MOORE STEPHENS

January 2019

Insights

Ireland

PRECISE. PROVEN. PERFORMANCE.

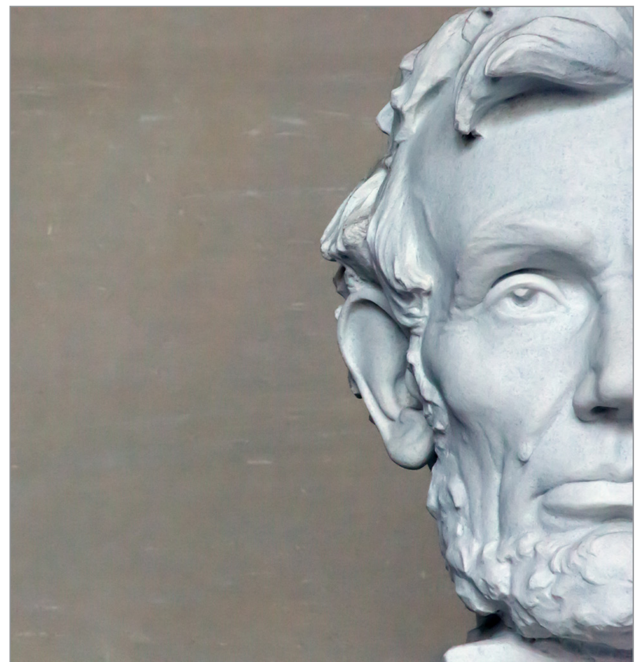
Insights from the US

ALM, rate boards and a cab driver

Slip opinions

In 1963, President John F. Kennedy famously visited Ireland and set the country alight with his charm, demeanour and wit. However, that same year, a lesser well known connection was made between Ireland and the United States, one which went on to have a significant impact on the social and cultural development of Ireland for decades. That same year, in 1963, a US Supreme Court judge, Justice William Brennan travelled to Ireland to source his ancestry in Co. Roscommon. Justice Brennan served on the US Supreme Court from 1956 (nominated by President Eisenhower) right up to 1990, and was seen as one of the most influential judges of the 20th century, and, a leading light of liberal thinking. Before returning to the US in 1963, Justice Brennan met with a recently appointed Irish Supreme court judge, Justice Brian Walsh. They had dinner and immediately hit it off. There began a friendship that endured for over 30 years. The 1960s was a time of judicial activism in Ireland and the US, and both the Irish and US Supreme Courts grappled with the most contentious civil rights issues of that time. Throughout this period, Justice Brennan in the US regularly posted Justice Walsh in Ireland advance draft copies of upcoming US Supreme court judgements, referred to as "slip opinions", to inform and guide Justice Walsh and in turn, the Irish Supreme Court. Justice Walsh went on to become a leading Irish liberal judge, and served up to 1990 when he retired. In this manner, US "slip opinions" quietly yet steadfastly travelled across the Atlantic, and enabled the Irish Supreme Court to learn and gain inspiration from their US counterparts, at a time of exceptional judicial creativity. This left a long lasting legacy on Irish jurisprudence.

The US credit union movement has had a head-start on the Irish credit union movement. Enabling legislation for credit unions was first passed in Massachusetts in 1909, and enabling legislation was passed in Ireland, 57 years later in 1966. Today,



the Irish credit union movement is "strategically challenged". Loan to asset ratios have fallen to 28%, and the movement is widely accepted to be severely under-lent. New proposed lending regulations look set to widen the lending capacity of Irish credit unions, but will be contingent on Irish credit unions developing a range of capabilities, including a practice referred to as "*Asset Liability Management*," or "ALM". With this in mind, Moore Stephens decided it would be worthwhile, in anticipation of these changes, to travel across the Atlantic and look to gain some "slip opinions" of our own on how US credit unions deal with ALM. President Abraham Lincoln once said "*If we could first know where we are and whither we are tending, we could better judge what to do and how to do it*". With regard to ALM, we wanted to know whither we are tending.

