Journal of International Business and Economics
December 2019, Vol. 7, No. 2, pp. 1-11
ISSN: 374-2208 (Print), 2374-2194(Online)

Published by American Research Institute for Policy Development
DOI: 10.15640/jibe.v7n2a1
URL: https://doi.org/10.15640/jibe.v7n2a1

Growth in Home Purchase Price Preceding Crisis Explained by Technology Advancement: Eddison Walters Risk Expectation Theory of the Global Financial Crisis of 2007 And 2008 Confirmed

Dr. Eddison Walters[1]

Abstract

The lack of evidence in the literature supporting the widely accepted theory of a real estate bubble, or a financial bubble which was the cause of the Global Financial Crisis of 2007 and 2008, prompted the researcher to raise questions regarding the cause of the Global Financial Crisis of 2007 and 2008. Walters (2018) presented evidence which suggested there was no statistically significant evidence in changes of net FDI inflow for developed countries for periods preceding and subsequent to the Global Financial Crisis of 2007 through 2008. The development of Eddison Walters Risk Expectation Theory of the Global Financial Crisis of 2007 and 2008, in Walters (2018) presented an alternative theory for the cause of the Global Financial Crisis of 2007 through 2008. This new theory resulting from data analysis in the research conducted in Walters (2018), raised serious questions regarding the accuracy of an abundance of available capital which was suggested as the cause of a financial bubble, leading to a real estate bubble in the United State housing market, causing the real estate crash, which triggered the Global Financial Crisis of 2007 and 2008. Questions raised in Walters (2018), called for further investigation into the cause of home purchase price increase, which many in the literature have suggested led to a real estate market crash in the United States preceding the Global Financial Crisis of 2007 through 2008. It is critical to gain an understanding of exactly what cause home purchase price across the United States to increase. This knowledge will provide researches with a better understanding of the cause of the Global Financial Crisis of 2007 and 2008, avoiding the same mistakes being made in the future.

Keywords: Global Financial Crisis of 2007 and 2008, Subprime Mortgage, Real Estate Bubble, Financial Bubble, of Eddison Walters Risk Expectation Theory of the Global Financial Crisis of 2007 and 2008

Introduction

The lack of evidence in the literature supporting the widely accepted theory of a real estate bubble, or a financial bubble which was the cause of the Global Financial Crisis of 2007 and 2008,prompted the researcher to raise questions regarding the cause of the Global Financial Crisis of 2007 and 2008. Walters (2018) presented evidence which suggested there was no statistically significant evidence in changes of net FDI inflow for developed countries for periods preceding and subsequent to the Global Financial Crisis of 2007 through 2008. The development of Eddison Walters Risk Expectation Theory of the Global Financial Crisis of 2007 and 2008, in Walters (2018) presented an alternative theory forthe cause of the Global Financial Crisis of 2007 through 2008. This new theory resulting from data analysis in the research conducted in Walters (2018), raised serious questions regarding the accuracy of an abundance of available capital which was suggested as the cause of a financial bubble, leading to a real estate bubble in the United State housing market, causing the real estate crash, which triggered the Global Financial Crisis of 2007 and 2008 Eddison Walters Risk Expectation Theory of The Global Financial Crisis of 2007 and 2008presented the idea, advancement in technology was the cause of a significant increase in home purchase price preceding the Global Financial Crisis of 2007 and 2008.

[1] DBA Walters Global Business Resources LLC170 NE 2nd Street #4065 Boca Raton, FL33487 (954) 270-4701 Email: ewalters@eddisonwalters.com

Economist lack of understanding of the impact of advancement in technology on real estate price, led to false information being feed in the financial market. The theory also suggested, no financial or real estate bubble existed in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008. Eddison Walters Risk Expectation Theory of The Global Financial Crisis of 2007 and 2008 suggested, and abundance of media coverage of speculation based on false information of a real estate bubble, along with an abundance of media coverage of economist predicting a real estate crash, increased risk expectation significantly in the United States financial market. The increased risk expectation cause lending to stop. For financial markets to function, investors must be willing to accept a certain level of risk. When investors have no tolerance for risk, financial markets will not function. Therefore, the media coverage of speculation of a real estate bubble and an impending real estate crash can be blamed for causing the real estate crash in the United States, leading to the Global Financial Crisis of 2007 and 2008. Questions raised in Walters (2018),called for further investigation into the cause of home purchase price increase, which many in the literature have suggested led to a real estate market crash in the United States preceding the Global Financial Crisis of 2007 through 2008. It is critical to gain an understanding of exactly what cause home purchase price across the United States to increase. This knowledge will provide researches with a better understanding of the cause of the Global Financial Crisis of 2007 and 2008, avoiding the same mistakes being made in the future.

Background of Study

The researcher of the current study investigated questions regarding the widely accepted theory of the Global Financial Crisis of 2007 and 2008 in the literature. In the study, the researcher presented evidence which aimed at gaining an understanding of variables that may have affected home purchase prices preceding the Global Financial Crisis of 2007 and 2008. The Global Financial Crisis of 2007 and 2008 was described in the literature, as the greatest economic event since the Great Depression (Adebambo, Brockman, & Yan, 2015; Fairfax 2009; Ökte, 2012; Thakor, 2015). The financial crisis which many in the literature have suggestedwas caused by the rapid increase in home purchase prices in the United States, causing the collapse of the subprime mortgage industry. The literature noted, turmoil from the real estate crash in the United States,quickly spread around the world, resulting in capital markets throughout the world to become frozen. The result of the Global Financial Crisis of 2007 and 2008 was arecession which cause significant contraction of the global economy and economic hardship around the world (Adebambo, Brockman, & Yan, 2015; Greenspan, et. al, 2010; Mittnik, Nell, Platen, Semmler & Chappe, 2009; Ökte, 2012; Thakor, 2015). It is critical to gain an understanding of exactly what led to the Global Financial Crisis of 2007 and 2008, to avoid the same mistakes in the future.

