode of reasoning. This raises some question then about how critical thought is possible. Given the mind is a product of reified thought, by what means are critical theorists able to overcome reification, and how is it possible to verify this fact?

One method, which seems to concur with critical studies, is a two stage process. In the first instance, isolated accounts of different types

of behavior are synthesized. Then, in the second phase this synthesis is used to derive an image of the underlying social form. Although the analysis is far from complete, it would seem that this method offers some potential.

What begins to emerge as an explanatory form for housing-finance is the merging together to two types of explanation. First, there is an account of the behaviors associated with the spatial form of residential disinvestment as an outcome of a set of historical, social, economic and political forces being funnelled through a complex web of private and public institutions. Second, there is a need to determine if disinvestment behavior is itself a necessary institutional practice and an expression of a social form. The first explanation is compatible with the synthesis of ideas and theories which form the micro-dialectic of an urban system. The second approach is dependent on an analysis of the micro-dialectic in order to discover the linkages between human values and action implied in the macro-dialectic which are not readily observable. This could reveal the social form of behavioral processes by indicating how personal and social values are fused in people's minds and how people use these values in the course of everyday life (Hampden-Turner, 1982). The resistance of social values to elimination by even damaging and catastrophic events such as pathological experiences, severe socio-psychological stress, anxiety and economic crisis such as fluctuations in inflation and unemployment is important. This resistance or stability of social values in conjunction with the discontinuity of events leads to the hypothesis that there is some form to the behavioral processes underlying the observable conditions.

If the social values are reified in an exchange value form, then it should be possible to uncover some corresponding formal, (even perhaps

mathematical) structure which could then be applied to test the fundamental theoretical structure proposed above. So far such a model has not emerged in geography; but there is some evidence that this is not too distant (Hampden-Turner, 1982; Woodcock and Davis, 1978). There are already some psychological models and experimental data which might offer some insights (Bohm, 1980).

Summary

As mentioned in Chapter Two, the modeling of human behavior has depended largely on individual consumer-oriented approaches. Familiar models of the demand for housing and mortgage money include propositions derived from attitude, choice and utility theory and household consumption theory in psychology and economics (Burnett, 1981). To some extent, these disaggregated behavioral models are central to the critical debate developed in this chapter. The debate, however, has occurred on two levels. The first relates to the use of unrealistic assumptions and technical issues of parameter estimation and testing. These are discussed elsewhere (Scott, 1980). The second level addresses the exclusivity of individual preference and choice models to explain behavior.

Theoreticians and policy-makers have considered all behaviors as the outcome of some type of individual, rational economic choice. Given the population size and the variability of individuals, groups, and the built environment in which behaviors take place, it is doubtful whether all behaviors may be classified satisfactorily. A large dynamic and varied population requires models which account for the different behavioral types displayed by various social groups. This means the development of accurate

definitions and measurement devices for both researcher and policy-maker. This presupposes, however, that different behaviors may have different causes and/or reasons. This raises the possibility of different kinds of analysis and policy prescriptions.

A consideration of disinvestment behavior tends to suggest a contrary opinion and that the usefulness of this notion is limited. Moreover, the social, political, and economic policies implemented through institutional mechanisms, which are not under the control of any one person at the time a personal decision is made, may influence behavior. It seems reasonable then that many aspects of the social milieu about which models of individual choice and action investigate are relevant and need to be incorporated into the analyses of residential disinvestment behavior.

The study of disinvestment in the local housing markets and the public infrastructure is a hitherto neglected area of empirical enquiry. Policy questions of how the private and public sector investment mix for housing and mortgage capital is determined relative to other land uses are essential (Bearse, 1979). Amidst the theoretical confusion there is a paucity of research procedures capable of grasping the decision-making processes of private and public sector organizations that make large-scale and visible capital investments in specific locations. This is a difficult and sensitive domain in which to conduct empirical research. The observable quantitative aspects (e.g., locations, size, price) of housing and mortgage investment decisions offers a reasonably safe environment in which to study behavior inferentially. Many current research strategies which use traditional model structures may either be limited or at least need to be supplemented with model structures appropriate to the description and analysis of processes.

