Royal Docks Business School

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Gentrification and the Economic and Housing Crises of the 2000's: A Critical Analysis of Government-Sponsored Enterprises and Predatory Lenders

A dissertation submitted in partial fulfillment of the requirements of the Royal Docks Business School, University of East London for the degree of MBA International Business

May 2013

12,759 Words

I declare that no material contained in the thesis has been used in any other submission for an academic award

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Gentrification and the Economic and Housing Crises of the 2000's: A Critical Analysis of Government-Sponsored Enterprises and Predatory Lenders

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MBA International Business Postgraduate Dissertation

U1151876

14/05/2013

Abstract

This study focuses on gentrification and the possible correlations with the economic and housing crises **from the 2000's in the United States,** as well as the economic activity and mortgage market structure of Fannie Mae and Freddie Mac. The theories in this thesis are quantitative, and at times qualitative, and relate to financial, cultural, and organizational theories in the real estate market. The research methodology is both positivist primary and secondary in nature, and the two are used in union in order to attain a higher level of knowledge of the topic, and show correlations with the aforementioned factors and gentrification. The following sections, data analysis, conclusion and recommendation use the collection of research in order to formulate a focused and unbiased argument that shows a correlation of various factors to gentrification. Finally, further research on the influences of Fannie Mae and Freddie Mac and their policies is recommended for future managers and academics interested in gentrification.

Contents

Introduction 1
Background and Foundation 1
Justification for the Research 6
Critical Literature Review 8
The Economy, the Recession, and Ties to Gentrification 8
GSE's and Gentrification 101
Benefits and Costs from Gentrification 13
Race relations and Culture Loss in Gentrified Areas 17
Research Methodology 21
Secondary Quantitative Research 20
Primary Linear Regression Correlation and Causation Research 20
Data Selected for Dependent Variables Representing Gentrification 23
Economic and Housing Crises and Gentrification Regression 24
The Work, Products, and Loan Activity of Fannie Mae and Freddie Mac 24
Data Analysis 27
Financial Crisis and Housing Bubble Research in Relation to Gentrification 29
GSE's and the Implications of their Connection to Gentrification 33
Analyses of the Supposed Pro's and Con's of Gentrification 37
Racial Impact: Details Analysis 39
Conclusion 41
Recommendations 48
Bibliography 51

Introduction

Background and Foundation

"Gentrification is the process of renewal and rebuilding accompanying the influx of middle-class or affluent people into deteriorating areas that often displaces poorer residents" (Merriam-Webster, 2013).

This thesis will analyse the reality of gentrification in urban centers in the United States. Specifically, Washington, DC, New York, and Detroit will be looked at in great detail. Essentially, this paper researches the pros and cons associated with gentrification, and explores key findings that typify the outcomes for communities and individuals in relationship to gentrification. As this dynamic becomes more and more prevalent in the real estate world, the effects on business and culture for many grow exponentially. This paper will look at the causes and reasons for gentrification, and present arguments as to why cities are experiencing the certainty of increased gentrification.

A key element in explaining gentrification is being able to understand the financial crisis in the United States due to subprime mortgage lending and unethical amounts of deregulation from the Government and Government Sponsored Enterprises (GSE's) such as Fannie Mae (FNMA), Freddie Mac (FHLMC), and a non GSE, The US Dept. of Housing and Urban Development (HUD), which is part of the executive branch of the US Government. The environment in which banks and real estate lenders found themselves in during the early 2000's spelled disaster to the US and global economies. I will argue that immoral and irresponsible oversight played a vital part in the onset of gentrification in the US. The stage was set for disaster when citizens were granted mortgages that were two or three times the principal that they the

borrowers could afford to pay back. While gentrification for the most part emerged in the 1960's, it matured into the beast it is leading up to, and following the economic crisis of 2008.

There are varying arguments as to the effect the economic crisis had on gentrification. As the amount of funding for real estate investments decreases, many economists believe that generally the amount of investment in city centers also decreases, or slows down. Conversely, others would argue that without a surplus of available funds for extravagant investments, lenders and developers turned to cheaper inner city areas in which to expand and build capital. In essence, there is the opinion that many investors, often thought to be privileged white people, preyed on lower income areas during a time where the dollar went a long way. When analyzing gentrification, an essential part of doing so is understanding the circumstances in which it operated in the 2000's.

GSE's play an integral role in the structure of real estate development and finance, particularly in the United States. While not necessarily Government institutions, they provide a security blanket for brokers, lenders and borrowers of residential capital. Two leading multifamily lenders in the US, Walker and Dunlop and Wells Fargo, rely on the financial backing of organisations such as FNMA and FHLMC in order to do business. The capital required to originate loans sometimes nearing a billion dollars, comes through the secondary mortgage market, largely in the form of Mortgage Backed Securities (MBS). MBS are interesting when considering gentrification, because they serve as a means of making money off of fees from residential and commercial developments. Founded to make mortgages more affordable and stable, the institutions now generate immense sums not only from servicing fees, but also from selling pooled mortgage funds to investors of all types including hedge and mutual funds, as well as individuals or corporations in any field.

The fact that organisations such as FNMA and FHLMC took the brunt of the blame for the 2008 financial crisis in the US, along with Wall Street firms and

other mortgage lenders, puts the US Government in murky waters. While loans financed through secondary mortgage backers FNMA and FHLMC are no longer 100% guaranteed by the Government, their existence depends entirely on the Federal Government. Should these lending giants not be seen as catalysts for the rapid increase in perceived gentrification in urban locations throughout the US? If we are to assume that they are indeed the cause of the environment once dilapidated and now thriving urban centers find themselves in, then what **should these GSE's be doing to minimalize the drawba**cks from gentrification, while preserving the assets produced from increased capital, development, and property values? Lastly, the obvious line of thinking brings one back to the Government, and what changes in regulations will do for the entire real estate finance and development industries, and consequently, inner city inhabitants.

Many associate gentrification with the benefits of increased economic activity, the cleanup of previously neglected buildings, and increased safety. However, there are a number of issues that deserve attention when discussing gentrification. Some of the unwanted side effects of gentrification include segregation within cities, the uprooting of inhabitants who can no longer afford their homes due to skyrocketing property taxes and living expenses, and the loss of culture within communities and neighborhoods. There are in fact many safeguards that have been written into legislation concerning the control of city development from developers by the Government. Things like rent control are often pointed to by Government officials and those involved in real estate, but are they enough?

Conversely, there are many obvious benefits to gentrification. The most obvious are increased repair and investment in previously underdeveloped neighborhoods and buildings, a perceived reduction in crime, and overall economic benefits to local business and investment opportunities. Another side of these same benefits is the monetary benefit for real estate developers, municipal entities, commercial real **estate lenders, GSE's, and Wall Street. As** prices for construction and the revamping of housing and retail units decrease,

the gains for developers can be staggering, and the real investment opportunity for buyers is abundant. As a society it is important for us to value the gains and benefits from the increased capital of real estate developers. The notion of capitalism is valued, and at the core of American culture. Having said that, and being aware of the pitfalls of gentrification, is it possible, from the mindset of a player in real estate development to build a platform in which only the pros, and none of the cons, are utilized? This question is addressed mainly in the data analysis section, and its key elements are considered throughout the paper.

For many, the issue of gentrification is arguably a black and white issue. Many see the circumstances in Washington DC as a perfect example of what happens when white and Asian middle-income people move into lower income black neighborhoods, and push out black families and culture. Often times oblivious **to doing so, these people are seen as “culture vultures”, trying to share in a** cities embedded African American culture, formed through race riots in the **60’s and the strength and resolve of rebuilding commu**nities from within following the **crack cocaine epidemic of the 80’s. The city has emerged from** those times, yet there remain areas still plagued by crime and drugs. Because there is no true working class white neighborhood in Washington DC, white people moving into lower income areas will no doubt assume properties once inhabited by African Americans. While many bemoan such goings on, some African Americans, such as 74 year old Frank Bryant, welcome the change.

Having spent his whole life in Washington, DC, Frank Bryant has lived through turbulent times, and through gentrification, yet recognised a reprieve from tenuous circumstances in his H Street neighborhood (Shultz, 2008).

> These sentiments fly in the face of the often-told D.C. gentrification story — young white people move into a middle- or low-income neighborhood, property values rise, longtime residents get priced out and the ones who stay resent the newcomers.

Some of the above mentioned resentment no doubt comes from the fact that **about 70% of the city's unemployed are black. 2011 marked the first year since** 1960 that the city no longer holds a black population majority of 51% (Tavernese, 2011). Racial tensions continue to be the most recognizable detriment from gentrification.

The situation in DC has a murkier, more difficult to explain nature than assumed initially. Many forces prior to the blossoming of gentrification preceding, and following the economic downturn in 2008 forced blacks out of **the city in the 1980's and 90's. Additionally, the idea that it was only whites,** Asians, and International transplants that were to thank for new buildings and real estate development in Washington DC is misguided. To do so would ignore the work of African American architects and developers who transformed the city prior to the race riots which brought down the hard work of these leaders in the 1**960's (Franke**-Ruta, 2012). Another misunderstood reality is that the increase of white and Asian people into inner city DC has sped up the black population loss in areas of DC, such as U Street. In fact, as the newcomers arrived, so did new housing developments, and better public transformation infrastructure and stations. According to the Census Bureau, this actually slowed the rate at which African Americans were leaving the U Street Corridor (Franke-Ruta, 2012).

This paper will look at the effect of the economic and housing crises of the **2000's and** the impact of GSE products within the process of gentrification. Through the thesis Washington DC is frequently analysed in order to address the various sections and topics within the dissertation. Within the critical literature review, research methodology, and data analysis sections the dissertation will address **the housing and economic crises as well as GSE's in** relation to gentrification in order to determine relationships and correlation therein. Additionally the paper will look at the pros and cons to gentrification, as well as the issue of race and discrimination involved with the proposed two indicators of gentrification: the economic and housing crises, and GSE products.