I visited the US in January 2019 on a trip kindly enabled by the Irish League of Credit Unions, the World Council of Credit Unions, the Credit Union National Association, and the kindness, openness and candour of two large credit unions in Virginia; Fairfax Country Federal Credit Union and Northwest Federal Credit Union.

The US credit union movement

For those who are not familiar with the US credit union movement, it may be helpful to firstly sketch some context. Both the US credit union regulator (the "National Credit Union Administration") and the Central Bank of Ireland, publish high quality statistical information on a quarterly basis, allowing direct quantitative comparisons to be made. I set out some key comparisons below:

Measure	USA	Ireland
Assets (€bn)	1,240.84	17.61
Number	5,436	252
Net Worth/ Capital Ratio (%)	11.21%	16.70%
Loan To Asset Ratio (%)	71.25%	28.00%
Return on Assets (%)	0.96%	0.95%

Some immediate observations can be made:

- The US movement is large, much larger than the Irish movement (70 times to be precise).
- The capital ratio of Irish credit unions is significantly higher than US credit unions.
- But the most striking difference becomes apparent when the loan to asset ratio is considered. The US movement has a loan to asset ratio that would make the Irish movement salivate; 71% of US assets are lent, whereas, only 28% of Irish assets are lent. If one were to dig deeper, and review that the make-up of the US loan book, the following can be gleaned; the US loan book ($1trn) is largely comprised of real estate loans, as is illustrated below:

Type	US$bn	%
Real Estate Loans	443.90	43.3%
Auto Loans	361.70	35.2%
Other Loans	87.40	8.5%
Commercial Loans	68.90	6.7%
Credit Card Loans	59.40	5.8%
Student Loans	4.90	0.5%
Total	**1,026.20**	**100.0%**

- Mindful of the comparably large US loan to asset ratio, it is likely to come as a major surprise to Irish credit unions that the overall return on assets of US credit unions is almost identical to that of Ireland. Both stand at just under 1% (Ireland at 0.95% and the US at 0.96%). First impressions may be as follows; all that glisters is not gold. In spite of the much larger US loan book, the bottom line appears identical. Both movements make a similar return on assets on an overall basis. But this can be readily explained. The major driver of this apparent aberration relates to loan income. The Irish movement is largely lent out on higher yielding unsecured loans, earning a yield of approximately 9%. The US movement is largely lent out on lower yielding secured real estate loans, earning a yield of approximately 4.6%. In this manner, even though the US movement has an exponentially larger loan book than the Irish movement, it earns a lot less on its loan book, on a relative basis. As Irish credit unions prepare to advance into the real estate market, this (rather sobering) statistic must be centre stage. Any hopes that a credit union entry to the Irish mortgage market will lead to a restoration of pre-crash loan to asset ratios and surplus profiles is misconceived. Yes, loan to asset ratios may rise, but yields will fall. The mortgage market has an entirely different profit profile. Margins are thin, wafer thin. This is not to say that a credit union entry to the Irish mortgage market is a bad thing; incremental economic benefit is a realistic and achievable outcome. The point is that the margins become thin. It becomes a matter of interest rates.

The Rate Board

My greatest learning of US credit unions (and in turn, ALM) occurred on minute one of day one of my visit. Upon entry to the main banking hall of a credit union in Virginia, I saw what is termed a "Rate Board". As the name suggests, a Rate Board is a board full of rates. Divided in two, the left hand side of the board sets out the interest rates on deposit products and the right hand side sets out the interest rates on loan products. On the left hand side (the deposit side), a wide range of rates were listed on share accounts (in the US, dividend rates are set monthly and paid monthly), share certificates (a form of term deposits), checking accounts (current accounts) and money market accounts (a form of variable savings products). On the right hand side (the loan product side) were a range of rates on home loans, auto loans and other unsecured loans. Contrast this to Ireland. If an Irish credit union erected a Rate Board, the left hand side (the deposit side) would in most cases contain one entry, the share account. Furthermore the rate would be unknown, it would be a large question mark. The right hand side, would largely list a range of unsecured loan products (arguably variations of the same theme). The US Rate Board emphasises the sheer diversity in member service offering, on both sides of the balance sheet, both savings and loans. The absence of an Irish Rate Board speaks for itself.