In this connection new, multi-variables model structures may be more consonant with the facts as well as provide enhanced insight into the form of the behavioral processes (Burnett, 1981). Also research procedures must be developed and applied to study supplier behavior,--in particular to discover what variables influence capital investment and disinvestment. Here methods of environmental psychology may prove valuable (e.g., participant observation).

There is as well the issue of describing and measuring the linkages among the personal, institutional and social levels. For instance, what indices describe the cyclical nature of political and economic processes and show the constraints on neighborhood investment and disinvestment? As discussed in this chapter, lower levels of analysis appear to be implicit within higher ones; but the reverse is also true. Lower levels, since they are the vehicles through which higher level forces come to perception, exert imperatives upwards. Higher levels, since they constrain lower ones, similarly exert imperatives downwards. For example, political movements, churches, government programs, and firms rely on established patterns of social ties. If these change rapidly, higher levels may exert pressure to retain accepted values required to sustain themselves.

The relationship between variable structural constraints on different types of behaviors; and the association between variant levels of activities (e.g., local, national) and their influence on different behaviors is significant. How this is conceived influences whether different policy answers are needed for different behaviors in different places. Probably for some behaviors theories of structural determinants are applicable, while for other problems traditional decision variables are more appropriate.

The question of how structural or environmental determinants (e.g., land use) combine to affect individual choice raises further concern. How do macro-level (e.g., economic) conditions filter down to influence the individual? In part, traditional choice and spatial interaction models can provide some information at the local level regarding household behavior and mobility as well as how local conditions relate within a multi regional economy. There is a need, however, to understand how federal policy influences the innercity more than the suburbs, the Frost-Belt more than the Sun-Belt and the Rocky Mountain region more so than the Eastern coast. In addition many local situations are influenced by the actions of neighboring communities which means the inter-regional interactions and interdependencies must be investigated.

At the stage of envisaging the outline of a model, it is difficult to ascertain all the relevant questions. The significance of evaluating current models and proposing additional models as well as methodological strategies lies in the information which is revealed, particularly for the case of urban residential disinvestment. Data not only should be indicative of how a person, group, or organization constructs the reality of the built environment. In addition, information should offer an interpretation of how a phenomenon like disinvestment emerges and to what extent disinvestment is a practice that may inscribe a certain set of social values and relation(s).

It is uncertain how meaningful it is to argue that urban behaviors all fall into different categories of individual choice. Certainly the limited evidence on disinvestment concurs with the claim that there are different kinds of behavior expressed by different subgroups in a large

population (Burnett, 1981). Disinvestment does not appear as a form of rational socio-economic behavior. This raises the question of an alternative to the choice and decision-making conceptualization.

The appropriate definition and measurement of different forms of behavior are of concern to both the scientist and the policy-maker. To confuse behavioral types and to overlook the specific form of behavioral processes may lead to mistaken predictions about investments. At the onset of protracted scarcity problems, it is not wise economically or politically to risk mistakes particularly with respect to large-scale investments or disinvestments.

At this juncture, the arguments of residential investment/disinvestment which suggest lending institutions impose more stringent credit terms, and at times completely refuse mortgage and home improvement loan activity in a given urban neighborhood in favor of suburban areas, are problematic. Probably the advocates of disinvestment acknowledge the feeling of some groups that there is a perceived increase in the level of political and economic alienation and suffering. It may also be that lending personnel feel there is no alternative: they believe what they do and how they fulfill their job is just what ought to be. Still in the absence of a theoretical analysis of alternative housing and finance arrangements, another possibility exists: that there is insufficient scientific and legislative attention being paid to the particular housing and finance needs of the different individuals and groups in question. At best, then it is reasonable to surmise that the geographical pattern of mortgage lending in the Oklahoma City metropolitan area is probably an example of disinvestment behavior, but that more research is needed before appropriate public and private policy change can be proposed.

CONCLUSION

CHAPTER V

The institutional decision, known as red-lining, that loans will not be made in certain high-risk neighborhoods, regardless of the credit rating and financial stability of the prospective buyers, is not a new phenomenon. Nevertheless, since the early 1970s, various studies charge, inferentially, that mortgage lenders are discriminating among certain urban residential neighborhoods (Agelasto and Listokin, 1975; California Center for Real Estate and Urban Economics, 1975; Palm, 1979; Vandel, 1975).

