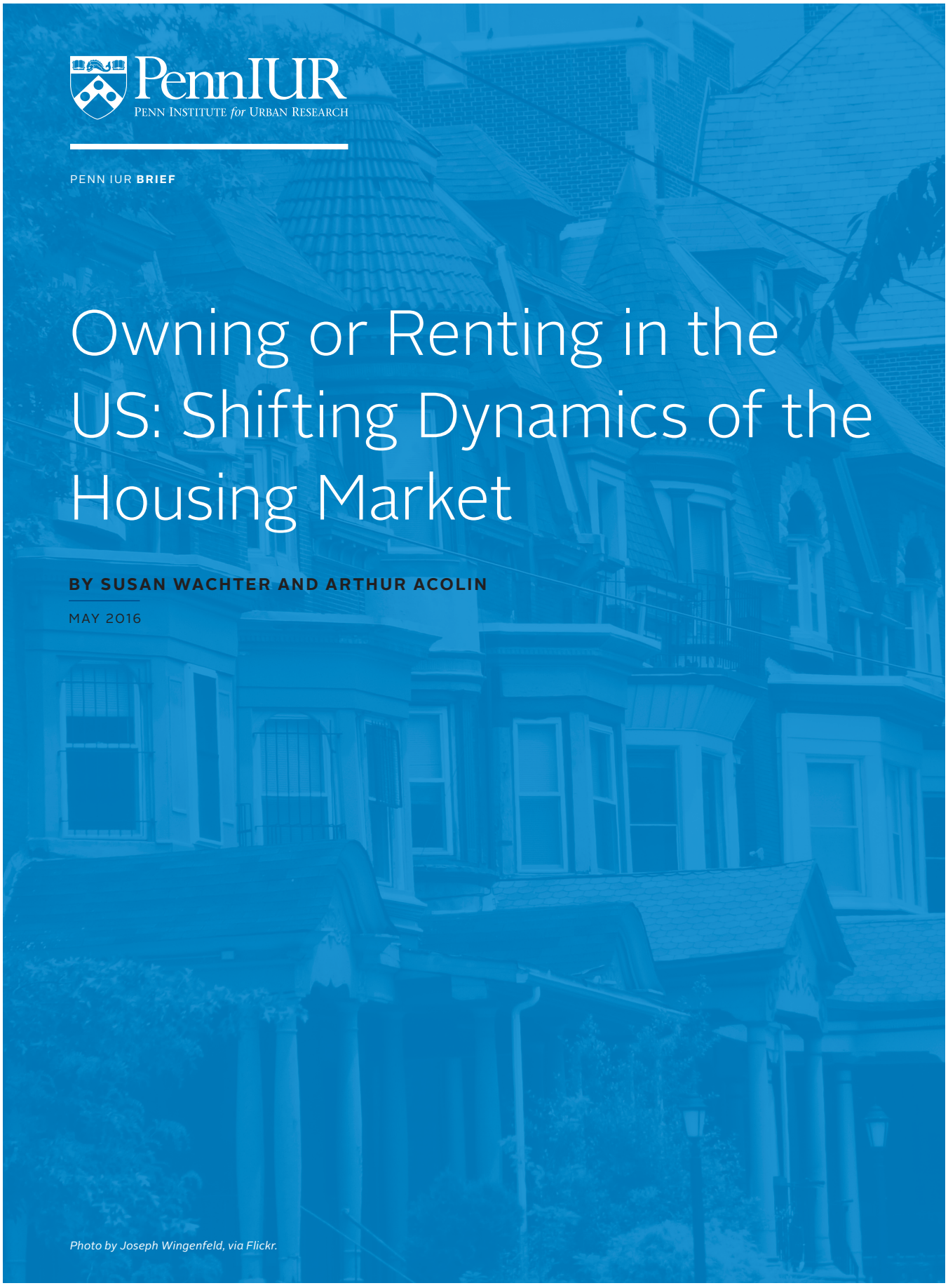

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PENN IUR **BRIEF**

Owning or Renting in the US: Shifting Dynamics of the Housing Market

BY SUSAN WACHTER AND ARTHUR ACOLIN

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Photo by Joseph Wingenfeld, via Flickr.