Taking this a step further, let's enter the world of ALM. At its core, the Rate Board shines a bright light on the world of Asset Liability Management. The overall objective of a credit union is to ensure that the rates it charges on loans exceeds the rate it pays to members on deposits, to such a scale that it can cover its operating costs. The rates on the right hand side should exceed the rates on the left hand side. This is the fundamental economic proposition of a credit union. And in a world of variable interest rates, which are in turn correlated to broader monetary policy dynamics, this can become "tricky". Set a variable rate on a deposit, and set a fixed rate on a loan and you create interest rate risk. Wind the clock forward a few years, and if interest rates rise, you may find yourself losing money, and trapped in this loss making cycle. This is element one of ALM; interest rate risk. With long term loans, this becomes a higher stakes game. Misjudgement of interest rate risk can be fatal.

> "When setting an interest rate, one must be mindful of both risks. Set a deposit rate too high, and create interest rate risk. Set a deposit rate too low, and create funding risk."

Take another scenario. The credit union does manage to mitigate its interest rate risk by ensuring that its loan rates are higher than its deposit rates, but, the deposit rates on its Rate Board become uncompetitive. In this scenario, a rational member should look to move his or her savings to another institution offering higher deposit rates. This would result in the credit union losing its deposit base, and becoming unable to fund its loans. Or worse still, if it has a large portfolio of long term loans already lent out, it becomes unable to call in the loans fast enough to meet its depositors' needs. This is the element two of ALM: funding risk. Again, with long term loans, this becomes a higher stakes game. Misjudgement of funding risk can be fatal.

The more nuanced point is that both these risks are intertwined. When setting an interest rate, one must be mindful of both risks. Set a deposit rate too high, and create interest rate risk. Set a deposit rate too low, and create funding risk.

Now, to introduce something more technical, "ALM" is generally defined as follows: *"Asset Liability Management can be broadly defined as the policies, systems and processes employed to address the risks faced by an institution due to a mismatch between assets and liabilities either due to liquidity or changes in interest rates"*. This, hopefully, could now be simply characterised as the science behind the Rate Board. ALM is the process geared to ensure that interest rates are sustainable (so that the credit union can make surpluses in differing interest rate scenarios) and competitive (so that the credit union can maintain its funding base in differing interest rate scenarios).

Brief historical contexts

The US credit union movement began its entry into the real estate market in the 1970s. Up to that point, the US movement was largely a demand based savings and short term loan model. In 1978, the regulatory environment changed, and the US movement commenced an evolutionary process to diversify into the real estate market. The ALM environment evolved with the movement to where it is today. However, one structural element of the US mortgage environment should firstly be set out, and this stretches further back in US history. In the aftermath of the Great Depression, President Roosevelt enacted a range of measures (projects, programmes and reforms) in the 1930s in the US, referred to as the "New Deal". One such measure was the establishment of Federal National Mortgage Association, "FNMA", or ubiquitously now known as "Fannie Mae". The purpose of Fannie Mae was to extend and develop a secondary market for mortgages. Fannie Mae, ensured that mortgage providers could offload (sell) mortgages to Fannie Mae, who would provide federal funds to ensure liquidity was maintained in the financial system. If a mortgage provider in Nebraska was low on liquidity or had an interest rate mismatch, it could sell

some of its mortgages to Fannie Mae, and then recommence issuing mortgages. This ensured the system operated to support the housing economy. This secondary market (and other variants of same), is a unique feature of the US system. Any credit union that issues a mortgage, has a structural safety net, knowing that the mortgage can be resold to Fannie Mae, to release liquidity back into the credit union. There are certain terms and conditions. Fannie Mae will only take a certain type of loan that is issued in a certain way. However, the key point is that a safety net exists, and is an embedded feature of the US mortgage market.

