Where the Other Three-Quarters Live:

U.S. Mortgage Finance and Economic Inequality

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Key Points

- With Congress and the White House set to restructure U.S. housing-finance policy, now is the time to consider why inequality has grown so much worse in terms both of access to mortgage credit and the quality of affordable shelter. Some reasons for sharply-widened housing inequality derive from demographic shifts or local-zoning issues. Many others are fully within the reach of change by federal policy-makers. This paper lays out what these are and how change should proceed.
- Aggregate data on national house prices and credit availability mask yawning gaps in equity for low-and-moderate income households and millennials seeking the housing their parents took for granted. This paper lays out data showing how U.S. housing inequality has widened, especially since 2008 despite the trillions now spent in direct and indirect affordable-housing subsidies.
- Post-crisis monetary and regulatory policy have had demonstrable, adverse impact on housing equality without offsetting macroeconomic, financial-stability, and consumer-protection benefit. Key inequality drivers are the Fed's portfolio, ultra-low interest rates, certain aspects of the new bank capital-and-liquidity rules, and the qualified-mortgage criteria.
- Federal policy that reduces mortgage-credit and housing-affordability must move beyond tired debate over the extent to which GSE affordable-housing goals precipitated the crisis or whether still more subsidies are needed. Specific policies to consider include tighter income targeting for federal guarantees, normalization of monetary policy as quickly as possible (especially with regard to Fed MBS holdings), realignment of stress testing to reflect proven forms of risk mitigation, and rebalancing of U.S. capital-and-liquidity standards to create more portfolio capacity without more risk. Targeted mortgage products should be backed by non-prudential regulatory recognition and fiscal-policy incentives. Federally-subsidized lending should restrain equity extraction and back products that, even if they do not meet qualified-mortgage criteria, prudently reach under-served borrowers. Specific products and policy options are described in detail.
- As Congress moves ahead on housing-finance reform, economic equality should be a top criterion against which all proposals are judged.

Table of Contents

ABSTRACT

This paper addresses questions critical to Congressional action to restructure U.S. residential finance. First, which policy factors make sustainable home ownership still less viable for lower and moderate-income Americans, as well as for younger households contemplating their first house? Then, what can now best be done to remove policy incentives that exacerbate this critical cause of economic inequality without stoking a 2008 repeat?

The U.S. has long had a commitment to "affordable" housing even as many policy-makers have asserted that the U.S. housing market has fully recovered since the crisis. Nonetheless, despite years of direct and indirect subsidies and aggregate data suggesting overall market improvement, the gap between the housing haves and have-nots has only increased, doing so most alarmingly in the decade since the great financial crisis began in 2007.

This paper demonstrates the extent to which housing-market inequality has worsened, the link between mortgage disparities and overall economic inequality, and the specific financial-policy factors since the crisis with demonstrable inequality impact. Policy actions to remedy these inequality drivers without creating new sources of market and borrower risk are then proposed as Congress and the Administration redesign U.S. housing finance.[*]

A recent book on income inequality concludes that, "Only all-out thermonuclear war might reset the existing distribution of resources."[1] If so, the cure is surely worse than the disease, but there is no need to contemplate such extremes. Several of the most important drivers of U.S. economic inequality can be meaningfully remedied by near-term policy change, as this paper will demonstrate with specific respect to housing finance. As Thomas Piketty's already-classic book on 21st-century income inequality demonstrated,[2] history has shown that economic inequality derives from the gap between macroeconomic growth and the return on capital. The Federal Reserve has struggled in concert with problematic fiscal policy to renew U.S. economic growth since the crisis, but its monetary policies and post-crisis regulatory reforms have at the same time altered return on capital to favor the rich still more exclusively.

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This paper will show how U.S. financial policy has directly altered returns on capital, leaving more and more low- and moderate-income households farther and farther behind. Because housing is so fundamental a social-welfare need, we look specifically at how recent financial policy has directly, if unintentionally, left more and more Americans standing by the side of the road looking into the windows of nicer and nicer housing across the income divide.

Where we live at how much cost to ourselves and at how much risk to financial stability matters materially to economic equality. All of us must live somewhere and the less affordable our housing and the more leveraged our finances grow to obtain the best we can, the poorer we get and the farther our families fall behind the economic curve. Further, the more risk we take to shelter ourselves, the larger the threat to macroeconomic, financial, and political stability.

Starting with the actions taken during the Great Depression of the 1930s, U.S. policy has expressly recognized the link between housing access and economic equality. As a result, trillions in direct and indirect taxpayer subsidies now support residential-mortgage finance and the industries in this sector now so critical to overall macroeconomic health. Nonetheless, as data presented below make clear, housing access not only remains unequal, but also has become dramatically more so since the U.S. so narrowly averted another Great Depression and settled instead into what some call the "Great Recession."

These actions were designed – and rightly so – to do three things: stabilize the U.S. financial system, limit bank risk, and ensure that borrowers and investors are not again put at grave risk due to residential mortgages. In the wake of all of these interventions, some assert that the U.S. system is materially safer, housing credit is sufficient, and house prices have recovered. However, millennial and low-to-moderate income (LMI) borrowers are in fact falling farther and farther behind the housing-equality distributional curve.

