Regulatory Capital for Irish Credit Unions: Time for Change?

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1 Executive Summary

Building on the materials already published by the CEO Forum about asset growth in credit unions, this paper contends that capital requirements on Irish credit unions are excessive and unjustified relative to the risk profile of the Irish credit union balance sheet, international credit union requirements and the requirements on competing financial institutions.

This leads to an urgent need to address capital requirements given strong asset growth. This growth is not translating into higher risk loan assets. Instead, funds are being invested in low-risk investments. From a risk perspective, balance sheet profiles are less risky now than in [2009] when the 10% capital ratio requirement was first introduced.

Irish credit unions, like their peers, are wholly reliant on retained surpluses to accumulate capital. They do not have access to capital markets or to alternative sources of capital. Capital is derived linearly, requiring a minimum of 10% capital on assets.

The balance sheet of Irish credit unions is not considered complex. Funding comes from members savings and retained earnings. Assets include personal lending, a limited breadth of investments and a small level of SME lending and secured house loans. The attitude of members towards borrowing appears to remain cautious, with a marked preference towards saving and reducing debt[1].

The working group explored capital requirements internationally. Credit unions elsewhere are required to hold a capital ratio of between 3% and 6% of capital to assets despite having far higher loan to asset ratios.

The group completed an exercise to calculate the capital required under Basel III for a sample group of large Irish credit unions. The exercise identified a significant excess of capital in Irish credit unions as measured under other International capital regimes and Basel III requirements. The exercise supported the working group's contention that Irish credit unions are well capitalised.

The working group observes that the 10% capital ratio is not calibrated to balance sheet risk profiles, nor was it in line with regulatory requirements elsewhere. When taken in conjunction with the additional operational risk requirement, the Irish capital regime was considered to be unique in its approach and an unduly conservative outlier.

This paper considers two alternative approaches and recommends that consideration be given to the introduction of capital requirements linked to the underlying asset class. The suggested approach would enable Irish credit unions to serve the financial needs of their members better while continuing to protect member savings. The approach recognises risk but eschews the more complex Basel III requirements applied (and better suited) to large financial institutions.

The application of capital requirements that better recognise the risk inherent in a credit unions asset mix will provide the opportunity for Irish credit unions to compete on a fairer footing with the increasingly small pool of competition in the Irish market.

[1] Central Bank of Ireland – Quarterly Bulletin 2 – April 2021

2 Capital Requirements

Capital acts as a financial cushion against unexpected losses and indicates the maximum loss that the financial institution can absorb without recourse to shareholders or other creditors. It is the difference between a financial institution's total assets and total liabilities. Regulators impose minimum capital requirements to promote financial stability and to reduce risk-taking.

There are two main ratios typically used in calculating minimum capital requirements.

i. A capital ratio (also known as 'leverage ratio' in Basel III terms) is calculated by dividing capital by total assets (used in Ireland, United Kingdom and Korea).

$$\text{Capital ratio} = \frac{\text{Capital}}{\text{Total Assets}}$$

ii. In contrast, a risk-weighted capital ratio applies a risk percentage to the asset in a calculation based on the credit risk of the underlying asset (used in Australia, New Zealand, Canada and for large credit unions in the United States). Countries applying risk-weighted assets use Basel III, or a variant along similar lines. They use a dual ratio approach requiring a risk-weighted capital ratio and a leverage (capital) ratio.

$$\text{Risk Weighted Capital ratio} = \frac{\text{Capital}}{\text{Risk Weighted Assets}}$$

The correct minimum capital ratio to apply on credit union balance sheets is an unsettled international question. The World Council of Credit Unions ("WOCCU") model credit union law 2015 (which references the US regulator NCUA) proposes adequate capitalisation at a leverage ratio of 6%. In reality, there are significant variances worldwide. Some of the variances are captured in the summary Table 1.

The International Credit Union Regulators' Network formulated a series of Guiding Principles for assessing the effectiveness of the supervision of credit unions. The "guiding principle" regarding credit union capital adequacy reads as follows:

"*The supervisory authority must establish and enforce the rules for an appropriate* capital framework with which all regulated institutions must comply. The rules should balance cooperative principles and objectives with the need to protect depositors. Accordingly, supervisory authorities will need to consider what meets the criteria for capital carefully and to ensure that capital instruments are able to absorb losses in the event of failure.

When supervisors choose to align capital requirements of credit unions to Basel standards, a simplified approach may be adopted for small or simple credit unions that are not allowed to hold complex financial instruments. For such institutions, compliance with the most advanced risk measurement techniques *may be beyond their resources.*"

2.1 Irish Credit Unions

Credit unions in Ireland are required to maintain a minimum regulatory capital ratio of 10% plus an operational risk capital requirement.

The capital held by Irish credit unions is retained earnings. (WOCCU, 2012) considers it to be the highest quality of capital, meeting the test of being:

a) perpetual in nature and;
b) freely available to absorb losses.

The minimum regulatory capital ratio was introduced for the first time in 2009 during a crisis period (reference Appendix 1 for a historical view of Irish Credit Union regulatory capital requirements) when the Irish economy was coming under significant pressure. That period of crisis is now long past.

The (Central Bank of Ireland, 2009) issued the Regulatory Reserve Ratio for Credit Unions paper in August 2009. This set out the regulatory requirements for the introduction of the new 10% capital ratio. The guidance provides no rationale for this new 10% capital ratio. There are later regulatory references to a WOCCU recommendation of 10%. This mixes "apples and oranges", the WOCCU percentage refers to the total institutional capital of the credit union, not regulatory capital.

The (WOCCU, 2015) model law suggest a credit union holding a 6% capital ratio as adequately capitalised. At the time (2009) ratios elsewhere were significantly lower.

The 2009 Central Bank guidance **states that from the 1 October 2010, a risk-based ratio would be developed** for eligible credit unions. No risk weighted approach has been developed.

Regulatory assumptions at the time PCAR (Prudential Capital Adequacy Requirements), which estimated a state bail-out cost of upwards of €1bn, were proven unfounded. The assumptions predicted a significant drop in savings and large scale loan losses. Neither occurred. Savings grew, and not only did credit unions fund loan losses they also accumulated capital during the period. From a risk asset perspective, credit union balance sheets became less and not more risky.

Also, during the crisis, regulatory intervention insisted on significant loan loss provisions across credit unions and imposed blanket lending restrictions. The actual loan loss experience was far lower than estimated. Consequently, credit unions have been writing back provisions from 2015 onwards.

It must be recognised that 2009 and 2021 are very different environments. The legal and governance frameworks are transformed, the (Credit Union Advisory Committee, 2016) opined:

"That it is clear that a strengthened regulatory framework as recommended by the (Commision on Credit Unions, 2012), is now in place".

The financial conditions are also different. The average credit union return on assets was 3.5% & 2.4% (in 2007 and 2008); in 2020, it was 0.4% and is forecast to reduce further. Loan to asset ratios were 52.1% in 2008 compared to 26.2% in 2020. Despite the drop in loan to

asset ratios credit unions appear to have grown their unsecured personal lending market share slightly.

Another significant change in the period is that yields earned on "lower risk" assets have changed materially. For example, yields on ten-year Irish government debt changed from 4.8% in 2009 to a negative -0.14% in April 2021. Given the current context, a credit union's ability to generate sufficient return on assets to accumulate the minimum 10% capital on new assets is therefore now unsustainable.

The current capital ratio does not differentiate between 'risky' and 'safe' investments. For example, there is a significant differential in risk and returns between a 10-year AAA-rated government bond and a BBB bank bond, not to mention unsecured lending. Yet each asset class has the same 10% capital requirement.

