

REMEDYING DYSFUNCTIONAL INTERBANK MONEY MARKETS

PREAMBLE

1. The gradual integration of global financial markets is permitting that banks' funding sources are increasingly diversified, both in terms of their nature - with a marked trend to increasingly rely on market funding - and in terms of geographical outreach. As a consequence, banks are now more exposed to the price and credit sensitivities of major fund providers and to variations in the liquidity of key funding markets (e.g. repo market, certificates of deposit (CD)/commercial paper (CP) market, foreign exchange (FX) swap market, unsecured interbank market, bond market, covered bond market and the securitisation market).
2. Although the ongoing financial crisis has impacted funding markets in different ways, it has also highlighted that they are linked and that they may interact in unexpected ways. For example, they can all be severely and simultaneously disrupted as the increasing volumes and speed of cross-border flows raise the risk of contagion between markets. The simultaneous dislocation - and even closure - of key funding markets, continues to erode banks' ability to carry out maturity transformation and, with it, their role as financial intermediaries.
3. One of banks' main funding market sources - the interbank money market (IMM) - has been particularly affected. Tensions have taken a variety of forms, including higher volatility in overnight and short-term interest rates, a sharp increase in interbank rates at longer tenors (such as the three-month rates), a drop in volumes, signs of rationing and greater dispersion in pricing.
4. As the disruption of the IMM has profound implications for the supply of loans to economic agents that matter intrinsically i.e. households and non financial corporations, the (good) functioning of IMM has turned into a policy objective to whose achievement, a number of public measures have already been taken, both from European national governments and central banks. Further measures cannot be ruled out and are, in effect, already under study.
5. In order to assess the current market environment and, more importantly, to help to inform European public policy choices or supervisory/regulatory actions regarding the IMM (and, more generally, on liquidity provision to the banking system), the EBF has requested its Global Banking Issues Committee (GBI)¹ to prepare the current document. For the sake of brevity, the paper will be focusing, principally, on the (mal) functioning of the euro unsecured segment of the IMM (i.e. UIMM).

¹ The Global Banking Issues (GBI) committee is an advisory Committee to the Board and Executive Committees of the European Banking Federation (EBF) and comprises about 20 high-level representatives of large European banks.

6. This paper contains the following three parts:

- a) Setting the scene. As a way of introduction, the paper contains a number of considerations on the euro IMM and the current market context in Europe. In this regard, and in order to avoid reiterating existing and recent material on this issue, the paper relies extensively on interpretations of market developments that are peaceful among liquidity practitioners and the regulatory and supervisory communities.
- b) Initiatives to revitalise the IMM. In this section the paper describes in detail three potential proposals to revitalise the euro interbank money market, including a preliminary assessment of each of them.
- c) Conclusion. In this section the paper suggest a roadmap on possible next steps to revitalise the euro interbank money market.

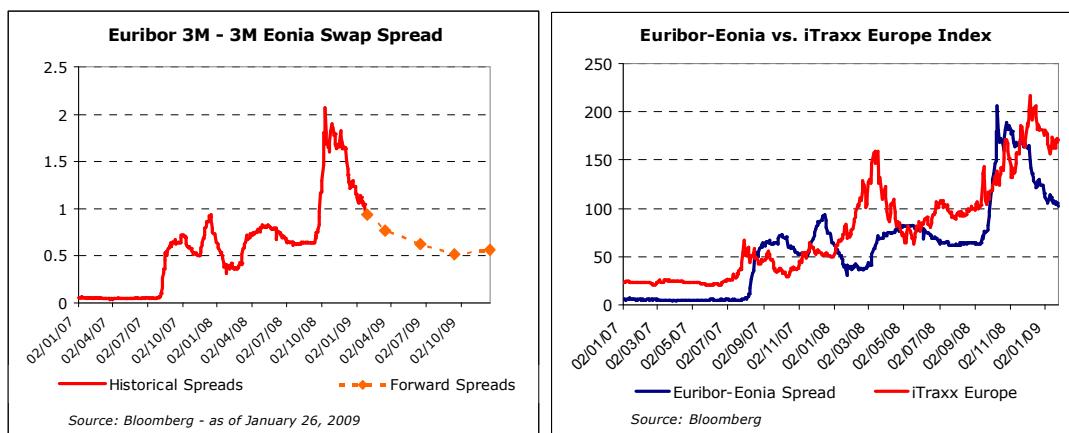
PART ONE. SETTING THE SCENE

7. IMM play an important role in the financial system. In normal circumstances, they allow liquidity to be readily transferred (within national borders and across borders) from banks with a surplus to banks with a deficit. IMM have usually two segments: (i) unsecured markets; (ii) and secured markets (i.e. repo). Interbank unsecured transactions (i.e. not backed by collateral) are traditional deposit or loan transactions between banks, which they use to provide liquidity to each other up to established limits (typically overnight to three-month). The interest rates at which banks borrow unsecured funds from other banks helps determine reference rates (e.g. Euribor and Libor) which, in turn, govern the cost of many loans in the real economy. In UIMM, those interest rates reflect two perceptions: a bank's own liquidity position and counterparty risk.
8. The financial turmoil has had a profound effect on those perceptions and, consequently, has put UIMM under stress. Market stress has been observed through the following parameters:
- a) Market turnover. Interbank market activity takes place over the counter and, therefore, precise data on market volumes are not readily available. However, market practitioners indicate that activity in the unsecured interbank market has virtually reduced to overnight lending and that the European interbank market for longer tenors is very limited².