Statement of the Problem

The lack of evidence supporting aspects of the widely accepted theory of the Global Financial Crisis of 2007 and 2008, and questions raised in the literature as to the trigger which started the series of events leading to the Global Financial Crisis of 2007 through 2008, required further investigation to gain an understanding of the exact cause of home purchase prices rapid increase in the United States, preceding the Global Financial Crisis of 2007 and 2008. It is important to gain an understanding of what many has called, the greatest economic event since the Great Depression. A lack of a full understanding of the cause of the Global Financial Crisis of 2007 and 2008, may result in the same mistakes being made, leading to another financial crisis of the same magnitude in the future.

Purpose of Study

The researcher analyzed data preceding the Global Financial Crisis of 2007 and 2008 to gain an understanding of variables affecting home purchase price in the United States preceding the Global Financial Crisis of 2007 and 2008. Questions regarding the widely accepted theory of the Global Financial Crisis of 2007 and 2008 in the literature, required further investigation to gain an understanding of the cause of the crisis. The research questionsand hypotheses were presented. The researcher analyzed the data and presented the findings of the data analysis. The researcher then drew conclusions based on the finding of data analysis.

Research Questions

1. What variable did the data suggest was the most likely cause of the increase in home purchase pricein the United States real estate market preceding the Global Financial Crisis of 2007 and 2008?

2. Did the evidence suggest, advancement in technology had a statistically significant impact on the increase in home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008?

Hypothesis

Ho1:The data suggested there was no statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ha1: The data suggestedthere was a statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ho2:The data suggested there was no statistically significant correlation between interest rate and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ha2: The data suggestedthere was a statistically significant correlation between interest rate and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ho3: The data suggested there was no statistically significant correlation between mobile cellular subscriptionsand home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ha3: The data suggested there was a statistically significant correlation between mobile cellular subscriptions and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.

Theoretical Foundation

Walters (2018) analyzed net FDI inflow for a sample of 70 developing and developed countries, a sample of 34 developed countries and a sample of 36 developing countries around the world. The researcher in Walters (2018) found, for the sample of 34 developed countries around the world, there was no statistically significant difference between the growth of net FDI inflow between the two different periods analyzed from January 2000 through December 2006, representing a period preceding the Global Financial Crisis of 2007 and 2008, and January 2010 through December 2016, representing a period subsequent to the Global Financial Crisis of 2007 and 2008. The result of the research led to the development of Eddison Walters Risk Expectation Theory of the Global Financial Crisis of 2007 and 2008, in Walters (2018). This new theory raised serious questions regarding the existence of a financial bubble discussed in the literature. The idea of an abundance of available capital that created a financial bubble was presented in the literature as a condition which led to a real estate bubble in the United State housing market, triggering the Global Financial Crisis of 2007 and 2008 (Greenspan et. al, 2010; Khayoyan, 2012). The literature noted the condition resulted in a global proliferation of securitized toxic subprime mortgage financial instruments from the U.S. housing market, which led to the Global Financial Crisis if 2007 through 2008 (Greenspan et. al, 2010; Khayoyan, 2012; Mittnik et. al, 2009; Ökte, 2012). Khayoyan (2012) raised questions regarding the idea presented in Tayler (2013) which pointed to low interest rates by the Federal Reserve for too long of a period as a condition that triggered the Global Financial Crisis of 2007 through 2008. Research conducted in Khayoyan (2012) concluded, low interest rates had no statistically significant effect on the Global Financial Crisis of 2007 through 2008. Many in the literaturepointed to subprime loan borrowers with little or no down payment, for home purchases as a factor which caused home purchase price in the United States real estate market to rapidly increase over historical levels. The literature noted a real estate bubble resulting from the rapid increase in home purchase price, leading to a real estate crash that caused the Global Financial Crisis of 2007 and 2008 (Fairfax, 2009; Schmudde, 2009). As a result of the questions raised in the research of Walters (2018) and questions raised by Khayoyan (2012), the Eddison Walters Risk Expectation Theory of the Global Financial Crisis of 2007 and 2008 suggested a more likely explanation for the cause of the financial crisis. Additional investigation aimed at gaining an understanding of what caused homepurchase price to increase, leading to a real estate bubble in the United States real estate market is required as a result of the recent developments.

Nature of the Study

The current study was a quantitative investigation using secondary data. Secondary data was collected from the Federal Housing Finance Agency Database and the World Trade Bank Database. The key independent variables the researcher analyzed for the study included mortgage interest rate data, loan-to-price-ratio data, and mobile cellular subscriptions data. Home purchase price data was the dependent variable analyzed the study.

Assumptions

Assumptions were made by the researcher for the study. Anassumption of the researcher was,data collectedby both the Housing Finance Agency Database and the World Trade Bank Databasewas accurate and reliable data.

A key assumption of theresearcher, the data was collected in a manner to avoid data bias and the validity and accuracy of the resulted in reliable data.

Scope and Delimitations

The current investigation was a quantitative study in which the researcher analyzed data to gain an understanding of the variables which had a statistically significant effecthome purchase priceacross the United States housing market preceding the Global Financial Crisis of 2007 and 2008.The research aimed atgaining an understanding of the cause of the Global Financial Crisis of 2007 and 2008.

Limitations

The analysis of the data focused on providing and explanation of the correlation between the independent variable and the dependent variables. Conclusions were drawn by the researcher based on the results of correlation analysis. As a result of the elimination of data during, and immediately subsequent to the Global Financial Crisis of 2007 and 2008, the effect of factors such asgovernment intervention policies, did not contribute to the findings. The study was also limited to available data at the time of the research.

Significance

The study of the Global Financial Crisis has implications that will affect the world for generations to come. The result of the Global Financial Crisis of 2007 and 2008 was a global financial meltdown which led to a worldwide economic downturn and financial hardship throughout the entire world. Gaining an understanding of the forces which triggered the events leading to the Global Financial Crisis of 2007 and 2008 can provide knowledge instrumental in avoiding similar mistakes in the future.

