

# Advances in Making Mortgage Loans Create Challenges in Managing Them

By Jerry Hubbard  
FHN Financial Capital Assets

The speed and efficiency at which a mortgage can be granted today has improved significantly since credit unions began to originate mortgages on a larger scale in the mid-1990s.

Advances in technology have improved the member experience and have created noticeable lender efficiencies along the entire mortgage supply chain.

A largely unnoticed byproduct of technological advances is the change in the behavior of a typical portfolio of prime credit mortgages, particularly when interest rates decline. Even a marginal decline in rates will trigger a surge in refinance applications due in large part to the plethora of lenders offering no-cost/low-cost refinance loans.

A significant drop in rates such as we have experienced over the past year can cause an entire mortgage portfolio to undergo large-scale changes in a remarkably short period of time. Credit unions are feeling the impact of these changes today in the form of flat to negative loan growth and declining yield, both of which will continue throughout 2021 and well into 2022.

The forces behind these changes are extremely fast prepayment speeds

and new production pipelines dominated by refinanced loans. Understanding why these changes are occurring and how they are affecting the portfolio will help credit unions manage the negative consequences and better prepare them for the future.

## SOURCE DATA

FHN Financial Capital Assets

Corp. (FHN Financial) conducts loan analyses for 70 to 100 credit unions and community banks across the country each month. FHN's proprietary Portfolio Performance Analysis (PPA) includes an ongoing prepayment study that is used to pro forma the size, composition, and yield of a credit union's mortgage portfolio in the future.

FHN maintains a current PPA database comprised of 26 million mortgages totaling \$2.7 trillion. The primary source of prepayment and trend information for this article is a \$110 billion subset of the larger database, which represents fourth-quarter 2020 credit union PPA prepayment data.

## INTEREST RATES

When the Covid-19 pandemic came on the scene in early 2020, one of the many concerns was the potential impact on the U.S. economy. The Federal Reserve intervened with a strong monetary policy response designed to reduce interest rates.

The Fed accomplished its mission with one of the results being mortgage rates falling to the lowest levels ever. Mortgage refinancings had already picked up in early 2020, but increased exponentially after the Fed action.

## HISTORICAL LOAN VOLUME

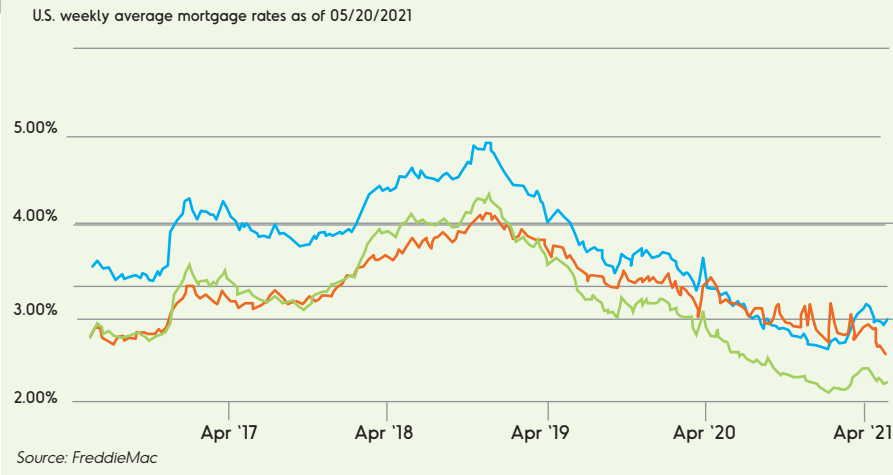
When market rates fell to the very low levels we see in Chart 1, the volume of new member loan applications skyrocketed. It is only just beginning to subside.

Many credit unions have originated historically high volumes of mortgage loans over the past year, only to find that overall loan growth has been flat to negative. To understand how that is even possible, we need to examine two

“Technology continues to push the envelope on how loans are made, and these advancements will continue to affect how loan portfolios behave.”



