Kilcormac Credit Union Ltd

Response to the Impact of Proposals within CP109 on our Investment Portfolio

June 2017

Introduction

Kilcormac Credit Union welcome the opportunity to respond to the Consultation on Potential changes to the Investment Framework for Credit Unions (CP109) and to identify issues which will effect and impact our Credit Union.

In this document we will refer to analysis carried out by Davy on our behalf and that this analysis should not be regarded as comprehensive; in particular, the projected impact on income is based on a broader impact analysis conducted by Davy. This modelling was subject to a number of assumptions which are outlined in more detail in the submission from Davy.

Please note that all analysis is based on Kilcormac Credit Union's portfolio as at 31/05/17. The regulatory reserve figure used in the testing is €1,349,632.

Kilcormac Credit Union's investment portfolio is likely to be impacted in four main ways if the proposals outlined in CP 109 are implemented:

- (1) Asset Allocation
- (2) Counterparty Exposure
- (3) Income
- (4) Liquidity

(1) Asset Allocation

Kilcormac Credit Union will have the opportunity to invest in additional asset classes. The Central Bank has proposed concentration limits on the new asset classes as a percentage of regulatory reserves. The table below is intended to illustrate the proposed limits as a percentage of the investment portfolio and in euro terms:

	Asset Class	Current Allocation €	Concentration Limit (% Investment Portfolio)	Concentration Limit (as € Amount)	Current Weight
	Irish and EEA State Securities	0	70%	6,917,392	0%
Current Portfolio	Accounts in Authorised Credit Institutions	8,066,000	7678	0,317,332	82%
&	Bank Bonds	0	70%	6,917,392	0%
regulatory limits	Collective Investment Schemes	1,815,988		9,521,7652	18%
	Other	0			0%
	Total	9,881,988			100%
		Central Bank's Proposed Concentration Limit (% Reg Reserves)	Proposed Limit calculated as a % of the Investment Portfolio	Proposed Limit (€ amount)	
	Supranational bonds	50%	6.8%	674,816	
	Corporate bonds	25%	3.4%	337,408	
	Total (additional bonds)		10.2%		
Proposed Additional	*Investments in AHB's 3 proposed options:				
Asset	a) or	25%	3.4%	337,408	
Classes (Central Bank)		lesser of 25% or €3m for credit unions with assets less than			
	b) or	€100m	3.4%	337,408	
	c)	50%	6.8%	674,816	A STATE OF THE STA

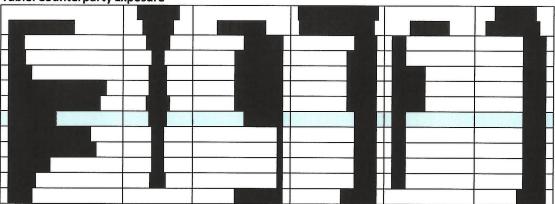
^{*}AHB's are included for illustrative purposes only. There is no social housing vehicle available for investment at present which means that AHB's cannot realistically be included within an asset allocation at this time.

- When converted to a percentage of the investment portfolio, the proposed concentration limits on the additional asset classes are extremely low and are unlikely to make a material difference to the portfolio.
- The introduction of concentration limits linked to regulatory reserves will introduce additional complexity and may be cumbersome from an investment management perspective.

(2) Counterparty Exposure

The following table assesses how the Central Bank's proposed counterparty limit of 20% would impact Kilcormac Credit Union's investment portfolio:

Table: Counterparty Exposure



- In the event that the counterparty limit is amended to 20% as proposed by the Central Bank, Kilcormac Credit Union will need to reallocate 11.7% of the investment portfolio or €1.1m to alternative counterparties. 4.9% of the portfolio or €0.5m must also be reallocated from to an alternative counterparty by the end of June 2017.
- We believe that there is no rationale to implement limits by reference to regulatory reserves and now is the wrong time to be placing unnecessary pressure on credit unions from a counterparty perspective.

(3) Income

Based on analysis conducted by Davy within an income impact model outlined in the submission from Davy, Kilcormac Credit Union's income is likely to be impacted by the proposals contained within CP109.

Based on the modelling included in the Davy submission, if a credit union were to fully invest their portfolio based on the average asset allocation of the sector (as outlined in the Central Bank's RIA) and current yields available, the weighted average return on the portfolio is approximately 0.31%¹. As portfolio performance differs from one credit union to another, longer term investments such as government bonds and longer term deposits that make a significant contribution to current returns could not be included in testing. This finding indicates the important contribution of residual investments with higher yields in bolstering investment income in the current environment.

In order to examine the potential impact of the CP109 proposals and the additional recommendations made by Davy on Kilcormac Credit Union's individual investment portfolio, we have applied the percentage changes derived from the above model to the portfolio and assessed the impact on your credit union's weighted average income. It is important to understand that the changes outlined in the table below are an approximation only and based on a number of crucial assumptions underlying the analysis which are noted in Appendix 1. Perhaps most importantly, for ease of analysis, we have assumed that the investment portfolio moves from the current asset allocation to revised allocations (which are shaped by the scenario assumptions) with immediate and total effect and that yields on the various asset classes remain constant. In reality:

- The projected changes in allocations and associated changes in income are more likely to occur on a phased basis.
- Yields on the various asset classes will change.

¹ The current yields available are based on yields as at 31st May 2017

Income will be influenced by a broader range of factors primarily which are not included in this analysis such as the run-off of residual investments and tapering of ECB's quantitative easing purchases. The current weighted average return on Kilcormac Credit Union's investment portfolio is 1.31%.

Table: Assessing the impact of CP109 proposals on your credit union's investment income

	Projected impact on the average credit union's investment income	Projected weighted average return of your credit union
Current weighted average return		1.31%
Impact of senior non-preferred not being authorised	-23%	1.01%
Impact of senior non-preferred bonds not being authorised and supranational & corporate bonds added to the portfolio	-19%	1.06%
Impact of investments in social housing (AHB's)	There are no schemes currently available to assess the potential income so this has not been included in our testing	

Table: Assessing the impact of Davy's recommendations on your credit union's investment income

	Projected impact on the average credit union's investment income	Projected weighted average return of your credit union
Current weighted average return		1.31%
Impact of senior non-preferred being authorised	9%	1.43%
Impact of senior non-preferred bonds being authorised and supranational & corporate bonds added to the portfolio	-2%	1.28%
Impact of senior non-preferred bonds being authorised. Credit unions allocate to supranational and corporate bonds. Certain bonds may be treated as liquid for liquidity purposes.	13%	1.48%

Source: Davy with reference to Davy's Submission to CP109

Warning: Please note there is no assurance that the assumptions which our model and scenario analysis is based on will materialise. Our model is based on the average credit union's asset allocation and your credit union's portfolio may be materially different. Actual outcomes may differ significantly from the projections outlined above.

Findings:

- For the purpose of this analysis and to maintain consistency with the testing performed at sector level, income forecasting analysis completed earlier this year has been excluded from the testing model above.
- The figures in the table above outline that if the Central Bank proceeds with the proposed changes to bank bonds, we project that the average credit union's investment will decline by

- c. 23%. Applying this projection to your credit union's weighted average investment income, your income is expected to decline to c. 1.01%.
- In the event that the Central Bank proceeds with the proposed changes to bank bonds and a credit union allocates to the proposed additional asset classes of supranational and corporate bonds, we project that the average credit union's investment income may decline by up to 19%. Applying this projection to credit union's weighted average investment income, your income is projected to decline to c. 1.06%. It should be noted however that the yields on the additional asset classes of supranational and corporate bonds are at extremely low levels and are likely to normalise in the future; in addition they may contribute diversification benefits to the portfolio.
- If senior non-preferred bonds are authorised, we project that the average credit union's investment income will be positively affected and may rise by up to 9%. Applying this to your credit union's weighted average investment income, your income is projected to increase to 1.43%. It should be noted however that this allocation will introduce additional credit risk into an investment portfolio which will require ongoing assessment by credit unions and investment adviser to monitor that it is in line with your investment policy.
- We project that income may fall by up to 2% for the average credit union in the event that senior non-preferred bonds are added and a credit union allocates to supranational and corporate bonds. This would reduce your weighted average income to 1.28%. Based on current pricing, the allocation to supranational and corporate bonds is likely to reduce average income in the portfolio due to the exceptionally low yields on these bonds at this time.
- In the event that certain bonds may be treated as liquid in line with proposals outlined in the Davy submission, certain credit unions may be able to reduce the proportion of funds placed in short term deposits which may be attracting negative yields and this may result in an improvement of investment income by up to c. 13% for the average credit union. Applying this forecast to your credit union would increase your weighted average income to 1.48%.

4. Liquidity

Kilcormac Credit Union is disappointed that CP109 did not address certain issues regarding liquidity, in particular the short term liquidity constraint. Due to negative rates being applied to accounts maturing within 8 days, the Credit Union will incur losses in observing this requirement which will impact our member's funds. We believe that certain amendments can be made to the current regulations that will remove this issue such as extending the 8 day term out to 35 days for example.

We also agree that certain bonds should be treated as liquid for the purposes of regulatory liquidity ratios up to a maximum of 50% of the total liquidity requirement.



DAVY SUBMISSION ON CP109:

CONSULTATION ON
POTENTIAL CHANGES
TO THE INVESTMENT
FRAMEWORK FOR
CREDIT UNIONS

JUNE 2017

CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	4
SECTION 1 KEY ISSUES FACING CREDIT UNIONS FROM AN INVESTMENT PERSPECTIVE	5
SECTION 2 GENERAL COMMENTARY AND FEEDBACK ON ADDITIONAL ISSUES NOT INCORPORATED INTO THE CENTRAL BANK'S QUESTIONS	8
SECTION 3 INCOME ANALYSIS	14
SECTION 4 RECOMMENDATIONS	24
SECTION 5 RESPONSES TO THE CENTRAL BANK'S QUESTIONS	26
SECTION 6 APPENDICES	33

EXECUTIVE SUMMARY

- Davy welcomes the opportunity to make a submission on CP109: Consultation on Potential Changes to the Investment Framework for Credit Unions ('CP109').
- It is our view that CP109 should, in the first instance, acknowledge the impact of negative deposit rates on the credit union sector.
- Davy recognises that risk management is a key regulatory priority for the RCU as it is for the credit union sector. At the same time, it should be recognised that credit unions are already operating within an extremely limited investment universe.
- The Central Bank's proposed amendments to authorised bank bonds are a serious concern in light of changes occurring in bank funding and issuance trends. CP109 and the Regulatory Impact Analysis (RIA) overlooks these developments and proposes to prohibit bonds which are likely to dominate senior bank bond issuance over the next five years.
- Bank bond funding principles are changing within a market landscape that is subject to higher levels of regulatory control and oversight. Stakeholders need to acknowledge this and credit unions should continue to be authorised to invest in senior unsecured bank bonds, irrespective of whether they are subordinated within the senior space. Bonds which are MREL1 eligible should require an investment grade rating in order to be considered authorised. Credit unions should be able to conduct their own risk assessments to determine whether investments, including senior non-preferred bonds, are appropriate for their investment portfolios, taking into account the nature, scale, complexity and risk profile of the credit union.
- The potential addition of new investment classes is welcome, particularly in the case of supranational and corporate bonds. However the proposed concentration limits are at odds with the intended diversification benefits. Testing shows that the maximum exposure to supranational and corporate bonds will average circa 8% and 4% of portfolios respectively.
- Concentration limits on the proposed additional asset classes should be incorporated into existing limits which are based on a percentage of the investment portfolio rather than regulatory reserves.
- In particular, we recommend that certain bonds should be interpreted as liquid for regulatory liquidity ratios. This is consistent with credit unions regulations in other jurisdictions (Northern Ireland and the UK) as well as regulations governing liquidity in banks.
- The counterparty limit should remain unchanged at 25% given the counterparty pressures facing credit unions.
- Contracting the limited investment universe will not increase lending to members. Instead, it will increase pressure on a sector that remains vital to the Irish social and economic landscape.
- Within Section 4 of this submission, we put forward recommendations to address the challenges outlined above.