3. Literature Review

To provide context, the researcher presented the problem, chronicled the events of the Global Financial Crisis of 2007 and 2008 as presented in the literature, for the literature review. The researcher reviewed conditions, risk expectations, major events as described in the body of literature. The literature review discussed the role prime brokers played, the fall of Bear Stearns, the fall of Lehman Brothers, and the Troubled Assets Relief Program (TARP) described by the theory of the Global Financial Crisis of 2007 and 2008 in the body of literature. The Global Financial Crisis of 2007 through 2008 is described in the literature as the greatest economic event since the Great Depression (Adebambo et. al, 2015; Fairfax 2009; Ökte, 2012; Thakor, 2015). The literature noted, the financial crisis that started in the United States subprime mortgage industry quickly spread around the world, causing capital markets throughout the world to become frozen, threatening to collapse the entire global economy, leading to an economic downturn around the world. The review of the literature discussed conditions and risk expectations as described by the theory of the Global Financial Crisis of 2007 and 2008 presented in the body of literature. In the literature review, the theory presented in the literature was discussed, the role prime brokers played, the fall of Bear Stearns, the fall of Lehman Brothers, and TARP,as described by the theory of the Global Financial Crisis of 2007 and 2008. The literature discussed conditions which created the environment leading to the Global Financial Crisis of 2007 and 2008. The literature pointed to the rapid expansion of credit, the abundance of capital flowing to mature economies, and globalization of credit markets around the world as conditions which created the environment which led to the Global Financial Crisis of 2007 and 2008 (Greenspan et. al, 2010; Khayoyan, 2012). The theory of the Global Financial Crisis of 2007 and 2008 pointed to an abundance of available capital which gave rise to the expansion of the subprime mortgage industry allowing borrowers to purchase homes with little or no down payment, causing a drastic increase in average home purchase price across the United States.The literature described this as a significant condition leading to the Global Financial Crisis of 2007 through 2008 (Greenspan et. al, 2010; Khayoyan, 2012). Greenspan's theory suggested a worldwide financial bubble caused by an abundance of capital flowing into developed countries wasa major factor which led to a spike in home purchase prices across the United States. In addition to Greenspan, irresponsible media constant reporting of a real estate bubble and the inevitable collapse this bubble, played a significant role in increased risk expectation creating the conditions which triggered the series of events that led to the Global Financial Crisis of 2007 through 2008 (Greenspan et. al ,2010; Khayoyan, 2012). The global proliferation of securitized, toxic U.S. subprime mortgages was also presented as a theory which led to the Global Financial Crisis of 2007 and 2008 by Greenspan.

Taylor (2013), pointed to low interest rates as a theory for the rise of the subprime mortgage industry in the United States which led to a significant increase in average home purchase price across the United States, causing a real estate bubble,which many in the literature suggest led to the Global Financial Crisis of 2007 and 2008 (Khayoyan, 2012; Spencer & Huston, 2013 Tayler, 2013). The literature noted, a lack of liquidity in the capital market was the most significant factor which led to the Global Financial Crisis of 2007 and 2008. Prime brokers played a significant role in providing liquidity needed for the subprime mortgage industry (Melvin & Taylor, 2009; Thakor, 2015). The literature noted, the financial crisis resulted from a worldwide financial bubble driven by an abundance of capital (Greenspan et al., 2010; Khayoyan, 2012). Low interest rates for an extended period of time was suggested as the causeof a real estate bubble in the United States (Greenspan et al., 2010; Khayoyan, 2012; Spencer & Huston, 2013; Taylor, 2013). A situation of extremely high-risk expectation caused prime brokers to stop providing the liquidity needed for the subprime mortgage industry to function(Greenspan et al., 2010; Spencer & Huston, 2013). In the case of the fall of Bear Stearns and the fall of Lehman Brothers the lack of liquidity needed to keep operating led to the fall of both firms (Melvin & Taylor, 2009; Morris & Shin, 2008; Thakor, 2015). Bear Stearns was acquired by JP Morgan shortly after March 17, 2008 at a price significantly below the company recent market value for $10 per share (Melvin & Taylor, 2009), and Lehman Brothers bankruptcy filing due to the lack of liquidity, came on September 15, 2008 (Melvin & Taylor, 2009; Morris & Shin, 2008; Thakor, 2015). The lack of liquidity to refinance sub-prime mortgages which were fix for only short periods, led to adjustments of these mortgages. Mortgage holders saw significant increases in payment causing substantially mortgage foreclosures across the United States (Singh & Bruning, 2011).

The Global Financial Crisis of 2007 and 2008 sent shockwaves throughout the entire world economy. The Lehman Brothers bankruptcy resulted in a chain reaction of catastrophic proportion across markets around the world. Credit markets around the world became completely frozen. TARP was introduced by the Federal Reserve and U.S. Treasury as a program aimed at providing liquidity for the purchase of toxic mortgage-back assets and encourage financial institutions to restart lending (Melvin & Taylor, 2009; Thakor, 2015). Subsequent to the formation of TARP by the Federal Reserve and U.S. Treasury, the program was transformed, and the United States government started taking ownership interest in financial institutions around the country to bolster their balance sheet and provide additional liquidity for institutions to function (Melvin & Taylor, 2009; Morris & Shin, 2008; Thakor, 2015). The United States government had invested $250 billion, taking ownership stakes in financial institutions around the country by October 2008 (Thakor, 2015). The result of the Global Financial Crisis of 2007 and 2008 was an economic downturn that was felt in every corner around the world, and the European Debt Crisis which devastated economies across Europe.

Summary

There are many questions which are left unanswered regarding the cause of the Global Financial Crisis of 2007 and 2008. It is critical to gain a full understanding of the Global Financial Crisis of 2007 and 2008 which is the most significant economic event since the Great Depression. As we continue to conduct data analysis preceding and subsequent to the crisis, many questions remain unanswered. We must continue to search for answers to the many questions which continue to exist about this crisis. The knowledge gained from a full understanding of exactly what caused the Global Financial Crisis of 2007 and 2008, can avoid the same mistakes from being made in the future.

4. Methodology

The purpose of the current research is to gain an understanding of variables affecting home purchase price in the United States preceding the Global Financial Crisis of 2007 and 2008. The knowledge gained from the research will contribute significantly to the understanding of the Global Financial Crisis of 2007 and 2008.