The application of the 10% capital ratio in Irish credit unions leads to other anomalies. Credit union capital is generally held in low-risk assets. The capital ratio makes no allowance for assets that are fully secured by member savings and it ignores that some credit union loan products hold collateral of 100%. Yet these asset classes all carry the same 10% capital requirement that riskier assets must carry.

The credit unions' responsibility is to determine the level of excess capital (buffer) above the minimum requirement that it wishes to carry by considering the nature, scale, and complexity of its business model and risk appetite.

(ICURN, 2019) **highlights the emerging risks to credit union capital and acknowledges that the Irish credit union sector operates a "simple business model" and is "well capitalised by any measure".**

The trend in Ireland is that the overall capital ratio is reducing as asset growth is exceeding the rate at which surplus can be generated. To illustrate this point, credit unions increased capital by €100 million over the Sept-18 to Sept-20 period, but the capital ratios across the sector reduced from 16.5% to 16.2% at the same time. This means that **Irish credit unions are now having to allocate historic retained earnings to meet current capital ratio obligations, which is unsustainable given current market conditions.**

The working group concludes that the current capital ratio is too simplistic because it lacks the sophistication needed to cope with risk and the current economic environment.

2.2 International Credit Union sectors

There are different minimum capital requirements for international credit union systems, with no uniform approach agreed. Risk-weighting of assets is used in several jurisdictions, including Australia, certain states in Canada, Japan and New Zealand, while capital ratios are used in Ireland, South Korea and the United Kingdom. A combination of capital ratios, Basel leverage ratios and risk weighting is used in the United States, certain Canadian states and Australia.

As there is no one source for the comparison of capital requirements applicable in each country, the working group collated the summary in Table 1 from a range of sources. **The capital ratio by country suggests that the Irish credit union sector has the highest capital level of the countries sampled.**

Table 1: Summary of international credit union capital regimes

Institution	Leverage Ratio	Risk-adjusted capital ratio	Capital ratio by country[2]	Loan to Asset by country[3]	Notes
Republic of Ireland	10%	N/A	15.5%	28.1%	Additionally, there is a requirement to hold an operational risk reserve
Great Britain	3% - 10%	N/A	12.3%	47.5%	Graduated and credit union driven by asset size. A credit union may temporarily allow its reserves to fall below the minimum requirement by 2% (effectively a buffer) for a limited period.
Australia	3% Basel III	10.5% - 13.0%	7.3%	77.8%	During economic downturns, banks/CUs can reduce risk weighted capital to 10.5%
Canada	3% -5%		3.1%	82.2%	The individual province determines the requirements. The OSFI is proposing a segmented approach where credit unions having less than $500m in assets will only have to comply with a leverage ratio whilst credit unions with assets of between $500m and €10bn will only have to comply with a simplified Basel III risk weighted requirement.
British Columbia	N/A	10%			A minimum 35% of the capital must be retained earnings
Ontario	4%	8%			
Manitoba	5%	8%			
Saskatchewan	5%	8%			

[2] The capital ratio by country is derived from the 2019 WOCCU statistics publication and calculates the total value of capital held by credit unions by country as a % of total assets.
[3] The loan to asset ratio by country is derived from the 2019 WOCCU statistics publication and calculates the total value of loan by country as a % of total assets.

United States	6%	8%	11.2%	71.1%	In 2019, the US NCUA introduced a two-step approach requiring a leverage ratio (6%) and risk based net worth calculation (10%), effective from 1 Jan 2022 for federally insured credit unions only with assets greater than $500m. Credit unions with assets greater than $10 Billion are subject to Basel III requirements.
South Korea	2%	N/A	2.7%	69.2%	An FSB peer review in 2017 recommended harmonisation of capital requirements among cooperative FI's and credit unions.
Japan	N/A	8%	N/A	46.3%	In 2018, Basel III arrangements for Shinkin banks were removed as capital declined, and the Bank of Japan also permitted distributions.
New Zealand	N/A	10%	13.9%	60.4%	The capital requirement is higher for credit unions than banks at 10% of risk-weighted assets.

We also considered credit union capital requirements from the perspective of the loan to asset ratio. **Despite credit unions in other jurisdictions having a much higher loan to asset ratios, their capital requirement is much lower.**

2.3 Irish Banks

While noting that credit unions are not banks and have a different business model and ethos, it is worth providing background information as to how banks calculate their capital requirements.

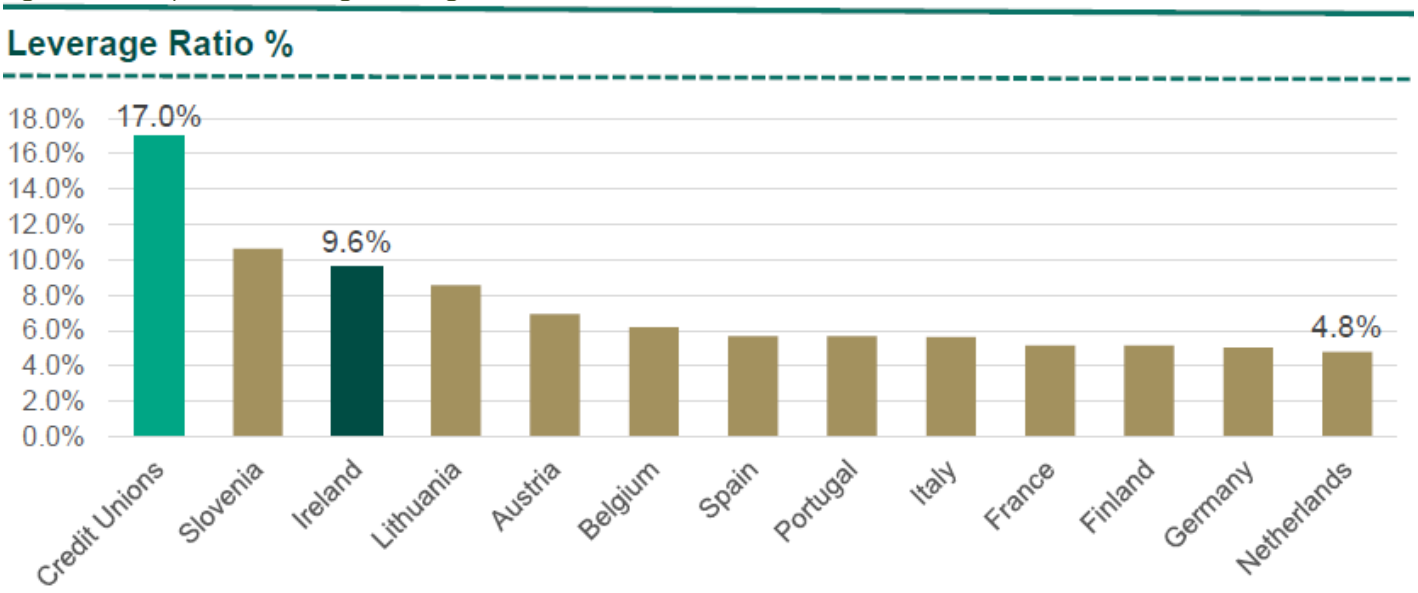
Minimum capital requirements based on Basel III

In Europe and Ireland, Credit Institutions are subject to the capital requirements contained in the Capital Requirements Regulation/Capital Requirements Directive IV. Their minimum requirements are calculated based on the Basel III risk-weighted assets outlined in Appendix 2. The minimum risk-weighted capital requirement for Irish banks is 10.5%.

