US Daily: A Strong Labor Market and the Build Up in Home Equity Have Dampened the Impact of Mortgage Rate Lock-in on Mobility

- The average interest rate on outstanding mortgages is now more than 3pp below current market rates, marking the widest gap since the 1980s. This severe lock-in effect—the implicit financial disincentive to move created by having a mortgage with a rate well below market rates—has already pushed homeowners' mobility to near the lowest level in the last four decades, prompting concern about the potential spillovers to residential investment and the labor market.
- Homeowners' mobility fell from 4.4% in 2021 to 3.7% in 2023. Higher financing costs have driven the share of homeowners that move for discretionary reasons (e.g., to be closer to family) sharply lower. However, they have not weighed on work-related moving, suggesting that higher financing costs are not enough to prevent households from moving to adapt to changing labor market conditions.
- Two factors have dampened the impact of mortgage rate lock-in on aggregate mobility. First, the strong labor market has given most workers who want or need to move the financial ability to do so. Second, the surge in home prices over the past couple of years has increased home equity and lowered mortgage loan-to-value ratios (LTVs), strengthening household balance sheets and reducing the costs of financing a new home.
- Using state-level panel data, we estimate that each 1pp increase in the gap between market rates and outstanding mortgage rates tends to reduce homeowner mobility by 0.8pp. This implies that the widening of the mortgage rate gap generated a 2.7pp drag on homeowner mobility from 2021 to 2023. But we find that half of the impact was offset by a strong labor market and higher home equity. Looking ahead, we expect homeowner mobility to remain roughly unchanged at 3.7% in 2024—consistent with our forecast for modestly lower existing home sales—as interest rates remain elevated in 2024 and LTVs continue to decline, albeit at a much slower pace.

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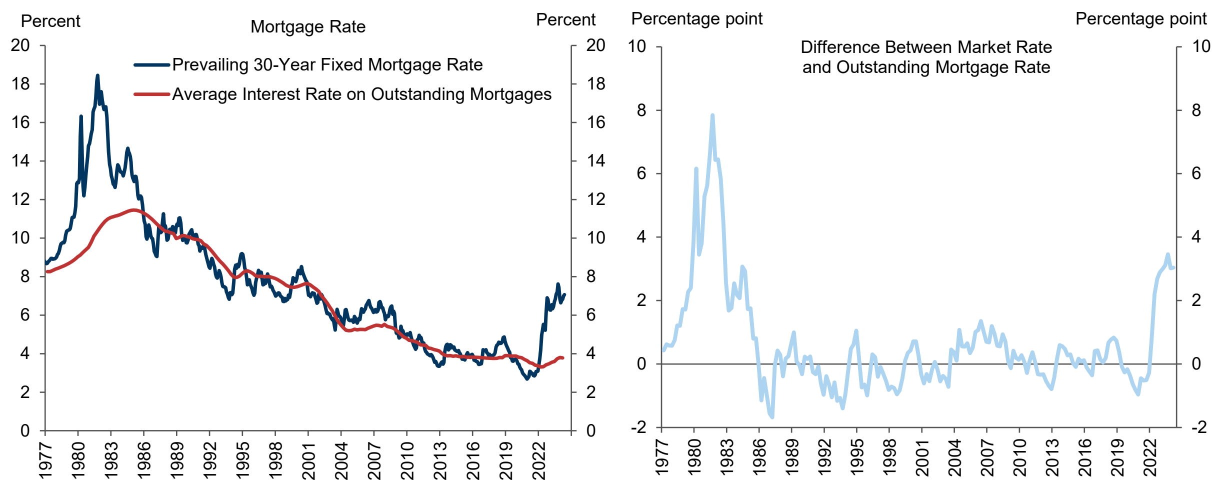
A Strong Labor Market and the Build Up in Home Equity Have Dampened the Impact of Mortgage Rate Lock-in on Mobility

The market rate for new mortgages increased rapidly from 3% to 7% over the past two years and has now surpassed the average interest rate on outstanding mortgages by over 3pp, marking the widest gap since the 1980s (Exhibit 1). This has prompted concerns about the potential impact of mortgage rate lock-in on mobility, as moving to a different house or location would require most homeowners to repay their existing mortgages and take out a new mortgage at a significantly higher rate.