Full paper is available on the Penn IUR website at ***penniur.upenn.edu***

Current Homeownership Outcomes

The nation's homeownership rate was remarkably steady between the 1960s and the 1990s, following a rapid rise in the two decades after World War II, with two-thirds of the nation's households owning. Over the most recent 20 years, however, homeownership outcomes have been volatile. The research we summarize here identifies drivers of this volatility and the newly observed lows in homeownership. We ask under what circumstances this is a "new normal." We begin by reviewing current homeownership outcomes. In the section which follows we present evidence on the causes of the current lows. In the third section we develop scenarios for homeownership rates going forward.

The U.S. homeownership rate is now at a 48 year low at 63.7 percent (Fig. 1). Homeownership rates have declined for all demographic age groups (Table 1). Since 2006, the number of households who own their home in the U.S. has decreased by 674,000 while the number of renters has increased by over 8 million (Fig. 2). This is a dramatic reversal from the rate of increase of more than 1 percent annually in the number of homeowners from 1980 to 2000 (U.S. Census 2016a)[1].

The decline in the homeownership rate over the past decade results not only from a faster increase in the number of renters but also from a net decrease in the number of homeowners as 6.4 million households have lost their home to foreclosure (HOPE NOW 2016), experiencing a forced transition from owning to renting. Households who had purchased close to the peak of the housing boom (2004-2006), were hit particularly hard by the decline in house prices. This includes many households who were between 25 and 34 years old and are now between 35 and 44 years old, the age group that has experienced the largest decline in homeownership. While foreclosure is partially responsible for decline in homeownership in this age group it does not "explain" declines among younger potentially first time owner households and the resulting large decline in the aggregate homeownership rate.

Moreover, the measured aggregate homeownership rate would be even lower if household formation were not also below historical levels post-crisis as young individuals double-up or live with their parents longer rather than forming their own households (to likely rent). Between 2006 and 2015 the annual household formation rate was 863,000 compared to 989,000 between 1994 and 2006 (US Census 2016a).

As a result of these trends, single-family housing construction remains well below historical levels (Fig. 3). On average, the U.S. has produced about 1 million single-family housing starts a year[2]. As of February 2016 new starts were occurring at an annualized rate of 736,000 (US Census 2016b). Conversely, multi-family units at 310,000 in 2015 are at levels that have not been seen since the high mortgage rate years of the early 1980s. Also reflecting the increased demand for renting, rents (inflation adjusted) have increased to record highs, while housing prices have increased back to 2003-4 levels (Fig. 4).

Are shifting preferences driving the turn toward renting? Preferences for urban living are increasing and this coupled with cities having a lower homeownership rate contributes somewhat to the decline in homeownership. However, declines in homeownership have occurred in both cities and suburbs at the same magnitude (Fig. 5). And while the population of the top 100 metro areas grew by 8.1 million between 2010 and 2015, only 2.8 million of that population increase took place in central cities, the other 5.3 million taking place in suburbs, leading to at most 1.4 million rental households. In any case, it appears that the trend of faster population growth in central cities has stabilized with both cities and suburbs growing at about the same rate, although, as noted below, this new steady growth in cities has its own consequences for longer run rent/own choices.

[1] Despite the Current Population Survey/Housing Vacancy Survey large sample size, measurement error remains substantial and some spurious year to year variations might occur but multi-year trends are reliable.

[2] Over 1.5 million single-family houses were built each year between 2004 and 2006 at the peak of the boom. This number fell to less than 500,000 during the bust.