The goal of this paper is to determine correlations and or causal relations **between the economy and GSE's and use that knowledge as a springboard to** make a recommendation about what can be done in order to maximise the benefits of gentrification while minimizing the harms.

Justification for the Research

The objective of this dissertation is to analytically research opinions from people in the real estate development, Government, and GSE sectors as well as people directly affected by gentrification as to what kind of compromise can be reached to maximise benefits and lessen negatives from the process as a whole. Moreover, primary research using quantitative data to determine correlations between indicators of gentrification and aspects of the recession and housing market bubbl**e, as well as GSE's will be used in** conjunction with secondary data to help formulate an argument for the thesis question. This thesis will **critically answer the question "do the economic and housing crises of the 2000's and GSE product**s of FNMA and FHLMC correlate to or have a causal relationship with the rate of gentrification**?"**

Critical Literature Review

The Economy, the Recession, and Ties to Gentrification

Subprime mortgages offering higher rates to poor credit buyers **disproportionately affected minorities in the 2000's leading up to the mortgage** crisis of 2008. Wasserman, 2008, states that 55% of the high rate loans went to African Americans while only 17% went to whites. After the housing bubble, real estate develope**rs, banks and GSE's issued a vast number of high cost subprime** loans in order to capture as much of the housing bubble as possible. In order to do so, Wasserman argues, minorities were targeted in order to meet the capital demands of lenders and financers, who stood to make high profits of high interest rates. Using this line of thinking, one can assume that as the housing bubble burst, and predatory lenders were left with a vast number of delinquent and foreclosed loans, and of those loans that entered foreclosure, minorities suffered at higher rates than whites. To take it a step further, failed loans for residential properties within inner cities meant **that "predatory" whites then** stepped in and bought the homes that minorities had once resided in. As the middle class moved in and invested capital, property values rose at such rates that those who had lived in the neighborhoods previously were driven out in high proportions **because they couldn't afford the property taxes or increased** rent.

Another interesting way of looking at the situation is to view it from a more positive slant. The failed apartments and condominiums now present developers with a great investment opportunity to make money. While the idea of refurbishing struggling buildings in order to raise values and sell at a high price is not a new practice, Government regulations add a dimension that may help a wider range of residents than just the middle and upper classes. New York City developers were paid up to $75,000 from the city if they made half of the units in their housing projects affordable (Katz 2009). While the idea works well in theory, Katz argues that developers are very wary of the project as they have already invested incredible sums of money, and do not wish to give up on the hopes of having all their units filled with tenants paying the highest

possible rent. In fact, most developers actually sat on their investment, hoping for the housing market to improve.

A common component in the process of revitalizing inner city areas is the relocation of large numbers of inhabitants. When buildings and housing projects are torn down and replaced with renewal programmes, the people moving in are usually owners or renters, who can afford inflated prices for new developments (Kleinhans, 2013). The economic collapse, paired with the housing bubble burst gave way to a rise in such occurrences. With many of the projects, including the construction of mixed-income housing, the end result when public or low income housing is involved, is inevitably the relocation of these tenants to new locations. It is not the families and households who make these decisions, but rather Governments, who are in cahoots with developers and real estate lenders. The economic crisis made this situation even worse, as lower income families were drastically affected by subprime mortgage loans that failed.

As foreclosures inside and outside of cities increased due to the price of housing from predatory lending, argues Marc Jarsulic (2011), the deterioration of the value and quality of homes amplified. The bursting of the housing bubble, paired with foreclosing homes, and low quality loans spelled disaster for real estate lenders, and their financers, such as **GSE's and Wall Street** financial institutions. What happened next was a domino effect: mortgage lenders could no longer access capital to pay off the dried up loans, and the mortgage backed securities held by investors and banks went belly up, causing widespread economic panic and job loss. The most visible and evident event that signaled disaster was the failure of Lehman Brothers. Many individuals who had homes foreclosed now were also without jobs, and the result was degradation of neighborhoods.

Jarsul**ic argues that it then took Federal regulation to slow down the "worst recession since WWII". As credit dried up, so did income. Federal agencies then**

had to face questions about where they had been throughout all the glaring signs that a recession and housing bust were coming. The Securities and Exchange Commission (SEC) was targeted by politicians and activists for turning a blind eye while Wall Street, real estate developers, lenders and private investors made vast sums from high interest loans, and pooled MBS. The indicators that the housing market was slowing, and then ready to burst were there. So where was the Government?

Wyly and Hammel (2001) ascertain that suburban residential growth slows down gentrification. This is pertinent when critically analyzing the affect the recession had on gentrification and housing because it shows an adverse relationship between a housing and economic boom and gentrification. The antithesis of this finding is studied and presented in the next section of the paper, research methodology. Logically, the negative correlation between suburban development and gentrification makes sense. Wyly and Hammel argue that the sections of Washington DC that had the most revamping accounted for about only 17% of the residential housing at the turn of the century. Quantitatively this small number alludes to the fact that in this instance a qualitative understanding of general theories and realities concerning inner city redevelopment are perhaps more effective. Judging from scholarly literature concerning the role of economic and political elements affecting gentrification, it appears that as the economy shrank and people stopped expanding residentially in suburban areas, gentrification increased.

GSE's and Gentrification

Government sponsored institutions like FNMA, FHLMC, as well as Government agencies like HUD exist as secondary mortgage backers, chartered by the US Government to provide a more affordable and stable mortgage market for homeowners. Mortgage lending trends over the past twenty years have had a

direct impact on gentrification, argue Wyly and Hammel (2004). In the early **1990's under US President Bill** Clinton, initiatives began to strengthen the relationship between urban neighborhoods and financial capital markets. The glut of housing was built on sustainable yet flexible mortgage credit for Americans who had previously struggled to find the financing necessary to be homeowners. Metropolitan areas like Washington DC, Baltimore, and Philadelphia all experienced ratios between 2:1 and 5:1 as far as urban city development and investment in cities in relation to surrounding suburban **areas. A product of this urban "core" investment is increased class segregation** within cities. According to Wyly and Hammel, gentrification has in essence re-polarized the United States.

Rental housing is a topic that directly influences gentrification in cities. Fannie Mae and Freddie Mac have always been encouraged by Government initiatives to provide incentives for rental property owners so that they would have reason to provide housing for lower income families in improving urban areas. The problem is that many believe these GSE giants have not done a good enough **job (Rengert, 2002). A scenario where the lack of provisions for GSE's has** caused problems occurs in older properties in financially needy neighborhoods where the owners are unable to raise rents in order to improve the property. Because the renters are unable to afford rent increases necessary to improve the property values, the property is unattractive to higher income households. Sometimes this occurrence results in property desertion. Another reality is that these federally funded lower income housing projects expire after a number of years. After the period of incentives ends the units are sold at market cost to any available buyers, causing an influx of higher income households into previously ceilinged buildings. The product of which is of course displacement for the original inhabitants.

Broadly speaking increased availability for residential financing from banks backed by FHLMC and FNMA would assumedly be a positive thing for renters, as loans were readily available. The affordable housing campaign essentially

failed spectacularly as its mission backfired following the housing bubble burst. Margaret Groarke (2002) explains that FHLMC issued large loans that owners of rental properties could not pay back without raising the rents of their units. The families who had moved into the apartments and condos, and to whom the programme was geared towards, were then thrust out of their homes as costs rose. Using New York City as an example, Groarke points out that the **appraisals from the late 1980's were inflated, causing high principals for** mortgages backed and repackaged through FHLMC, and as housing prices fell, many mortgages in the Bronx foreclosed. Even before those foreclosures, the repairs and building improvements to which renters were entitled were ignored in order to meet the high monthly mortgage escrow payments.

It seems no one would purposely enter into a financial agreement they thought had a good chance of failing. So why were banks so willing to lend billions of dollars to borrowers even though there were many economic risk indicators telling them not to? The reason, says Groarke, is because high portions of the **financial risk were held GSE's like FHLMC and FNMA, and traditional lending was** disregarded. By issuing large numbers of overinflated loans, banks were assured an increased number of higher monthly fees, so the situation seemed like a win-win. With everyone making money hand over foot, it became easier and easier to ignore the inevitable crash which would rock the housing market and subsequently, the economic climate in the US. The housing projects in metropolitan urban centers like the Bronx were over financed yet underfunded, and the void was eventually filled by middle class opportunists who were able to buy homes for cents on the dollar following the housing market crash, and see immense increases in property values over a short period of time.

Jason Richardson (2012) sums up his opinion on the relationship between **investment from GSE's and residential turnover in core urban areas by saying** that areas with more traditional deposit based mortgage banking systems, rather than MBS, subprime lending systems financed through FNMA and FHLMC, saw far fewer numbers of turnover and foreclosure. Lees (2000)

believes that GSE's have put pressure on governments to revamp and redesign urban areas as a means of increasing tax revenues. The programmes geared towards providing affordable lower income housing turned out to do quite the opposite of what they were supposed to do because the predatory lending and high yield securities got the better of bankers and lenders. The outcome was the rejection of lower income households from the communities they were **supposed to be housed in. Because the evidence against GSE's is so direct an**d alarming, people like Immergluck (2011) argue that one option for the US would be to completely privatise the mortgage market, and do away with Fannie, Freddie and the Federal Housing Authority (FHA).

Benefits and Costs from Gentrification

A central belief to those who see gentrification as a good thing is that the buttressing of inner city areas that were not generating much in the way of tax money for municipalities, can, with increased commercial and real estate development, turn otherwise poor areas into thriving ones. Literature on gentrification almost always reflects negative opinions on the issue, so it is important to try to examine the literature that explains why gentrification may not be a bad thing, and critically evaluate the effectiveness of the arguments. The reason there is a lack of incentive for academics and researchers to portray gentrification in a positive light, argues Atkinson (2002), is because of the high interest from social and progressive writers who favor topics that accentuate perceived racial and economic injustices.