This paper evaluates the fundamental question of why well-intended monetary and regulatory policy has had done so much damage to so many lower-income Americans and an economy dependent on a vibrant, sound housing-finance system. After first describing the current policy debate, we review post-crisis data on housing-credit availability, house-price distributions, and similar criteria to demonstrate that access to affordable, sustainable home ownership has become considerably more difficult for LMI and millennial households in the past ten years. To some degree, this reflects the painful hang-over from all the pre-crisis excesses, but data showing how sharply the market has divided between haves and have nots during the post-crisis recovery after 2012 show also that structural changes demanded by post-crisis policy have had significant, unintended effects. This paper thus surveys the post-crisis landscape of U.S. monetary and regulatory actions to identify several major sources of increased economic inequality germane to housing finance without offsetting safety-and-soundness benefit. We conclude with specific policy recommendations to retain key post-crisis reforms and modify them in several respects to bring as many Americans out of the housing-market cold as possible.

I. The Immediate Policy Challenge

At a June 29 hearing of the Senate Banking Committee, Chairman Crapo (R-ID) and Ranking Member Brown (D-OH) made it clear that they will seek bipartisan consensus on legislation that finally resolves the status of two critical government-sponsored enterprises (GSEs): Fannie Mae and Freddie Mac. Treasury Secretary Mnuchin has also said that the Trump Administration will soon turn to GSE reform, recommending action for Congress to which House Financial Services Committee Chairman Hensarling (R-TX) is also open. As a result, it is clear that U.S. policy on residential-mortgage finance will be substantively reviewed in the next few months and could soon be structurally changed.

With Congress and the White House back to work on housing policy, questions about affordable-housing goals and "duty-to-serve" requirements will again prove a flash point. Many Republicans blame the great financial crisis directly on the GSEs' affordable-housing goals; Democrats refute this claim just as vigorously, adding that any successors to Fannie Mae and Freddie Mac must be bound by affordable-housing obligations at least as stringent. It is thus clear that the question of housing access is critical to the forthcoming debate. How it is answered is critical to U.S. economic equality.

Although subprime mortgages were a spark that helped ignite the financial crisis, many other factors combined to cause the conflagration. The GSEs' goals on their own were insufficient to wreak so much damage across so many markets in so many countries at precisely the same time. Conversely, affordable-housing goals have not remedied housing inequality. Even in the context of trillions of additional direct and indirect subsidies for LMI housing, American mortgage markets are even less equal now than in 2008. As the policy recommendations provided at the end of this paper describe, restoring U.S. housing-market equality requires policy-makers to go beyond tired affordable-housing battles to craft a new, forward-looking policy.

In doing so, policy-makers should also go beyond the GSEs and other federal housing programs such as the Federal Housing Administration (FHA) and the Federal Home Loan Banks to assess other aspects of U.S. housing-policy. The Bureau of Consumer Financial Protection (CFPB) for example recently released a request for information (RFI) on key planks of its own post-crisis rules, several of which are also open to statutory change as financial-reform legislation advances. As shall be shown, the CFPB's rules play a clear, and again unintentional role making U.S. housing still more inequitable.

U.S. housing policy is at a major transition point – Congress is looking at GSE reform, the CFPB may change its rules, bank prudential standards governing mortgage obligations are in transition, and the Federal Reserve has decided to "normalize" monetary policy. Each of these initiatives has profound, direct impact not only on U.S. economic equality, but also on the financial stability on which macroeconomic prosperity depends. As the FRB has shown, housing crises lead not only to financial crises, but also worse ones.[3] Getting the new policy balance is thus among the most critical questions facing the Congress and Administration in 2017.

II. How Unequal is Residential Mortgage Finance?

Is home ownership essential for every American? The home-ownership rate is often cited as a bellwether of U.S. prosperity and to some degree it is. However, home ownership is not for everyone. Demographics are leading a greater number of older Americans into alternative housing, while so large an illiquid investment is often inappropriate for those with seasonal, mobile, and/or uncertain employment prospects. Purchasing a home with a highly-leveraged mortgage when house prices are at peak levels or in distressed communities with uncertain appreciation prospects is also a risky proposition, especially for very low-income households.[4]

Equity extraction through cash-out refinancing (refis) fueling consumption, not wealth accumulation, can also increase household leverage, as is also possible when "reverse" mortgages extract equity from the houses of older Americans counting on equity to fund a secure retirement. Getting a mortgage that becomes an ATM provides funding for consumption and even emergency needs such as medical bills, but it does not promote economic equality and often in fact undermines it since borrowers do not amass wealth, just more debt.

That said, U.S. homeownership has sunk so fast to a level – 63.6 percent – not seen since 1965[5] as to suggest that many Americans are unable to make a prudent commitment to the home ownership critical to long-term wealth accumulation. As a recent study has found, compared to renting, homeownership consistently has a larger positive impact on educational achievement, civic participation, healthcare outcomes, and teen pregnancy rates.[6] Homeowners are also less likely than renters to be victims of crime, suggesting that owned communities are more secure havens for social mobility.[7]

Despite the drop in home-ownership, some read other post-crisis data on house prices and/or mortgage-credit availability to suggest that there is an ample supply of prosperity-spurring housing finance readily at hand. As shall be shown, segmenting aggregate, nationwide data by economic-equality factors demonstrates that housing-market equality has in fact become worse even though the most extreme effects of the crisis have abated.

It is frequently noted that since 2012 U.S. house prices have risen 34.14 percent on a nationwide basis for the five-year period ending March 31, 2017 on a seasonally-adjusted, purchase-only housing price basis.[8] Further, the amount of mortgage credit extended since 2004 has grown fifty percent from 9.6 trillion in the first quarter of 2004 to 14.4 trillion in the first quarter of 2017.[9]

However, a look behind these data show a significant dark side for home ownership for the low-, moderate-, and even middle-income Americans for whom home ownership is so important a source of wealth accumulation. As a new Treasury report found,[10] housing credit has grown the most slowly of all U.S. credit since the crisis, growing only about five percent since 2010 – well below credit cards and small-business lending and even farther below nominal GDP (26 percent) over the same period. On a per-capita basis, the growth of mortgage credit is still more sluggish given population growth since 2008, with per-capita growth in mortgage lending still less when differentiated by economic-equality factors (shown below).

