Briefing note for Consultation on credit union development
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Possible measures for risk and capital sharing

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Summary

Most credit unions are micro businesses. Their small size limits their ability to absorb bad debts, so that they are reluctant to make large loans. Typically, they follow very conservative lending policies, although this also reflects the importance that credit unions typically attach to developing strong relationships with their members.

There are opportunities for credit unions to share the risks associated with lending. This paper proposes a system by which credit unions would effectively pool advances, sharing the costs of loan impairment. Effectively, they would create a mutual insurance fund.

The proposal involves participating credit unions entering into a system of interlocking loans, managed by a broker.

- Each credit union would inform the broker of the value of *relevant advances*. These would not be all advances, but only those which meet particular criteria.
- The broker coordinates the granting of loans between the credit unions. The loans give each credit union an equitable share of the income generated from the other credit unions' relevant advances.
- Repayments on loans are not fixed, but vary with the repayments which credit union members make upon the original loans treated as relevant advances.
- In the event of payments on any loan becoming irregular, the credit union which made the original loan will be able to reduce the repayments on the loans which it has received as part of this insurance system.

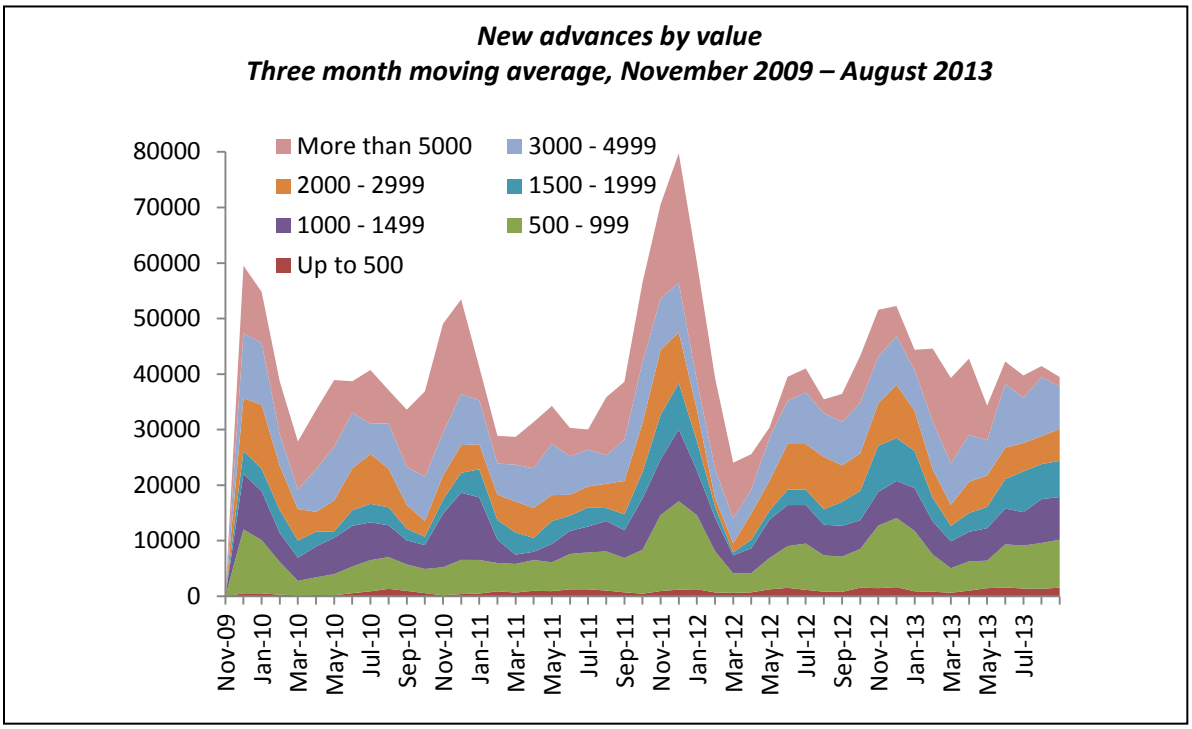
The system will incorporate the following principles:

- Equity: The broker will invite credit unions to make loans according to their ability to provide them, and will arrange to provide funding according to credit unions' needs.
- Rule based selection of advances: Credit unions will be required to treat all advances meeting the relevant criteria in the portfolio of loans, to ensure that there is no selection bias in the inclusion of loans.
- Effective monitoring: The broker will receive the information required to confirm that credit unions only make advances according to agreed principles, and follow standard procedures to remedy payment irregularities.
- Risk based valuations: Credit unions with weak risk assessment or credit control processes will be required to retain a larger share of their own portfolio.

The system could also be extended to include capitalization through the issue of debt-based instruments to social partners, and across credit unions.

Introduction

1. I begin with an illustrative example of lending data from a credit union which I know very well. The graph shows how its lending activity varied over the four financial years from October, 2009 – September 2013. I have used a simple data smoothing transformation so that I can present the monthly data, but still concentrate on longer term trends.



Since 2011, this credit union has struggled to lend out enough of its share deposits to remain profitable. To try to reverse this situation, in late 2011, the board cut lending rates. This appeared to be very successful: lending increased very quickly. Problems with the quality of loans quickly appeared with a few, relatively large ones turning bad early in 2012. The board was concerned that it had lost control of the lending process. It responded by imposing greater background checks on lending, but also (partly) reversed the interest rates cuts. Lending volumes fell sharply, recovering steadily over a period of months. The composition of lending has changed in the past two years, with the volume of larger loans falling. The quality of lending has remained high.

2. Most credit unions' business activities involve the accumulation of (share) deposits from members, which are then lent out (again, to members), typically as small unsecured loans. There are two main risks which a credit union faces: the credit risk associated with lending; and the operational risks associated with the management of the business.

3. Management of the credit risk begins with the loan application and approval processes. Many credit unions, especially smaller ones, tend to apply fairly standard criteria when assessing whether or not to grant a loan initially. These often include evidence of regular payments to the credit union (for at least the previous three months) of an amount equal to the required payment under any loan agreement, confirmation that the repayment is affordable because it will be no more than 15% of

the member's gross income, and restricting borrowing to three times the member's shareholding (ignoring large sums deposited immediately prior to application). In community credit unions, especially where dealing with members with very low incomes, an application might well be accompanied by a detailed review of current outgoings: an important role of credit unions in such situations is to support financial planning and effectively to deliver financial education. Such rules and processes are designed to ensure that advances are only made to members who will be able to afford repayment. In addition, regulation (see CREDS 7.3 and 5.3 – 5.4) limits the maximum exposure resulting from any one advance to £15,000 or, for Version 2 credit unions, to 1.5% of other members' non-deferred shares.

4. Credit and operational risks are closely connected. To generate income, credit unions need to lend money to their members. Lending necessarily involves credit risk. But failure to identify lending opportunities has substantial operating risks, since part of the credit union's costs are fixed. Failure to generate interest income will reduce profits, the credit union's ability to pay dividends, and also its ability to increase its reserves. At the very least, this will restrict the growth which a credit union might achieve.

5. In the example with which I started, the credit union decided that it would change the composition of its assets very quickly by increasing its lending. This was intended to address what was seen as primarily an operational risk, but the credit union failed to address the associated credit risk properly. Subsequent steps to tackle credit risk then fed in to operational weaknesses. The interest rate structure which the credit union adopted has led to greater reliance on small loans, tying up a substantial proportion of the office manager's and volunteer's time. For this credit union to be fully sustainable, it will need to improve its lending processes further, so that it can manage the credit and operational risks more effectively.