The regeneration of urban centres is the most obvious of the perceived benefits of gentrification. Throughout history, previously unwanted areas have become highly sought after pieces of real estate, resulting in an upgrading of infrastructure and economic value. These benefits are not arguable in their core, but rather the costs of these benefits is what causes such disdain from the

opposition. A second advantage to gentrification is the increased value of homes to homeowners. It is not unheard of for properties bought at $100,000 to increase in value six or sevenfold over the period of a number of years in which the value of the area increases. This benefit also holds true for owners of commercial land, who are able to rent their space at higher and higher costs. The problem with this line of thinking is that it is dependent on which stakeholders are involved. These benefits obviously do not translate over to renters, for instance.

Additionally many areas that see large increases in property values are not areas where gentrification exists. For instance, my parents bought their home in suburban Washington DC in 1983 and sold it, somewhat fortuitously, for nearly seven times as much in 2004. Their home, in Chevy Chase, MD is an upper middle class area where data on property value increases is invalid in relation to gentrification, yet often times used in order to show the benefits of gentrification. Nonetheless the increase in wealth and property values is certainly an undeniable positive for some areas undergoing gentrification.

An interesting finding that Atkinson uncovered relates to the widely held notion that gentrification results in higher tax revenues for cities. This may not be the **case. Using Gale's 1984 studies, this position was refute**d, as nearly all of the new residents to gentrified areas come from within the city already, just a different neighborhood. Therefore there are not necessarily new, greater revenues for municipalities from gentrified neighborhoods, as the tax revenues from new inhabitants were already being paid to the city Governments. Another logical reason this line of thinking is not accurate is that the very basis of gentrification includes inhabitants leaving the city, and therefore no longer paying city and or state taxes.

Critically, this finding both makes sense and presents one with another **quandary altogether. Taking a step back there is a gap in logic from Gale's and Atkinson's findings. If we take their findings as fact we are neglecting the**

reality that the people moving into the homes of the residents who moved into gentrified areas from other parts of the same city are most likely paying higher taxes than those who were displaced. For instance, if ten families moved out of **Washington DC's U Street neighborho**od with a mean household income of $70,000, and ten families moved in with mean household incomes of **$100,000, then the people who moved into the latter's old homes would have** to be making the same if not less than that of the families who were displaced in order for the statistic to be true. That is unlikely, as the people who moved into gentrified areas would assumedly come from neighborhoods in which new residents would have to have higher level incomes than those who were forced to move out of the gentrifying neighborhoods.

The problems associated with gentrification are well known, displacement of families and neighborhood businesses perhaps being the most noted. Besides the increased taxes that drive out local businesses and inhabitants of the newly hip areas, another problem, outlined by Ingra Saffron (2013) exists: monotony. Perhaps what keeps cities beautiful and lovable are not their perceived property values and booming residential high rises, but the eclectic collection of culture and philosophy that transcend the old **row homes and "mom and pop" shops in** the inner city. The very thing driving people to these gentrifying neighborhoods is destroying its existence. The perceived diversity of living in neighborhoods like the Graduate Hospital area in Philadelphia draw younger groups to the area, only to find that their pilgrimage has caused the percentage of African Americans in 1990 from 78.5% to just over 32% in 2013 (Saffron, 2013). This is an underlying problematic issue because the construction of new $800,000 homes does not stop with just a few. As each row home is torn down, it is replaced, and quickly filled by a new modern 4 or 5 bedroom house. Why would developers and older residents not cash out if they own the properties? The problem often found for the neighbors is that they have not paid off their home, and even if they have, the reality that their small home is now surrounded by doctors and lawyers living in near million dollar homes has

driven their property tax up to a level in which they can no longer sustain living there. The quandary here lies with the fact that the city of Philadelphia urgently needs those tax dollars to fight crime, corruption, and drug abuse.

Lance Freeman, a Columbia University professor sees the perceived exodus of minorities from urban centers as an idea that is missing the point. He argues that many African Americans welcome the change in demographics, and new businesses. As drug related crime leaves to be replaced by farmers markets and gastro-pubs, the older minority residents breathe a sigh of relief, he argues (Freeman, 2006). Freeman argues that older residents in gentrified areas are no more likely to be pushed out than people living in any other area. The difference, he states, is that those moving into the area are from a vastly different demographic, and not necessarily in racial terms. The main idea in his book is that the underlying theme of gentrification is that areas are becoming younger and younger, which may not be a bad thing. Seeing gentrification only though a racial lense is perhaps too unsophisticated, he argues. What should be most alarming to us about gentrification, concludes Freeman, is that diversity is falling by the wayside.

Race relations and Culture Loss in Gentrified Areas

The influx of subprime mortgages into the mortgage world, in conjunction with **the deregulation and diversification of the 1990's had disparate effects on** demographics within the United States, in relation to housing and mortgage lending. A basic explanation of the way in which minorities were financially abused is as follows: the newly deregulated mortgage market allowed lenders to offer credit to borrowers who in a more regulated environment would not have been eligible for financing. The end result of which was higher rate mortgages with heightened fees to offset the more likely event that the mortgages might become delinquent, in default, or end up in foreclosure. This theory is one supported by Williams (2005) and presents an interesting discussion, as o**ne might see the deregulation of the 1990's as a way to provide**

residential housing financing for groups who had historically had trouble attaining it, and thus owning homes. Williams however argues that "old inequities have slowly diminished; new inequities have risen in their place."

The inequities that Williams has identified are almost entirely about race. There is no doubt that in many urban centers, the displaced residents often share the same ethnic backgrounds, as do the middle to upper class buyers who push them out, either unknowingly or deliberately. However, this idea fails to address a widely supported idea that Matt Bevilacqua (2012) believes is more relevant to gentrification: class. He argues that the notion that higher numbers and greater concentrations of white people in areas does not automatically mean the area is gentrified. Washington DC is particularly interesting case because of the high rate of middle class blacks that have moved into areas formerly populated by lower income black families. Even though there have been areas of DC where African Americans were replaced by races other than their own, the black population only dropped 1.8% to 54.8% from 2005 to 2009 (U.S. Census Bureau's American Community Survey). While it is easy to surmise that gentrification is strictly a black and white issue, it is inaccurate. One should look no further than the cheap Pointe Breeze neighborhood in Philadelphia where black populations have been declining for four decades while Asian and Latino numbers more than doubled the rate of whites entering the area in the past three years (Areavibes 2012).

A counter to this notion however rests in the reality that black people have been confined to specific areas within the US for the majority of the nation's history through discrimination and even segregation laws. As these areas have become revamped through public and private investment, the culture and history of the areas has also been lost. This phenomenon has created a good deal of resentment from black communities, and rightfully so, argues Freeman (2006). But in his book he also states that the idea that white people "command and obtain better services wherever they live" is a common belief, not only among blacks, and is a source of resentment for changing demographics in cities like

Harlem. Right or wrong, the opinion that gentrification is a white and black issue still dominates modern dogmas relating to race, development, and culture **shifts in America's inner cities.**

A key element of a **city's wellbeing** and the maintenance of its cultural identity is having local children educated within their community. Hopkins (2012) argues that the existence of charter schools in an area causes neighborhoods to lose their bonds with residents. Washington DC has the second highest percentage of privately managed charter schools in the nation, only behind New Orleans. One of the reasons the culture loss happens is that charter schools cause students to travel out of their neighborhoods, and thus lack the bonds to their community that might occur naturally. Charter schools, says Hopkins, cause more racial segregation than there would be normally, and are another example of how ideas like inner city revival, meant to improve situations for inner city families, can backfire. Another issue that Washington DC faces is the incentive laden climate that private developers find themselves. Washington DC is one of the few major economically powerful cities in the United States with a reasonable building height limit, something some politicians and developers are trying to change. Additionally, publicly owned parks are being threatened **by Government plans to build more "mixed income" mega apartment** complexes, which are the very thing that has sparked the problems associated with gentrification.

The central issue in much of the academic literature concerning race is related to displacement and manipulation of inner city residents. While there are debates on the exact breakdown of racial groups moving in and out of cities accused of gentrification, there is a common belief among many studying the phenomenon. That commonality is that money talks, and welfare of communities and culture is often the first thing to be brushed aside as a result. With the gains from increased taxes due to higher income residents and active retail stores enticing the Government to provide monetary incentives for developers, the upheaval of historic and lower income areas within cities like

Washington DC is inevitable. The gloomiest part about this reality is that it **seems like all the players, from GSE's and developers, to Governments and** mortgage lenders have used discriminatory practices to hedge their risk and maximise their monetary gains.

Research Methodology

This section of the paper will explain the research that is used in the answering **of the thesis topic: "do the economic and housing crises of the 2000's and GSE** products of FNMA and FHLMC correlate to or have a causal relationship with the rate of **gentrification?" The** research conducted in this thesis uses two main research methods from which a central argument is drawn: primary and secondary quantitative data.

Secondary Quantitative Research

The initial research performed was secondary research of quantitative data. A great portion of the data was initially found from census research, housing indexes from municipalities and Government institutions, as well as corporate records. The advantage to using this data is that professionals with significant budgets performed accurate and plentiful data, from which theories and assumptions can be drawn. Nonprofits, newspapers, and academics as well serve as an excellent source of this type of data used for my thesis. The quantitative data amassed from this type of research enables one to address the goals and arguments formed in a successful thesis through statistical insight and a variety of enlightened perspectives.

Primary Linear Regression Correlation and Causation Research

The primary data portion of this thesis will be the comparison of quantitative statistics into new data. This will be done by using barometers that indicate various aspects of the economy and housing market, as well as the products, regulations, and lending data from GSE giants FHLMC and FNMA, and

comparing them with indicators of gentrification, using regression analysis. Simple regression and correlation analysis are methods that are used to determine linkages and relationships between two variables. The use of regression associates a dependent variable with an independent variable. In this instance the dependent variable is that relating to gentrification. The result of this type of research is a quantitative result from which qualitative data can be formed. Regression is a technique frequently used for economics, which is a main reason I chose it as I believe it will show correlative and perhaps causal relationships between the economic and housing crises**, GSE's, and** gentrification.