Exhibit 1: The Market Rate for New Mortgages Has Surged Well Above the Average Interest Rate on Outstanding Mortgages Since 2021



Source: Department of Commerce, Federal Home Loan Mortgage Corporation, Goldman Sachs Global Investment Research

There has been a structural decline in household mobility over the last four decades. Academic studies find that much of the decline between 1980-2000 can be attributed to an aging demographic profile[1] but the decline over the last decade was largely driven by rising housing costs and the housing shortage.[2]

Low household mobility has important economic implications. First, a decline in mobility directly weighs on housing turnover, existing home sales, and the brokers' commissions component of residential investment in the GDP accounts. Second, academic studies find that restrictions on labor mobility can lengthen periods of unemployment and reduce aggregate productivity growth because they limit workers' ability to relocate to more productive locations with better job opportunities (Exhibit 2).

1 Karahan and Rhee (2014) "Population Aging, Migration Spillovers and the Decline in Interstate Migration"

2 Ganong and Shoag (2015) "Why Has Regional Income Convergence in the U.S. Declined?"
Olney and Thompson (2024) "The Determinants of Declining Internal Migration"

Exhibit 2: Studies Find That Higher Mobility Can Raise Earnings for Individual Workers, Increase Aggregate Productivity Growth, and Smooth Unemployment Shocks

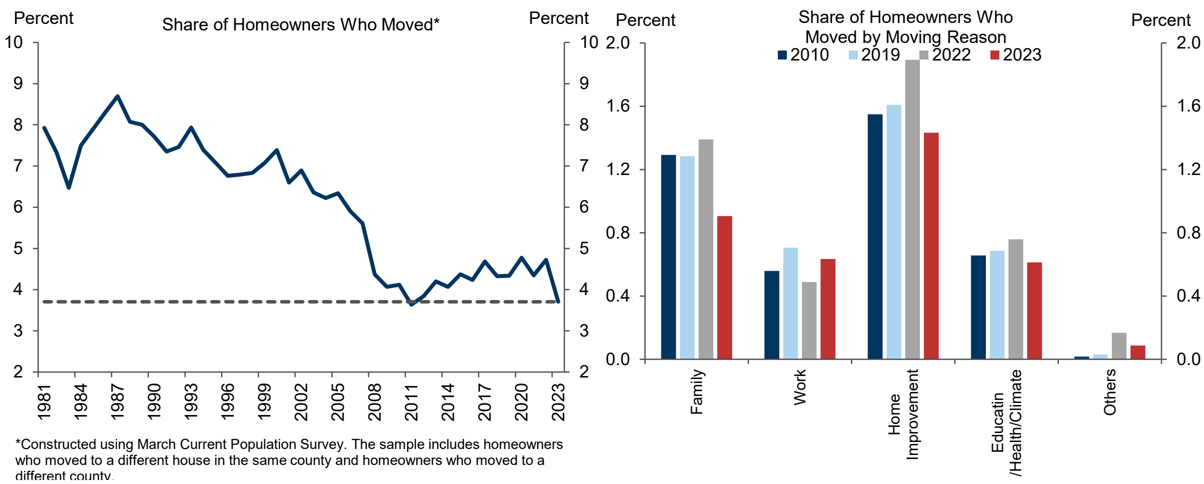
Impact of mobility on earnings	
Card, Rothstein, and Yi, 2023	Moving from the bottom quartile location to the top quartile leads to one-time earnings increase of 6%
Deryugina, Kawano, and Levitt, 2018	Relocating out of lagging areas leads to 10% increase in labor income after 5 years.
Roca and Puga, 2017	Moving to large and productive cities leads to 2% increase in earnings in the initial year and then 5% after 8 years.
Briggs and Kuhn, 2008	10% increase in relocation assistance program advertising raises employment rate by 1pp
Glaeser and Mare, 2001	Moving to productive cities leads to 2% increase in real wages
Impact of mobility on mitigating regional unemployment shocks	
Foote, Grosz, and Stevens, 2019	1% increase in layoffs leads to 0.2pp decrease in county labor force, and out-migration accounted for 40% of the decline.
Hsieh and Moretti, 2019	Housing constraints limit spatial mobility and result in persistent wage dispersion across cities. Increasing housing supply in New York, San Jose, and San Francisco by relaxing land use restrictions to the level of median US city would increase US GDP by 3.7% and raise GDP per capita by $3,685 in 2009.
Ganong and Shoag, 2017	Constrained housing supply limits spatial mobility and reduces the pace of income convergence across states by half
Blanchard and Katz, 1992	The dominant adjustment mechanism to regional shocks is labor mobility, rather than job creation or firm reallocations.