6. For a relatively small credit union, assuming the standard charging rate of 1% per month, for every £1,000 of debt that has to be written off, it has to lend approximately £16,000 that is repaid in full. For larger credit unions, charging lower interest rates, the additional lending required to recover bad debts is even greater. As illustrated in the example with which I started, default on a few, relatively small loans can have serious implications for profitability and growth. At the end of the paper, I have added another illustrative example, which shows one possible capital structure for a small, but in principle fully sustainable, credit union. Were the credit union in that example to make an advance with the maximum permissible exposure of £15,000, then, in the event of that loan not being repaid, it would face a loss of up to 7.5% of capital and 50% of the budgeted (annual) loan impairment charge. For even smaller credit unions, perhaps less than half the size of this 'sustainable' example, such a large exposure might simply be too risky to assume.

7. For a small credit union, the relative low frequency with which it receives applications for relatively large loans adds to the difficulties in managing them. In the example with which we started, the credit union has rarely received more than three loan applications in any month for amounts greater than £5,000. This makes it more difficult to assess the underlying credit risk accurately, and is likely to lead to excessive caution.

Asset pooling through a brokerage

8. One route for managing credit risk is for credit unions to pool this, and the establishment of a brokerage service would allow credit unions to do this. This service could be provided by a trade

body, a business formed by the participating credit unions, or even by a substantially larger credit union, in effect willing to take on this coordination role. In box 1, on page 5, we illustrate the flows of funds when five credit unions agree to pool those advances for which the net exposure exceeds 2% of capital. We assume that on a monthly basis, the credit unions would inform the broker of the value of their *relevant advances*. The broker would then propose an allocation of these amounts across the participating credit unions.

9. The very simplest rule is that each credit union to accept one fifth of each of the other credit unions' relevant advances. Credit union A, reporting relevant advances of £60,000, would then receive 80% of their value, 20% (or £12,000) from each of credit unions B, C, D and E. Credit union E, reporting relevant advances of £35,000, would receive £7,000 from each of the other credit unions. These payments would take the form of loans between the participating credit unions.

10. In Box 1, we use a rather more complex allocation rule, effectively suggesting that the broker should assess ability to make advances according to the capital of each credit union. This means that credit union A, which has the largest capital, is required to make the largest advances, while credit union E, which has the smallest capital, makes the smallest advances. In the example, we have assumed that credit unions, C and E, which have the smallest share of total capital, report larger shares of total relevant advances, partly because their threshold for reporting advances is much lower than that of the other credit unions. As a result, the allocation proposed by the broker involves the larger credit unions, A and D, making net purchases of assets, while the smaller credit unions, C and E, are net recipients of funds. Using a weight based on capital, or some other measure of capacity to raise funds, seems necessary given that larger credit unions might contribute a few, very large loans to the common pool.

11. We suggest that loan contracts might be designed to ensure that there is complete risk pooling. Credit unions would make monthly payments on these loans, equal to the value of the interest received from members. Should there be any irregularity in loan repayments, then the credit union making the advance would have to advise all of the other credit unions participating in the common risk pool, as well as the broker, and would be permitted to reduce its payments to other participating credit unions in accordance with the terms of these loan agreements. In general, then, rather than having a right to a fixed interest payment when making these loans, credit unions would have the right only to the usufruct of the underlying assets.

12. The contracts suggested here therefore involve an element of profit and loss sharing. In the economics of banking, it is well known that profit and loss sharing contracts are generally less efficient than loans with a fixed interest rate, because the borrower has an incentive to understate revenues, and so reduce loan payments. In this situation, this problem would arise were a credit union falsely to claim that payments on relevant advances were irregular.

13. In addition, the existence of risk pooling could lead to a problem of moral hazard. Allowing credit unions to transfer the bulk of the credit risk associated with relevant advances to the common pool might lead to less careful scrutiny of loan applications. In addition, once the loan has been made, and accepted into the common pool, a credit union may make less effort to ensure that the member adheres to the loan agreement.

