

Guidance consultation

Liquidity swaps



July 2011

Liquidity swaps

We are writing to consult on the prudential guidance for liquidity swaps (see Annex 1).

Background

Market conditions have prompted banks to diversify sources of liquidity. In particular, the FSA has observed an increasing trend of banks looking to access liquidity embedded within asset portfolios held by insurers by entering into various transactions which we have collectively denominated 'liquidity swaps'.

Liquidity swaps for the purpose of this guidance typically refer to transactions which effect a liquidity transformation between an insurer (counterparty long liquidity) and a bank (counterparty short liquidity) by typically exchanging high-credit quality, liquid assets such as gilts held by the former with illiquid or less liquid assets, such as asset-backed securities (ABS) held by the latter. Liquidity exchange transactions between banks and insurers in their various forms are not new, but the FSA has observed an increasing trend of using existing industry standards at a much greater scale in terms of size, duration and concentration. Furthermore, liquidity swaps are not being used as replacement trades for existing transactions between insurers and banks. As a result, liquidity swaps could have the effect of increasing inter-connectedness between the insurance and banking sectors and, in turn, create a transmission mechanism by which systemic risk across the financial system may be exacerbated.

Our market failure analysis (see Annex 2) has concluded that firms involved in these transactions may not always take into account these potential costs to the financial system. And although transaction volumes are at present low, there is evidence of significant demand and, hence, there is potential for a significant increase in volumes (e.g. as banks look to diversify sources of liquidity and the market develops alternatives to the Bank of England Special Liquidity Scheme which is due to mature in 2012). This level of potential demand for liquidity swaps has raised our concern about increased systemic risk. This will need to be balanced against benefits such as increased lending capacity of banks to the general economy, to the extent that the increased lending is economical. In the light of this, we consider it necessary to issue general guidance to mitigate potential threats that liquidity swaps may pose to our objectives of financial stability and consumer protection.

Summary

This guidance is not meant to be an exhaustive description of the prudential treatment that counterparties to these transactions could expect, as the FSA will have to perform a case-by-case Pillar 2 assessment in the absence of specific Pillar 1 rules. Rather, the purpose of this guidance is:

- a. To alert firms to the FSA's prudential concerns about liquidity swaps and tell firms engaging in these transactions that they should inform us before execution under PRIN 11. As noted above, liquidity swaps can take different legal forms (e.g. stock loans, repos and combinations of asset sale plus total return swap), hence firms should consider the economic substance (liquidity transformation) and impact as described above to determine whether a particular transaction should be reported to the FSA in accordance with this guidance; and
- b. To inform firms of the basis for our Pillar 2 assessment, which should then assist them in adequately addressing our prudential concerns. The basis of the FSA's assessment will include consideration of the following:
 - i. Risk management: firms should have adequate risk management systems and controls to undertake liquidity swaps, in particular in relation to:
 - Scenario and stress testing, including reverse stress testing;
 - Collateral valuation, correlation, 'haircut' and margining. For instance, whether there is evidence of in-house expertise to carry out such valuation, in particular in relation to hard to value collateral (e.g. ABS), and, alternatively, what arrangements will be in place to outsource this function; and
 - Internally set limits (e.g. counterparty limits).
 - ii. Exit strategy: firms should have an adequate exit strategy in the event of a counterparty default. On this basis:
 - Where the firm has not reasonably demonstrated an adequate exit strategy, the base case Pillar 2 regulatory capital treatment for the insurer should be the greater of 'fire-sale' and 'collateral retention' both based on a 100% probability of default; and
 - Where the firm has reasonably demonstrated an adequate exit strategy (either fire sale or collateral retention), the Pillar 2 capital treatment of the transaction for the insurer can be based on that exit strategy. Firms should be able to demonstrate that they have put in place adequate risk mitigants (e.g. counterparty diversification) in order to be able to apply a probability of default lower than 100% to that exit strategy.
 - iii. From the perspective of the bank, the Pillar 2 capital treatment for the transaction should take into account the level of asset encumbrance resulting from the liquidity swap.

Within this basic framework, firms should be mindful that the FSA needs to exercise supervisory judgement in assessing the transaction (e.g. correlation, diversification benefits / lower probability of default, counterparty limits and exit strategy). For instance it may be possible for an insurer to demonstrate that any decrease in asset values will occur post event of default, that this fall in value is due solely to widening spreads rather than increased default risks and that, as a hold-to-maturity investor, cash flows exactly match liabilities or that reinvestment risk is not material. However, insurers will still need to apply a mark-to-market valuation to these assets, and should continue to be able to demonstrate a solvent balance sheet at all times and then be able to meet their capital requirements (including capital requirements in the future under Solvency II). There should be no expectation that during a time of market stress any form of regulatory forbearance can be relied on, and hence insurers need to be able to demonstrate as part of their exit strategy that they can cover their guarantee fund (or MCR in Solvency 2), along with the margin of solvency (or SCR in Solvency II), within the normal expected timescales and also continue to meet their ICA¹/ICG².

¹ Individual Capital Assessment

² Individual Capital Guidance

Firms should also be aware that the FSA cannot restrict its discretion to take appropriate supervisory action to deal with matters as they develop. This includes providing individual guidance to firms on the adequate capital treatment of liquidity swaps in Pillar 2 within the parameters set in this guidance, and it also may include preventing specific transactions which, due to their features or circumstances, pose unacceptable risks to our statutory objectives of financial stability and consumer protection.

Principal issues

In terms of the consultation, from the FSA's perspective the principal issues in terms of industry views are:

- a. Wrong-way risk - use of own-issued or own originated securities (see [Annex 1 section A6. Wrong-way \(collateral correlation\) risk](#));
- b. Limit structures – interdependencies between micro-prudential and macro-prudential risks (see [Annex 1 section A7. Limit structure \(micro & macro\)](#)); and
- c. Intra-group transactions – conflicts of interest (see [Annex 1 section A10. Intra-group](#))

where we have outlined the FSA's concerns around the related risks and initial views on how those risks may be addressed. Given that these issues are likely to be equally important to firms contemplating these transactions in terms of their assessing risks and economic or commercial aspects of the transaction, firms' responses to the questions related to these principal issues are sought particularly.

General

For the avoidance of doubt, whilst our guidance has been cast in terms of banks and insurers, it also applies to all regulated firms transacting liquidity swaps (e.g. building societies and investment firms).

The consultation period will last 2 months and we welcome your feedback on the proposed guidance for Pillar 2 treatment of liquidity swaps.

If you have any comments or feedback in relation to this guidance, please send them to liquidityswapsconsultation@fsa.gov.uk by no later than 21 September 2011.