Treasury also cites a widely-used housing credit-availability index that is about half of what it was in 2001-03, well before the crisis stoked risk. Home-ownership rates also differ dramatically for Americans based on race.[11] Indeed, since 2011, mortgage lenders reduced credit to middle-class households by fifteen percent even as credit for wealthier households grew 21 percent.[12]

The following data also show clearly not only how unequal American housing is, but also how much worse equality has gotten since the financial crisis:

- House prices in 2016 on a national level reached their pre-crisis high after more than a decade, but on an inflation-adjusted, aggregate basis prices nonetheless remain nearly fifteen percent below their previous high.[13] Only one in three houses in the U.S. as a whole has exceeded its pre-crisis valuation.[14]

- Gains are heavily concentrated at higher priced houses.[15] House prices in low-income areas were 13.7 percent below peak in 2016, but even house prices at the upper end of the spectrum in low-income zip codes were down 3.3 percent from their pre-crisis peaks.
- House-price challenges are particularly acute for lower-income households in lower-income metropolitan and rural areas. For example, inflation-adjusted coastal cities saw house-price appreciation of forty percent since 2000 while house-prices in rust-belt and southern cities have depreciated as much as 46 percent over the same period.[16]
- Although the differences between black and white LMI borrowers have abated since 2010, a survey of several regional studies[17,18,19] shows that LMI black borrowers are still less likely than white LMI borrowers to be approved for a purchase-mortgage regardless of the income of the neighborhood in which the house is located.
- More than three million homeowners still have under-water mortgages – i.e., they owe more than their house is worth years after they took out their loan.[20] Nearly seven million borrowers remain trapped between ten percent negative equity and ten percent positive equity,[21] further reducing the supply of affordable housing for sale and the ability of these home owners to count on their home as a source of wealth for educational mobility, retirement security, and other equality-advancing goals.
- Much new mortgage credit is used not for first-time home ownership but rather for cash-out refis advantageous only for existing home owners, not for spurring equitable access to housing.[22] Refinancing in fact occurs more in prosperous neighborhoods even though the reduced interest rates that make it advantageous for lower mortgage costs apply regardless of income or location.[23]
- The number of first-time buyers of starter homes remains well below historical averages.[24] Although they are beginning to purchase homes for the first time since the financial crisis, they are far more indebted than earlier first-time home buyers. This is due in large part to their student-loan obligations (now amounting to $1.3 trillion), with wage growth for student borrowers not keeping up with debt costs.[25] This creates a significant impediment to home ownership – there has been an eight percentage point decline in home ownership for 28-30 year-olds 2007 through 2015, a result that a new Federal Reserve Bank of New York study attributes in part to higher student-loan costs due to sharp tuition rises in the early 2000s for this cohort that boosted their debt load.[26]
- As is evident in the trends above, post-crisis housing credit is going almost exclusively to borrowers with pristine credit.[27] Indeed, this is proving so much the case that lower-credit score borrowers are simply dropping out of the market.[28] It has been determined that overly tight credit requirements blocked over 1 million mortgage originations in 2015 and that an additional 6.3 million mortgages would have been originated between 2009 and 2015 if lending standards had returned to the pre-bubble norms of 2001.[29] Americans now think themselves less likely to apply for credit than any time since statistics on this began in 2013, with these new data showing sharp increases in rejection rates and drops in interest specifically in mortgage credit.[30] Conclusions about the extent to which mortgage-credit needs are being met thus do not take many would-be applicants into account.
- Reflecting to whom credit is available – i.e., higher-income households – builders are building less and less affordable housing. Between 2010 and 2017, the gap between median new-home prices and median existing-home prices (a standard industry proxy for the affordability of new housing) expanded from approximately $48,000 to $71,000 as of January 2017.[31]

Arguably, rental housing could make up for some lost home-ownership opportunity. And, as noted, home ownership is sometimes not either a sound or possible achievement for very-low income households and those facing uncertain economic prospects. Nonetheless, rental opportunity remains a problematic solution to home ownership now because:

- there is an acute scarcity of affordable rental housing;[32] and
- renting is consumption, not investment. Building home equity remains the most important path to wealth accumulation for low-, moderate-and middle-income Americans.[33]

III. Financial-Policy Drivers of Housing Inequality

The data above make it all too clear that borrowing to obtain a home and then establishing the equity in it to support long-term household prosperity get harder and harder the farther one slips down the household-income ladder. To some degree, this is the result of the negative feedback loop between housing crises and financial stability cited recently by the Federal Reserve:[34] the boom before the great financial crisis in subprime mortgage finance helped to cause the crisis and makes that crisis all the worse, with housing finance experiencing the worst of these worst-case recoveries. However, the fact that the crisis has abated in some credit categories – i.e., commercial lending – yet remains acute for affordable-housing shows clearly the extent of the challenge in this critical sector.[35]

The financial crisis could have been far worse still had the Federal Reserve not deployed every tool in its monetary-policy kit, and the chances of a financial-crisis repeat are reduced by the wholesale rewrite of U.S. bank regulation since 2008. Ironically, it may now be just these post-crisis remedies that exacerbate the prolonged downturn in residential-mortgage finance for those most in need of it. Unlike other factors – demographics, land-use limitations, changing employment patterns – these financial-policy drivers of economic inequality are made by the human hand of federal policy-makers and thus can be readily unmade or revised to reduce their unintended, adverse effect.