Box 1: Example of risk pooling

Suppose that we have five credit unions, A, B, C, D and E, with capital

	A	B	C	D	E	Total
Capital	£500,000	£300,000	£175,000	£400,000	£125,000	£1,500,000
Share of capital	33⅓ %	20%	11⅔ %	26⅔	8⅓ %	
2% of capital	£10,000	£6,000	£3,500	£8,000	£2,500	
Relevant advances (a)	£60,000	£45,000	£60,000	£50,000	£35,000	£250,000
Share of advances	24%	18%	24%	20%	14%	
Relative to capital	12%	15%	34%	12.5%	28%	
Allocation of advances (b)	£83,333	£50,000	£29,167	£66,667	£20,833	£250,000
Net purchase (b) – (a)	£23,333	£5,000	(£30,833)	£16,667	(£14,167)	0

The *relevant advances* totals are the total value of loans which credit unions taking part in this arrangement wish to contribute to the common pool of advances. The *allocation of advances* is the value of these loans which each credit union holds in the pool.

- Credit union A will retain 33⅓ % of its relevant advances of £60,000. Conforming to the current regulatory framework, credit unions B, C, D and E all make loans to credit union A, totaling £40,000.
- Credit union A will also lend each of the other credit unions 33⅓ % of the value of their relevant advances. The total value of these loans is £62,500.
- Setting off loans received against loans granted, credit union A makes a net purchase of £22,500 of relevant advances.
- The larger credit unions (by capitalisation) are net purchasers of assets. The smaller credit unions are net sellers

With five credit unions, we have a total of sixteen transactions, shown in the table below. Assets bought by each credit union are shown in columns; assets sold to other credit unions in rows.

		Assets bought by credit union					
		A	B	C	D	E	**Total**
Assets sold by credit union	A		£12,000	£7,000	£16,000	£5,000	**£40,000**
	B	£15,000		£5,250	£12,000	£3,750	**£36,000**
	C	£20,000	£12,000		£16,000	£5,000	**£53,000**
	D	£16,667	£10,000	£5,833		£4,167	**£36,667**
	E	£11,667	£7,000	£4,083	£9,333		**£32,083**
	Total	**£63,333**	**£41,000**	**£22,167**	**£53,333**	**£17,917**	

14. The avoidance of such problems typically depends upon information sharing, and the use of well-designed contracts, which ensure that the broker can impose costs upon any credit union with a history of poor control of advances. For example, the broker:
    - should be provided with evidence of the use of a standard (and agreed) approval process for all relevant advances, declining to allow credit unions which do not follow such processes to contribute assets to the common pool;
    - should be able to see documentary evidence of the credit control processes followed where there has been a problem of irregular payments on an advance;
    - will collate and actively share among contributing credit unions information about good practice; and
    - will discount the value of advances contributed to the common pool by credit unions which have a history of poor practice both in making advances and in subsequent credit control.

15. These principles are similar to the procedures for the management of pooled liabilities that underlies models of microcredit in which pooled lending and peer observation is used to manage the inherent default risk. Credit unions in Glasgow seem to be the most likely already to be observing each others' behaviour closely enough to permit rapid implementation of this sort of arrangement.

16. The brokerage service would obtain a substantial amount of information from participating credit unions about the design and implementation of their management processes. It also has an interest in ensuring that all credit unions manage their credit allocation and control activities efficiently. Indeed, we might reasonably expect the information available to the board to be much more detailed, and timely, than information made available to the regulator. After operating for a few years, it seems likely that the broker will have taken on many of the functions of a central bank, such as managing the liquidity of the sector, and, if it were to be well enough capitalized, to act as a lender of last resort. This is an argument for locating the broker in a large credit union.

17. The operation of the brokerage would be financed by member credit unions. The reallocation of loans would require nothing more complex than an Excel spreadsheet to be made operational. The subsequent tracking of accounts could be completed on standard credit union accounting software. There would be some modest set up costs, largely associated with the writing of contracts and the purchase of office equipment. Depending on the closeness of scrutiny of credit union activities, the board would also have a small staffing requirement, funded by charging loan arrangement fees.