Current capital levels across Europe

The comparative capital (leverage) ratios across Irish and European banks as calculated by the Department of Finance are depicted in Figure 1. This illustrates that **the level of capital held by credit unions is much higher than Irish and European banking levels.**

Figure 1: European banking leverage ratios



Source: Department of Finance (2019)

It is relevant to note recent banking sectors complaints concerning onerous capital requirements applied in Ireland. KBC and Ulster Bank have recently announced their intentions to exit the Irish market, with KBC particularly highlighting excessive capital requirements as a fundamental factor in their decision.

A (Banking and Payments Federation Ireland, 2021) report compares banking capital requirements for consumer mortgages. The report demonstrates that Irish banks must hold significantly higher regulatory capital on house loans compared to their European peers.

As set out in Table 2, **the average capital requirements for European bank mortgages are 2.1%; it is 5.7% for Irish bank mortgages, while ratios of between 10% and 12.5% plus an operational risk reserve apply to Irish credit union house loans.** This is despite credit unions being excluded by regulation from mortgage lending such as 'buy to lets', 'residential investment properties', 'holiday homes' and 'SME business premises. Table 2 is stark **and**

demonstrates the enormous structural competitive disadvantage experienced by Irish credit unions.

Table 2: House lending capital requirements

House loan/mortgage assets	Capital Requirement
European bank mortgages	2.1%
Irish bank mortgages	5.7%
Irish credit union house loan requirements	Minimum 10%
Credit unions (extended house Loan limits – CU Total Assets €75 -100M)	Minimum 12.5% *

* The increased capital requirement of 12.5% applies to the credit unions total assets and not on specific house loan assets.

2.4 European Credit Unions – recognised as different from banks

At a European level, the credit unions unique membership model and not for profit ethos has been recognised. As a result, credit unions have been scoped out of EU banking regulatory requirements as far back as 1977 (see Article 2: Directive 77/780/EEC).

In Ireland, it is a long-standing Government policy that credit unions are viewed as separate from banks and are regulated under a different framework for this reason. The working group supports this position. We also observe that the simplicity of the Irish credit union balance sheet and business model does not justify the complex Basel III approach that applies to large and sophisticated financial institutions.

Basel III standards are intended to control the risk taking of large international banks and to reduce risk shifting from shareholders to creditors. (McKillop, et al., 2020) supports the view that credit unions are different to Banks by highlighting that:

"Financial cooperatives have different risk-taking incentives to commercial banks, since they pursue social and economic development objectives, rather than shareholder value maximisation. Given a stable deposit base and business strategies that aim to build up capital for future generations, financial cooperatives may be less fragile than their commercial banking counterparts. However, financial cooperatives are less diversified and have fewer sources of capital".

Basel Standards are evolving to minimise bank risk-taking behaviours, which has seen them singularly focussed on maximising return on equity (ROE) for the shareholders. Some banks also "game" the capital requirements. This led to the Basel III committee issuing a warning on this matter in 2016[4].

In contrast, credit unions do not engage in risk-shifting, and their members tend to be a combination of shareholders, creditors and customers. Unlike banks, credit unions focus on delivering member value, while also seeking to accumulate capital to sustain their business.

With their focus on 'stakeholders' – members, the wider community and national footprint, credit unions have a fundamentally different and far more prudent mindset, culture and risk taking attitude when compared to banks. International studies have shown how cooperative banking systems have been more resilient and more capable of weathering economic and banking crises. Their stakeholder mindset, attitude to risk and focus on balance sheet resilience sees them accumulate countercyclical capital buffers.

[4] Basel Committee on Banking Supervision - Statement on capital arbitrage transactions - https://www.bis.org/publ/bcbs_nl18.htm

2.5 Covid-19 and Regulatory actions

Internationally, the (Financial Stability Board, 2020) at the start of the Covid pandemic encouraged regulators to "*release available capital*" and later (Financial Stability Board, 2020) encouraged regulators to ensure that policy decisions support economic recovery:

> ***" The evolving nature of the COVID-19 pandemic and the associated economic uncertainties require continued efforts to support financial resilience and ensure a sustained flow of financing to the real economy. It is critical to address potential obstacles to the use of bank capital and liquidity buffers to absorb losses and support lending while avoiding harmful deleveraging.".***

In Ireland, the Central Bank released countercyclical bank capital buffers in early 2020. However, no flexibility was applied to credit unions even though they are experiencing significant growth in assets exasperated by Covid pandemic conditions. The Irish regulatory system does not require prompt corrective action by the credit union regulator as it does in the USA.

Consequently, the only tool available to credit unions has been to restrict asset growth by imposing savings caps, or equivalent, which undermines sustainability and damages the reputation of the sector. Savings caps are not a viable strategy in a retail banking system particularly one that provides fewer retail deposit takers than ever before. Recent regulatory commentary[5] on the need for credit unions to 'manage savings growth' should be considered in this context.

As credit unions experience strong savings growth and depressed demand for loans, their capital ratio is being exposed as an unduly conservative ratio not calibrated for the risks being incurred. The capital ratio is adversely affecting a strategically important part of Ireland's national retail banking system.

[5] Address by Registrar of Credit Unions Patrick Casey, to the Irish League of Credit Unions Annual General Meeting - 24 April 2021

3 Application of Basel III – Exploration for Irish credit unions

The working group completed an exercise to determine Irish credit unions Basel III risk-weighted capital requirements for comparison purposes. An average balance sheet was derived from five Irish credit unions as at 30 September 2020, in which the current capital ratio was compared to the Basel III capital ratio.

We felt the calculation would be helpful to compare credit unions with other financial institutions on a like for like basis while noting that the EU capital adequacy/ requirement directives do not apply to Irish credit unions. **The exercise was insightful in enabling an understanding of the interrelationship of balance sheet risk and the capital requirements in a credit union.** A high-level summary of the calculation is included in Table 3.

Table 3: Basel III capital calculation for five Irish Credit Unions

Eur'000s	2019			2020		
Balance Sheet Data as of 30th September	**As is (A)**	**Risk-Adjusted assets (A*B)**	**Risk Weightings (B)**	**As is (A)**	**Risk-Adjusted assets (A*B)**	**Risk Weightings (B)**
Cash	552	-	0%	283	-	0%
Deposits and investments < 3 months	36,647	7,759	21%	33,615	6,723	20%
Deposits and investments > 3 months	72,888	43,916	60%	78,769	37,522	48%
Deposits held with Central Bank	1,221	-	0%	7,807	-	0%
Net Loans to members secured	1,894	663	35%	2,029	710	35%
Net Loans to Members other	46,106	34,579	75%	44,079	33,059	75%
Net Loans to Members other non-performing	584	877	150%	1,302	1,954	150%
Tangible Fixed Assets	2,919	2,919	100%	2,835	2,835	100%
Other assets	3,445	3,445	100%	2,244	2,244	100%
Total Assets	166,257	94,158	57%	172,963	85,047	49%
Less Collateral (Pledged Shares)	12,649	9,487	75%	10,148	7,611	75%
Net Assets (C)	166,257	84,671		172,963	77,436	
Total Capital (D)	24,029	24,029		24,403	24,460	
Capital Ratio (D/C)	14.45%	28.38%		14.11%	31.59%	
Impact on assets for capital calculation of weighting		-43%			-51%	
Increase in capital available		96%			124%	
Capital Ratio		14.5%			14.1%	
Basel III Risk-Weighted Ratio		28.4%			31.6%	

Applying the Basel III calculation resulted in a 51% (2019: 43%) reduction to the value of assets on which the capital ratio is calculated. **The resultant capital increased to 31.6% (2019: 28.4%). This is significantly more than the current minimum requirements of 11.5% for Irish banks or any international credit union requirements.**

We observe that the average balance sheet of the credit unions has become less risky in the 12 months to September 2020, principally due to the improvement in bank and government counterparty credit ratings. This further illustrates the limitations and arbitrary nature of the current 10% capital ratio.