## CHART 1: U.S. WEEKLY AVERAGE MORTGAGE RATES



variables—loan purpose and accelerated prepayment speeds, which are interconnected.

### LOAN PURPOSE

Loan purpose defines the reason the member filed the loan application: either a purchase money transaction or a refinance. A purchase money loan is intended to buy a home, while, a refinance is typically executed in order to reduce the member's rate and lower the monthly payment.

The hot housing market across the country, which has resulted in growing numbers of purchase money transactions, is contributing to very fast prepayment speeds, but nowhere near the degree of refinances.

Over two-thirds of all new mortgage loans made since March 2020 were

refinances, which do not convert to net loan growth unless you can retain most of your mortgage borrowers and simultaneously steal away refinancing borrowers from the competition.

A refinance is tantamount to taking a dollar out of your right pocket and putting that same dollar into your left pocket. You end up where you started, except that dollar now has a lower note rate. And at the same time, your portfolio continues to amortize downward.

Bottom-line, the massive volume of new loan production has been driven by a refinancing binge that is expected to continue for many months to come, as you can see in Chart 2, which shows the MBA Refi Index since early 2019. The huge peak that we experienced in the spring months of 2020 has subsided somewhat, but the index still remains

well above levels from all of 2019.

### ACCELERATED PREPAYMENT RATES

The other variable that has been challenging net loan growth is accelerated prepayment speeds caused by the high volume of refinance loans most all credit unions across the country are experiencing.

Prepayment speeds are measured on their Conditional Prepayment Rate (CPR). A pool of loans with a 10% CPR simply means that 10% of the loans' outstanding balance will prematurely pay off within 12 months.

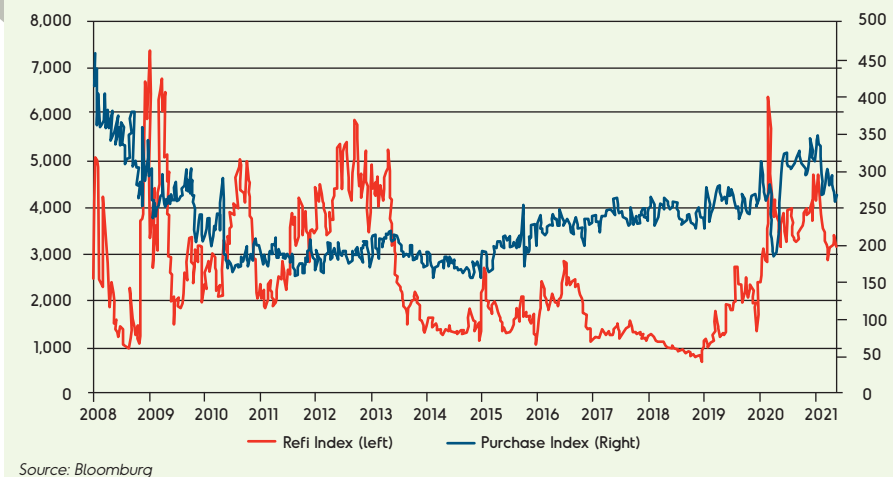
FHN's prepayment study tracks the actual CPR and trends of hundreds of unique credit union portfolios nationally. The average prime credit mortgage portfolio that we see continues to prepay at about 33% CPR.

Life events—such as death, divorce, and job transfer—will trigger a degree of prepayments no matter what the market conditions. Falling interest rates trigger refinance activity, which accelerates the payoff rate until we reach prepayment burnout. That is the point at which the majority of members who can refinance have done so.

The question is, how far away are we from prepay burnout and what will the impact be to our mortgage portfolio until we get there?

Credit unions do an exceptional job making high-quality mortgages with well over 80% of the typical portfolio FHN analyzes being prime credit and investment grade. A derivative of having high-quality loans is that the vast majority of your members can easily qualify for a new mortgage.

