Producing guides to best practice in emerging repo markets

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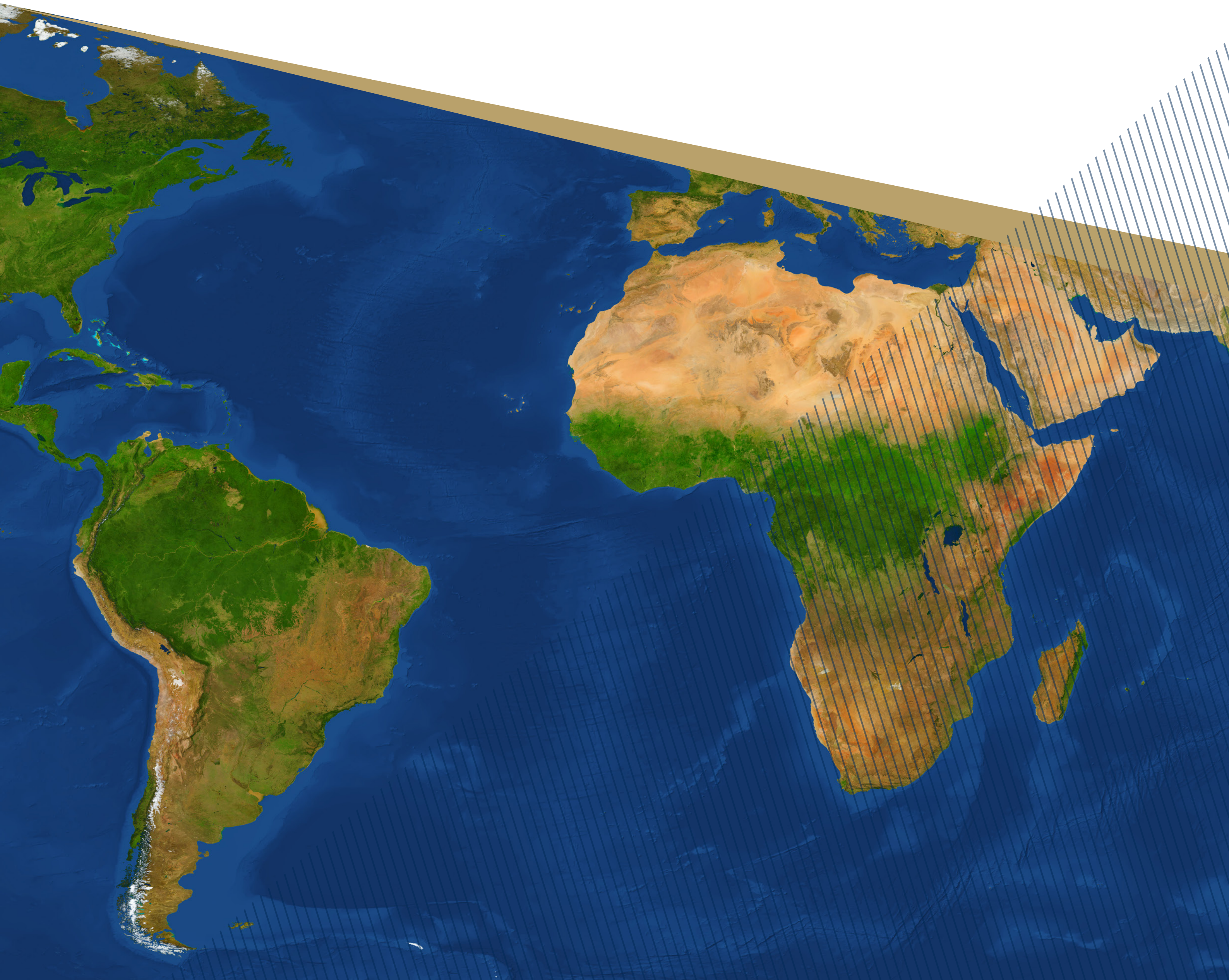

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Introduction

1 All financial markets can benefit from having written guidance made available to market participants on how best to conduct their business. But new markets can benefit the most because they will lack that cumulative experience of established markets from which best practices are usually drawn. This document offers guidance on producing a guide for emerging repo markets. It draws on market development projects in various emerging markets and experience with the ICMA's Guide to Best Practice in the European Repo Market.

