CANADIAN CENTRE FOR THE STUDY OF CO-OPERATIVES (CCSC)

Scale, Scope, and Consolidation: What Actually Drives Canadian Credit Union Growth?

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Abstract

Canada's credit unions keep adding members, but not assets. This brief draws on a panel of 1,907 credit union–years running through 2023. Growth is persistent but mean-reverting. The growth payoff to scale runs out at roughly C$2.5–4 billion in assets. Noninterest income no longer shows up as a source of growth vis-à-vis the previous findings. And a merger adds a balance sheet rather than a catalyst for future growth. Against peers matched on pre-merger size and growth, merged CUs show no significant growth advantage out to four years.

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Foreword - More Data, Less Evidence of Merger Benefits: The Limits of Scale for Credit Union Growth

By: Marc-André Pigeon

Credit unions face an array of all-too-familiar challenges: flat or only slightly positive membership growth, slow, stagnant or even negative asset growth, rising technology and compliance costs, looming competitive threats, talent acquisition challenges, cybersecurity risks, and a rapidly changing credit union ecosystem. Since 2008 the number of credit unions outside Quebec has fallen from 525 to 158, and the share of system assets held by the 100 largest has risen from 81 to 96.6 percent. Many credit unions believe that the best way through this thicket of challenges is to merge and get the scale needed to grow more quickly and meet the moment.

But do mergers deliver on expectations of faster growth? In his latest empirical study, Dr. Abdullah Mamun, Fellow in Credit Union Finance at the Canadian Centre for the Study of Co-operatives, reruns earlier analysis exploring the same question but this time with updated data. Using credit union-level data stretching from 2007 to 2023, he generates a surprising result: from a growth-in-assets perspective, the benefits of scale top out at between $2.5 billion and $4 billion in assets. Beyond that range, additional size is associated with slower growth. Growth is also persistent: a credit union that falls behind in one year tends to fall further behind its peers in the years that follow.

Looking at the same data but using a different statistical technique (propensity score matching), Dr. Mamun also finds that merged credit unions eke out only slightly better growth rates than a comparable group of credit unions of similar size and pre-merger growth that did not merge. But even these differences—1.9, 2.9, 1.4 and 2.9 percentage points over years one through four respectively—are not statistically significant, meaning we cannot be sure they are different from zero. The table below summarizes the comparison of merged and unmerged credit unions. Growth rates represent cumulative growth since the merger year.

	Year 1 Growth (Average)	Year 2 Growth (Average)	Year 3 Growth (Average)	Year 4 Growth (Average)
Merged Credit Unions	7.1%	12.4%	21.2%	35.4%
Matched Unmerged Credit Unions	5.2%	9.5%	19.8%	32.5%
Difference in growth rates	1.9	2.9	1.4	2.9
p-value (two-tailed)	0.33	0.24	0.74	0.71

Source: Mamun, Credit Union Finance Brief (October 2026), Table 4, Panel B. Cumulative asset growth since the merger year; differences in percentage points. 25-42 matched pairs depending on horizon.

A second test using the full panel tells a similar story. In the year after a merger, assets jump by about 13.3 percentage points, but most of this is the arithmetic of adding the target's balance sheet rather than new growth. Three years out, merged credit unions grow no differently from other credit unions; five years out the effect is a modest 2.3 percentage points. Amalgamations (only eight in the sample) show no effect in any window.

Finally, and contrary to a key finding from his earlier study, Dr. Mamun's new updated analysis shows that non-interest income is no longer driving growth. The economies of scope he identified in the earlier study appear to have disappeared.

What might explain these findings? Why might there be, in Dr. Mamun's words, a concave relationship between growth rates and asset size? Why might merged credit unions grow no more quickly than their unmerged peers? And why is non-interest income no longer making a significant contribution to credit union growth? Dr. Mamun's analysis does not allow for any easy answers to these questions but his data and methods suggests some likely culprits.

First, although the study does not test this directly, there are likely some short to medium term diseconomies of scale in a merger: at least in the early going, mergers may not lead to higher growth—merged credit unions often must grapple with duplications of staff, management and even branches because of promises made during the pre-merger vote. There are also unavoidable new costs associated with harmonizing human resource and information technology systems, including costs associated with terminating human resources, banking system, and IT contracts. Meanwhile, attention devoted to these merger issues may distract the credit union from a focused strategy aimed at growth.