¹ The minimum requirement for own funds and eligible liabilities (MREL) laid down in the EU's Bank Recovery and Resolution Directive (BRRD). They clarify how the institution's capital requirements should be linked to the amount of MREL needed to absorb losses and, where necessary, recapitalise a firm after resolution.

INTRODUCTION

Davy welcomes the opportunity to make a submission on CP109. The consultation is timely given the challenges that credit unions are facing and we acknowledge the Central Bank's collaborative approach to the proposed changes to investment regulations.

The purpose of this submission is to respond to CP109 and to highlight our views and concerns in relation to the measures outlined. Our responses are structured around the following headings:

- Identification of the key issues facing credit unions from an investment perspective.
- Commentary incorporating feedback on the proposed changes to the definition of authorised bank bonds and the associated implications for credit union investments.
- Constructive recommendations aimed at alleviating the mounting liquidity challenges facing credit unions, and an overall assessment of the impact of the proposals on portfolios from both an asset allocation and income perspective.
- We conclude with responses to the direct questions posed in the consultation as requested by the Central Bank.

SECTION 1:

KEY ISSUES FACING CREDIT UNIONS FROM AN INVESTMENT PERSPECTIVE

1 LACK OF INVESTMENT CHOICES AND THE CHALLENGE TO GENERATE INCOME

In the current investment environment, it has become increasingly difficult for credit unions to source appropriate and suitable investments. Table 1 shows that at present credit union investment options are generally confined to notice accounts, government bonds, occasional structured products and bank bonds. In the case of structured products and bank bonds, credit unions are extending further out the curve in order to source appropriate income. At the same time, credit unions have to adjust to a changing bank funding world, and inform themselves on the additional credit risk inherent in all investments, including bank bonds, resulting from the implementation of BRRD2.

The current low yield environment may persist for some considerable time yet, further exacerbating the pressure on investment income as higher yielding investments mature over the coming years (such as deposits, government and bank bonds).

Table 1. Cred	it union invectment o	ntione - availability	and associated return
Table I. Cleu	it ullion illvestillent o	prions - availability	dilu associateu return

ASSET CLASS	INVESTMENT TYPE	AVAILABLE	RETURN	COMMENT
Government bonds	Investment grade government bonds	✓	Generally negative out to 2020	In many cases these bonds were purchased several years ago and have high coupons and running yields that cannot be replaced in the current environment.
Cash deposits	Short-term deposits	✓	Negative with few exceptions. Returns are as low as -0.60%	Banks have no appetite for short-term deposits primarily due to Basel III liquidity metrics but also due to QE ³ and excess liquidity in the banking system.
	Notice accounts	✓ Two counterparties only	Zero/minimally positive	Not usually available for less than 30 days' notice due to Basel III liquidity metrics. Assists with regulatory liquidity but not the short- term liquidity constraint (STLC).
	Term deposit accounts (>1 year)	✓ X Limited availability	N/A	In the main not available as banks have little or no appetite for term funding at present.
Bank bonds	Bank bonds	✓	Returns vary based on the credit risk and duration of the bond	Remains one of the few viable investment options for credit unions in current market conditions.

² Bank Recovery and Resolution Directive, EU directive introduced to deal with "resolution" of European banks after the financial crash. Resolution means the restructuring of a bank by a resolution authority, through the use of resolution tools, to ensure the continuity of its critical functions, preservation of financial stability and restoration of the viability of all or part of that institution, while the remaining parts are put into normal insolvency proceedings.

³ QE refers to quantitative easing, a term used to refer to unconventional monetary policy implemented by the ECB in response to the financial crisis. This includes the central bank buying government securities or other securities from the market in order to increase cash holdings, lower interest rates and increase the money supply.

ASSET CLASS	INVESTMENT TYPE	AVAILABLE	RETURN	COMMENT
Collective investment schemes	Collective investment schemes.	✓	Zero/negative	The CTT ⁴ is the only collective investment scheme available for investment at present and it provides a means for credit unions to adhere to the STLC without absorbing the penal negative rates on current accounts with main lrish banks.
Structured products	Capital protected structured products providing participation in the growth of equity indices or in some cases a basket of equities.	×	N/A	Vanilla type capital protected structured products which provide adequate levels of equity index participation do not provide investors with the prospect of a competitive return.
	Capital protected products linked to Euribor levels.	✓	Generally capped at 1%–2% per annum	These products are occasionally available but terms of the products are being extended for up to seven years in order to make the payoff more attractive.

2 COUNTERPARTY PRESSURES

In response to market conditions, counterparties such as Rabobank have decided to withdraw from the credit union deposit market on 30th June 2017. Davy estimates that credit unions hold approximately €800 million with Rabobank which will need to be rehoused by this deadline. In our view, the bulk of these funds are supporting the STLC and will need to be placed in deposits which may be accessed or mature within eight days. Given the shortage of counterparty options and banks' lack of appetite for short-term funding, we anticipate that credit unions will find it very difficult to source a home for these funds.

3 LIQUIDITY

Ahead of the introduction of the STLC in the 2016 Regulations, in-depth testing suggested that credit unions were comfortably able to meet the new liquidity constraint. However, the environment has changed both in terms of financial market conditions and also from the perspective of bank funding. The technicalities of the LCR⁵ have prompted banks to withdraw term deposits accounts which offered access and made a significant contribution to credit unions' short-term liquidity. Credit unions are now entirely reliant on overnight deposits/demand accounts and accessible collective investment schemes such as the CTT to meet the STLC. The bulk of these are negatively priced and vulnerable to rate cuts to push rates further into negative territory. This, we contend, represents capital risk which needs to be minimised as we believe it is contrary to the underlying principle of not taking undue risk with members' savings.

⁴ The Central Treasury Trust (CTT) is a collective investment scheme which is 100% invested in cash deposits and offers credit unions same day access to their fund balances.

⁵ The liquidity coverage ratio (LCR) refers to highly liquid assets held by financial institutions to meet short-term obligations.

Table 2: Contraction of liquidity sources for credit unions

SHORT-TERM LIQUIDITY	PORTFOLIO LIQUIDITY
Current/overnight accounts	Short-term liquidity sources
Demand accounts	Notice accounts
Central Treasury Trust	Longer-term investments nearing maturity
Term deposit accounts with a portion accessible a	Term deposit accounts with a portion accessible
Step-up accounts ³	Step-up accounts

Source: Davy

Not currently available
 Not currently available

SECTION 2:

GENERAL COMMENTARY AND FEEDBACK ON ADDITIONAL ISSUES NOT INCORPORATED INTO THE CENTRAL **BANK'S QUESTIONS**

1 NATURE, SCALE, COMPLEXITY AND RISK PROFILES OF CREDIT UNIONS

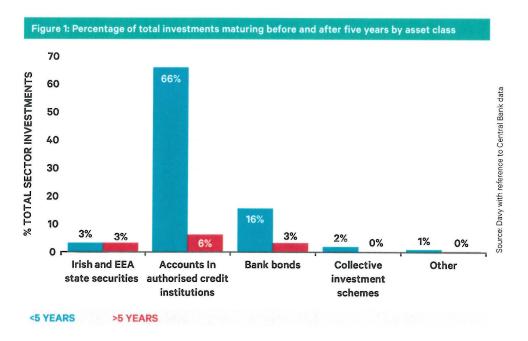
It appears that the Central Bank's primary focus within CP109 is the further removal of risk. On numerous occasions within the paper, the Central Bank refers to Section 43 of the Credit Union Act, 1997 which requires that a "credit union shall manage its investments to ensure that those investments do not (taking into account the nature, scale, complexity and risk profile of the credit union) involve undue risk to members' savings." Our main issue with the general positioning of the consultation is that the Central Bank appears to have neglected to take account of the nature, scale, complexity and risk profiles of credit unions. For example:

- The proposal to prohibit certain bank bonds which are widely anticipated to replace traditional senior unsecured bonds in the forthcoming years.
- Proposals on liquidity which were presented to the Central Bank ahead of the consultation were disregarded and consequently credit unions will continue to be compelled to place short-term deposits at negative rates (thereby guaranteeing capital losses on investments).
- Proposals to introduce concentration limits on new asset classes which represent such a minimal proportion of the investment portfolio, the benefits will have no material impact or advantage.

In recent years, credit unions have allocated additional resources and incurred significant costs in upgrading risk management systems, implementing enhanced governance arrangements and ensuring that more onerous fitness and probity standards are met. As a result, credit unions have the appropriate systems and are sufficiently well monitored to allow them to conduct their own risk assessment of a variety of investments that are already fundamentally narrow in range.

It should be noted that under current regulations, credit unions are authorised to purchase higheryielding investments which might be deemed inappropriate from a risk perspective such as Greek government bonds or long-dated bank/government bonds. To the best of our knowledge and despite the challenges credit unions are facing from an income perspective, this has not occurred.

Based on data received from the Central Bank and illustrated in Figure 1, it would appear that credit unions have, in the main, refrained from excessively "moving out the curve" by purchasing longerdated bonds to secure yield. In total, just 6% of the sector's investments reside in government and bank bonds with greater than five years to maturity. In our view, this would only be cause for concern if bonds were held in a concentrated selection of portfolios.



Furthermore, credit unions are currently permitted to hold up to 70% in bank bonds. As outlined in the CP109 RIA, just 18% of investments are held at sector level in this asset which strongly indicates that risk is being appropriately managed and assessed. Otherwise we believe that the concentration of government and bank bond holdings would be far in excess of current levels.

