

For release on delivery  
9:10 a.m. EDT  
March 24, 2022

The Red Hot Housing Market: the Role of Policy and Implications for Housing  
Affordability

Remarks by

Christopher J. Waller

Member

Board of Governors of the Federal Reserve System

at

“Recent Fiscal and Monetary Policy:  
Implications for U.S. and Israeli Real Estate Markets,”

a conference sponsored by  
the Alrov Institute for Real Estate Research, the Coller School of Management,  
the New Jersey-Israel Commission, and the Rutgers Center for Real Estate

(via webcast)

March 24, 2022

Thank you, Debra, and thank you to the Alrov Institute and the Rutgers Center for Real Estate for the invitation to be part of this conference. Today, I would like to talk to you primarily about developments in the residential real estate market since the start of pandemic and then look ahead at the outlook for housing.<sup>1</sup> I will consider how rental and home prices have increased and how monetary and fiscal policy have affected these prices.

As a member of the Federal Open Market Committee (FOMC), I watch real estate trends pretty closely because they have a bearing on our pursuit of maximum employment and price stability. Real estate makes a sizable contribution to gross domestic product, from both housing investment and consumption spending on housing services, which is what renters and homeowners pay for the shelter and amenities provided by housing. Real estate also matters for inflation. Housing services represent about 15 percent of the Personal Consumption Expenditure price index, and it represents an even larger share of another well-known inflation yardstick, the Consumer Price Index. Real estate is also a large and broadly held asset class, so it is important for the Federal Reserve's mission of promoting financial stability. So, my colleagues and I on the Board of Governors and the FOMC share your interest in what is happening and will happen in real estate markets.

As we all know, a singular feature of the U.S. expansion since the COVID-19 recession has been the red-hot housing market. Trust me, I know it is red hot because I am trying to buy a house here in Washington and the market is crazy. Both house prices

---

<sup>1</sup> I am grateful to Raven Molloy for assistance in preparing these remarks. These remarks represent my own views, which do not necessarily represent those of the Federal Reserve Board or the Federal Open Market Committee.

and rents are up significantly across the nation, while vacancy rates for rented and owner-occupied homes are down.

Let's start with rents, because rents give us the most direct information on how affordable housing services are.<sup>2</sup> Early in the pandemic, rent growth slowed as demand dropped to live in dense areas where rental housing tends to be concentrated while some people, especially young adults, moved in with family and friends. However, more recently rents have accelerated sharply. On net, rents have risen 6.5 percent since January 2020, according to the prices tracked under the Consumer Price Index (CPI). That is not out of line with the pace of rent increases seen in the CPI over the previous five years. But there is good reason to think this number doesn't fully reflect the extent to which rents have grown. CPI measures rents that people are currently paying, under leases that can be slow to reflect market conditions. Meanwhile, measures of market rent have increased a lot more than 6.5 percent over the last two years. For example, CoreLogic's single family rent index rose 12 percent over the 12 months through December, and RealPage's measure of asking rent for units in multifamily buildings rose 15 percent over the 12 months through February. Based on various measures of asking rents, some recent research suggests that the rate of rent inflation in the CPI will double in 2022.<sup>3</sup> If so, rent as a component of inflation will accelerate, which has implications for monetary policy.

---

<sup>2</sup> Rent is a direct measure of the price of housing services—i.e. the price of consuming the shelter and other services provided by a home. By contrast, the price to purchase a home is the price to invest in a specific real estate asset. Therefore, price indexes with a goal of measuring price changes of goods and services consumed by households generally use rents rather than house prices.

<sup>3</sup> See David Wilcox (2021), "How to improve the measurement of housing costs in the CPI" Peterson Institute for International Economics Realtime Economic Issue Watch, <https://www.piie.com/blogs/realtime-economic-issues-watch/how-improve-measurement-housing-costs-cpi>; Marijn A. Bolhuis, Judd N.L. Cramer, and Lawrence H. Summers (2022), "The Coming Rise in

Rent is a significant share of monthly expenses for many households, but lower income households spend a larger fraction of their budget on housing, so rising rents hit these households harder. In 2019, those in the lowest quintile of household income dedicated 41 percent of their spending to housing, while those in the top quintile spent only 28 percent. One piece of better news for low-income renters is that rent increases have not been larger in the neighborhoods where they tend to live. Specifically, data from RealPage suggest that asking rents rose 16 percent in both low- and moderate-income neighborhoods from January 2020 to February 2022, the same as in higher income neighborhoods.