Second, the merger findings may also reflect the fact that during the period in question, mergers took place almost exclusively between (and among) credit unions in a single province. Depending on the province and degree of market penetration, provincial boundaries could constrain growth and limit opportunities to spread costs out over a large and growing membership base, making it difficult to achieve the efficiency gains hoped for in mergers. In a future update to this report, Dr. Mamun plans to tackle this question to identify which provinces face this constraint the most.

Dr. Mamun points to three potential reasons to explain the declining influence of non-interest income. First, fee income may have been compressed because of heightened competition. There are some grounds to think this might be part of the story. Wealthsimple for example has seen its customer base expand to more than three million clients in 2026 from zero in 2014 when it was launched. Moreover, survey evidence suggests that credit unions may be losing ground in this area of wealth management, a key source of fee income. Second, the mix of noninterest income may have shifted to activities that are less profitable, perhaps away from the more predictable income from wealth management services. And third, the effect may be concentrated among the largest credit unions, as the banking literature often finds, so that the average across a panel of mid-sized institutions falls toward zero. A related possibility, not tested in the study, is that as mergers increasingly stratify by size (big to big for example), the potential for new fee income may be limited since most larger credit unions would already have well-developed wealth management services (mergers with smaller credit unions lacking these services may offer some benefits in this area however).

While these findings temper expectations around the growth benefits of mergers, there may still be good reasons to pursue a merger, such as cost savings, better member service and greater resilience. Even at similar or lower growth rates, a larger newly merged credit union will almost certainly have more financial resources to hire the skilled people it needs to modernize its digital offering, meet new competitive threats, and satisfy regulatory expectations. It may also be able to offer more services and more convenience (larger branch/ATM network for example) or better platforms.

The findings also point to the potential importance of cross-border mergers, a point Dr. Mamun emphasized in the first version of this report. Cross-border mergers, particularly between a federal credit union and a provincial counterpart, could help minimize jurisdictional constraints, particularly if one of the two parties operates in a province with limited credit union penetration. Some credit unions are already pursuing federal continuance or banking subsidiaries that operate across provincial boundaries, though both carry regulatory and operational costs. While new proposed changes to the Bank Act and other aspects of banking policy may change the calculus, the pursuit of the federal option has so far not been realistic for most mid-sized credit unions. Meanwhile, provincial regulators will need to decide how they

will accommodate a changing credit union system that is concentrating the exposure of provincial deposit insurers and leaving liquidity facilities serving a handful of very large members.

For credit unions that are too small or regional to justify a federal charter or to be an interesting acquisition target for a much larger credit union, these findings suggest that regulators should consider helping credit unions to obtain scale in ways other than through mergers. After all, if credit unions must make strong commitments to retain staff, locations, and systems as a condition for successful merger votes, there may be merit in finding efficiencies outside of a merger context, through cooperation. Credit unions in several provinces are exploring this approach but have faced some resistance from regulators skeptical of the feasibility of federated structures and/or reluctant to adjust supervisory practices to unfamiliar structures.

Finally, as Dr. Mamun noted in his first report, the merger trend is not without a potential opportunity cost. As credit unions consolidate in the name of survival and growth, they risk losing touch with members, undermining the high-touch, responsive service that helped them get to where they are today.

Takeaways

- Beyond asset of roughly $2.5 billion to $4 billion, additional scale is associated with slower, growth;
- Merged credit unions, from a growth perspective, do not perform significantly better than unmerged counterparts of similar size and pre-merger growth; any merger benefit is modest and appears only after five years;
- Non-interest income no longer appears to be driving growth;
- Regulators should consider facilitating more credit union collaboration through federated-like structures and accommodating federal continuance and banking subsidiaries.

Introduction

Growth is the central strategic problem facing Canadian credit unions (CUs). This paper revisits the determinants of growth examined in Mamun (2023) using a updated data set that extends through 2023. We re-examine the effect of scale and scope on growth, and the effect of consolidation. In addition to the factors set out in Mamun (2023), our data show that over the study period (2007–2023) membership growth has been slightly positive (Figure 1), while asset growth shows a negative trend (Figure 2).