ALM in the USA

When considering ALM in US credit unions, there are two key areas of learning that feed into what might become a "slip opinion"; firstly, structural elements of the US system that shape ALM in all US credit unions, and, secondly, ALM processes that operate within individual credit unions manage ALM risk. Each of these will be considered separately. What follows now, of necessity, will contain a level of technical detail. President Washington once said *"it is better to offer no excuse than a bad one"*.

The US credit union system contains a number of features or elements that manage ALM on a sectoral basis:

- Mortgages are generally underwritten through dedicated CUSOs (Credit Union Service Organisations). This means that many credit unions have no direct role in the actual underwriting of mortgage loans. The underwriting of these loans is in effect outsourced. In this manner, the skill and expertise necessary to underwrite a mortgage is acquired. The US, similar to the EU, has a wide range of consumer oriented codes and standards, all designed to afford consumers a high level of protection when committing to long term loan products. CUSOs are specifically geared to meet all of these standards in a structured, systematic and disciplined manner. While the CUSO will underwrite the mortgage loan, the credit decision ultimately remains with the credit union, and the mortgage loan will be carried on the balance sheet of the individual credit union.
- US credit unions have diversified savings products, which coalesce to create "stickiness" in savings. What is striking is that credit unions pay dividends and interest on a monthly basis. The Income and Expenditure account, each month, will charge the cost of the members' money. Contrast this to Ireland, where the cost of funds, is generally charged once a year, after the members' money has been used throughout the year by the credit union. The US model results in both a more compelling value proposition for members (greater service optionality), but also, it introduces a known cost of funds for savings, and enhanced stability in the savings base. While there are dedicated term deposit products (which obviously trigger higher interest costs), the credit unions I met would consider that the main bulwark of funding stability comes from checking accounts (current accounts).
- US credit unions have alternative sources of liquidity. These have deep rooted historical origins (as explained above), and are a unique feature of the US system. Loans can simply be sold – to Fannie Mae, or, other credit unions. In most cases, loans are sold on a participating basis. This means that Credit Union A issues a mortgage to a member. Then Credit Union A sells the mortgage to Credit Union B. The member of Credit Union A, continues to repay Credit Union A. But, Credit Union A sends the loan repayments (net of a commission) to Credit Union B. Furthermore, beyond selling mortgages to Fannie Mae or other credit unions, loans can also be used as security to obtain loans, from a Federal Home Loan Bank. What is hugely significant, is that in order for mortgage loans to be tradeable in secondary markets (or suitable as security for a loan from a Federal Home Loans Bank), the loan must meet certain underwriting standards and criteria. Fannie Mae will not purchase a loan from a credit union unless it has been underwritten to Fannie Mae standards. And this is where the CUSO plays a vital role in providing liquidity. The CUSO in effect ensures the loan is capable of creating liquidity in secondary markets.

"When considering ALM in US credit unions, there are two key areas of learning that feed into what might become a "slip opinion"; firstly, structural elements of the US system that shape ALM in all US credit unions, and, secondly, ALM processes that operate within individual credit unions manage ALM risk."

With regard to ALM processes within individual credit unions, the following could summarise the position:

- Credit unions have ALM policies that set out the policies, procedures and guidelines to be followed in overall management of the credit union's deposits, loans and investments.
- ALM is managed on a day to day basis by the management team of the credit union, with a large role being played by the CEO and the CFO.
- Credit unions generally have an ALM committee comprising of both executive and non-executive members. The ALM committee has a number of ALM specific functions.