The fundamental issues underlying the redlining debate are disinvestment and discrimination. Members of the lending institutions defend their practices by arguing that loan policies and lending performance are a result, not a cause, of housing stock deterioration and property owner disinvestment. By contrast community groups contend that antiurban lending standards exist and that they are founded not on facts but rather on subjective perceptions of loan officers. An economic analysis of the level of and distribution of mortgage loan activity as well as neighborhood viability would assist in changing the policies of lending institutions. This study deals only with one aspect of the redlining phenomenon: disinvestment. Urban disinvestment refers to a mortgage lending practice which, supposedly, favors suburban residential neighborhoods to the disadvantage of

inner city properties (Palm, 1979). This study has attempted to clarify the geographic nature of residential disinvestment.

The principle findings of this study are the following:

1. Disinvestment is a more complex spatial aspect of redlining, the elements of which cannot be explained adequately simply in terms of an urban-suburban typology;
2. A more comprehensive explanation of disinvestment is offered which synthesizes and integrates the demand and supply factors within a theoretical framework derived from orthodox and critical theory;
3. The theoretical discussion is the first explicit geographical account of disinvestment.

In this study the search for a suitable theoretical context involved an examination of the contemporary American literature on residential land values, land use, housing, and discrimination in the housing and mortgage markets. The existing literature is so diverse it tends to obscure, rather than clarify. In this connection, it was necessary to draw from the variety of logical and empirical theses some central and unifying themes that could be used to construct an explanation which is both scientifically rigorous and responsive to private and public policy.

Land rent theory is a basic foundation for the traditional demand oriented theory of urban residential phenomena. Its objectives are two-fold:

1. to account for the location of certain residential land uses at some places in the city rather than at others; and
 2. to explain why other land uses, which may be potentially suited for a specific parcel of land, are rarely, if ever, located there.
- Implicitly or explicitly, land rent is incorporated into most economic,

social, and geographical analyses designed to determine the (derived) demand for land and housing in a monocentric city.

Traditional theory views residential locations as representative of the individual's decisions in a competitive housing and mortgage market. Early theoretical studies suggest that locational choice is determined by economic factors like household income and accessibility to work and other activities (e.g., retail, recreational). In deciding where to locate it is presumed that a household examines its total budget, a location's residential bundle (e.g., house, amenity level, lot size), and the costs of obtaining these. Given the household's preferences, and the above information consumers identify that part of the available housing supply which meets their requirements.

The locational context or relative location is linked logically to the private land use decision process through two interrelated concepts: income and residential quality (e.g., neighborhood). The connection implied in the literature is that residential quality is directly related to individual preferences and neighborhood change. Usually neighborhood change is measured by assigning an economic or monetary value based on house prices and the private land use and locational decision is evaluated by economic-financial means rather than in response to psychological and social well-being.

Neighborhood social considerations are, however, indirectly significant because people transfer their emotional attachment to and identification with their home to their neighborhood. These act as symbols of their level of social well-being while also indicating some relation to the quality of life.

Since the early 1970s, residential literature has been devoted to measuring the socio-economic aspects of residential quality and to integrate this behavior with existing expositions of prejudice, discrimination, and the effects of government intervention within disaggregate spatial equilibrium models. Attempts to simulate the urban situation with the aid of demographic data illustrate how changes in household size, education, shifts in income, and price are major factors which impact on the urban spatial form. Such models, however, are extensions of more traditional micro-economic accounts of locational choice and neighborhood change.

The review of geographical and non-geographical expositions suggests that a variety of socio-economic factors influence individual preferences, choices and decisions; but they are treated, analytically as externalities. Empirical emphasis is placed on showing how influential these externalities are on the allocation of scarce resources by individuals and households. By definition, the intrusive effects of other individuals, households, firms, and governments is acknowledged; still these forces are exogenous to, or are of secondary importance to, the individual's relationship; as such they are viewed as temporary phenomena which act upon the individual decision process. At no time are they considered the major determinants of a person's locational choice. Thus, the primary actor in traditional theory remains the individual who competes for a household location that minimizes total benefits while simultaneously minimizing costs in relation to a range of externalities.