2 A **guide to best practice** is a set of recommendations – generally formulated, published and adopted by members of an association of professional market participants trading and/or investing in a particular type of financial instrument – on how best to conduct pre-trading, trading, post-trade management and settlement so as to maintain the efficiency, effectiveness, safety and fairness of their marketplace. Such guides typically include:

- recommendations on how best to prepare, negotiate, execute, manage and settle transactions in normal circumstances as well as in unusual or difficult situations;
- recommended measures to control risk and to enhance the efficiency of pre-trade preparation, trading, post-trade management and settlement, including contingency procedures for unusual or difficult situations;
- procedures for managing post-trade disagreements between contracting parties;
- standardized terminology to help reduce misunderstandings;
- explanations of complex concepts such as the more common types of structured transactions and risk management procedures;
- codification of market conventions (widely-accepted market assumptions and methods) including methods of quotation, fixing of dates and periods, calculations of payments and values, sourcing of prices for valuation, and deadlines for trading, life-cycle and risk management, and settlement.

3 **The coverage of guides may overlap with that of codes of conduct.** But whereas guides to best practice are typically market publications focusing on the technicalities of the market and are voluntarily adopted by market participants, codes of conduct are usually official publications focusing on the probity of behaviour of market participants and compliance is compulsory. Unfortunately, titles such as 'guide', 'guidelines' and 'code of conduct' are often applied as if they were interchangeable.

4 **The following recommendations are specifically for emerging markets in "true" repo.** A true repo is one in which collateral is conveyed by the transfer of legal title between seller and buyer. Consequently, the buyer should have the unfettered right to dispose of the collateral during the term of a repo, including selling short; is only obliged to sell back equivalent collateral at maturity; and is entitled to receive payments of income directly from the issuer of the collateral.

General principles for guides to best practice

5 **A guide to best practice in a repo market should overlap as little as possible but be consistent with <u>other wholesale financial market guidelines</u>.** Guidance covering the entire wholesale financial market may already have been published by the market association which plans to publish a guide for a new repo market or by another market association (eg the ACI). It is unlikely that existing guidance will cover repo in any detail, if at all. However, a repo guide will overlap with the existing guidance (eg on market conventions on fixing dates and periods, and making payments and deliveries) where it is thought convenient for the reader not to have to refer to another document about common technicalities. But overlaps should be kept to a minimum and cross reference made to existing guidance where it is felt necessary to cover the same topic in a repo guide.

6 **A guide to best practice in the repo market should be kept apart from <u>regulations</u>.** There are fundamental differences between guides and regulations which mean they are best documented separately.

6.1 Ideally, a guide to best practice should be compiled and published by a market association, because this type of body is best able to provide a forum for informed and frank discussion among market peers in order to forge, by consensus, practicable guidance on what is best for the marketplace as a whole. Governance by a market association also means that guides can be speedily updated to keep pace with the development of the market and to respond swiftly to unexpected problems. And guides produced "for the market and by the market" may also create a sense of "ownership" which will encourage market participants to observe the spirit of the guidelines rather than just the letter. This is important because, in order to accommodate the diversity of situations possible in a market, guides often have to take the form of general recommendations. The more general a recommendation, the more its application will require the exercise of judgement in a way that respects the spirit of the guidelines and not just the letter. Finally, guides cover many technical matters of no particular import to regulators.

6.2 In contrast, regulations are formal requirements, published by official agencies, backed by sanctions and, as such, requiring the observance of the letter of the regulation. And given their consequences, regulations can rarely be changed fast enough to keep up with market developments.

Although guides to best practice should not be used to promulgate regulations, it is nevertheless helpful for a guide to point to relevant regulations.

7 **Guides to best practice should be kept separate from official contracts and special codes of conduct for primary dealers, market-makers or recognized market counterparties for monetary policy operations.** The purpose and nature of these documents is essentially different from the purpose and nature of a guide to best practice. Contracts lay out clear and enforceable rights and obligations, whereas guides are flexible and advisory. And codes of conduct, as noted above, are usually official publications focusing on the probity of behavior of market participants and compliance is compulsory. Moreover, codes for primary dealers and other official counterparties will have a narrower focus than guides. Market-making or similar obligations should be left to official documents.

8 The market-driven nature of a guide to best practice does **not** mean there is no **role for public institutions** (particularly the central bank) in helping to develop a guide. Official encouragement may be needed to start the process of writing the guide or even to set up a market association to do the job. Consultation with relevant public institutions is also essential to ensure consistency with regulation. And official support can be invaluable in encouraging the widespread adoption of a guide. Moreover, consultation with the official sector during the writing of a guide can be helpful in familiarizing public institutions with the practical workings of the market.

9 **A guide to best practice in the repo market should not repeat the provisions of master repurchase agreements.** However, it can be helpful for a guide to summarize some contractual provisions, although care should be taken in drafting in order to avoid misinterpretation and readers seeking to understand their contractual rights and obligations should be advised to consult the master repurchase agreement itself as well as seeking any necessary professional legal advice. References to the master repurchase agreement should be provided in a guide where relevant.