A second potential source of shifting preferences may be that, in the aftermath of the Great Recession, positive attitudes towards homeownership have lessened. Still, survey evidence does not support this. In the Housing Opportunities and Market Experience (HOME) survey conducted in 2015 by the National Association of Realtors, 83 percent of renters expressed a desire to own at some point. That figure is even higher among renters 34 years old or younger (94 percent). The demand for homeownership remains strong.[3]

Despite these aspirations and today's historically low interest rates and seemingly high level of affordability based on standard measures, homeownership is at a 48 year low. The question remains: what is the cause of today's low levels of homeownership.

Why should we be concerned about declining homeownership rates? Homeownership has been linked to a number of private and social benefits including the ability to hedge housing costs and accumulate wealth through "forced savings," improved outcomes for children, and civic engagement (Dietz and Haurin 2003). Identifying the barriers to accessing homeownership can inform the policy choices necessary to preserving access for a broad range of the population, particularly young and minority households, as we discuss further below.

Borrowing Constraints and Homeownership

In our research (Acolin, Goodman and Wachter 2016; Acolin, Brickr, Calem and Wachter 2016), we test for factors that have caused the volatile homeownership rate outcomes of the recent past. We find that changes in the impact of borrowing constraints can account for a substantial share of the measured increase and subsequent decrease in the homeownership rate between 2001 and 2013.

Mortgage markets are characterized by credit rationing, as shown by a large body of research (Duca and Rosenthal 1994; Rosenthal et al. 1991). Banks restrict lending due to fundamental information issues. Lenders use non-price terms to underwrite credit risk due to information asymmetries between lenders and potential borrowers and the effect of higher interest rates on adverse selection and moral hazard (Stiglitz and Weiss 1981). In the literature on this topic, researchers have identified three major kinds of borrowing constraints: wealth, income and credit (Linneman and Wachter 1989; Zorn 1989; Rosenthal 2002; Barakova, Bostic, Calem and Wachter 2003). Households that do not have sufficient wealth for a minimum down payment on their desired house, who have income that would result in a debt to income ratio above a given threshold, or have credit scores below a certain number, will face constraints in obtaining a mortgage even if they are willing to pay a higher mortgage rate to compensate for their higher risk profile.

The effects of these borrowing constraints on tenure outcomes have been estimated empirically in many studies (Linneman and Wachter 1989; Zorn 1989; Rosenthal 2002; Barakova, Bostic, Calem and Wachter 2003; Barakova, Calem and Wachter 2014; Acolin, Bricker, Calem and Wachter 2016). This body of research quantifies the degree to which borrowing constraints are binding, preventing households from becoming homeowners. Thus, some households remain renters even if they would be better off as owners based on their preferences, expected duration of residence, and user cost of owning relative to renting. The impact of being borrowing constrained has been found to be higher for minority and young households who are also more likely to be constrained in the first place (Haurin, Hendershott and Wachter 1996; Gyourko, Lineman and Wachter 1999).

Three broad lending regimes can be identified with respect to borrowing constraints. In the post-World War II period, new mortgage institutions, created by legislation to deal with the lending crisis associated with the Great Depression, provided affordable self-amortizing long term mortgages for the first time. Research by Fetter (2013) shows how this resulted in a dramatic rises in homeownership after WW II.

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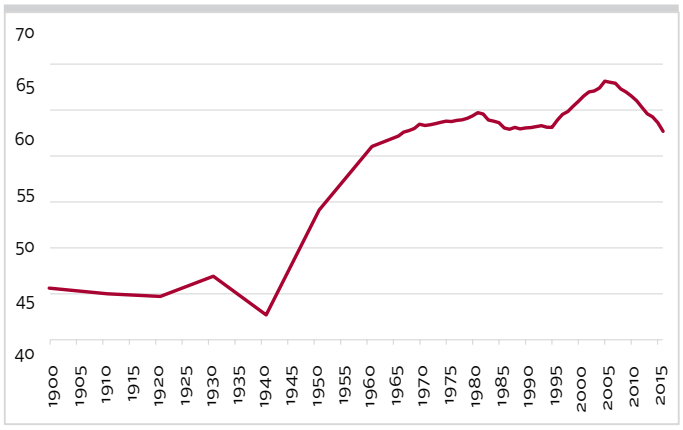
[3] By comparison, in Fannie Mae National Housing Survey, 63 percent of respondents in March 2016 said that now was a good time to buy a home compared to 66 percent in 2003.