Research Overview

The current study was a quantitative investigation using secondary data from the Federal Housing Finance Agency database. Key variables the researcher analyzed for the study included mortgage interest rate data, loan-to-price-ratio data, and home purchase price data. The dependent variable for the study was the average home purchase price, and the independent variables were loan-to-price ratio and mortgage interest rate data.

Research Questions

1. What variable did the data suggest was the most likely cause of the increase in home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008?

2. Did the evidence suggest, advancement in technology had a statistically significant impact on the increase in home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008?

Hypothesis

Ho1: The data suggested there was no statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ha1: The data suggested there was a statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ho2: The data suggested there was no statistically significant correlation between interest rate and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ha2: The data suggested there was a statistically significant correlation between interest rate and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ho3: The data suggested there was no statistically significant correlation between mobile cellular subscriptions and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.
Ha3: The data suggested there was a statistically significant correlation between mobile cellular subscriptions and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.

Research Design

The current study was a quantitative research design in which data were analyzed usingnonlinear regression analysis, time series analysis, and correlation analysis. The focus was to gain an understanding of the existence of correlation between interest rate,loan-to-price-ratio and advancement in technology onaveragehome purchase price. Secondary data was collected from the Federal Housing Finance Agency database on conventional single-family mortgages, annual national averages, all homes in the United States. Secondary data was also collected from the World Bank Database on mobile cellular subscriptions per 100 in the United States, which was used as a measurement of the growth in the advancement of technology in the United States.

Population

The researcher analyzed conventional single-family mortgages, annual national averages, for all homes in the United States and the growth in mobile cellular subscriptions in the United States as part of the study between 1990 and 2006.

Sampling and Sampling Procedures

The researcher collected secondary data from the Federal Housing Finance Agencyto gain insight into the relationship between, interest rates andloan-to-price ratio onaverage home purchase price,for the period preceding the Global Financial Crisis of 2007 and 2008 in the study. The investigation was conducted on conventional mortgage lending forsingle-family home purchases and mobile cellular subscriptions per 100, in the United States. The researcher analyzed data from the Federal Housing Finance Agency database for three different variables and data from the World Bank Database for one variable. The researcher collected data for the period including 1990 through 2006.

Data Analysis

The researcher analyzed effective mortgage interest rate data, loan-to-priceratio data, and averagehome purchase price from the Federal Housing Finance Agency onconventional single-family mortgages, annual national averages, for all homes across the United States and mobile cellular subscriptions per 100 in the United States for the same period. Nonlinear regression analysis, time series analysis, and correlation analysis were used to analyze the data. Analysis of the data allowed the researcher to gain an understanding of variables that may have affected the increase in average home purchase price across the United States Housing Market. Variables were analyzed,which allowed the researcher to gain an understanding of the correlation betweenloan-to-price ratio, interest rate,and mobile cellular subscriptions on home purchase price preceding the Global Financial Crisis of 2007 and 2008.

Threats to Validity

The researcher established the source of secondary data analyzed in the study as reliable sources in the literature. Several journal articles established the Federal Housing Finance Agency as a reliable source of data in the literature.The World Bank Database was established as a reliable source of data in the literature.

A search of the literature revealed peer-reviewed journal articles that used the Federal Housing Finance Agency database as a reliable database for the study. The following articles from peer-reviewed, scholarly research journals, Abowd and Vilhuber (2012); Bogin, Bruestle and Doerner (2017); Doerner and Leventis (2015); El-Montasser, Ajmi, Chang, Simo-Kengne, André and Gupta (2016); Epley (2012); He (2015); Rosenthal (2014); Schintler and Istrate (2011); Waldhart and Reschovsky (2012); and Weinberg (2014), provided evidence which supported the validity and reliability of data for the research. Albassam (2015); Dash (2017); Guru-Gharana (2012);Walters (2018), established the World Bank Database as a reliable source for secondary data.

Ethical Procedures

Secondary data was collected from the Federal Housing Finance Agency database with no personal or identifying information, which is an existing database. There were no human subjects involved in the research.

5. Results

Analysis of Variables

Analysis of the three independent variables and the dependent variables in **Figure 1, Figure 2, Figure 3, and Figure 4,** determined nonlinear regression analysis was the method most appropriate approach for data analysis for the current study.