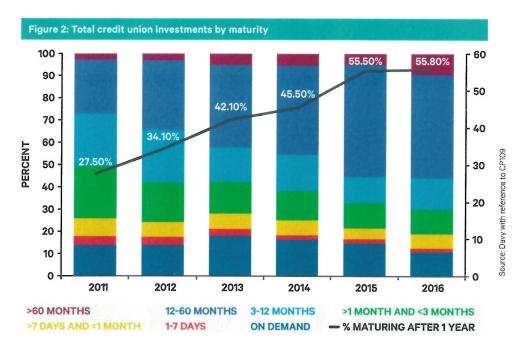
It is evident therefore that credit unions are conducting risk assessments in deciding what is appropriate for their own credit union taking into account their nature, scale, complexity and risk profile. This is an approach which Davy advocates. As the current regulatory framework is already extremely limited, we have concerns regarding any proposed changes which may further restrict credit unions' investment options. Additional restrictions may serve as a headwind to the development of the more sophisticated and progressive credit unions, and the advancement of the overall sector.

2 RISK VERSUS RETURN

One of the main investment principles is the concept of risk versus return. In this regard, we are surprised that no consideration has been given to the impact of the proposed changes on investment income within the RIA, particularly at a time when the run-off effects of higher-yielding assets are negatively impacting income and putting pressure on credit union return on assets (ROA). The Central Bank has focused purely on risk and assessed the potential impact of the proposed changes on asset allocation. Therefore we think that the RIA requires further analysis.

3 CREDIT VERSUS DURATION RISK

CP109 is focused on credit risk but it does not address the potential for increasing duration risk in credit union portfolios. Data provided by the Central Bank (See Figure 1) shows that circa 12% of the sector's investments are invested in terms greater than five years. Meanwhile the statistics provided in CP109 and illustrated in Figure 2 indicate that duration risk is building in credit union portfolios as they increased their allocations to investments greater than one year in duration. There are likely to be a number of reasons for this, including the limited investment options available to credit unions, and also the increasingly challenging environment to generate investment income.



In the event that the Central Bank further constrains investment options in the bank bond space, we are concerned that credit unions may feel that they are left with little alternative other than to "move out the curve" in order to secure valuable yield in the government, corporate or bank bond universe. In our view, this is potentially the worst point in the interest rate cycle for credit unions to secure long-term investments. Furthermore, shorter-dated investments which encompass more credit risk but less interest rate risk than other longer-dated investments do not necessarily render them inappropriate. Considering where the market is in the interest rate cycle and the duration risk on examples outlined in Table 3, it may in fact be more prudent to invest in shorter-dated bonds which encompass higher credit risk. In essence, every investment should be assessed with regard to a number of risks (not just credit risk) and in our view CP109 is presenting an unbalanced position in the risk arena as a result.

Table 3: Assessing the risk inherent in different bonds with similar yields

INVESTMENT	MOODY'S RATING	DURATION	YIELD	AUTHORISED AT PRESENT?	AUTHORISED UNDER CENTRAL BANK PROPOSALS
Deutsche Bank 1% 18/3/2019	Baa2	1.80	0.26%	?	×
Irish 3.4% 18/3/2024	A3	6.21	0.36%	✓	✓
Eli Lilly 1% 2/6/22	A2	4.65	0.33%	×	✓

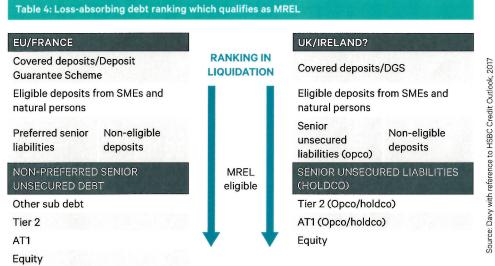
reference to Bloomberg Source: Davy with

BANK BONDS

The Central Bank gives extensive detail on the changes in bank bonds arising from BRRD so in the interests of brevity we have not included a comprehensive background to this. However, the following points provide additional information and important insights into the significant implications of the Central Bank's proposed changes to authorised bank bonds which should be clearly understood:

Globally, banks must meet onerous regulatory requirements for loss-absorbing bonds. This is to ensure that in the future, banks have sufficient capital and loss-absorbing instruments to ensure that equity holders and bond holders pay for future bank bailouts rather than tax payers.

- In the EU, the requirement for loss-absorbing bonds is referred to as minimum requirement for own funds and eligible liabilities (MREL) and is being introduced on a phased basis from 2019 to 2022.
- Although different EU countries are approaching the MREL shortfall in different ways, all banks are issuing a new type of senior bond which qualifies as MREL and may be subjected to losses or bail-in in the event that the bank goes into resolution. These bonds may be referred to as 'senior non-preferred', 'junior senior', 'tier 3', or 'holding company debt (or holdco)'. They will rank below traditional senior unsecured debt, which now may be referred to as 'senior preferred', 'senior senior', or 'operating company debt (opco)'.



- This new type of senior bond is not unusual or an exotic instrument by any means, nor is it deeply subordinated within the capital hierarchy of a bank. The bonds are still regarded as senior bonds but reflect that in the future, that holders must be prepared to suffer losses in the event that a bank enters resolution or becomes insolvent.
- As an example, Table 5 shows the capital structure of BNP Paribas, which has a strong longterm debt rating of A1 (Moody's). It illustrates that €116 billion of debt and equity must absorb losses ahead of senior non-preferred debt holders being subjected to losses.

Table 5: The capital structure of BNP Paribas (as at 31st March 2017)

RANK	€BN	英語展展的學科學科學科學科學科學科學科學科學科學科學科學科學科學科學科學科學科學科學
Senior secured debt	26	
Senior preferred debt	85	
Non-preferred debt	5	
Subordinated debt	18	
Tier 1	9	€116 billion of debt and equity will absorb losses ahead of senior non-preferred debt
Equity	89	losses affeat of serilor flori-preferred debt

 $Source: https://invest.bnpparibas.com/sites/default/files/documents/pres_bnp_fixed_income_may_2017_vdef.pdf$

- It is important to be aware that traditional senior unsecured bonds (e.g. senior preferred) are not necessarily excluded from bail-in, nor are deposits from credit unions. They could be subjected to losses in the event that a bank goes into resolution. However as shown in Table 5 they will rank higher than this new tier of bank debt and therefore would suffer losses after senior non-preferred bonds.
- In the coming years, the issuance focus of EU banks will be on these bonds at the expense of traditional senior unsecured bonds. Therefore, as traditional senior unsecured bonds mature, they will tend to be replaced by senior non-preferred bonds. BNP Paribas states that the new senior non-preferred debt will become the new senior debt for upcoming non-structured issuance8.

Table 6: Senior non-preferred/holdco debt Issuance targets of large EU banks

INSTITUTION	DEBT ISSUANCE TARGET
BNP Paribas	€19 billion to €20 billion during 2017 and 2018 (including €2.7 billion issued to date)
Deutsche Bank	At year-end 2016 it exceeded 2019 requirements by €35 billion*
Group BPCE	€1.5 billion to €3.5 billion of senior non-preferred each year until 2022
Groupe Credit Agricole	Approximately €12 billion between March 2016 and end-2019
HSBC	\$40 billion to \$50 billion of senior holdco debt between 2017 and year-end 2018
ING Group	€10 billion to €15 billion is required by 2022
RBS	Annual estimated issuance target of £3 billion to £5 billion of holdco senior unsecured issuance by 2019
Santander	€16 billion to €20 billion of senior non-preferred in 2017, and €12 billion to €15.5 billion in 2018
Societe Generale	About €10 billion of senior non-preferred by end of 2018
UniCredit	€13.35 billion of senior non-preferred from end of 2016 to 2019

*Germany changed its laws to recategorise or subordinate all outstanding senior unsecured debt of the German banks. This has brought many German banks above their MREL targets well ahead of the deadline.

- This new layer of bank debt will be significant in size. Morgan Stanley estimates that the issuance of the new asset class could reach €500 billion in the next four to five years9.
- The new senior non-preferred (or holdco) yields more than senior preferred, reflecting the higher bail-in risk. The current yield differential between senior non-preferred and senior preferred is approximately 30 basis points. Please refer to Appendix 3 for examples. Over time, ratings upgrades are expected on senior non-preferred bonds and a tightening of the spread versus senior preferred as there is more volume outstanding and the loss in the event of a default would be diluted over a larger pool of debt.
- Once banks have met their MREL requirements (by 2022 at the latest), we do not envisage banks resuming their issuance of senior preferred. In our view, banks are more likely to rely on deposits and secured issuance (via covered bonds) as operational funding sources.

^{*} https://invest.bnpparibas.com/sites/default/files/documents/pres_bnp_fixed_income_march_update_post_investor_day.pdf

http://www.reuters.com/article/banks-credit-agricole-idUSL5N1E427V http://www.reuters.com/article/banks-bonds-idUSL8N1DP3IT? feedType=RSS& amp; feedName=financialsSectors and the substitution of the substitution

Implications for credit unions of the Central Bank's proposal to amend the definition of bank bonds

- It should also be stated that if the Central Bank's proposal is implemented, credit unions are unlikely to be able to purchase upcoming senior issuances from the Irish banks which are expected to be MREL eligible and therefore non-compliant. ABN Amro estimates that AIB and BOI will issue approximately €12.5 billion of holdco debt in the next five years.10 We understand that AIB and BOI are in the process of setting up holding companies to issue MREL eligible bonds, meanwhile PTSB already has a holding company in place. Such bonds are not compliant under current investment regulations, and the Central Bank has stated that it is their intention to clarify this further in the amended regulations.
- Due to regulatory requirements, traditional senior unsecured bonds are being replaced by senior bonds which qualify as MREL. By prohibiting investments in the latter, the Central Bank is effectively closing off an authorised investment class which historically has represented an important investment option for credit unions. Notably the current regulations allow up to 70% of the investment portfolio to be invested in senior bank bonds which indicates the pivotal role that bank bonds have played in credit union portfolios to date.
- Credit unions are likely to face additional pressure on income as traditional senior unsecured bonds mature in their portfolios and they seek out new bond opportunities. Senior preferred or covered bonds will yield considerably less than senior non-preferred bonds. Please refer to Section 3 which assesses the potential impact of this trend on credit unions' investment income.
- At present, on average, 18% of credit unions' investment portfolios are allocated to bank bonds. In the event that the Central Bank's proposed change to the definition of bank bonds is implemented, we expect that this allocation will contract significantly as traditional senior bonds mature and credit unions struggle to source appropriately yielding senior preferred bonds. Their only alternative in the bank bond space may be to consider covered bonds which are exempt from bail-in and therefore yield minimal amounts. Therefore, we are concerned that neither this development nor its associated implications for the sector's investments have been incorporated into the RIA. Credit unions are highly unlikely to maintain 18% of investment portfolios in bank bonds as assumed by the RIA - it is more likely to be materially lower.
- Notably credit unions will be unable to reallocate this proportion of portfolios to supranational or corporate bonds, given the proposed concentration limits on the new asset classes which on average represent a maximum of 8% and 4% respectively of the investment portfolio in total.