## CHART 2: MBA APPLICATIONS INDICES

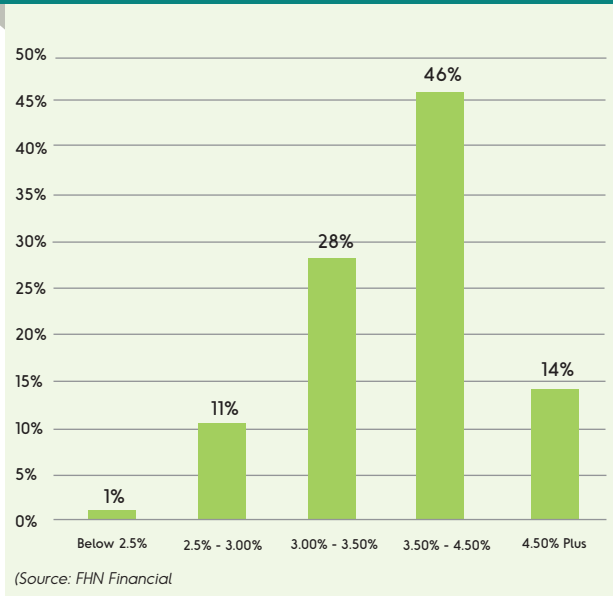


### EXPLANATION OF TERMS

Here is a list of acronyms used in the article and the terms they stand for.

- Portfolio Performance Analysis (PPA)
- Mortgage Bankers Association (MBA)
- Conditional Prepayment Rate (CPR)
- Weighted Average Majority (WAM)
- Annual Replacement Rate (ARR)
- Portfolio Engineering (PE)

**CHART 3: PORTFOLIO MORTGAGE PERCENTAGE IN COUPON BANDS**



**CHART 4: COUPON RANGE**

	Min	Max	%
Below 2.5%			1%
2.5%	2.5%	2.74%	3%
2.75%	2.75%	2.99%	9%
3.00%	3.00%	3.24%	12%
3.25%	3.25%	3.49%	15%
3.50%	3.50%	3.74%	16%
3.75%	3.75%	3.99%	15%
4.00%	4.00%	4.24%	9%
4.25%	4.25%	4.49%	7%
4.50%	4.50%	4.74%	5%
4.75%	4.75%	4.99%	3%
5.00%	5.00%	5.24%	2%
5.25%	5.25%	5.49%	1%
5.50%	5.50%	5.74%	1%
5.75%	5.75%	5.99%	1%
6.00%	6.00%	6.24%	0%
6.25%	6.25%	6.49%	0%
6.49% Plus			1%
<b>GRAND TOTAL</b>			<b>100%</b>

(Source: FHN Financial)

of seasoned mortgages begins by tracking quarter-by-quarter loan-level payoff and new production activity. Following is a case study of “Example Credit Union’s” mortgage portfolio prepayment rate and growth rate.

Chart 5 shows a simple side-by-side summary trial balance comparison of Example Credit Union’s mortgage portfolio with balances cutoff as of December 31, 2020, and March 30, 2021. If we simply subtract the two portfolios, we see that a small \$4.4 million decline in balance (Column 9) has occurred. In addition, the note rate dropped 8 basis points while the Weighted Average Majority (WAM) was virtually unchanged.

Credit unions will continue to experience fast prepayments so long as there is an incentive for the members to refinance. A simple way to quantify that incentive is to compare your loan portfolio’s range of note rates to the rate at which new mortgages are being originated today. The more loans you own with a rate above current market, the greater your potential exposure to fast prepayments stimulated by refinancing activity.

Charts 3 and 4 represent the “coupon stack” of the \$110 billion in seasoned mortgages from FHN’s Q4 2020 database. The shaded areas are loans with a note rate of 3.25% and above. This group represents 75% of the total pool.

Members today can, and do, cost-effectively refinance a mortgage for a small—less than 0.25%—decrease in their note rate. As we saw in Chart 1, many lenders are on the street offering new mortgages at sub-3.0% levels. This indicates that a large segment of the remaining mortgage portfolio has exposure to a refinance.

