

Refinance, pay additional principal, or recast? A home borrower's dilemma

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Abstract

Home borrowers encounter important financial decisions well beyond their mortgage's origination date. Two common examples are refinancing or paying additional principal. A third option, the decision to recast, has received far less attention. We review the mechanics and availability of recasting to discover why this omission exists. The combination of (a) recent job losses from COVID, (b) expectations of higher interest rates, and (c) rising home prices suggest recasting may be beneficial for many homeowners going forward. Our discussion has implications for finance professionals, faculty, and anyone with a mortgage as they should be aware of the benefits of this timely option. © 2023 Academy of Financial Services. All rights reserved.

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1. Introduction

Forty-four percent of U.S. consumers had a mortgage in 2020. While this population did not change significantly from the prior year, the average loan balance increased after 2019 which indicates individuals were borrowing more than usual, likely due to rising home prices (Stolba, 2021). Decisions regarding a mortgage in no way end after the complicated and time-intensive process that takes place before closing. In contrast, astute borrowers continuously reevaluate their circumstances, alongside market conditions, to identify opportunities that may improve their financial well-being.

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A refinance (ALT-1) involves taking out a new mortgage and using the proceeds to repay the existing one. The new mortgage will (a) have a new maturity, interest rate, and loan conditions; (b) be subject to underwriting approval; and (c) trigger significant up-front closing costs. Refinancing is usually exercised in a falling interest rate environment. With a lower rate, the borrower's monthly payments decline and if the monthly savings exceed the new mortgage's up-front closing costs in a timely manner, the borrower ultimately benefits. Refinancing may also be used by borrowers wanting to extract home equity that exists because they have paid down the original loan's principal and/or because the home price has significantly increased from the time of purchase. Refinancing might also be used to reduce or extend the loan's term (Brady, Canner, & Maki, 2000). Others may refinance to replace an adjustable-rate loan (ARM) with a fixed-rate loan to eliminate the risk of rising interest rates. One downside of refinancing is that the borrower's current credit history, income, debt, and assets will be reviewed as a part of the transaction. Furthermore, refinancing may not be an option if rates have increased or, in the case of flat or even slightly declining rates, the new mortgage's up-front closing costs cannot be recouped in a reasonable time frame.

Most mortgages offer borrowers (without penalty) the opportunity to pay extra principal (ALT-2). This option is typically used by a borrower who has extra monthly income or has received a one-time cash inflow (e.g., inheritance, bonus, or tax refund). The benefit of paying extra principal is that the mortgage will be repaid before its original maturity (e.g., creating a new, shorter "effective maturity"). Compared to a refinance, the advantage of paying extra principal is that there is no new credit check, income/asset/debt verification, or additional fees. A potential drawback is that the mortgage's interest rate and minimum payment remain unchanged. One can imagine a situation whereby a one-time windfall is used to pay additional principal, only to be followed by a change in circumstances that halts or reduces future monthly income. In this situation, no relief is in sight as the original higher monthly payment is still due.

A recast (ALT-3) is viable only for borrowers who have already paid additional principal or currently have a lump sum available to apply to the original loan's principal. ALT-3 calculates a new monthly payment based on the reduced principal amount using the original interest rate and remaining loan term. The mortgage is essentially reamortized. The immediate benefit of a recast is that the borrower's monthly payment declines, although the mortgage will not be paid off before its original maturity. Importantly, the fee to recast is significantly lower (almost negligible) compared to the closing costs triggered when originating a new mortgage. Table 1 summarizes the important differences between these three options.

2. Literature review

The decision to refinance is the only option that does not require a prior or current principal reduction. When interest rates fall refinancing reduces a borrower's required monthly payment, assuming the borrower does not extract home equity or roll closing costs into the new loan that increase the loan balance. Figure 1 depicts 30-year fixed mortgage rates dating back to 1971. Since their peak in 1982, mortgage rates have followed a downward trend which explains why ALT-1 received so much attention over the past three decades.

Table 1 Refinancing, paying additional principal, and recasting

| Features/Considerations | Refinance | Pay additional principal | Recast |
|--|--------------------|--------------------------|--------|
| New mortgage required (additional closing costs, credit check, and income/asset/debt verification) | Yes | No | No |
| Requires prior or current principal reduction | No | Yes | Yes |
| Allows borrower to “cash out” increased home equity | Yes | No | No |
| Change to the original mortgage’s maturity | Yes ^a | Yes ^b | No |
| Change to the original mortgage’s interest rate | Yes | No | No |
| Decrease in future minimum monthly payment | Maybe ^c | No | Yes |

^aThe new mortgage maturity could be shorter or longer than the original mortgage’s maturity.