Paul Sharma

Director of Policy

ANNEX 1 – GUIDANCE ON RISKS OF, AND PILLAR 2 CAPITAL FOR, LIQUIDITY TRANSACTIONS

A	Guidance common to both counterparts of a liquidity swap	
	Section	Outcome
A1	Application	For the avoidance of doubt, the guidance is relevant to all firms contemplating being counterparty to a liquidity swap transactions (i.e. not just banks and insurers).
A2	Scope	To ensure that only liquidity swaps are caught within the scope (e.g. not plain vanilla stock lending transactions).
A3	Liquidity swap structure	To use examples of potential structures to help illustrate scope.
A4	Risk	To provide a non-exhaustive list of liquidity swap features that capture the economic substance of these transactions and distinguishes these transactions from what might otherwise be considered similar, plain vanilla, transactions.
A5	Collateral valuation pre and post default	Accurate collateral valuation is fundamental to risk managing these transactions. And the FSA anticipates scrutinising it in detail.
A6	Wrong-way (collateral correlation) risk	Wrong-way risk can render collateral ineffective as a risk mitigant. And the FSA anticipates scrutinising it in detail. It is proposed that materially positively correlated collateral should not be considered as being of adequate quality. In this context, the FSA has concerns about own-issued securities (such as subordinated debt, covered bonds and regulated covered bonds) and own-originated securities (such as tranches in RMBS and CMBS).
A7	Limit structure (micro & macro)	In addition to Pillar 1 limits (e.g. Solvency I admissibility concentration limits) additional risks (e.g. systemic risk) will need to be mitigated using a limit structure.
A8	Legal risk	To mitigate legal risk by conducting a legal review.
A9	Break clauses – regulatory change (e.g. Solvency II) , bail-in and asset encumbrance)	To mitigate the risk of regulatory change causing these transactions to be uneconomic.
A10	Intra-group	There is potential for conflicts of interest. The initial thinking is that intra-group liquidity swaps should be avoided.

A11	Notifying the FSA	That there is sufficient notice and available information for the firm and FSA to reach agreement ahead of the expected execution date.
A12	Systemic risk – FSA reporting	To provide an early warning of potential material increase in systemic risk thus allowing regulatory action to be taken in a timely manner.
B	Guidance specific to insurers	
	Section	Outcome
B1	Pillar 1	For completeness and ease of reference we have set out some of the existing Pillar 1 requirements.
B2	Scenario and stress testing of cash flows (liquidity risk)	To assess robustness of transactions.
B3	Pillar 2 ICA / ICG – Insurers meeting liabilities as they fall due and capital	Sets out the hierarchy of approaches and the basis for calculating capital.
B4	Re-hypothecation of collateral	Collateral should be used as a risk mitigant and not on-lent.
B5	Disclosure	Firms should consider the risk to policy holders and the need for market disclosure.
C	Guidance specific to banks	
	Section	Outcome
C1	Risk	Sets out the additional risks from a bank’s perspective.
C2	Pillar 1	For completeness and ease of reference we have set out some of the existing Pillar 1 requirements.
C3	Pillar 2	Refers firms to existing FSA correspondence on asset encumbrance.

A. GUIDANCE COMMON TO BOTH COUNTERPARTS OF A LIQUIDITY SWAP

A1. Application

The guidance is relevant to all firms considering being counterparty to a liquidity swap transactions (i.e. not just banks and insurers).

Firms that are counterparts to a liquidity swap but are neither a bank nor an insurer should apply the sections which are relevant to their role within the transaction.

A2. Scope

The economic substance of liquidity swaps is 'liquidity transformation' thus including those transactions where the outcome is as follows:

- a. Liquid assets (e.g. government debt or sales proceeds) are exchanged for illiquid or less liquid collateral (e.g. asset backed securities ('ABS')) which may also be of a lower credit quality than the liquid assets. Legal title may pass but beneficial title typically does not, or if it does, there will be a further leg to the transaction (e.g. a total return swap ('TRS')) to reverse the economic exposure to the assets exchanged in order to preserve each counterparty's original economic exposure (i.e. pre-liquidity swap);
- b. The insurer (i.e. exchanging the liquid assets in return for a fee) relies on the liquid assets to generate cash flows to meet liabilities as they fall due. Hence the key risk is default risk and is mitigated by investing in higher credit quality assets (e.g. government debt). These assets are a good match for liabilities as they are predictable; and thus spread risk, caused by changes in liquidity premium, should not be a material risk. These assets therefore have an 'embedded liquidity' value which can be monetised by, for example, being lent; and
- c. The bank (i.e. exchanging the illiquid collateral) is exposed to liquidity risk (e.g. due to maturity transformation) and so needs access to liquid assets.

A liquidity swap can be effected using a variety of market standard legal agreements (e.g. stock lending / borrowing, repo, sale and TRS) but all broadly achieve the same outcome described above.

The FSA considers a liquidity swap transaction to be a 'stock lending' transaction (as defined in the FSA glossary) and the provisions on stock lending in INSPRU 3.2.36R - 3.2.36AR must be met in relation to such a transaction for the purposes of GENPRU 2 Annex 7R (Admissible assets in insurance).

In addition to 'liquidity transformation' described above, the key features which distinguish liquidity swaps falling under this guidance from other transactions that also use these market standard legal agreements are:

- a. Scale (size and maturity) – for example the transaction is material with respect to at least one counterparty's balance sheet; and
- b. Counterparty concentration.

Transactions of this nature are likely to amplify the potential correlation of the collateral value to the default of the bank and increase the risk of the insurer not being able to replace the liquid assets using the proceeds of a sale of the collateral (in circumstances, likely to be a 'fire-sale'), especially if the collateral includes own-originated assets or assets originated from a group entity. This may well force the insurer to choose to retain the collateral to meet liabilities as they fall due (e.g. 'long term insurance liabilities' as defined in the glossary to the FSA's Handbook) and ongoing capital requirements.

Regulated covered bonds (RCB)³ are specifically excluded from the scope of the liquidity swap guidance. Whilst RCBs are a form of collateralised borrowing which could fall within this definition (i.e. collateralised borrowing that is large and long dated) these instruments are already governed by a separate legislative regime. In addition to this there are some differences from existing liquidity swaps. For example, the type of collateral used (i.e. loans, such as retail mortgages rather than securities e.g. RMBS) and the basis of margining (i.e. not market value and less frequent).

Q1: Do you agree with the scope definition? If not, please explain any proposed changes and the rationale for those changes.

A3. Liquidity swap structure

The following structures could be used:

a. Stock loan

Gilts lent by an insurer for a significant period in return for a fee and collateral. Legal ownership of the gilt passes to the borrowing bank counterparty.

In the event of the bank counterparty defaulting, the insurer has recourse to the collateral. If structured and operated correctly, valuation, margining and over-collateralisation should protect the insurer against loss in the event of a 'fire-sale' of the collateral. To the extent there is insufficient collateral the insurer will have an unsecured claim against the bank counterparty.

In the event that the proceeds from the sale of collateral is insufficient (e.g. due to widening liquidity spreads rather than an increase in default risk), the optimum strategy may instead be to retain the collateral rather than sell large positions into a falling market and so increasing the unsecured claim against the bank.

b. Repo

A transaction that lends cash (rather than securities) which is otherwise similar in substance to a stock lending arrangement (i.e. legal ownership passes) except cash rather than securities are being lent. The basis risk between stock lent and securities used as collateral will potentially narrow as one leg of the transaction is cash. Otherwise the same risks apply to a repo as a stock lending arrangement.

c. Sale plus Total Return Swap (TRS)

The sale of assets by the bank generates liquidity (i.e. cash proceeds). The legal and beneficial ownership of the assets sold pass to the insurer. The economic exposure to the assets is then passed back to the bank synthetically using a TRS. Payments under the TRS are net of the investment return on the cash (e.g. based on gilts) plus an additional fee.

For the insurer, the key risk is counterparty risk in the event that the collateral falls in value and amounts due under the TRS are not paid. In the event of the bank counterparty's default there will be an unsecured claim against the bank to the extent there is a shortfall in any collateral posted as a credit-risk mitigant.

In the event of the bank counterparty's default the insurer may be unable to unwind the transaction or enter into equal and opposite trades and is likely to be forced to hold onto the collateral and the TRS.