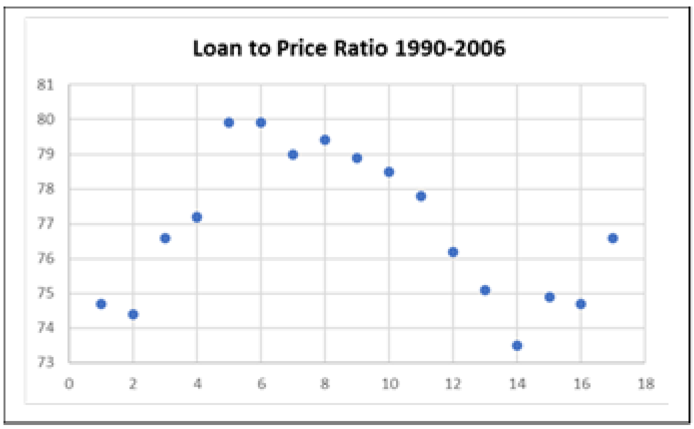

Figure 1.FHFA Loan-to-Price Ratio 1990 to 2006

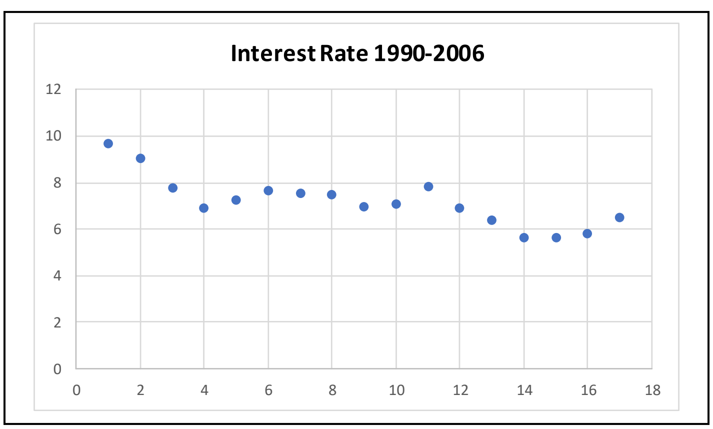

Figure 2.FHFA Interest Rate 1990 to 2006

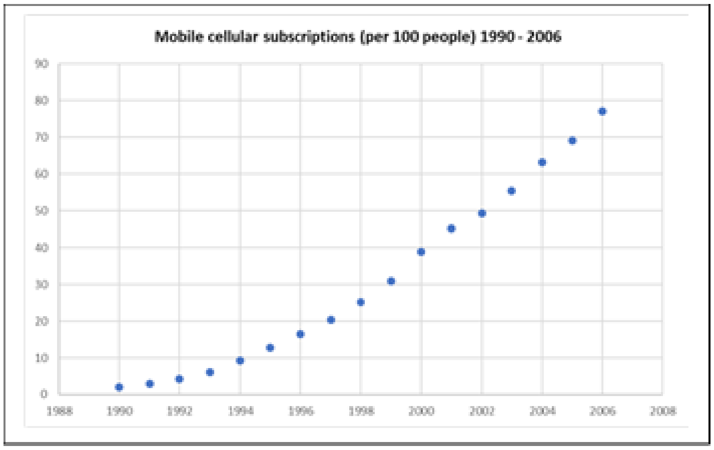

Figure 3. Mobile Cellular Subscriptions Per (100) 1990 to 2006

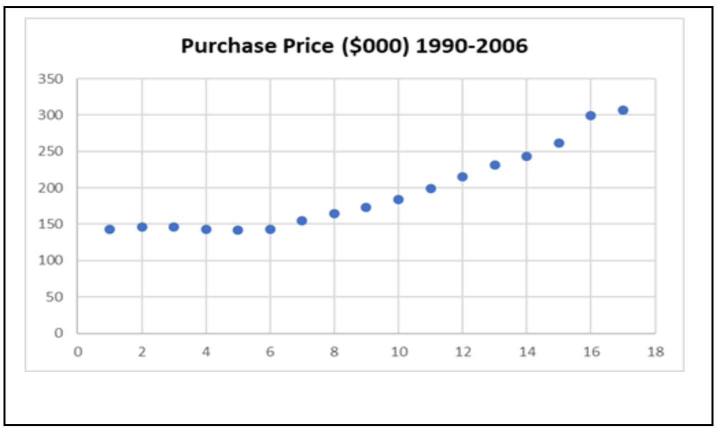

Figure4. FHFA Home Purchase Price ($000) 1990 to 2006

Hypothesis Test I

Ho1: The data suggested there was no statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.

Ha1: The data suggested there was a statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008. In the analysis of home purchase price, which was the dependent variable, and loan-to-price ratio, which was the independent variable in Table 1, the result showed the variability in home purchase price being explained by loan-to-price ratio, with an Adjusted R-squared of 0.1566. Sum of Square Residuals was 37,551.51 and S.E. of Regression was 51.79. The F-statistical probability was 0.1192.

Base on the result of nonlinear regression analysis, the researcher in the case of Hypothesis I, failed to reject

Ho1., and Ha1 was not retained. Analysis of the data from the period 1990 through 2006, preceding the Global Financial Crisis of 2007 and 2008 led the researcher to conclude, there was no statistically significant correlation between loan-to-price ratio and home purchase price in the United States housing market during the period.

Hypothesis Test II

Ho2: The data suggested there was no statistically significant correlation between interest rate and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.

Ha2: The data suggested there was a statistically significant correlation between interest rate and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008. Analysis of home purchase price,which was the dependent variable and interest rate, which was the independent variable in Table 2, resulted in the variability in home purchase price being explained by interest rate, with an Adjusted R-squared of 0.5921. Sum of Squared Residuals was 18,159.92 and S.E. of Regression was 36.02. The F-statistical probability was 0.0007.

Base on the result of nonlinear regression analysis the researcher in the case of Hypothesis II, rejected Ho2, and Ha2 was retained at a 99% confidence interval. Analysis of the data from the period 1990 through 2006, preceding the Global Financial Crisis of 2007 and 2008 led the researched to conclude, there was a statistically significant correlation between interest rates and home purchase price in the United States housing market during the period.

Hypothesis Test III

Ho3: The data suggested there was no statistically significant correlation between mobile cellular subscriptions and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.

Ha3: The data suggested there was a statistically significant correlation between mobile cellular subscriptions and home purchase price in the United States housing market preceding the Global Financial Crisis of 2007 and 2008.

Analysis of home purchase price, which was the dependent variable and mobile cellular subscriptions, which was the independent variable in Table 3,resulted in the variability in home purchase price being explained by mobile cellular subscriptions, with an Adjusted R-squared of 0.9890. Sum of Squared Residuals was 488.73 and S.E. of Regression was 5.91. The F-statisticalprobability was 0.0000.

Base on the result of nonlinear regression analysis the researcher in the case of Hypothesis Test III, rejected Ho3, and Ha3 was retained at a 99% confidence interval. Analysis of the data from the period 1990 through 2006, preceding the Global Financial Crisis of 2007 and 2008 led the researcher to conclude, there was statistically significant,near-perfect correlation between mobile cellular subscriptions and home purchase price in the United States housing market during the period.

Research Questions

1. What variable did the data suggest was the most likely cause of the increase in home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008?
2. Did the evidence suggest, advancement in technology had a statistically significant impact on the increase in home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008?