² This is consistent with the findings of the Euro Money Market Study (February 2009). The ECB has found that, according to surveyed banks in the panel, activity in unsecured deposits decreased by 13% and that it continued to be largely concentrated in very short term maturities. An even larger decrease affected secured deposits (-16%). See at: <http://www.ecb.int/pub/pdf/other/euromoneymarketstudy200902en.pdf?39ec611b8ad12679fe671721efe5c8f9>.

- b) Loan prices. At the beginning of the financial turmoil and up until the first days of October 2008, spreads between policy rates largely determined by central banks and unsecured money market rates were large and volatile. The relationship between three-month unsecured lending rates (Euribor) and a risk-free rate (Eonia swap) on that maturity dislocated. However, after 10 October and as a consequence of the measures described in the next section, key interbank rates have been significantly coming down. Spreads between Euribor and Eonia swap are also narrowing. Forward spreads quoted in the derivative markets are anticipating that this trend should continue also in the coming quarters.

The stress in the interbank markets had a strong impact to the broader credit market, as represented by the iTraxx index. As expected, the volatility in the latter is lower. In the past few weeks, the perceived government support to the banking sector explains a substantial divergence between the Euribor-Eonia index (sharply tightening) and the iTraxx (off its heights, but remaining relatively more elevated).



Policy responses

- 9. In their 2 December meeting, EU Ministers of Finance acknowledged that “*inter-banks markets are not functioning properly*”³. In its December 2008 Financial Stability Review, the European Central Bank (ECB) holds a similar view: “*(...) the functioning of unsecured interbank money markets has been more or less persistently impaired since the start of the market turmoil*”⁴

Central banks

- 10. As interbank unsecured loans represent a key component of the money market and the starting point of the monetary transmission mechanism, the interest of central banks from mature markets in promoting more “orderly” conditions in the term interbank market is

³ <http://www.folketinget.dk/samling/20081/raadsmoede/518710/Bilag/6/622699.PDF>

⁴ <http://www.ecb.int/pub/pdf/other/financialstabilityreview200812en.pdf> (page 12)

clear. This promotion is primarily a question of responding to the imbalance in the demand and supply in term markets, and hence to the changing maturity composition in the net demand for funding liquidity by banks.

11. Central banks have addressed imbalances in term markets in two ways: by ensuring stable and reliable overnight funding conditions, so as to encourage banks and other money market investors to supply more term funding; and by providing more term funding themselves to the participants needing financing. Focusing more particularly on the euro-area, ECB's actions can be grouped in two waves of measures⁵:
 - a) From August 2007 until September 2008, the ECB adopted front-loading practices to change the timing and maturity of liquidity provision. It also increased the average maturity of its open market operations and made swap lines with the U.S. Federal Reserve. The objective of these measures was to stabilise the overall liquidity situation in the market and to reassure banks that liquidity would be sufficiently available at the end of the maintenance period.
 - b) Following the renewed tension originated by the collapse of Lehman Brothers, in October 2008 the ECB stepped its effort to alleviate both the euro and USD funding needs by (i) further enhancing its front-loading euro liquidity policy; by (ii) significantly increasing the average duration of its refinancing operations; by (iii) expanding the list of assets eligible as collateral in the Eurosystem credit operations; by (iv) reducing the corridor of standing facilities from 200 basis points to 100 basis points around the interest rate of the main refinancing operation and, more importantly, by (v) temporarily changing the tender procedure of the weekly main refinancing operations to fixed rate tender with full allotment⁶. By providing uncapped access to euro liquidity - against adequate collateral - the ECB has tried to eliminate the fears that liquidity problems could turn into a series of bank failures. As the ECB operates now on a fixed rate, an explicit signal is sent to the market as to what a reasonable level for longer-term interbank rates is.
12. In practice, these measures allow euro area banks to obtain as much euro liquidity as they wish whether through weekly operations or longer-term refinancing operations, using a wide range of assets as collateral. However, they cannot eliminate the increased concerns regarding credit risk. That may help explain an unintended outcome of unlimited liquidity provision: the amount of cash banks are leaving on deposit or in reserves at central banks remains at or near record levels⁷.