- Firstly, the ALM committee monitors interest rate risk by focusing on the timing with which assets and liabilities are subject to repricing. Repricing arises from changes in loan, investment and deposit balances and variable rate instruments becoming eligible for repricing. Differences in the timing of such repricing are reflected in the projected gap position, which is generally provided by ALM software. The projected gap position estimates the future risk position that will emerge with the passage of time.
- Secondly, the ALM committee maintains adequate liquidity levels consistent with prudent financial practices and regulatory requirements. Specific liquidity requirements are contingent on a variety of factors, including seasonal or cyclical fluctuations in the economy, the desirability of investment income versus loan income, the present as well as the forecasted mix of earning assets, and the availability of funds. The manner in which existing assets and liabilities mature plays a major role in determining the credit union's liquidity position. Corrective action will be taken when necessary.
- Thirdly, the ALM committee analyses pricing, strategies, and new products. When new types of loans, deposits, or pricing strategies for these products are proposed, the potential impact on the credit union's interest rate risk and liquidity position is examined. A shift in emphasis from fixed-rate loans to variable-rate loans, or vice-versa, has important risk implications. Similarly, the effects of calendar repricing or anniversary repricing of variable-rate loans are analysed.
- Fourthly, the ALM committee reviews and monitors its competitive position. Rates charged and paid by competing financial institutions for loans and deposits are reviewed. The purpose of this review process is to ensure that the rates paid on deposits and the rates charged on loans are consistent with local market conditions, ensure that rates paid and charged are fair and equitable to both savers and borrowers, and, ensure that the credit union's profitability and financial strength are not impaired by interest rate and/or dividend policies.
- The ALM committee will finally examine the impact of changing rates. The Committee will estimate the effects of different levels of rates on the credit union's financial position, rate risk, and liquidity position through the use of "what if" scenarios. This analysis reflects the fact that when rates are high, the cash flow from assets tends to decrease while that of liabilities tends to increase. These simultaneous consequences may adversely affect the credit union. When rates are low the situation is reversed, with the cash flow from assets accelerating while that of liabilities decreases. Again, the simultaneous impact will have adverse implications for the credit union. These situations result from the fact that members have the option to refinance and prepay high-rate loans, keeping low-rate loans, and withdrawing low-rate deposits prematurely to reinvest at higher rates.

The ultimate ALM test that is conducted by individual credit unions is what is referred to as a "shock test". This assesses the overall interest rate risk and funding risk (collectively ALM risk) in differing interest rate scenarios. Simply put, it evaluates the ability of the credit union to withstand shock changes in the interest rate environment. If interest rates suddenly shift, where does that leave the credit union? Does it start to make deficits, or does it lose its funding base? For the more technically minded, this is broadly done as follows:

- The credit union simulates a change in interest rates, both up and down. The general test is 300bps (i.e. 300 basis points, or 3%) up and down.
- The credit union then reprices its assets and liabilities, on the basis that the external interest rate environment suddenly changes by +/- 3%.
- The credit union then calculates its "Net Economic Value", which (and veterans of Irish value in use computations may raise an eyebrow, and/or grimace) is the net present value of the assets less the net present value of the liabilities of the credit union, discounted at the current or shocked market rates. This then results in a revised "*Net Worth Ratio*", which is the equivalent of the Irish capital ratio.
- This is a process that is, of necessity, assumptive. Some of the more interesting assumptions relate to the future behaviour of demand based deposits, in a rising interest rate environment. If interest rates increase, and the credit union is unable to match the rising rate, what level of funds will leave the credit union (referred to as a "decay rate"). Many factors, both quantitative and qualitative feed into this analysis. Demand based funds may be loyal to the credit union due to convenience or customer service, or, they may be sensitive to changes in interest rates. The US terminology with regard to demand money divides the funds into two types; sticky money (stable) and hot money (less stable and rate sensitive). This becomes a significant judgement call.