An analysis of metropolitan Oklahoma City employed mortgage disclosure data and the traditional variables of income and owner occupancy

as surrogate measures of individual demand, choice and well-being, to assess disinvestment in urban and suburban census tracts. These are pivotal variables in hypotheses concerning residential disinvestment in the housing and mortgage markets. When applied in the study of Oklahoma City, these factors were quite localized in relation to mortgage lending. The relationship is significant only in the northwestern sector of the metropolitan area and Oklahoma City itself.

The general empirical findings of the investigation presented in Chapter III are summarized below:

1. Between 1976 and 1978, the total annual value of loans increased almost three-fold until 1979 when a small decline took place.
2. During the same period, conventional and home improvement loans increased three-fold. The increase in home improvements would tend to imply more financing or remodeling in lieu of home purchases.
3. The census tracts receiving the largest total amounts of mortgages are found in the northwestern sector of Oklahoma City itself, (such as the Heritage Hills Preservation District), and of the suburban municipalities.
4. Over the study period, the proportion of total mortgage dollars allocated to the older urban core of Oklahoma City itself increased from 4.0 percent to 8.9 percent, while the immediately surrounding older suburban neighborhoods saw a decrease to 62.3 percent from 75.6 percent. Approximately one-half to two-thirds of the total amount of conventional mortgage loans went into the northwestern part of the central city and the northwest suburbs, respectively.

5. Governemnt-insured loans generally predominate in the south-southeastern quadrant of the central city and suburban census tracts.

6. At the metropolitan level, mortgage lending is primarily responsive to income, but this responsiveness decreased over time, perhaps in relation to rising interest rates.

7. The explanatory importance of income is greater in the central city than in the suburbs, but generally the variables which constitute the Mortgage Deficiency Index (MDI) explain more variation in the central city mortgage lending pattern than in the suburban patterns.

If permitted to conceive of mortgage deficient areas as indicators of disinvestment, then the spatial analysis suggests that:

1. disinvestment is extending beyond the older urban part of Oklahoma City into the newer suburban municipalities of metropolitan Oklahoma City;

2. within Oklahoma City itself, there is developing an area to the northwest of the CBD, and another in southern Oklahoma City, which, over time, have increased in size while also experiencing what seems to be an increased level of mortgage lending activity;

3. while statistically lending activity is, in general, more responsive to central city rather than suburban income levels, when the areas of mortgage deficiency are mapped, the locational pattern tends to suggest that there are other factors operating to influence institutional decisions regarding who are mortgage loan recipients, and

4. within metropolitan Oklahoma City lending officials favor both new suburban communities and a few selected older, inner city neighborhoods.

The public and private dimensions deserve some consideration. At present, Oklahoma City is encouraging the formation of neighborhood preservation districts, like Heritage Hills, which may influence further the direction and spread of revitalization. The analysis provided here in suggesting that disinvestment extends into the newer suburban communities raises the possibility that the newer suburban communities may, if they do not already, desire the enactment of similar legislation, for their municipalities in order to attract greater amounts of mortgage funds. Whether or not this occurs remains to be seen. The implementation of policies, like neighborhood preservation, probably will encourage lending institutions to participate in the revitalization of older urban neighborhoods. Indirectly this political action may be influential as a determinant of mortgage lending activity, and subsequently a factor responsible for the spatial pattern of investment and disinvestment.

The analysis of the spatial pattern of metropolitan Oklahoma City mortgage lending extends the research of earlier studies demonstrating that the MDI is a useful indicator of the spatial pattern of disinvestment. In turn, this spatial pattern may be indicative of other determinants of redlining. Some simple spatial (and temporal) associations founded on the disclosure data and census data are not sufficient to assess the impact of redlining. Further analysis is required to identify the pattern of actual discrimination, to differentiate actual from perceived risk, and to discern the degree to which lending policies are either the result, or the cause, of redlining.

Aware of the tentative nature of these findings, it is beneficial to locate the analysis of mortgage lending activity and redlining within a

wider theoretical framework than is provided by the literature reviewed in Chapter II. This would also assist in the delineation of data and applicable techniques necessary to provide a more comprehensive assessment of the redlining phenomenon, its determinants, and its impact on metropolitan economic growth, neighborhood change, and land use development.