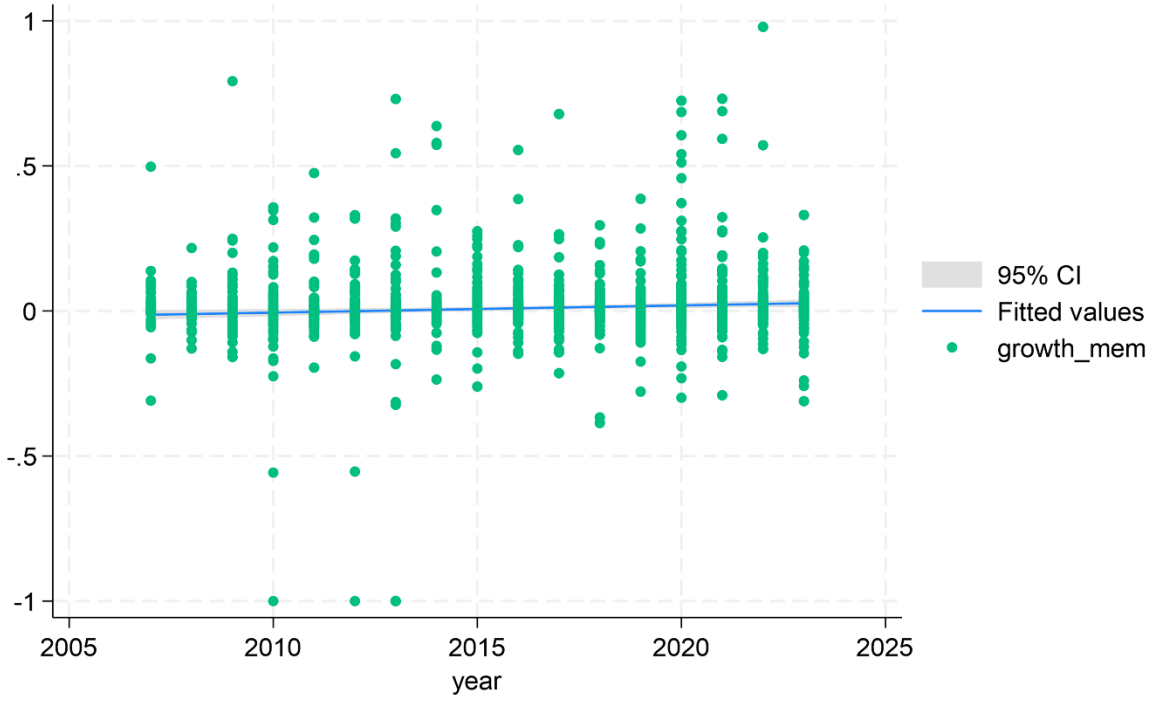


Figure 1: Membership growth over the years

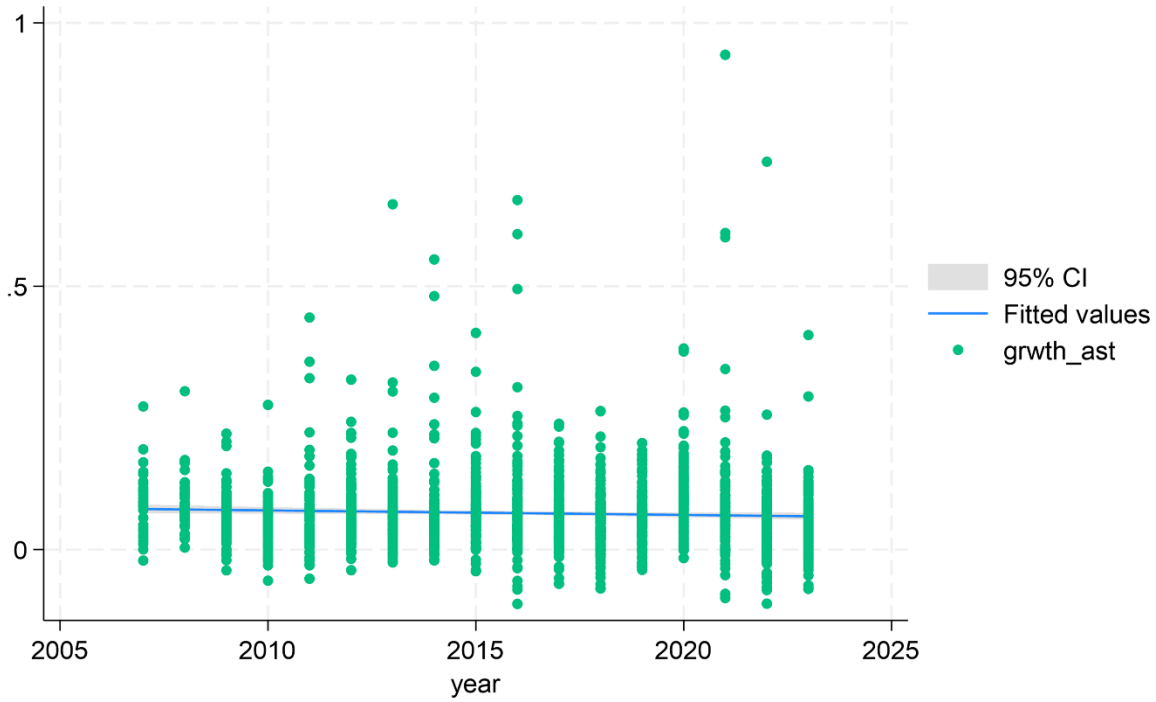


Figure 2: CU asset growth over the years

In our earlier study, using data from 2007 to 2019, we found diseconomies of scale, a positive effect from noninterest income, slower growth at better-capitalized CUs, faster growth at more cost-efficient ones, and no effect of mergers on growth in subsequent years. In that study we also compared each acquiring CU against a matched peer that had not acquired, and that test did find acquirers outgrowing their peers over two years. This update repeats both exercises: it re-estimates the panel model to re-examine the sources of growth, and it repeats the matched-peer comparison to see whether merged CUs outperform their peers over short and longer horizons. Most of what we know about CU growth comes from studies of US CUs or of European CUs and cooperative banks. The regulatory framework and competitive landscape in the US, European and Canadian cases differ enough that those results do not transfer.[1]

Several reasons motivate the update. First, we have more recent data, and the extended period has two distinctive features: the pandemic deposit surge of 2020–21 and the sharp rise in policy rates from 2022, after a long stretch in which rates had remained low since the financial crisis. This allows us to re-examine the growth strategies identified in our previous study over an extended sample period. Second, consolidation in the CU industry continues, so we now have more and better-quality data: we use merger records supplied by the Canadian Credit Union Association (CCUA) rather than the hand-collected merger data used in the previous study. These records also let us distinguish a merger or acquisition from a multi–credit union amalgamation in which several CUs combine to form a new entity. Third, consolidation has substantially reduced the number of CUs in Canada: in mid-2008 there were 525 CUs operating outside Quebec, and by December 2023 that number had fallen to 194. Fourth, over the same period the share of

[1] For a detailed discussion of the legal, institutional and competitive differences between the US, European and Canadian cases, see Abdullah Mamun, "Understanding growth and its policy implications for Canadian credit unions," International Review of Economics and Finance 86 (2023): 652–65, https://doi.org/10.1016/j.iref.2023.03.027. This brief updates and extends that study.