Table 1. Nonlinear correlation analysis of dependent variable, HomePurchase Price andindependent variable,Loan-to-

Dependent Variable: PURCHASE_PRICE__$000_
Method: Least Squares
Date: 09/03/19 Time: 10:38
Sample: 1990 2006
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-12272.48	22265.16	-0.551197	0.5902
LOAN_TO_PRICE_RATIO	337.5762	579.3151	0.582716	0.5694
LOAN_TO_PRICE_RATI	-2.280078	3.766028	-0.605433	0.5546

R-squared	0.262029	Mean dependent var	194.0412
Adjusted R-squared	0.156605	S.D. dependent var	56.39415
S.E. of regression	51.79045	Akaike info criterion	10.89107
Sum squared resid	37551.51	Schwarz criterion	11.03811
Log likelihood	-89.57413	Hannan-Quinn criter.	10.90569
F-statistic	2.485468	Durbin-Watson stat	0.162414
Prob(F-statistic)	0.119200		

Price Ratio

The results of hypothesis testing for correlation revealed mobile cellular subscriptions was the variable with the strongest correlation to home purchase price of all the variables analyzed in the current research. Based on the analysis of the data, the evidence suggested, advancement in technology had a statistically significant impact on home purchase price increase preceding the Global Financial Crisis of 2007 and 2008.

The comparison of all four variables presented in Figure 5, visually confirm the results of hypothesis testing for correlation of independent variables of loan-to-price ratio, interest rate, and mobile cellular subscriptions, with the dependent variable home purchase price.**Table 2.** Nonlinear correlation analysis of dependent variable, Home

Table 2. Nonlinear correlation analysis of dependent variable, Home

Dependent Variable: PURCHASE_PRICE__$000_
Method: Least Squares
Date: 09/03/19 Time: 10:41
Sample: 1990 2006
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1154.680	326.6838	3.534550	0.0033
INTEREST_RATE	-224.3959	87.40173	-2.567408	0.0223
INTEREST_RATE^2	12.38749	5.768872	2.147298	0.0498

R-squared	0.643117	Mean dependent var	194.0412
Adjusted R-squared	0.592134	S.D. dependent var	56.39415
S.E. of regression	36.01579	Akaike info criterion	10.16458
Sum squared resid	18159.92	Schwarz criterion	10.31161
Log likelihood	-83.39890	Hannan-Quinn criter.	10.17919
F-statistic	12.61427	Durbin-Watson stat	0.774648
Prob(F-statistic)	0.000737		

Purchase Price and independent variable, Interest Rate

Dependent Variable: PURCHASE_PRICE__$000_
Method: Least Squares
Date: 09/03/19 Time: 10:28
Sample: 1990 2006
Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	137.9698	3.180702	43.37716	0.0000
MOBILE_CELLULAR_SUBSCRIPTIONS	0.896244	0.228003	3.930833	0.0015
MOBILE_CELLULAR_SUBSCRIPTIONS_	0.018236	0.003021	6.036612	0.0000

R-squared	0.990395	Mean dependent var	194.0412
Adjusted R-squared	0.989023	S.D. dependent var	56.39415
S.E. of regression	5.908381	Akaike info criterion	6.549406
Sum squared resid	488.7255	Schwarz criterion	6.696444
Log likelihood	-52.66995	Hannan-Quinn criter.	6.564022
F-statistic	721.8214	Durbin-Watson stat	2.087783
Prob(F-statistic)	0.000000		

Table 3. Correlation analysis of dependent variable, Home Purchase Price and independent variable, Mobile Cellular Subscriptions

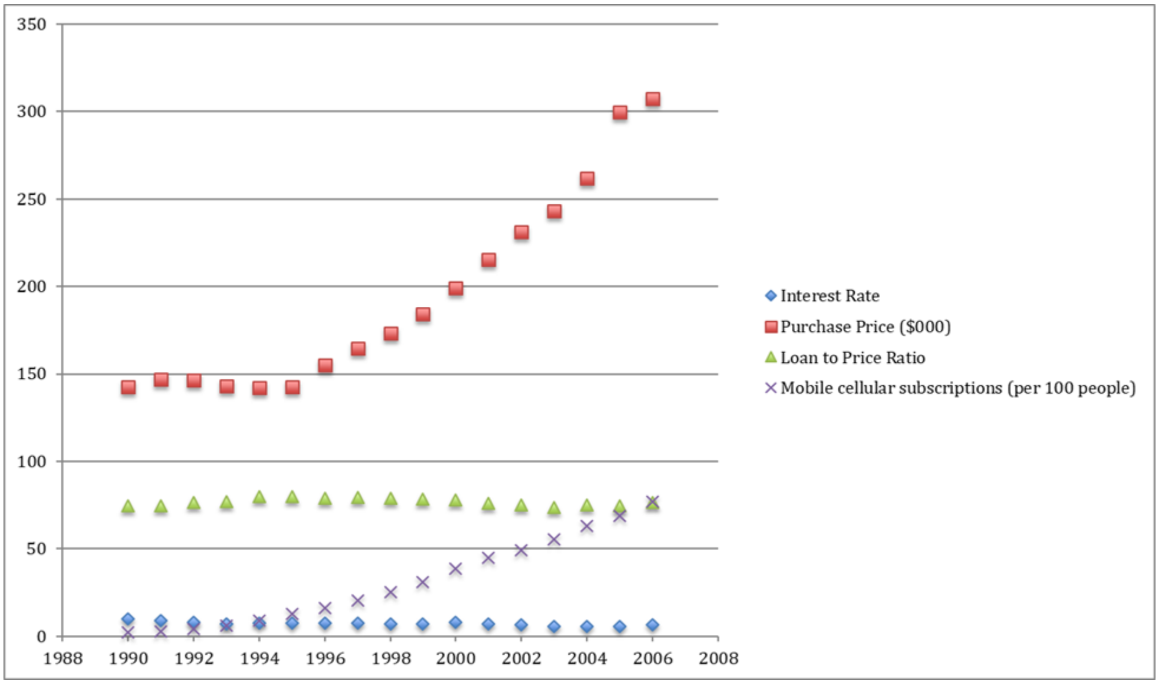

Figure 5. Variables Comparison Graphof independent variables of loan-to-price ratio, interest rate, and mobile cellular subscriptions, with the dependent variable home purchase price for the period preceding the Global Financial of 2007 and 2008from 1990 to 2006

6. Discussion, Implications, Recommendations

In chapter 5, the findings, significance, limitations, recommendations for future research, and the conclusions of the studywere presented. In the previous chapters, the researcher laid the foundation for the current research. Chapter 1 introduced the problem. Chapter 2 establishedthe gap in the literature. Chapter 3 presented the methodology for the current research. The researcher conducted hypothesis testing and answered the research questionsin Chapter 4.