We have included a more detailed analysis of the Basel III results for the credit unions in Appendix 3.

Basel III - not recommended for credit unions

WOCCU does not generally recommend the complex Basel III approach for credit unions. In its letter urging proportionality, (WOCCU, 2019) sets out a series of factors for applying a less complex risk weighted approach. Irish credit unions would meet the majority of the criteria outlined. WOCCU recommends that Basel III may be appropriate where credit unions hold complex positions in assets and liabilities similar to international banks that adopt the Basel III rules.

In general, international evidence appears to be mounting to suggest that the Basel III regime is not an effective model for cooperative institutions. The (Financial Stability Institute, 2019) report is instructive in this regard.

While Basel III illustrates that Irish credit unions are excessively capitalised, the working group is not advocating its implementation for the reasons outlined above.

4 Proposed asset linked capital requirements

The minimum capital requirement for Irish credit unions is currently 10% of total assets, plus the requirement for an operational risk reserve, with capital strength being seen as a critical indicator of credit union strength and viability.

The current approach to regulatory capital is useful in its simplicity, but it fails to recognise the underlying risk of different asset classes into which members funds are "invested".

The application of the 10% capital ratio on total assets is driving the current implementation of increasingly lower savings caps and the limitations on members transacting with their credit union. These actions are unsustainable for Irish credit unions and their members.

Currently, the growth in savings is seen as the risk, given the simple 10% capital ratio. Instead the risk should be identified as where the savings are invested.

Given the generally homogeneous and less complex Irish credit union business model, the working group proposes a graded capital requirement linked to the underlying assets. Capital requirements that consider the underlying assets are explored over the following pages.

4.1 Introducing asset linked ratios

The working group proposes calculating regulatory capital requirements based on the underlying asset class as an alternative to calculating a capital ratio on total assets. The 'Asset Linked Ratio' (ALR) approach proposes the calculation of capital requirements associated with the inherent risk of each asset class. The application of a capital ratio on each asset class simplifies the calculation. In contrast to the Basel III methodology, the ALR model removes complexity and eliminates the need to risk weight each individual asset.

The new calculation encourages asset allocation decisions towards lower risk classes that do not require the creation of large capital requirements. **Should a credit union wish to invest in higher-risk asset classes (potentially higher returns), then higher capital requirements apply**, allowing credit unions the opportunity to differentiate their risk appetite and to diversify their balance sheets.

There can be significant variability in the choice of asset linked ratio for each asset class. The working group were guided by the risk weightings applied in Basel III to select an appropriate ALR. The ratios used in the example for illustrative purposes are:

- 8% applied to unsecured personal & SME lending and other assets classes.
- 5% applied to other investments and secured loans.
- 2% on high-quality liquid assets (HQLA) including cash or liquid bank deposits < 90 days, deposits with the Central Bank or sovereign debt.

The working group produced an illustrative example using the Irish credit union sector's balance sheet at 30 September 2020 in Table 4. **The model results in a minimum capital requirement of just under €1 billion.**

Table 4: Sample calculation for Asset linked ratios

2020 Year-End CU Balance Sheet	€ Millions	Existing requirement	Asset linked ratio	ALR requirement €M
Loan Assets				
Short Term Loans to members	5,404	10%	8%	432
Less Provisions	-517	10%	8%	-41
Less Savings attached to loans	-540	Excluded	8%	-43
Net House loans (2.2% assumed)	112	10%	5%	6
Net SME Lending (1.8% assumed)	92	10%	8%	7
Total Loan Book	5,090			0
Cash, CB Deposits & HQLA	3,399	10%	2%	68
Investing Activities				0
Sovereign Debt (8% assumed)	766	10%	2%	15
Investment assets	8,805	10%	5%	440
Total Investments	9,571			0
Other Assets	1,360	10%	8%	109
Total Assets	**19,420**			
Total Capital	3,010			
Resultant Capital Requirement		**1,942**		993
Resultant Capital buffer		1,068		2,017

The application of the ALR requirement is progressive as the credit union takes on more risk. The model was adjusted in Table 5, where the credit union sector increases the percentage lent to 60% and assumed maximising loan assets diversification using the extended house and SME loan limits. **The minimum capital requirements for a 60% lent credit union increases by 14% / €136 million to €1.12 billion.** Despite the fundamental shift in balance sheet risk to 60% lent, the minimum capital requirements remain static under the current 10% capital ratio.

Table 5: Asset linked for 60% Lent Credit Union

2020 Balance Sheet 60% Lent	€ Millions	Existing Req't	Asset linked Ratio	ALR requirement €M
Loan Assets				
Short Term Loans to members	11,089	10%	8%	887
Less Provisions	-1,185	10%	8%	-95
Less Savings attached to loans	-1,109	Excluded	8%	-89
Net House loans (10% assumed)	1,165	10%	5%	58
Net SME Lending (5% assumed)	583	10%	8%	47

Total Loan Book	11,652	10%		0
Cash, CB Deposits & HQLA	3,399	10%	2%	68
Investing Activities				0
Sovereign Debt (8% assumed)	241	10%	2%	5
Investment assets	2,768	10%	5%	138
Total Investments	3,009			0
Other Assets	1,360	10%	8%	109
Total Assets	**19,420**			
Total Capital	3,010			
Resultant Capital Requirement		**1,942**		1,129
Capital Buffer		1,068		1,881

Asset linked ratios (ALR)- increasing sustainability

We have already identified that the 10% capital ratio is unsustainable in the current low-interest rate environment. An ALR capital requirement allows credit unions to build capital more sustainably. Table 6 compares the capital requirements under the current 10% ratio and an ALR calculation, based on the asset growth experienced by credit unions in 2020. The capital requirement under the current regime is over 2.5 times the amount required under the illustrated ALR model (€117M vs €45M).

Table 6: Comparing capital requirements – 10% capital ratio vs asset linked ratio

		%	€ M
Total Assets			19,420
Growth in credit union assets 2020		6.0%	1,165
A. 10% capital ratio		**Capital Ratio**	**Capital requirement € M**
Capital requirement [A]		10.0%	117
B. Asset linked ratio	**Asset Allocation**	**ALR %**	**Capital requirement € M**
Personal Lending	27.0%	8.0%	25
Lent for House Loans	7.5%	5.0%	4
Invested in Liquid funds	30.0%	2.0%	7
Invested Sovereign bond	35.5%	2.0%	8
ALR Capital Requirement [B]			45

Another way of looking at sustainability is to ask how long will it take a credit union to accumulate the capital required to support asset growth. This is demonstrated in Table 7.

Table 7: Timeframe to generate sufficient net income to support capital requirements

Net return from asset growth	Asset allocation	Assumed % margin	Net income
Personal lending	27.0%	4.0%	12.6
Lent for house loans	7.5%	1.0%	0.9
Invested in liquid funds	30.0%	-0.9%	-3.1
Invested sovereign bond	35.5%	-0.1%	-0.4
Income generated by new assets			9.9
Years to accumulate capital requirements	**Capital requirement €M**		**Years**
Current capital @ 10%	117		11.7
Asset linked ratio	45		4.5

A credit union can meet its minimum capital requirements in 4.5 years under the asset linked ratio above compared to 11.7 years under the existing capital ratio approach, in the current low-interest environment. The application of the asset linked ratio allows the credit union to more sustainably build capital.