The below graphs use scatter plot graphs as a means of exploring correlations between variables. Scatter plots are a means of visualizing how variables relate to one another. After the data is collected and represented on the graphs, three outcomes are possible. The first is that there is no correlation at all and that the two variables do not have a numerical association. The second outcome is that there is a positive correlation, where as one variable increases, so too does the second. The last possibility is that of a negative correlation, where one increases as the other decreases. A linear line closest to all the points on the graph can be used to make predictions, and interpret the relationships between variables. A line of best fit that increases in value vertically from left to right represents a positive relationship, while a linear line that decreases from left to right shows a negative relationship. Regression analysis is known as a parametric method, meaning it relies on records that makes assumptions from data, and is commonly used for predicting outcomes. In this case, the data are used to explore the relationships and possible correlations between variables.

The ontological hypotheses from this research approach are positivist in nature, in that they use quantitative data to ascertain a set of indicators and relationships. This research method studies economic trends to define and indicate a stance on the connections between financial data and gentrification. The purpose of this positivist data is to find correlations and causal connections

between the aforementioned variables. In order to do this research I will determine indicators of gentrification, as a means of quantifying what is not necessarily a numerical idea in gentrification.

There are however limitations to the use of correlation analysis in compiling primary research data. The most prominent constraint on the accuracy of regression is that data can be manipulated to create a causal relationship when there may not actually be one. For instance if one were to use regression techniques to compare the population of Washington DC to the number of Premiere League titles for Manchester United from 1980 until now, there would be a linear module indicating a positive relationship. There is of course, no relationship between the two. When correlation graphs and simple regression are based on data that is observed, and not quantified numerically, the result can also be ambiguous. Fortunately, the research in this thesis does not use observational data. Lastly, determining numerical indicators of gentrification proved difficult. Gentrification is the collection of a number of things, but this paper uses real, quantifiable data that explain the existence of gentrification numerically.

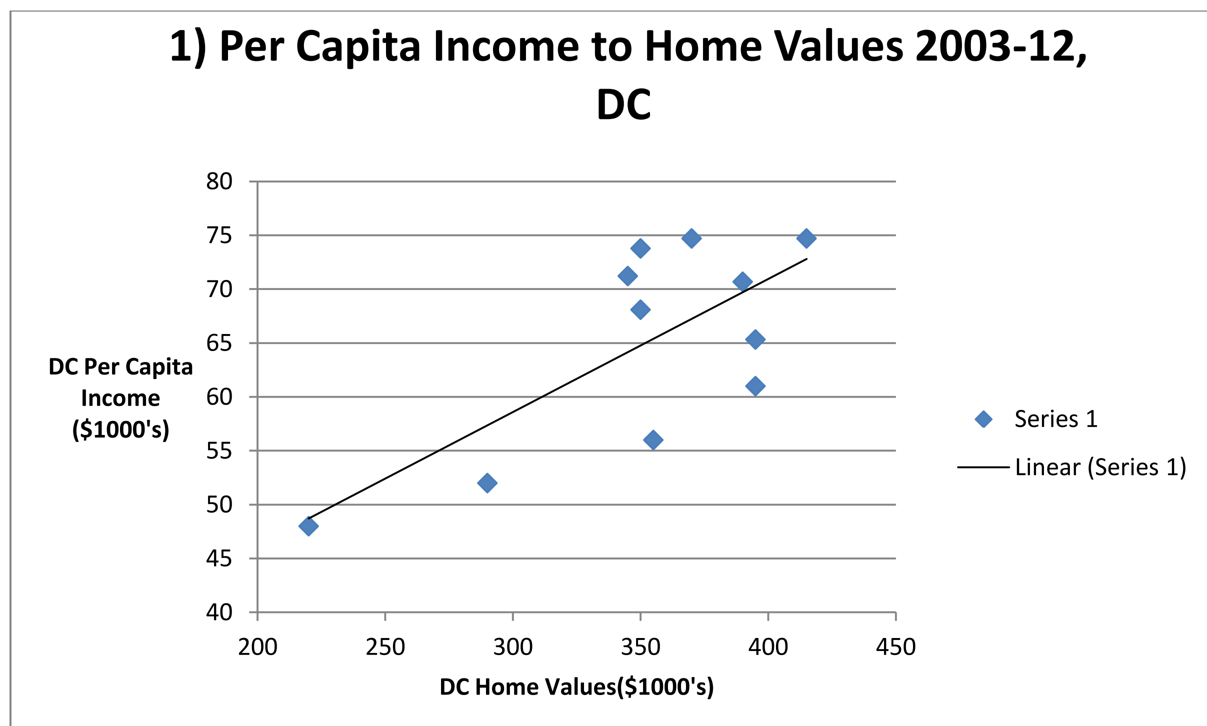
Data Selected for Dependent Variables Representing Gentrification

The scatter plot graphs in this section represent the connection between two variables. In each case the dependent variable on the y axis represents gentrification. Statistics identified as indicators of gentrification on those graphs are DC per capita income, median rent per square foot, median home values, and US per capita income. These statistics were chosen because they best illustrate the changes that characterize gentrification in urban areas: increased rent, increased home values, increased income, and thus a changing demographic. Each graph represents values over a specific amount of time relevant to gentrification as the changes in y values are analysed in conjunction

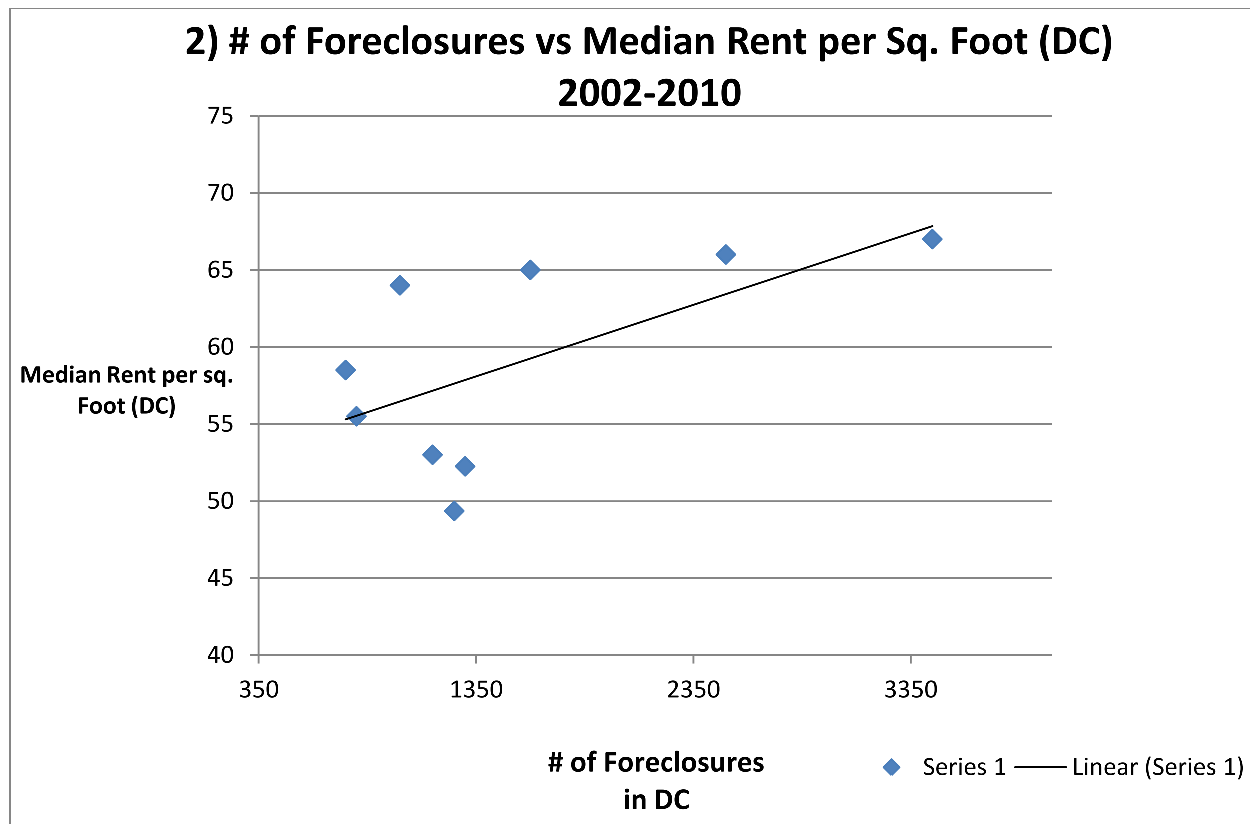
with the independent variables representing the economy and housing crises, or GSE products.

Economic and Housing Crises and Gentrification Regression

In order to show a linkage between the financial health of the economy and housing market, two graphical comparisons are made below to illustrate the nature of their relationship to gentrification. In this instance the median home values in Washington DC, are represented on the below graph (Zillow) as well as data showing per capita personal income from 2003-2012 in Washington DC (US Dept. of Commerce: Bureau of Economic Analysis). On this graph the independent variable (x) signifies the economic health of the housing market through housing prices in DC in thousands, while the dependent (y) variable signifies per capita personal income, also in thousands, which is a statistical representation of gentrification.



This second graph shows the relationship between median rent per square foot and residential foreclosures in Washington DC. In this case, the independent variable (x) represents the number of foreclosures in single family and multifamily condominiums (DC Recorder of Deeds and Office Tax Revenue Data, 2011), while the while the dependent variable (y) illustrates gentrification through median household rent per square foot (Studley, 2013).