⁵ See Lorenzo Bini Smaghi "Restarting a Market: The Case of the Interbank Market" at: <http://www.ecb.int/press/key/date/2008/html/sp081201.en.html>

⁶ A more detailed overview of these measures is contained in the December 2008 ECB Financial Stability Review at <http://www.ecb.int/pub/pdf/other/financialstabilityreview200812en.pdf>

⁷ According to the ECBs February Bulletin, daily recourse to the deposit facility averaged around €177 billion between 21 January and 4 February, with significant variation over this period. However, this was lower than the average of €239 billion observed in the previous maintenance period. This decline could be a result of the corridor being widened again, thereby reducing the appeal of the deposit facility, although such conclusions may be premature. See at: <http://www.ecb.int/pub/pdf/mobu/mb200902en.pdf>

13. A more fundamental consequence of central banks' actions is the significant strengthening of their intermediation role during this period of turbulence. This gives rise to a paradox that may interfere in the UIMM returning back to "normal functioning": as central banks assume in practice the intermediation of liquidity flows among banks, they become - de facto – the clearinghouses for the unsecured and for the collateralised interbank markets. It appears that central banks consider their increased intermediation role as "temporary" and, as far as the euro area is concerned, the ECB's recent decision to return to 200 basis points the corridor formed by the interest rates on the standing facilities either side of the rate on the main refinancing operations can be considered an attempt to stimulate interbank activity and to return to interbank lending and traditional intermediation activity by banks.

Governments

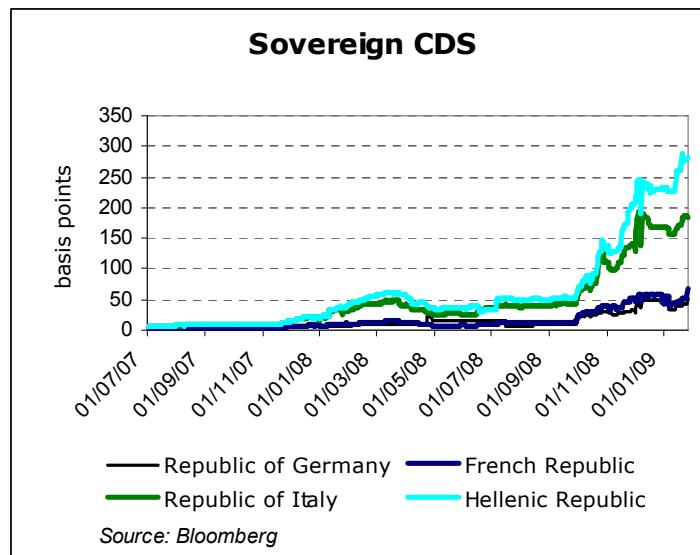
14. Dysfunctionalities in the UIMM also explain the first wave of direct government involvement in support of the banking sector (and other sources of financing for banks, like money market funds) as some individual institutions too reliant on unsecured term funding (e.g. Northern Rock) collapsed. Public support has also experienced two phases: initially, interventions were aimed at addressing isolated cases of distressed institutions. However, more recently (in Europe, after October 2008), governments have put forward packages aimed at generally improving banks' solvency, thus alleviating counterparty credit risk. Measures include:

- Public recapitalisation by public authorities, mostly through capital injections in exchange for equity
- Provision of guarantees covering deposits or other liabilities (e.g. non-retail deposits, banks loans and debt instruments), both old and new. Furthermore, specific interbank lending guarantees (usually through new debt issuance guarantees) have been provided in some countries.
- Public buying of distressed or illiquid assets

15. As per 2 February, European banks had received EUR 114.3 bn of public money in capital injections and had issued guaranteed bonds worth over EUR 75 bn⁸. Despite the fact that these are substantial figures, they are still below the amounts earmarked in the different national schemes. This highlights the fact that it is taking some time for the measures to be completely implemented and to show their full effects. As long as investors' perception on the adequacy of the capital buffers of some euro area institutions remains negative, a full recovery of the UIMM may not be possible.

16. As a result of large government intervention, national fiscal positions are being strained, raising the risk of sovereign defaults and the potential for IMF intervention. In this regard, the recent trends of sharply diverging government CDS within the Euro area is also an important (and worrisome) remainder of the importance of fiscal coordination among members.

⁸ Source Bloomberg.



PART TWO. INITIATIVES TO REVITALISE THE IMM

Objectives

17. The current money market environment is characterised by a high degree of mistrust among market participants, based on general uncertainty and asymmetric information. The imperfect intermediation role assumed by central banks has helped stabilise the banking system. However, other than taking no action (i.e. to wait or the market to heal itself), European banks believe that there is a need to contribute to the ongoing reflection on what actions could be implemented to increase European banks' liquidity availability. In this regard, the main objectives of any initiative focusing on the interbank money market should be:
- restoring confidence among European banks;
 - restoring confidence that banks will not extinguish their survival horizons (i.e. number of days liquidity is sufficient under extreme events);
 - promoting adequate market liquidity, especially on longer money market maturities;
 - enhancing the effectiveness of EU authorities' actions aimed at reducing systemic liquidity risk and systemic credit risk

Ever back to normal functioning?