If the credit union achieves a 60% loan to asset ratio, the time to accumulate capital will reduce to just over two years.

4.2 Alternative adjusted asset model – Qualifying asset ratio

An alternative capital model was considered where the capital requirement was applied to specific assets, a 'simplified approach' we termed the Qualifying Asset Ratio (QAR).

Credit union balance sheets are comprised of a mix of assets, including high-quality assets that carry no risk or immaterial risk. All assets are included in the denominator of the current capital ratio. The QAR approach excludes these high-quality assets (as non-qualifying assets) from the calculation. The classification of the assets is shown in Table 8.

Table 8: Classification of Qualifying Assets

Asset Class	Qualifying or non-qualifying
Loans (netted of attached shares and provisions)	Qualifying
Investments (non-sovereign)	Qualifying
Fixed assets	Qualifying
Other assets	Qualifying
Sovereign debt	Non-qualifying
Deposits with the Central Bank	Non-qualifying
HQLA (< 90 days)	Non-qualifying
Cash	Non-qualifying

The determination of the qualifying assets ratio is a critical variable in this model. The QAR ratio was again guided by the Basel III ratio of 8% (we note that under Basel III it applies to risk-weighted assets and its use in this model on non-risk weighted assets creates a conservative result). The resultant calculation is outlined in Table 9.

Table 9: Capital requirements based on QAR

2020 Year-End CU Balance Sheet	€ Millions	Qualifying Yes/No	Qualifying Assets
Loan Assets			
Short Term Loans to members	5,404	Yes	5,404
Less Provisions	-517	Yes	-517
Less Savings attached to loans	-540	Yes (currently excluded)	-540
Net House loans (2.2% assumed)	112	Yes	112
Net SME Lending (1.8% assumed)	92	Yes	92
Total Loan Book	5,090	Yes (adjusted)	4,550
Cash, CB Deposits & HQLA	3,399	No	0
Investing Activities			
Sovereign Debt (8% assumed)	766	No	0
Investment assets	8,805	Yes	8,805
Total Investments	9,571	Yes (adjusted)	8,805
Other Assets	1,360	Yes	1,360
Total Assets	19,420		14,715
Qualifying Asset ratio			8%
Resultant Capital Requirement			**1,177**
Total Capital			3,010
Capital Buffer			1,833

The result of the 8% QAR is broadly in line with the asset linked ratio model. This model may be simpler to apply as it uses one capital ratio on qualifying assets.

We modelled alternative qualifying ratios including applying the WOCCU model rules standard of 6% and the current capital ratio of 10%. Table 10 outlines the resulting capital requirements and ratios.

Table 10: Capital requirements based on alternative QAR ratio

	Capital requirement	Capital buffers	Resultant Capital % of Total Assets
QAR @ 6%	883	2,127	**4.5%**
QAR @ 8%	1,177	1,833	**6.1%**
QAR @ 10%	1,471	1,539	**7.6%**

Despite being more straightforward, **the QAR model is not being recommended by the working group because it does not sufficiently differentiate the risk inherent within each asset class** whereas the ALR ratio (or indeed Basel III model) encourages credit unions to strategically manage their balance sheet, reduce risk and ultimately protect member funds.

4.3 The need for change

A change to the current model of calculating capital ratios is necessary. The ALR capital model discussed incentivises lower risk taking in credit unions. As we have already argued, the approach would be of significant assistance to the Irish credit union sector which is currently having to reduce assets, despite being over-capitalised by almost all international comparisons. A revised model would also underpin the financial stability of credit unions and protect a critical sector of the Irish economy.

(ICURN, 2019) acknowledges that Irish credit unions are well capitalised and do not have complex business models. The ICURN report highlights the need for stress testing capital requirements given the risks it identifies, including negative interest rates and declining loan to asset ratios implying a need for refinement in how capital is calculated in Irish credit unions.

ICURNs Guiding Principles on capital adequacy recognise the unique/different nature of credit unions. They propose that national supervisors establish frameworks that:

> ***"balance cooperative principles and objectives with the need to protect depositors"***

The Central Bank of Ireland is the competent authority for regulating and supervising credit unions in Ireland, as is provided in the 1997 Act. Under the Act, the Central Bank is mandated to regulate and supervise credit unions to ensure:

a) the protection by each credit union of the funds of its members; and
b) the maintenance of the financial stability and well-being of credit unions generally.

The Central Bank has the authority under the 1997 Act to prescribe credit unions capital requirements. Part III F69 - 45(c) provides the necessary flexibility to change the sector's capital requirements. This has been evidenced by recent changes such as requiring credit unions to hold an operational risk reserve and by applying higher capital requirements on house loans in certain circumstances.

Alternatives to raising external capital were not explored in this paper.

4.4 Risk assessment

A high-level risk assessment of the implications of asset linked ratios was undertaken. It identified a clear advantage of the implementation of an asset linked ratio model, which is that it would be most likely to strengthen a credit union's risk management framework and improve its risk profile. **This is because the asset linked ratio incentivises the prioritisation of investing in safer assets over investing in riskier assets, by requiring less capital to be set aside where a decision is made to invest in safer assets as against riskier assets.**

At the same time, an asset linked ratio calculation does not solve the overall business model challenge. However, it does provide time for the business model to be further developed. Examples of current initiatives include digitisation, current account services, insurance services, house loans, green energy loans, Agri and SME lending, approved housing body loans, SBCI initiatives, and more besides.

Credit unions have evolved their governance frameworks considerably (Credit Union Advisory Committee, 2016). The working group believes that robust systems are in existence in credit unions to manage the changing risk profile of assets.

Table 11: Summary of risk advantages and disadvantages

Advantages	Disadvantages
✓ It encourages credit unions to further focus on good asset management. This will result in more consideration being given to the risk levels of different asset classes and is likely to encourage higher quality assets to be held.	× Risk of insufficient capital in the event of a shock to the credit union system.
✓ Encourages credit unions to consider the risk/return of lending/investment decisions linked with the credit union's funding strategy.	× May add some complexity and may increase the need for additional regulatory requirements and controls in credit unions.
✓ Aligns Irish credit union capital requirements with international equivalents.	
✓ Results in credit unions having capital requirements that reflect the risk inherent in their balance sheet. Therefore a credit union with a lower risk appetite will have a lower capital requirement than an equivalent credit union with a higher risk appetite.	
✓ The credit union will be able to quantify the level of capital it needs to set aside based on its future projections, as well as being able to stress test this for different potential scenarios.	
✓ The asset linked model is simpler to calculate than the Basel III risk weighted model.	

5 Conclusion

Irish credit unions are recognised for prioritising the financial needs of their members with the services provided to members branded upon trust in the member and trust in the credit union.[6]

The central theme of this paper is that the introduction of asset linked ratios to calculate capital requirements will result in a more rounded, risk conscious and 'fit for purpose' credit union operating model. Adopting asset-linked ratios should enhance the viability of credit unions. In so doing should afford greater protection for members' savings through the increased focus on balance sheet risk. It would also see members being able to continue to save and borrow within their local community.

In recent times credit unions have experienced a period of exceptional asset growth. This has led to sustained pressure on credit unions to generate additional capital. For some credit unions this pressure is now becoming unsustainable. Credit unions have taken a variety of actions to protect capital positions including savings caps, monthly lodgement limits, returning savings to members and turning away new members wishing only to save. There is now an expectation that credit unions, sooner or later, may be forced to levy charges on savings accounts and to raise lending rates.

While these actions might be necessary to protect capital positions, many would argue that they are against the objects of a credit union (enshrined in legislation), most notably the promotion of thrift (savings) among its members.