Interpretation of the Findings

Data analysis for the 17 year period from 1990 through 2006,preceding the Global Financial Crisis of 2007 and 2008, suggested there was no statistically significant correlation between loan-to-price ratio and home purchase price.There was a statistically significant correlation between home purchase price and interest rate preceding theGlobal Financial Crisis of 2007 and 2008. There was an almost perfect correlation between home purchase price and mobile cellular subscriptions. Based on these findings, the researcher concluded, the current research presented overwhelming evidence which suggested advancement in technology accounted for the significant increase in home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008. The data alsosuggestedhome purchase from borrowers with little or no down paymentpreceding the Global Financial Crisis of 2007 and 2008,had no significant effect on home purchase price in the United States real estate market.The idea of home buyers with little or no down payment for home purchaseswas the causeof a real estate bubble which led to the Global Financial Crisis of 2007 and 2008 was a false claim, which has been widely accepted in the literature.
Evidence of statistically significant correlation between interest rates and home purchase price in the United State real estate market preceding the Global Financial Crisis of 2007 and 2008 existed, but the findings of the research led the researcher to conclude,the effect of interest rates and home purchase price was not significant. A significant factor which led to the conclusion by the researcher, was the research conducted in Khayoyan (2012) which concluded low interest rates had no significant effect on the Global Financial Crisis of 2007 and 2008.The analysis of data in Bryant and Kohn (2013), led the researcher to conclude interest rate had no significant effect on home purchase prices preceding the Global Financial Crisis of 2007 and 2008. Additionally, Roll (2011) also presented a very rational argument raising questions regarding the existence of a real estate bubble which led to the Global Financial Crisis of 2007 and 2008.

Limitations of the Study

In this section, the researcher discussed the limitations of the study. The focus of the study was to gain an understanding of the correlation between the dependent variable of purchase price, and the independent variables of loan-to-price ratio, interest rate, and mobile cellular subscriptions. The researcher did not attempt to establish cause and effect but drew conclusions based on the finding of data analysis. The study focused on the period of 17 years preceding the Global Financial Crisis of 2007 through 2008 to gain an understanding of factors which may have affected home purchase price. The study was limited to available data at the time of the research.

Recommendations research is needed to gain a full understanding which will present the true nature of the Global Financial Crisis of 2007 and 2008 in the context of the evidence presented in the current research. **Implications** There are significant implications resulting from this study. The finding of the research suggest advancement in technology significantly affected home purchase price in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008. The finding also suggested no real estate bubble existed in the United States real estate market preceding the Global Financial Crisis of 2007 and 2008. Home purchase price in the United States real estate market were priced correctly preceding the Global Financial Crisis of 2007 and 2008. Theefficient-market-hypothesis held. The idea, down payments was not a significant factor that affected home purchase price in the United States is a significant finding. The findings of the current researchconcluded, the idea of little or no down payment for home purchase as a factor contributing to a real estate bubble, is a false claim widely accepted in the literature.

Conclusion

Insight gained from the findings of the current study further contributed to the understanding of the relationship between variables that affected home purchase price, in the United States preceding the Global Financial Crisis of 2007 and 2008. The idea, that false information of a real estate bubble was so widely accepted, without any evidence being presented or questions being raised is quite troubling. How could everyone have gotten it so wrong? Why were so many economists and everyonein the media so willing to accept the idea of a real estate bubble without any evidence presented? The knowledge gained by the current research is critical to gaining a better understanding of the cause of the Global Financial Crisis of 2007 and 2008. The current research underscored the idea of, "all thing being equal", which was not considered in the analysis of historical home purchase price data preceding the Global Financial Crisis of 2007 and 2008. It turns out Alen Greenspan was right when he said, a real estate bubble couldn't occur due to the efficient-market-hypothesis in 2005. Economic principals such as the efficient-market-hypothesis, which has been established for decades should never be dismissed so quickly without overwhelming evidence and many questions being asked.The current study demonstrated there is still much research to be conducted and many questions remaining regarding the Global Financial Crisis of 2007 and 2008. Finding answers to these questions is critical to avoiding another financial crisis of the same magnitude in the future.

7. Reference

Abowd, J. M., & Vilhuber, L. (2012). Did the housing price bubble clobber local labor market job and worker flows when it burst? The American Economic Review, 102(3), 589-593.doi:http://dx.doi.org.prx-keiser.lirn.net/10.1257/aer. 102.3.589

Adebambo, B., Brockman, P., & Yan, X. (2015). Anticipating the 2007–2008 Financial Crisis: Who knew what and when did they know it?. Journal of Financial & QuantitativeAnalysis, 50(4), 647-669. doi:10.1017/S0022109015000381

Albassam, B. A. (2015). Does Saudi Arabia's economy benefit from foreign investments? Benchmarking: An International Journal, 22(7), 1214-1228. doi:10.1108/BIJ-05-2014 0039

Bogin, A. N., Bruestle, S. D., & Doerner, W. M. (2017). How low can house prices go? estimating a conservative lower bound. Journal of Real Estate Finance and Economics, 54(1), 97-116. doi:http://dx.doi.org.prx-keiser.lirn.net /10.1007/s11146-015 9538-8

Bryant, S. K., & Kohn, J. W. (2013). A housing bubble debate resolved. Journal of AppliedFinance and Banking, 3(4), 55-72. Retrieved from https://search.proquest.com/docview/1400457156?accountid=35796

Dash, D. P. (2017). Urbanization and temperature change: Accounting for international differences from Brics. Journal of Developing Areas, 51(2), 137153. doi:10.1353/jda.2017.0036

Doerner, W. M., & Leventis, A. V. (2015). Distressed sales and the FHFA house price index. Journal of Housing Research, 24(2), 127-146. Retrieved from https://search proquest-com.prx-keiser.lirn.net/docview/1755045353 ?accountid=35796