As in prior FedFin work[36,37,38] this paper focuses on financial policy. By this, we mean Federal Reserve monetary policy, federal regulation, and the interaction – often unanticipated and surprisingly counter-productive – between monetary policy and the sweeping post-crisis rulebook. Importantly, monetary policy applies in largely like-kind form across the full range of private- and public-sector mortgage financial institutions. With the exception of consumer protection, the post-crisis rulebook applies solely to banks and in the most stringent fashion to banking organizations with assets over $50 billion.

As shall be shown, mortgage finance has not only changed dramatically since the crisis due to the broad incentives resulting from monetary policy, but also sharply shifted to a system in which credit availability is largely dependent on the willingness of non-banks and taxpayer-supported institutions to invest in this sector. Although mortgage finance is considered an historic obligation of and a business line for insured depository institutions (IDIs), new Federal Reserve staff work finds that only 24 percent of U.S. mortgage credit now resides on bank balance sheets.[39] It is possible that substituting taxpayer and investor capital for that now scarce for banks could reverse adverse economic-equality results, but doing so raises significant moral-hazard and financial-stability concerns absent housing-finance reform, as shall be shown below.

Further, non-banks lack capital and investors prefer transparent, liquid assets. As a result, non-banks focus on securitized mortgages, not portfolio loans. This increases standardization across mortgage origination that leaves many LMI and millennial borrowers under-served due to their non-traditional risk profiles. The lack of bank portfolio capacity also increases reliance on the federal government and GSEs, with eighty percent of U.S. mortgages now going through these taxpayer-backed entities.[40]

a. The Economic-Equality Impact of U.S. Monetary Policy

Since 2008, U.S. monetary policy has been historically accommodative – that is, designed to jump-start employment even at some risk to price stability (the two statutory goals prescribed for FRB action). Key to this accommodative policy – also known as quantitative easing (QE) – is the Fed's huge investment portfolio in concert with a more traditional effort to drop interest rates to unprecedented, ultra-low levels.

Before turning to the economic-equality impact of each of these policies, it is worth noting that new research has pointed to one overall adverse equality result: QE may make the U.S. economy more procyclical.[41] Procyclicality means boom-bust cycles in which gains and losses are so accentuated as often to create systemic risk. When this occurs specifically for house prices, procyclicality adversely affects the extent to which borrowers are at risk of lost home-equity and even of foreclosure. Interestingly, the Federal Reserve's preferred approach now to procyclicality is to impose a "counter-cyclical capital buffer" (CCyB) on the largest U.S. banks. However, doing so has a most uncertain impact on procyclicality in markets such as the U.S., where non-banks play so large a role.[42] As shall be shown below, higher bank-capital charges militate against housing-credit availability, especially for LMI and low-down payment borrowers. As a result, a CCyB may or may not offset QE-induced procyclicality, but mortgage credit availability is likely to suffer the most in boom and bust cycles – non-banks are not affected by the CCyB and, after they step away from a newly-risky market, banks are impeded due to their capital requirements from replacing non-banks to keep mortgage credit flowing smoothly. Only taxpayer-backed entities then could ensure market liquidity and prevent another round of a housing-induced crisis and the resulting macroeconomic harm demonstrated by the studies cited above.

Going beyond this general problem with current monetary-policy transmission channels, specific Federal Reserve monetary policies with adverse economic-equality impact are:

1. FRB Portfolio

Recent research from global central bankers has found that the FRB's portfolio – now $4.5 trillion – has an adverse impact on wealth equality because so large a book of high-quality assets alters the value of the rest of those in the U.S. financial market.[43] This Bank for International Settlements (BIS) paper finds that the assets generally held by higher-income households – stocks and bonds – have appreciated far more than the principal wealth-accumulating asset for lower-income households, which is a home. A new study from the Organization for Economic Co-operation and Development (OECD)[44] similarly finds that income and wealth inequality is at least in part attributable in the U.S. to the fact that these capital-markets holdings are disproportionately owned by wealthy households, with the study showing – as does the BIS analysis – that moderate-income individuals principally derive wealth from their homes. A new study from authors at the European Central Bank (ECB) also finds that home ownership is the principal wealth-accumulation engine in the U.S.[45] Despite QE and other U.S. financial-policy initiatives, home ownership – and thus wealth accumulation for lower-income households – now stands at close to its lowest level since 1965.[46,47]

The housing data provided above also show clearly how home values have been adversely affected since the crisis, making it clear that higher-income households in fact benefit twice from FRB quantitative easing. First, the financial assets held generally by wealthier households appreciated dramatically. Second, the homes owned by wealthier households have appreciated far more than those owned by low- and moderate-income Americans, in part the result of QE. Importantly, to the extent FRB policy has made the rich richer – and it has – the less these wealthier households are likely to consume,[48] suppressing consumption and thus employment opportunities for younger and lower-income individuals.

Looking specifically at the impact of the Fed's portfolio on U.S. housing, a recent study from the BIS finds that the assets held by the Federal Reserve have direct impact on the assets banks are willing to originate. Large holdings such as those the Fed now maintains in MBS (approximately $1.8 trillion, or one-third of total outstanding agency obligations)[49] create incentives for banks to originate commercial, not mortgage loans due to market price distortions resulting from such a large mortgage-related holding by one investor. Going farther into what type of mortgages banks issue in response to Fed policy, research from the Federal Reserve Bank of New York found that QE accomplished through the Fed's portfolio has had a direct and adverse impact on mortgage equality by creating incentives for banks to originate only the safest mortgage loans.[50] Monetary-policy incentives combine with other market factors – most notably the cost of mortgage-loan modifications under new rules – result in a preference by banks to originate purchase-mortgage loans most likely to be purchased by the GSEs or Ginnie Mae or to refinance mortgage, including cash-out refis, that arbitrage the market-rate effects generated by quantitative easing.