In advocating for capital reform, the CEO forum argues for credit unions to be allowed to provide their services on a level playing field. Current capital requirements are effectively making the sector commercially and practically unsustainable.

There potentially remains a debate about business model development. The CEO Forum contends that the current capital requirements are stimulating behaviours in inappropriate directions and mitigating against business model development. Credit unions need to invest in evolving the business model. There is also the matter that credit unions cannot compete when capital levels are materially higher than the competition, both nationally and internationally. The current capital requirements are stifling investment and opportunity.

The differential in investment classes allowed by current credit union regulations does not encourage credit unions to take a risk sensitive approach to their investment portfolio. Credit unions that take less risk with members savings should be encouraged which would be in line with inherent regulatory expectation. The current capital calculation methodology clearly does not do this.

Assuming that assets continue to grow, the proposed change to capital requirements provides credit unions with short to medium term 'relief', sufficient to hopefully allow the macro trends to adjust and the credit union business model to develop. The proposed asset linked ratio provides the capacity, in terms of time, to allow credit unions to more sustainably generate capital, even in the current low interest rate environment.

[6] This contrasts with the situation in Irish banks where trust is considered to be at an all-time low (Irish Times, Monday 15th April 2019).

The context for the introduction of the 10% capital ratio in 2009 was highly conservative in a situation of pronounced economic uncertainty. Much has since changed from an economic, regulatory and governance perspective, which further supports a fresh approach to defining capital requirements. While the current requirements are simple to calculate and understand, the alternatives being put forward by the CEO Forum are equally so.

No model provides an exact measure of the risk in a credit union balance sheet. However, we do believe that the alternative we propose is more effective at capturing the risk inherent in a credit union.

6 Appendices

Appendix 1: Credit Union Regulatory Capital – Legislative history

From 1966 to 2009, credit unions were not required to maintain a capital ratio.
The 1966 Act required a credit union to allocate a minimum of 10% of its surplus, before depreciation and dividends, to its 'reserves' (referred to as capital throughout this paper). It could decide to reduce this allocation if its reserves were 15% or over.

This was transposed into the 1997 Act: "*A credit union shall establish a reserve by allocating in respect of each financial year not less than ten per cent of the surplus funds of the credit union for that purpose*". Section 45 of the 1997 Act transposed most of S.23 of the 1966 act and referred to reserves as 'statutory' reserves.

The first time a capital ratio requirement appears is during the review of lending limits in early 2007, initiated by the Minister for Finance[7] . This was called *'the Report of the Review Group on longer-term lending limits as provided for by Section 35 of the Credit Union Act 1997'*
A credit union seeking an increase in lending limits should *'confirm that statutory reserves over total assets are 6% or greater and that total reserves (defined as statutory reserves plus realised reserves, less proposed dividend and interest rebate) over total assets are 8% or greater. (RCU 2007)*

In effect, the Bank, at this time, required a capital ratio (statutory reserves) of 6% with an additional buffer of 2% for credit unions increasing their credit risk profile.
In 2009 (SI 344 2009) imposed a statutory reserve and regulatory reserve requirement of 8% and 10%. In 2012, through the amending Act, the regulator imposed an additional operational risk requirement.

In 2016, (SI 1 2016) transposed SI 344**.** In the transposition, reference to the additional regulatory reserve requirement was removed. The requirement is that regulatory reserves must be 10% of the assets of the credit union. Note the word 'assets' which without definition is taken to mean 'total assets' = gross assets less provisions.
In addition, recent 2019 regulations introduced a dual regulatory ratio, 10% and 12.5%.

Figure 2: Summary of Irish credit union regulatory capital

Year	Capital Requirement
Up to 2009	Allocate 10% of profits to reserves
2007	6% statutory reserves + buffer of 2% (credit unions operating at higher longer term lending limits
2009 to 2012	8% + 2% capital to total assets
2012	10% of total assets and an operational risk reserve
2019	Dual ratio 10% and 12.5%

[7] https://www.irishtimes.com/news/credit-union-lending-limits-increased-1.806255

Appendix 2: Basel III requirements

Basel III capital requirements

	Institutional Capital		Macroprudential	
	Required	Conservation Buffer	Countercyclical Capital Buffer	Total Risk-Weighted)
Basel III	8% *	2.5%	0-2.5%	10.5% - 13%

The 8% institutional capital comprises 4.5% Common equity tier, 1.5% additional tier 1 and 2% tier 2. The Countercyclical buffer is currently 1% in Ireland.

Pillar 2 (institution-specific) capital requirements may also be imposed reflective of the risks of each institution. Several additional capital buffers may also be imposed. These include the capital conservation buffer[8], the countercyclical capital buffer[9], the systemically important institutions buffer and the systemic risk buffer.

Basel risk weightings

Credit assessment of Banks	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk weight under Option 2	20%	50%	50%	100%	150%	50%
Risk weight for short-term claims under Option 2	20%	20%	20%	50%	150%	20%

Claims on sovereigns and their central banks will be risk weighted as follows:

Credit Assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk Weight	0%	20%	50%	100%	150%	100%

Claims that qualify under the criteria listed in CRE20.21 may be considered as retail claims for regulatory capital purposes and included in a regulatory retail portfolio. Exposures included in such a portfolio may be risk-weighted at 75%, except as provided in CRE20.26 for past due loans.

The unsecured portion of any loan (other than a qualifying residential mortgage loan) that is past due for more than 90 days, net of specific provisions (including partial write-offs), will be risk-weighted as follows: [13]

(1) 150% risk weight when specific provisions are less than 20% of the outstanding amount of the loan;

(2) 100% risk weight when specific provisions are no less than 20% of the outstanding amount of the loan;

(3) 100% risk weight when specific provisions are no less than 50% of the outstanding amount of the loan, but with supervisory discretion to reduce the risk weight to 50%.

Lending fully secured by mortgages on residential property that is or will be occupied by the borrower, or that is rented, will be risk weighted at 35%. In applying the 35% weight, the supervisory authorities should satisfy

The standard risk weight for all other assets will be 100%.[14] Investments in equity or regulatory capital instruments issued by banks or securities firms will be risk weighted at 100%, unless deducted from the capital base according

[8] Its objective is to conserve a bank's capital. When a bank breaches the buffer, automatic safeguards apply to limit the amount of dividend and bonus payments it can make.

[9] By increasing regulatory capital requirements in line with the cyclical risk environment, the CCyB looks to ensure additional capital is in place to absorb losses when risks materialise.

Appendix 3: Basel III application for a sample group of large Irish credit unions

The working group prepared the minimum capital requirement for a sample of five Irish credit unions under the Basel III requirements. The average balance sheet was derived on which a calculation was performed comparing the current leverage ratio and the resultant Basel III capital ratio.