El-Montasser, G., Ajmi, A. N., Chang, T., Simo-Kengne, B., André, C., & Gupta, R. (2016). Cross country evidence on the causal relationship between policy uncertainty andhousing prices. Journal of Housing Research, 25(2), 195-211. Retrieved fromhttps://search-proquestcom.prx-keiser.lirn.net/docview /1858865381?accountid=35796

Epley, D. (2012). A better method to estimate price change in single family housing.International Journal of Housing Markets and Analysis, 5(4), 377-391. doi:http://dx.doi.org.prx-keiser.lirn.net/10.1108/17538271211268529

He, L. T. (2015). Forecasting of housing stock returns and housing prices. Journal of FinancialEconomic Policy, 7(2), 90-103. doi:http://dx.doi.org.prx keiser .lirn.net/10.1108/JFEP-012014-0004

Fairfax, L. M. (2009). The legal origins theory in crisis. Brigham Young University Law Review, 2009(6), 1571-1617. Retrieved from https://search-proquest-com.prx keiser.lirn.net/docview/194368310? accountid=35796

Federal Housing Finance Agency (2018). https://www.fhfa.gov

Greenspan, A., Mankiw, N. G., & Stein, J. C. (2010). The crisis/comments and discussion.Brookings Papers on Economic Activity, , 201-261. Retrieved from https://search proquest-com.prx-keiser.lirn.net/docview/749024349?accountid =35796

Guru-Gharana, K. K. (2012). Econometric investigation of relationships among export, FDI and growth in India: In application of Toda-Yamamoto-Dolado-Lutkephol granger causality test. Journal of Developing Areas, 46(2), 231-247. doi:10.1353/jda.2012.0027

Khayoyan, A. (2012). The U.S. housing crisis: Analyzing the differing arguments of John Taylor and Alan Greenspan (Order No. 3522042). Available from ProQuest Dissertations &Theses Global; ProQuest Dissertations &Theses Global: The Humanities and SocialSciences Collection. (1036992081). Retrieved from https://search-proquest-com.prx-keiser.lirn.net/docview/1036992081? accountid=35796

Melvin, M., & Taylor, M. (2009). The crisis in the foreign exchange market. Journal of International Moneyand Finance, 28(8), 1317-1330.

Morris, S., & Shin, H. S. (2008). Financial regulation in a system context. Brookings Papers onEconomic Activity, 229. Retrieved fromhttp://go.galegroup.com. Prx-Keiser.lirn.net/ps/ido?idisGALE%7CA197801529&vis2.1&uislirn 99776&itisr&pisPPE&swisw

Mittnik, S., Nell, E., Platen, E., Semmler, W., & Chappe, R. (2009). Financial market meltdownand aneed for new financial regulations. METU Studies in Development, 36(1), 253269.Retrieved fromhttps://search-proquest com.prxkeiser.lirn.net/docview/89155174?accountid=35796

Ökte, M. Kutlughan Savas. (2012). The financial crisis of 2008 in the USA: An overview.IstanbulÜniversitesi Iktisat Fakültesi Mecmuasi, 62(1), 81-101. Retrievedfromhttps://search-proquest com.prx keiser.lirn.net/docview/ 1240985760?accountid=35796

Roll, R. (2011). The possible misdiagnosis of a crisis. Financial Analysts Journal, 67(2), 12-17. Retrieved from https://search-proquest-com.prx-keiser.lirn.net/docview /863245638?accountid=35796

Rosenthal, S. S. (2014). Are private markets and filtering a viable source of low-income housing?estimates from a "repeat income" model. The American Economic Review, 104(2), 687-706.doi:http://dx.doi.org.prx-keiser.lirn.net/10.1257 /aer.104.2.687

Schintler, L., & Istrate, E. (2011). Tracking the housing bubble across metropolitan areas Aspatiotemporal comparison of house price indices. Cityscape, 13(1), 165-182. Retrievedfromhttps://search-proquest-com.prx-keiser.lirn.net/docview /916953604?accountid=35796

Schmudde, D. (2009). Responding to the subprime mess: The new regulatory landscape. FordhamJournal of Corporate & Financial Law, 14(4), 709-770. Retrieved fromhttps://search-proquest-com.prx-keiser.lirn.net/docview/89067798? accountid=35796

Singh, G., & Bruning, K. (2011). The mortgage crisis its impact and banking restructure. Academy ofBanking Studies Journal, 10(2), 23-43. Retrieved from https://search proquest-com.prxkeiser.lirn.net/docview/886554148?accountid=35796

Spencer, R. W., & Huston, J. H. (2013). Monetary policy effectiveness and the housing market.Studies inEconomics and Finance, 30(3), 226-243.doi:http://dx.doi.org.prx-keiser.lirn.net/10.1108/SEF Feb-2012-0027

Taylor, J. B. (2013). International monetary coordination and the great deviation. Cambridge:NationalBureau of Economic Research, Inc. doi:http://dx.doi.org.prx keiser.lirn.net/10.3386/w18716

Thakor, A. V. (2015). The financial crisis of 2007-2009: Why did it happen and what did welearn? Reviewof Corporate Finance Studies, 4(2), 155-205.doi:10.1093/rcfs /cfv001

Waldhart, P., & Reschovsky, A. (2012). Property tax delinquency and the number of paymentinstallments. Public Finance andManagement, 12(4), 316-330. Retrieved fromhttps://search-proquest-com.prx-keiser.lirn.net/docview /1314695490?accountid=35796

Walters, E. T. (2018). Changes in FDI inflows and economic growth and the effect on exports: The aftermath of the global financial crisis of 2007 and 2008 (Order No. 10976977). Available from ProQuest One Academic. (2135243535). Retrieved from https://search.proquest.com/docview/2135243535?accountid=35796

Weinberg, D. H. (2014). Data sources for U.S. housing research, part 1: Public sector datasources. Cityscape, 16(3), 131-147. Retrieved from https://search-proquest com.prx-keiser.lirn.net/docview/1628955092?accountid=35796

World Bank Database (2019).https://data.worldbank.org/indicator/it.cel.sets.p2 ?locations=US