Much social science research involves conceptualizing, measuring and explaining the level, distribution and dynamics of change in individual and social well-being. Two objectives for investigating space-time locational differentiation are: first, to determine what forces are responsible for the localization of deprivation or wealth and, second, to ascertain whether these forces change so that over time, areas and locations are susceptible to becoming a new (i.e., future space-time) focus of deprivation or whether they are spatially fixed and immovable. So far few attempts have located housing finance analyses within this spatial context. It would seem that the suggestion of any policy change rests on an understanding of how the level of mortgage lending is related to well-being. The observed localization of funds in the northwestern sector of metropolitan Oklahoma City however, would suggest a comprehensive geographical explanation which explicates the processes underlying this pattern. What orientation this explanation should take is the topic of Chapter IV.

The traditional residential location models have proven useful as an organizing framework for a generalized conceptualization of the social geography of the city. As Murdie (1976, p. 276), among others, notes their utility is limited because:

They do not say very much about process in contemporary urban society--nor should they be expected to. The processes which account for spatial variation in the residential mosaic are complex and result from the

cumulative summation of a host of individual decisions --both by the producers and consumers of housing.... there is need for a much greater integration between analysis of social processes and spatial form. We not only need to identify generalizations in spatial form but also to search for the factors which produce that form. Progress will probably be slow, however, for... working at the interface between spatial form and social processes is a challenging but difficult task.

The literature of Marxist critical analysis in the field of urban studies started during the late 1960s. A starting point that corresponds to the early studies into urban social or community locational conflicts and urban managerialism. The theoretical framework is misunderstood if it is thought to be only a reaction against the inability of existing theory to provide adequate explanation. Incorporating supply-side considerations, Marxist urban theory exemplifies a renewed attempt at the scientific explanation of the form of the processes underlying the urban reality (Camhis, 1979).

Critical discourse challenges the somewhat artificial and unrealistic assumptions that are commonly made as a prelude to urban analysis: perfect competition and perfect knowledge, the absence of social and legal restraints, ubiquitous transport facilities and monocentric cities, instantaneous and costless residential relocation, and numerous others.

To criticize traditional urban models for these purely technical (and entirely rectifiable) drawbacks is only a partial description of their contribution. Another aspect of the criticism challenges the adequacy of traditional reasoning founded only on an individual interaction theme.

There have been at least three notable starting points for these efforts. First, there are the social ecological and chronogeographic perspectives relating the economic development and growth of the city with the

evolving patterns of land use differentiation (Parkes and Thrift, 1980); second, there are the conflict (Cox, 1979; Scott, 1980) and the managerialism theses (Tabb and Sawers, 1978; Gale and Moore, 1975; Pahl, 1975; Palm, 1981); and, third, there is a critical but synthetic theory which is an extension of Marxist thought (Harvey, 1973; Castells, 1977; Walker, 1981).

The three starting points have given rise to apparently different sets of substantive topics. The work of social ecology focuses on household mobility and the manner in which the flux of movement perpetuates or changes the social patterns of areas. Associated with this is the examination of chains of movement (i.e., vacancy rates, filtering, and succession) (Pickle, 1980; Parkes and Thrift, 1980).

The thrust of critical geographic research, applied here, is concerned to synthesize the micro- and macro-level socio-spatial, political, and economic perspectives to explicate the dimensions of housing, finance, and their provision. Work on the nature and effects of public and private institutions on the housing market and access to it pertains to the role conflict plays in the location-allocation process. In this regard, finance is important in two respects. First, there is the private sector financial decision--the granting of mortgages and loans and credit for both housing construction and home purchase as well as the red-lining of districts and the restriction of mortgages to areas of low risk. Real estate agents, builders, and lenders involved in the purchase and exchange of houses, provide an institutional framework. Second, in relation to older central city areas, there is the public finance decision of where to allocate funds for residential (as well as industrial and commercial) rehabilitation and revitalization of which a corollary decision is the allocation of public

monies for facilities and services. The constraints on actors' choices within the urban structure rather than the choices themselves enhances an understanding of the question of what lands and houses are bought, where, when, and how, as well as who is to have access to them.