**NEGATIVE LOAN GROWTH**

Many years ago as a student pilot, I flew a two-seat trainer “backward.” It took an hour to corkscrew this small aircraft up to 9,000 feet directly above

the airport where I pointed the nose due north to face a 90 mph headwind. My airspeed was 80 mph. As a result, my ground speed was a negative 10 mph, so I was essentially flying backward!

This story is analogous to why most credit union mortgage portfolios today have not grown over the past year. The headwind that credit unions face is the high rate at which existing mortgage loans are leaving the portfolio, and a new production pipeline dominated by refinance loans.

FHN’s methodology of measuring the growth rate of a unique portfolio

The Chart 6 reconciliation report shows how the December 2020 portfolio (Column 1) evolved into the March 2021 portfolio (Column 9). In Column 5 we see that \$37.1 million in loans were paid off in full or were modified during Q1 2021.

Column 6 is the “Annual Runoff Rate” (basically the CPR of this portfolio), which was a scalding hot 41% during Q1 2021. Column 7 shows that Example Credit Union added \$38.1 million in new loans in Q1 2021. Column 8 is the new production Annual Replacement Rate (ARR).

ARR is a term that FHN coined to

**CHART 5: EXAMPLE CREDIT UNION-SINGLE FAMILY PORTFOLIO CHANGE OVER TIME**

	December 31, 2020				March 31, 2020				Change			
	Amount	WAC	WAM	%	Amount	WAC	WAM	%	Amount	WAC	WAM	%
Fixed Rates	192,098,983	3.63%	248	51%	189,196,017	3.56%	247	51%	-2,902,966	-0.06%	-2	-2%
Adjustable Rates	182,849,679	3.42%	291	49%	181,317,672	3.31%	292	49%	-1,532,007	-0.11%	1	-1%
<b>GRAND TOTAL</b>	<b>374,948,662</b>	<b>3.52%</b>	<b>269</b>	<b>100%</b>	<b>370,513,689</b>	<b>3.44%</b>	<b>269</b>	<b>100%</b>	<b>-4,434,973</b>	<b>-0.08</b>	<b>0</b>	<b>-1%</b>

(Source: FHN Financial)

**CHART 6: EXAMPLE CREDIT UNION-RECONCILIATION OF 1-4 PORTFOLIO OVER TIME**

Column	1	2	3	4	5	6	7	8	9
	December 31, 2020 Principal Balance	Less: Scheduled Amortization	Less: New Loans Sold	March 31, 2021 Scheduled Balance	Less: Principal Prepayments	Annual Runoff Rate	Plus: Current Production	Annual Replacement Rate	March 31, 2021 Ending Balance
Fixed Rates	192,096,983	1,483,314	3,124,342	187,491,327	18,481,403	40%	20,186,093	43%	189,196,017
Adjustable Rates	182,849,679	881,329	0	181,968,349	18,639,762	42%	17,989,085	41%	181,317,672
<b>GRAND TOTAL</b>	<b>374,948,662</b>	<b>2,364,644</b>	<b>3,124,342</b>	<b>369,459,676</b>	<b>37,121,165</b>	<b>41%</b>	<b>38,175,178</b>	<b>42%</b>	<b>370,513,689</b>

(Source: FHN Financial)

measure the rate at which new loans entering the portfolio are replacing payoffs. The ARR math is similar to the CPR math except we substitute “new production” in place of “payoffs.”

History has taught us that ARR must be about 5% greater than CPR in order for a mortgage portfolio to maintain the same size. Since Example Credit Union’s ARR was only 1% greater than CPR, this portfolio shrunk slightly.

At this point, you might be thinking, “What’s the big deal? This portfolio is roughly holding its own.” The big deal is

the trend, as we’ll see in Chart 7.