Raising capital through the broker

18. Although regulation requires credit unions to maintain sufficient liquid assets to meet operational needs, in conventional banking, traditional liquidity risk, in which many customers try to withdraw funds in a 'run,' is now seen as much less of a problem than failing to ensure maintain adequate capital reserves to ensure the solvency of the institution. Realistically, a credit union which needs access to liquidity would be able to obtain this from other financial services providers, and so the management of liquidity should not generally be a problem involving the broker.

19. Credit unions are now required to maintain a capital reserve of at least 3% of assets, with thresholds for the conduct of certain types of business set at 5% and 8%. The Credit Union Act, 1979, has a requirement that a credit union with a capital reserve of less than 10% of assets must make a transfer to the reserve of at least 20% of annual profits; and cannot transfer funds out of that

reserve (although losses will be charged to it). It seems clear that the FCA will gradually increase the reserve-asset requirement for credit unions, and this may be challenging for some of the smaller institutions in the sector.

20. The only components of a credit union's capital reserve are:
    - Initial capital, contributed by members on the formation of the credit union;
    - Retained profits;
    - Subordinated debt; and
    - Deferred shares.

    Credit unions are essentially limited to using their own funds and issuing restricted types of debt instruments to fund their operations.

21. These restrictions seem to be uniquely restrictive among both financial services businesses and cooperative organisations, and reflect the framing of the Credit Union Act, 1979. While, arguably, retained profits are always the best source of capital, as with any business entity, credit unions face a risk of *undercapitalisation*. This occurs when a business does not have sufficient resources to generate the revenues necessary to meet its costs. No matter how hard, or how efficiently, the people engaged in the business are working – and in a small credit union, these people will often be volunteers – they cannot cover their costs; or if they do, as with many small credit unions, they will struggle to achieve full sustainability, as defined at the end of this paper.

22. More generally, reliance on self-capitalisation limits the opportunities for growth of a credit union. The example below is purely illustrative, but indicates the nature of the problem. We could change the numbers in the example, but I have chosen the numbers to give a rather optimistic analysis.
    - A sustainable credit union with a well-diversified portfolio of loans, with loan: share value of 85% might currently have an average return on advances of 7.5% *per annum*
        - Allowing for a 0.5% loan impairment charge, the realised average return is 7%
        - The return on assets is then 5.95% per annum
        - Assuming costs are only 50% of income, this leaves approximately 3% of assets to pay dividends and fund a transfer to the reserves
        - Setting a dividend target of 2%, this allows a transfer to the reserve of 1% of assets
        - Were the board to set, and maintain a target capital: assets ratio of 10%, the board would be constrained to setting a growth target of 10% per year, which, if achieved, would mean that the credit union would double in size every seven years.

23. Modest, organic growth of the scale indicated would probably be satisfactory to the board of a credit union which has achieved sustainability, and which has not identified any new area of business into which it wishes to expand. For credit unions which are not yet fully sustainable, like the one discussed in the initial example, or which have opportunities for more rapid growth, access to external funding may be useful.

24. Work currently being done within the Church of Scotland, involving the promotion of two new credit unions, has identified a requirement for external capital funding in their business plans. These credit union study groups have struggled to manage this process, even though both have members with substantial experience of the financial services industry (at an appropriate level). Across credit

unions, there has been little systematic development of the use of external finance to assist in the achievement of strategic goals.

25. Credit unions are considered by the UK and Scottish governments, a wide range of third sector organisations, and even other financial services institutions, to have an important role in providing affordable financial services to people who might otherwise not be able to obtain access to them. There is perhaps a presumption within credit unions that external investors would only be interested in providing external finance on a strictly commercial basis: certainly the trustees of charities in the UK frequently take the view that their fiduciary duty prevents them from making investments on the basis of social returns, even where these are consistent with the achievement of the trust's charitable goals. Partly for this reason there has recently been increasing use of social investment funds to provide capital funding for businesses which have explicit social objectives, usually with limited public funding designed to capture the monetary value of the social benefits generated by the business. The role of the brokerage service might usefully include the design of such investment funds.