^bThe “effective maturity” of the new mortgage will be shorter than the original mortgage’s maturity.

^cThe future payment depends on the new mortgage’s rate, principal, and terms. Monthly payments could increase or decrease.

Early discussions on refinancing focused on “back-of-the-envelope” payback calculations that simply divide the up-front costs of the new mortgage by the reduction in monthly payment. If the homeowner expects to live in the home longer than the calculated breakeven period, refinancing is optimal. Various heuristics followed. Noyan and Eugene (1993) and Bennett, Keane, and Mosser (1999) concluded that if the new mortgage had an interest rate 1-2% less than the original interest rate, and the borrower planned to stay in the home for a specified minimum number of years, refinancing was optimal.

Subsequent research recognized the importance of the time value of money and taxes on the breakeven calculation. Chen (1997) adds time value of money considerations to the simplified payback calculation but does not include the tax implications of a change in the monthly interest expense paid and a change in the amortization of certain closing costs. Rose (1992) incorporates the time value of money using the new mortgage’s interest rate but importantly adds the tax implications of a change in monthly interest payments and closing costs, which at that time would be amortized for tax purposes over the new loan’s life. Johnson and Randle (1996, 2003) created an Excel model that iteratively solved for the breakeven period, although they did not account for the ability to deduct certain closing costs for tax purposes. Hoover (2003) provides a closed-form model that assumes the mortgage is an interest-only loan and considers amortized discount points, a change to interest tax shields, and a new loan balance. Fortin, Michelson, Smith, and Weaver (2007) extend



Fig. 1. U.S. 30-year fixed mortgage loan rate. April 1971 – December 2021. *Source:* Freddie Mac, Primary Mortgage Market Survey, 30-year Fixed Rate Mortgages.

Hoover's (2003) closed-form model by adding an iterative approach that includes lost tax deductions for interest. Fortin et al. (2007) find the breakeven period in months is about 35–40% longer than a calculation ignoring this important variable.

Virmani and Murphy (2010) took a different approach to traditional breakeven analysis and use an option pricing model. They find the performance of an option pricing model is not significantly different from that of a simple 1% heuristic model when using data from 1980 to 2007, although their model performed better than the 2% heuristic. While an options-based approach may appeal to an academic audience, the traditional breakeven method is likely preferred by financial planners and homeowners, as it is easy to explain and understand.

The literature remained relatively quiet until the financial crisis of 2008. As the topic resurfaced, attention shifted from evaluating the merits of refinancing viewed from the lens of a mortgage-level transaction to various market frictions in the refinancing process that impede monetary policy attempts to stimulate the economy. These market frictions are more severe during an economic recession.

Defusco and Mondragon (2020) examine loan-level FHA mortgage data that span March 2009 to July 2010 (1.3 million FHA loans or 15.6 million loan-months). Their study comprises six months before and six months after the implementation of the FHA's Streamline Refinance (SLR) Program. The late-2009 program implemented two key changes in response to the general deterioration in the mortgage market that imposed restrictions on many borrowers' eligibility to refinance. First, SLR reduced the maximum loan amount for streamlines without an appraisal. Borrowers with negative or little equity were now required to pay additional upfront closing costs out-of-pocket. Second, SLR implemented new income documentation that prohibited unemployed borrowers from refinancing altogether. Defusco and Mondragon's (2020) event study finds these frictions resulted in a large decline in refinancing activity that if continued, would have prevented many foreclosures that clearly would have benefited homeowners and the overall U.S. economy. They commented:

[These] frictions are likely to bind most for precisely the households whose expenditures may be most sensitive to reduced rates – those with little cash on hand or who recently experienced a negative income shock. This fact may exacerbate the already unequal impacts of recessions by limiting the extent to which reductions in interest rates or other policies that operate through mortgage refinancing benefit lower-income households directly. Our results suggest there are a significant number of borrowers that would refinance their mortgages when lower rates are offered, but who cannot do so because of these large frictions in the mortgage market (Defusco & Mondragon, 2020, p. 2372).