Source: Compiled by Goldman Sachs Global Investment Research

Data from the Current Population Survey indicate that homeowners' mobility dropped from 4.4% in 2021 to 3.7% in 2023 (left-side of Exhibit 3). The decline so far is modest compared to the decline during the Global Financial Crisis, when the collapse in home equity impaired homeowners' ability to secure a new mortgage.[3] Reassuringly, while higher financing costs have driven the share of homeowners that move for discretionary reasons (e.g., to be closer to family) sharply lower, the right-side of Exhibit 3 shows that they have not weighed on work-related moving, suggesting that higher financing costs are not enough of a financial constraint to prevent households from moving to adapt to changing labor market conditions.

[3] See Ferreira, Gyourko, and Tracy (2011) "Housing Busts and Household Mobility: An Update" for the reference.

Exhibit 3: Homeowner Mobility Only Started to Decline Notably in 2023, Driven Mainly by Decreases in Moving Activities for Discretionary Reasons Like Home Improvement, Family, and Climate

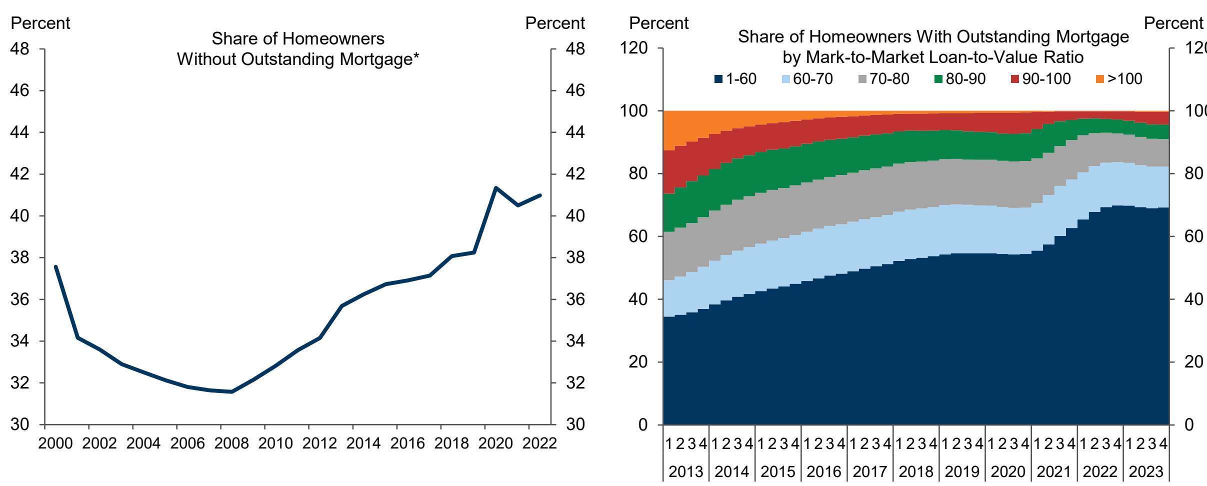


Source: Census Bureau, Goldman Sachs Global Investment Research

Two factors have dampened the impact of the mortgage rate lock-in on aggregate mobility. First, the strong labor market has lowered unemployment risk and supported income growth, which has likely provided a cushion against increasing costs of moving for homeowners.