5 LIQUIDITY

CP109 does not address the investment return and income pressures faced by credit unions given the requirements that they maintain such high levels of liquidity. This is disappointing given the representations made to the RCU prior to the publication of the consultation. Liquidity is one of the main factors driving the investment decisions of a credit union and as a result it is remiss to exclude it when troubleshooting the investment regulations in place. Davy understands the rationale for the STLC and the requirements for credit unions to have sufficient working capital in cash. As a result, within Section 4, we have made a specific recommendation which may assist in alleviating the liquidity pressures facing credit unions without placing members' funds at risk.

¹⁰ https://insights.abnamro.nl/en/2017/04/financials-watch-ireland-the-celtic-tiger-awakens/

SECTION 3: INCOME ANALYSIS

DETAIL OF INCOME ANALYSIS

In order to assess the impact of the proposals, we have conducted testing on the average investment portfolio, based on the asset allocation as set out in the Central Bank's RIA. Please note a number of important assumptions of analysis which include:

- 1 We have assumed that credit unions allocate their portfolios to investments at the yields outlined in Table 7 - Scenario 1. We have kept these returns constant in each scenario to isolate the impact of asset allocation differences rather than asset return changes. In reality, credit unions have legacy investments rolling off at superior yields but as these differ from one portfolio to another and for ease of analysis we have assumed that a credit union is investing their full portfolio at the yields outlined below. Note that yields available on asset classes are at unusually low levels due to the ECB's quantitative easing programme.
- Where possible, the yields on the various asset classes have been sourced from Bank of America Merrill Lynch bond indices. In the main, we have selected three to five year terms. In the case of Irish and EEA state securities, we have used the yield on the Irish 5-year government bond. In the case of cash deposits, we have used the average rate available from a selection of counterparties.
- 3 In assessing the impact on income of the proposals, it is assumed that credit unions' allocation to Irish and EEA state securities does not change as they are broadly unaffected by the proposals. Collective investment schemes and other investments are not included as allocations in the portfolio as the average credit unions portfolio does not have material exposure to either asset class.
- In order to analyse the impact of the proposals on income, we have made assumptions regarding how credit unions will allocate portfolios based on the various scenarios outlined. This allocation is based on a look-forward basis and is intended to reflect how credit unions might allocate to various asset classes (and bonds in particular) once banks have met their MREL requirements in 2022. For ease of illustration, we have assumed that yields do not change during this period.
- We have assumed that credit unions will allocate up to the proposed maximum limit of supranational bonds and corporate bonds (i.e. 8% and 4% of the investment portfolio) based on the average credit union portfolio.
- We have not included social housing in this analysis as the concept has not been sufficiently well developed at this stage for it to be incorporated into the income analysis.

SCENARIO 1

Table 7: Average credit union portfolio if 100% invested today (i.e. the status quo)

			SCENARIO 1: Average credit union portfolio if invested today (i.e. the status quo)		
ASSET	YIELD 31/5/17	SOURCE OF YIELD	CURRENT ASSET ALLOCATION	AVERAGE INCOME/ YIELD	
Senior covered	0.01%	ECVE: Euro covered bonds 3-5 years*	2%	0.00%	
Senior unsecured	0.49%	EB3A: Euro Senior Banking**	16%	0.08%	
Senior non- preferred	0.78%	Yield on EB3A plus a premium to reflect senior non-preferred***		0.00%	
Term cash	0.43%	Average of 5-year term deposit rates****	65%	0.28%	
Short-term cash	-0.38%	Average of overnight rates available*****	10%	-0.04%	
Government bonds	-0.15%	Yield on the Irish 5-year government bond*****	7%	-0.01%	
Supranational	0.01%	EQ05: 1-10 year Euro Quasi-Government Index*******		0.00%	
Corporate	0.37%	ER32: Euro Corp A 3-5 year******		0.00%	
Total			100%	0.31%	

* BofA ML 3-5 year Euro Covered Bond Index

** BofA ML Euro Senior Banking Index

Methodology in sourcing yields:

- The above yields are as at 31st May 2017.
- Where possible, the yields on the various assets have been sourced from Bank of America Merrill Lynch (BofA ML) bond indices. We have selected three to five year indices where possible.
- The yield on the Irish 5-year government bond (Irish 0.8% 2022) has been incorporated for government bonds.
- The cash deposit rates (term deposits and short-term cash) represent the average available from a selection of financial institutions. In respect of term deposit cash, we have assumed that a credit union places 65% of their portfolio for a five-year term which is not realistic. The cash deposits are more likely to be allocated across various terms from three months out to circa five years, and based on figures received from the Central Bank we know the weighted average term to maturity of cash deposits to be just under two years. However we have made this assumption for ease of modelling. This assumption means that the weighted return is likely to be overstated. We do not consider this to have a material impact on our analysis.
- The BofA ML Euro Senior Banking Index incorporates a proportion of senior non-preferred bonds in addition to bonds that may be statutorily subordinated (German bonds). As a result the yield on the asset class is overstated. Unfortunately we were unable to source a senior unsecured bond index which did not incorporate statutorily subordinated bonds.
- The yield on the senior non-preferred bank bonds is based on the yield on the BofA ML Euro Senior Banking Index plus a premium of 0.29% which is based on the average from a number of bonds. Please refer to Appendix 3 for further information.

Source: Davy with reference to Bloomberg

^{***} BofA ML Senior Banking Index plus a premium to reflect senior non preferred

^{****} Average of 5-year deposit rates from AIB, PTSB and Ulster Bank

Average of overnight rates from BOI and AIB

Irish government bond 0.8% 15/03/2022

^{*******} BofA ML Euro 1-10 year Euro Quasi Government Index

^{*********} BofA ML Euro Corp A 3-5 year index

The BofA ML Euro 1-10 year Euro Quasi-Government Index includes bonds which are not supranational issuers and other bonds which do not meet the minimum 'A' requirement. As a result, the yield on this asset class is likely to be overstated.

This scenario shows that if a credit union were to invest in the authorised asset classes in the allocations set out above (which we believe to be broadly indicative of the average credit union), the weighted average yield on the investment portfolio would be 0.31%.

Based on figures from the Central Bank¹¹, the return on investments as at 30th September 2015 was 1.80%. The differential between 1.80% and the weighted average income of 0.31% in Scenario 1 illustrates the extent of the pressure on credit union's investment income.

SCENARIO 2

Table 8: How a credit union's asset allocation and weighted average income might look in the future if senior non-preferred bonds are not authorised

		SCENARIO 1: Average credit union portfolio if invested today (i.e. the status quo)		SCENARIO 2: Assume senior non- preferred bonds are not authorised		
ASSET	YIELD 31/5/17	CURRENT ASSET ALLOCATION	AVERAGE INCOME/YIELD	ASSUMED ASSET ALLOCATION	WEIGHTED AVERAGE INCOME	
Senior covered	0.01%	2%	0.00%	6%	0.00%	
Senior unsecured	0.49%	16%	0.08%	6%	0.03%	
Senior non- preferred	0.78%		0.00%		0.00%	
Term cash	0.43%	65%	0.28%	65%	0.28%	
Short-term cash	-0.38%	10%	-0.04%	16%	-0.06%	
Government bonds	-0.15%	7%	-0.01%	7%	-0.01%	
Supranational	0.01%		0.00%		0.00%	
Corporate	0.37%		0.00%		0.00%	
TOTAL		100%	0.31%	100%	0.24%	
Weighted average income of Scenario 2					0.24%	
Income differentia	ario 1)	-0.07%				
Income differentia	Income differential in euro terms at movement level (per annum)					
Projected propor	-23%					

- Credit unions' bank bond allocation will decrease from 18% to 12% as traditional senior unsecured bonds may not be available or may not be attractive from a risk return perspective. Credit unions are likely to increase their allocation to senior secured bonds (i.e. covered bonds) as they will have little other investment alternatives. They may also increase their short-term cash weighting rather than placing longer-term deposits at near zero rates (or there simply may not be availability of long-term cash deposits).
- We have assumed credit unions do not allocate to supranational or corporate bonds so as to model the effect on income of the proposed changes to bank bond regulations in isolation.

¹¹ https://www.centralbank.ie/docs/default-source/Regulation/industry-market-sectors/credit-unions/communications/statistics/financialconditions-of-credit-unions-2011---2016.pdf?sfvrsn=2

- If the proposed changes to bank bond regulations are implemented, we forecast that the weighted average income on the portfolio is likely to decline to 0.24%. This represents a decrease of 0.07% versus Scenario 1 (i.e. the status quo). Credit unions will be compelled to increase allocations to senior secured bonds and also to short-term cash due to a lack of investment alternatives.
- This denotes an overall proportional decrease of 23% versus Scenario 1 and represents a reduction of circa €8.1 million of investment income at movement level per annum.

SCENARIO 3

Table 9: How a credit union's asset allocation and weighted average income might look in the future if senior non-preferred bonds are not authorised and credit unions allocate to supranational and corporate bonds

		SCENARIO 1: Average credit union portfolio if invested today (i.e. the status quo)		SCENARIO 3: Assume senior non- preferred bonds are not authorised and credit unions allocate to supranational and corporate bonds		
ASSET	YIELD 31/5/17	CURRENT ASSET ALLOCATION	AVERAGE INCOME/YIELD	ASSUMED ASSET ALLOCATION	WEIGHTED AVERAGE INCOME	
Senior covered	0.01%	2%	0.00%	6%	0.00%	
Senior unsecured	0.49%	16%	0.08%	6%	0.03%	
Senior non- preferred	0.78%		0.00%		0.00%	
Term cash	0.43%	65%	0.28%	59%	0.26%	
Short-term cash	-0.38%	10%	-0.04%	10%	-0.04%	
Government bonds	-0.15%	7%	-0.01%	7%	-0.01%	
Supranational	0.01%		0.00%	8%	0.00%	
Corporate	0.37%		0.00%	4%	0.01%	
TOTAL		100%	0.31%	100%	0.25%	
Weighted average		0.25%				
Income differentia	rio 1)	-0.06%				
Income differential in euro terms at movement level (per annum) -€6,726,000						
Projected proportional change in investment income (versus Scenario 1) -19%						

- Credit unions' bank bond allocation will decrease from 18% to 12% as traditional senior unsecured bonds may not be available or may not be attractive from a risk return perspective. Credit unions will increase their allocation to senior secured bonds (i.e. covered bonds) to substitute for lower senior unsecured allocation.
- Credit unions reallocate from senior unsecured bonds and term cash deposits to the supranational and corporate bonds up to the proposed maximum concentration limits.