³ Defined in Regulation 1(2) of the Regulated Covered Bonds Regulations 2008 (SI 2008/346) as a covered bond or programme of covered bonds, as the case may be, which is admitted to the register of regulated covered bonds maintained under Regulation 7(1)(b) of the regulations.

All these structures have a common key risk – the price correlation of collateral in the event of default means the counterparty lending the excess liquidity will have an unsecured claim against a defaulted bank to the extent collateral haircuts / over-collateralisation (or whatever credit risk mitigant is used) proves insufficient at the point of default and may force the counterparty to retain the collateral rather than to realise it.

Q2: Does this accurately describe liquidity swap structures?

Q3: What other liquidity swap structures are there? Please describe.

A4. Risk

Compared to typical collateralised lending programmes these transactions may have a number of features which significantly increase risk, such as (but not exclusively):

- a. Much bigger scale – size and maturity;
- b. Significant reduction in the volume of liquid assets available to the insurer to cover potential cash outflows, or to meet margining requirements (on other transactions) due to those securities being held by another counterparty;
- c. Lower credit quality and less liquid collateral being made available by the bank with a substantial proportion of securitisation assets for which the quality of the underlying assets may be difficult to assess;
- d. Difficulties in establishing an appropriate independent value for the assets posted as collateral, if there are no regular market deals in these assets;
- e. Higher counterparty risk exposure (sometimes a single bank);
- f. Higher sectoral concentration risk, with collateral being made up of securities issued or originated by the bank;
- g. Wrong-way risk (e.g. bank's own-issued and own-originated assets used as collateral);
- h. Operational issues and legal risk (e.g. legal efficacy and operational consequences of materially new clauses that are being included in agreements but which have not been tested in court such as establishing additional rights over the collateral for the insurer in the event of default of the bank);
- i. Uncertainty over the viability of a 'fire-sale' of collateral and therefore the efficacy of 'fire-sale' as a 'back-stop' credit-risk mitigant (so that insurer has to hold onto the collateral); and
- j. Contingent costs and systems and controls requirements (e.g. should the insurer elect as an exit strategy to hold onto the collateral the risks, such as credit, interest-rate matching and currency risks, will need to be adequately managed in short order).

Q4: Do you agree with the description of risks? If not, please explain any proposed changes and the rationale for those changes.

A5. Collateral valuation pre and post default

Firms should have adequate systems and controls to manage collateral valuation.

Fundamental to managing these transactions is the ability to accurately value the collateral as it is the primary credit risk mitigant if the counterparty defaults. Accurate valuation of collateral is important both pre-default in order to manage counterparty risk via the margining process and post-default in order to manage retained collateral.

A structural feature of these transactions is the use of illiquid collateral which tends to be harder to value especially if it is highly structured (e.g. ABS). A number of insurers have indicated an absence of in-house expertise and the need to rely on outsourcing. This means that until the FSA is satisfied that adequate systems and controls are in place to provide for an adequate valuation of collateral firms should not enter into liquidity swaps.

Firms should have an independent and robust challenge process in agreeing valuations with the counterparty. Evidence of reliance on the counterparty's valuation instead of a firm's own assessment or undue reliance on outsourcing could be grounds for finding a serious failure of that firm's risk management systems and controls (see, for example, SYSC 7, 8, 14 – 17, as applicable).

Firms should keep a full audit trail evidencing the valuation and monitoring of collateral, including:

- a. Credit worthiness of counterparty – ability to monitor and take management actions in response to changes in the credit quality of the counterparty (e.g. margin step-up and dynamic hedging of default using credit default swaps in the event of increased counterparty risk);
- b. Increase in margin call frequency, particularly in fast-moving declining markets to minimise the unsecured credit exposure;
- c. Where collateral is no longer eligible (e.g. as the result of a credit downgrade), the prompt substitution of collateral or other suitable management action;
- d. Transparency of collateral held, through segregated assets being individually identifiable and separated from firm's own assets;
- e. Liquidation or resolution procedures; and
- f. Fully documented robust procedures and processes to control the transaction.

Q5: Do you agree with the description and requirements of collateral valuation pre and post default? If not, please explain any proposed changes and the rationale for those changes.

A6. Wrong-way (collateral correlation) risk

Firms should adequately manage collateral correlation in particular wrong-way risk.

As collateral is the primary credit risk mitigant at the point of default, the extent of correlation between the collateral and the credit quality of the bank is a fundamental consideration.

In general, wrong-way risk arises when the exposure to a particular counterparty is positively correlated with the probability of default of the counterparty due to the nature of the transaction with the counterparty.

The extent to which the collateral is positively correlated will be a significant risk to both parties, in the following ways:

- a. Insurer – adequate margining ought largely to mitigate the risk pre-default. Post an event of default the greater the positive collateral correlation the greater the risk of being forced to choose to retain the collateral. This is due to increased risk of there being insufficient collateral to fire-sale and avoid an unsecured claim on the counterparty (e.g. bank). The collateral will continue to be marked-to-market, in a potentially falling market, and be relied on to meet liabilities as they fall due and capital requirements. Mark-to-market losses may to some extent be offset by being able to use an increased liquidity premium for discounting liabilities;
- b. Bank – the greater the positive collateral correlation, the greater the level of encumbrance over its assets pre-default due to margining and calls to top-up collateral. An increased level of asset encumbrance will structurally subordinate a bank's unsecured creditors, including its retail depositors;

- c. Taken together, positive collateral correlation is likely to increase the interconnectedness between insurers and banks and so increase systemic risk; and
- d. These risks are further exacerbated when it comes to transactions that will mature after implementation of Solvency II (see [A9. Break clauses – regulatory change \(e.g. Solvency II, bail-in and asset encumbrance\)](#)).

How firms manage correlation risk will be a fundamental part of the FSA assessment of the adequacy of its risk management systems and controls⁴. This is a key regulatory concern, particularly given that valuation of collateral and margining are critical to these transactions and in a fast-moving market margin calls could be made several times in a single day.

Correlations are likely to be determined using a model the output of which will be subject to model risk. The FSA is of the view that the following guidance will be useful to address its specific concerns:

- a. Quality of dataset - a meaningful estimate of correlation will need to be based on a sufficiently rich dataset. The dataset will need to cover periods of stress and the bench-mark correlation based on the point-in-time worst case move rather than a correlation averaged over a period of time. For some collateral such a dataset (even a reasonable proxy) will not be available (e.g. for illiquid, complex and hard-to-value assets where there are no observable price movements during an event of default). In these circumstances our view is that a meaningful estimate of correlation cannot be made, and therefore in the absence of a statistically significant dataset we would expect a high degree of positive correlation to be assumed and a very prudent approach to mitigating wrong-way risk should be taken in respect of this type of collateral;
- b. Materially positively correlated collateral should not be considered as being of adequate quality. A range of asset classes could be materially positively correlated such that any reasonable haircut is likely to prove inadequate in making that asset class suitable collateral as a credit risk mitigant for these transactions⁵.

In this context, an asset class that the FSA is particularly concerned about is own-issued or own-originated securities (including subordinated debt and covered bonds and ABS issued by an SPV which is within the same group as the bank). Given that this is potentially a very broad asset class, it may be possible that firms could adequately demonstrate that within this asset class and in some circumstances, certain of these securities may not be materially positively correlated;

- c. Market volatility during times of stress – firms should assume that the greater the price volatility of the collateral, the more amplified the effect of correlation is likely to be, particularly during periods of market stress (e.g. the failure of a bank);
- d. Sensitivities – as the model output will be a function of the estimated inputs, the sensitivity of that output should be measured for each input (e.g. similar to option Greeks); and
- e. The estimated correlation and the volatility of that estimate should be linked to the haircut applied to the collateral.