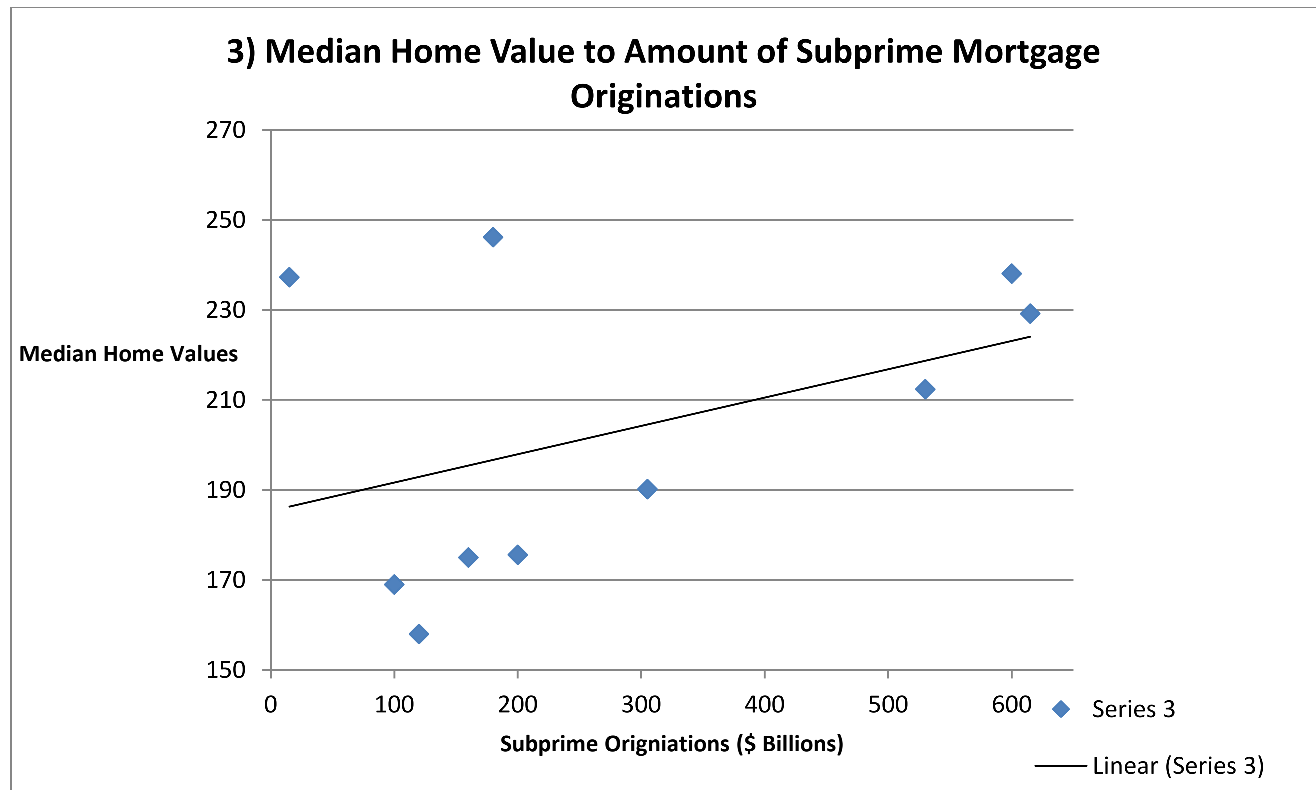


<u>The Work, Products, and Loan Activity of Fannie Mae and Freddie Mac</u>

The second portion of the primary research data continues to relate dependent and independent variables in order to establish or identify proposed indicators of gentrification. FNMA and FHLMC are vast Government chartered enterprises that made many errors identified in this thesis, such as the issuance of subprime loans, and faulty mortgage backed securities, in order to turn profits

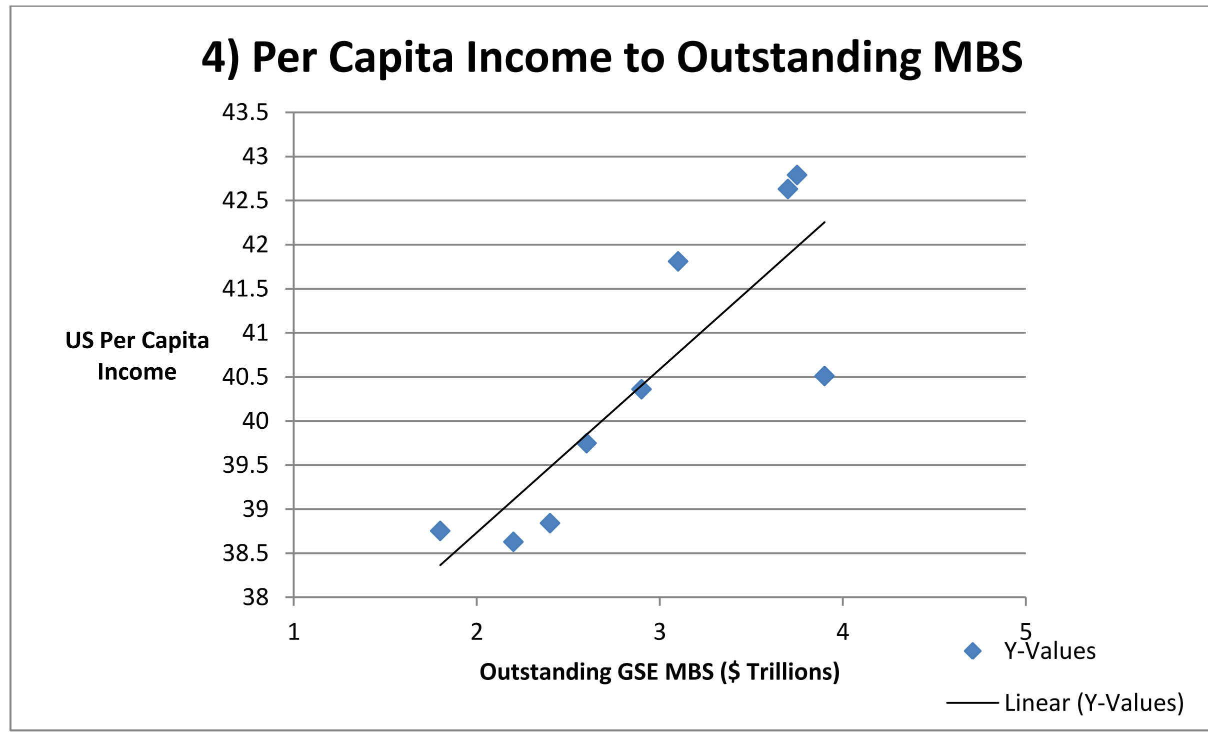
often times in a discriminatory manner. The charts below serve as a means of correlating the outcomes of their policies and lending with gentrification.

Subprime mortgage origination is a topic many see as a primary reason for the degradation of portions of inner cities and the decrease in suburban and rural development. This graph analyses the relationship between subprime mortgage originations in the US and housing prices from 1999 to 2008. As before, the dependent variable (y) represents gentrification through median US housing prices, and the independent variable (y) signifies the volume of subprime mortgage originations in the US in billions.



The final depiction exploring the relationship between GSE's FNMA and FHLMA and gentrification graphically is below. The dependent variable (y) in this instance is per capita income in the US in thousands (US Census Bureau), and the independent variable (x) depicts the value of the total number of Fannie

Mae and Freddie Mac outstanding mortgage backed securities (MBS) in trillions (Congressional Budget Office) from 2001-2009.



Overall the methodology of this paper is a balance between primary and secondary quantitative data. Using the two together adds a new dimension to a thesis only using one or the other. In this instance the use of scatter plot graphs and linear best fit lines will serve as a primary source of evidence in which to support or detract the arguments I have formed by looking at secondary data from experts and statisticians. In specific relation to this thesis, which analyses vast amounts of data in order to explain a large and somewhat nonconcrete idea in gentrification, the use of a qualitative argument based on quantitative numbers is the best approach. Therefore, in the following data analysis section the secondary data obtained through detailed data examination in conjunction with the primary data from the above scatter plot graphs will **serve as the means of formulating the argument for the thesis question: "do the economic and housing crises of the 2000's and GSE product of FNMA and** FHLMC correlate to or have a causal relationship with the rate of **gentrification?"**

Data Analysis

In this section, the relevance of the data amassed regarding the recession and its role on gentrification is analysed in relation to the thesis of this paper. In addition to the secondary data collected, the graphs from the research methodology section will also be explored in order to illuminate the thesis' overall argument. The research in section three of the paper addresses a wide range of topics within economic and housing factors and GSE products through their convergence with gentrification in scatter point graphs. The intention of this method of research was to create an in depth prism in which to structure an argument to answer the research question: do the economic and housing crises of the 2000's and GSE products of FNMA and FHLMC correlate to or have a causal relationship with gentrification?

Financial Crisis and Housing Bubble Research in Relation to Gentrification

There is a lesser available amount of literature and research on the relationship between the housing crisis and recession, in and around 2008, to gentrification, than expected. In a sense it may be one of the most important topics for that exact reason. This portion of the paper will not only organize and corroborate the data in this study, but will serve as a means of supporting the thesis question. Research shows that minorities received high rate, subprime loans at over three times the rate of whites. The significance of this statistic is compounded by the fact that these same minorities are the ones most affected by the ills of gentrification, and the group that least benefits from it. The sad reality of the recession is that a great deal of the reason why the US entered such a dark period economically is because people were used in order to turn short term profits with no real attention given to the

consequences or future. The economic crisis has shown us that there is a direct lineage between discriminatory lending in the US and the evils of urban renewal through displacement under the guise of Government programs.