Following the U.S. economic recovery from the 2008 financial crisis, discussion on market frictions and their effect on the pass-through of monetary policy reemerged as COVID-19 triggered a global pandemic that disrupted household employment, income, and the ability of many homeowners to refinance. The circumstances of homeowners facing unemployment due to COVID-19 are like those in the 2008 financial crisis in that both experienced an exogenous shock that placed them in a distressed financial situation. Two important differences between the 2008 financial crisis and the current environment make the recent landscape unique.

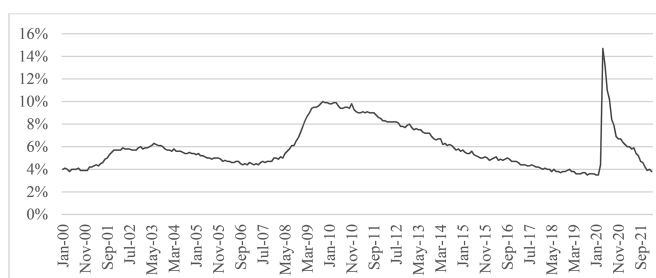


Fig. 2. U.S. unemployment rate. January 2000 – February 2022. *Source:* Economic Research Division, Federal Reserve Bank of St. Louis.

1. The U.S. unemployment rate peaked around 10% in October 2009 but took more than five years to reverse to prior levels (Fig. 2). During the COVID-19 crisis, unemployment levels peaked much higher in April 2020 at 14.7%, but recovered within one year; though more homeowners experienced an employment or income disruption during COVID-19, the effects were short-lived.
2. During COVID-19, far fewer borrowers found themselves in homes worth less than their mortgage. Homeowners paid down their mortgage from 10 years ago and increases in house prices were robust (Golding, Goodman, Green, & Wachter, 2021). This home equity could be used to pay closing costs incurred when refinancing, without pushing a borrower’s loan-to-value ratio (LTV) to an unacceptable level or allow for a “cash out” refinance to cover short-term expenses.

Following the lead of Defusco and Mondragon (2020), two studies sought to examine how relaxing employment and income restrictions during the COVID-19 crisis might have unleashed restricted refinancing activity. Both aimed to hypothesize and to quantify how reducing market frictions could have benefited borrowers and the U.S. economy without an outright bailout to taxpayers. Golding et al. (2021) propose a streamlined refinance for Federal mortgages that would allow borrowers to refinance with no employment and income tests for no-cash-out refinances: a program they termed as “HARP 3.0”. They estimate three million borrowers would have been eligible to refinance under their program which would have contributed \$53 billion in additional stimulus per year. Gerardi, Loewenstein, and Willen (2021) examine a no employment and income test for refinancing but add a cash-out option that would allow “in-the-money” borrowers to extract some of their increased housing equity. Their program could have saved as much as \$280 a month for Fannie and Freddie loans and \$200 a month for Ginnie borrowers.

3. Recasting (ALT-3)

Today’s homeowner faces a very different landscape. The Federal Reserve began increasing interest rates in early 2022 making refinancing considerably less attractive for many homeowners. In contrast, a recast does not require a new mortgage at current market interest

rates. To this end, we explore the characteristics of recasting to identify borrower-specific instances where it may be a homeowner's optimal decision. To focus attention on this goal, we ignore tax implications, conversations about the efficient use of free cash flow (e.g., paying down credit card debt, creating an emergency fund, or investing in bonds/stocks), and time value of money concepts, although we note these important extensions would be ripe for follow-up research and discussion.

3.1. The mechanics of a recast

A prerequisite to a recast is that the borrower has already paid additional principal or currently has a lump sum available to do so. That is, the loan balance must be lower than the balance calculated by the original amortization schedule. Recasting is like making additional principal payments in that neither option requires a new mortgage brings a host of expensive closing costs and lender scrutiny of the borrower's current financial condition (McLaughlin, 2019). Paying additional principal incurs no cost (for most lenders), while a recast does trigger a nominal lender fee (e.g., \$150 to \$400). Because a recast fee is so small, breakeven analysis is moot.

Paying additional principal shortens the borrower's effective maturity but has no effect on the mortgage's monthly minimum payment. Under a recast, the lender computes a new payment using the original mortgage's interest rate and remaining term, calculated on the current principal amount due (hence the requirement of a past or current principal reduction). A recast has no effect on the mortgage's effective maturity, rather gains come immediately in the form of a lower minimum monthly payment.