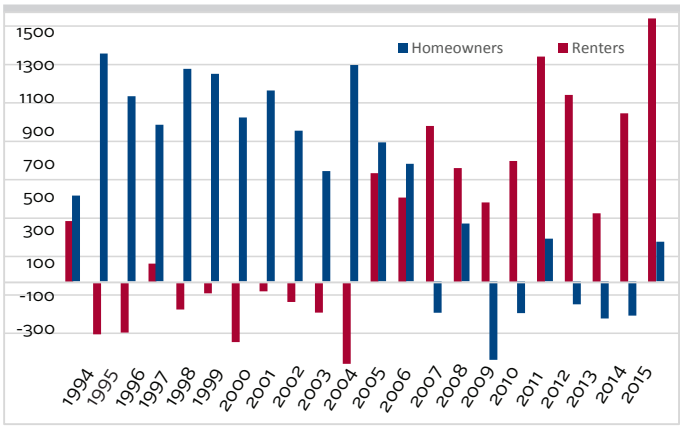
FIGURES 1 - 6.

FIGURE 1: HOMEOWNERSHIP RATE, US DECENNIAL CENSUS (1900-1960), CPS/HVS (1965–Q4 2015)



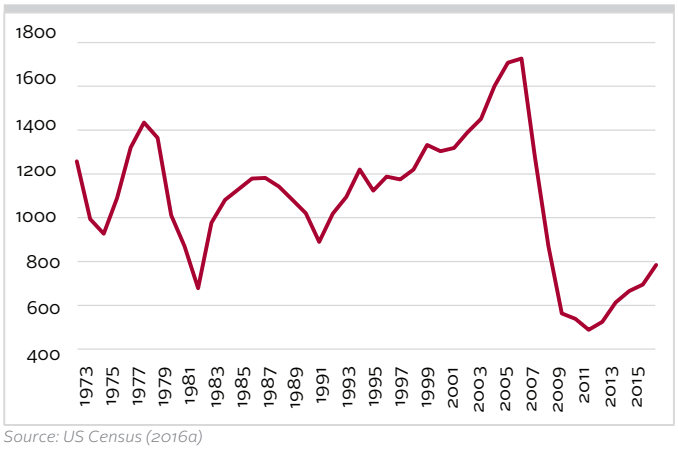
Sources: IPUMS (2015); US Census (2016a)

FIGURE 2: CHANGES IN THE NUMBER OF HOMEOWNERS AND RENTERS, CPS/HVS (1994-2015)



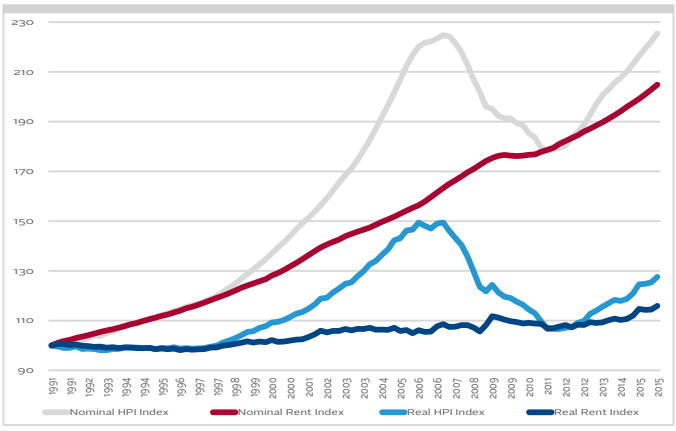
Source: US Census (2016a)