Scope of a guide to best practice in the repo market

10 **Target audience.** The introduction to a guide to best practice should identify the audience to which its recommendations are intended to apply. Strictly-speaking, this can only be the members of the market association, as an association has no authority to make recommendations to anyone else. Members will be financial intermediaries, typically banks and securities dealers, who (in theory) possess a high level of trading and operational capability, as well as a good understanding of and ability to manage risk. Such an audience means that a guide does not have to be (too) educational and can therefore be concise. But while a guide will be written for this core professional market, other participants in the wholesale repo market can be invited to use the guide, given that they will typically be counterparties to the members of the association. And non-professional participants value written evidence of best practice in the market.

11 **Target transactions.** The introduction to a guide to best practice should explain the type of repo business to which they are intended to apply. This is likely to be short-term repos against collateral which is the least risky and most liquid that is available in the local market (typically government securities) and which is likely to account for the bulk of the repo market. Repos for longer tenors and against risky collateral tend to be more complex and less common, making it difficult to provide general guidance and probably not worth the effort for a market association in an emerging market. It may be prudent to highlight the fact that the guide applies only to true repo and to explain the difference with those repos which are actually secured loans.

Legal issues

12 **Written contract.** A guide to best practice in the repo market should make it clear that parties should only transact repos under a robust and up-to-date written contract, preferably a standard master repurchase agreement. This should provide, among other things, for transfer of absolute legal title to collateral and close-out netting in insolvency. A guide may recommend a particular standard master repurchase agreement. Or, if the regulator has prescribed a standard agreement, a guide should highlight the fact. The most widely used standard master repurchase agreement is the Global Master Repurchase Agreement (GMRA) published by the ICMA.

13 **Legal advice.** Parties should have ready access to, and make all necessary use of, advice from legal professionals with appropriate experience of wholesale financial markets to ensure the legality, validity, binding character and enforceability of their repo contracts. In this regard, it would be helpful to the market if a legal opinion on any recommended standard master repurchase agreement was commissioned by the market association for use by its members or was commissioned for wider use by some other body, which could be the central bank or a development agency. Firms who are members of the ICMA and use the standard GMRA in any one of over 60 jurisdictions can refer to the legal opinions commissioned each year by the ICMA. But whichever legal opinion is available, additional legal advice will be required for certain special types of institution or if the standard terms or conditions of a standard master repurchase agreement are amended in any significant way.

14 **Translation of contracts.** If the GMRA is adopted as the standard master repurchase agreement for a local market but English is not an official language, a translation may be required by local courts or in statute. The translation may have to be notarized, certified, legalized or apostilled by a public notary. But the English language version of the GMRA should remain the authoritative text as certain English words and English law concepts may not have an exact equivalent in the local language and law. The translation could be attached to a guide (with a suitable disclaimer making clear that the translation is not the authoritative text).

15 **Definition of a repo.** If there is legislative definition of a repo in local statute, this should be copied into a guide and market participants should be warned not to structure repos that conflict with any of the key characteristics of that definition. For example, if the legal definition describes a repo as a sale and repurchase of securities, parties should avoid using securities as collateral which will or might mature during the term of a repo.[1] Where there is no legislative definition, the definition of a repo in the GMRA (sub-paragraph 1(a)) or other master repurchase agreement should be copied into a guide for reference.

1 If collateral is redeemed during the life of a repo, the repurchase will be a net payment of cash, whereas a repo is supposed to be a sale and repurchase of securities.

16 **Type of repo.** A guide to best practice should note if the local repo market is limited to just one of the two types of repo (repurchase transactions or buy/sell-backs). Some markets are restricted to buy/sell-backs because of legal and/or tax issues that are sometimes raised by repurchase transactions, usually relating to the payment of income on collateral during the life of a repo.

17 **Settlement** requirements. It is essential to ensure that absolute title to collateral is transferred in accordance with the law of the jurisdiction in which the collateral is deemed to be held. If an effective transfer of absolute title to collateral requires certain legal or operational formalities to be observed about delivery (for example, as regards use of the local securities settlement system), these should be highlighted in a guide.

18 **Disclosing an agency relationship.** Parties who transact repos with another party sometimes on their own account and at other times as an agent for third parties should ensure that they make clear to the counterparty, at the point of trade, whenever they are acting as an agent. This is vital in order to be clear with whom rights and obligations are being established and who is taking risk on whom. The recommendation to identify an agency is typically a contractual provision of standard master repurchase agreements but it is worth highlighting in a guide.