- The weighted average income on the portfolio is likely to decline to 0.25%. This represents a decrease of 0.06% versus Scenario 1 (i.e. the status quo).
- This denotes an overall proportional decrease of 19% versus Scenario 1 and represents a reduction of circa €6.7 million of investment income at movement level per annum.
- This scenario outlines that the proposal of supranational and corporate bonds as new asset classes is unlikely to generate additional income for credit unions and in fact based on current yields available on supranational and corporate bonds may depress income further. We accept however that there are likely to be diversification benefits to the portfolio and also that yields available on both asset classes are at unusually low levels due to the ECB's quantitative easing programme.

SCENARIO 4

Table 10: How a credit union's asset allocation and weighted average income might look in the future if senior non-preferred bonds are authorised

		SCENARIO 1: Average credit union portfolio if invested today (i.e. the status quo)		SCENARIO 4: Assume senior non- preferred bonds are authorised		
ASSET	YIELD 31/5/17	CURRENT ASSET ALLOCATION	AVERAGE INCOME/YIELD	ASSUMED ASSET ALLOCATION	WEIGHTED AVERAGE INCOME	
Senior covered	0.01%	2%	0.00%	2%	0.00%	
Senior unsecured	0.49%	16%	0.08%	6%	0.03%	
Senior non- preferred	0.78%		0.00%	10%	0.08%	
Term cash	0.43%	65%	0.28%	65%	0.28%	
Short-term cash	-0.38%	10%	-0.04%	10%	-0.04%	
Government bonds	-0.15%	7%	-0.01%	7%	-0.01%	
Supranational	0.01%		0.00%	0%	0.00%	
Corporate	0.37%		0.00%	0%	0.00%	
TOTAL		100%	0.31%	100%	0.34%	
Weighted averag		0.34%				
Income differenti	rio 1)	0.03%				
Income differenti	€3,306,000					
Projected propor	9%					

- Credit unions maintain an 18% weighting in bank bonds. The distribution of the weighting across different types of bank bonds changes to reflect the issuance focus of EU banks in the coming years. Credit unions reallocate 10% of their investment portfolios from senior unsecured to senior non-preferred bonds.
- We assume no changes to allocations to other asset class and have also assumed credit unions do not allocate to supranational or corporate bonds so as to analyse the effect on income if senior non-preferred bonds were authorised.

- The weighted average income on the portfolio is likely to increase to 0.34% if senior non-preferred bonds are authorised.
- This denotes an overall proportional increase of 9% versus Scenario 1 and represents an increase of €3.3 million of investment income at movement level per annum.

SCENARIO 5

Table 11: How a credit union's asset allocation and weighted average income might look in the future if senior non-preferred bonds are authorised and credit unions allocate to corporate and supranational bonds

		SCENARIO 1: Average credit union portfolio if invested today (i.e. the status quo)		SCENARIO 5: Assume senior non- preferred bonds are authorised and credit unions allocate to supranational and corporate bonds		
ASSET	YIELD 31/5/17	CURRENT ASSET ALLOCATION	AVERAGE INCOME/YIELD	ASSUMED ASSET ALLOCATION	WEIGHTED AVERAGE INCOME	
Senior covered	0.01%	2%	0.00%	2%	0.00%	
Senior unsecured	0.49%	16%	0.08%	6%	0.03%	
Senior non- preferred	0.78%		0.00%	10%	0.08%	
Term cash	0.43%	65%	0.28%	53%	0.23%	
Short-term cash	-0.38%	10%	-0.04%	10%	-0.04%	
Government bonds	-0.15%	7%	-0.01%	7%	-0.01%	
Supranational	0.01%		0.00%	8%	0.00%	
Corporate	0.37%		0.00%	4%	0.02%	
TOTAL 100% 0.31% 1009				100%	0.31%	
Weighted average	0.31%					
Income differentia	rio 1)	-0.01%				
Income differentia		-€729,600				
Projected proport	-2%					

- Credit unions maintain an 18% weighting in bank bonds. The distribution of the weighting across different types of bank bonds changes to reflect the issuance focus of EU banks in the coming years. Credit unions reallocate 10% of their investment portfolios from senior unsecured to senior non-preferred bonds.
- Credit unions reallocate from term cash deposits to supranational and corporate bonds up
 to the proposed maximum concentration limit (circa 8% and 4% of the investment portfolio
 respectively).

- The weighted average income on the portfolio is likely to decrease to 0.31% per annum. This represents a decrease of 0.01% per annum versus Scenario 1 (i.e. the status quo) if senior non-preferred bonds are authorised and credit unions allocate to supranational and corporate bonds. This denotes an overall relative decrease of 2% versus Scenario 1.
- This represents a decrease of circa €729,000 of investment income per annum at movement level.
- As can be seen when compared with Scenario 4, the allocation to supranational and corporate bonds has actually reduced the weighted average income of the portfolio. We accept however that there are likely to be diversification benefits to their inclusion in portfolios.

SCENARIO 1: Average credit union | SCENARIO 6: Assume senior non-

SCENARIO 6

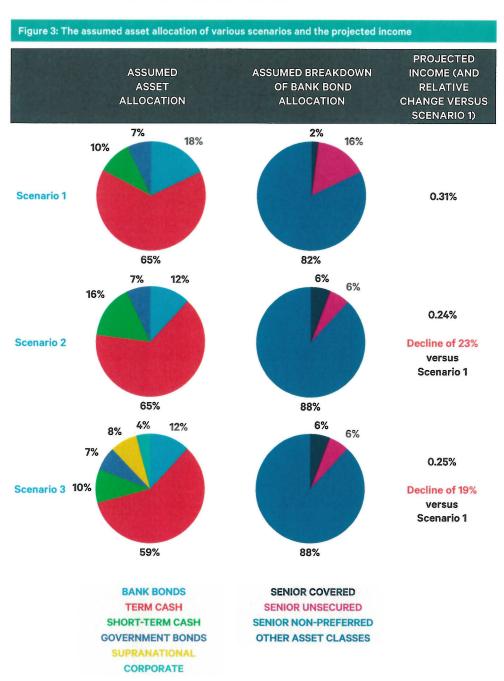
Table 12: Senior non-preferred bonds are authorised, credit unions allocate to corporate and supranational bonds and certain bonds may be treated as liquid for liquidity ratios

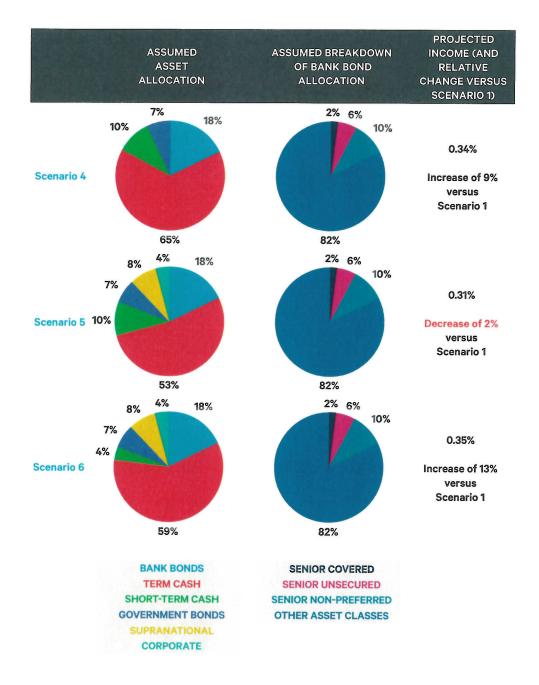
	YIELD 31/5/17	portfolio if inves status quo)	ted today (i.e. the	preferred bonds are authorised. Supranational and corporate bonds are also authorised. Certain bonds may be interpreted as liquid for liquidity ratios		
ASSET		CURRENT ASSET ALLOCATION	AVERAGE INCOME/YIELD	ASSUMED ASSET ALLOCATION	WEIGHTED AVERAGE INCOME	
Senior covered	0.01%	2%	0.00%	2%	0.00%	
Senior unsecured	0.49%	16%	0.08%	6%	0.03%	
Senior non- preferred	0.78%		0.00%	10%	0.08%	
Term cash	0.43%	65%	0.28%	59%	0.26%	
Short-term cash	-0.38%	10%	-0.04%	4%	-0.02%	
Government bonds	-0.15%	7%	-0.01%	7%	-0.01%	
Supranational	0.01%		0.00%	8%	0.00%	
Corporate	0.37%		0.00%	4%	0.01%	
TOTAL		100%	0.31%	100%	0.35%	
Weighted average	e income c	of Scenario 6			0.35%	
Income differentia	al versus c	urrent weighted a	verage yield (Scena	ario 1)	0.04%	
Income differentia	al in euro t	erms at movemen	it level (per annum)		€4,719,600	
Projected proport	tional char	nge in investment	income (versus Sce	nario 1)	13%	

- Credit unions maintain an 18% weighting in bank bonds. The distribution of the weighting across different types of bank bonds changes to reflect the issuance focus of EU banks in the coming years. Credit unions reallocate 10% of their investment portfolios from senior unsecured to senior non-preferred bonds.
- Credit unions reduce their short-term cash allocation from 10% to 4% as their allocations to government, supranational and corporate bonds may contribute to liquidity.
- Credit unions allocate 4% of their portfolios to corporate bonds and 8% to supranational bonds 20 Davy Submission on CP109 (up the maximum proposed concentration limits).

- The weighted average income on the portfolio is likely to increase to 0.35%. This represents an increase of 0.04% per annum versus Scenario 1 (i.e. the status quo) if senior non-preferred bonds are authorised, credit unions allocate to supranational and corporate bonds and certain bonds may be treated as liquid for the purposes of regulatory liquidity ratios.
- This denotes an overall relative increase of 13% versus Scenario 1.
- This represents an increase of circa €4.7 million of investment income per annum at movement level.