18. A preliminary reflection is whether UIMM will ever return to "normal" functioning. For a start, banks themselves are redefining their business strategies under the new changed parameters: higher funding costs, higher capital requirements and costs, higher risk aversion... The failure of a big investment bank (i.e. Lehman Brothers) and the statements made by governments from developed markets that no other bank will be allowed to fail,

will also, for opposite reasons, alter the perception of UIMM going forward. As volumes in the unsecured market had anyway been on a trend decline, the outlook for UIMM appears to be extremely uncertain.

19. An element that adds another angle to the state of affairs on this matter is the evolution of interest rates. In the US, zero rates have encouraged banks to begin lending more money at maturities between one month and one year as they realise the opportunity cost of only lending overnight. A policy of decreasing interest rates in Europe may produce a similar result.

The role of transparency

20. Market-led forces can still unfold in a constructive way and promote a recovery of the UIMM segment. A decrease of asymmetric information about counterparty risk can be achieved by increasing transparency. Standardised disclosure⁹ and valuation rules for impaired assets might better allow assessing counterparty risk. Better - but not necessarily more information - of a bank's credit exposure must be made available to potential lenders. Sound banks should have an incentive to disclosure detailed information in order to signal their quality. Communication between banks should be improved and the ECB could take a more active role in improving market transparency. This is, however, easier said than done. In these conditions, some banks have formed "clubs" in which they mutually trade¹⁰, but it is to be evaluated whether this is an acceptable solution under several profiles.

Initiatives to revitalise the IMM

21. European banks have come up with four potential initiatives to revitalise the IMM: (i) an European Short-Term Funding Facility (STFF); (ii) short-term certificates swap among central banks and European banks (iii) an European Interbank Collateralised Market (EICM); and (iv) an Enhanced market infrastructure for STEP. These initiatives are not exhaustive neither mutually exclusive. The initiatives are assessed according to a number of criteria, such as effectiveness and efficiency that are described in more detail in Annex 1.
 - a) Initiative (1). European Short-Term Funding Facility (STFF)
22. The purpose of the European Short-Term Funding Facility (STFF) would be to enhance the liquidity of the European commercial paper market by increasing the availability of term commercial paper funding to issuers and by providing greater assurance to both issuers and

⁹ The EBF and the London Investment Banking Association (LIBA) have prepared Good practice guidelines for Pillar 3 disclosures (December 2008). The guidelines promote sound, consistent and appropriately granular implementation of the securitisation related CRD disclosure requirements.

¹⁰ In this regard, UNICO Banking Group -representing eight co-operative banks with a declared joint market share of 21% in the European retail banking market- has agreed to introduce reciprocal unsecured interbank credit lines in the range of EUR 10 billion to 15 billion for business with tenors up to three months.

See http://www.unico.nl/user_files/presstatement.pdf

investors that firms will be able to roll over their maturing commercial paper. These steps should contribute to an overall improvement of conditions in credit markets.

23. The STFF would be structured as a credit facility to a special purpose vehicle (SPV). The SPV would serve as a funding backstop to facilitate the issuance of short term paper by eligible issuers. The SPV would (i) purchase eligible commercial paper; (ii) hold it until maturity and (iii) use the proceeds from maturing commercial paper and other assets of the SPV to repay its liabilities.
24. The STFF resembles the Commercial Paper Funding Facility (CPFF) implemented by the U.S.'s Federal Reserve. However, in the U.S. the SPV's financing is provided by the Federal Reserve Bank of New York (New York Fed). Since it is not possible for the ECB, according to the Treaty, to provide unsecured liquidity without proper guarantee, a guarantee scheme has to be set up at European Governments levels, so that paper issued by a possible SPV running the program would get the Governments backing and become acceptable to the ECB without changing the Treaty and the current framework.
25. Other aspects of the STTF that would have to be worked out relate to the price at which the SPV will purchase commercial paper, the SPV's management, the period during which the SPV will operate, etc.
26. On 18 November, a European version of the CPFF was called for at the ECB Money Market Contact Group (MMCG) with a suggestion to the Eurosystem to consider a similar arrangement for the euro area. This suggestion was supported by a large number of MMCG market participants.

Table 1

Advantages	Disadvantages
<ul style="list-style-type: none"> • It is an effective tool to substantially reduce systemic funding liquidity risk. • It is a temporary measure, with a pre-defined horizon (30/10/2009 in the US case) which has immediately and directly supported the money market. • Once the government guarantee scheme is agreed upon, it can be quickly established (e.g. in the US, it took a magnitude of weeks). • Providing a STFF program at levels above current market pricing would hence likely be a benefit to the market in terms of providing a funding backstop, would limit the degree to which funding spreads can blow out and would likely encourage market participants to stop 	<ul style="list-style-type: none"> • The effectiveness, measured in terms of leverage possibilities, depends on a broad range of participation and on the possibility to agree on a public support for the SPV liabilities. • Maximum borrowing thresholds and pricing are decided centrally ex-ante by using historic data thereby not facilitating market discipline and efficiency.