Where the exit strategy is 'fire-sale' we would expect firms to apply more prudent criteria in assessing eligibility of collateral and determining applicable collateral haircuts than if relying on an effective collateral retention policy to meet liabilities as they fall due and ongoing capital requirements.

Q6: Do you agree with the description and requirements for wrong-way (collateral correlation) risk? If not, please explain any proposed changes and the rationale for those changes.

⁴ See SYSC 4.1, 7.1, 14 – 17 as applicable

⁵ For stock lending the FSA considers the guidance to be consistent with the requirements for "adequate and sufficiently immediate collateral" in INSPRU 3.2.36R to 3.2.41R), in conjunction with INSPRU 2.1.9R (1) and INSPRU 2.1.14G.

Q7: Do you agree with that materially positively correlated collateral should not be deemed adequate collateral for liquidity swaps? If not, please explain any proposed changes and the rationale for those changes and any supporting data.

Q8: Which own-issued / own-originated securities should potentially be deemed adequate collateral for liquidity swaps? The rationale for this should be set out and supported by robust empirical data and analysis, plus proposed haircuts.

A7. Limit structure (micro & macro)

Firms should have in place appropriate limit structures to manage their risks. There will also be a need to establish a link between individual firm's limit structures and market wide limits to control systemic risk.

The FSA intends to review the basis for each firm's individual limit structure and the levels set. A limit structure should be complete by covering all of the risks and should set levels prudently.

The limit structure should include, but is not limited to, the following;

- a. Scale of transactions:
 - i. Size [£x, x%]; and
 - ii. Maturity [5 years, 3-year break 'review' clause].
- b. Securities lent:
 - i. By asset class (e.g. type of issuer – government debt & corporate debt, credit rating – each subject to an absolute limit and relative limit);
 - ii. By maturity bucket (e.g. to restrict lending of short-dated debt); and
 - iii. Eligibility (e.g. no-spread risk as matching illiquid liabilities, so only exposed to default risk).
- c. Collateral received:
 - i. Look-through to underlying collateral and treat as notional positions against Solvency I concentration limits for admissible assets; and
 - ii. By asset class (e.g. type of issuer – government debt & corporate debt, credit rating – each subject to an absolute limit and relative limit).
- d. Counterparty concentration / diversification (e.g. for insurers INSPRU 2.1.8R – 2.1.19G, SYSC 15) – linked to counterparty credit, legal and operational risk (e.g. financial sectors, third parties and connected group companies).
- e. Model sensitivities (e.g. similar to option Greeks):
 - i. Duration or interest risk capped by some form of risk measure (e.g. DV01); and
 - ii. Minimum levels of over-collateralisation / haircut by asset class (e.g. the proposed minimum over-collateralisation for a third-party, most senior tranche of a AAA Prime RMBS based on ongoing mark-to-market value of the collateral).
- f. Ratio of positive correlation to over-collateralisation / haircut.

In terms of achieving macro-prudential outcomes, in particular financial stability, a market-wide limit structure will need to be set to prevent the level of interconnectedness creating a transmission mechanism by which systemic risk can be transmitted across the financial system. The FSA intends to issue individual guidance⁶ on these limits on a firm-by-firm basis in consultation with the Bank of England. It is for these reasons that the FSA may need the reporting below (see [A12. Systemic risk – FSA reporting](#)).

Q9: Please comment on what you think the micro-prudential risk based limit structure should be for individual firms and provide quantitative measures (e.g. absolute limits - £ and relative limits - %).

Q10: Please comment on what you think the macro-prudential risk based limit structure should be and provide quantitative measures (e.g. absolute limits - £ and relative limits - %).

A8. Legal risk

A firm should conduct legal reviews as necessary (as evidenced by a written and reasoned legal opinion) to ensure enforceability and effectiveness of the collateral arrangements in all relevant jurisdictions, including in the insolvency or bankruptcy of the counterparty. The legal reviews should include analysis of the following:

- a. Ability of contractual and security rights to withstand challenge by liquidators or other creditors;
- b. Legal effectiveness and enforceability of amendments to standard documentation such as rights over excess collateral;
- c. That the rights and obligations of the parties in the agreement would operate post-default;
- d. Legal effectiveness and enforceability of close-out netting provisions;
- e. Legal effectiveness and enforceability of termination rights and acceleration or recall of the transaction;
- f. Legal effectiveness and enforceability of contractual right to liquidate the collateral in a timely manner in the event of the default, insolvency or bankruptcy or other credit event of the counterparty;
- g. Legal effectiveness and enforceability of contractual right ability to retain the collateral and postpone valuation or liquidation where valuation is not commercially reasonable due to market disruption, until such time as a reasonable market valuation of the collateral may be carried out; and
- h. Risks of any prior or senior claims over the collateral pledged by the counterparty in favour of any person other than the insurer defeating or undermining the insurer's claim.

Q11: Do you agree with the description and requirements for legal risk? If not, please explain any proposed changes and the rationale for those changes.

A9. Break clauses - regulatory change (e.g. Solvency II, bail-in and asset encumbrance)

Firms should consider the potential implications of regulatory change on liquidity swaps. Such changes could be significant and cause a transaction to become uneconomic.

For example, for insurers, Solvency II is likely to introduce fundamental changes which could alter unfavourably the economics of these transactions and the consequences of having to retain the collateral in the event of default.

More specifically, insurers will need to consider the effect of:

⁶ SUP 9

- a. The investment principle in Article 132 ('prudent person principle'), and the calculation of the SCR⁷ in accordance with Articles 100-110;
- b. The Level 2 implementing measures for the valuation of assets and technical provisions, and under the SCR standard formula the potentially more onerous capital requirements for the collateral should they come on balance sheet, and the application of 'haircuts' to risk mitigants in the SCR; and
- c. The application of any transitional provisions for the so-called liquidity premium in the calculation of the technical provisions.
- d. That the implementing measures and transitional provisions have not been drafted and are yet to be agreed within Europe.
- e. The possibility that the liability discount rate is independent of assets held, so that there is significantly more balance sheet volatility, especially post a default.

For banks it is the potential regulatory changes being proposed by the FSA around asset encumbrance policy (see [C3. Pillar 2](#)).

Another example is the bail-in cushions for banks, whereby non-depositor creditors are expected to bear a larger share of losses in the event of a bank's financial condition deteriorating.

Accordingly, it would be prudent for both insurers and banks to include a break-clause in their transaction agreements, so that the transactions can be unilaterally terminated in the event that the transaction becomes uneconomic due to such regulatory change.

Q12: Do you agree with the description and requirements for break clauses – regulatory change (e.g. Solvency II, bail-in and asset encumbrance)? If not, please explain any proposed changes and the rationale for those changes.

A10. Intra-group

The FSA has various concerns with intra-group liquidity swaps, insofar as:

- a. It may be difficult to evidence a clear commercial advantage for both parties, given that there may be an overriding group interest;
- b. For the same reason, it may be difficult to evidence that the transaction is being made on arms-length terms;
- c. There should be sufficiently robust governance procedures in place to manage any conflict of interest that potentially arise in transactions between counterparties in the same group; and
- d. Insurance groups and financial conglomerates may be unable to meet potential capital restrictions that could result from the application of INSPRU 6.1.42AR – 6.1.42BG to any collateralised lending that might constitute reciprocal financing within a group, especially if the collateral includes own-originated securities.