The decision-making calculus of private-finance institutions, firms and households is structured by the social and property relations of (capitalist) society, which leads to uniquely problematic outcomes requiring collective (i.e., government) intervention. The interaction of these two spheres of private action with public action produces problematic land use relationships. Critical theorizing about residential disinvestment is minimal, but it would appear to place finance at the center of land use and housing issues in American society. As Harvey (1973, pp. 174-175; cited in Rhind and Hudson, 1980, pp. 226-227) remarks:

Financial institutions which deny funds to one sector of the housing market stand to gain from the realization of speculative gains in another, as land use is subsequently transformed or as suburbanization proceeds. The impulses which are transmitted through the urban land use system are not unconnected. The diversity of actors and institutions involved make a conspiracy theory of urban land-use changes unlikely (which is not to say that conspiracy never occurs). The processes are strongly structured through the market exchange system so that individuals, groups and organizations operating self-interestedly in terms of exchange value can, with the help of the "hidden hand", produce the requisite result.

Capital investment shapes the land-value structure of the city through a continuing goal of seeking profits and the manipulation of market forces to maximize these profits. Financiers disinvest if profits are too small, as in low-rent areas with sufficient numbers of dwelling units, and reinvest where profits are large, traditionally in areas of new upper-middle-income housing.

Residential land use and neighborhood differentiation separate the housing and capital markets into relatively heterogeneous neighborhood spaces which impede residential and capital mobility because of competition for property and mortgage money, thereby creating relative scarcity. This situation is aggravated by political actions, such as zoning, tax incentives for development and redevelopment, and by the operations of financial institutions and the real estate industry (Bordessa, 1978; Palm, 1979). This action is correlated with institutional arrangements such that urban planning must be seen as an intervention on behalf of individuals and groups in the specific residential land use dilemmas and conflicts created by households and firms as they interact with one another in urban space.

The critical studies which determine access and constrain choice have overlapped with the argument that class interests and the financial structure of society are important determinants of the supply of and demand for housing and mortgage money. Disinvestment seems to be a necessary stage in the urban land use development. It is required to maintain a demand for new housing. Even if the transfer of fixed capital to the suburbs which this entails produces a contradiction by undermining central city investment. These critical themes overlap and point to a theoretical convergence where a theory of disinvestment should:

1. emphasize the constraints on the private choice as well as private choice itself;
2. illustrate the role played by conflict and consensus in location-allocation processes; and
3. structure the critical arguments to demonstrate that social class interests are fundamental bases upon which the political economic

super-structure allocates the production, consumption, and exchange of housing and mortgages (Herbert and Smith, 1979).

The theoretical framework proposed herein acknowledges that urban residential land use development and disinvestment must be studied over a long period of observation, and that local problems embody a larger national socio-economic picture in history. This suggests that urban theory, and policy and planning actions founded on it, do not exist in a vacuum. In the proposed theory, the explanation of actions related to disinvestment behavior is comprehensible when it is accurately located within the totality of responsible socio-historical, geographical, political, economic, and institutional structures and processes. Urban disinvestment derives its spatial and temporal characteristics from the structures which constitute the totality of a capitalist society (as unique from other societies).

Housing finance then can be analysed from three different, but interrelated viewpoints. At the most visible level, housing finance is a necessary element in the production and distribution of housing. Thus the operations of mortgage lenders, financial institutions extending credit to builders and property owners investing in real estate as well as the mediating roles played by real estate agents, lawyers and other professionals is important in realizing housing and its consumption by individuals and households.

At a second level, housing finance is an important link between economic growth and the quality-of-life. People need houses to live in and industrial development needs laborers. This is a complex linkage: industrial development does not simply require the presence of a labor force, but the labor force must be adequately housed, fed, clothed and cared for to

provide the work capacity required for production. To satisfy these requirements, workers must be able to consume key services like education, housing, recreation and health care. The shortage of housing or very high prices for housing in some parts of the United States (e.g., the San Francisco Bay area) are blamed for the decisions of firms to locate new facilities elsewhere.

At a third level, all people require some type of housing, and housing needs both land and finance. The realization of housing is dependent on competition with other possible land uses which in turn is related to competition for financial support. By contrast with other land uses, housing depends, crucially, on its location relative to other activities, services, and resources. The land and housing-finance questions are intertwined in the spatial patterning of the metropolitan system. In this sense, it is necessary to understand the nature of locational rent and its influence on the price and distribution of housing; but it is also important to comprehend in what way these affect the level and distribution of mortgage lending.

