

# Evaluating the Profitability of Loan Participation Sales

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Catalyst Loan Participation Case Study

# Introduction

Loan participations (LPs), buying and selling loans, have been used for decades by financial institutions to diversify portfolios, manage liquidity, and more. Over the past few years, however, credit unions have adopted the use of loan participations to the point that they have become commonplace. Arguably, auto loan participations are the most prevalent type since auto lending is the bread and butter for so many credit unions.

Although they have become routine, each transaction is also unique based on the features of the deal (collateral, credit metrics, loan terms, etc.). Like snowflakes, no two loan participations are exactly alike. In this white paper, we provide an in-depth analysis of how credit unions can profit from the sale of loan participations. From constructing an LP to analyzing the impact of the sale on the remaining loan portfolio, it's important to understand the full LP process when considering a loan sale. While there are also many benefits to purchasing an LP, we focus here on seller benefits and analysis.

# Understanding loan participation profitability

We often refer to LPs as the “Swiss Army knife” of financial tools since there are so many balance sheet and business use cases for which they can serve. Credit unions sell loan participations for a variety of reasons, such as liquidity needs or funding loan growth, but there is one aspect that is invariably more important than all the others: *profitability*.

Along with a variety of other reasons, profitability is always part of the equation. It's the golden measuring stick and usually the bottom line for a credit union deciding to go through with a sale. However, since sales do not happen in a

## LP terminology

**Loan participation** – a transaction in which an originating lender sells a fractional interest in a loan or pool of loans to one or more buyers (known as participants).

**Seasoning** – the length of time that has passed since a loan has been originated. It is typically measured in number of months since the loan was made.

**Dealer reserve** – a fee paid to a dealer or other indirect loan source as compensation for generating the loan.

**Indirect loan** – a type of loan arrangement where a financial institution lends money to a consumer through a third-party intermediary, rather than lending directly to the consumer (i.e. a direct loan).





vacuum, there are further income and expense effects that impact the overall profitability, including:

- What are the effects of lost interest income from sold loans?
- What is the impact on credit performance and dealer reserve costs (for autos)?
- What does the remaining loan portfolio look like without the assets sold?
- What is the intended disposition of the sale proceeds... to fund new loans, to repay borrowings, or to replenish a liquidity reserve?

Combining the impact of these and other follow-on effects from the sale provides a more comprehensive view of an LP sale strategy.

## CU loans – raw materials for participations

As previously mentioned, each loan participation is unique, however, there is one characteristic they all need – enough coupon (loan interest rate) to cover all the costs. This is especially relevant for auto loan participations, where indirect dealer fees represent an additional expense beyond standard servicing fees and anticipated credit loss provisions. These costs influence the LP price, thereby impacting the gain or loss on sale and the overall economics of the transaction.

To get to the bottom line for profitability, let's take a wide-angle view and examine a transaction from a mid-size credit union from start to finish. This credit union has been experiencing solid auto loan demand mainly through the indirect channel and is looking to sell a participation to recycle the funds into new loans.

Figure 1 shows the high-level stats for the current auto portfolio totaling approximately \$110 million. Overall, the loans have 10 months of seasoning with an average credit score of 706. The weighted average interest rate of 8.85% looks like the portfolio should have loans with sufficient coupons to put together a \$10 million loan participation that will price at a profitable level.

TOTAL PORTFOLIO SUMMARY		109,719,377.36	
Description	Minimum	Average / Weighted Average	Maximum
Original Loan Balances	5,016.06	39,526.14	167,063.58
Current Loan Balances	305.74	26,516.05	165,993.67
Interest Rate	3.25%	8.85%	16.99%
Credit Score	500	706	893
Original Term	24	77	96
Remaining Term	2	69	88
Loan to Value	17.99%	105.95%	140.00%

Figure 1

As seen in chart 1, the credit union has a well-balanced portfolio of auto loans that is evenly distributed across the credit spectrum. This balance between the various credit tiers provides flexibility in constructing a loan participation with a profile that has broad market appeal.

Auto Loan Portfolio Breakdown by Credit

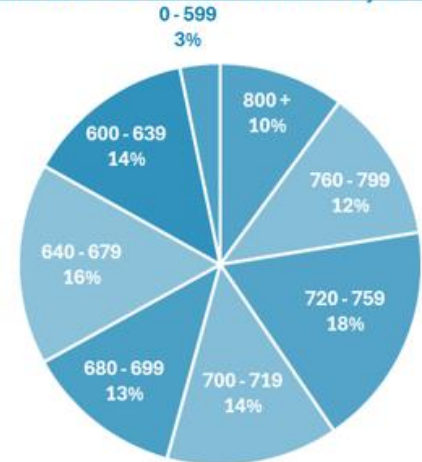


Chart 1

Digging deeper into the portfolio, the Stratification by Credit Score (figure 2) provides additional critical information. The dealer fees for indirect loans and the annualized net charge offs by credit tier are important inputs for evaluating profitability of loan portfolios and loan participations.