OVERVIEW OF FINDINGS FROM INCOME ANALYSIS





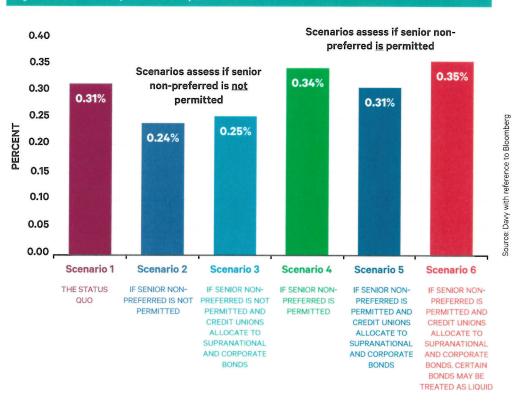


Figure 4: Scenario analysis and the impact on income

- The proposal by the Central Bank to prohibit credit unions from investing in any subordinated senior bonds is likely to reduce weighted average income by circa 23% from current levels.
- If the Central Bank authorises senior non-preferred bonds, and assuming that credit unions do not increase their bond weighting above 18% of the investment portfolio, we anticipate that the weighted average income of portfolios could increase by 0.03% to 0.34%. This represents a proportional increase of 9% versus Scenario 1.
- At current yields, the proposed introduction of supranational bonds and corporate bonds are unlikely to contribute to the weighted average yield on portfolios and in fact may detract from portfolio performance. This may be attributed to two main factors: first, the yields on supranational bonds are effectively zero and secondly, the concentration limit on corporate bonds is so low that the asset class is unlikely to make a material difference to portfolios from either an income assessment or potentially from a diversification perspective.
- In the event that government, supranational and corporate bonds may be treated as liquid for regulatory liquidity, credit unions may reduce the extent of cash held in deposits which are accessible or have less than eight days to maturity. This development is likely to contribute circa 0.04% in additional income to credit union portfolios; this represents a 13% gain versus current weighted average income.

SECTION 4: RECOMMENDATIONS

1 LIQUIDITY

Davy strongly believes that certain bonds should be considered liquid for both the purposes of the short-term liquidity constraint and regulatory liquidity. This would be consistent with the liquidity coverage ratio (LCR) in the banking regulations and also the investment regulations in Northern Ireland and the UK. In general, bonds are liquid assets which may be realised for cash in less than two working days and therefore would represent an ideal liquidity source for credit unions. In light of industry and market developments, it is impractical and unduly penal to force credit unions to source all liquidity from cash deposits.

Davy proposes that the assets outlined in the table below should be considered as liquid assets. We gave detailed consideration to establishing which assets should be regarded as liquid and what would be regarded as an appropriate haircut. Bank's liquidity requirements under the LCR and also comparable credit union regulations in the UK and Northern Ireland were a useful source of reference.

Table 13: Proposed expansion of the regulatory definition of 'liquid assets' and associated haircuts

ASSET	QUALIFICATIONS	HAIRCUT FOR THE PURPOSES OF LIQUIDITY (% OF MARKET VALUE)
Irish and EEA securities	Investment grade	5%
Supranational bonds	Minimum rating of 'A'	5%
Corporate bonds	Minimum rating of 'A'	30%

- It should be noted that we have not proposed senior bank bonds as liquid assets. This is consistent with liquidity regulations for banks under the LCR.
- Davy recommends that transferable securities may contribute up to a maximum of 50% of the regulatory liquidity ratios as we recognise the need for credit unions to maintain access to cash deposits as working capital.

2 THE COUNTERPARTY LIMIT OF 25% SHOULD REMAIN UNCHANGED

In our view now is not the time to reduce the counterparty limit to 20% for the following reasons:

- Credit unions are facing mounting counterparty pressures, particularly when sourcing short term deposits. These pressures will intensify over the next month or so, when Rabobank departs the credit union deposit market.
- Credit unions are more likely to achieve further diversification of counterparties if there is a broader range of asset classes available to them and they may extend their investment portfolios beyond deposits with the main Irish banks.
- Due to excess liquidity and the negative rate on the ECB's deposit facility, European banks have no appetite for deposits in the current environment. We have concerns that in the event the counterparty limit was reduced, due to the lack of availability of appropriate short term and medium term deposits, credit unions may be unnecessarily forced to invest in long term deposits or purchase bonds which have negative yields. Alternatively they may encompass inappropriate credit or interest rate risk in an effort to comply with the proposed counterparty limit.

3 BANK BONDS

- We recommend that credit unions should be authorised to invest in senior bank bonds (including those which are MREL eligible) with the provision that they are investment grade bonds.
- We recommend that this proposal should be reviewed in the coming years. It is clear that bank's issuance needs are changing materially in response to regulatory requirements. As a result, it makes sense to review these proposals as banks phase in their MREL requirements.

4 THE CONCENTRATION LIMITS OF ADDITIONAL ASSET CLASSES (SUPRANATIONAL AND CORPORATE BONDS) SHOULD BE INCORPORATED INTO EXISTING CONCENTRATION LIMITS

Davy welcomes the proposed inclusion of supranational bonds and corporate bonds as authorised investments. However when the proposed concentration limits are translated to a percentage of a credit union's investment portfolio, on average they represent minimal proportions (circa 8% in the case of supranational bonds and circa 4% in the case of corporate bonds) which are likely to contribute negligible diversification benefits to the portfolio. Furthermore, we do not see the rationale for linking the concentration limits on new asset classes to regulatory reserves while existing concentration limits are referenced to the total size of the investment portfolio; this appears to be an arbitrary measure that is not underpinned by any known investment thesis. For consistency, any change to concentration limits should only be considered at asset level and Davy recommends the following:

Table 14: Proposed concentration limits

REVISED CLASSES OF INVESTMENTS	REVISED CONCENTRATION LIMITS (% INVESTMENT PORTFOLIO)
Irish, EEA state securities and supranational bonds	70%
Accounts in credit institutions	100% (unchanged)
Senior bank bonds (which do not qualify as MREL) MREL eligible senior bank bonds (investment grade) Corporate bonds (A rated)	70%
Collective investment schemes (deposits)	No limit (unchanged)
Collective investment schemes (non-deposits)	Concentration limit of underlying asset class should apply*
Social housing: Investments in Tier 3 AHBs	5%

^{*}For example if a credit union invests in a government bond collective investment scheme, then this investment should be incorporated into their overall government bond exposure and the proposed concentration limit of 70% should apply.

SECTION 5:

RESPONSES TO THE CENTRAL BANK'S QUESTIONS

1 Do you have any comments on the current level of diversification in credit union investment portfolios? Are there any barriers to the use of existing diversification options within the current investment framework? If so, please provide details and any suggestions to address these.

We agree with the Central Bank that credit union investment portfolios are too concentrated. particularly in the case of bank deposits. In the main, factors outside of the control of credit unions have caused this over-concentration; primarily the contraction in asset classes as a result of investment regulations and also financial market conditions. The range of authorised investments in current regulations is very restrictive and over several years has been incrementally reduced so that no growth assets are permitted. In 2013, the Central Bank proposed the inclusion of corporate bonds as an additional class for certain credit unions and this proposal was warmly welcomed by the sector. However the Central Bank did not implement the proposal and corporate bonds were not included in the final investment regulations published in 2016. The decision was unfortunate because it is one of the factors which are likely to have contributed to the overconcentration of portfolios in deposits and bank bonds. In addition, as Table 1 in Section 1 illustrates, due to exceptional market conditions certain asset classes have not been investable in recent years and credit unions have little choice other than to consider cash deposits or bank bonds. This low interest rate environment also makes capital protected products linked to the performance of equity markets unattractive and when one considers the yields available on EU government bonds, they have really not been investable in recent years unless a credit union has been willing to take on significant duration risk or alternatively credit risk.

Historically low yields have prohibited the setting up of collective investment schemes which will generate satisfactory net returns having covered costs such as fund management, custodian and administration fees.

2 Do you have any comments on the potential introduction of additional investment classes for credit unions and the appropriateness of the classes being considered by the Central Bank?

We agree with the proposal to include supranational bonds and corporate bonds. We feel they are appropriate and will provide diversification benefits to investment portfolios. However the proposed concentration limits by reference to a percentage of regulatory reserves renders the proposal almost non material particularly in the context of corporate bonds. Our proposal is to switch any change to concentration limits to asset level which is more appropriate and consistent with investment principles.

- 3 Taking account of the appropriate risk profile for credit union investments, are there any additional investment classes that the Central Bank should consider? If so, please outline the investment classes and why such investment classes are considered appropriate for credit unions.
 - Yes. Certain credit unions should be allowed to invest in senior bank bonds, regardless of whether they are subordinated to other senior obligations in the capital structure. Bank bonds have always been an authorised investment for credit unions, whether it is under the Trustee Authorised Investment Order (TAIO), the 2006 Guidance Note or the Credit Union Act 1997 (Regulatory Requirements) Regulations 2016. If the Central Bank's proposal to constrain the type of senior bond authorised is implemented, it will effectively rule out the vast majority of new issuance over the coming years and as old traditional senior bonds mature, the universe of authorised bank bonds will contract materially.

- Having placed such an emphasis on risk management, fitness and probity and prudent governance arrangements since the commencement of the Credit Union and Cooperation with Overseas Regulators Act 2012, the RCU should allow credit unions to assess investments (which are within the prescribed classes authorised by the central bank) and decide if they are suitable and whether they are aligned with their investment objectives.
- 4 Do you have any comments on the potential to include supranational bonds in the list of authorised classes of investments set out in credit union investment regulations with a minimum credit rating requirement and maturity limit?

Davy agrees with this proposal, together with proposed minimum credit rating and maturity limit. The asset class will provide diversification benefits and also allow credit unions to access a wider range of counterparties. We await clarification of the definition of a supranational entity. The attractiveness of yields in the current environment is unlikely to result in any meaningful move to this asset type while the average return remains at circa 0.01%.

- 5 Do you have any comments on the suggested concentration limit for credit union investments in supranational bonds? If you have suggestions, please provide them along with supporting rationale.
 - We oppose the introduction of regulatory reserves as a concentration limit. From an investment perspective it is unusual to introduce limits that are related to regulatory reserves and therefore are unrelated to an investment thesis. The regulatory reserve figure appears to be arbitrary and is not directly correlated to the investment portfolio and its use in the manner proposed is likely to create complications in terms of management of asset concentration limits.
 - When the proposed limit of 50% is translated to a percentage of the investment portfolio, the limits equate to such a small percentage of the investment portfolio they are likely to have minimal diversification benefits. A rationale for the methodology or the basis behind the proposed concentration limits of the additional asset classes would have been welcome as we are struggling to understand why 50% of the regulated reserve has been proposed.
 - A limit of 50% of the regulatory reserve is at odds with the investment limit of 70% of the investment portfolio in government bonds, which roughly equates to over 300% of the regulatory reserve. We note that no definition of a supranational has been proposed. Given the minimum rating of "A", we suggest that there will be less risk inherent in the potential bonds in this class than those authorised under Irish and EEA state securities. Therefore the concentration limits on additional asset classes are inconsistent with those already in place in existing regulations.
 - Davy proposes that the concentration limits on supranational bonds is incorporated into the concentration limit on government bonds which is based on the investment portfolio.