All three levels or dimensions to the housing finance question suggest that the differentiation of residential space and mortgage lending is not simply the result of market processes and consumer preferences. Also to be included are the actions of public or governmental and private (e.g., financial) institutions.

Methodological Questions For Future Research

The theoretical outline proposed emphasizes a reevaluation of traditional spatial and economic allocation models along two lines.

Inherently, the proposed guidelines challenge the more orthodox aggregated-disaggregated conceptual approaches.

Traditional research has attempted to derive allocation models which document static relationships among consumers. Perhaps what is necessary, at least for housing-finance, is a model to measure, simultaneously, the static and dynamic relationships among consumers and suppliers. Housing-finance data may also have to be structured temporally as well as spatially to ensure consistency among different persons and activities which are changing over time. In this sense, a wave stage model may alleviate some of this concern, if it can permit the expression and measurement of activities as both variant and invariant structures within cycles of investment and disinvestment, growth and decline, and centralization and decentralization.

The distribution of mortgage funds in the Oklahoma City metropolitan area is not explained well in the context of the current diverse theories and models of urban residential land use and location. This is true in part because most models concentrate on identifying the racial or ethnic compositions of neighborhoods or on the distribution of land values according to relative location from employment centers. These considerations are significant for the description of basic features of the city; but they fail to acknowledge (by assuming away) the underlying social, political, economic and institutional processes which influence the spatial form of the city.

It is not evident, however, that critical theory itself, when criticizing traditional economic theory for its lack of reality, is proposing necessarily some alternative solution. For example, while proponents of critical theory, such as Scott (1980), elaborate on what is inappropriate

about the conceptual and technical aspects of traditional urban theory there is no clear and concise statement of an alternative, testable model. Against the call for more research on the role played by political and economic institutions, both perspectives are seriously lacking on two accounts. First, in their understanding of human psychology; and second, in their challenge to the traditional mode of reasoning. These are considered briefly in turn.

Eventually, a major analytical component must explicate the psychological and socio-psychological dimension. In everyday life, personal behavior is not simply based upon an acceptance of the world as it is immediately experienced (Eyles, 1981). There is an unconscious social aspect to the practice of the personal life: an acceptance of various values (Hampton-Turner, 1981). Psychological and socio-psychological theory would help explain shifts in people's values or expectations relative to the changing political and economic conditions, as these are expressed relative to changes in the evolving urban society and the built environment. In this connection studies on environmental psychology and the sociology of institutions are useful resources.

The pursuit of a socio-historical explanation is a necessary and complementary source of information; but as an explanatory form it is as reductive or regressive as the individual choice approach with the exception that the causes of present day problems are rooted entirely in their genesis rather than in individual actions. By drawing attention to what was, this explanatory form strongly suggests that the present is preordained by the past and that society is accepted as defining human values and actions with respect to contemporary urban problems. By contrast the individualistic approach lays the responsibility for urban problems directly in the hands

of the individual. The inclusion of an argument that urban policy and planning institutions intervene to influence individual behavior, but fail to resolve the various urban problems only serves to confuse matters. No attempt is made to explain the origin of and need for institutional forces, and how they influence human behavior. For example, there is no obvious explanation why at certain times, lending officials would desire to constrain other people's activities, like their residential mobility, while, at other times, they are themselves constrained in their actions by the same or different institutions.

Inherently, part of the reason for this lies in the reasoning underlying the urban (and residential) research. Traditionally, reasoning about geographical space has been structured as a response to the individual and interpersonal relations as well as the interrelations among firms, households, and government. Space is constructed and reconstructed from the organization of behavioral activities relative to changes in the technology. Such an approach assumes that movement is unidirectional through time and multi-directional in space intimating that a person can move freely in any number of directions in space while always progressing forward in time (e.g., from a lower level of well-being toward an improved level of well-being). Mobility then is conceived to occur within a fixed chronogeographical structure which is perceived as a set of succeeding linear episodes or events in space (Parkes and Thrift, 1980).