The research of Scalone in 2008 on Basel II requirements and the drastic decrease in the availability of mortgage financing following the recession illustrates how difficult it became for families to acquire mortgages soon after the housing bubble burst. The irony from this reality is that lending and financing was readily available prior to the fall of Lehman brothers, but it was also discriminatory. The high rate mortgages more often acquired by minorities pulled millions of families into foreclosure. A few years later these same lenders were so illiquid that lower income families, often in urban areas could not get the financing necessary to buy homes. Subsequently these renters were dislodged from their homes and communities so that developers and lenders could capitalize on middle and upper class buyers, and raise prices. We learned earlier from Wyly and Hammel (2001) that during a recession suburban and rural development slow down, while there is an increase in urban revival and **inner city improvement. The data on the recession's impact on gentrification** shows a causal relationship, in that the outcomes and consequences from the housing and economic crises played a formative role in the increase in cases of gentrification following those catastrophic events.

The first graph in the research methodology section explores the relationship between housing prices and per capita income in Washington DC from 2003-2012. The dependent variable, as stated above, is per capita income while the independent variable is housing prices. The dependent variable in this case was chosen as an indicator for gentrification because it shows the rising of per capita income in Washington DC in a relatively short period of time, which is an emblematic occurrence in gentrification. The data on the graph shows a positive correlation between housing prices increasing, in such that when one is low, the other variable follows suit. What this illustrates is that a linkage exists, as the points on the graph do not venture far from the linear line. Wyly and

Hammel (2001) explained that urban development can actually increase during and following a recession, which supports the data on the graph. The recession was occurring during the later portion **of the 2000's yet income was increasing** in DC. This signifies that the recession must have moved people out the city who could no longer afford to live there, while others moved in and caused the per capita income to improve, along with housing prices.

The economic state of the US and Europe has had a direct relationship to urban development and displacement in urban centers. The fact that housing prices bloomed then restricted, and the availability of mortgage origination grew then constrained caused observable changes to cities. The undeniable need for Government regulation of these industries continues to shape the housing market environment today. Within this thesis I critically research available data on how market systems dealt with shifts in mortgage liquidity and housing issues, leading up to and following the recessions resulting from the housing bust in the US and Europe. This paper looks initially at housing prices in various countries and relates the findings to real estate development and gentrification and this research methodology section will analyse how Government programs domestically and abroad were established to counteract the mortgage crisis.

Housing prices are a fantastic indicator of economic stability. Housing prices peaked between 2006 and 2008, before the credit crunch following the demise of Lehman Brothers in September of 2008. Economically speaking, the availability of rate of mortgage lending slowed drastically following the crisis. Table 1 below shows housing values in twelve Organisation for Economic Cooperation and Development (OECD) countries leading up to and following the stock market crash of 2008. It was the dissolution of the false house of cards built on subprime mortgages that brought housing prices down. What happened next is quite remarkable. The availability of financing for real estate dried up, and spread across the globe, as seen in the below table. The US was actually better off than four countries in the below table as far as the swift decline in housing prices: Denmark, New Zealand, the UK, and Ireland.

Table 1. 12 OECD countries: House price movements

Country	Period	Peak in Period	Change in Period
Ireland	2Q1987-3Q2006	404	−22.8
Netherlands	3Q1985-1Q2008	234	+0.7
Norway	1Q1993-3Q2007	198	−11.7
Denmark	2Q1993-1Q2007	174	−14.9
UK	4Q1995-4Q2007	173	−11.4
Spain	3Q1996-3Q2007	127	−6.6
Sweden	2Q1996-4Q2007	127	−5.4
France	1Q1997-4Q2007	113	−4.6
Australia	1Q1996-1Q2008	109	−8.6
Finland	2Q1993-4Q2007	109	−7.7
New Zealand	4Q2000-3Q2007	90	−13.5
United States	1Q1995-4Q2006	56	−9.3

VSource: Authors' calculations based on OECD data, 27 November 2

The housing prices in Europe began to fall, and by 2008, they were in a housing induced recession. Scalon et al. (2008) explained that the creation of "Basel II" rulings dictated that risk play a much more pivotal role in the structure of banks and mortgage lenders. Essentially the regulation mandated that institutions holding higher portions of risky debt maintain higher amounts of capital to hedge the risk. The issue there was that housing prices were falling, making it nearly impossible for financers to meet the strict guidelines. Because

they then had less capital to use for lending, the availability of housing finance dried up. The Bank for International Settlements (BIS) points out in the regulations that "the Committee has sought to arrive at significantly more risk-sensitive capital requirements."

Europe experienced a unique problem regarding the value of foreign money used to finance domestic mortgages. Scalon et al. uses the example of Iceland, whose krona shrank from being worth 54.5 to the Swiss franc to 103 from a one year period between 2007 and 2008. Compounding the problem was that the mortgage documents outlined that the principal would shift to reflect any inflation incurred during the life of the loan. To battle the financial distress markets were experiencing, mortgage lenders had to require larger and larger down payments for new borrowers. This affected city centers because the majority of people who could afford to buy homes tended to be middle class borrowers who did not need looser lending requirements in order to secure housing. Thus, there was a streamlining of demographics within new residents, as middle and upper class residents increased gentrification rates in cities, while the lower classes were evacuated to lower income suburban areas.

Research shows that as the number of real estate lenders decreased following the collapse of Lehman Brothers, so too did the availability and number of newly originated residential loans in the US and Europe (Scalone et. al, 2011). The number of newly originated loans in 13 countries from 2007 to 2008 showed a large decrease in production, and the US and the UK experienced a fall of just over 40%. The evidence shows that the factor that had the most intrinsic effect on the numbers of new residential mortgages was what new regulations had done to the banking sector in respective countries. For instance, in Russia, where new regulations made it nearly impossible for banks to secure long term financing, the number of residential mortgage financers decreased by 96% to about 20 banks. The significance of this amazing decrease was that the few banks that remained were then expected to have the financial stability to sustain mortgage losses over a number of years, if foreclosures

continued. The availability of financing was as the essence of the sanctions imposed across Europe and America following the banking crisis of 2008.

Another more obvious outcome from the financial crisis was the massive increase in the number of mortgages with payments in arrears and those that **fell into foreclosure. "Serious" arrears status most commonly occurs after** mortgages fall more than three months behind payments. This is a misleading definition though, as anyone with a mortgage knows that missing simply one mortgage payment can cause an avalanche of financial ruin for mortgage borrowers. The FHFA Foreclosure Prevention Reports show that the percentage of residential borrowers in the US who were classified as **in "serious" arrears** more than doubled from twelve months before December of 2008. Some mortgage holders experienced a compounding problem relating to housing prices, the availability of financing, and the inability to satisfy mortgage payments due to the recession. Borrowers whose homes had negative equity, **and were in "serious"** arrears perhaps had the worst of it. On top of being unable to meet their monthly payments, these residents had homes whose values had decreased so suddenly and drastically that the market value of the home was less than the remaining principal balance of the mortgage. By 2009, a staggering 20% of mortgagees in the US were experiencing negative equity (First American CoreLogic, 2009).

"Serious" arrears were an accurate indicator for lenders that borrowers were nearing foreclosure. What is interesting is that the second graph in the research methodology section explains the relationship between foreclosures and median rent per square foot in Washington DC from 2002-2010. The dependent variable signifying gentrification is the rent per square foot while the independent variable is the number of foreclosures in the city. What is interesting it that, in a rather counterintuitive way, as foreclosures rose, so too did the median rent per square foot. This shows another positive correlation, and possible causation between the recession and gentrification. There are points on the graph that show times when foreclosures were higher and rent

was lower than other instances where the number of foreclosures were lower. This likely occurred when foreclosure numbers had not reached their peak, as there is a time lag between foreclosure and when new buildings are built and rented out at higher rates.

As foreclosures wrecked the city, a fantastic investment opportunity presented itself to lenders and real estate developers. Many new developments were built in order to usher in new residents to cleaned up and rejuvenated areas of Washington DC that had been low income areas since the race riots of the **1960'**s. The incoming residents were renting new and more expensive apartments, and as a result, rent prices increased while the foreclosures kept mounting. While the new buildings may have brought in more money to these areas, developers, lenders, and mortgage companies should have asked what could be done to prevent foreclosures. Later on in the data analysis section, the policies and products of FNMA and FHLMC that caused the aforementioned foreclosures that ironically drove up rent prices in Washington DC and other cities worldwide are explored critically.

GSE's and the Implications of their Connection to Gentrification

Bonander's (2013) research explains exactly why Fannie Mae and Freddie Mac were able to offer lower residential mortgage rates to borrowers, following the tragic events of September 11th, 2001. Due to risk of falling into an economic depression following the terrorist attacks, the Federal Reserve lowered the federal fund rate, which is the rate at which banking institutions can lend capital overnight to one another. The result of this lowered rate, Bonander argues, is that residential borrowers were able to receive comparatively cheap mortgages. The lowering of interest rates brought on domestic and international investment, and home ownership increased from 64% in 1994 to 69% in 2005 (Bonander, 2013).

Additionally, the lower rates gave way to new lending products and subprime mortgages which would be a key reason for the housing market crash in 2008. Subprime loans were offered to borrowers who had a higher chance of falling into default. These borrowers often took on high interest loans on the assumption that their properties would continue to appreciate in value, and that a second re-financing of the mortgage would provide the funds to pay off the initial mortgage. Of course, when home values fell, the idea fell apart. Sabry and Schopflocher (2007) tracked subprime mortgage origination and found that a staggering $1,225 billion dollars in subprime mortgages were originated from 2005 to 2006. An aspect that accentuated the problem was that these loans were going into default at high rates, after they had been securitized and sold in pools to investors on Wall Street, so the losses were high, frequent, and experienced by many different people across the financial and housing systems.