Chart 7 shows a trial balance of the \$38.1 million in new loans that Example Credit Union added to their portfolio in Q1 2021. Focus your attention on “purpose code” in Columns 11-14. Only 29% of the \$38.1 million were purchase money mortgages, which means 71% were refinances.

As discussed above, refinances do not typically convert to growth.

### PROJECTING FUTURE GROWTH

The PPA Prepayment Study data was

used to conduct a Portfolio Engineering (PE) Analysis, which is a tool we use to conduct a pro forma analysis of the size and composition of Example Credit Union’s mortgage portfolio in the future, based on projected originations, amortization, and prepayments.

Estimating the potential growth rate of any portfolio is not easy, but the recent behavior of a mortgage portfolio can provide important insights. The CPR speed is one component of growth over which we have no control.

However, another component that we can control is the number and type of new loans that are added to the portfolio in the future. To predict the future growth rate we must make an assumption as to how many new loans we will originate in the coming year.

For Example Credit Union, we examined their new production over the prior 12 months. As you can see in the trial balance in Chart 9, Example Credit Union originated \$6.7 million per month of fixed- and adjustable-rate loans of which 70% were refinances. In Chart 8, we see month-by-month production, which trended below \$6.7 million each month in the latter part of the past 12 months.

Chart 10 illustrates one possible outcome based on two key assumptions. This scenario assumes Example Credit Union’s 2021 average CPR will slow about 80% from the current 41 CPR to average 33 CPR going forward.

Additionally, we assume the next 12 months of new production will equal the prior 12-month average of \$6.7 million per month. This report runs the cash flows for five years, but we typically focus on 12-24 month outcomes.

Based on these assumptions, Example Credit Union will experience a 9% negative growth rate in Year One and minus 20% in Year Two.

The PE Analysis in Chart 11 then calculates the number of loans needed to avoid shrinking using the same CPR and new production assumptions.

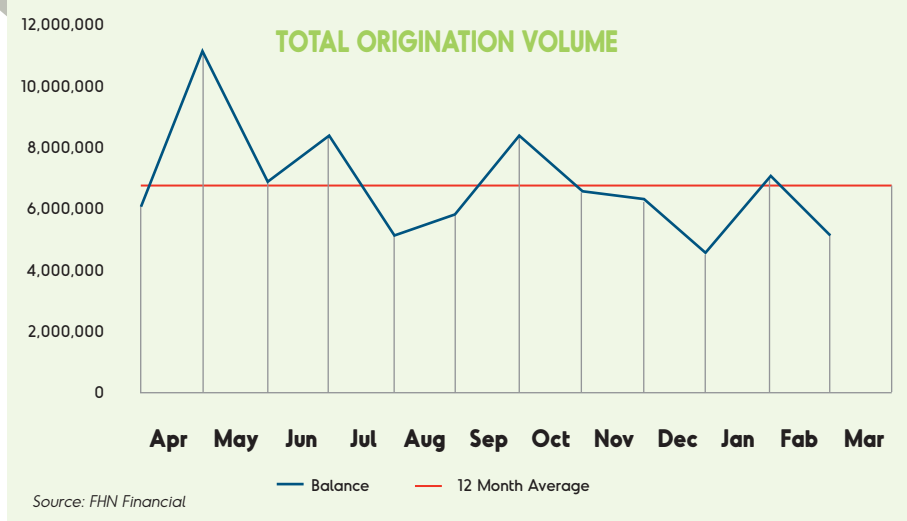
If the portfolio prepays at 33 CPR and Example Credit Union originates \$6.7 million per month in new loans, an additional \$2.6 million per month