In the light of these concerns, the FSA's observation is that firms are unlikely to be able to manage satisfactorily the conflicts of interests and risks arising from intra-group liquidity swap transactions. Therefore, the FSA is inclined to the view that transactions with other counterparties within their same group should, as a general principle, be avoided.

⁷ Solvency Capital Requirements

Q13: Do you agree with the concerns around intra-group liquidity swaps? What, in your view, are possible measures that can be effective in preventing intra-group transactions, which also effectively prevent arbitrage that might come about from a ban? If these transactions are not prevented how should these concerns be mitigated?

A11. Notifying the FSA

We expect firms contemplating liquidity swap transactions to notify us under PRIN 11. Firms should make available to us sufficient information well in advance of the execution date so that we can make a proper assessment of the risks inherent in the proposed transactions.

Transactions may be structured in many different ways such that it may not always be clear if this guidance is relevant to the transaction being contemplated. A firm should look to the economic substance and reality of a transaction to determine if this guidance is relevant to it. A firm should consult the FSA when there is uncertainty about whether this guidance is relevant to a given transaction it may be contemplating.

Q14: Do you agree with the notification requirements? If not, please explain any proposed changes and the rationale for those changes.

A12. Systemic risk - FSA reporting

The FSA may⁸, as part of monitoring and managing systemic risk, request routine reporting of liquidity swaps (e.g. size, maturity, securities lent, collateral received, collateral ratios and counterparty). This is linked to the limit structure (see [A7. Limit structure](#))

Q15: Do you agree with the description and requirements for systemic risk – FSA reporting? If not, please explain any proposed changes and the rationale for those changes.

B. GUIDANCE SPECIFIC TO INSURERS

B1. Pillar 1

The FSA considers a liquidity swap transaction to be a 'stock lending' transaction (as defined in the FSA glossary) and the provisions on stock lending in INSPRU 3.2.36R - 3.2.36AR must be met in relation to such a transaction for the purposes of GENPRU 2 Annex 7R (Admissible assets in insurance).

The calculation of the Pillar 1 capital requirement takes into account the collateralised lending provisions in INSPRU 3.2. Under INSPRU 3.2.36R, a transaction is an approved transaction if the assets lent are 'admissible assets'. Collateral of 'adequate quality' will need to be held by the firm (or for example by an independent custodian in a segregated account) (INSPRU 3.2.36R, 3.2.38R (2) & (3) and 3.2.41R). Relevant criteria for the quality of the collateral would be that the assets are individually identifiable, sufficiently liquid, and sufficiently stable in value, to provide appropriate certainty as to the protection provided.

In addition, the arrangements for the transfer of collateral will need to meet the criterion of being 'sufficiently immediate' (INSPRU 3.2.40R), with the collateral being fully and immediately available to the insurer in the event of default of the bank and with a restriction that the collateral cannot be used to pay or provide collateral for any other person than the insurer (INSPRU 3.2.38R (1) & (2) and INSPRU 3.2.41R) read in conjunction with INSPRU 2.1.16R – 2.1.17G).

Under our rules and guidance in INSPRU 3.1.28R - INSPRU 3.1.48G, the starting point for the assessment of the valuation rate of interest for long-term liabilities is the risk-adjusted yield on the covering assets. For an approved stock loan transaction meeting the requirements of INSPRU 3.2, this risk-adjusted yield would be the internal rate of return on the stock lent (INSPRU 3.1.34R and 3.1.39R). That includes the relevant annual fee

⁸ PRIN 11

payable by the counterparty, less a deduction to exclude that part of the yield that represents compensation for credit risk arising from the asset (INSPRU 3.1.41R).

A part of the annual collateralised lending fee may therefore be regarded as a so-called liquidity premium, but allowance must first be made for any residual credit risk, as well as for any additional expenses arising as a result of the management of these risks and the associated collateral.

B2. Scenario and stress testing of cash flows (liquidity risk)

If a material part of the insurer's liquid assets will be loaned or transferred under such transactions, then a thorough analysis of the insurer's ongoing liquidity requirements should be undertaken before entering into such transactions, including an assessment of liquidity risk under stressed scenarios, or as a result of higher than expected levels of policy surrenders (see INSPRU 1.1.34R – 1.1.40G, GENPRU 1.2.26R – 1.2.31R, GENPRU 1.2.42R, SYSC 11 and INSPRU 4.1).

Before entering into these transactions, the insurer should assess the liquidity risk arising from these transactions based on cash-flow forecasts for a period of not less than the term of the transaction and should be satisfied that the transaction will come within the limit for its liquidity tolerance that has been set by its board of directors, committee of management or other governing body of a firm ('governing body'). In addition, it is recommended that the insurer's governing body should set out the limit for the aggregate nominal amount of collateral based programs for the firm and the group (including liquidity swaps, reverse repos, secured loans, etc.).

The cash flows under the following scenarios should be sufficient to meet solvency requirements and all liabilities as they fall due.

- a. Scenario 1: Base case – expected cash flows;
- b. Scenario 2: Stressed expected cash flows without liquidity swaps;
- c. Scenario 3: Stressed expected cash flows with liquidity swaps and no event of default (e.g. inability to liquidate securities lent, adverse selection due to substitution rights);
- d. Scenario 4: Stressed expected cash flows with liquidity swaps, event of default of all counterparties and retention of all collateral (e.g. maturity of collateral versus maturity of liabilities and reinvestment risk).

Firms may instead be able to address the concerns under scenario 4 by separately stress testing each counterparty in a manner consistent with that firm's strategy for dealing with a counterparty default. The FSA expects the firm to be able to demonstrate to the FSA's satisfaction why it thinks a diversification benefit in this respect would be appropriate;

- e. Scenario 5: Reverse stress test – as a consequence of the liquidity swaps what scenarios would cause the firm not to meet solvency requirements and all liabilities as they fall due, pre and post management actions? For example:
 - i. Regulatory changes (e.g. due to Solvency II, collateral is no longer eligible or results in increased capital requirements);
 - ii. Liquidity spread widening continues post event of default causing significant reductions in market value without an increase in default risk or being downgraded;
 - iii. Significant spread widening continues post event of default is the pre-cursor to increased default risk;
 - iv. Extension risk on collateral (e.g. stop replenishing mortgage pool for revolving structures);
 - v. Reinvestment risk on collateral pre-paying early; and

vi. Impact of bail-in.

- f. Scenario 6: Illiquid collateral: firms should include stresses under which the collateral becomes illiquid.

The stress scenarios or 'what if' scenarios considered by the insurers should simulate the balance sheet after the collateral becomes an owned asset (in a post-default scenario) and review the resultant consequences for asset admissibility (INSPRU 2.1).