Graph number three relating FHLMC and FNMA to gentrification determines any correlation between median home values and subprime mortgage loan origination from 1999 and 2008. The dependent variable (y) representing gentrification is again median home value while the independent variable (x) indicates the value of subprime originations in billions. This graph also appears to illustrate a positive linear relationship between the two, although there are points significantly far from the line, suggesting that the relationship is perhaps not as strong as those in the previous graphs. There is still a correlation however, that suggests that the increase of subprime loan issuance may have led to an increase in home values in urban areas, after the previous residents had been displaced. The assumption with this graph is that the high rate of subprime loans that reached foreclosure, which in 2009 was over 17% (Federal Reserve Bank of San Francisco), resulted in the loss of capital for many in urban areas, whose owners were then replaced by families and individuals who could afford to buy the newly built, or renovated homes. With this graph, the limitation of the data is that home values fluctuated from the failure of

subprime loans, as home values increased initially somewhat artificially, but fell after the loans and economy crashed. Then the loans increased in value in areas in which gentrification was present.

The second graph on GSE's and their relationship to gentrification analyses the relationship between per capita income and the value of outstanding mortgage backed securities owned by Freddie Mac and FNMA from 2001 to 2009. This graph demonstrates a strong positive linear relationship between the dependent variable (y) showing per capital income and the independent variable (x) characterizing the value of outstanding mortgage backed securities. From the data we see that as one variable increases, so too does the other. This suggests a correlation exists between the two. The graph illustrates that the issuance of high numbers of mortgage backed securities was a possible cause for the per capita income in the US to change rapidly. The assumption for this take on the data is that the cities which saw a quick rise in per capita income were cities undergoing gentrification. Mortgage backed securities enabled high numbers of people to buy mortgages because the banks and lenders would sell the loans and as securities and make money off the interest. In the instance where inner city loans failed, the new families moving into homes vacated by victims of the mortgage backed securities crisis had higher per capita income than the previous occupants, hence the positive correlation between the two variables. With the preponderance of evidence linking FNMA and FHLMC to lending and origination practices that caused the housing bubble to burst and the economy to shrink, there are many experts who believe the GSE giants should be reorganized.

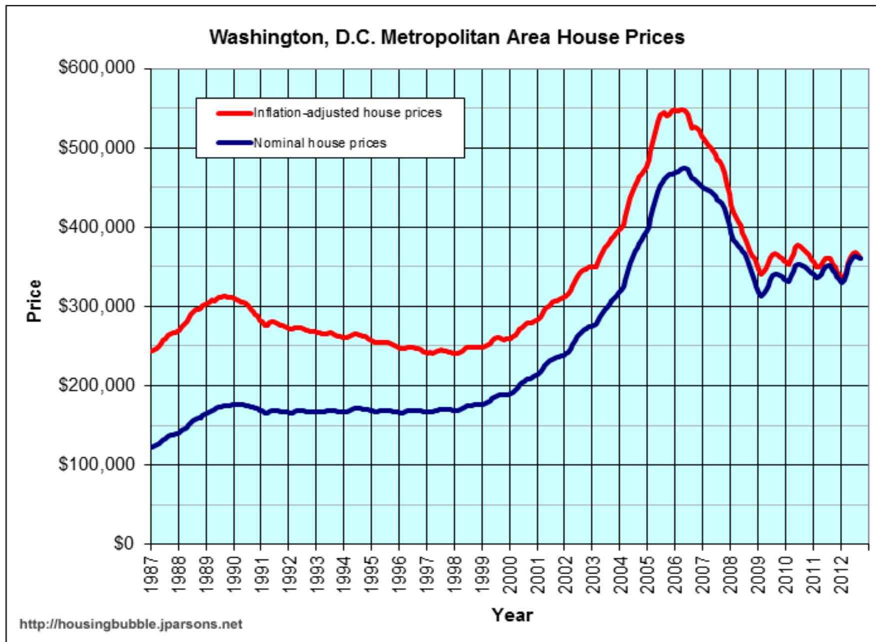
David Reiss believes that FNMA and FHLMC must be restructured and privatised. He states t**hat in 2006 they owned or securitized "more than 80% of the outstanding stock of single family mortgages." Eventually, following the** housing crisis, the two giants were made to borrow more $150 billion in order **to remain "solvent", and assumed by the FHFA** (Fannie Mae Security Litigation, 2008). Their failure, argues Reiss, is the main reason why the US entered into a

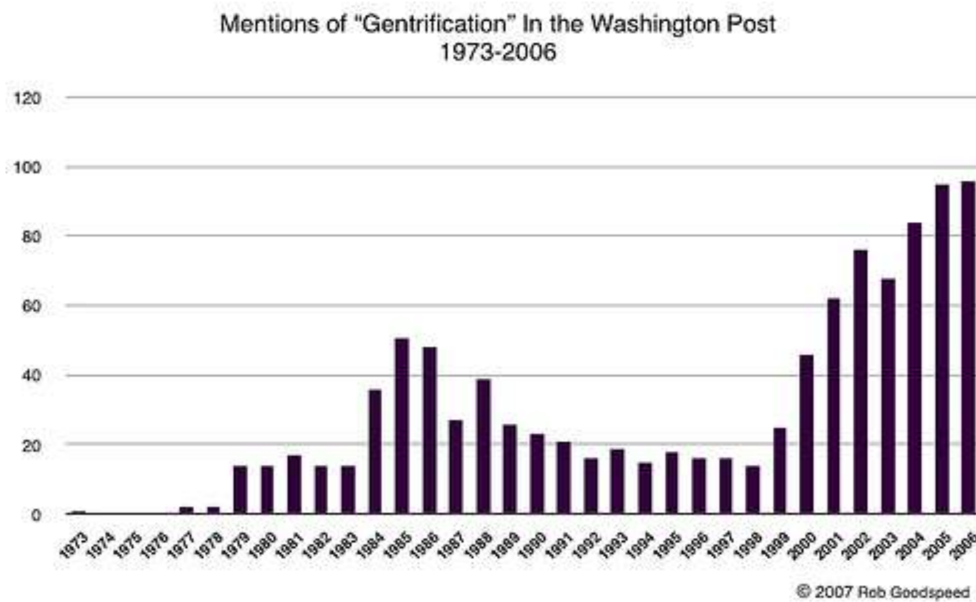
recession that caused many families to move into inner city environments that were cheaper than their other living options. The two entities are simply too large to fail. The benefits given to them by the government in their charter means they are able to finance real estate deals at a much lower rate than competitors. Reiss' research leads him to say that Fannie and Freddie should be privatised, with their public obligations assumed by Government actors. Independent researchers Pearce and Milner III (2006) have found that their value to mortgage borrowers is about 34 basis points, meaning that a borrower with a 200k mortgage would pay an additional $57 a month without Fannie or Freddie. Fannie and Freddie claim to significantly lower interest rates but this figure suggests that it is not such a significant advantage. In addition, Pearce and Milner suggest that Fannie and Freddie more economically favor real estate developers and sellers than individual and family borrowers, which goes against their mission statements.

Another argued benefit of Fannie Mae and Freddie Mac that Xudong and Bostic (2008) found to be false is their assumed positive effect on liquidity in the mortgage market. They argue that the two GSE's have massaged statistics on housing goals they set for lower income, overlooked rural, and affordable housing areas. Fannie and Freddie have used statistics of financing for homes in these areas for loans that would have been financed through FHA, but were assumed by FNMA and FHLMC in order to meet quotas. FNMA and FHLMC have banished prepayment penalties from a number of their single family and a smaller portion of multi-family loans. Their argument is that it allows borrowers to pay off their debts, without paying a yield maintenance premium, but independent research by Willis (2006) contends that the lack of a prepayment fee gives the two enterprises the ability to loan at higher interest rates. Later, in the conclusion section of this thesis, the argument by Reiss and other researchers and academics that FHLMC and FNMA should be privatised is addressed, as their research raises interesting arguments for just that.

Analyses of the Supposed Pros and Cons of Gentrification

The recession and unavailability of fair financing for lower income families meant that many families had to remain in under privileged areas. However, the fact that many families who could not afford housing were in urban centers meant that some of the residents most in need or fair financing in order to better their circumstances were at risk of being displaced by middle and upper class gentrifiers. Earlier in the paper we acknowledged that recessions and housing price depreciation increased the rate of residents moving into urban centers rather than expanding into suburban and rural developments. Wright (2011) uses rational choice theory through triangulative analysis to explain how the negative effects on urban residents has actually increased costs for local and federal governments, and handcuffed these displaced dwellers to dependence on tax dollars. Her hypothesis analyses an interesting relationship between the housing prices in the Washington DC area, and the number of mentions of "gentrification" in the Washington Post. The findings of this somewhat peculiar comparison are interesting; according to the association, as housing prices increased or decreased, so too did the number of times "gentrification" appeared in the newspaper. While Wright may be taking some liberties with her interpretation of the data as far as making the data fit her theory, there is inarguably some similarity to the shape of the two graphs below, figures 3 and 4. The obvious correlation to be made therefore is that gentrification actually does result in increases in housing prices, given the fact that the prevalence of gentrification awareness in news print equates to an increase in actual city gentrification.





Economic opportunities, argues Byrne (2003), exist for lower income residents, as a result of gentrification. As wealthier individuals and residents arrive, there is an opportunity for those in the neighborhood to provide the more costly and expensive goods and services that the middle and upper class desire. There is a link between poverty rates and the availability of jobs in urban centers that do not require highly skilled trades or higher education. While one argument against this is that the jobs being created in gentrified areas tending to be

lower paying jobs in restaurants or retail shops, there is some validity that the creation of new demand for goods and services when paired with the reality that the new residents will not likely be competing for the jobs newly created will result in higher employment. Another benefit to increased urban migration is the increased need for transportation and municipal functions. On U St. in Washington DC, for instance, the gentrification of the area coincided with vast metro rail, and bus construction and development, all of which required employees for planning, construction and maintenance.

Racial Impact: Details Analysis

There is a belief among a number of researchers that the recession and housing bust hurt people of color in a disproportionately negative way when compared to whites, and middle class families. The Applied Research Center's work has examined how historical inequities embedded in American culture, the Government, and the financial systems made people of color the most hurt from the foreclosure and subprime mortgage disasters. Bajal (2007) found that 35% of people who held subprime loans met standards that would have approved them for standard fixed rate, fair loans. The below graph shows the stark difference in the percentages of Black and Hispanic borrowers who purchased loans labled as "high cost" in 2006 as compared to whites.