#### CHART 7: STRATIFICATION OF CURRENT PRODUCTION LOANS

Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Product Type	LOAN CHARACTERISTICS						ARM CHARACTERISTICS				LOAN PURPOSE				
	MARCH 31, 2021 No. of Loans	Principal Balance	Weighted Average Coupon	Wtd. Avg. Cont. Maturity	Wtd. Avg. Calc. Maturity	Wtd. Avg. Orig. Maturity	Wtd. Avg. Orig. Margin	Wtd. Avg. Orig. Roll	Wtd. Avg. Orig. Cap	Wtd. Average Ceiling	Purchase	Refinance	Refi Cash Out	Other/ Not Coded	% Of Total
Fixed Rates	98	20,186,093	3.01%	239	235	262	N/A	N/A	N/A	N/A	32%	63%	5%	0%	53%
Adjustable Rates	35	17,989,085	3.04%	348	347	359	2.72%	69	1.89%	8.86%	0%	0%	0%	0%	47%
GRAND TOTAL	<u>133</u>	<u>38,175,178</u>	<u>3.02%</u>	<u>290</u>	<u>288</u>	<u>308</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>29%</u>	<u>64%</u>	<u>7%</u>	<u>0%</u>	<u>100%</u>

Source: FHN Financial

#### CHART 8: EXAMPLE CREDIT UNION-STRATIFICATION OF CURRENT PRODUCTION LOANS: TOTAL ORIGINATION VOLUME



#### CHART 9: HISTORICAL MONTHLY CURRENT PRODUCTION

Column	1	2	3	4	5	6
Product Type	No. of Loans	Principal Balance	Weighted Average Coupon	Weighted Average Orig Maturity	Weighted Average Mth to Roll	% of Total
Fixed Rates	16	4,848,459	3.12%	287	N/A	72%
Adjustable Rates	4	1,860,448	3.10%	354	65	28%
GRAND TOTAL	<u>20</u>	<u>6,798,907</u>	<u>3.11%</u>	<u>306</u>	<u>65</u>	<u>100%</u>

Source: FHN Financial

**CHART 10: EXAMPLE CREDIT UNION-BASE CASE: ORGANIC ORIGINATIONS**

Column	1	2	3	4	5	6	7	8	9	
Month	CURRENT PORTFOLIO			NEW ORIGINATIONS		COMBINED PORTFOLIO				
	Beginning Principal Balance	Ave. Interest (%)	% Current Portfolio Remaining	Beginning Principal Balance	Ave. Interest (%)	Beginning Principal Balance	Ave. Interest (%)	BPS Yield Recovery	CHG in Balance	
March 31, 2021	0	370,513,689	3.44%	100%	0	0.00%	370,513,689	3.44%	0.00%	0%
	1	370,513,689	3.44%	100%	6,708,907	3.11%	377,222,596	3.43%	-0.01%	2%
	2	359,930,707	3.44%	97%	13,219,113	3.11%	373,149,820	3.42%	-0.02%	1%
	3	349,644,791	3.43%	94%	19,536,367	3.11%	369,181,158	3.42%	-0.02%	0%
	4	339,648,102	3.43%	92%	25,666,256	3.11%	365,314,358	3.41%	-0.03%	-1%
	5	329,931,915	3.43%	89%	31,614,202	3.11%	361,546,118	3.41%	-0.03%	-2%
	6	320,488,314	3.43%	86%	37,385,474	2.98%	357,873,788	3.39%	-0.05%	-3%
	7	311,310,711	3.43%	84%	42,983,656	2.98%	354,294,367	3.38%	-0.06%	-4%
	8	302,390,507	3.43%	82%	48,415,061	2.98%	350,805,568	3.37%	-0.07%	-5%
	9	293,725,357	3.43%	79%	53,684,524	2.98%	347,409,881	3.36%	-0.08%	-6%
	10	285,303,149	3.43%	77%	58,796,742	2.98%	344,099,891	3.35%	-0.09%	-7%
	11	277,118,095	3.43%	75%	63,756,275	2.98%	340,874,370	3.35%	-0.10%	-8%
	12	269,163,545	3.43%	73%	68,567,553	2.98%	337,731,098	3.34%	-0.10%	-9%
	13-24	261,433,507	3.43%	71%	66,525,969	2.98%	327,959,476	3.34%	-0.10%	-11%
	25-36	184,093,856	3.42%	50%	112,711,228	2.98%	296,805,084	3.25%	-0.19%	-20%
	37-48	129,283,358	3.40%	35%	144,614,043	2.97%	273,897,401	3.18%	-0.26%	-26%
	49-60	90,383,869	3.40%	24%	166,485,808	2.97%	256,869,677	3.12%	-0.32%	-31%

Source: FHN Financial

(\$9.3 million per month total) will be required to offset prepaids, amortization and curtailments to be the same size in 24 months as Example Credit Union is today.