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- b) Initiative (2). European Short-Term Debt certificates swap (STDS)
27. A European STDS would allow banks to swap short-term paper of banks with the same-maturity paper issued by the ECB (or other central banks of the European System of central banks). The establishment of a swap arrangement involving ECB paper would call for the unprecedented step that the ECB issues short-term paper, an event foreseen by the “General Documentation”¹¹. This type of swap transactions would be effective in complementing current exceptional ECB arrangements, to the extent eligible counterparties were granted the right to exchange their own short-term paper, preferably STEP compliant, in derogation to the close link provision which would remain for other refinancing operations.
28. Likewise the STFF and in contrast to the current refinancing operations, the ECB would be in a position to control the quantities and, to some extent, the prices, allocated to individual counterparties. On the other hand, setting pricing and quantities for different counterparties would be a major obstacle for the ECB, that requires that the STDS is an exceptional measure.

Table 2

Advantages	Disadvantages
<ul style="list-style-type: none"> • The same of the STFF. • It provides banks with additional good collateral to be used in the secured market. • It does not require a direct support to achieve the same economic effects of the STFF. 	<ul style="list-style-type: none"> • Maximum borrowing thresholds and pricing are decided centrally thereby not facilitating market discipline and efficiency. • The ECB willingness/capability to bear “direct” credit risk exposure.

- c) Initiative (3). European Interbank Collateralised Market (EICM)
29. Building on the catalyst role of the ECB and the operational support of the Eurosystem (if feasible, the European System of central banks could be involved), a sort of European Interbank Collateralised Market could be set up. The initiative would, nonetheless, correspond to the private sector¹².
30. In such a scheme, the existence of a fully fledged European Central Clearing Counterparty (CCP) would be a prerequisite. The CCP would become a party to every interbank transaction, acting as buyer to market participant sellers, and seller to market participant

¹¹ “General Documentation” refers to a document entitled “The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures”. Latest revision is from November 2008. See at: <http://www.ecb.int/pub/pdf/other/gendoc2008en.pdf>

¹² Importantly, the IMF has noted on a recent research paper “Initial lessons of the crisis” that introducing central clearing counterparty services would be an important preventive measure to strengthen the infrastructure underlying money market repo operations”. See: <http://www.imf.org/external/np/pp/eng/2009/020609.pdf>

buyers. In respect of unsettled trades, market participants would therefore bear the standardised credit risk of the CCP and not that of each other (which they would in a decentralised market). The existence of a CCP would allow market participants to achieve the desired increase in confidence via maximum possible netting and full collateralisation of the net amount.

31. Promoters of the EICM should agree on the features of the European CCP, perhaps taking sounding of an existing example of Interbank Collateralised Markets in Italy¹³. Leaving aside the private or public nature of the CCP, the crucial features for any CCP are good governance, appropriate oversight and an adequate risk control framework. The latter can be supported by adequate collateral, not necessarily as broad as the ECB eligible basket. Appropriate risk management features should allow re-using the collateral.
32. In addition, different solutions can be implemented in terms of who is going to act as: a) collateral manager; b) liquidity provider, c) trading platform(s), and d) collateral evaluator.
 - a) The collateral_management function should be preferably assigned to a private entity, though the operational support of the Eurosystem cannot be ruled out due to current circumstances. Concerning the percentage of collateralisation, different solutions should be investigated. On one hand, it may be argued that 100% collateralisation of a CCP would mainly reduce the need to resort to the ECB credit operations. On the other hand, it might not necessarily create new readily available liquidity to the market participants.
 - b) Concerning the liquidity provider, a possibility to be explored is the injection of liquidity by the CCP itself. The liquidity in demand could be raised by the CCP through issuance of short-term debt. In this regard, an important issue for the Eurosystem is to investigate under what conditions the ECB (and other central banks) could be involved as safe liquidity provider. In addition to its catalyst intervention, the ECB could consider swapping its debt certificates with CCP short-term debt. It appears plausible that, in case of a systemic disruption the facility would receive guaranteed support from the ECB, e.g. in the form of a collateralised credit facility, to bridge any liquidity shortfalls.
 - c) Regarding the trading platform(s), private initiatives should be preferred.
 - d) Regarding the collateral evaluator, under current market circumstances, a direct operational support of the Eurosystem collateral management seems advisable.