Although QE also increases overall financial market procyclicality with particularly adverse impact on housing finance, reducing the Fed's large holdings of MBS could also have adverse implications. Just as one investor dominating a market alters pricing for as long as that investor holds an asset or buys more of it, price distortions are also likely when so dominant an investor changes course. The Fed is hoping to do so with no market impact, announcing a very slow path to a new portfolio strategy. When it steps on to this path remains to be seen, but the Fed has already made clear that the path will lead it wholly away from holding agency MBS regardless of the amount of U.S. Treasury obligations it ultimately decides it needs. If the Fed cannot accomplish its MBS disposition as painlessly as it hopes, then MBS yield spreads could widen far more dramatically than has already been seen as investors nervously eye the Federal Reserve actions. Sharp widening of MBS spreads akin to those in the 2013 "taper tantrum" would have sudden, adverse impact on mortgage markets, putting LMI and millennial borrowers at still more risk.

2. Ultra-Low Interest Rates

A recent study has found that ultra-low interest rates since the financial crisis have cost American households $2.4 trillion in lost savings.[51] The FRB intended these low rates to spur employment, and to a limited degree they did, especially for higher-wage workers. Still, for those with jobs, lost savings may be recouped over time, but home ownership will be at least delayed due to the absence of a down payment and may well prove costly due to the limited affordable-housing supply. Those still seeking employment or just entering their wage-earning years are historically higher-risk homeowners, meaning that for them a down payment from prior savings is a critical buffer against house-price depreciation. This is because homes with above-mortgage values even under stress can be sold, limiting if not preventing the foreclosures and resulting personal and macroeconomic distress evident in the wake of the financial crisis that is still far from reversed by recent economic improvement.

Ultra-low rates also affect the overall composition of bank balance sheets because the cost of new rules (see below) combines with low interest rates to make many traditional forms of deposit-taking and lending so unprofitable that banks simply cease to engage in the services that once characterized the business of banking. A recent Federal Reserve Bank of Boston paper[52] has found that ultra-low rates in concert with post-crisis rules have led large banks to shift to shorter-term, higher-risk assets that do not pose credit risk. These assets thus fall largely outside the scope of new capital and liquidity rules (see below). Smaller banks under less onerous rules have also shifted their holdings due to low rates, but not to the extent found for large banks. Although these effects cut across all asset categories, they show the pronounced impact of ultra-low rates on bank lending which, taken together with the other constraints directly on mortgage finance, contribute to economic equality in this sector.

b. Regulatory-Policy Considerations

It is clear that the mortgage origination and securitization practices as the financial crisis revved up more than a decade ago were anything but appropriate from either a consumer-protection or financial-stability perspective. As a result, significant changes were mandated in the host of post-crisis statutory and regulatory reforms. As with well-intentioned monetary policy aimed at offsetting the macroeconomic impact of the great financial crisis, new prudential and mortgage-finance rules make sense in their own context but have also had some clear and adverse effects on economic equality. The broad fabric of post-crisis rules are in fact regressive when it comes to bank-originated credit because new rules impose costs above and beyond those required for risk mitigation and investor protection. This makes the bank business model as is – i.e., a business model dedicated to making loans in areas such as residential mortgages – increasingly anachronistic, leading banks to abandon financial intermediation for fee-based businesses such as wealth management. The study cited above[53] in fact attributes the divergence of lending for middle-class households – down – from that for wealthier ones – sharply up – to the unintended impact of the post-crisis regulatory framework.

Regulatory-policy adverse effects resulting from bank-specific standards include:

1. New Capital Standards

Only banks are subject to post-crisis capital standards and only large banks are subject to the most stringent risk-based and leverage ones. The effect of rules thus varies by bank size, but those applicable to the largest banks are of most concern because bank lending depends most on large banks. The share of U.S. banking assets held by banking organizations with assets over $50 billion was approximately 78 percent as of year-end 2016.[54] Prior FedFin research has assessed in detail the unintended impact of post-crisis capital standards on credit availability in general[55] and economic equality in particular.[56,57,58]

All of these analyses are predicated on a simple fact: regardless of what regulators may hope, banks are private-sector institutions that maximize profitability. Rules rightly constrain profit maximization for companies that enjoy unique taxpayer benefits (i.e., FDIC insurance and access to FRB liquidity facilities). However, when rules go beyond constraining profit maximization also to bar the return necessary to attract the private investors necessary to supply the capital on which regulators require banks to rely, then banks realign their businesses to reduce their exposure to profit-penalized assets and increase them where profit potential remains.

As a result, where regulatory-capital rules exact the equivalent of a prudential tax on an asset by requiring capital above the level at which a bank believes appropriate to mitigate its risk, banks will alter their appetite and/or pricing for the asset in question. This has in fact occurred with regard to U.S. residential mortgages. The combined impact of higher risk-based capital charges, especially for low-risk mortgages, and the new leverage-capital standards creates a strong disincentive for banks to hold anything but higher-risk loans on their balance sheet.