This within time-over space characterization determines or structures events as though there was some purposeful progression or flow of activities and events from a past point of origin to some future state. Located within this temporal order is an historical narrative describing how

activities and events are interconnected based on what was observed. By this view, the contemporary city is a product of the past, and individuals are seen to act within the constraints built by the past, as relayed by what has been observed by researchers and policy-makers. Existing social geographic explanations then are limited to an account of the interactions among persons, institutions, firms and households, which are observed to determine the outcome of historical and social processes. Somehow these combine to form the geographical structure in which these interactions are observed to take place.

In addition, often it is assumed that people are capable of acting freely, as in the example of their ability to move in accordance with their preferences (Cox, 1979). To argue, however, that residents express their freedom of action by relocating suggests that they are less free in their present position. It may be that their location in a nondesirable physical and social environment (e.g., neighborhood) constrains their daily movements and overall level of well-being. Given the traditional container conception of space and time, people act and move, but it looks as though they are restricted by various irreversible historical and social processes. Dissatisfied with their socio-spatial location, people are determined to move and escape the confines of their position in life. They search and discover a new occupation or location, which is perceived as a slightly better or relatively more satisfactory location. Presumably, their desire to improve their level of well-being is fulfilled when they are free of their historically and socially determined location. A question arises then as to what happens upon achieving this level of well-being? Under existing conceptualizations, the aspiration to be free is confusing and establishes a context for conflict.

Reasoning about the urban social and geographic structures is founded on the notion that individual decisions are made, equally and freely by all. This suggests that they must also be based on and assure the maximum citizen homogeneity: if everybody makes the social decision then everyone is free and equal. Traditional models simply assume that all people are similar and that they desire to be free and equal. Critical theory challenges this assumption and suggests that the contemporary institutions in intervening between the individual and these ideals may constrain human action. Moreover, because institutional policies are not established by the decisions of all existing residents, there develops, consequently, a set of contradictions (i.e., the micro-dialectic) which are not easily resolved. For example, if housing and mortgage money are distributed unequally, it cannot be argued, consistently at least, that equalizing it by public policy intervention, will prevent social-spatial differentiation. Such an argument is not legitimate because even though the intent of such a decision is to make everyone equal it conflicts with a notion of freedom expressed in terms of preferences. Whereas traditional theory assumes away contradictions like that between equality and freedom, critical theory acknowledges them but then does not seem to pursue the matter.

There is an important dimension of both arguments which is neglected, the sets of values themselves. In trumpeting one set of values over another, either account presumes a continuum of individual to social values which is applied to explain the urban reality; but neither perspective attempts to explain the continuum. So as one reads the literature and synthesizes the theoretical and empirical findings, the scenario that emerges as Scott (1980) acknowledges, is a conflict among different personal and social value sets.

Whether in the context of either traditional or critical theory, then individuals still have preferences, make decisions and act upon them. A primary focus of the theories is a description of the observable spatial form or consequences of urban phenomena with the exception that explicit attention is paid to the dimensions of space and time, and the contradictions. How critical theory proposes to resolve the contradictions remains unanswered. Although Scott's (1980) proposal of the paradox of individual and social decision-making is interesting, if this paradox is presumed to reflect a contradiction, as suggested above, then there arises a question of how to overcome it. In part, an answer to this question requires an explanation of: 1) the apparent fusion of individual actions or experiences with learned or social values, and 2) the resistance of social values to elimination.

These issues deserve further investigation. There is a need to formalize and evaluate the linkages between reasoning about human action, and moral choice, in more detail. In practice, people probably attempt to optimize a number of (often contradictory) objectives in making their decisions. In the context of housing decisions, people seek to maximize their social status and future income while minimizing neighborhood conflicts with one that would be made by financial institutions on a single economic (or social) objective. The application of a normative mode of reasoning that suggests a single choice must be made when resolving conflicting values, such as those of investors and those of neighborhood residents, may be fallacious and contradictory if the participants do not make decisions in this manner.

Although aware of the tentative nature of many of the arguments advanced in this study, it seems worthwhile to attempt to locate housing finance analysis within a wider framework of analysis. Traditional analyses

of housing and finance based on the relationship between consumer demand and market processes are secondary elements which are explicable only relative to the basic social structures and political actions within metropolitan Oklahoma City. Concrete empirical research along the lines charted by the approach is the only measure of the latter's utility.

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