That's the story on rents. What about the affordability of purchasing a home? House prices are up a cumulative 35 percent since the beginning of the pandemic, according to the Zillow Home Value Index. That rate of increase is much faster than the previous five years and even faster than during the housing boom of the mid-2000s. Looking over the past two years, one would think the large increase in home prices would have made it more difficult for renters to become first-time buyers. Surprisingly, we have not seen evidence of that yet. The fraction of renters aged 20 to 45 who transitioned into home ownership last year was the highest since the Great Recession. It could be that time spent at home during the pandemic made renters more interested in owning a home, or that people are getting help from family or friends with down payments, or that some

---

Residential Inflation,” NBER Working Paper Series 29795 (Cambridge, Mass.: National Bureau of Economic Research, February), <https://www.nber.org/papers/w29795>; Kevin J. Lansing, Luiz E. Oliveira, and Adam Hale Shapiro (2022), “Will Rising Rents Push Up Future Inflation?” FRBSF Economic Letter 2022-03 (San Francisco: Federal Reserve Bank of San Francisco, February), <https://www.frbsf.org/wp-content/uploads/sites/4/el2022-03.pdf>.

people are choosing to buy smaller homes than they would have a few years ago when prices were lower. Whatever the causes, the increase in first time buyers is clear.

Home buying during the pandemic has been strong among minority families as well. In 2020, 7.3 percent of home purchase loans for owner-occupied properties were taken out by Black families, the highest level since 2007 and well above the low of 4.8 percent in 2013. Still, the gap in homeownership rates between minority and white families remains very wide. Moreover, according to Census Bureau data, homeownership rates for Black and Hispanic families appear to have edged down during 2021. These trends may reflect that the negative economic effects of the pandemic were felt disproportionately by minority households. Indeed, research shows that minority homeowners were much more likely to miss mortgage payments and enter mortgage forbearance than white homeowners. While federal and private sector forbearance programs helped many households keep their homes, families experiencing more permanent or severe income losses may have had to sell their homes and exit homeownership.

Now, a household's ability to afford the purchase of a home is also a function of borrowing costs. Monetary policy actions have had a noticeable effect on mortgage rates. The Fed's primary tool, the target range for the federal funds rate, was reduced to the effective lower bound in March 2020. And, it was expected that the policy rate would remain low until the economy weathered the severe COVID-19 shock. This setting and forward guidance on the target range put downward pressure on both shorter and longer-term interest rates, including mortgage rates. The Fed also purchased Treasury securities and agency mortgage-backed securities (MBS) to help foster smooth market functioning

and support accommodative financial conditions. Research shows that the marginal effect of the agency MBS purchases in response to the COVID shock lowered mortgage rates about 40 basis points.<sup>4</sup> On net, rates for 30-year mortgages fell about 1 percentage point from January 2020 to January 2021, which helped dampen the costs of rising house prices over that period.

Through most of 2021 30-year mortgage rates held pretty steady around 3 percent or less before beginning to rise at the end of the year. Today, 30-year mortgage rates are well above 4 percent and are now somewhat higher than they were when the pandemic began. This increase can be partly attributed to Fed communications and actions. Specifically, communications at the end of 2021 indicated that, with substantial recovery of the economy and elevated inflation, monetary policy accommodation would begin to unwind. First, we acted by reducing and then stopping our asset purchases. Second, earlier this month, we raised the target range for the federal funds rate above the effective lower bound and signaled that more policy tightening is likely appropriate in coming months. As a result of these communications, mortgage rates began to increase in late 2021. So, while lower rates may have made home purchases a bit more affordable early in the pandemic, the more recent rebound in mortgage rates and the continued rise in prices have made home purchases less affordable for many people.

In a nutshell, housing costs—measured either by rents or by the average monthly payment by homeowners—have increased substantially during the pandemic. Economics

---

<sup>4</sup> This estimate is generated by applying the Hancock and Passmore (2011) pricing models to the 2020-22 agency MBS purchases; see Diana Hancock and Wayne Passmore (2011), “Did the Federal Reserve’s MBS Purchase Program Lower Mortgage Rates?” *Journal of Monetary Economics*, vol. 58 (July), pp. 498–514.

tells us that some combination of growing demand and limits on housing supply has driven this change. Let me talk about each of these in turn.