system assets held by the largest 100 CUs increased from 81 percent to 96.6 percent.[2] Fifth, and most importantly, we observe two strategic responses from the CU industry: some CUs are seeking a federal charter, while others are establishing banking subsidiaries that allow them to operate across provincial boundaries. Both strategies carry regulatory and operational costs and their associated risks. Neither is a realistic option for most mid-sized CUs, so we re-examine the effect of mergers and noninterest income activities on the growth of CUs.

Data and sample

Our panel covers the largest Canadian CUs outside Quebec and contains 1,907 CU-year observations for 2007–23. Because there is no established public database for Canadian CUs, the accounting data are assembled from a private source and from provincial regulators' disclosures.[3] Merger events come from the CCUA, which identifies 94 merger events and 8 amalgamations over the window. The CCUA records let us separate two economically distinct transactions. In a bilateral merger or acquisition, one CU continues and absorbs another: the acquirer's charter, brand, banking platform and management structure survive, and integration is largely a matter of migrating the target onto existing infrastructure. In an amalgamation, several CUs combine to form a new entity. There is no natural acquirer, and governance, brand and systems are in principle all up for renegotiation. Because we use lagged data, the resulting usable sample is 1,651 CU-year observations on 193 CUs.

We estimate dynamic panel models with year and provincial fixed effects and robust standard errors, the standard approach when growth may be persistent and when essentially every explanatory variable is subject to managerial choice.[4] Asset growth is the year-over-year change in nominal total assets scaled by lagged assets. SIZE is the natural log of total assets and SIZE2 is its demeaned square, which lets us examine a nonlinear size–growth relationship. Noninterest income as a share of total income (NTR) is our proxy for economies of scope. Following Mamun (2023), we also include the loan-to-asset (LA) and deposit-to-loan (DPL) ratios. These two describe what is on the balance sheet and how the loan book is funded rather than scope as such. Merger is a dummy variable that equals one if the CU took part in a merger in the past year; Merger3 equals one if it merged three years ago and in no merger since; Merger5 is defined analogously at five years. These indicator variables allow us to examine the effect of a merger one, three and five years after the event, uncontaminated by any further merger or amalgamation, relative to the rest of the sample of CUs. All variable definitions are in Table A1.