¹³ The structure of the collateralized market for deposits (MIC), launched by E-MiD and Bank of Italy, with the cooperation of the Italian Banking Association (ABI) is an interesting initiative. It requires collateral for the net borrower and involves a mechanism of mutualisation. The anonymity of bilateral contracts is made possible by the role performed by the Bank of Italy, which evaluates the collateral provided by the participating banks, provides prompt settlement of transactions if a party to a contract defaults and proceeds to realize the collateral, ensuring the performance of contracts. The market is run on the e-MID platform, where large international banks are already active. Participation of non Italian Euro Area banks to the MIC is possible, provided that the relevant National Central Banks join Bank of Italy in the role of collateral evaluator.

33. A key challenge in setting up central clearing for interbank markets is that clearing models in the context of interbank funding are not seeking to deal simply with relative risk arising from a change in value as against a contract price, but with absolute risk arising from the one-way nature of a general interbank transaction. In view of the difficulties arising from the absolute nature of risk associated, it might be worthwhile considering whether these large absolute values could be reduced by means of techniques of multilateral netting
34. Another crucial concern is the possible participation of industry in any loss-sharing arrangement. This would in principle be difficult to administer and could disincentive to join the scheme. Nonetheless, default risk could be shared among market participants by their capital subscription to the CCP but also by means of reserving a certain fixed threshold of collateral. If a state guarantee for the exceptional circumstances of systemic relevance was included, it would mirror some of the positive features of the initiative 1 (STFF), in particular the acceptance by institutional investors. This could take the form of a governments' subscription of CCP issuance of tier one capital, similar to the subscription of hybrid equity capital that have been executed for some European banks.

Table 3

Advantages	Disadvantages
<ul style="list-style-type: none"> • While this initiative would obviously mean even more public involvement in the short-run, it would not only help bring banks back together, but also avoid some of the competitive distortions that arise from the selective granting of state guarantees for individual institutions. • Individual and systemic risk stemming from counterparty risk would be substantially reduced. • Systemically relevant information would be available to the CCP and its supervisor and to, a lesser degree, to participants. • Trading against a CCP would not generate any increase of risk weighted assets for different maturities. • Trading would be anonymous and any disclosure of participants will be avoided. • Liquidity would fill up in participating institutions much quicker and therefore enable the market to provide term liquidity into the system. • Requesting a guarantee from the participating financial institutions would not leave the burden to the public sector only. 	<ul style="list-style-type: none"> • It is questionable whether banks have sufficient "good" collateral. • It does not directly address financing needs. • Financial institutions which do not have access to CCP might be fully cut off from liquidity resources since a high percentage of the volume traded might accumulate within the CCP's platform. • A European scale solution has to cope with the existing differences in the national legal frameworks • The operational design and features have to be worked-out. Therefore, it is likely to be very time consuming (magnitude of a few quarters). • The effectiveness, measured in terms of leverage possibilities, depends on a broad range of participation. • A fee introduced on back of public guarantees or capital subscription will increase the cost of liquidity.

<ul style="list-style-type: none"> • Issuing short term debt would possibly attract institutional investors now absent from that segment. • It is a positive structural improvement, supposed to increase market resilience. 	
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d) Initiative (4). Enhance market infrastructure for STEP

35. STEP is a label attributed to a CD/CP programme provided it satisfies certain conditions. In order to consider STEP-labelled paper a fully fledged market, some enhancements may be necessary, also in terms of market infrastructure. Since 15 October 2008, a temporary revision to the ECB collateral framework allows that Certificate of Deposits (CD) traded on certain acceptable non-regulated markets can be granted eligibility. The possible future contraction of the ECB's collateral framework going forward encourages the establishment of a MiFID compliant STEP market infrastructure in order to facilitate the issuance and possibly the trading of short-term securities. Such platform(s) should preferably not be restricted to banks, though this extension may be part of a second development phase.
36. It is well known that projects for an active secondary market for short term paper have been already attempted in the recent past, and have failed. In order to enhance investors' confidence, it should also be investigated the possibility, by using the exceptional measures implemented by the ECB, to design a mechanism where ECB eligible counterparties consider some form of market making obligations for STEP-labelled paper, supported by ECB liquidity. In the event of a counterparty default, the credit loss would be borne by the bank purchasing the CDs and not by the ECB. Published two-way secondary markets provided from all issuers in their own paper as well as broker/dealer two way markets for the names they cover will assist in valuation¹⁴.
37. In addition, a convergence process to standardise CD/CP documentation should be actively pursued by the STEP market committee, under the oversight of European competent authorities such as the ECB.
38. It is also important to keep in mind that the harmonisation of tax rules and regulations on short term paper issuance and investment is an important requirement for a truly European short term market.

Advantages	Disadvantages
<ul style="list-style-type: none"> • It is relatively effective as it reduces funding liquidity risk (by reducing the risk of shortage of collateral). • It is market-driven so that it allows addressing risks of shortage of collateral. • It is reasonable to expect that sufficient liquidity can be properly allocated 	<ul style="list-style-type: none"> • Question marks are banks' willingness to be forced to market making and whether the mere availability of issuance information and information about CDs that are for sale would improve the perception of potential buyers on the offered CDs

¹⁴ ISIN should be present on information providers (e.g. Bloomberg) for all CD/CP to assist in valuation.