19 **Disclosure of underlying principals by an agent.** An agent must reveal the identity or identities of the third-party principal or principals for whom they are acting in order that the counterparty with whom the agent is dealing can fulfil its "know-your-customer" (KYC) obligations and measure their credit risk. It is, however, not necessary for the agent to disclose the identity or identities to the dealers of the counterparty if there is a commercial risk in doing so. In this case, the counterparty's dealers can be given codenames only for the third parties and the key to the codenames can be given confidentially to the compliance or some other risk management or control function of the counterparty.

20 **Complying with representations.** Market participants should be urged to ensure that their dealers do not breach the representations made in their agreements, for example, by providing advice to the other party on which the latter can subsequently claim to be reliant. It is equally important for parties to be certain about the representations made by the other party about that party's capacity and authority to transact repos (in disputes, parties frequently argue that they lacked the capacity or authority to trade repo in order to get loss-making transactions declared void or unenforceable).

21 **Arbitration.** In the event of a problem arising in respect of a repo, other than in the case of a default, parties should be encouraged to negotiate bilaterally in a reasonable manner and in good faith. However, if a resolution cannot be reached bilaterally, parties could seek third-party arbitration. The option to go to arbitration could be incorporated as a supplementary contractual term in master repurchase agreements. International banks will want access to international arbitration, whereas local banks dealing with each other will want local arbitration. If the market agrees on a standard domestic arbitration mechanism, a guide could offer recommended wording for adoption in contracts. If arbitration is required by the regulator, this should be highlighted by a guide and readers should be referred to the relevant regulation for the detail.

Risk management and control

22 As in other trading activities, parties in the repo market should put in place an appropriate organization, policies, procedures, personnel and infrastructure to efficiently and effectively identify, measure, monitor, manage and control all risks, including credit, market, liquidity and operational risks, as well as correlations between these risks. If general wholesale financial market guidelines have been published already, they may elaborate these measures for application across the wholesale financial markets, in which case, a guide to best practice in the repo market should focus on risks specific to repo. Such special recommendations should include:

22.1 A reminder that, while collateral can dramatically reduce the credit and liquidity risks in lending, it cannot completely eliminate such risks as no collateral is completely risk-free. Therefore, repo counterparties should still be subject to the normal **credit risk assessment** process and exposure should still be controlled by credit limits. A credit assessment should be made before starting to trade with a counterparty and then on an ongoing basis while a trading relationship continues.

22.2 Parties should verify the terms and conditions of each repo by means of an exchange of **confirmations** as soon as possible after execution, followed by the urgent cross-checking of details. The process should be managed by segregated back offices. Parties should **not** rely on the matching of settlement instructions by the securities settlement system to identify mistakes or disagreements, as not all deal details are included in settlement instructions and, as this type of matching takes place at the end of the post-trade process, there will be less time to resolve disagreements. If there is a disagreement over the contents of a confirmation, the parties should have in place procedures to swiftly manage and try to resolve the disagreement. Until a disagreement is resolved, parties cannot be sure of their exposure. Dispute resolution procedures should include:

- Before starting to trade, each party should have notified the other of their appropriate contact in the event of a disagreement.

- Parties should be able to quickly check recordings of any telephone conversations or copies of electronic messages (but this should be the responsibility of the compliance or similar department, not the front or back office, who should not have independent access to trading messages).

- There should also be a schedule for escalating a dispute to more senior management should resolution prove difficult.

And parties should negotiate reasonably and in good faith. Among other things, this means that a party should not try to sustain an obvious error just because it is in their favour.

22.3 Parties should calculate and, where appropriate, deduct prudent **haircuts** from the market value of collateral or add prudent **initial margins** to the cash being lent in order to hedge the risks on the collateral. Haircuts and initial margins should be sufficient to absorb fluctuations in the market value of collateral between variation margin calls (or the alternative procedures of early termination and replacement) as well as the possible fall in market value that may be caused by attempts to liquidate collateral following a default, particularly during a period of market stress.

22.4 Parties need to control the credit and liquidity risks on collateral by means of **concentration limits** that take into account the party's holdings of the same assets in other parts of the firm.

22.5 When **giving** haircuts or initial margins, parties should monitor and control the resulting **unsecured credit risk**, just as they would for any other unsecured credit exposure.

22.6 Parties should identify and assess the **wrong-way risk** on collateral (which is the correlation between the credit risk on the repo counterparty and the credit risk on the issuer of the collateral) and apply controls such as:

- collateral selection to avoid highly-correlated assets altogether – in particular, not accepting securities as collateral that have been issued or guaranteed by a repo counterparty or affiliate or other connected party;

- applying additional haircuts or initial margins to compensate for unavoidable correlations.