Second, household balance sheets improved over the last decade, and in particular, the surge in housing prices in the past few years increased home equity significantly and lowered mortgage loan-to-value ratios (LTVs). The left-side of Exhibit 4 shows that the share of homeowners without an outstanding mortgage had been gradually increasing over the decade following the 2008 recession, and the share jumped notably from 38% to almost 42% over the last few years. For homeowners who still had outstanding mortgages, their mark-to-market loan-to-value ratio declined over time, and a sizable share of them had their loan-to-value ratios dropping below 60% during 2021-2023 (right-side of Exhibit 4).

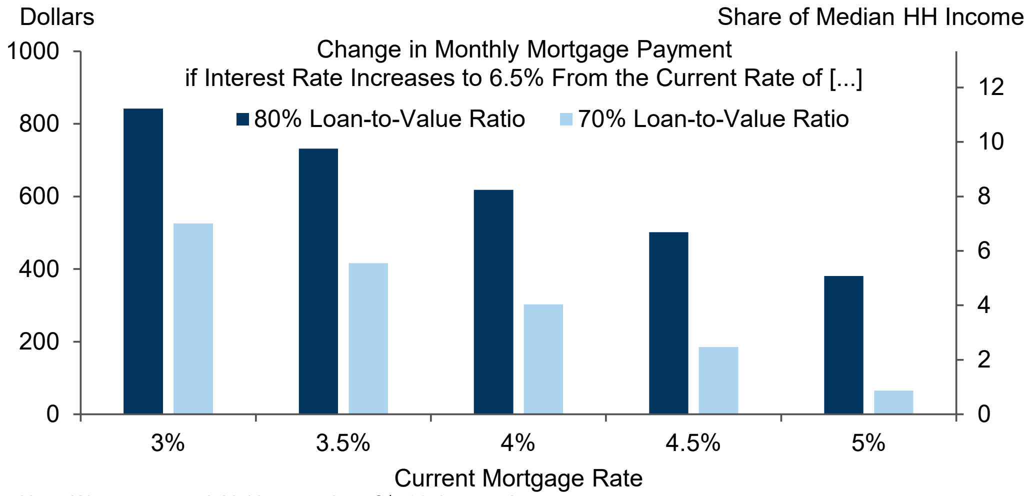
Exhibit 4: Many Households Have Built Substantial Home Equity Over the Past Three Years



Source: Census Bureau, Federal Housing Finance Agency, Goldman Sachs Global Investment Research

Higher home equity can dampen the financial disincentive to move caused by a widening mortgage rate gap. Exhibit 5 shows a stylized example. For homeowners who have an existing fixed 30-year mortgage rate of 4% and an LTV ratio of 80%, paying off the current mortgage and taking out a new mortgage at an interest rate of 6.5% means that their monthly mortgage payment would increase by $600. But with a LTV ratio of 70%, their monthly mortgage payment would only increase by $300.

Exhibit 5: The Reduction in LTV Ratios Helps to Dampen the Financial Disincentive to Move



Note: We assume an initial home value of $500 thousand.

Source: Goldman Sachs Global Investment Research

Using state-level panel data, we estimate that a 1pp increase in the gap between market rates and the average interest rate on outstanding mortgages reduces homeowner mobility by 0.8pp, and a 1pp decrease in the average mark-to-market LTV ratio boosts mobility by roughly 0.1pp (Exhibit 6). While a weak local labor market means that workers may need to relocate to other places for better job opportunities, it also means that they may be more financially constrained to pay for the costs of moving. For renters, the effect from the first channel tends to play a dominant role – consistent with literature showing that a higher local unemployment rate is associated with a higher aggregate out-migration rate, likely driven mostly by renters. For homeowners, however, the effect from the second channel tends to dominate because job losses can impair homeowners' ability to meet current mortgage obligations, putting them in a financially vulnerable position to pay for the costs of moving to a different house or location. Indeed, we find that strong local labor market conditions, characterized by a decline in unemployment rate and an increase in household income, are associated with increases in homeowner mobility in aggregate (Exhibit 6).