Table 1 provides the descriptive statistics. Mean asset growth is 6.9 percent, identical to the Mamun (2023) figure, with a median of 6.0 percent, but the distribution is more dispersed than before: the standard deviation rises from 7.0 to 7.8 percentage points and the maximum from 66.4 to 93.9 percent, consistent both with merger-driven jumps and with the pandemic deposit surge. Mean SIZE of 6.370 corresponds to total assets of roughly C$0.6 billion, with a range from about C$0.1 billion to C$29 billion. Two balance-

[2] Institution counts and asset-share figures are from Canadian Credit Union Association system statistics.
[3] Accounting data are assembled from a private source and provincial regulators' disclosures, following the procedure described in the study cited in note 1. Accounting variables are winsorized at 1 percent.
[4] The estimator follows Manuel Arellano and Stephen Bond, Review of Economic Studies 58 (1991): 277–97; Manuel Arellano and Olympia Bover, Journal of Econometrics 68 (1995): 29–51; and Richard Blundell and Stephen Bond, Journal of Econometrics 87 (1998): 115–43.

sheet shifts are worth noting: mean LA falls from 82.1 to 81.0 percent while mean DPL rises from 1.098 to 1.114.

Table 1: Descriptive statistics, largest Canadian credit unions, 2007–23

Variable	N	Mean	Median	SD	Min	Max
Asset Growth	1,907	0.069	0.060	0.078	-0.103	0.939
SIZE	1,907	6.370	6.092	1.230	4.526	10.269
$SIZE^2$	1,907	1.535	0.674	2.540	0.000	16.438
NTR	1,907	0.221	0.212	0.082	0.007	0.693
LA	1,907	0.810	0.831	0.080	0.485	0.926
DPL	1,906	1.114	1.088	0.155	0.691	1.839
Merger	1,907	0.049	0.000	0.217	0.000	1.000
Merger3	1,907	0.049	0.000	0.215	0.000	1.000
Merger5	1,907	0.042	0.000	0.201	0.000	1.000
Amalgamation	1,907	0.004	0.000	0.065	0.000	1.000
Amalgamation3	1,907	0.006	0.000	0.076	0.000	1.000
Amalgamation5	1,907	0.006	0.000	0.079	0.000	1.000

Empirical findings

Finding 1: Growth is persistent

Estimation results for the dynamic panel regressions are presented in Table 2. The coefficient on lagged asset growth is between 0.178 and 0.181 and is significant at the 1 percent level in every model specification. This implies that growth in consecutive years is not independent. Because the coefficient is less than one, growth is also mean-reverting. This finding is consistent with Mamun (2023); what differs is the size of the coefficient, which is close to double the earlier estimate (0.178 versus 0.099). So whatever produces growth in a given year — a stronger deposit franchise, a local market with little competition, or better management — now carries nearly twice as much of that advantage into the following year. By the same token, a CU that falls behind in one year falls farther behind its peers in the years that follow.

Finding 2: Size helps growth, but only up to a point

CU SIZE has a positive and significant effect on growth, with a coefficient between 0.021 and 0.024. $SIZE^2$ (the demeaned square) is, however, negative (-0.006 to -0.008) and significant at 5 percent. Growth is therefore not independent of size, and the relation is concave: larger CUs face a declining and eventually negative marginal return to scale in growth terms. That shape is consistent with the threshold reversal reported for UK credit unions and with the older banking evidence that larger institutions grow more slowly.[5]

[5] International evidence on the size–growth relation is mixed, with Ward and McKillop (2005) finding a threshold above which smaller UK credit unions' growth advantage reverses — the nonlinearity that motivates our quadratic

Because the quadratic term is a demeaned square, the estimates identify a turning point directly[6]. Given that the mean CU SIZE of 6.370 (see Table 1), the four columns of Table 2 imply turning points of 7.87, 7.94, 8.20 and 8.12. In asset terms that is roughly C$2.5 billion to C$4 billion. Marginal growth returns to scale are positive for the typical CU in the sample (mean size is 6.37 and median size is 6.092), so scale remains a growth objective for a mid-sized institution. They are negative for the largest, which means Canada's biggest provincial CUs have exhausted the growth benefit of scale inside their provincial markets.