**WHERE THE NEEDLE IS POINTING**

Market rates are likely to remain low

for some time, and with so many portfolios chock full of loans that have note rates well above current market, we must be prepared for fast prepayments for many months to come.

FHN’s data, including feedback from our credit union clients, points to a slow decline in refinance loans

in the coming months—but not so much that prepayment speeds will not be elevated well above historical norms.

Additionally, the new production pipeline will become smaller and smaller over time as refinance loans slow. Most credit unions will have a

**CHART 11: EXAMPLE CREDIT UNION-SOLVE FOR 0% NET GROWTH BY YEAR 2**

Column	1	2	3	4	5	6	7	8	9	10	
Month	CURRENT PORTFOLIO			ORGANIC ORIGINATIONS		SLP FLOW		COMBINED PORTFOLIO			
	Beginning Principal Balance	Ave. Interest (%)	% Current Portfolio Remaining	Beginning Principal Balance	Ave. Interest (%)	Beginning Principal Balance	Ave. Interest (%)	Beginning Principal Balance	Ave. Interest (%)	CHG in Balance	
March 31, 2021	0	338,977,830	3.44%	100%	0	0.00%	0	0.00%	338,977,830	3.44%	0%
	1	370,513,689	3.44%	109%	6,708,907	3.11%	2,600,000	2.66%	379,822,596	3.43%	12%
	2	359,930,707	3.44%	106%	13,219,113	3.11%	5,121,802	2.66%	378,271,621	3.41%	12%
	3	349,644,791	3.43%	103%	19,536,367	3.11%	7,567,688	2.66%	376,748,846	3.40%	11%
	4	339,648,102	3.43%	100%	25,666,256	3.11%	9,939,876	2.66%	375,254,234	3.39%	11%
	5	329,931,915	3.43%	97%	31,614,202	3.11%	12,240,518	2.66%	373,786,636	3.38%	10%
	6	320,488,314	3.43%	95%	37,385,474	2.98%	14,471,704	2.66%	372,345,492	3.36%	10%
	7	311,310,711	3.43%	92%	42,983,656	2.98%	16,635,462	2.66%	370,929,829	3.35%	9%
	8	302,390,507	3.43%	89%	48,415,061	2.98%	18,733,761	2.66%	369,539,329	3.33%	9%
	9	293,725,357	3.43%	87%	53,684,524	2.98%	20,768,514	2.66%	368,178,396	3.32%	9%
	10	285,303,149	3.43%	84%	58,796,742	2.98%	22,741,577	2.66%	366,841,468	3.31%	8%
	11	277,118,095	3.43%	82%	63,756,275	2.98%	24,654,752	2.66%	365,529,122	3.30%	8%
	12	269,163,545	3.43%	79%	68,567,553	2.98%	26,509,788	2.66%	364,240,886	3.29%	7%
	13-24	261,433,507	3.43%	77%	66,525,969	2.98%	25,708,383	2.66%	353,667,859	3.29%	4%
	25-36	184,093,856	3.42%	54%	112,711,228	2.98%	43,443,710	2.66%	340,248,794	3.18%	0%
	37-48	129,283,358	3.40%	38%	144,614,043	2.97%	29,949,378	2.66%	303,846,779	3.13%	-10%
	49-60	90,383,869	3.40%	27%	166,485,808	2.97%	20,594,514	2.66%	277,464,191	3.09%	-18%

Source: FHN Financial

difficult time originating the volume of new loans in the coming year that was originated during the prior 12 months.