Exhibit 6: While an Increase in the Mortgage Rate Gap Tends to Reduce Mobility, a Reduction in the Average LTV Ratio or the Unemployment Rate Tends to Boost Mobility

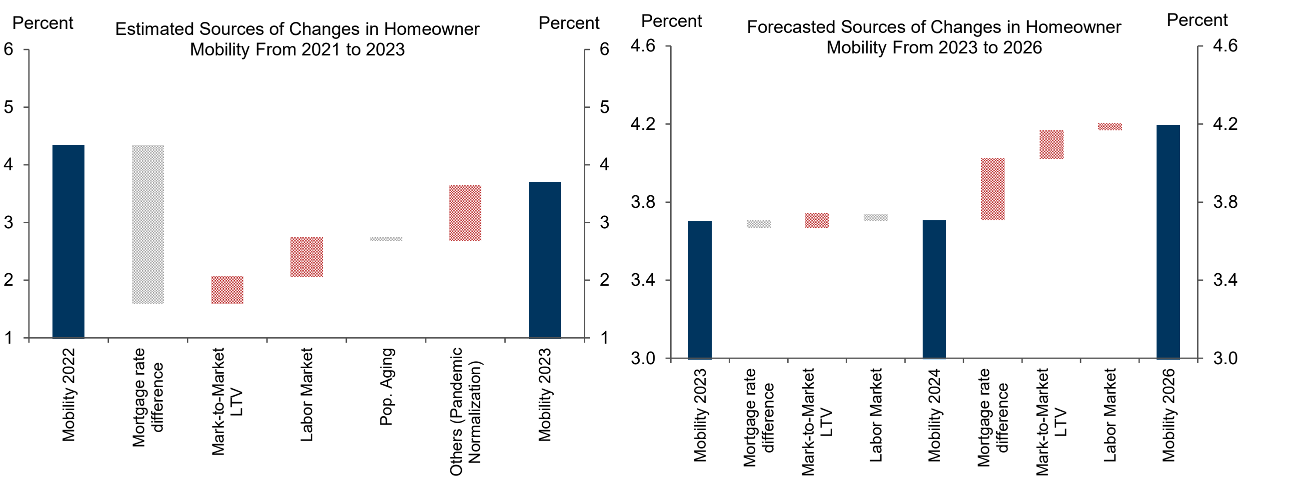
Dependent Variable: Share of Homeowners Who Moved			
	(1)	(2)	(3)
Gap between market rate and average interest rate on outstanding mortgages	-0.75***	-0.42***	-0.80***
	(0.13)	(0.13)	(0.15)
Mark-to-market LTV ratio			-0.07***
			(0.02)
Unemployment rate			-0.2***
			(0.07)
Log(median household income)			1.37
			(1.33)
Share of prime age workers			0.01
			(0.05)
Observations	498	498	498
R-sq	0.06	0.49	0.53
State and Year Fixed Effects		Y	Y

Note: The sample is a state-year panel from 2013 to 2023. All variables are measured as of March of each year. Significance level: * 10%, ** 5%, *** 1%.

Source: Census Bureau, Federal Housing Finance Agency, Goldman Sachs Global Investment Research

Taken together, we estimate that the widening of the mortgage rate gap likely generated a 2.7pp drag on homeowner mobility during 2021-2023, but half of the decline was offset by a strong labor market and higher home equity. Looking forward, we expect homeowner mobility to remain roughly unchanged at 3.7% in 2024 — consistent with our forecast for modestly lower existing home sales — as interest rates remain elevated in 2024 and LTVs continue to decline, albeit at a much slower pace.

Exhibit 7: The Widening Mortgage Rate Gap Weighed on Mobility During 2021-2023, but Half of the Decline Was Offset by Higher Home Equity and a Strong Labor Market; We Expect Homeowner Mobility to Remain Unchanged in 2024, Before Returning Back to the Pre-Pandemic Pace by 2026



Source: Census Bureau, Goldman Sachs Global Investment Research

Elsie Peng

Disclosure Appendix

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We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, CFA, Ronnie Walker, Manuel Abecasis, Tim Krupa, Elsie Peng and Jessica Rindels, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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