Finding 3: The fee-income link to growth no longer holds

Mamun (2023) found that noninterest income was a positive and statistically significant determinant of growth. In the extended sample, noninterest income has no statistically significant effect on growth. This lack of evidence may reflect any of a few scenarios. First, increased competition may have reduced fee margins, reducing the extent to which a given share of noninterest income translates into growth. Second, the mix of noninterest income may have shifted toward activities with a weaker effect on growth. Third, the effect may be concentrated among the largest CUs, as the banking literature often finds[7], so that the average across a panel of mid-sized institutions falls toward zero. For an industry in which wealth management, insurance distribution and payments revenue feature heavily in strategic plans, the growth case for diversification is best treated as unproven on recent data.

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specification — and with Alhadeff and Alhadeff (1964) and Yeats and Rhoades (1974) both finding that larger US banks grew more slowly than smaller ones.

[6] The growth-maximizing size equals mean SIZE plus the ratio of the SIZE coefficient to twice the absolute value of the SIZE2 coefficient.

[7] On the concentration of diversification gains among larger institutions, see John Goddard, Donal McKillop, and John Wilson, Journal of Banking and Finance 33 (2009): 1836–49 for U.S. credit unions, and Olivier De Jonghe, Maaike Diepstraten, and Glenn Schepens, Journal of Banking and Finance 61 (2015): S3–S13 for banks.

Table 2: Economies of scale and scope: dynamic panel estimates of asset growth

VARIABLES	(1)	(2)	(3)	(4)
Asset Growth (t-1)	0.178***	0.181***	0.180***	0.180***
	(0.060)	(0.060)	(0.059)	(0.058)
SIZE	0.024***	0.022***	0.022***	0.021***
	(0.006)	(0.005)	(0.005)	(0.006)
$SIZE^2$	-0.008**	-0.007**	-0.006**	-0.006**
	(0.003)	(0.003)	(0.003)	(0.003)
NTR		0.032		
		(0.045)		
LA			-0.088	
			(0.063)	
DPL				0.013
				(0.037)
Constant	-0.067*	-0.061*	0.008	-0.066
	(0.035)	(0.034)	(0.046)	(0.068)
Year dummy	Yes	Yes	Yes	Yes
Provincial dummy	Yes	Yes	Yes	Yes
Observations	1,651	1,651	1,651	1,651
Number of CUs	193	193	193	193
AR(1) test p-value	0.000	0.000	0.000	0.000
AR(2) test p-value	0.545	0.535	0.560	0.549

Notes: Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Finding 4: Little evidence of a merger–growth relationship

The relationships between growth and lagged growth, size and noninterest income reported in Table 2 remain consistent in Table 3, which additionally presents the consolidation results. One year after a merger we observe 13.3 percentage points of additional asset growth, significant at 1 percent, against a sample mean growth rate of 6.9 percent. Three years after a merger the effect on growth is indistinguishable from zero. Five years out it is 0.023, significant at 5 percent, so a CU grows about 2.3 percentage points faster, roughly a third of mean growth.

When a CU merges with another CU, the target's assets appear on the acquirer's balance sheet, so measured asset growth rises by construction. Much of the first-year effect is therefore the arithmetic of consolidation rather than organic growth of the merged entity. Research on US banking drew this same distinction half a century ago: the size–growth ranking reverses once growth is measured net of

acquisitions.[8] Three years out, a CU that merged grows no differently from one that did not. The five-year result (the Merger5 coefficient) shows a modest effect on growth. We find no effect of amalgamation on growth in any window after the amalgamation, although with only eight amalgamation events this test has little power. That is perhaps unsurprising, since amalgamation is generally considered a survival strategy rather than a growth strategy.

Table 3: Mergers and amalgamations: dynamic panel estimates of asset growth

VARIABLES	(1)	(2)
Asset Growth (t-1)	0.166***	0.179***
	(0.047)	(0.060)
SIZE	0.012***	0.018***
	(0.004)	(0.005)
$SIZE^2$	-0.004*	-0.005*
	(0.002)	(0.003)
NTR	0.020	0.023
	(0.038)	(0.045)
Merger	0.133***	
	(0.024)	
Merger3	-0.011	
	(0.008)	
Merger5	0.023**	
	(0.011)	
Amalgamation		0.065
		(0.045)
Amalgamation3		0.009
		(0.015)
Amalgamation5		-0.009
		(0.016)
Constant	-0.020	-0.068*
	(0.034)	(0.036)
Year dummy	Yes	Yes
Provincial dummy	Yes	Yes
Observations	1,651	1,651
Number of CUs	193	193
AR(1) test p-value	0.000	0.000
AR(2) test p-value	0.820	0.564

[8] Alexander Yeats and Stephen Rhoades documented for U.S. banks that gross growth is highest for the largest institutions, which account for nearly all acquisitions, but that the ranking reverses once growth is measured net of merger-related additions (Journal of Money, Credit and Banking, 1974).