Demand for housing space has been especially strong during the pandemic. Lockdowns as well as remote work and school may have spurred people to seek homes with more space, leading to an increase in demand for larger and otherwise better homes.<sup>5</sup> In fact, the average size of new single-family homes increased in 2021, reversing a downward trend from 2015 through 2020. Retail sales at building supply stores surged during the pandemic, as homeowners added space or made other improvements that could increase the quality of their homes. In January, this spending was 42 percent higher than the average for 2019, and even after adjustment for the sharp increase in the price of building materials, it was still up 19 percent. One indication of people trading up for housing is evident by comparing Zillow's Home Value Indexes by housing type. The index for single-family homes has increased more than that for condominiums since January 2020. In addition, purchases of second homes have increased. Second homes averaged about 3½ percent of home purchase loan originations from 2014 to 2019 but about 5 percent of originations in 2021. The 2021 share was in line with the peak seen during the last housing boom.

Meanwhile, changes in household formation may have been contributing to increases in housing demand over the past year or so. While many households increased in size during the early months of the pandemic, as young people returned to their

---

<sup>5</sup> Before the pandemic, households with at least one full-time teleworker lived in larger homes than those that did not; see Christopher T. Stanton and Pratyush Tiwari (2021), "Housing Consumption and the Cost of Remote Work," NBER Working Paper Series 28483 (Cambridge, Mass.: National Bureau of Economic Research, February), <https://www.nber.org/papers/w28483>.

parents' homes, this change appears to have largely reversed by the end of 2021. The fraction of adults aged 18 to 30 who are the heads of their own households is now back near its 2017-2019 average. The surge in the number of households has pushed down housing vacancy rates from already-low levels. Rental and homeowner vacancy rates fell considerably during the pandemic, reaching lows in the fourth quarter of last year that haven't been seen since the 1980s.

The pandemic-related changes in demand for housing, rented and owned, coincided with a longer-run increase in demand to live in certain parts of the country. For the past several decades, demand for living in cities with high-paying jobs and many urban amenities has surged, pushing up housing costs in these areas. Among metro areas in the top quartile of local housing demand, population increased 80 percent, and single-family home prices rose more than 110 percent from 1990 to 2019 after adjusting for inflation.<sup>6</sup> For the nation as a whole, population only increased 32 percent and house prices rose 59 percent.

While this trend towards urban living supported commercial real estate demand and prices for years, post pandemic, more people are working at home and there has been a corresponding decline in demand for office space, particularly in downtown areas. Office entry card swipes are down 50 percent from pre-pandemic levels in large cities, and office vacancy rates are up nationwide, from 12 percent in 2019 to 16 percent in the fourth quarter of 2021. The increases have been larger in urban areas, and particularly in the downtown areas of big coastal cities. We'll need to see if people continue working from home. While low COVID case rates may induce some workers to return to the

---

<sup>6</sup> Local housing demand is estimated as the sum of the growth rate in the population and the growth rate of inflation-adjusted home prices from 1990 to 2019.

office, some may only return part-time, while others may not return at all, as many organizations have made adjustments to function effectively with remote workers.

That's the demand side. The supply side has been pushing in the same direction—towards tighter housing markets and more expensive shelter. U.S. housing supply has probably been more constrained lately than at any time since the end of World War II. One estimate is that the current growth in the supply of new housing units is about 100,000 less per year that would be needed to support trend increases in demand from household formation and replacement of depreciating units.<sup>7</sup> Supply adjusts to changes in the economy more slowly than demand because of the time it takes to plan and build. With workers at home and supply bottlenecks, there were pandemic-related drops in the production and importation of many construction materials. These supply shortages contributed to skyrocketing input prices. In January 2022, lumber prices included in the Producer Price Index were 92 percent higher than the 2019 average. Even with increased materials costs, suppliers have been unable to keep up with demand. The volume of lumber now being sold is more than 150 percent higher than last August and is similarly larger than the average volume over the previous ten years.<sup>8</sup>

Labor is also a key input in home construction. The supply of construction labor, like other sectors, has been held down by pandemic-specific issues like early retirement. One measure of labor market tightness for the construction industry increased steadily from 2010 to 2019 and then in 2021 was more than double the level recorded during the construction boom of the mid-2000s.<sup>9</sup>

---

<sup>7</sup> Jim Parrott and Mark Zandi, "Overcoming the Nation's Daunting Housing Supply Shortage," <https://www.urban.org/research/publication/overcoming-nations-daunting-housing-supply-shortage>

<sup>8</sup> See Trading Economics (2022), "Lumber," webpage, <https://tradingeconomics.com/commodity/lumber>.

<sup>9</sup> This measure of labor market tightness is the job openings rate divided by the unemployment rate.