In addition to the overall regulatory-capital requirements, the post-crisis "Basel III" rules impose a specific charge on mortgage-servicing assets (MSAs). These assets arise when a lender sells a mortgage into the secondary market (i.e., to the GSEs and Ginnie) but retains the right and obligation to "service" the mortgage – i.e., to collect payments from the borrower, transfer these as required to the investor and others, and deal with the borrower should the mortgage become past due or be foreclosed upon. Mortgages are priced to include the fees servicers receive for these duties but these fees were found insufficient in the crisis due to the cost of servicing problem loans. Banks have significantly changed their servicing models to reflect these hard lessons, often doing so under a costly regulatory settlement, making the servicing model far less profitable. The addition of the MSA capital charge has led many banks simply to abandon the mortgage-servicing business or to engage in it only for a limited class of low-risk (i.e., upper-income borrower) mortgages. Mortgage servicing has thus become largely a non-bank business. Significant questions about the ability of any non-banks that do not voluntarily have sufficient servicing risk-mitigation capacity have been raised by the GSEs' regulator and others, but regulators to-date have resisted calls to change the capital treatment of MSAs and thus create incentives for banks to return to a line of business critical to effective U.S. mortgage finance.

The FRB's stress-test standards compound these capital factors for bank portfolio composition because they are generally a large bank's binding constraint.[59] Stress-test standards vary widely from those that large banks consider appropriate for their mortgage books. For example, the FRB has decided not to count the credit-risk mitigation provided by private mortgage insurance (MI) for high loan-to-value mortgages even though MI is recognized under the risk-based capital rules, the GSE charters, and generally-accepted risk-mitigation practice.[60] Because low-down payment mortgages are particularly important for lower-income and first-time homeowners and because MI underwriting reflects the risks of these borrowers to protect the insurer, failure by the FRB to recognize the risk-mitigation impact of MI has an adverse impact on economic equality related to access to mortgage finance.

Another unintended impact of the capital rules derives from the post-crisis practice of demanding that mortgage originators agree to repurchase or otherwise make good on loans sold to the U.S. Government or a GSE that then default. This is understandably meant to discipline those who sell loans to taxpayer-backed securitization channels, and it certainly has imbued an appropriate amount of caution at lenders who relied too casually on third-party brokers for origination volume. However, the bank capital rules and most especially the stress test require capital allocation for this "put-back risk." It has also resulted in considerable operational risk-based capital related to the legal and reputational costs of pre-crisis practice. These costs are so significant that many banks have simply exited origination for FHA and have sharply curtailed LMI-origination for the GSEs. Non-banks have taken the banks' place here as well, but without actually having capital at risk to make meaningful this put-back discipline. Policy recommendations below will address this issue.

2. New Liquidity Standards

In concert with ramping up capital rules since the crisis, the post-crisis framework now includes stringent liquidity requirements applicable only to large banks. Hypothetically, liquidity rules should have little impact on residential-mortgage finance because their goal is to ensure sustained funding under stress, not solvency as mortgages default. However, the liquidity coverage ratio (LCR) requires that covered banks hold high-quality liquid assets (HQLAs) equal to or greater than outflows as measured under regulatory assumptions. Although banks might own these HQLAs for other purposes, they must be unencumbered for LCR compliance and thus are generally held to meet this requirement even where a bank's business model would otherwise lead it to make loans with the balance-sheet capacity swallowed by mandatory HQLA holdings.

According to a recent Treasury report,[61] HQLAs now account for 24 percent of large bank balance-sheet assets. A limited amount of GSE and Ginnie Mae obligations (collectively called agency paper) are permitted to serve as HQLAs, meaning that banks can meet the LCR in part by holding larger balances than might otherwise be desired for profit, risk-management, and other purposes. This artificial demand for agency MBS is likely to exacerbate the pricing pressures on agency MBS already created by the Fed portfolio, compounding long-term challenges and near-term normalization difficulties and near-term market distortions.

The combination of the capital requirements described above and the limitations on balance-sheet capacity resulting from the LCR also reduce the ability of larger banks to hold mortgages on portfolio when loans do not comport with the capital incentives created by CCAR and the underlying post-crisis capital framework. Recent academic research[62] finds that the LCR's impact on bank portfolios is one of the causes for the overall shift of U.S. mortgage finance from banks to growing domination by non-banks exempt from the LCR as well as other prudential requirements. Because non-banks lack a capitalized balance sheet, they focus on securitization and thus only originate loans for which there is a secondary market. Given all of the policy incentives (see below) leading lenders to conform their mortgage origination requirements only to those suitable for purchase by the GSEs and Ginnie Mae, a securitized-only market adversely affects the mortgage market's ability to serve borrowers with a complex or non-traditional risk profile unsuitable for national credit-underwriting standards absent a lowest-common denominator approach.

3. Risk-Retention Requirements

In the wake of the financial crisis, U.S. and global policy-makers decided to align the incentives of loan originators with those of investors in secondary-market instruments such as MBS. This was done through risk-retention requirements which, as embodied in the Dodd-Frank Act and subsequent rules, require a loan originator or securitizer to hold at least a five percent position in securitized assets unless they are sold to the federal government or a GSE.

Banks must hold capital against these risk-retention positions, diminishing their ability to securitize mortgages other than those the U.S. Government or the GSEs are willing to purchase. Non-bank originators and securitizers have no such regulatory standards, meaning that the limited amount of private-label securities (PLS) issued so far since the financial crisis generally come from non-banks. These PLS could afford a significant opportunity to provide mortgage credit to low- and moderate-income households that do not qualify under the government/GSE underwriting standards without raising significant concern due to the risk-retention requirements, but market capacity is significantly diminished by the capital and liquidity standards applicable to larger banks and the cost to earnings of risk retention for most non-banks.