Notes: Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Finding 5: Merged CUs do not outgrow comparable CUs that did not merge

The merger–growth results in Table 3 compare acquiring CUs against the whole sample, which contains CUs of very different sizes and growth histories. In Table 4 we instead compare each merging CU with a non-merging CU of similar size and pre-merger growth, following Mamun (2023). We use a propensity score matching approach: a model estimates each CU's probability of taking part in a merger from its size and growth in the year before, and every acquirer is matched to the non-acquiring CU with the closest score in the same year.[9]

Table 4 presents two panels. In Panel A we consider only those CUs that did not engage in any additional merger within two years of a given merger. For this group we find that one year after a merger, merged CUs grew 7.7 percent against 6.3 percent for their matched peers. The difference in growth is not statistically significant. Two years out, acquirers grew 13.3 percent against 12.1 percent, the difference in growth in this case is also not statistically significant. In Panel B we extend the comparison to a four-year horizon. This sample is constructed from merged CUs that did not engage in any further merger for the four years following a given merger. We find that merged CUs outperform their non-acquiring peers by 1.9, 2.9, 1.4 and 2.9 percentage points in the first, second, third and fourth years after the merger, but none of these gaps is statistically significant.[i10] This result implies that when we match acquiring CU with a peer CU with similar size and pre-merger growth, we do not find evidence that merger generates additional growth.

Table 4: Acquiring credit unions versus propensity-score-matched peers

Horizon	Matched peers	Acquirers	Difference	p-value	Pairs
Panel A. Acquirers with no further merger within two years					
One year	6.3%	7.7%	+1.4 pp	0.45	49 / 49
Two years	12.1%	13.3%	+1.2 pp	0.62	46 / 43
Panel B. Acquirers with no further merger within four years					
One year	5.2%	7.1%	+1.9 pp	0.33	38 / 42
Two years	9.5%	12.4%	+2.9 pp	0.24	35 / 36
Three years	19.8%	21.2%	+1.4 pp	0.74	28 / 33
Four years	32.5%	35.4%	+2.9 pp	0.71	25 / 29

Notes: Acquirers are CUs involved in a merger; matched peers are non-acquiring CUs matched by propensity score on size and growth in the year before the merger, one-to-one with replacement and within the same year. Pairs give the number of peer and acquirer observations. p-values are two-tailed.

[9] This applies the propensity-score method of Paul Rosenbaum and Donald Rubin, Biometrika 70 (1983): 41–55. Each acquirer is matched one-to-one, with replacement, to the non-acquiring CU of closest estimated propensity in the same year, on size and growth in the year before the transaction. On the use of matched peers to judge post-merger performance, see Andreas Behr and Frank Heid, Journal of Empirical Finance 18 (2011): 117–35.

[10] These results are based on fewer than 50 matched pairs. The small sample limits the reliability and interpretation of the statistical results.

Conclusion

We re-examine the determinants of growth of Canadian CUs with four years of extended data, using a framework similar to that of Mamun (2023). As in the previous study, we find that Canadian CU growth is persistent but mean-reverting, and that the relationship between size and growth is positive but concave, peaking somewhere around C$2.5–4 billion in assets and declining above it. However, with four years of additional accounting data and more precise merger and amalgamation information, we cannot support two findings of Mamun (2023): first, fee income does not appear to affect growth; and second, we do not find strong support for an effect of mergers on growth. We analyze the merger–growth relationship in two ways. Assessing the effect of mergers on growth in the full sample, we find that mergers affect growth five years out, although the economic significance is not large. When we compare growth between merged CUs and their peer CUs (selected on pre-merger size and growth), we do not find that merged CUs outperform their peers in any significant way.

While mergers and income diversification may not be sources of CU growth, there may be other reasons to pursue them, such as cost savings, better member service and greater resilience.[11] Given the sharp decline in the number of CUs (from 516 in 2008 to 185 in 2025), provincial regulators and system bodies continue to face the same policy challenge outlined in Mamun (2023): the effect of mergers on provincial deposit insurance and liquidity facilities. Federal continuance and banking subsidiaries are two options available to CUs, and provincial regulators will need to decide how to accommodate them. Without such a pathway the system will keep losing size diversity, which concentrates the exposure of provincial deposit insurers and leaves provincial liquidity facilities serving a handful of very large members.