<p>according to individual needs. In this regard it is an efficient initiative to be implemented that promotes market activity and discipline.</p> <ul style="list-style-type: none"> • It is a positive structural improvement and increases market resilience. • The admission to trading on markets acceptable by the ECB is relatively straightforward. 	<ul style="list-style-type: none"> • It does not protect against counterparty and systemic risks, also because it is not suitable to facilitate a government intervention. The implementation of the optimization mechanism for the issuance part of the platform may require some quarters.
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Complementary conditions

- a) The public guarantee
39. Some above initiatives require, under current circumstances, the existence of a public guarantee by a sufficiently large set of governments across the EU to cope with exceptional systemic events and generate acceptance. Some form of European oversight could also be envisaged. In this regard, a possibility could be offered by the set-up of a Financial Market Stabilisation Fund (FMSF) that is activated, in a balanced and equitable manner by relevant member states, only in the event of systemic crisis. It is advisable that the FMSF is granted the faculty to issue bonds in the financial market.
40. If a public guarantee is available, participating financial institutions should also consider either to pay a fee for protection or to guarantee an ex-post contribution to losses up to a certain pre-defined threshold.
41. It may also be noted that the FMSF may be used for a multiplicity of purposes aimed at boosting investor's confidence or revitalising other market segments. For example, it may be considered the opportunity to exceptionally extend the public guarantee to certain senior tranches of Asset Back Securities (ABS) whose underlying collateral are not in the scope of the European Investment Bank.
- b) Address shortcomings in counterparty risk management
42. Any initiative is bound not to be sustainable if risks are not properly measured and managed. To this end, risks managers should be in a position to perform their tasks so that this is conducive to reopening the credit lines. A package of three complementary measures that requires risk managers and competent authorities to act together is proposed in Annex 2.
- c) European dimension, European oversight and enhanced transparency
43. A proper governance and adequate European oversight (see for instance the case of the Short-Term European Market) will help restore confidence. The ECB could receive and process the individual transaction data on interbank money activity and subsequently

disclose aggregate information along similar lines of the STEP market statistics. The ECB has proved to be sensitive to the trade-off between transparency and liquidity. It is therefore crucial to search for an adequate level of transparency which does not hamper the stability of liquidity-constrained institutions¹⁵.

PART THREE. CONCLUSION

44. This paper provides a number of considerations on the euro IIM and the current market conditions as well as it explains in more detailed a number of potential initiatives to revitalise the IIM, assessing its advantages and disadvantages according to a number of predetermined criteria. In addition, the paper also provides a number of additional reflections on bank's liquidity connected topics.
45. Against this background, European banks have investigated a roadmap that it is herewith passed on for consideration to the relevant authorities:
 1. In the short-term, if market conditions do not improve, Initiative (1) or Initiative (2) remain the most effective schemes to be considered by the relevant European institutions as it addresses unsecured liquidity shortage.
 2. In parallel, European banks could consider further enhancing the market infrastructure of both the interbank secured (Initiative 3) and STEP markets (Initiative 4). At least in the first phase, this would require the catalyst role of the ECB and the operational involvement of the Eurosystem. Concerning the STEP market, European banks could be invited to jointly take appropriate steps to issue CDs (preferably STEP compliant) and admit them to trading on ECB acceptable markets, whose market infrastructure may be enhanced.
 3. In addition, immediate steps should be taken to address the shortcomings in counterparty risk management. That would require, possibly under the catalyst role of the ECB, establishing a structured and regular dialogue among group of senior risk managers and competent authorities that would focus on issues of systemic risk relevance.
 4. In the medium-term, initiatives (3) and (4) concerning the secured and STEP markets remain a desirable structural development to be refined and especially regarding the extension to non-banks and the possibility for EU banking industry risk sharing.
 5. In the long-term, initiative (3) that involves a CCP could be investigated in terms of possible extension of TARGET 2 Securities.

¹⁵ E.g. not the liquidity profile rather information on credit losses as well as on the derivative book: realistic mark-to-market, maturity profile and used models).

ANNEX 1: SOME CRITERIA FOR ASSESSING INITIATIVES TO REVITALISE THE INTERBANK MARKET

	Main risk managed	scope	length	counterparty risk assessment (C/M) ¹	role of ECB	role of government for exceptional systemic events	What in case of counterparty default?	Is necessary move from deposits to CD market ?	Is necessary to have a CD market ECB eligible?
1 STFF	funding liquidity and counterparty risks	all market participants	temporary	C ex-ante	catalyst & accept CPFF assets as collateral	guarantee is necessary	depends on STFF capitalisation	yes	no
2 STDS	funding liquidity and counterparty risks	all market participants	temporary	C/M dynamic	catalyst & asset swap with ECB debt certificates	not foreseen	individually borne by ECB	yes	yes
3 EICM	counterparty risk	all market participants	permanent	C/M dynamic	ECB catalyst. Operational support from Eurosystem	guarantee is highly desirable	individually borne by banks, mutualised (if not systemic)	no	no
4 STEP	funding liquidity risk	banks	depends	M	catalyst & accept CDs as collateral until necessary	not foreseen	individually borne by banks	yes	yes

1) C: Centralised, M: Market Based

Table 1: Summary of potential initiatives to revitalise the interbank money market

Any initiative should be assessed against the principles of effectiveness and efficiency under current market circumstances (see table 2 for an application of the principles).