PLS may be exempt from risk retention if they meet "qualified residential mortgage" (QRM) standards, but these essentially tie securitization to Ginnie Mae and GSE underwriting criteria that also generally force securitization through the agencies. As noted, the LCR and the Fed's large MBS portfolio have also distorted market pricing, making it essentially impossible for PLS issuers to offer secondary-market instruments that compete effectively against the government.

c. Broader Regulatory Considerations

It is possible that mortgage finance could thrive for economic-equality purposes without the large banks subject to the rules described above. However, the adverse impact of these rules is compounded by additional post-crisis standards applicable across mortgage finance with the single exception of loans sold to the federal government or a GSE. Unlike prudential standards, CFPB consumer-protection rules apply across the board to bank and non-bank lenders (although CFPB enforcement authority varies by size and charter). The most important CFPB rule related to mortgage finance and its economic-equality impact is the Qualified-Mortgage (QM) Requirement.

The Dodd-Frank Act created the QM rules to differentiate the most prudent loans likely to put borrowers at the least risk from other mortgages (non-QMs) which, while possibly appropriate for targeted borrowers, nonetheless fail these stringent QM standards. However, the legal and reputational risk of originating a non-QM mortgage is significant, resulting in very limited market appetite for loans that could meet the needs of first-time borrowers or LMI home owners based on underwriting or the products apart from that blessed by the QM rule. In 2016, only nine percent of mortgages were outside the QM criteria.[63]

It should be noted that research[64] has suggested that the QM rules have in fact had no adverse impact on LMI mortgage-credit supply because the QM standards largely applied before the rules were issued. Indeed, the study cited above on QM mortgages found that only sixteen percent of loans in 2013 (as the QM rule was introduced) were non-QMs. The drop – almost by half – in non-QM loans since then may or may not be attributed to the full implementation of the QM rule, but the law requiring the rule was enacted in 2010 and secondary-market standards and other mortgage requirements in fact implemented many of them well before the QM standards were finalized. The mortgage-inequality data described above make it clear that the overall impact of the QM standards in concert with the financial policy described above have demonstrable impact limiting the ability of lenders seeking to expand in non-traditional lending that would have had significant economic-equality benefit.

For example, the QM standards make it very difficult for lenders to stay within the QM box and still provide mortgages that the rules stipulate are prudent when borrowers are not traditionally employed, but are instead households with temporary or "gig" wages, include contributions from parents or relatives, or have income derived from other family members to support home ownership as is common in large, extended families in immigrant and other LMI communities. The QM rule also bars mortgages such as interest-only products that, while problematic if underwritten in risky ways, can also advance home ownership, especially when used to finance "rent-to-own" purchases. Many LMI borrowers and millennials lack the down payments necessary to qualify for QMs but could purchase a home over time, paying interest in the form of rent on the house until amassing enough personal resources or a large enough equity position to convert the bridge interest-only loan into a sustainable, long-term mortgage.

IV. Policy Principles to Reverse U.S. Mortgage Inequality

The analysis above demonstrates first that the U.S. housing market has not recovered and is even more inequitable in the wake of post-crisis monetary and regulatory policy. Because house prices vary so much across the country and regional housing markets differ so dramatically for borrowers at different wealth levels, aggregate data about the supposed "recovery" mask yawning gaps in the ability of LMI households to borrow for and to sustain home ownership. Given that Congress and the Administration are now considering changes to U.S. housing policy and some post-crisis rules are under review, now is an ideal time to recognize the unintended effects of well-meant policy and remedy those with direct and adverse impact on economic equality.

First, to what not to do. Longstanding policy is as noted backed by trillions of dollars in direct and indirect subsidies designed to promote home ownership. The data presented above demonstrate that these subsidies have had only limited, if any positive effect on mortgage equality. This is because:

- broader macroeconomic and regulatory factors have outpaced the ability of these subsidies to enhance equitable housing;
- tax benefits designed to enhance housing affordability often support middle- or even upper-income borrowers.[65] They also encourage equity extraction by creating tax incentives for debt, not home-equity wealth accumulation;
- permissible loan amounts for government programs that should advantage borrowers unable to amass large down payments in fact often benefit higher-income borrowers. This is because the FHA and GSE loan limits are often set far above actual median house prices in many states and cities;[66] and
- affordable-housing and duty-to-serve goals for the GSEs and insured depository institutions may encourage risky securitization, not sustainable mortgage credit.

The key to effective U.S. housing policy that reverses continuing and worsening inequality is to learn from the hard lessons of ill-targeted subsidies, risky government backstops, and misguided post-crisis reforms. The lessons demonstrated by the analysis above are that:

- Conclusions about mortgage-credit availability and housing affordability cannot be drawn from aggregate data with regard to the ability of under-served borrowers and ill-housed Americans to enhance economic equality.
- Regulators cannot beat the market. Activities made unprofitable by new rules in the context of current market factors (e.g., low interest rates, Fed-dictated asset pricing) are activities abandoned or restructured to recover profitability.
- Mandated products and services targeted for LMI households pose prudential and systemic risk. If these risks are offset by tough rules, then these products are often not profitable and mandates to offer them are often re-purposed to benefit higher-income borrowers.

- Monetary policy has unintended economic-equality consequences. Normalization must take these into account along with traditional employment and price-stability consequences. The Fed's MBS portfolio should be reduced as quickly as possible in concert with the new policy going forward to hold only Treasury securities, but the overall size of the portfolio also has asset-valuation impact that argues for a still smaller portfolio than now anticipated.
- Over-arching housing-market panaceas such as low rates and subsidized thirty-year fixed-rate mortgages do not deliver intended results for LMI households despite broader macroeconomic or middle-class benefit. Targeted products that take LMI considerations into account should be designed by government agencies and backed by offering incentives that do not pose new prudential or systemic risk. These incentives should not include discounted capital standards or looser prudential rules. Rather, they should reduce pricing by government secondary-market agencies and/or come with fiscal-policy benefits for originating or securitizing firms.