To illustrate, consider a 30-year (360-month), \$200,000 mortgage that carries an APR of 4.99%. The monthly principal and interest payment is \$1072.42. One year after closing, the homeowner receives a \$40,000 windfall. Table 2 provides selected entries of the mortgage's amortization schedule for ALT-2 and ALT-3. In the first panel, the borrower pays the \$40,000 as an additional principal. There is no change in subsequent monthly payments and the mortgage will be repaid early, between months 238–239. In the right panel, the borrower executes a recast. We see an identical drop in the loan's beginning balance at month 13, but the required monthly payment falls from \$1072 to \$855 (recomputed over the mortgage's remaining 348 month life at the original APR of 4.99%). Under the recast, the mortgage will remain outstanding for the full 360-month original maturity.

3.2. Eligible mortgage types

Mortgages can broadly be classified as either conventional or government-insured. Conventional mortgages generally have a higher minimum down payment, or lower loan-to-value (LTV) ratio, and higher credit requirements compared to a government-insured loan. Conventional mortgages can be conforming or nonconforming. Conforming mortgages meet Fannie and Freddie purchase guidelines regarding the amount, credit and income requirements, down payment, credit score, and suitable property guidelines set by these government-sponsored enterprises (GSEs) for the purchase and subsequent repackaging into a mortgage-

Table 2 Recast versus paying additional principal

| Month | Pay additional principal | | | | Recast | | | | | | |
|-------|--------------------------|------------|----------|------------|----------------|-------|-------------------|------------|----------|-----------|----------------|
| | Beginning balance | Payment | Interest | Principal | Ending balance | Month | Beginning balance | Payment | Interest | Principal | Ending balance |
| 1 | \$200,000 | \$1,072.42 | \$831.67 | \$240.75 | \$199,759 | 1 | \$200,000 | \$1,072.42 | \$831.67 | \$240.75 | \$199,759 |
| 2 | \$199,759 | \$1,072.42 | \$830.67 | \$241.76 | \$199,517 | 2 | \$199,759 | \$1,072.42 | \$830.67 | \$241.76 | \$199,517 |
| 3 | \$199,517 | \$1,072.42 | \$829.66 | \$242.76 | \$199,275 | 3 | \$199,517 | \$1,072.42 | \$829.66 | \$242.76 | \$199,275 |
| 4 | \$199,275 | \$1,072.42 | \$828.65 | \$243.77 | \$199,031 | 4 | \$199,275 | \$1,072.42 | \$828.65 | \$243.77 | \$199,031 |
| 5 | \$199,031 | \$1,072.42 | \$827.64 | \$244.78 | \$198,786 | 5 | \$199,031 | \$1,072.42 | \$827.64 | \$244.78 | \$198,786 |
| 6 | \$198,786 | \$1,072.42 | \$826.62 | \$245.80 | \$198,540 | 6 | \$198,786 | \$1,072.42 | \$826.62 | \$245.80 | \$198,540 |
| 7 | \$198,540 | \$1,072.42 | \$825.60 | \$246.82 | \$198,294 | 7 | \$198,540 | \$1,072.42 | \$825.60 | \$246.82 | \$198,294 |
| 8 | \$198,294 | \$1,072.42 | \$824.57 | \$247.85 | \$198,046 | 8 | \$198,294 | \$1,072.42 | \$824.57 | \$247.85 | \$198,046 |
| 9 | \$198,046 | \$1,072.42 | \$823.54 | \$248.88 | \$197,797 | 9 | \$198,046 | \$1,072.42 | \$823.54 | \$248.88 | \$197,797 |
| 10 | \$197,797 | \$1,072.42 | \$822.51 | \$249.92 | \$197,547 | 10 | \$197,797 | \$1,072.42 | \$822.51 | \$249.92 | \$197,547 |
| 11 | \$197,547 | \$1,072.42 | \$821.47 | \$250.96 | \$197,296 | 11 | \$197,547 | \$1,072.42 | \$821.47 | \$250.96 | \$197,296 |
| 12 | \$197,296 | \$1,072.42 | \$820.42 | \$252.00 | \$197,044 | 12 | \$197,296 | \$1,072.42 | \$820.42 | \$252.00 | \$197,044 |
| 13 | \$157,044 | \$1,072.42 | \$653.04 | \$419.38 | \$156,625 | 13 | \$157,044 | \$854.72 | \$653.04 | \$201.68 | \$156,842 |
| 14 | \$156,625 | \$1,072.42 | \$651.30 | \$421.12 | \$156,203 | 14 | \$156,842 | \$854.72 | \$652.20 | \$202.52 | \$156,640 |
| 15 | \$156,203 | \$1,072.42 | \$649.55 | \$422.88 | \$155,781 | 15 | \$156,640 | \$854.72 | \$651.36 | \$203.36 | \$156,436 |
| | *** | *** | *** | *** | *** | | *** | *** | *** | *** | *** |
| 237 | \$2,403 | \$1,072.42 | \$9.99 | \$1,062.43 | \$1,340 | 237 | \$82,678 | \$854.72 | \$343.80 | \$510.92 | \$82,167 |
| 238 | \$1,340 | \$1,072.42 | \$5.57 | \$1,066.85 | \$274 | 238 | \$82,167 | \$854.72 | \$341.68 | \$513.04 | \$81,654 |
| 239 | \$274 | \$1,072.42 | \$1.14 | \$1,071.28 | -\$798 | 239 | \$81,654 | \$854.72 | \$339.54 | \$515.18 | \$81,139 |
| | *** | *** | *** | *** | *** | | *** | *** | *** | *** | *** |
| 357 | | | | | | 357 | \$3,384 | \$854.72 | \$14.07 | \$840.65 | \$2,543 |
| 358 | | | | | | 358 | \$2,543 | \$854.72 | \$10.57 | \$844.14 | \$1,699 |
| 359 | | | | | | 359 | \$1,699 | \$854.72 | \$7.06 | \$847.65 | \$851 |
| 360 | | | | | | 360 | \$851 | \$854.72 | \$3.54 | \$851.18 | \$0 |