CORPORATE BONDS:

- 6 Do you have any comments on the potential to include corporate bonds in the list of authorised classes of investments set out in credit union investment regulations with a minimum credit rating requirement and maturity limit?
 - Davy agrees with this proposal, together with proposed minimum credit rating and maturity limit.
 However we feel that the proposed concentration limit is far too restrictive which is why Davy has suggested that concentration limits are addressed at asset class level.

- Do you have any comments on the suggested concentration limit for credit union investments in corporate bonds? If you have suggestions, please provide them along with supporting rationale.
 - Please refer to the first point of our response to Question 5.
 - When the proposed limit of 25% is translated to a percentage of the investment portfolio, the limit equates to circa. 4% based on the average credit union. This represents such a small percentage of the investment portfolio they are unlikely to have any material diversification benefits. If the Central Bank implements the proposed changes to bank bonds, credit unions have circa 18% of portfolios which they will be potentially looking to reallocate to alternative asset classes including corporate bonds.
 - A rationale for the methodology or the basis behind the proposed concentration limits of the additional asset classes would have been welcome as we do not understand why 25% of the regulatory reserve has been proposed, particularly when the Central Bank proposed 50% of the regulatory reserve when CP76 was published in December 2013.
 - A limit of 25% of the regulatory reserve is at odds with the investment limit of 70% of investment portfolio in bank bonds, which roughly equates to over 300% of the regulatory reserve. Davy proposes that the concentration limit on corporate bonds is incorporated into the existing concentration limit on bank bonds.

INVESTMENTS IN AHBs:

- 8 Do you think it is appropriate for credit unions to undertake investments in AHBs? If so, please provide a rationale.
 - Credit unions are a natural investor in social housing. As community based cooperative organisations, credit unions can play a significant role in financing social housing.
 - Although credit unions are run on a not-for-profit basis, they must also be run on a sound commercial basis, and as a result appropriate vehicles must be put in place to make credit unions' investment in social housing meaningful, affordable to credit unions and affordable by housing applicants.
- What would the most appropriate structure for investments in AHBs be e.g. investment vehicle?

Davy believes further clarification on Central Bank thinking in this area is desired as we are aware that representations have been made to the Central Bank on social housing investment vehicles. In our view, we feel that special purpose vehicles (SPVs) or collective investment schemes are potentially the most appropriate structures for investments in AHBs. We recommend that the Central Bank opens an application process that accepts proposals with assessments conducted on a case by case basis.

10 What do you consider to be the risks associated with this type of investment and what mitigants do you feel are available to manage these risks?

Davy have referred to a report from the housing agency and to their website¹² which devotes a section to AHB regulation.

The report indicates the need for further regulation of the sector which is at the early stages of regulation in Ireland, and that as a result, the role of the Regulation Office will not solely be to monitor and evaluate returns. It highlights that within a system that is embryonic and evolving, the remit of the agency must be broader and more supportive than this. They outline plans to work with AHBs and their boards to provide education, guidance, and support in meeting these new regulatory commitments.

Other risks associated with investing in this sector include:

Liquidity risk

Investments in AHBs may be expected to be illiquid and as a result credit unions may be unable to exit the investment during the length of its term which may be a period as long as 25 years.

Investment risk

 The risk of underperformance of the asset versus expectations and versus targets that each credit union might have for investment returns.

Regulatory risk

 Risks around the governance of individual AHBs in relation to fraud, inappropriate investments, poor financial management etc.

Financial risk

 Risks around inappropriate funding for the AHB, insufficient funding to ensure viability and inappropriate balance sheet management in the context of pledges and securitisation.

Business model risk

The risk that the sector may not be viable in the longer term due to funding issues, costs, withdrawal of government support/funding or other similar reasons.

11 How can the ALM issues associated with such investments be addressed by credit unions?

Davy believes that the only realistic way of dealing with the ALM issues arising from investments in AHBs is to provide the investment through a collective investment vehicle which is large and accessible to all credit unions.

That said, we recognise that given the underlying risks associated with the illiquid nature of the investments in AHBs, and the longer-term nature of the underlying property assets, it is impossible to fully eliminate the risks associated with the mismatch in objectives between the AHB and the investors (credit unions). In this context consideration must be given to the fact that the social ethos and shared principles of both sectors potentially ranks above an investment thesis. Until the sector is further developed and investment vehicles have been successfully set up (and authorised) we recommend that the concentration limit remains modest initially but remains under review for potential upward revision as the sector develops over the next few years.

12 Given the existing mismatch between the maturity profile of the sector's funding and assets and the likely maturity profile of such investments, the Central Bank is of the view that the concentration limit would need to be set at a level that reflects this. Do you have any views on what an appropriate concentration limit would be for such an investment? What liquidity and ALM requirements could be introduced to mitigate these risks and potentially facilitate a larger concentration limit?

Davy believes that an appropriate concentration limit for AHBs should initially be 5% of the investment portfolio. For an investment in AHBs to work, we recognise that a long time horizon is required. However creating an explicit ALM match is problematic as credit unions do not typically lend money for 25 years. Under existing regulations, credit unions are permitted to lend for a maximum period of 25 years, subject to overall maturity limits on the loan book. In reality, no lending of this duration takes place. In fact, very little lending beyond 10 years takes place by credit unions. It is in this context that we see the duration of AHB investments as remaining an outlier in ALM terms as it is not possible in our view to duration match AHB investments and the loan book of credit unions. Rather, investment in AHBs needs to be looked at on a portfolio basis and in this context, a 5% weighting will not pose a significant risk in ALM terms, as the overall investment portfolio duration remains relatively short.

13 Do you have any comments on the proposal to include investments in Tier 3 AHBs in the list of authorised classes of investments set out in credit union investment regulations with a 25 year maturity limit?

In the context of other assets that are permissible under current regulations a 25-year time horizon would be too long. However for an investment in social housing to be tenable we accept that a term of up to 25 years would be required. We further recognise that credit unions are a natural participant in the space in funding investment in social housing. In an ideal world this might be done on a different basis through lending to members directly or schemes such as the tenant purchase of apartment scheme¹³ (TPAS) and the incremental tenant purchase scheme¹⁴ introduced under the housing (sale of local authority houses) regulations 2015.15

We also recognise and acknowledge the principles of community-based financial cooperatives in educating and encouraging their members to manage their finances in the most effective manner possible. For members who perhaps cannot afford to buy their own home, or cannot afford private rented housing, there is no other option currently to renting their property from an AHB.

Some other options that we think are worthy of consideration in this space would include:

- The development between credit unions and a department within the NTMA with expertise developed from their handling of property transactions to create a dedicated fund to develop, build, own and operate a portfolio of social housing to be made available to borrowers through application via their local credit union, where they may have been a member for many years and may have successfully repaid many loans over a long period.
- Examination of the market models used in other countries that encourage rental rather than ownership of property such as Germany¹⁶ and France¹⁷.

¹³ http://www.housing.gov.ie/housing/social-housing/tenant-purchase-scheme/how-do-i-buy-my-local-authority-apartment

¹⁴ http://www.housing.gov.ie/housing/home-ownership/tenant-purchase-scheme/new-incremental-tenant-purchase-scheme

¹⁵ http://www.irishstatutebook.ie/eli/2015/si/484/made/en/print/

¹⁶ Bürgerliches Gesetzbuch (German civil code) as amended by the tenancy law reform acts, Mietrechtsreformgesetz

Wermaz act 1989; http://www.eui.eu/Documents/DepartmentsCentres/Law/ResearchTeaching/ResearchThemes/EuropeanPrivateLaw/ TenancyLawProject/TenancyLawFrance.pdf https://fra.europa.eu/sites/default/files/fra_uploads/247-FR_Housing.pdf

COUNTERPARTY EXPOSURE LIMIT:

- 14 Do you have any comments on the proposal to amend the existing counterparty limit for credit union investments? If you have suggestions, please provide them along with supporting rationale.
 - As outlined in Section 4, we do not feel it is appropriate to reduce the counterparty limit for credit union investments at this time. As the RCU is aware, investment options for credit unions are severely limited at this time, particularly in the deposit space. This stress is likely to intensify over the coming months upon Rabobank's departure. Therefore the timing is not right to implement this proposal.
 - The proposal could produce unintended consequences in that it could potentially force certain credit unions to invest in bonds or long-term structured products in order to access a greater range of counterparties. Such credit unions may have no desire to invest in these asset classes and they may be entirely inconsistent with their investment objectives. They should not be forced to invest in alternative asset classes in order to merely comply with a regulatory counterparty limit. Furthermore, we suggest that it is arguably the worst point in the interest rate cycle for credit unions to be compelled to purchase government and bank bonds as they are likely to show losses once interest rates begin to rise in line with market expectations.
- 15 Do you have any comments on the proposed transitional arrangement to reduce the counterparty limit to 20% of total investments?

The matter of a transitional period should not arise. If the Central Bank presents a solid rationale for forcing this agenda then we do not agree with the time frame and would propose a 24-month transitional period. The ECB is broadly expected to start increasing rates during late 2018/early 2019. A 24-month transitional period may give additional breathing space for the interest rate environment to start normalising before credit union options are further constrained.

COLLECTIVE INVESTMENT SCHEMES:

- 16 Do you have any comments on the use of collective investment schemes for credit union investments?
 - Davy advocates the use of collective investment schemes for credit unions. We believe that there are multiple benefits. Credit unions may benefit from the active management of experienced fund managers and will further benefit from the separate and additional regulatory framework that underpins CISs. For example, techniques may be employed such as rolling down the curve or alternatively active liquidity management whereby a proportion of cash deposits in the CIS can be invested beyond 30 days which are more attractive to banks from an LCR perspective and therefore deposit rates may be higher yielding. Techniques such as this assist in optimising performance.
 - The notion of treasury management was floated in the Irish credit union sector over 10 years ago but to no avail. We believe that there is little chance of the Irish credit union movement emulating the progression of Canadian credit unions towards treasury management. In our view, credit unions in Ireland have little interest in relinquishing control over investments and prefer to manage their investments in accordance with their own investment objectives.