V. Specific Mortgage-Equality Policy Options

Based on the principles outlined above and the analysis leading to them, we recommend:

- *Income Targeting:* This should be done for all federally-backed mortgage guarantees and subsidies for residential and multi-family housing, with borrower or renter income targeting calculated by relevant state and local criteria to ensure that current practice (which sets overly-high house-price limits) is reformed.
- *Equity-Extraction Restraint:* Cash-out refis account for a large percentage of recent mortgage originations and government-backed loans. These products along with reverse mortgages for older Americans often meet household needs. However, they can also eviscerate home equity better used for wealth accumulation, not short-term consumption (e.g., vacation, auto spending). Although equity extraction should not be prohibited, government subsidies should not back products that permit it. Because equity extraction poses risks not just to borrowers, but also to mortgage investors and credit-enhancement providers, any loans that permit equity extraction or additional liens should include appropriate notification to relevant parties and terms and conditions permitting credit-enhancement revocation or repurchase by the first-lien lender.
- *Credit-Enhancement/Risk-Sharing Options*: LMI mortgages are often – but far from always – riskier than loans to wealthier households with large down payments and/or other liquid assets. Private mortgage insurance has made a decades-long business of mitigating the risk of low-down payment loans. Despite the severe problems MI firms experienced in the wake of the crisis, it offers experienced and knowledgeable private capital that can share risk with the government and originators. Risk-sharing structures akin to those now being used by Fannie and Freddie should also be targeted not to the high-quality loans now generally addressed, but instead to the loan products most in need of government backing. Government incentives for subsidized credit derivatives in this arena should also be considered.
- *Borrower Protection:* Housing counselling is to some extent available through federal and other sources, but it is not generally required for first-time borrowers, those with limited English-language proficiency, or other potential impediments to informed decision-making. Pre-application counselling that provides a clear demonstration of the likely full cost of home ownership (i.e., principal, interest, maintenance, taxes) should be mandatory for all government-backed loans with down-payment requirements of less than ten percent. Borrowers would thus be better protected

against unexpected expenses that endanger loan-repayment capacity. These disclosures should also stipulate likely hazards if the home being financed was previously in foreclosure, is owned by an investor specializing in non-performing mortgage purchases, or is located in a distressed community with many vacant homes.

- *Origination Risk-Sharing*: As noted above, bank lenders are averse to LMI lending due in part to put-back risk. Ginnie Mae and the GSEs should determine which types of loans (see below) are of particular value in spurring housing equality. They should then share put-back risk with lenders so that origination discipline remains without imposing a punitive capital cost for well-capitalized banking organizations. Origination risk-sharing should also be permitted by these agencies and bank regulators for loans that cannot meet all required origination standards. These include not only those under the QM rule, but also those pertaining to appraisal requirements. Poor appraisal practice exposed many pre-crisis borrowers to significant risk because loans were above real market value and/or homes required significant repair. However, there is a significant shortage of qualified appraisers in rural and under-served LMI communities. Lenders can deploy alternative appraisal techniques to ensure loans are prudent and then share the risk on these loans with the borrower (i.e., through pre-committed modification options for needed repairs).
- *Targeted Products:* The QM rules now bar development of innovative, prudent products that meet the unique needs of credit-worthy LMI households and millennial borrowers. Products to consider include not only the "rent-to-own" ones noted above, but also mortgage instruments that consolidate student debt with mortgage payments, preferably in a shorter-term (e.g., fifteen-year) loan that permits rapid amortization of principal to speed sustainable home ownership and wealth accumulation. Work-for-equity constructs should also be considered, especially in high-cost markets with considerable unmet needs for community-service personnel and house prices that exacerbate already-problematic economic inequality.
- *Activity Incentives:* Banks are now generally barred from direct investment in residential real-estate projects. To encourage creation of affordable housing and mortgage credit, current exemptions for social-impact investments should be expanded to permit products such as joint ventures with residential developers in which banks offer reduced-cost credit in return for an equity stake in a project. Given the risks of such equity stakes, applicable capital should still apply, but other incentives – e.g., favorable consideration in M&A transactions or for Community Reinvestment Act purposes – should be applicable.

VI. Conclusions

In its most recent study of U.S. economic "discontent,"[67] the FRB put a positive spin on its results, finding that seventy percent of Americans say they are economically content (up one percentage point from 2015 and eight percentage points from 2013). However, thirty percent of American adults – about 73 million Americans – are having a hard time or "just getting by." Segmented by college education, race, and ethnicity, these figures sharply differentiate still further between haves and have-nots, showing all too clearly that, regardless of what the numbers tell U.S. regulators, economic inequality remains a pervasive, excoriating problem with personal, macroeconomic, and political consequences.

A home of one's own is a critical component not only of economic content, but also of personal, macroeconomic, and political stability. Indeed, it remains the "American dream" – the bell weather of prosperity by which many Americans judge themselves. Monetary and regulatory policy-makers cannot on their own solve for educational immobility – Americans without college educations will remain economically-disadvantaged absent the significant fiscal-policy commitments Washington talks a lot about but rarely implements. Social immobility due to ongoing education, racial, gender, and disability barriers are also beyond the scope of monetary and regulatory policy, as are many of the globalization forces often cited as inequality drivers.

What monetary and regulatory policy-makers can and should fix is where their own actions have unintended economic-equality impact, impact all too clearly evident with regard to mortgage-credit availability and housing affordability. With U.S. housing policy now under active review and post-crisis regulation set for reconsideration, now is the time to ensure that economic equality is a prime criterion by which proposals are judged and decisions are made.

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