[11] On cost savings, see Luis Dopico and James Wilcox, Filene Research Institute (2010, 2011), who find the largest efficiency gains in mergers of equals. On member outcomes, see Harold Fried, C. A. Knox Lovell, and Suthathip Yayasan, Journal of Banking and Finance 23 (1999): 367–86 (service improvements for target members without deterioration for acquirer members), and Keldon Bauer, Linda Miles, and Takeshi Nishikawa, Journal of Banking and Finance 33 (2009): 2267–74 (rate gains for target members and improved stability for the combined entity). Surveying the bank merger evidence, Donal McKillop and John Wilson report little improvement in efficiency or performance for the merged entity.

Technical appendix

Table A1: Variable definitions

Variable	Definition
Asset Growth	Growth of CU total assets year over year
SIZE	Natural log of total assets
SIZE2	Square of demeaned log of total assets
NTR	Noninterest income to total income
LA	Loan-to-asset ratio
DPL	Deposit-to-loan ratio
Merger	1 if the CU was engaged in a merger in the past year
Merger3	1 if the CU was engaged in a merger three years ago and in no other merger since
Merger5	1 if the CU was engaged in a merger five years ago and in no other merger since
Amalgamation	1 if the CU was part of an amalgamation in the past year
Amalgamation3	1 if the CU was part of an amalgamation three years ago and in no other merger or amalgamation since
Amalgamation5	1 if the CU was part of an amalgamation five years ago and in no other merger or amalgamation since

Notes: Accounting variables are winsorized at 1 percent. The merger and amalgamation indicators are mutually exclusive event-time markers; the omitted baseline is CU-years with no qualifying transaction in the relevant window.

Table A2: Pairwise correlations

	SIZE	SIZE2	NTR	LA	DPL	Merg.	Merg.3	Merg.5	Amal.	Amal. 3
SIZE2	0.70									
NTR	0.14	0.09								
LA	0.31	0.12	0.04							
DPL	-0.41	-0.23	0.00	-0.92						
Merger	0.17	0.09	0.04	0.03	-0.06					
Merger3	0.15	0.09	0.03	0.02	-0.04	0.06				
Merger5	0.17	0.11	0.04	0.05	-0.07	0.06	0.05			
Amalgamation	0.02	-0.01	0.03	0.02	-0.02	0.07	-0.01	-0.01		
Amalgamation3	0.05	0.02	0.01	0.04	-0.04	0.06	0.06	-0.01	0.00	
Amalgamation5	0.07	0.04	0.01	0.03	-0.03	0.01	0.04	0.05	0.00	0.09

Notes: Variables are defined in Table A1. The -0.92 correlation between LA and DPL is why the two ratios enter the specifications of Table 2 one at a time; the 0.70 correlation between SIZE and SIZE2 requires the level and quadratic terms to be interpreted jointly. The merger indicators correlate with SIZE at 0.15 to 0.17, confirming for Canadian credit unions the pattern that acquisitions are made predominantly by larger institutions.

About the Canadian Centre for the Study of Co-operatives

The Canadian Centre for the Study of Co-operatives (CCSC) is an interdisciplinary research and teaching centre located on the University of Saskatchewan campus. Established in 1984, the CCSC is supported financially by major co-operatives and credit unions from across Canada and the University of Saskatchewan (USask). Our goal is to provide practitioners and policymakers with information and conceptual tools to understand co-operatives and to develop them as solutions to the complex challenges facing communities worldwide. We are formally affiliated with the Johnson Shoyama Graduate School of Public Policy at the University of Saskatchewan and the University of Regina. The connection strengthens the capacity of everyone involved to develop research and new course offerings dedicated to solving social and economic problems. For example, our collaborative work has resulted in a Graduate Certificate in the Social Economy, Co-operatives, and Nonprofit Sector.

OUR FUNDERS

The CCSC and USask acknowledge with gratitude the support and commitment of our funders. These organizations provide the CCSC with resources and leadership, helping us to develop the knowledge needed to construct co-operative solutions to the increasingly complex challenges facing global communities. Since the CCSC opened its doors in 1984, our co-op and credit union sector partners have contributed nearly $12 million to co-operative teaching, research, and outreach.

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