The credit union "system"

One key learning from my US trip, was the concept of the US "system", which underscores a larger and more profound point. There were repeated references on my visit to the US credit union "system". In Ireland, differing terms are used interchangeably when referring to credit unions. To some it is a sector (a defined element of the financial services industry that is separate to others). To others it is a movement (a group working together to advance ideas). It is reasonable to say that credit unions in Ireland are likely to be both a sector and a movement. However, it is interesting and insightful to look at credit unions in Ireland as above all, a "system". A system is defined as a *"set of things working together as parts of a mechanism or an interconnecting network"*. There are over 5,000 credit unions in the USA, all autonomous and all standing alone. However, when it comes to the real estate market, they

behave as a system. If a member in New Jersey needs a mortgage, but the local credit union is unable to meet the needs of the member (say for example, if it lacks sufficient liquidity), the system operates so that the New Jersey credit union can issue the mortgage, but then pass it through the system (via the secondary market, or by a Federal Home Loan Bank). In this manner, the credit unions in the US can collectively propel a compelling and consistent value proposition to their members, on a nationwide basis. Mortgages are not offered in a haphazard manner, sporadically, by individual credit unions, depending on their individual financial condition. Mortgages are offered by the credit union system.

Therefore, when considering developing ALM capability in Ireland, it is important (in the author's opinion) to firstly look at the Irish credit union *system*. President Obama famously said *"Yes We Can"*. To slightly modify the words of President Obama, I would view there are system changes that would create greater ALM capability; things to which Irish credit unions should say "Yes We Should".

- The first element is the creation, development and embedding of home loan CUSO(s). The foundation of a mortgage value proposition from Irish credit unions is going to need a vehicle to ensure that home loans are issued in a compliant and risk sensitive manner. This has been done in the US, and is a vital component of the system. This is important to ensure regulatory compliance, and, best practice in credit risk management. But, it also creates a "standard" that may enable future liquidity creation. Representative bodies are currently taking proactive steps in this regard.
- The second element is the prudent and orderly diversification of the savings base. MPCAS and the offering of member current accounts is advancing in Ireland. The general narrative in Irish Credit unions is that this is needed to enhance member services and increase the relevance of credit unions to their members. While this is true and compelling, there is greater strategic importance in current accounts. They introduce structural stability into the funding base of credit unions, at a relatively low cost. Human disposition is geared to generally avoid "hassle". Changing current accounts is "hassle". Current accounts lock in funds. Beyond this, Irish credit unions should look to create some level of term savings products to further strengthen funding stability.
- The third element, is arguably, the most challenging element, and this is the creation of a centralised liquidity facility. The US system has a highly evolved and long-standing secondary market, to ensure liquidity in the system, which stretches right back to the Great Depression. Secondary markets are not a feature of the Irish financial services industry. But, notwithstanding that, if Irish credit unions are going to become longer term credible players in the Irish mortgage market, a form of centralised liquidity facility is a required element.

Beyond that, on an individual level, credit unions can then develop their own ALM capabilities, modelled on US policies and procedures. In this regard, at Moore Stephens, we are busy deep diving into Excel © to create an ALM framework for Irish credit unions. This will be our labour of love for 2019.

> "My final learning from the US came in the most unlikely of places, a cab."

The cab driver

My final learning from the US came in the most unlikely of places, a cab. Currently, the Irish credit union movement has €18bn in demand based savings. The cost of funds (the dividend) is discretionary, and paid after the year end. This is a stand out feature of the Irish credit union system when contrasted to the US credit union system. This is where the US system may salivate looking upon the Irish system. The Irish credit union system has a large and growing savings base, with no fixed costs of funds. While in a taxi in Washington DC, I randomly asked the cab driver, was he a member of a credit union. The cab driver responded that he was. I then asked him why. His answer was as follows: "It has great rates". I have repeated the same question in Ireland since then on a number of occasions, and I have yet to hear an Irish taxi driver respond as his US counterpart did. At the heart of ALM, is funding stability and the sensitivity of savings to interest rates. In this regard, one could argue that a differing set of factors shape the stability of funds in Irish credit unions. This may be driven by a range of historical, social, cultural, economic and political factors. Over the course of the past 10 years, dividend rates in Ireland have fallen, yet shares have grown. Irish credit union members do not appear to be overly rate sensitive, and this offers the Irish credit union movement a key strategic competitive advantage. Irish credit unions have a highly valued brand, and based on funding stability levels, this is underpinned by a strong affinity between credit unions and their members. This may be an "Irish thing". So far, the relevance of ALM has been framed in the debate on long term lending. If credit unions are to advance in the mortgage market, ALM becomes an essential capability. This is undeniably true. However, putting long term lending to one side, should ALM feature more prominently in the psyche of Irish credit unions in any event? The Irish movement currently has a strong, cheap and growing source of funds. But, how will these savers behave in a rising interest rate environment? What is the decay rate? How will the Millennial and Generation Z members behave when rates rise and more competitive rates are visible on their smartphones?