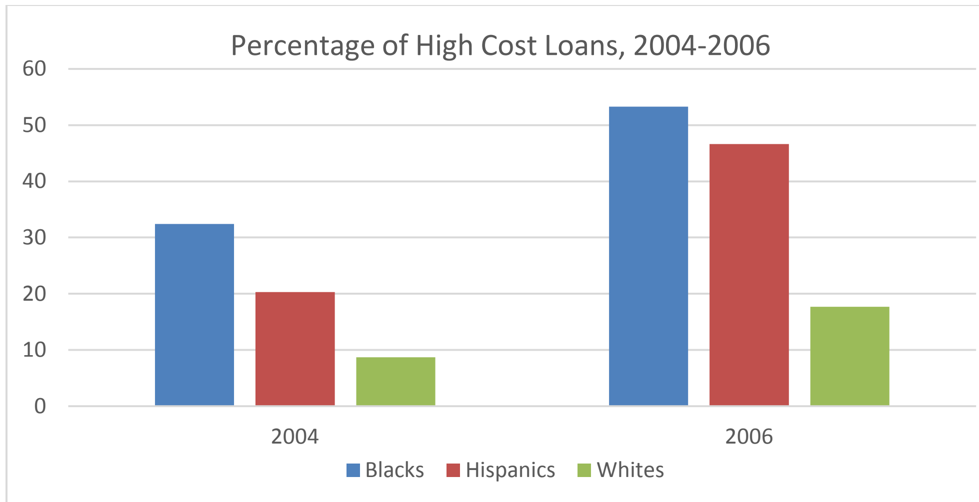


Figure 4 Downey (2006)

Figure 4 also shows how high cost loan origination jumped over the two year span, signaling t**he ramping of greed and irresponsibility by GSE's, the** Government, Wall Street, and mortgage lenders that would by 2008 cripple the nation, not just minorities, financially.

Financial lenders have danced around the issue of discriminatory lending by proclaiming that they did not engage in any racially motivated lending practices, and that numbers supporting the accusation only arose because minorities tend to live in neighborhoods with lower average credit ratings. However, research from ACORN (2006) found that even in middle to upper class brackets of black and Hispanic borrowers, poor white borrowers received a lower percentage of high cost mortgages. Therefore, this research illustrates how important it is to identify the fundamental reasons why people of color, and lower income communities were targeted by predatory lending, as the financial and housing system were built on the false understanding that the entire scheme would survive the subprime mortgage lending condoned by **GSE's, bankers, and mort**gage lenders. This research suggests rather logically that regulations must be made in order to prevent gluttonous policies

disproportionately targeting minorities from instigating moral and financial ends for everyone.

Conclusion

Gentrification, many argue, is a necessary byproduct of reinvestment and inner city development. In this thesis however, gentrification is not viewed as an assumed reality, but rather, an outcome of the conglomeration of a number of factors. The two most influential factors to gentrification in cities worldwide is the nature of what occurs before during and after a recession in urban environments that are seen as investment opportunities for developers and lenders, and domiciliary opportunities for the middle and upper classes. Additionally, for Washington DC and cities across the United States, gentrification is very much the product of the dealings and lending landscape shaped by GSE titans FNMA and FHLMC. The accumulation of forces has cleared

out lower income renters and owners typically from minority backgrounds, and replaced them with middle to upper class individuals and families, the majority of which are white.

The research question addressed in this thesis, “do the economic and housing crises of t**he 2000’s and GSE products of FNMA and FHLMC correlate to or have** a causal relationship with the rate of **gentrification?” is answered through the** consultation between secondary data regarding the economic and housing crises and GSE products, as well as primary data through correlation scatter point graphs representing simple regression data. Through the various sections, the arguments outlined by previous research and the quantitative primary research both suggest that the economic and housing crises along with **the consequences from the policies and work of GSE’s were primary causes for increased gentrification in the mid to late 2000’s. The environment created by** the issuance of discriminatory subprime loans and mortgage backed securities was a breeding ground for development and inner city regeneration, as the availability of fair, affordable, and safe mortgage financing nearly evaporated for the very borrowers who had been victims of high rate loans engineered to generate quick gains through exorbitant rates. These loans were originated through FHLMC and FNMA programs as mortgage companies sold their financial risk in the loans to larger banks, such as Lehman Brothers, who were securitizing groups of loans, known as pools, and making money off the interest based on the incorrect assumption that property values would continue to rise. The next phase of the gentrification process was for the victims of unethical lending practices to be kicked out by developers and landlords increasing rents, looking to seize the opportunity to turn profits, and build infrastructure **in a buyers’ market** following the collapse of the housing market. As the financing was no longer available to expand into suburbia, buyers flocked to inner cities to put down deposits on neighborhoods that were seen **as “on the up” and good investments.**

Theoretically, the findings of this paper support the majority of existing research based around theories of the causes of gentrification and inherent problems that plagued FHLMC and FNMA. Unlike David Reiss however, I do not believe FHLMC and FNMA should be privatised. The two chartered enterprises should rely on strong, ethical leadership by the Government and continue to improve liquidity for the mortgage market in the future. FNMA paid over $59.4 billion to the treasury and tax payers following their $117 billion bailout in 2008 (Washington Post, 2013). More importantly, FNMA turned an $8.1 billion pre-tax income for the first quarter of 2013, their highest in company history. FHLMC will likely pay a similar portion of their profits to the treasury later this **summer. With the financial strength of these two GSE's in good order, the** housing market will be healthier as the two continue to guarantee and invest in home mortgages. While it was the errant lending and securitization of loans made possible through FHLMC and FNMA that got the US into a recession, **doing away with the GSE's is not the best course of action. Rather, the two** entities should be heavily regulated, and not allowed to take on new investment strategies without professional and Government oversight in order to protect the US citizens from another crisis that will result in recession and a hotbed for gentrification.

The implications for managers and practitioners of mortgage lending institutions should include ethical standards as well as financially responsible repercussions in the future. This research project should stand as an example of what happens when financial institutions act solely as income generating entities; adoption of discriminatory and racist lending practices, upheaval of families and culture in urban areas, and economic ruin for the whole country. Managers should consider that gentrification occurs because it can, not because it has to. Managers who chose to read this research project should recognise the strong correlations behind the lending practices of FHLMC and FNMA in the past in conjunction with financial records of the recession as indicators of why and how gentrification transpires.

In conclusion, the argument formed through the primary and secondary research performed in this thesis illustrates that the problems and benefits we as society perceive in gentrification do not stand alone. The effects and nature of gentrification are the result of the financial, developmental and sometimes racially motivated lending environment cities find themselves in. The quantitative data in this paper shows with tangible statistics how minorities were disparately persecuted financially through the greed and negligence of FHLMC, FNMA, Wall Street, local banks, mortgage lenders, developers and all the other financial institutions who played roles in the events that caused the housing bubble to burst. Moving forward, FNMA and FHLM must be governed with a strict mandate that provides provisions for keeping families in their homes and communities together, while providing increased economic stability for local business and tax revenues for municipalities. This aim can be accomplished through fair lending, direct investment, and tight regulation of GSE's in the future.

Recommendations

Based on the findings from the research and analysis in this study, the recommendation **for the research question: "d**o the economic and housing **crises of the 2000's and GSE products of FNMA and FHLMC correlate to or have** a causal relationship with the rate of gentrification?**" draws heavily from the** quantitative findings of the topic. This thesis suggests and interesting proposition, that gentrification is indeed an outcome of designed and unintended financial activity. Inas**much as banks and GSE's were deliberately shaping a "get rich now" style of financing for real estate ventures, the scope** of what would occur once the housing market collapsed was beyond what most analysts predicted at the onset of the housing bubble. The recommendation of this study is that all the relevant factors and influences be considered when exploring an economic and social entity as influential as gentrification, specifically with an emphasis on correlation between factors which may at first glance appear independent.

The research and conclusions drawn in this thesis are helpful to managers in real estate development corporations, GSE's, governments and city councils. With a specialised knowledge of how all the moving parts in gentrification interact, and come together, managers in related industries can better formulate operation and project management tailored to maximising the benefits of gentrification while minimising the drawbacks. For these managers, balancing the gains from economic and social returns is paramount, and having a strong understanding of gentrification though the secondary and primary research completed in this thesis will no doubt assist them in that aim.

For society in general, the aim of this paper is to bring knowledge and education of sometimes distant topics to the forefront of community and financial awareness. With a more informed understanding of the mortgage industry, many borrowers would have saved themselves, and possibly the rest of the US, from the economic recession following the collapse of the housing bubble. While there may not be a solution, per se, for gentrification, there is a means of handling it, and that means is education. Above all, what is required if we are to avoid another financial disaster in this country, there must be increased synergy between the public, and those who control the financial and housing systems. Individuals in the public must be given the opportunity to make the conscious decision to better their financial, housing, and cultural standing, and in order for them to do so, they must not be held down by irresponsible, and discriminatory lending from GSE's, banks, and mortgage lenders.

In reference to future students undergoing dissertations regarding gentrification and the real estate finance structure of countries, I recommend that they try to use recent quantitative data from sources that have particularly helpful insight on the issue. While there is a wealth of literature on this topic, it is not all helpful, and deciding which data to use in order to elucidate your

argument is essential. As someone who works for a top five commercial real estate lender originating over $7 billion in loans during 2012, this topic was particularly relevant to my work, and my personal interests. The connection between my topic and my day to day life has given me the chance to see the discussions in my paper come to life in and out of the office, and in Washington DC, where I live. I urge future students to choose dissertation topics that they find themselves reading up on outside of school online, and in publications like The Economist, Wall Street Journal, or Harvard Business Review. In closing, this topic has amplified my personal interest in gentrification, a topic I know will shape my life in and outside of my career, for as long as it exists.

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