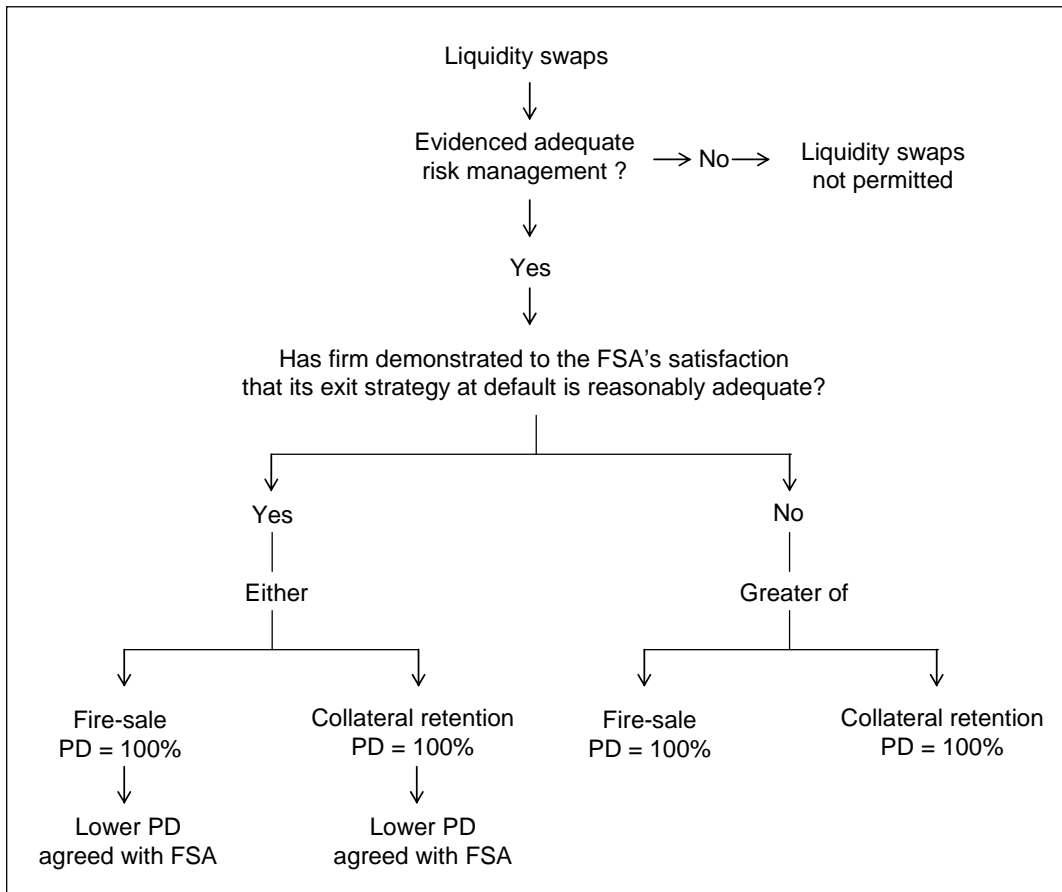
Some insurers have sought to mitigate to the extent possible, through the intended use of derivatives (e.g. through a swap facility), any mis-matches and other risks that might arise in the event of the counterparty defaulting and the lender being left holding the collateral in place of the gilts. These derivatives would include duration or currency hedges, but hedges have generally not been proposed for credit risk and liquidity.

Q16: Do you agree with the description and requirements for scenario and stress testing of cash-flows (liquidity risk)? If not, please explain any proposed changes and the rationale for those changes.

B3. Pillar 2 ICA / ICG – meeting liabilities as they fall due and capital

While the Pillar 2 ICA/ICG should continue to take account of all the assets and liabilities on the balance sheet, the ICA/ICG should also take account of all the additional risks associated with the transaction, including credit, liquidity, legal and operational risks, including consideration of the reliability of asset valuations in both normal and stressed conditions. For this purpose, we believe that the additional component of the ICA/ICG in respect of credit risk on the transaction, and any duration and currency risk that might arise on default of the counterparty, should be based on looking through to the underlying collateral, to the extent the insurer can rely on that collateral, taking into account the effectiveness of any associated hedges.

Our Pillar 2 assessment will then be based on the insurer having to rely on the adequacy of the collateral to allow it cover liabilities and capital requirements. The capital calculation should be based on the following hierarchy of approaches:



In assessing the ICA/ICG applicable to the insurer, the additional risk in respect of collateralised lending should be covered by capital that is at least the greater of the assessment made under approaches (a) and (b) below:

- a. Assume that the collateral would be sold at a distressed market price, with reinvestment in gilts and with an ICA component being attributed for any potential shortfall in the value of the collateral below 100% of the value of gilts; and
- b. Assume that the collateral is retained, therefore look through to the underlying collateral to calculate the ICA component being attributed for the collateralised lending transaction, as follows:
 - i. Apply Pillar 2 for credit risk in respect of the collateral as if held at a mark to market value on insurer's balance sheet, to calculate the amount of capital to be held for the transaction with a suitably large capital charge for any collateral which is positively correlated to the event-of-default (e.g. own-originated ABS), and net this against the amount of any collateral based on current value that is in excess of the current value of the gilts that have been lent ("excess collateral");
 - ii. Ignore any remaining excess collateral (firm can optimise this calculation);
 - iii. An appropriate adjustment should be applied in respect of any deterioration of the collateral that may occur as a result of substitution after commencement until such point the transaction matures, is terminated or there is an event of default;
 - iv. Add a Pillar 2 capital charge in respect of any mismatch risk by duration, interest type (e.g. fixed/floating) and/or currency, between the remaining collateral and the liabilities; and
 - v. If an effective derivative hedge is in place that meets the requirements in INSPRU 3.2 is in place, or would be in place following the exercise of a committed facility, then an appropriate offset may be made to the Pillar 2 capital add-on, allowing for the cost of the hedge.

Both these calculations should assume a 100% probability of default. It is possible to base these calculations on a lower probability of default where risks (e.g. concentration risk / large exposure risk) have been adequately mitigated (e.g. diversification). The possibility of applying a lower probability of default should first be agreed with the FSA, based on assessment that should reflect among other things, the following:

- a. The potential concentration risk if there are very few counterparties;
- b. How concentration risk, if any, is being hedged;
- c. The extent of encumbrance of the counterparty's assets; and
- d. The extent of positive correlation, if any, between the value of the collateral and the probability of default of the counterparty.

Should any of the factors taken into account in adjusting the probability of default downwards also be used to mitigate the loss given default, this should be discussed with the FSA so that any resulting Pillar 2 capital guidance can be considered in overview.

A further addition to the ICA/ICG capital level may then be needed to reflect any legal and operational risks related to the transaction.

Alternatively, to the 'higher of' set out above, the additional risk in respect of collateralised lending may instead be covered by:

- a. Capital that is not less than the amount calculated above under approach (a) if the FSA is satisfied that in a default scenario the firm has planned for and can implement a credible and workable fire sale strategy; and

- b. Capital that is not less than the amount calculated above under approach (b) if the FSA is satisfied:
- that in a default scenario the firm has planned for and can implement a credible and workable strategy to retain the collateral ('collateral retention strategy'); and
 - that the firm is able to maintain a solvent balance sheet at all times, including in a counterparty default scenario, without having to realise the collateral.

The collateral must be marked- to-market under the valuation rules in GENPRU 1.3.

A firm should be able to demonstrate how it will cover its margin of solvency and maintain the capital level under its ICA/ICG (or Solvency II SCR and ORSA/supervisory review process) following a default event (which ICA/ICG and SCR should include a component in respect of credit risk on the collateral). We anticipate allowing a firm a reasonable amount of time to restore this cover (under Solvency II, a firm will have 6 months to restore cover for the SCR or 3 months for the MCR).

Provided the risk management framework is appropriate, the resulting Pillar 2 capital level calculated as set out in this guidance is both commensurate with the risks involved in these types of transactions and is not inconsistent with the overall insurance regulatory framework.