22.7 Parties should have clearly-documented and efficient procedures for the **valuation** of outstanding repos and for **variation margining** (or the activation of early termination and replacement – see 28 below) to eliminate material unsecured exposures greater than any haircut or initial margin. Valuation and variation margining (or early termination and replacement) should take place at a frequency commensurate with the risk on the collateral but ideally at least daily. These procedures (but not necessarily their frequency) are a contractual provision of standard master repurchase agreements. Parties should monitor the accuracy and timeliness of their variation margin calls to others (or their calls for early termination and replacement) and the timeliness of their own responses to calls received from counterparties in order to identify their operational weaknesses. They should also monitor the timeliness of counterparties in responding to variation margin calls (or calls for early termination and replacement) in order to identify possible counterparty credit or liquidity problems.

22.8 Parties should ensure that they have sufficient **liquidity, credit lines, securities inventory** or **securities borrowing facilities** to cover likely future variation margins (or settlement of early termination and replacement). Such liquidity management requires the monitoring of forthcoming events which may trigger large variation margin calls, eg income payments on collateral (see 22.4 below).

22.9 Parties should have clearly-documented and efficient procedures to try to urgently resolve **disagreements over variation margin calls** (or the results of early termination and replacement). Procedures for resolving disputes should include:

- before starting to trade, each party should have notified the other of the appropriate contact in the event of a dispute;
- making an immediate payment or delivery (or settlement of early termination and replacement) of any amount which is not disputed;
- the prompt exchange by the parties of their calculations and explanations of the parameters they have used, particularly price sources and timings;
- a standard list to be applied immediately of checks which target the most commonly-experienced errors and sources of disagreement;
- a schedule for escalating a dispute to more senior management should resolution prove difficult.

The credit department should be involved at least as soon as it is established that the dispute is not the result of a simple error or minor difference in methodology.

22.10 Parties should monitor and control the unsecured credit risk arising from the application to variation margin calls (or to early termination and replacement) of **exposure thresholds** (also known as "minimum transfer amounts" – see 29 below).

22.11 Parties should formulate and regularly rehearse contingency plans for identifying and responding to the **default** of a counterparty, including the ability:

- to quickly aggregate exposures to the same legal entity and its affiliates;
- to make swift but informed decisions on whether to put a party into default (but such key decisions are the responsibility of senior management with oversight of the whole business and not just repo);
- to serve the requisite notices to the correct addresses using the specified medium of communication and to prove receipt;
- to value exposure and costs and to accurately record and securely archive such calculations (in case there is a challenge by the liquidator of the defaulting party or other creditors);
- to liquidate collateral in a timely and orderly manner (see 51 below).

23 As regards the management and control of **operational risk**, recommendations should include:

23.1 Settlement by **delivery of securities** (including any variation margin securities) from the account of the seller or its agent to the account of the buyer or its agent in order to demonstrably transfer control and possession. Such a requirement may well be a legal condition for the effective transfer of absolute title in the local jurisdiction.

23.2 Parties should be urged to release **settlement instructions** as soon as possible after the execution and confirmation of transactions in order to maximize the time available to resolve any disagreements. In the case of same-day settlement, parties should release instructions as early as possible in the day in order to help ensure there is adequate liquidity for the settlement of linked transactions.

23.3 Parties should have clearly-documented and efficient procedures for the prompt investigation and urgent resolution of any **failure to deliver** securities by or to another party. In order to control the risk of fails, parties should monitor and control settlement exposure. See 36-41 below.

23.4 Parties should have efficient procedures for the processing of payments of **income on collateral** by the issuer of collateral and, where the repo is a repurchase transaction, the manufactured payments that are triggered between the buyer and seller. Parties should recognize that income payments will reduce the market value of collateral and may trigger a variation margin (or early termination and replacement).

23.5 Parties should be able to identify and be prepared to manage forthcoming **corporate events** affecting collateral. Or they should agree to substitute the collateral or terminate the relevant transaction by giving due notice before the corporate event.

24 If the GMRA is adopted as the standard master repurchase agreement in the local market, it should be noted that it provides for routine **technical netting** of opposite payments of the same currency or opposite deliveries of the same security to and from the same party on the same day. Technical netting is also known as "payments netting", "settlement netting" or "operational netting" or "pair-offs". It reduces operational cost and risk. However, in some markets, parties do not have the operational capability to net in this way, in which case, it could be recommended that this provision of the GMRA should be waived. But a long-term objective of the market should be to embrace technical netting, given that it helps to reduce cost and risk.

25 **Haircut or initial margin.** The market could agree to adopt one of these two methods as a market standard in order to avoid misunderstandings during negotiations.[2] Otherwise, parties should be advised to ensure they agree the method to be used each time they trade.

26 It might be helpful if a standard **source of market prices** could be agreed for the marking-to-market of collateral during the life of a repo (at least, for government securities). For government securities, this could be an official end-of-day publication by the debt management office or government's fiscal agent (which is usually the central bank).