Local land use regulations have also played a role in constraining housing supply over the past several decades. Probably not by accident, these regulations have tended to be more restrictive in areas with high housing demand. There has been a growing public debate about these restrictions on local home building, not just at the local level, but among governors and state legislatures. While some local regulations have been changed to allow more housing construction in high demand areas, the effects will take time, and it remains to be seen whether the increases in supply created by these regulatory changes will be enough to satisfy local demand.

I've mentioned the impact of monetary policy on housing markets, now let me touch on the role of fiscal policy. The rescue plan passed by the Congress in 2020, consisting of stimulus payments, grants to small businesses to maintain their payrolls, and supplemental unemployment benefits, surely helped many people who lost income during the pandemic continue to pay their rent and mortgages. Rental delinquency only increased a bit during the first year of the pandemic, and although mortgage non-payment increased by a larger amount, it remained well below the level experienced in the Great Recession. Another policy tool that was used quite effectively in the earlier stages of the pandemic was mortgage forbearance. Borrowers with government-backed and federally-insured mortgages were given up to 18 months of forbearance, and many private lenders also offered forbearance. Indications are that the extra time this bought for borrowers really helped. Many borrowers who exited forbearance in 2021 were able to resume making payments, or, in the hot housing market, were able to sell their homes and walk away with equity. For other borrowers, simple mortgage modification plans have helped

mortgage servicers to quickly and easily modify mortgages to help people stay in their homes at a lower monthly payment.

That said, we must remember that there are institutions on the other side of the mortgage forbearance process. Servicers of mortgages in MBS pools are required to continue to make payments to the investors who hold these securities, even when they are not receiving payments from the borrower. Banks were well-prepared to extend forbearance because of their access to an array of liquidity sources such as deposits, the Federal Home Loan Bank system, and the Fed's discount window. Moreover, many banks entered the pandemic with a strong capital position and improved risk management practices as a result of changes after the Global Financial Crisis. However, more than half of mortgages are serviced by nonbanks, which do not have access to the same liquidity sources as banks. So, the announcement of forbearance in 2020 caused an acute concern about liquidity for nonbanks. Thankfully, a large wave of mortgage refinancing helped to provide nonbank servicers the needed liquidity.<sup>10</sup> In addition, a facility created by Ginnie Mae to lend to nonbank servicers, as well as limits on the number of payment advances required for loans by government sponsored enterprises, helped to further mitigate the liquidity concerns. In the end, forbearance never reached the high level that many analysts expected. But, looking ahead, this experience points to the importance of building resilience among non-banks engaged in mortgage lending and servicing.

An important question I will keep my eye on is whether the sharp and ongoing increase in home prices poses risks to financial stability. My short answer is that unlike the housing bubble and crash of mid 2000s, the recent increase seems to be sustained by

---

<sup>10</sup> Many nonbank servicers also originate mortgages.

the substantive supply and demand issues I have detailed—not by excessive leverage, looser underwriting standards, or financial speculation. In fact, mortgage borrowers entered the pandemic with stronger balance sheets than in the mid 2000s and are therefore better prepared to handle a drop in home prices than they were in the last housing downturn. As for banks, as I just said, large banks are substantially more resilient today than two decades ago. In last year’s stress test, which featured a severe global recession that included a decline in home prices of over 20 percent, we projected the largest banks could collectively maintain capital ratios at more than double their minimum requirements—even after withstanding more than \$470 billion in losses.

I am hopeful that at least some of the pandemic-specific factors pushing up home prices and rents could begin to ease in the next year or so. The level of new housing units completed in 2021 was higher than at any point since 2007. The demand for extra space at home might level off, or even reverse if people start to spend more time away from home again as the pandemic eases. That said, input prices continue to rise, with lumber prices increasing past their eye-popping 2020 peak, even with much more supply.

Longer term, many issues will continue to put upward pressure on home prices and rents. The strong demand to live in cities with tight housing supply is likely to continue. Regulatory supply constraints may be starting to ease in some places, but they will persist and continue to limit home building in many high demand areas. And while prices for lumber and other materials may come down, with the economy already at maximum employment and experiencing a shortage of skilled workers, labor supply will likely continue to hold back the pace of new construction.

As housing costs continue to increase, housing will likely become an ever-larger share of household budgets. This is not a recent development. In 1972-1973, the average household spent 24 percent of expenditures on rent or imputed rent. This share rose to 27 percent in the late 1980s, and in 2019 that was up to 35 percent. No doubt the share in 2022 will be larger still. With housing costs gaining an ever-larger weight in the inflation Americans experience, I will be looking even more closely at real estate to judge the appropriate stance of monetary policy.