STRATIFICATION BY CREDIT SCORE								
Credit Score Level	# of Loans	Current Balance	% of Loan	Weighted Avg Rate	Ann. Net Charge Offs	Indirect Dealer Premium*		
0 - 599	179	3,529,228.70	9.82%	16.05%	3.17%	-		
600 - 639	601	14,962,234.27	12.32%	12.17%	2.54%	104,735.64		
640 - 679	590	17,773,426.97	18.36%	10.35%	1.57%	133,300.70		
680 - 699	464	13,916,634.16	13.83%	9.11%	1.33%	111,333.07		
700 - 719	469	15,140,796.92	12.64%	7.43%	0.77%	135,131.61		
720 - 759	612	19,772,437.17	16.41%	7.13%	0.49%	183,290.49		
760 - 799	487	13,591,303.29	13.66%	6.77%	0.31%	125,991.38		
800 +	453	11,033,315.88	2.96%	6.87%	0.15%	107,961.00		
<b>3,855</b>					<b>109,719,377.36</b>	<b>100.00%</b>	<b>1.12%</b>	<b>901,743.90</b>

Figure 2

\* Dealer Premiums amortized over 24 months

Taking into account the cost of amortizing the remaining dealer fees and credit losses (charge offs), a quick “back of the envelope” calculation outlined in the table below gives us a rough idea that the portfolio is earning 7.12% for the credit union.

Current Portfolio	Earnings / (Cost)	Yield
<b>Loan Portfolio Interest</b>		
<i>(Balance of \$109,719,377.36 * Wtd. Avg. Loan Rate of 8.85%)</i>	<b>9,710,164.90</b>	<b>8.85%</b>
<b>Dealer Reserve</b>		
<i>(1/2 of \$901,743.90 balance of dealer fees amortized for the year)</i>	<b>(450,871.95)</b>	<b>-0.41%</b>
<b>Annual Credit Losses</b>		
<i>(Wtd. Avg. charge off rate of 1.32% * Portfolio Balance)</i>	<b>(1,448,295.78)</b>	<b>-1.32%</b>
<b>Net Earnings</b>	<b>7,810,997.17</b>	<b>7.12%</b>

With this data in hand, we are now ready to select a subset of loans for the loan participation.

## The participation portfolio – loan selection is both art and science

Buyers of credit union loan participations prefer good credit quality and attractive yields. As a result, selecting loans for a participation portfolio can be a balancing act between characteristics such as credit score, LTV, interest rate, and cost basis to create a portfolio with the best market appeal.

Figure 3 shows the summary profile of the loans selected for the participation. A few of the key points in constructing the portfolio include:

- The portfolio totals slightly over \$11 million in order to realize \$10 million sale proceeds 'net' of the seller's retention.
- Overall, the portfolio is an "A-tier" credit quality pool with a weighted average credit score of 730 and a minimum score of 640.
- Loans with prior delinquencies, small balances or remaining terms less than a year were also excluded from selection.

LP PORTFOLIO SUMMARY		11,102,553.37	
Description	Minimum	Average / Weighted Average	Maximum
Original Loan Balances	10,995.15	40,092.21	111,984.00
Current Loan Balances	9,765.42	30,334.85	105,655.01
Interest Rate	4.25%	8.45%	13.50%
Credit Score	640	730	892
Original Term	24	75	84
Remaining Term	14	68	80
Loan to Value	24.08%	106.39%	125.90%

Figure 3

For comparison purposes, the Stratification by Credit Score – LP (figure 4) provides the LP breakdown by credit score range and highlights that there are no loans below 640 in the selection.