Table 12: Basel III Capital Requirement's calculation

Eur'000s		2019			2020	
Balance Sheet Data as at 30th September	**As is (A)**	**Risk Adjusted assets (A*B)**	**Risk Weightings (B)**	**As is (A)**	**Risk Adjusted assets (A*B)**	**Risk Weightings (B)**
Cash	552	-	0%	283	-	0%
Deposits and investments < 3 months	36,647	7,759	21%	33,615	6,723	20%
Deposits and investments > 3 months	72,888	43,916	60%	78,769	37,522	48%
Deposits held with Central Bank	1,221	-	0%	7,807	-	0%
Net Loans to members secured	1,894	663	35%	2,029	710	35%
Net Loans to Members other	46,106	34,579	75%	44,079	33,059	75%
Net Loans to Members other non-performing	584	877	150%	1,302	1,954	150%
Tangible Fixed Assets	2,919	2,919	100%	2,835	2,835	100%
Other assets	3,445	3,445	100%	2,244	2,244	100%
Total Assets	166,257	94,158	57%	172,963	85,047	49%
Less Collateral (Pledged Shares)	12,649	9,487	75%	10,148	7,611	75%
Net Assets	166,257	84,671		172,963	77,436	
Total Capital	24,029	24,029		24,403	24,460	
Impact on assets for Basel III calculation		**-43%**			**-51%**	
Increase on capital available		**96%**			**124%**	
Leverage Ratio		**14.5%**			**14.1%**	
Basel III Capital ratio		**28.4%**			**31.6%**	

Basel III risk weights vary from 0% for cash and balances with the Central Bank to 150% for net exposures on retail unsecured loans that are past due. The reduction in risk weight for the credit unions was consistent across the group tested, varying from 49% to 53% in 2020.

Credit unions could potentially reduce the risk weighting for deposits and investments > 3 months by investing in counterparties with higher ratings (Irish government bonds 20%, banks with ratings greater than A+ 20%). Furthermore, applying Basel III to investments across more maturity categories, types of investment classes (deposits, bonds) or the credit rating of the counterparties would encourage investment in safer assets and result in less risk in the balance sheet.

The goal of capital being to protect members member funds – de-risking the balance sheet and recognising the inherent risk in the assets seems like a logical and positive conclusion of Basel III risk-based capital requirements.

Basel III scenarios – model credit union with assets of €100m

Based on the calculations above, further calculations were performed for a model credit union with assets of €100m and capital of €10m (ignoring operational risk) to illustrate the impact of

- increasing the loan book from 30% to 70% of total assets (See Appendix 4)
- increasing member shares at between 5% and 20% per annum assuming ROA 0%, loans constant at €30m and increases in shares transferred to liquid funds (See Appendix 5)

For a model credit union with €100m of assets and capital of €10m, the impact of increasing the loan to assets ratio from 30% to 70% on risk-adjusted assets is as follows:

Loan to assets ratio	Risk adjusted assets	Risk adjusted ratio (RAR)	Leverage ratio
30%	46.55	21.48%	10.00%
40%	49.26	20.30%	10.00%
50%	51.98	19.24%	10.00%
60%	54.70	18.28%	10.00%
70%	57.42	17.41%	10.00%
Move	**10.88**	**-4.07%**	**0.00%**

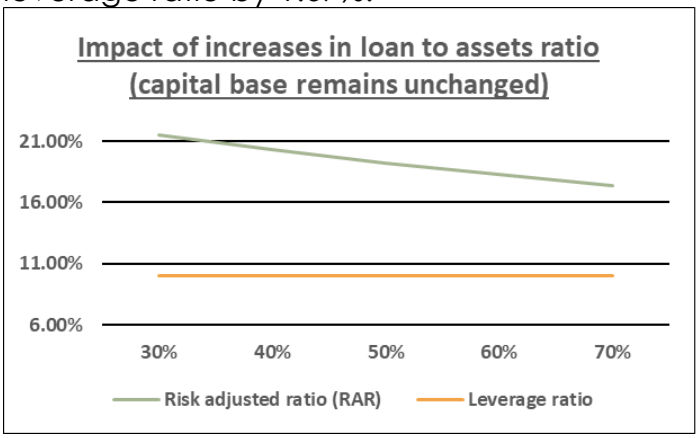
For a model credit union with €100m of assets and capital of €10m, the impact of increasing the inflow of deposits by between 5% and 20% per annum is as follows:

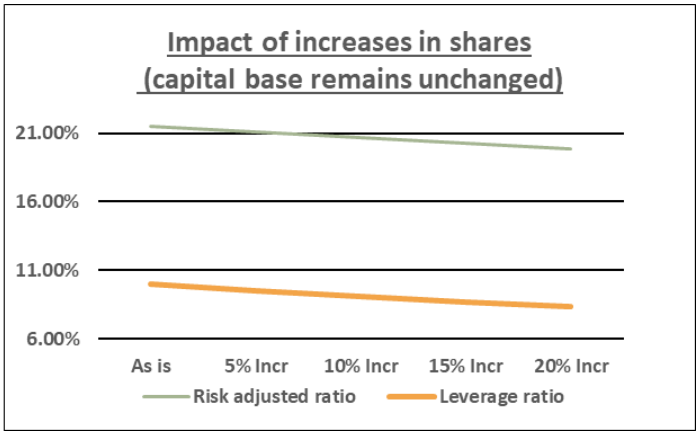
Shares Increase	Risk adjusted assets	Risk adjusted ratio (RAR)	Leverage ratio
As is	46.55	21.48%	10.00%
5% Increase	47.50	21.05%	9.52%
10% Increase	48.46	20.64%	9.09%
15% Increase	49.41	20.24%	8.70%
20% Increase	50.37	19.85%	8.33%
Move	**3.82**	**-1.63%**	**-1.67%**

These scenarios are also illustrated in the graphs below. They indicate that the risk adjusted asset ratio (RAR) takes account of the risk of the underlying assets. Under both scenarios, the risk-adjusted capital ratio declines due to increased risk in the asset base

- an increase in retail loans of €40m and a corresponding reduction in deposits and investments reduces the RAR by 4.07%
- an increase in liquid assets of €20m reduces the RAR by 1.63%.

By way of contrast the current capital requirement for Irish credit unions ignores the risk of the underlying assets, even though it has increased, and only takes account of the absolute amount of asset growth. For example, increasing retail lending from 30% to 70% has no impact on the 10% leverage ratio even though retail loans are riskier than assets held in bank deposits, government bonds and bank bonds. However, increasing share inflows by €20m and depositing funds in liquid assets or other safe investments decreases the Basel III leverage ratio by 1.67%.





Impact on model credit union of applying a combination of the leverage ratio and risk-adjusted asset capital ratio

For illustrative purposes applying a risk-adjusted asset ratio of 13% with a backstop leverage ratio of 6%, would have the following impact:

For a model credit union with assets €100m, €10m capital and loan to asset ratio increasing from 30% to 70%:

Loan to assets ratio %	Leverage ratio %	Leverage Capital (€'Ms) required - 5%	Risk adjusted asset ratio	Risk adjusted Capital (€'Ms) required - 13%	Excess Capital
30%	10.0%	5.00	21.5%	6.05	3.95
40%	10.0%	5.00	20.3%	6.40	3.60
50%	10.0%	5.00	19.2%	6.76	3.24
60%	10.0%	5.00	18.3%	7.11	2.89
70%	10.0%	5.00	17.4%	7.46	2.54

In the example above, a model credit union with €100m in assets, €10m capital, and a loan to assets ratio of 30% has €3.95m in excess capital above the minimum requirement. This excess decreases as the loan to assets ratio increases to reflect the relative riskiness of unsecured lending when compared to cash and investments.