FIGURE 3: NEW SINGLE FAMILY HOUSES COMPLETED, 1973-2015, THOUSANDS



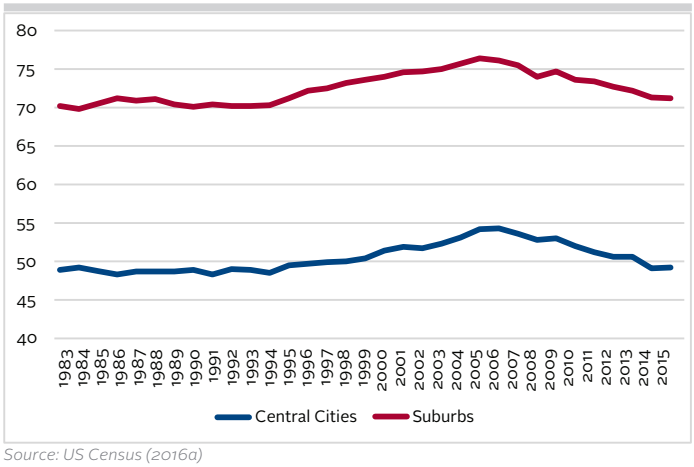
Source: US Census (2016a)

FIGURE 4: FHFA PURCHASE-ONLY HOUSE PRICE INDEX AND BLS RENT OF PRIMARY RESIDENCE INDEX, 1991-2015, NOMINAL AND REAL (INFLATION ADJUSTED) INDICES, 1991Q1=100



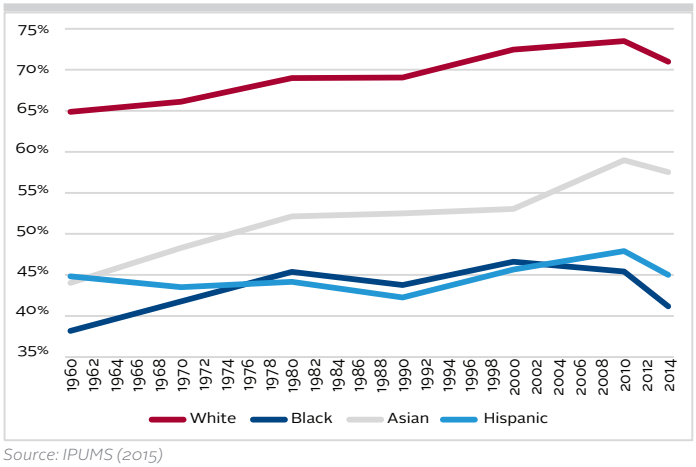
Source: FHFA, Bureau of Labor Statistics

FIGURE 5: HOMEOWNERSHIP RATE IN CENTRAL CITIES AND SUBURBS, CPS/HVS (1983-2015)



Source: US Census (2016a)

FIGURE 6: HOMEOWNERSHIP RATE BY RACE AND ETHNICITY, US DECENNIAL CENSUS (1960-2010), ACS (2014)



Source: IPUMS (2015)

TABLE 1

Change in the Number of Homeowners (in thousands) and Homeownership Rate by Age Group, 2006-2015