Note. Shaded rows highlight important changes to the amortization schedule when a one-time \$40,000 windfall is applied as either additional principal or used to recast a 30-year mortgage, one year after the loan's origination.

Table 3 Recasting and allowable mortgage types

| Mortgage type | Recast allowed? |
|--|---------------------------|
| Conventional and conforming - Fannie and Freddie | Yes |
| Government-backed (Ginnie) - FHA, VA, PIH, USDA | No |
| Home equity mortgage/HELOC | Maybe - Lender discretion |

Source: Treece and Cetera (2020) and Motley Fool (2020).

backed security (MBS).¹ Recasting is allowed for conventional, conforming mortgages. Eligibility for a nonconforming conventional mortgage is at the lender's discretion.

Government-insured mortgage programs include FHA, VA, PIH, and USDA. While Fannie and Freddie actually purchase mortgages and either hold them in portfolio or subsequently securitize them and issue a MBS, Ginnie Mae does not purchase and securitize mortgages. Lenders originate these mortgages and either hold them in portfolio or privately securitize them. Ginnie's blessing assures the investors in the MBS that they will receive payments without disruption. Mortgages backed by Ginnie Mae are not eligible for recasting.

After purchasing a home, a homeowner may borrow against the home's equity. A home equity loan provides a lump-sum amount, often used for a major home remodel or large immediate one-time expense. It generally carries a fixed interest rate. Under a home equity line of credit (HELOC), the borrower qualifies for an amount that they can borrow and pay back as many times as needed until the mortgage's draw period comes to an end. During the draw period, the lender requires only monthly interest payments (perhaps subject to a minimum amount), and the mortgage carries a variable interest rate. The ability to recast a home equity loan or a HELOC is lender-specific. Eligibility for all mortgage programs is detailed in Table 3.

3.3. Lender-Specific requirements

Common lender-specific eligibility requirements are that (a) the mortgage is current with no outstanding amount due, (b) the borrower has had no past due payments within the last 12 months, and (c) the recast application is submitted more than 90 days after the mortgage's closing date. For an adjustable rate mortgage, the recast application must generally be submitted more than 90 days before any scheduled rate change. Also common is a reduction in mortgage principal (termed principal curtailment), although rules vary from lender to lender. Some lenders have no minimum, while others require curtailment of at least \$5,000 to \$20,000 before a mortgage can be recast.