The following illustrates how the loan to asset ratio @ 30% figures are arrived at

A=Capital/Total Assets (€10m/€100m = 10%)
B=Total Assets * 6% (the minimum leverage capital ratio)
C= Capital/Risk Adjusted Assets (€10m/€46.545m)
D= Risk Adjusted Assets * 13% (€46.545m x 13%)
E= Total Assets * 10% (€100mx10%)
F=Current capital required less maximum of B and D above (€10m-greater of 6.05m & 6.00m)

Appendix 4 - The impact on capital of the loan book increasing from 30% to 70% in a Credit Union with assets of €100m

Balance Sheet Data as at 30th September 2020 Eur'000s	30% loans			40% loans			50% loans			60% loans			70% loans		
Description	**As is (A)**	**Risk Adjusted assets (A*B)**	**Risk Weightings (B)**	**As is**	**RAA**	**Avg Weighting**	**As is**	**RAA**	**Avg Weighting**	**As is**	**RAA**	**Avg Weighting**	**As is**	**RAA**	**Avg Weighting**
Cash	1,000	-	0%	1,000	-	0%	1,000	-	0%	1,000	-	0%	1,000	-	0%
Deposits and investments < 3 months	18,000	3,600	20%	18,000	3,600	20%	18,000	3,600	20%	18,000	3,600	20%	18,000	3,600	20%
Deposits and investments > 3 months	42,500	20,245	48%	32,500	15,482	48%	22,500	10,718	48%	12,500	5,954	48%	2,500	1,191	48%
Deposits held with Central Bank	4,500	-	0%	4,500	-	0%	4,500	-	0%	4,500	-	0%	4,500	-	0%
Net Loans to members secured	2,000	700	35%	2,667	933	35%	3,334	1,167	35%	4,001	1,400	35%	4,668	1,634	35%
Net Loans to Members other	27,000	20,250	75%	36,000	27,000	75%	45,000	33,750	75%	54,000	40,500	75%	63,000	47,250	75%
Net Loans to Members other non-performing	1,000	1,500	150%	1,333	2,000	150%	1,666	2,499	150%	1,999	2,999	150%	2,332	3,498	150%
Budget Accounts	1,000	1,000	100%	1,000	1,000	100%	1,000	1,000	100%	1,000	1,000	100%	1,000	1,000	100%
Tangible Fixed Assets	2,000	2,000	100%	2,000	2,000	100%	2,000	2,000	100%	2,000	2,000	100%	2,000	2,000	100%
Prepayments & Accrued Income	500	500	100%	500	500	100%	500	500	100%	500	500	100%	500	500	100%
Other assets	500	500	100%	500	500	100%	500	500	100%	500	500	100%	500	500	100%
Total Assets	100,000	50,295	**50% (E)**	100,000	53,015	**53% (E)**	100,000	55,734	**56% (E)**	100,000	58,453	**58% (E)**	100,000	61,173	**61% (E)**
Less Collateral (Pledged Shares)	5,000	3,750	75%	5,000	3,750	75%	5,000	3,750	75%	5,000	3,750	75%	5,000	3,750	75%
Net Assets (C)	100,000	46,545		100,000	49,265		100,000	51,984		100,000	54,703		100,000	57,423	
Total Capital (D)	10,000	10,000		10,000	10,000		10,000	10,000		10,000	10,000		10,000	10,000	
Reserve Ratio (D/C)	10.00%	21.48%		10.00%	20.30%		10.00%	19.24%		10.00%	18.28%		10.00%	17.41%	
Reduction in assets for risk weighting **(1-(E))**		**-50%**			**-47%**			**-44%**			**-42%**			**-39%**	
Increase in capital available		**115%**			**103%**			**92%**			**83%**			**74%**	
Leverage Ratio		10.00%			10.00%			10.00%			10.00%			10.00%	
Leverage Ratio Required		**6%**			**6%**			**6%**			**6%**			**6%**	
Excess capital over requirement		4,000			4,000			4,000			4,000			4,000	
Capital Required		6,000			6,000			6,000			6,000			6,000	
Risk Assets ratio		21.48%			20.30%			19.24%			18.28%			17.41%	
Risk Assets required		**13.00%**			**13.00%**			**13.00%**			**13.00%**			**13.00%**	
Excess capital over requirement		3,949			3,596			3,242			2,889			2,535	
Capital Required		6,051			6,404			6,758			7,111			7,465	

Appendix 5 – The impact on capital by increasing member shares from 5% to 20% per annum in a Credit Union with assets of €100m

Balance Sheet Data as at 30th September 2020 Eur'000s				+5% Shares Growth			+10% Shares Growth			+15% Shares Growth			+20% Shares Growth		
Description	**As is (A)**	**Risk Adjusted assets (A*B)**	**Risk Weightings (B)**	**As is**	**RAA**	**Avg Weighting**	**As is**	**RAA**	**Avg Weighting**	**As is**	**RAA**	**Avg Weighting**	**As is**	**RAA**	**Avg Weighting**
Cash	1,000	-	0%	1,000	-	0%	1,000	-	0%	1,000	-	0%	1,000	-	0%
Deposits and investments < 3 months	18,000	3,600	20%	22,775	4,555	20%	27,550	5,510	20%	32,325	6,465	20%	37,100	7,420	20%
Deposits and investments > 3 months	42,500	20,245	48%	42,500	20,245	48%	42,500	20,245	48%	42,500	20,245	48%	42,500	20,245	48%
Deposits held with Central Bank	4,500	-	0%	4,725	-	0%	4,950	-	0%	5,175	-	0%	5,400	-	0%
Net Loans to members secured	2,000	700	35%	2,000	700	35%	2,000	700	35%	2,000	700	35%	2,000	700	35%
Net Loans to Members other	27,000	20,250	75%	27,000	20,250	75%	27,000	20,250	75%	27,000	20,250	75%	27,000	20,250	75%
Net Loans to Members other non-performing	1,000	1,500	150%	1,000	1,500	150%	1,000	1,500	150%	1,000	1,500	150%	1,000	1,500	150%
Budget Accounts	1,000	1,000	100%	1,000	1,000	100%	1,000	1,000	100%	1,000	1,000	100%	1,000	1,000	100%
Tangible Fixed Assets	2,000	2,000	100%	2,000	2,000	100%	2,000	2,000	100%	2,000	2,000	100%	2,000	2,000	100%
Prepayments & Accrued Income	500	500	100%	500	500	100%	500	500	100%	500	500	100%	500	500	100%
Other assets	500	500	100%	500	500	100%	500	500	100%	500	500	100%	500	500	100%
Total Assets	100,000	50,295	**50% (E)**	105,000	51,250	**49% (E)**	110,000	52,205	**47% (E)**	115,000	53,160	**46% (E)**	120,000	54,115	**45% (E)**
Less Collateral (Pledged Shares)	5,000	3,750	75%	5,000	3,750	75%	5,000	3,750	75%	5,000	3,750	75%	5,000	3,750	75%
Net Assets (C)	100,000	46,545		105,000	47,500		110,000	48,455		115,000	49,410		120,000	50,365	
Total Capital (D)	10,000	10,000		10,000	10,000		10,000	10,000		10,000	10,000		10,000	10,000	
Reserve Ratio (D/C)	10.00%	21.48%		9.52%	21.05%		9.09%	20.64%		8.70%	20.24%		8.33%	19.85%	
Reduction in assets for risk weighting (1-(E))		**-50%**			**-51%**			**-53%**			**-54%**			**-55%**	
Increase in capital available		**115%**			**121%**			**127%**			**133%**			**138%**	
Leverage Ratio		10.00%			9.52%			9.09%			8.70%			8.33%	
Leverage Ratio Required		**6%**			**6%**			**6%**			**6%**			**6%**	
Excess capital over requirement		4,000			3,700			3,400			3,100			2,800	
Capital Required		6,000			6,300			6,600			6,900			7,200	
Risk Assets ratio		21.48%			21.05%			20.64%			20.24%			19.85%	
Risk Assets required		**13.00%**			**13.00%**			**13.00%**			**13.00%**			**13.00%**	
Excess capital over requirement		3,949			3,825			3,701			3,577			3,453	
Capital Required		6,051			6,175			6,299			6,423			6,547	

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The end