Q17: Do you agree with the description and considerations for insurers in Pillar 2 ICA / ICG – meeting liabilities as they fall due and capital levels? If not, please explain any proposed changes and the rationale for those changes using numerical examples where possible.

B4. Re-hypothecation of collateral

The collateral must be of an adequate quality, which includes being a loss-mitigation technique where the insurer has good reason to believe that taking into account the possible circumstances of default, it is likely to be effective (see INSPRU 3.2.38R(3) and 2.1.16R). Therefore, the FSA expects the collateral not to be re-hypothecated.

Q18: Do you agree with not re-hypothecating the collateral? If not, please explain any proposed changes and the rationale for those changes.

B5. Disclosure

Firms should consider the risk to policy holders of these transactions and the need for market disclosure (e.g. securities lent, collateral received and explicitly what, if any, additional risks policyholders are exposed to).

Q19: Do you agree with the description and requirements for disclosure? If not, please explain any proposed changes and the rationale for those changes.

C. GUIDANCE SPECIFIC TO BANKS

C1. Risk

Obtaining liquid assets in this manner, rather than through cash-collateralised borrowing (e.g. reverse repo transactions) or outright ownership, presents certain risks. In particular, the bank would have to consider under BIPRU 12 rules how its liquidity resources would change during the course of a stress as a result of, for example, additional margin payments, the transaction being terminated and any other relevant risks. Firms are reminded that as part of BIPRU 12.3 they are required to consider multiple stress scenarios in addition to the regulatory stresses outlined in BIPRU 12.5. Firms should document these risks in the Individual Liquidity Adequacy Assessment (ILAA).

For banks this transaction results in asset encumbrances which subordinate the bank's unsecured creditors (e.g. retail depositors) rights over the collateral, thus risks reducing the amount available to meet their claims in the event of the bank's default. Given the potential scale of these transactions the risk of loss due to this asset encumbrance could be significant, particularly during a period of market stress.

The haircut on the collateral is typically recorded as a credit exposure and could be segregated through an escrow mechanism. The FSA expects the collateral to be ring-fenced (and held in trust with the bank as the beneficiary) or appropriately structured so that in the event of an insurer failure, the bank is protected vis-à-vis its right over the over-collateralisation.

In the event that the bank uses the borrowed assets to raise liquidity in the repo market there will be further asset encumbrance and structural subordination of unsecured creditors, so further increasing the risk of loss to those creditors (e.g. retail depositors).

Q20: Do you agree with the description of the risks to banks and their unsecured creditors (e.g. retail depositors)? If not, please explain any proposed changes and the rationale for those changes.

C2. Pillar 1

For banks, the Pillar 1 capital treatment of these transactions relies on the financial collateral provisions in BIPRU 5.4 which will cover both collateralised lending and repo transactions. The liquidity generated via the repo or by simply holding gilts is covered by BIPRU 12.5.

In addition to holding the capital required for the collateral lent to the counterparty, banks are required to capitalise against the counterparty credit risk that arises due to the stock borrowing/lending transaction in accordance with BIPRU 13.

Q21: Do you agree with the description and requirements for Pillar 1? If not, please explain any proposed changes and the rationale for those changes.

C3. Pillar 2

The FSA has already articulated its views about asset encumbrance (see the letter of 23 October 2008 from the FSA Director of Prudential Policy to the British Banking Association on Covered Bond Issuance and Asset Encumbrance) which sets out the expectation for firms to discuss with the FSA, in advance, all plans for significant new asset encumbrance and apply issuance limits.

For the avoidance of doubt, the FSA considers the collateral arrangement connected to liquidity swap transactions as the sort of asset encumbrance falling within the scope of this letter. Firms should expect that the outcome of a supervisory case-by-case assessment may include an additional Pillar 2 capital charge and/or a limit on the transactions. The FSA intends to base the Pillar 2 capital charge on, amongst other things, the level of over-collateralisation under the transaction resulting in diminished assets being available to unsecured creditors (e.g. retail depositors) in the event of default and the degree, if any, of the correlation of the collateral being positively correlated to the probability of default of the bank.

See also section [A9. Break clauses – regulatory change \(e.g. Solvency II, bail-in and asset encumbrance\)](#).

Q22: Do you agree with the description and requirements for Pillar 2? If not, please explain any proposed changes and the rationale for those changes.

ANNEX 2 – MARKET FAILURE ANALYSIS – THE RATIONAL OF THE GUIDANCE

Market failure analysis

Liquidity in banking and insurance sectors

There is a structural difference in the way liquidity is distributed across the financial sector. In general, banks accepting liquid demand deposits and granting long-term loans are short on liquidity, while insurers with long-dated liabilities funded by up-front premiums are long on liquidity. In addition, insurers often hold significant portfolios of gilts, mainly attracted by the fact that gilt returns are guaranteed if they are held to maturity – a feature that matches well with the predictable nature of some insurance liabilities, such as annuities.

Following the recent financial crisis, both banks and the regulators are placing an increasing focus on the risk of illiquidity in the banking sector, and there is an increasing awareness of the value of liquidity. Banks hold significant quantities of structured credit assets, such as retail-mortgage-backed securities (RMBS). Some of these have a high credit quality for investors willing to hold them to maturity. However, the market for these can be very illiquid, which makes them difficult to sell and creates difficulty in banks meeting their liquidity requirements. One way banks can meet these liquidity requirements is through repo transactions, where securities are exchanged for cash with an agreement to repurchase the securities at a future date. However, most structured credit assets do not meet the repo collateral requirements.

Insurers, meanwhile, face the challenge of achieving return for policyholders and some guarantees on their products in a record low interest rate environment. They hold large quantities of liquid, safe, but low-yielding gilts in order to safely match the maturity of their largely long-term liabilities. Unlike depositors with banks, insurance policyholders often cannot demand their money back immediately, at least not without a significant penalty, so insurers have fewer concerns related to liquidity issues.

One potential market-led solution to insurers' search for yield and banks' needs for liquidity is 'liquidity swaps', where insurers lend gilts to banks for a fee with banks pledging structured credit assets (plus haircuts) as collateral. The bank can then use gilts for repo transactions to meet their liquidity requirements, while the insurer gets an additional return for its assets.

Liquidity Swaps: key risks

Typically most routine stock lending transactions between insurers and banks are contracted to take place over short time periods and involve very high-quality collateral. However, stock lending transactions are subject to a Pillar 2 add-on when the collateral involved is not as liquid, and/or of poorer quality. Since our current rules require assets to be valued on a bid basis, the result would equate to that of a 'fire-sale' calculation, with an appropriate assumption being made about the counterparty probability of default.

In comparison, the proposed 'liquidity swaps' transactions are often more complex – bigger in size (e.g. a substantial portion of an insurer's gilt portfolio), longer in duration and involve the use of less liquid collateral (sometimes of poorer quality) and higher counterparty concentration (due to the size of the transactions). If these transactions were undertaken on a widespread basis:

- a. They could increase the inter-connectedness of the banking and insurance sectors, and therefore pose a greater risk to financial stability. A bank failure could lead to a greater systemic impact if it, in turn, caused failure or distress amongst a set of connected insurers;
- b. They could increase depositors' structural subordination caused by asset encumbrance, which could lead to a greater call on the Financial Services Compensation Scheme;
- c. Policyholder liabilities would be matched with assets that are lower in quality (e.g. less liquid), albeit higher in yield. This could lead to the reduction of policyholder benefits where the benefits are discretionary, and/or an increase in probability of insurer failure; and

- d. Some proposed transactions involve connected counterparties within the same group. Consequently there could be a conflict of interest between the fiduciary duties of the directors of the connected counterparty and the wider interests of the group.