For mortgages that do qualify for recasting, the process is far simpler than refinancing. The required documentation is minimal. Recast applications we generally see are 1-2 pages long, in which most of the content is generic personal and mortgage information. Additionally, bank fees (in the range of \$150 to \$500) are nominal. A bank can limit the number of times a mortgage can be recast, so borrowers should ask if today's decision will constrain future opportunities.

4. When might a recast be optimal?

A recast is a useful tool for borrowers that previously paid additional principal or currently have funds available to make an additional lump sum payment. For this subset, recasting may be beneficial for borrowers that (a) want to reduce their monthly payment, rather than pay off their mortgage faster; (b) have suffered a decline in their credit score, income, or assets and cannot qualify for a refinance; (c) want to simultaneously sell and purchase a new home, particularly in a competitive market; (d) have an original mortgage rate more competitive than current rates; or (e) want to eliminate private mortgage insurance (PMI) early. To illustrate, we consider five fictitious clients.

4.1. *Client 1 – I recently received a one-time “windfall”*

From time-to-time, individuals or families may receive an unusual one-time cash inflow. Some may be anticipated, such as an annual tax refund, while others are unexpected like a work bonus, inheritance, or even gambling winnings. Refinancing (ALT-1) does not require additional money be paid on the original mortgage (so a one-time windfall by itself would not trigger a refinance), but if current interest rates are lower than the original mortgage rate, one could capitalize on the opportunity to both lower the principal amount and lock in a lower rate. This option may not be optimal for borrowers for which the lower rate is insufficient to satisfy their breakeven calculation (Fortin et al., 2007) or for those who are unable to qualify for a new mortgage due to a change in circumstances (income, credit score, and debt/income ratio).

Paying additional principal (ALT-2) will leave monthly payments unchanged but shorten the mortgage’s effective maturity. Recasting (ALT-3) lowers the monthly payment but keeps the original maturity date. At first glance, the decision appears to be borrower-specific; that is, each borrower would have to choose whether receiving the benefit later (ALT-2) or now (ALT-3) is best for them. However, a recast carries a valuable option that paying additional principal does not. If a borrower recasts, they can enjoy a lower required minimum monthly payment, and still retain the option to pay a higher monthly amount and shorten the mortgage’s effective maturity. The cost of recasting (again, relatively small) can be likened to the purchase price of a call option that provides the homeowner additional flexibility in the future, should it become valuable.

4.2. *Client 2 – I am closing on my new home, but before selling my existing home*

Purchasing a new home and moving entails many stressful logistics. For renters, the difficulty of the transaction is certainly reduced, but for those trying to sell an existing home at the same time they are trying to purchase a new one, the complexity of the transaction quickly escalates, especially in a competitive real estate market (Lerner, 2021). Buyers can submit an offer contingent on the sale of their existing home, although most sellers would prioritize offers without a contingency to ensure the contract does not fall through. Strong buyers that can qualify to carry two mortgage payments for a short period of time could

close on the new home before selling their existing home. Once the original home sells, the proceeds can be used to initiate a refinance (ALT-1) or a recast (ALT-3) to reduce the new mortgage's monthly payment during its remaining term. ALT-1 would be very expensive as it would trigger a new set of closing costs and subject the borrower to additional underwriting scrutiny. ALT-3 appears superior – just pay the nominal recast fee.

4.3. Client 3 – Can I afford to retire or even retire early?

For many households, monthly income declines at retirement. Social security benefits are payable as early as age 62 but are 29% lower than full benefits at age 67 (Social Security Administration, 2022). While some may have supplemental sources of income, like withdrawals from a 401K or income from rental properties, reducing monthly expenses may be helpful to maintain one's standard of living, or even present the option to retire early.

Refinancing (ALT-1) is only advantageous if rates have declined or at least remained flat, the breakeven period can be met, and the household can qualify for a new mortgage. Further, ALT-1 triggers significant closing costs. While refinancing in this situation could reduce the monthly payment and allow for on-time or early retirement, it is not a viable option outside these limited circumstances. Paying additional principal (ALT-2) could help the household pay off their mortgage by their desired retirement date, although the monthly minimum payment will not be affected. Recasting (ALT-3) lowers the minimum payment, perhaps making retirement possible and/or more comfortable on a month-to-month basis for those willing to have a mortgage payment during retirement years.