Number of Homeowners	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
United States, Total	**75,380**	**75,159**	**75,566**	**75,014**	**74,791**	**75,091**	**74,929**	**74,668**	**74,427**	**74,706**
Less than 25 years	1,629	1,609	1,482	1,424	1,385	1,373	1,318	1,361	1,329	1,335
25 to 29 years	3,748	3,719	3,641	3,421	3,327	3,134	3,008	2,977	2,885	2,856
30 to 34 years	5,271	5,090	4,998	4,897	4,890	4,958	4,771	4,792	4,730	4,634
35 to 39 years	6,987	6,829	6,811	6,462	6,065	5,777	5,445	5,302	5,410	5,429
40 to 44 years	8,174	7,834	7,614	7,358	7,144	7,031	6,987	6,729	6,399	6,210
45 to 49 years	8,979	8,889	8,812	8,578	8,418	8,123	7,662	7,456	7,202	7,187
50 to 54 years	8,466	8,522	8,725	8,874	8,793	8,762	8,694	8,597	8,481	8,219
55 to 59 years	7,973	7,999	8,107	8,038	8,112	8,385	8,603	8,569	8,551	8,638
60 to 64 years	6,200	6,611	6,962	7,186	7,513	7,856	7,824	7,729	7,832	7,999
65 to 69 years	5,007	5,169	5,421	5,592	5,744	5,970	6,479	6,693	6,984	7,370
70 to 74 years	4,195	4,173	4,176	4,331	4,492	4,629	4,855	5,108	5,247	5,442
Homeownership Rate	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
United States, Total	**69%**	**68%**	**68%**	**67%**	**67%**	**66%**	**65%**	**65%**	**64%**	**64%**
Less than 25 years	25%	25%	24%	23%	23%	23%	22%	22%	22%	22%
25 to 29 years	42%	41%	40%	38%	37%	35%	34%	34%	33%	32%
30 to 34 years	56%	54%	53%	52%	52%	50%	48%	48%	47%	46%
35 to 39 years	66%	65%	65%	63%	62%	60%	57%	56%	56%	55%
40 to 44 years	71%	70%	69%	69%	68%	67%	65%	65%	63%	62%
45 to 49 years	75%	74%	74%	72%	72%	71%	70%	70%	69%	68%
50 to 54 years	78%	77%	76%	76%	75%	74%	73%	73%	73%	72%
55 to 59 years	80%	80%	79%	79%	78%	77%	76%	76%	75%	75%
60 to 64 years	82%	82%	81%	81%	80%	80%	79%	78%	77%	76%
65 to 69 years	82%	82%	82%	82%	82%	82%	81%	81%	80%	79%
70 to 74 years	83%	82%	82%	82%	82%	83%	84%	83%	82%	81%
75 years and over	79%	79%	79%	79%	79%	79%	80%	80%	79%	77%
75 years and over	8,751	8,714	8,816	8,852	8,908	9,094	9,285	9,356	9,379	9,386

TABLE 2

Historical and Projected Homeownership Rate, 1990–2050

Year	Historical (%)	Projected Scenarios (%)								
		National Scenario			California Scenario			National-California Average		
		Average	Slow	Fast	Average	Slow	Fast	Average	Slow	Fast
2000	66.2	—	—	—	—	—	—	—	—	—
2010	65.1	—	—	—	—	—	—	—	—	—
2020	—	62.7	62.3	63	55.2	54.9	55.6	59	58.6	59.3
2030	—	61.3	60.3	62.2	53.6	52.5	54.6	57.5	56.4	58.4
2040	—	59.3	57.1	61.4	51.8	50	53.5	55.6	53.6	57.5
2050	—	57.9	54.8	60.9	50.2	47.7	52.6	54.1	51.3	56.8

Source: 1990-2010 decennial censuses; and 2010-2013 American Community Survey extracted from Ruggles, Steven, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. 2010. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota.

The availability of what Green and Wachter (2005) name the "American mortgage" contributed to support access to homeownership by lowering wealth and income constraints, which enabled young households to purchase at an earlier stage. According to Fetter (2013) more than half of the increase in homeownership from 44 percent in 1940 to 62 percent in 1960 can be explained by these changes in the mortgage market. Other contributory factors include economic growth, demographic changes, and the development of affordable suburbs made possible by the growth in cars and infrastructure to support them.

For three decades after WW II, from the 1960s to the 1990s, homeownership remained stable and high with about two out of three households owning. Starting in the late 1990s, but accelerating during the years 2003 to 2007, a combination of regulatory shifts, changes to the structure of the mortgage market, and rising house prices, led to the onset of the second mortgage lending regime, which further relaxed borrowing constraints (Barakova, Calem and Wachter 2014) but would prove turbulent for the housing market (McCoy et al. 2009). The expansion of credit in the following period was substantial[4]. The number of mortgages originated increased from 4.3 in 2001 to 5.7 million in 2004 and remained above 5.5 million through 2006 (FFIEC, 2015).