27 When revaluing collateral for the purpose of calculating exposure and making a call for variation margin (or early termination and replacement), it is the convention in many interdealer repo markets to use **middle prices at close of business on the previous business day.** The middle price acknowledges that, between most intermediaries, neither party is more likely to default than the other and that, for parties actively buying and selling with each other, inclusion of the bid-offer spread in calculations is unnecessary. Using prices taken at close of business avoids disagreements about the time at which prices should be taken for valuation purpose and also gives ample time for prices to be collected for use the next day.

28 Guidance should be provided as to **when to include a repo in the calculation of the exposure between two parties** on the portfolio of outstanding repos under the same contract. The GMRA provides for repos to be included from their purchase date but best practice is now to include repos from their transaction date, as that is when contractual obligations and exposure are created. It is also best practice to keep repos in the calculation until their repurchase date (many parties drop a repo from the calculation as soon as any variation margin, or settlement of early termination and replacement, triggered by that repo would be due to be settled on or after its repurchase date).

2 A haircut is a discount deducted from the collateral market value to fix the amount of cash to be loaned. An initial margin is a premium applied to the value of the cash to be loaned to fix the required collateral market value.

29 Choosing between **variation margining or the alternative procedure of early termination and replacement.** The market could agree only to use variation margining or, if there are legal risks to the use of variation margins, contracts should provide for (and a guide should recommend) exclusive use of the alternative procedure of early termination and replacement. Early termination and replacement involves the immediate closure of any transaction with a material credit exposure to one of the parties and its replacement with a new transaction in which any exposure greater than agreed haircuts or initial margins is eliminated by either a change in the value of the cash loaned to the seller or in the amount of collateral provided to the buyer (these alternative methods are known in the GMRA as Repricing and Adjustment, respectively).

30 It is a widespread market practice to apply **exposure thresholds** (also known as "minimum transfer amounts") to variation margining (or to the settlement of early termination and replacement) in order to avoid operational costs that exceed the credit exposure being eliminated. As the size of the threshold is a credit decision, this is usually left to parties to decide bilaterally and a guide should **not** recommend a standard threshold. A guide should also emphasize that, while such exposure thresholds serve a useful purpose, they need to be controlled as an unsecured exposure (see 20.10 above). It should also be recommended that, when the threshold is reached or breached, the exposure should be completely eliminated by means of a variation margin (or by early termination and replacement). It is seen as best practice in some repo markets to eliminate any exposure on a regular basis (eg every quarter), whether or not it exceeds the threshold, in order to ensure the exposure is regularly monitored. Exposure thresholds can be incorporated into contractual terms. Alternatively, they can be agreed informally ("soft thresholds") so that either party can change or abandon the threshold should the other party encounter credit problems.

31 Where a market uses variation margin to eliminate material unsecured exposures that exceed agreed haircuts or initial margins, a guide should recommend that the party calling for margin should request the other party to fulfil the call with any cash or securities that the first party had previously given as variation margin to the second. For example, if party A called variation margin of 5 last week from party B but, this week, party B calls variation margin of 7 from party A, party B should require party A to include last week's margin of 5 in the 7 which it now has to deliver to party B. Under the GMRA, the first party has a contractual **right of recall of variation margin.** This is best practice, as it prevents the build-up of cash margin or margin securities simultaneously at both parties. This can occur because variation margin is called against the net exposure of the whole portfolio of repos between two parties and is not attributed to individual repos, so is not automatically returned when an individual repo matures.

32 In some jurisdictions, there are legal risks in using securities to provide variation margin, in which case, **cash margin** would have to be used exclusively. Alternatively, variation margining could be substituted by early termination and replacement. Any of these requirements should be highlighted in a guide.

33 It is helpful if the market can agree on a list of collateral securities which should normally be accepted as **variation margin** (albeit subject to reasonable concentration limits) in order to reduce the scope for disagreement.

34 Deadlines should be agreed for making **variation margin calls** for the earliest possible delivery of margin (or for calling for early termination and replacement for the earliest possible settlement). Deadlines should also be agreed for informing the party calling for variation margin of the particular collateral that it is proposed to provide in response. If the party calling for variation margin objects to the collateral proposed, it should be expected to make a prompt objection so that an alternative can be quickly proposed.

35 Agreed **payment and settlement periods** should be recommended for the payment of cash margin and delivery of margin securities. Ideally, payment or settlement of variation margins should be on the same day as the call is made in order to minimize the duration of unsecured exposures.

36 In a domestic market, parties using the GMRA should usually specify the local currency as the **Base Currency** (which is used to denominate cash margin, calculations of exposure and the close-out amount in a default). This is the currency in which most, if not all, domestic business will be transacted and in which any court judgement will be awarded, so is usually legally safer to use for margin and default payments.