In order to be effective to manage systemic funding liquidity risk, we consider that any initiative must:

1. be designed to increase the survival horizon of individual credit institutions;
2. pursue sufficient and proper liquidity allocation (also by means of no shortage of collateral);
3. protect from counterparty risk
4. insulate the system and the impact on funding liquidity from an individual liquidity failure.
5. enhance heterogeneity of behaviour (e.g. have both net lenders and borrowers);
6. enhance risk sharing (e.g. lower net exposure, concentration risk but also sustainability of central bank's balance sheet) and

In order to be efficient to manage systemic funding liquidity risk, we consider that any initiative must:

- A. enhance market activity (e.g. increase turnover);
- B. allow market discipline to work and alignment in risk management incentives (e.g. require risk pricing by means of net exposures/concentration fixed by risk managers or promote incentives to credit screening);

- C. suitable as mechanism to transmit effectively the interventions of the governments, if needed.
- D. be implemented rapidly;

	Effectiveness							Efficiency			
	(1) survival horizon	(2) suff. Liq	(3) proper liq allocation	(3) protection from counterparty risk	(4) limited liquidity spillover?	(5) heterogeneity of behaviour	(6) risk sharing	(A) market activity	(B) market discipline	(C) gov interv.	(D) timely
1 STFF	Yes	Yes	depends	Yes	Yes	No	Yes, exc for SPV	No	No	Yes	Yes
2 STDS	Yes	Yes	depends	Yes	Yes	partly	Yes, exc for ECB	Yes	No	No	Yes
3 EICM	depends	depends	depends	Yes	Yes	partly	Yes, exc for CCP	depends on CCP	risks of moral hazard	depends	uncertain
4 STEP	depends	Yes	Yes	No	partly	Yes	Yes	Yes	Yes	depends	partly

Table 2: Assessment of potential initiatives to revitalise the interbank money market

Observations:

- (1): for the EICM to function it is crucial the role of the net liquidity providers (ECB and other investors) and the possibility to have an industry risk sharing mechanism. Many answers on the existence of uncertain features of the EICM.
- (2) proper liquidity allocation: in STFF, maximum borrowing thresholds are decided centrally ex-ante by using historic data. Whereas for STDS and EICM, the allocation is decided centrally on a dynamic basis by the ECB's and the CCP's risk management, respectively. In both cases the treasuries may want to influence the allocation. In contrast, for STEP the liquidity allocation is market-driven.

In many cases the assessment cannot be made at this stage, as it depends on the implementation features

ANNEX 2: A PROPOSAL FOR A PACKAGE OF THREE COMPLEMENTARY MEASURES

1. On counterparty risk: in the short-term, high-ranking central bankers and supervisors, possibly (jointly) coordinated by the ECB (and CEBS), should meet senior risk managers of financial institutions which are willing to mutually share information which is normally not disclosed to the market. Depending on the constituency of the cross-border banks volunteering, it may be appropriate to work under the umbrella of authorities having a more global reach (FSF, IMF, and BCBS).

The objective is to agree on a set of information that authorities and banks need to exchange, on an exclusive basis, for the assessment of systemic and counterparty risks. This should be conducive to a reopening of the credit lines, which is a pre-condition for the interbank market to re-start. Before such re-opening, our expectation is that competent authorities share the outcome of their assessment indicating that there are no major/tangible systemic or concentration risks to proceed. In parallel, a report could be prepared, along the lines of the US Counterparty Risk Management Policy Group report, so that similar exercises could be deployed by other banks and competent authorities.

2. On systemic liquidity risk: in the medium- to long-term the above group of senior risk managers and competent authorities could contribute in setting-up a process enforced by regulators, which defines consistently stress tests. This exercise proved extremely difficult so far and the crisis has no reduced such complexity also because of the existing trade-off between transparency and stability.

3. On liquidity regulation: The crisis has shown the importance of interbank activity for longer maturities. The 3-months EURIBOR benchmark is crucially important from many perspectives. It should however be recalled that risk-weight capital requirements concerning interbank exposures were discouraging interbank activity in the past and are even more discouraging after the abrupt of the crisis. It may be investigated whether the capital requirements' incentives could be reviewed with the objective to: a) recognise the relevance of a healthy interbank activity for system stability and b) encourage the potential enhancements mentioned above (transparency, mutual guarantee and STEP governance).