This increase in debt was not the result of changes in underlying debt repayment capacity of households (such as a positive shock to permanent income) but of changes in credit supply (Levitin and Wachter, 2012). During the same period, household debt increased faster than income (Mian and Sufi 2015) driven by the increasing volume and market share of nontraditional mortgages (NTM), subprime lending, and second liens (Levitin and Wachter 2015).

[4] There is some evidence of the GSEs expanding credit earlier (Fuster et al. 2015), borrowing constraints remained close to historical levels before the early 2000s (Rosenthal 2002).

Barakova, Calem and Wachter (2014) show that, in the years 2003 to 2007, credit constraints eased considerably relative to historic norms[5]. National homeownership rates peaked in 2004. Despite the easing of lending constraints, rising house prices increased the share of households affected by constraints (Barakova, Calem and Wachter 2014) limiting the positive impact on homeownership rates. Homeownership rates peaked in 2004 and then began their decline from 2006 on, despite the continuing growth in credit in this period. As house prices peaked in January 2006 and then rapidly declined, with subprime and NTM issuance going to zero, after 2007, over a third of U.S. homes with mortgages fell "underwater." Plummeting collateral values and a weakening economy, combined with the risky characteristics of the loans originated during the boom period, drove foreclosure rates to their highest ever recorded levels.

A third regime shift took place in response to the credit losses experienced during the housing bust. In reaction to the losses generated by the general relaxation of borrowing constraints experienced during the second regime, the third regime is characterized by heightened borrowing constraints. Banks use lending "overlays" in response to "put backs" of failing loans from insurers. Direct measures of credit availability (Parrott and Zandi 2013; Goodman, Zhu and George 2015; Anderson 2015) have shown a substantial tightening in mortgage credit availability. As highlighted in our recent paper with co-authors (Acolin, Bricker, Calem and Wachter 2016), whether this level of constraints is maintained or not will have substantial consequences for homeownership.

Acolin, Bricker, Calem and Wachter (2016) use data from the Survey of Consumer Finance for 2001 to 2013 to identify the change in the impact of being borrowing constrained on individual likelihood to own. ABCW also simulate the effects of these changes on aggregate homeownership rates. They find that after decreasing in the 2004-07 period, the impact of being constrained increased in the 2010-13 period to reach a significantly higher level than measured in 2001. In the overall population, the estimated marginal decline in the likelihood of being an owner, associated with being subject to one or more of the three borrowing constraints (wealth, income or credit), is 30 percent. Using these parameters in simulations, the homeownership rate in 2010-2013 is predicted to be 2.3 percentage points lower than if the constraints were set at the 2001 level. In other words, if constraints were at levels prevailing in 2001, homeownership rates would be 2.3 percentage points higher and at approximately post WW II average levels.

The Future of Homeownership: Demographic Shifts and Economic Trends

In Acolin, Goodman and Wachter (2016), we explore forces that could lead to a continued decrease or to a rebound in homeownership in the future. Going forward, the expected increased diversity of the U.S. population in itself will put downward pressure on the aggregate homeownership rate if homeownership gaps across ethnic and racial groups do not narrow (Fig. 6).

Since 1960, the differences in homeownership rates across ethnic and racial groups (white households relative to Hispanic and black households) have remained consistently over 20 percentage points, reaching 30 percentage points for blacks and 26 percentage points for Hispanics in 2014 (as shown in Fig. 7)[6]. The gap between white and Asian households has decreased from 21 to 13 percentage points between 1960 and 2014 and there are signs that as the share of foreign-born Hispanic households decreases they might also experience higher homeownership rates (Painter, Gabriel and Myers 2001). The current "majority-minority" differential in the homeownership rate is about 20 percentage points (U.S. Census Bureau, 2016a).

The Census projects a continued increase in diversity in the nation as a whole, and the United States is expected to become a majority-minority nation by 2044[7]. Counterbalancing the potential effect of increased diversity,

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[5] Gabriel and Rosenthal (2015) show that age-specific homeownership rates increased after 2000 beyond levels explainable by observable factors. Since borrowing constraints (Levitin and Wachter, 2012) were not observable, this is consistent with the relaxation in borrowing constraints affecting homeownership outcomes.