How far does affinity really stretch? These are relevant and pertinent questions, and these are at their core, ALM questions. Since the global financial crash, a guiding philosophy in financial regulation is the concept of "counter-cyclicality". We must prepare ourselves for the inevitability that economic trends will reverse. We are currently in a prolonged ultra-low interest rate environment. This will reverse and rates will rise. How well prepared is the Irish credit union sector/ movement/ system for this inevitable event? President John F Kennedy once said *"There are risks and costs to action. But they are far less than the long term risks of comfortable inaction"*.

Finally

In 1972, the Irish Supreme Court handed down a landmark judgment in the case of *Byrne-v-Attorney General* relating to sovereign immunity. This judgment redefined the relationship between the state and citizens in the law of tort. In his judgement, Justice Walsh set out in detail the treatment of sovereign immunity in the US and quoted extensively from US jurisprudence. While Justice Walsh was clearly influenced by the US Supreme Court, he ultimately passed a judgment that created a framework that was unique to Ireland. For Irish credit unions, this is the challenge. The US credit union system is 57 years ahead of the Irish system. But the Irish system, at this point in time in its evolutionary trajectory, has a unique set of strengths, weaknesses, opportunities and threats. There is a lot that can be learnt from the US credit union system. The skill will be transposing this in a manner that suits the Irish credit union system.

Brian Hayes
January 2019

Special thanks to Ed Farrell (CEO of the Irish League of Credit Unions), Michael Edwards (SVP and General Counsel at the World Council of Credit Unions) and his team, Mike Schenk (Deputy Chief Advocacy Officer for Policy Analysis & Chief Economist at the Credit Union National Association), Joe Thomas (President and CEO of Fairfax County Federal Credit Union) and his team, and, Jeff Bentley (President and CEO of Northwest Federal Credit Union) and his team. Without their participation, this article would be blank.

My assessment of ALM, is, of necessity, subjective and dependent on the exercise of individual judgement. This article sets out some considerations for Irish credit unions looking at ALM, and is set in a "thought leadership" context. This article is not intended to represent a complete or exhaustive account of ALM in US credit unions or Irish credit unions. Moore Stephens shall not be liable to any person relying on or using information contained in this article for any indirect or consequential loss or damage or any loss of or damage to profit, revenue, savings, goodwill or business, in each case howsoever caused, including without limitation by reason of misrepresentation, negligence, other tort, breach of contract or breach of statutory duty.

If you have any questions, please contact Brian Hayes (brian.hayes@moorestephens.ie)

Brian Hayes – Partner
brian.hayes@moorestephens.ie

Moore Stephens – Dublin
Ulysses House, Foley Street, Dublin 1
Republic of Ireland
T +353 1 888 1004
F +353 1 888 1005
www.moorestephens.ie

Moore Stephens – Cork
83 South Mall, Cork
Republic of Ireland
T +353 21 427 5176
F +353 21 427 7305
www.moorestephens.ie

We believe the information in this factsheet to be correct at the time of going to press, but we cannot accept any responsibility for any loss occasioned to any person as a result of action or refraining from action as a result of any item herein. Printed and published by © Moore Stephens, a member firm of Moore Stephens International Limited, a worldwide network of independent firms. Moore Stephens is registered to carry on audit work and authorised to carry on investment business by Chartered Accountants Ireland. DPS42354 January 2019