26. There have been some occasions on which credit unions have provided subordinated loans to other credit unions, and with the need to increase capital adequacy ratios, this is likely to happen from time to time. Alongside risk pooling, there is an argument for capital sharing. It is possible for two credit unions to issue subordinated loans, on exactly the same terms, to each other. This would not improve the capital adequacy for both credit unions, given the requirement that credit unions offset holdings of subordinated debt with their own capital, but, depending on the nature of the loan contract, could lead to substantial operational risk pooling. Using interlocking loans, credit unions could create a looser structure than a federal credit union, since both credit unions would remain independent of each other, but the boards of each would now have a very definite interest in the other's performance. Such a confederal structure might lead naturally to the sharing of back office services, the marketing of products developed by one credit union (possibly under a 'white labelling' initiative), and regular information sharing about financial performance.

Summary of recommendations

27. A credit union brokerage service might have the following powers:
    - To authorize the issue of its own share capital and to invite members to subscribe to its issue;
    - To assist in the promotion of deferred shares and subordinated loan capital by member credit unions;
    - To subscribe in the issue of deferred shares and subordinated loan capital by member credit unions;
    - To make deposits with member credit unions;
    - To propose an allocation of loans among credit unions, used by the credit union making the advance to purchase the right to income from *relevant advances* made by the credit union drawing down the advance.
    - To provide member credit unions with advice and guidance in the management of credit and operational risks through regular and ongoing collaboration

28. These powers should be sufficient to allow the central board to raise the resources needed for its own operations, outlined above. It would also be able to promote and take part in member credit

unions' own resource raising activities, which should be rather less frequent than the pooling of advances for the purpose of risk sharing.

29. In terms of the powers that credit unions have to invest, these arrangements do not seem to have any regulatory requirements. They would involve innovative use of the powers already available to credit unions, but given the extent to which they should lead to much greater information sharing, the regulator may be amenable to persuasion that they will increase the financial stability of participating credit unions.

Box 2: Sustainability of credit unions

We suggest that it is possible for a credit union to be fully sustainable if it has 2,000 members, can attract share deposits of £1,000 per member, to which we add reserves from previous operations of £200,000 to give a total amount available for lending of £2.2m. We then assume that credit unions' loan book will have a value of 70% of that amount, turning over once per year, so that advances in any period are equal to repayments plus impairment charges. Assuming a charging rate of 1% per month and a default rate on loans of 2%, we project loan interest income of over £180,000. We assume that credit unions will not be able to obtain any other income.

As with most service sector industries, we expect that staff remuneration will be the single largest components of costs. We estimate that having reached this size, to avoid the problems of volunteer management, these credit unions are likely to require approximately 1.5 full time equivalent staff, providing customer facing services, including credit control, as well as back office services, especially book-keeping.

Such paid staff will not provide all of the services that the credit union will require, so volunteers would continue to play a major role in governance. The Board of Directors would have responsibility for ensuring regulatory compliance, good governance and ongoing development through business planning processes, while Credit and Supervisory committees (of the Board) would provide oversight of credit allocation and control processes, and review implementation of other operational procedures.

Summary of credit union financial targets	
Target credit union membership	2,000
Savings per member	1,000
Total sum on deposits	2,000,000
Capital (10%)	200,000
Available for lending	2,200,000
Total advances	1,540,000
Liquid assets	660,000
Income (1% charged per month on advances)	181,100
Charges	
Loan impairment	30,800
Staff costs	45,000
Administration and regulation costs	45,300
Operating costs	124,800
Profit	60,000
Allocated to	
Dividend reserve	30,000
Addition to reserves	30,000