37 **Failure to deliver** collateral can be adopted as an event of default under a master repurchase agreement. It may be helpful if the market agrees a common approach to this issue and makes a recommendation in a guide. However, the idea of making failure to deliver an event of default needs to be weighed carefully. Failure to deliver is often the result of market illiquidity or operational errors, whereas an event of default is supposed to be triggered by counterparty credit problems.

38 If it is decided against making failure to deliver an event of default, master repurchase agreements provide **other bilateral remedies for fails**, which parties can opt to apply or not on a case by case basis. These non-default remedies should be explained in a guide where they differ from the remedies for failing to deliver in the cash market. In the GMRA, fail remedies involve the termination of the failed repo and payment of cash compensation for the difference between the outstanding values of cash and collateral.

- In the case of a failure by a seller at the start of a repo, the market value of the collateral will be the same as that used to calculate exposures for variation margin (or early termination and replacement).

- In the case of a failure by a buyer at the end of a repo, the collateral is valued as it would be in a default.

These cash compensation remedies are different from the so-called 'buy-in' remedy used in many cash markets. A buy-in aims to replace the security which has not been delivered by buying that security from a third party and charging any extra cost to the failing party (and vice versa) in order to restore both parties to their intended economic positions.

39 Assuming that fails are not subject to remedies imposed by regulation, the market may wish to **apply a market-wide remedy for fails**, such as penalties or a buy-in mechanism but careful thought needs to be given to the remedy. It is vital that the cost of failing does not deter parties from actively trading repo. It should also be remembered that remedies will not create liquidity and cannot prevent fails caused by lack of supply in the market. The best that remedies can do is to encourage parties to manage settlement diligently. Any penalty should therefore be just high enough to make diligent management worthwhile but not so high as to make repo trading unduly risky. If a buy-in remedy is adopted, it should be used as a last resort and should **not** be mandatory. Otherwise, where the fail has been caused by market illiquidity, it could aggravate the problem and propagate delivery problems across the market. Before deciding on a collective course of action, the market, through the market association, needs to determine whether fails are likely to be a material problem, identify the source of the problem and decide what remedy, if any, could best reduce or eliminate the problem while minimizing counterproductive consequences for the efficiency of the market.

40 In order to reduce the risk of fails, parties should be reminded that the **short selling** of securities should not take place unless the seller owns those securities, or has arranged to borrow them, or is confident that they can be easily borrowed.

41 The market should consider whether to recommend that parties respond to failures to deliver collateral by accepting **partial delivery**, if that is offered by the failing party. Accepting partial delivery does not absolve the failing party of their obligation to deliver the full contractual amount or deprive the failed party of any remedies against the failing party. But it does minimize the economic impact of delivery failures on the failed party and the rest of the market as at least some cash and collateral will flow. However, partial delivery may not be possible at all in some securities settlement systems.

42 If partial delivery is feasible and recommended, the market should consider whether to recommend that sellers break up large deliveries into multiples of a smaller standard amount. This standard delivery amount is called a **shape**. Shaping increases the likelihood of at least a partial delivery and so helps to minimize the economic impact of delivery failures on the failed party and the rest of the market. However, shaping does require a reasonably sophisticated back office and good operational record-keeping.

43 If the buyer in a repo agrees to allow the **substitution** of collateral by the seller during the life of that repo, a guide should remind the parties that the substitute should be of the same class of security. For example, a government security should only be substituted by another security from the same government and not by a corporate bond. If the substitute is too different, this may, in some jurisdictions, call into question the legal character of the repo as a sale and repurchase of securities and it may also cause accounting problems.[3]

3 A repo is supposed to a sale of securities and a repurchase of the same or similar securities (called 'equivalent' securities under the GMRA). In practice, this means the same issue, tranche or class.

44 Substitution may involve an exchange of securities by means of two separate unsynchronized free-of-payment (FOP) deliveries. This creates settlement risk, which needs to be carefully managed. Parties should consider a repo of one security back-to-back with a simultaneous reverse repo of the other security, with each of the two transactions settled delivery-versus-payment (DVP). This is safer, as each delivery is against cash.

45 In some jurisdictions, there are legal risks in the substitution of a collateral security by the usual means of a modification of the terms of an ongoing transaction (that is, just changing the collateral but leaving the rest of the contract in place). In such cases, the market could agree to forego substitution or to apply the alternative of early termination of the original repo and replacement with a new transaction with different collateral.

46 Guidance on **tax advice**. Repos involve a transfer of title to the securities provided as collateral. Transfer of title may give rise to a change in tax liabilities. Payments and other deliveries between the parties during the life of a repo could create new tax liabilities. Parties should therefore satisfy themselves as to the tax implications of transacting and managing repos, if necessary by seeking external professional advice.