In theory, firms involved in the transactions should have incentives to structure and price the transaction to properly reflect the potential private costs of these risks to them. However, these incentives may be insufficient. There are two main reasons for this:

- a. Firstly, bank and insurer failures are rare events. In contrast, these transactions could immediately enhance banks' liquidity positions, while insurers could benefit from the additional return on assets. So there is a temptation for the firms involved in such transactions not to take the default risk into account sufficiently; and
- b. Secondly, there is a market perception that central banks and regulators will intervene during a market-wide stress. This perception could reduce the incentives for the financial firms involved in liquidity swaps to take default risk properly into account (moral hazard).

In addition, firms involved in the liquidity swaps are unlikely to take into account the potential social costs to the financial system and the general economy should some of these risks crystallise (negative externalities).

One key feature of these transactions is that liquid assets (e.g. gilts) are exchanged for illiquid collateral. The use of less liquid collateral could mean that in the event of default, the lenders of the liquid assets (i.e. the insurers) may not be able to replace the liquid assets using the proceeds from a collateral 'fire-sale' in a distressed market. This in turn implies that such transactions could potentially attract a considerable Pillar 2 add-on to reflect the associated liquidity risk. However, the insurers lending the liquid assets may be able to retain the collateral, and to use the incomes from the collateral to meet their liabilities as they fall due. Under this consideration, while the credit quality of collateral remains an important factor, the liquidity risk is mitigated through the match between the collateral and liabilities.

Cost benefit analysis

Baseline

Under the baseline consideration, the 'liquidity swaps' transactions are subject to Pillar 2 add-ons when the collateral being used is not as liquid, and/or of poorer quality. Since our current rules require assets to be valued on a bid basis, the result would equate to that from a 'fire-sale' calculation, assuming an appropriate counterparty probability of default.

Benefits

Quantity, quality and variety of transactions

On the one hand, since the starting point is that the regulatory capital will be the higher of 'fire sale' and 'collateral retention' calculations, both based on a 100% probability of (counterparty) default, some transactions where the firms fail to adequately demonstrate the relevant risk mitigating strategies will be hit with a capital add-on based on 100% probability of default. This is likely to make those transactions uneconomical. As a result, those poorer quality transactions are unlikely to take place. To the extent that this guidance stops some transactions that pose excessive risks from taking place, the benefits, through reducing the negative externalities mentioned earlier, should outweigh the costs of stopping these transactions.

On the other hand, allowing the use of 'collateral retention' calculations will give firms the option of calculating a capital requirement that is based on the proposition that the collateral will be managed with a view to meeting the liabilities as they become due at the counterparty's default. This could yield a lower capital requirement than that from the 'fire sale' calculation. Therefore, if a firm can adequately demonstrate that its strategy at the counterparty's default is 'collateral retention', the guidance could lead to lower capital add-ons for some transactions. This means that some transactions that are otherwise uneconomical under the 'fire sale' calculation could now become economical. This would in turn lead to an increase in liquidity swap transactions when compared with the baseline. If the 'collateral retention' calculation adequately captures the related risks

and the assessment that the firm has adequate risk mitigation strategy in place is correct, then there are benefits associated with releasing 'dormant' liquidity. These benefits occur both to the firms involved and through reducing risk to the economy by transferring liquidity risk from firms where this is a significant issue to firms that have excess liquidity.

Costs

Direct costs

There will be additional costs to the FSA arising from the need to assess whether the risk mitigating strategies, systems and controls that insurers put in place are adequate, and to calculate the size of any capital add-ons. While the FSA has to conduct these assessments for routine stock lending transactions, the proposed liquidity swaps transactions that involve the use of illiquid collateral are likely to take up more FSA resources.

Compliance costs

There will be additional costs for firms that have to revise existing, or put in place additional systems and controls arrangements that are required specifically in relation to liquidity swaps. Since the starting point of the guidance is that the regulatory capital will be the higher of 'fire sale' and 'collateral retention' calculations, both based on a 100% probability of (counterparty) default, a firm will be able to move away from this starting point only if it can adequately demonstrate that it has a clear strategy at the counterparty default, and it has the relevant risk mitigating strategies in place:

- a. For firms that want to adopt the 'fire-sale' calculation, if they can adequately demonstrate that they have appropriate strategy, systems and controls in place, the resultant capital add-on will not be significantly different from that of the baseline case. Some transactions proposed by firms that have failed to adequately demonstrate appropriate risk mitigating strategies will not take place. However, as discussed above, to the extent that our risk assessment is correct, there is a net benefit; and
- b. For firms that want to adopt the 'collateral retention' calculation, the guidance explicitly offers them the opportunity to do so, provided that they can adequately demonstrate that they have appropriate risk mitigating strategy, systems and controls in place. Since firms still have the option of going down the 'fire-sale' route, if they choose to use the 'collateral retention' calculation instead, it is likely that it will yield lower capital costs. This reduction in capital add-ons could increase the volume of liquidity swaps transactions.

Other costs

For the liquidity/gilts borrowers (banks), these 'liquidity swaps' transactions result in asset encumbrance, which subordinates the rights of the depositors to the collateral. Banks are likely to use borrowed gilts to raise liquidity in the repo market. This will lead to further asset encumbrance. Thus, transactions like this reduce the amount available to repay deposits at a time of distress, which could lead to a greater call on the FSCS. Given the scale of some of the proposed transactions, the potential loss to the depositors and the FSCS due to asset encumbrance could be significant.

The inclusion of a break-clause in a transaction agreement, in the case of a regulatory change causing difficulties for the insurer, has potential benefits for the insurer. However it will present further risks for the bank which could suddenly find itself with fewer liquid assets if the clause is triggered. Similarly while conservatively set minimum levels of over-collateralisation could reduce the potential losses of insurers in the event of the counterparty default, they would lead to further asset encumbrance for banks and potentially greater knock-on effects in the event of the bank failing.

Limits are sensible regulatory tools aiming to stop extreme events, which tend to be rare and difficult to capture in any risk-sensitive measures. However the limits must only be used as backstops, to prevent extreme actions, because they are non-risk based and therefore inefficient.

Intra-group transactions present additional risks and governance issues when compared to third-party transactions, as detailed in the guidance above. However, a blanket ban can at times yield economically

inefficient outcomes, and a ban might be circumvented by two groups executing two separate “inter-group” transactions simultaneously (i.e., an insurer from group A conducts a liquidity swap with a bank from group B, while at the same time, a bank from group A conducts a liquidity swap with an insurer from group B.). Therefore, careful consideration is required with regards to how to best address the additional risks posed by intra-group transactions.

* * *

The trade-off between costs and benefits will critically depend on the ability of firms and the FSA to assess the risks involved accurately. On the one hand, unnecessarily high capital add-ons will deter some potentially beneficial transactions (to both parties involved and to the market) from taking place; on the other hand, inadequate capital add-ons will lead to some transactions that potentially pose significant risks, not only to the firms involved, but also to the financial system, taking place. In addition, it will be challenging to properly assess the associated risks, given that the collateral involved tends to be illiquid, and therefore does not lend itself well to market valuation.