4.4. Client 4 – My family is facing an unexpected financial hardship

ALT-1 will likely not help households facing financial hardship because it requires qualifying for a new mortgage. If the borrower's debt to income ratio increased, current income fallen, or credit score declined, they may not be able to obtain a new mortgage. If the borrower can qualify, ALT-1 may be viable if rates have fallen significantly since the original mortgage's origination date, or if the borrower can extend the mortgage's maturity so the minimum monthly payment falls. ALT-2 in this situation is likely undesirable; paying additional principal in a time of hardship is generally not feasible as the focus is likely on helping the family's current situation. ALT-3 lowers the mortgage's minimum monthly payment. If prior principal reductions were significant, the reamortized payment may be low enough to help a family stay in their home and endure an unexpected, but short-term, hardship.

4.5. Client 5 – Can I terminate PMI on a conventional mortgage?

A conventional mortgage carrying a LTV ratio greater than 80% requires the borrower to purchase private mortgage insurance (PMI).² PMI helps limit the lender's losses (not the borrower's) if the lender must foreclose on the property. Borrowers can request PMI be dropped when their LTV reaches 80% of the home's original value. The Homeowners Protection Act of 1998 (HOEPA) requires a lender terminate PMI when (a) the mortgage

balance reaches 78% of the original purchase price if the borrower is in good standing and has not missed any scheduled payments, or (b) the mortgage reaches the half-way mark of its amortization schedule. PMI may also be terminated if, two years after purchase, the home price has appreciated, and a new appraisal proves the current LTV is 75% or less of the new appraised value.³

For conventional mortgages, a refinance (ALT-1) makes sense if interest rates have declined, the borrower's credit has not significantly changed, and the breakeven calculation has been met. Similar to previous situations, ALT-1 reduces the monthly payment and triggers significant up-front closing costs but now carries the added benefit of eliminating the monthly PMI. If a borrower has additional funds to reach the 80%, 78%, or 75% LTV thresholds either ALT-2 or ALT-3 might be optimal. Like Client 1, recasting may be superior as it reduces the minimum payment but retains the option (for a nominal recast fee) to still pay a higher monthly amount and repay the mortgage faster should the borrower elect to do so.

5. Conclusion

Anecdotal evidence suggests the option to recast is not well-known compared to refinancing or paying additional principal. Refinancing has been the most visible and researched option, as evidenced in our literature review. This option's popularity among homeowners and academics is likely due to the general decline in interest rates since the 1980s (Fig. 1). COVID-19 altered many homeowners' financial options due to temporary employment disruptions, a decline in household credit scores, or an increase in debt-to-income ratios. Though rising home values may leave refinancing a viable alternative for some, recent interest rate increases (Qtrs. 1-2, 2022) indicate this avenue may dissipate for many in the near term. Paying additional principal means the mortgage will be repaid before its initial maturity, but leaves required monthly payments unchanged. Recasting reduces the minimum monthly payment but leaves the original mortgage maturity intact. This complex decision depends on a borrower's individual circumstances, the forecast for future mortgage rates, lender-specific rules and requirements, and consideration of future changes to the U.S. tax code. In today's environment, we find recasting may be a tool for households that (a) want to retire early, (b) have received a one-time financial windfall, (c) want to eliminate private mortgage insurance, (d) have experienced an unexpected hardship, or (e) have bought a new home before the sale of their existing home. Overall, the option to recast may become a more commonplace term in the vocabulary of homeowners, faculty, and finance professionals.

Notes

- 1 Fannie Mae and Freddie Mac are government-created enterprises (GSEs) that buy mortgages from lenders and hold them in portfolios or turn them into mortgage-backed securities. Conforming loans meet requirements regarding: (a) maximum loan amount (different for one-, two-, three-, and four-family dwellings, (b) credit

and income requirements, (c) down payment, and (d) suitable property type. Loans that do not meet Fannie and Freddie credit requirements are called B, C, and D paper loans (versus A paper if they do meet credit requirements). Loans above Fannie and Freddie guidelines are called jumbo loans.

- 2 PMI ranges from 0.25% to 2% of the loan balance per year, depending on the size of the down payment and mortgage, the loan term, and the borrower's credit score.
- 3 FHA loans carry similar insurance termed mortgage insurance premium (MIP). If the original down payment is less than 10%, MIP cannot be canceled; the only way to terminate MIP is to refinance. If the original down payment is 10% or more, the borrower can cancel monthly MIPs after 11 years. VA loans require an upfront "funding fee" and no monthly insurance premium.

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