All of this combines for continued stress on net loan growth, which could not come at a worse time since most credit unions are currently flush with cash.

## MANAGING PORTFOLIO CHANGES

There are strategies that credit unions can implement to help them manage through these challenging times.

The best practices for developing any strategy is to base your plan on sound analysis with a clear end game. In this case, the first step is to gain a solid understanding of your portfolio's likely runoff rate followed by a realistic projection of the number and type of new loans that you will be able to add to the portfolio in the future.

By tracking loan-level payoff activity, comparing month-by-month trial balances, and then overlaying new

production, the trajectory of your portfolio's growth rate will emerge.

We recommend doing this on a quarterly basis (at a minimum) and updating projections as conditions change.

## OVERCOMING THE HEADWINDS

The solution to negative loan growth is to add more loans to the portfolio than the loan portfolio is losing. That's very easy to say and not so easy to do.

Here are some strategies that other credit unions have implemented to help offset portfolio runoff:

**1. Holding Secondary Market Loans.** If your credit union has been an active seller in the secondary market, consider holding some or all of those secondary market loans.

You will give up fee income, but the tradeoff of short-term fee income for long-term interest income and improvement in your growth rate may very well be worth pursuing.

**2. Participations.** One traditional way credit unions have invested excess cash is by purchasing participations. Granted, there are few participations available today because many participation sellers are facing the same negative growth challenge we have discussed in this article.

If the opportunity to purchase a quality participation presents itself, give it serious consideration. However, be cautious and prudent, as always, and avoid buying lower quality or overpriced groups of loans. Patience and discipline are key.

**3. New Production.** Credit unions and community banks have historically bought closed loans. However, the vast majority of secondary market activity is by investors who agree to purchase loans that have not yet been made.

This kind of loan purchase commitment, referred to as "flow," will sound strange to many, but purchasing loans on a flow basis is how the vast majority of capital market loan transactions are executed.

Flow commitments can offer advantages over bulk purchases, such as greater control of the pricing, an easier due diligence process compared to buying a pool, and more certainty of outcome.

FHN has first-hand experience

helping credit unions effectively implement a flow strategy by aligning a credit union with one or more correspondent mortgage originators that produce credit union eligible prime credit loans that meet the credit union's membership criteria.

## CONCLUSION

Thanks in large part to today's technology, changes that used to take years to affect the size, composition and yield of a portfolio of prime credit mortgage loans, can now happen in a matter of months. Technology continues to push the envelope on how loans are made, and these advancements will continue to affect how loan portfolios behave.

One lesson learned over the past 12 to 15 months is that credit union management must be proactive and vigilant in managing the portfolio. For the time being, loan growth will be a major challenge, and credit unions will need to think outside the box for workable, but safe solutions. ▲

*As President & CEO of FHN Financial Capital Assets Corp. for more than 30 years, Jerry Hubbard oversees the full spectrum of services offered by the professional staff of CPAs, financial analysts, loan portfolio advisors and operations specialists. Capital Assets' services include loan portfolio risk management, mergers and acquisitions, and the design and implementation of loan-related balance sheet strategies, including participation sales and securitizations.*



Jerry Hubbard

“Market rates are likely to remain low for some time, and with so many portfolios chock full of loans that have note rates well above current market, we must be prepared for fast prepayments for many months to come.”



## PORTFOLIO ENGINEERING ANALYSIS OFFERED

FHN Financial Capital Assets Corp. will be happy to conduct a Portfolio Engineering Analysis like the one described in this article on any ACUMA member's mortgage portfolio at no cost or obligation.

However, you will be required to provide a detailed mortgage database at your expense.

For more information, call FHN at (800) 456-5460 or email [fhncapitalassets@fhfinancial.com](mailto:fhncapitalassets@fhfinancial.com) and ask about the Portfolio Engineering Analysis.