STRATIFICATION BY CREDIT SCORE - LP						
Credit Score Level	# of Loans	Current Balance	% of Loan	Weighted Avg Rate	Ann. Net Charge Offs	Indirect Dealer Premium
0 - 599	0	-	0.00%	0.00%	-	-
600 - 639	0	-	0.00%	0.00%	-	-
640 - 679	41	1,266,528.59	11.41%	10.83%	1.57%	9,498.96
680 - 699	74	2,064,945.15	18.60%	9.55%	1.33%	16,519.56
700 - 719	63	2,157,675.04	19.43%	8.18%	0.77%	19,257.25
720 - 759	62	2,210,825.40	19.91%	8.28%	0.49%	20,494.35
760 - 799	71	2,116,805.03	19.07%	7.56%	0.31%	19,622.78
800 +	55	1,285,774.16	11.58%	6.58%	0.15%	12,581.30
	366	11,102,553.37	100.00%		0.75%	97,974.21

Figure 4

Since the LP portfolio includes only credit scores of 640 or greater, the weighted average charge offs for the portfolio are 75 basis points annually, lower than the credit union's overall portfolio. Adding in the remaining unamortized dealer premium, the cost basis of the portfolio is 100.88.

$$[(\$11,102,553.37 + \$97,974.21) / \$11,102,553.37] = 100.88$$

Projecting the cashflows generated by the loans, deducting 25 basis points for servicing, plus expected credit performance, a reasonable prepayment speed, and a 5% clean up call, the valuation of the loan participation results in a sale price of 102.092 and a buyer yield of 6.25%. At this level, the loan participation produces a \$145k gain for the seller as shown in Figure 5.

At this point, we know we've satisfied the first hurdle: Does the sale produce a gain for the seller? *YES*.

<b>Total LP Loan Balance</b>	<b>11,102,553.37</b>
<b>Indirect Dealer Premium</b>	<b>97,974.21</b>
<b>Cost Basis</b>	<b>11,200,527.58</b>
<b>Less: 10% Seller Retention</b>	<b>(1,120,052.76)</b>
<b>Equals: 90% for Sale to Buyers</b>	<b>10,080,474.82</b>
<b>Sale proceeds @ 102.092</b>	<b>10,201,336.91</b>
<b>Less: LP Expenses</b>	<b>(24,980.75)</b>
<b>Net Gain on Sale:</b>	<b>145,842.83</b>

Figure 5

## Additional income and expense effects – profitability

Besides the gain from the LP sale, how has it affected the rest of the portfolio, expenses, and earnings? Since the LP sale represented approximately 10% of the credit union's auto loan portfolio, chart 2 shows which credit tiers were impacted.

After removing the loans sold as part of the participation, the remaining portfolio (represented by the blue bars in chart 2) has the updated profile as outlined below in figure 6.

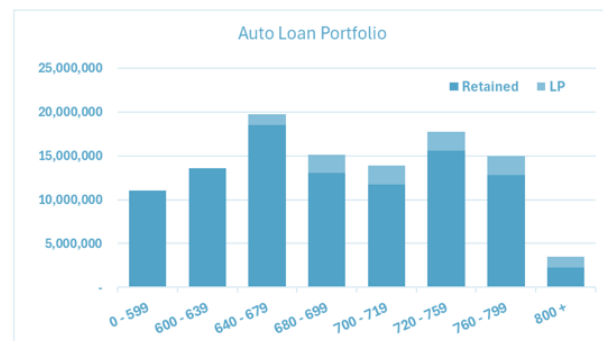


Chart 2

STRATIFICATION BY CREDIT SCORE - REMAINING PORTFOLIO						
Credit Score Level	# of Loans	Current Balance	% of Loan	Weighted Avg Rate	Ann. Net Charge Offs	Indirect Dealer Premium
0 - 599	179	11,033,315.88	3.32%	16.05%	3.17%	-
600 - 639	601	13,591,303.29	15.32%	12.17%	2.54%	95,139.12
640 - 679	549	18,505,908.58	17.02%	10.31%	1.57%	138,794.31
680 - 699	390	13,075,851.77	11.91%	9.03%	1.33%	104,606.81
700 - 719	406	11,758,959.12	13.15%	7.29%	0.77%	104,948.71
720 - 759	550	15,562,601.57	18.18%	6.97%	0.49%	144,265.32
760 - 799	416	12,845,429.24	11.50%	6.61%	0.31%	119,077.13
800 +	398	2,243,454.54	9.60%	6.91%	0.15%	21,952.20
	<b>3489</b>	<b>98,616,823.99</b>	<b>100.00%</b>		<b>1.39%</b>	<b>728,783.61</b>

Figure 6

The participation removed loans from the higher credit score buckets of the credit union's portfolio, however there is minimal negative impact to the overall weighted average credit score which dropped from 706 to 704.