Operational procedures

47 Although contracts usually define a business day, it might be helpful to recommend that parties agree on the time which will be deemed to the **close of business** for the purpose of serving default and other notices on each other in the local market. This should be later than the close of the local payments and settlement systems, as parties continue to work after payment and settlement cut-offs. A standard time could be agreed by the market and recommended in a guide.

48 A recommendation should be made in a guide for re-fixing the purchase date or the repurchase date of repos in the event of an **unscheduled bank holiday**. The usual convention is that:

48.1 if the intended purchase date becomes an unscheduled bank holiday, that date but not the repurchase date is rolled forward to the next business day;

48.2 if the intended repurchase date becomes an unscheduled bank holiday, that date is rolled forward to the next business day.

In both cases, the repurchase price needs to be amended by, respectively, deducting or adding repo interest on a simple (non-compounded) basis. The provision for an unscheduled bank holiday can also be applied in some cases of **market disruption** (events beyond the control of individual market participants that seriously impair or obstruct liquidity or post-trade operations). This convention should be explained in a guide.

49 The market could agree to use a standard source for the **interest rate for late payments** in order to avoid disputes after the fact. Ideally, this source would be a regularly published and widely accepted index. The tenor should be one day, as the duration of any delay in payment will be uncertain. There needs to be confidence that the source of the chosen interest rate will be available over the long term. Whatever interest rate is chosen, it should not be a penal rate, as this might be legally unenforceable in a default, as being unfair on the defaulting party.

50 The market could also agree to use a standard source for the **interest rate for cash margin**, where variation margin can be paid in cash, in order to avoid disputes.

51 Guidance on **negative repo rates**. These are not just a feature of the application of unorthodox monetary policies to developed markets after the 2008-10 global financial crisis. Repo rates can becomes negative in an otherwise positive interest rate environment where individual securities come under exceptionally strong demand and go special. Negative rates can be confusing and, because contracts tend to have been written only with positive interest rates in mind, can have some perverse consequences, such as incentivizing failure to deliver by sellers. A guide can usefully explain the reason for negative rates and suggest measures to avoid problems.

Guidelines on market conduct

52 Guidance on **creating a disorderly market.** Parties should be reminded that, under no circumstances should any party transact a repo which is likely to limit the availability of a specific security and thereby create a false or distorted market in that security or cause other parties to fail to deliver securities. This recommendation may overlap with a local code of conduct or regulation, but is worth making given that repo does impact on the underlying market in collateral.

53 Guidelines on **voting rights.** In a repo, ownership benefits such as voting rights on equity collateral go to the buyer. But, as buyers are not exposed to the risk and return of securities purchased as collateral, repos should not be used to borrow securities solely or principally in order to exercise voting rights. Corporate governance guidelines recommend that repo buyers should not vote at their own initiative but can agree to vote in accordance with the wishes of the seller, provided these are given in writing and on the express understanding that the buyer is under no legal obligation to observe the wishes of the seller. The same guidance applies to margin securities.

Market conventions

54 A guide should record the **standard value date** for repos in the local market, beyond which transactions are considered forwards.

55 A guide should record the **standard settlement periods** in the local market for delivery-versus-payment (DVP) and free-of-payment (FOP) transfers of cash and collateral securities.

56 A guide should record the conventions in the local market for **quoting the price of domestic fixed-income securities and for calculating accrued interest.**

57 A guide should record the **day count and annual basis** convention for use in calculating coupon interest in the local market.

58 A guide should record the **day count and annual basis** convention for use in calculating repo interest in the local market and the conventions for fixing the maturities of repos with terms which are multiples of one month (typically, *End/End Rule* and *Modified Following Business Day Convention*). These should follow the conventions in the rest of the local money market.

59 A guide should record the convention for **quoting the repo rate** in the local market and even note that the 'price' of a repo is its repo rate.

60 A guide can set out the conventions for more complicated transactions such as open **repos and floating-rate repos**, where these are likely to be used in the local market. Guidance should include the conventions for giving due notice to terminate open repos, re-fixing open and floating repo rates, fixing floating interest rate reset dates and setting the frequency of interest payments.

61 A guide should record **normal deal size** in a new interbank or interdealer repo market in order to encourage liquidity but this should be indicative only (market-making obligations should not be included in a guide to best practice) and dealers should be allowed to deal in different sizes, albeit at prices away from those being published.

62 A guide could include a **glossary** of market terminology in a guide. Definitions need to be clear, in plain language and relevant to the local market. One possible source from which terminology can be selected (with attribution) is Annex II to the Guide to Best Practice in the European Repo Market which is published by the ICMA.

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