[6] We show in a companion research paper (Acolin, Bostic, An and Wachter 2016), that while homeownership growth at the county level while associated with the growth in nontraditional and subprime mortgages, the association was weaker for minority households, thus not closing homeownership "gaps."

[7] Based on census projections (U.S. Census Bureau, 2015c).

the census projections show a progressive aging of the population with 26 percent being over 65 year old by 2050 compared to 16 percent in 2010. This increased percentage of older Americans in the general population has already helped stem the decline in the aggregate homeownership rate.

To quantify the impact of these demographic shifts, we forecast homeownership rates by weighting these groups by census projections (Acolin, Goodman and Wachter 2016). We also hypothesize different economic and lending scenarios. We thus focus on changes in three key drivers: demographics (using age and race and ethnicity projections from the census), credit access (considering different historical regimes) and housing cost increases.

Given demographic projections, the homeownership rate is projected to decline from the current rate of approximately 64 percent to 58 percent by 2050. But the homeownership rate could fall to lower levels of around 50 percent if credit conditions persist and trends in housing prices and rents relative to income continue on their current trajectory.

We discuss the methodology and economic rationales behind these in Acolin, Goodman and Wachter (2016). For lending conditions, we develop two scenarios, using the rate of household formation and access to homeownership by ethnic and age group from 1990 to 2000 and from 2000 to 2010. A "fast" scenario is based on the average of the 1990 to 2000 and 2000 to 2010 transition rates and a "slow" scenario is based on the more recent 2000 to 2010 transition rates.

We also consider the possible impact of rent and housing cost increases. If housing costs increase faster than income, renters have less disposable income left to save and the required down-payment increases leading to delayed access to homeownership. We use California homeownership outcomes to model the potential impact of nation-wide rent and house price increases in excess of income increases. If current trends continue, admittedly an extreme outcome, the nation would reach California levels of rents and house prices by the 2040s. We bound this outcome with the other extreme of no rent or house price increases going forward relative to income.

As of 2010, California's homeownership rate was 55.9 percent, as compared with the overall U.S. rate at that time of 65.1 percent. As noted, in our base case scenario (Table 2), homeownership is projected to decline to 58 percent by 2050 due to projected demographic changes if transition rates for headship and homeownership remain similar to an average of lending conditions (fast and slow scenarios). If tighter lending conditions persist the decline would be more pronounced, with homeownership projected to fall to 55 percent by 2050.

In the "California" scenario which illustrates the possible additional effects of rising rent and housing price costs together with demographic shifts and tightened lending conditions, homeownership could decline to 50 percent. This would represent a seismic shift from the post WW II norm.

Leaving aside the impact of potential continued rent and housing price rises, today's lending standards together with demographic shifts, results in a decline in homeownership. Whether the current lending regime remains or we return to the regime of the post-WW II era through the 1990s will have important implications for the future of homeownership. Reforms to restructure U.S. housing finance and provide clarity to market actors will determine whether the American mortgage remains available to a broad range of borrowers or if the current regime of heightened numbers of borrowing-constrained individuals becomes a new normal.

This brief summarizes the findings of three recent papers:

Acolin, Arthur, Jesse Bricker, Paul Calem and Susan Wachter. "Borrowing Constraints and Homeownership." American Economic Review: Papers and Proceedings, Forthcoming. (2016). http://ssrn.com/abstract=2720313

Acolin, Arthur, Jesse Bricker, Paul Calem and Susan Wachter. "Borrowing Constraints and Homeownership Over the Recent Cycle." Zell-Lurie Real Estate Center Working Paper. (2016). http://ssrn.com/abstract=2746703

Acolin, Arthur, Laurie Goodman and Susan Wachter. "A Renter or Homeowner Nation?" Cityscape 18.1 (2016): 145-157. http://ssrn.com/abstract=2720328

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