- 17 Are there any barriers to credit unions using collective investment schemes in the existing investment regulatory framework?
 - We would argue that the barriers are predominantly on the supply side and emanate from the investment environment. The ultra-low yield environment means that it is near impossible for a fund to generate sufficient yield to cover the costs involved in the set up and the ongoing management of the schemes, and also to generate a sufficient net yield to compensate investors for the risks involved.
 - Under FRS 102, collective investment schemes are regarded as complex investments and therefore must be valued at fair value. Many credit unions hold a preference for valuing investments on an amortised cost basis and therefore may be reluctant to absorb the mark to market volatility of collective investment schemes.
 - Ultimately advisers are likely to be the main parties setting up authorised collective investment schemes. Given the fragmented nature of the sector, it is difficult for advisers to build critical mass to cover and sufficiently dilute the costs involved in setting up a collective investment scheme.
 - Authorisation process in the Central Bank may represent a barrier for advisers. There is significant background work and costs from a legal and technical perspective in the preparation of the set-up of a collective investment scheme. Advisers may be forced to absorb these costs in the event that the Central Bank does not authorise the vehicle.

TIMELINES:

- 18 Do you agree with the proposed timelines for the introduction of potential changes to the investment framework set out in this consultation paper? If you have other suggestions please provide them, along with the supporting rationale.
 - We agree with the proposed timelines for the introduction of potential changes to the investment framework set out in this consultation paper.
 - However we would argue that changes are required which are not set out in this consultation paper (please refer to Section 2), particularly in respect of liquidity, and we would urge the RCU to give consideration to implementing these changes ahead of the proposed timeline.

SECTION 6: APPENDICES

APPENDIX 1: CURRENT OVERNIGHT DEPOSIT RATES

Table 15: Overnight/on-demand rates available to credit unions

BANK	AVAILABLE	RATE	COMMENT
BOI	✓	-0.30%	Negative rates out to 1 year.
AIB	✓	-0.40%	Negative rates out to 1 year cap on current account balances is under review.
Ulster Bank	?	0%	Under review.
PTSB	×	N/A	Not quoting for on demand.
KBC Ireland	?	0.01%	This is available at present but is under review. It is strictly capped on a credit union by credit union basis.
Rabobank	(Withdrawing 30th June 2017)	N/A	Deposit base is virtually all on demand. Withdrawing 30th June 2017.
Danske Bank	✓	-0.55%	
Royal Bank of Canada	✓	-0.75%	
Barclays Bank Ireland Plc	×	N/A	Some banks are not interested in quoting for overnight deposits if the relationship is purely deposit based.

[?] Based on our conversations with the banks, on-demand rates are available but they are under review by the banks and the offerings may be pulled in the coming months.

APPENDIX 2: ASSESSING APPROPRIATE HAIRCUTS ON BONDS FOR LIQUIDITY

 Banks' liquidity requirements: Under the liquidity coverage ratio (LCR) banks must hold sufficient high-quality liquid assets (HQLA) to cover projected outflows over a 30-day stress period. HQLA may be sourced from a range of assets including government bonds, corporate bonds and even equities. The assets are ranked in three tiers according to how liquid they are deemed to be and haircuts are applied based on this liquidity:

Table 16: Liquid assets and associated haircuts under the LCR

LEVEL	QUALIFYING ASSETS	HAIRCUT
Level 1	Cash deposits, EU member state government bonds. Certain covered bonds	0%
		7%
Level 2A	Certain bonds issued by public sector entities, higher rated non-financial corporate bonds and covered bonds	Minimum 15%
Level 2B	Lower rated non-financial corporate bonds, equities	25-50%

Source: http://europa.eu/rapid/press-release_MEMO-14-579_en.htm

Notably, there is no haircut applied on government bonds and the haircut applied on higher rated corporate bonds is circa15%.

The second option is to maintain consistency with the UK and NI credit union regulations via the PRA Reform of the Legacy Credit Union Sourcebook?. Both government and bank bonds are considered liquid and a blanket haircut of 5% is applied on bonds with maturities of one to five years. Notably, securities with less than one year have no haircut and therefore credit unions may consider their market value as liquid.

WARNING:

Please note there is no assurance that the assumptions which our model and scenario analysis is based on will materialise. Our model is based on the average credit union's asset allocation and a credit union's portfolio model may be materially different. Actual outcomes may differ significantly from the projections outlined above.

WARNING:

This report does not constitute investment advice and is provided for information and discussion purposes only and is not intended to be comprehensive. Readers should supplement the content by reading the consultation paper and form their own view.

⁷ Section 9.6 of PRA Rulebook: When calculating the ratio of its liquid assets to its total relevant liabilities, a credit union must value a security with a maturity of one to five years on the basis that it could be realised at market value minus a discount of 5%" (PRA Rulebook).

APPENDIX 3: THE YIELDS AVAILABLE ON CERTAIN SENIOR PREFERRED BONDS VERSUS SENIOR NON-PREFERRED

ISSUER	COUNTRY	COUPON	MATURITY	MID PRICE	MOODY'S RATING	AMOUNT ISSUED	MID YIELD
BARCLAYS BANK PLC	Britain	4.25	02/03/2022	119.60	Aaa	1,300,000,000	0.10
BARCLAYS PLC	Britain	1.50	01/04/2022	103.60	Baa2	1,000,000,000	0.74
Yield Differential							0.63
SOCIETE GENERALE	France	4.25	13/07/2022	119.21	A2	1,000,000,000	0.44
SOCIETE GENERALE	France	1.00	01/04/2022	101.43	Baa3	1,000,000,000	0.70
Yield Differential							0.26
BPCE SA	France	4.25	06/02/2023	120.67	A2	600,000,000	0.54
BPCE SA	France	1.13	18/01/2023	101.71	Baa3	1,000,000,000	0.81
Yield Differential							0.27
BNP PARIBAS	France	2.88	26/09/2023	113.79	A1	1,720,000,000	0.64
BNP PARIBAS	France	1.13	10/10/2023	101.17	Baa2	1,000,000,000	0.93
Yield Differential							0.30
Average Yield Differential							0.29

IMPORTANT DISCLOSURES

This document has been issued by Davy and is provided on a confidential basis, to and for use solely by those parties to whom it is addressed. The information contained herein does not purport to be comprehensive, all-inclusive or to contain all of the information that a prospective investor might reasonably require in considering the investment. It is strictly for information purposes only. Investors should request a copy of the Prospectus and any supplementary documents prior to making a decision to invest.

The information contained in this document is not investment research or a research recommendation for the purposes of regulations. The document does not constitute an offer for the purchase or sale of any financial instruments, trading strategy, product or service. No one receiving this document should treat any of its contents as constituting advice. Estimates or references to past performance are for illustration purposes only. The value of investments may fall as well as rise. Past performance is not a reliable guide to future performance. Davy gives no assurances in relation to any investment referenced in this document and does not guarantee the performance of any investment nor does it guarantee the issuer of any investment. Any opinion expressed (including estimates and forecasts) may be subject to change without notice.

Interested parties are not entitled to rely on any information or opinions contained in this document or the fact of its distribution for the purpose of making any investment decision or entering into any contract or agreement with Davy in relation to any investment.

Before making an investment, investors should obtain and carefully read the relevant prospectuses, which contain additional information needed to evaluate the investment and which provide important disclosures regarding risks, fees and expenses.

In the event of any conflict or inconsistency between the information, views and opinions in this document, in so far as they relate to investments and/or its proposed activities and a Prospectus, the prospectus shall apply. Prospectuses (including any relevant supplement) may be obtained free of charge from Davy.

Economic data, market data and other statements regarding the financial and operating information of the investments that are contained in this document have been obtained from published sources or prepared by third parties. While such sources are believed to be reliable, Davy shall have no liability, contingent or otherwise, to the user or to third parties, for the quality, accuracy, timeliness, continued availability or completeness of same, or for any special, indirect, incidental or consequential damages which may be experienced because of the use of the data or statements made available herein. As a general matter, information set forth herein has not been updated through the date hereof and is subject to change without notice.

While reasonable care has been taken by Davy in the preparation of this document, no warranty or representation, express or implied, is or will be provided by Davy or any of its shareholders, subsidiaries or affiliated entities or any person, firm or body corporate under its control or under common control or by any of their respective directors, officers, employees, agents, advisers and representatives, all of whom expressly disclaim any and all liability for the contents of, or omissions from this document, the information or opinions on which it is based and/or whether it is a reasonable summary of and for any other written or oral communication transmitted or made available to the recipient or any of its officers, employees, agents or representatives.

Davy gives no undertaking to provide investors or prospective investors with access to any additional information or to update this document, or to correct any inaccuracies in it which may become apparent and Davy reserves the right, without giving reasons, at any time and in any respect, to amend or terminate the procedure for investing in the Investment or to terminate negotiations with any prospective investor. The issue of this document shall not be deemed to be any form of commitment on the part of Davy to proceed with any transaction with any prospective investor or any other party.

Neither Davy nor any of its shareholders, subsidiaries, affiliated entities or any person, form or body corporate under its control or under common control or their respective directors, officers, agents, employees, advisors, representatives or any associated entities (each an "Indemnified Party") will be responsible or liable for any costs, losses or expenses incurred by investors in connection with the investment. The investor indemnifies and holds harmless Davy and each Indemnified Party for any losses, liabilities or claims, joint or several, howsoever arising, except upon such Indemnified Party's bad faith or gross negligence. With the exception of liabilities arising from fraud or wilful neglect, any liability, where it exists, for any losses, damages, costs and expenses, including legal fees, howsoever incurred, shall not exceed four times the value of commissions and charges paid on the Investment. Davy and each Indemnified Party shall have no liability or obligation for any direct or indirect consequential loss after the first anniversary following investment.

This document has been made available on the express understanding that any written or oral information contained herein or otherwise made available will be kept strictly confidential and is only directed to the parties to whom it is addressed. This document must not be copied, reproduced, distributed or passed to others at any time without the prior written consent of Davy. Davy may have acted, in the past 12 months, as lead manager/co-lead manager of a publicly disclosed offer of the securities in certain companies included in this report. Investors should be aware that Davy may have provided investment banking services to and received compensation from certain companies included in this report in the past 12 months or may provide such services in the next three months. The term investment banking services includes acting as broker as well as the provision of corporate finance services, such as underwriting and managing or advising on a public offer. Our conflicts of interest management policy is available at www.davy.ie.

Davy. Since 1926.
The Davy Group is Ireland's leading provider of wealth management, asset management, capital markets and financial advisory services.
We work with private clients, small businesses, corporations and institutional investors.

Dublin Office

Davy House 49 Dawson Street Dublin 2

T +353 1 679 7788 dublin@davv.ie

Belfast Office

Donegall House 7 Donegall Square North Belfast BT1 5GB Northern Ireland

T +44 28 90 310 655 belfast@dayv.ie

Cork Office

Hibernian House 80A South Mall Cork Ireland

T +353 21 425 1420 cork@davy.ie

Galway Office

1 Dockgate Dock Road Galway

T +353 91 530 520 galway@davy.ie

London Office

Dashwood House 69 Old Broad Street London EC2M 1QS United Kingdom

T +44 207 448 8870 london@davy.ie

@DavyGroup www.davy.ie