Before and After Comparison			
	Original Portfolio	Remaining Portfolio	Change
Balance	109,719,377.36	98,616,823.99	(11,102,553.37)
Cost Basis	100.75	100.74	(0.01)
Interest Rate	8.83%	8.88%	0.05%
Credit Score	706	704	(2.00)
Original Term	77	77	0.00
Remaining Term	66	67	1.00
Loan to Value	105.95%	105.90%	-0.05%
Ann. Net Charge Offs	1.32%	1.39%	0.07%

Figure 7

The primary impacts on the remaining portfolio are 1.) a higher average coupon of 8.88%, and 2.) a higher net charge off rate of 1.39% up from 1.32%.

## The bottom line

What impact has selling this loan participation had? Intuitively we know that the credit union's liquidity has increased, and the loan-to-share ratio declined following the sale. Plus, a one-time gain on the sale which will boost current year profitability and capital levels for the credit union.

On the flip side, what is the impact from the loans sold? Primarily there is the interest from the loans that will no longer be received, plus other factors such as changes to the unamortized indirect dealer fees and credit performance impacting the credit union?

Pulling all these component pieces of information together, we can get a more comprehensive view of the effect of the transaction.

Table 1 below is a recap of our “back of the envelope” calculations for the beginning portfolio showing a net yield of 7.12%.

**Table 1**

Current Portfolio	Earnings / (Cost)	Yield
<b>Loan Portfolio Interest</b>		
<i>(Balance of \$109,719,377.36 * Wtd. Avg. Loan Rate of 8.85%)</i>	<b>9,710,164.90</b>	<b>8.85%</b>
<b>Dealer Reserve</b>		
<i>(1/2 of \$901,743.90 balance of dealer fees amortized for the year)</i>	<b>(450,871.95)</b>	<b>-0.41%</b>
<b>Annual Credit Losses</b>		
<i>(Wtd. Avg. charge off rate of 1.32% * Portfolio Balance)</i>	<b>(1,448,295.78)</b>	<b>-1.32%</b>
<b>Net Earnings</b>	<b><u>7,810,997.17</u></b>	<b><u>7.12%</u></b>

Starting with the bottom line net earnings from table 1, we can layer in the effects of the following items:

- Reduction of interest from loans sold
- Elimination of amortization of indirect dealer fees
- Reduction of projected credit losses from loans no longer owned
- Addition of servicing retained

Table 2 lists the amount of these adjustments with descriptions of their calculation.

**Table 2**

Adjustments Due to Sale of LP Portfolio		
<b>LP Loan Interest Sold</b>		
<i>(90% of \$11,102,553.37 * Wtd. Avg. Loan Rate of 8.45%)</i>	<b>(844,349.18)</b>	
<b>Elimination of indirect loan dealer cost amortization</b>		
<i>(1/2 of LP loans indirect dealer cost of \$97,974.21 * 90%)</i>	<b>44,088.39</b>	
<b>Reduction of Charge Offs from sold loans</b>		
<i>(90% of Wtd. Avg. charge off rate of .75% * LP Balance)</i>	<b>74,942.24</b>	
<b>Servicing Retained</b>		
<i>(90% of \$11,102,553.37 * Servicing Fee of .25%)</i>	<b><u>24,980.75</u></b>	
<b>Net Earnings</b>		
<i>(Retained portfolio balance: \$99,727,079.33)</i>	<b><u>7,110,659.36</u></b>	<b><u>7.13%</u></b>

The net yield of the remaining portfolio after the LP sale is 7.13%, slightly above the original 7.12%, showing the portfolio wasn't negatively impacted. By monetizing higher-quality loans, the credit union maintained a strong profile. These calculations demonstrate the benefits of the transaction beyond just the LP gain/loss figure.

While the gain on the LP sale provides a one-time earnings boost, interest earned from reinvesting the sale proceeds can vary depending on the chosen strategy, from a simple interest calculation to a complex lending plan. Regardless of approach, how these proceeds are redeployed can significantly affect overall profitability.

Credit unions sell loan participations for a variety of reasons such as generating liquidity, funding loan demand, concentration risk or other balance sheet management needs. The one common factor necessary and present in every strategy is profitability. The primary and most prominent measure of profitability is whether there is a gain or loss on the sale of the loan participation. This is certainly a critical measure for anyone who sells and the bottom line for many, but with just a few more calculations outlined above, a manager can get a broader view of the bottom-line impact to profitability of the credit union's loan participation program.

## WHY PARTNER WITH CATALYST?

With years of market experience, Catalyst removes the complexity from buying and selling loan participations.

Partnering with Catalyst empowers credit unions to efficiently buy and sell loan participations, enhancing liquidity management, diversifying portfolios, and optimizing asset yields – all within a secure, collaborative network supported by industry expertise. For more information, contact us today.

GET STARTED