

Comments Regarding Implementation of the Core Principles for Systemically Important Payment Systems

Prepared by the Staff of the Federal Reserve Bank of Chicago¹
September 8, 2000

The Report of the Task Force on Payment System Principles and Practices (the "Task Force") on *Core Principles for Systemically Important Payment Systems* (the "Report") reflects a flexible, risk-focused approach to evaluating the design and operation of systemically important payment systems. As the Chairman of the Committee on Payment and Settlement Systems (the "Committee"), Tommaso Padoa-Schioppa, explains in his foreword to Part 2 of the Report:

[t]he work of the Task Force was to identify and express international consensus in this area, in order for the agreed Core Principles to have universal application. The Task Force has tried, therefore, not to be prescriptive in terms of the designs or technologies to be used to achieve safety and efficiency in systemically important payment systems. Even in similar countries where broadly similar solutions have been adopted, their detailed implementation can vary in important respects. The Task Force has sought instead to concentrate on the questions it is useful to address when considering the features of any specific systemically important payment system.

The Federal Reserve Bank of Chicago (the "Bank") fully supports such a flexible approach. The Bank believes that the only workable approach to ensuring that systemically important payment systems are designed, operated and overseen in a manner that is consistent with the public interest is to identify the relevant risks and find incentive-compatible means of ensuring that those risks are appropriately managed.² All too often, "one-size fits all" solutions are no solution at all.

¹ This commentary was prepared by Bill Bergman, Richard Lamm, James Moser and Robert Steigerwald.

² The Basel Committee on Banking Supervision has adopted a similar approach. See, Bank for International Settlements, *Core Principles for Effective Banking Supervision* at 8-10 (Sept. 1997).

As the Task Force points out, payment systems are subject to a variety of risks, including credit, liquidity, legal and operational risks. (See Report at § 3.1). Moreover, certain payment systems, namely those that are “systemically important,” can be “. . . a major channel by which shocks can be transmitted across domestic and international financial systems and markets.” (Report at § 1.1.). Such shocks can arise because:

. . . the inability of one of the participants to meet its obligations, or a disruption in the system itself, could result in the inability of other system participants or of financial institutions in other parts of the financial system to meet their obligations as they become due. Such a failure could cause widespread liquidity or credit problems and, as a result, could threaten the stability of the system or of financial markets. (Report at § 3.1).

Accordingly, the Bank concurs that to evaluate whether a systemically important payment system is designed and operated in a manner that is consistent with public policy objectives:

. . . it is necessary first to identify and understand how risks of various types may arise or be transmitted within the system and to determine where they are borne. Once these risks are properly analyzed and assessed, appropriate and effective mechanisms must be devised to monitor, manage and control them. (Report at §2.3).

In certain instances, however, the Core Principles prescribe specific mechanisms for dealing with the credit and liquidity risks that arise in systemically important payment systems. The Bank believes that this is not only unnecessary and counterproductive, but also contrary to the Committee's stated objective “. . . not to be prescriptive in terms of the designs or technologies to be used to achieve safety and efficiency in systemically important payment systems.”

In particular, the Bank believes that the Committee should amend Core Principle VI to remove the explicit preference for settlement by means of the transfer of a settlement asset that constitutes a claim on a central bank. Alternatively, the Committee should revise the commentary contained in Part 2 of the Report to make it clear that Core Principle VI is intended to establish a performance standard (i.e., settlement through intermediaries that pose little or no

credit or liquidity risk) and that settlement directly through a central bank account is only one acceptable way of meeting that standard. The objective of Core Principle VI should be to assure that payment system operators, the users of such systems and their respective supervisors undertake an effective risk analysis of the arrangements by which settlement is accomplished, not to make it impossible for a wide range of effective arrangements and institutions to be used to accomplish settlement.

The following comments are intended to address problems of implementation and interpretation that the Bank has identified with respect to Core Principle VI, the principle that calls for settlement to be accomplished by means of the transfer of: (1) a "claim on a central bank" (referred to herein as the transfer of "central bank funds"), which the Report characterizes as "generally the most satisfactory asset used for settlement"(Report at § 3.6.2); or (2) a claim on a private "settlement bank" (referred to herein as the transfer of "settlement bank funds") if, and only if, such claims carry "little or no credit risk and little or no liquidity risk."

Core Principle VI

Assets used for settlement should preferably be a claim on the central bank; where other assets are used they should carry little or no credit risk and little or no liquidity risk.

In order to understand Core Principle VI and the express preference for settlement in central bank funds, it is helpful to examine the scope of application of the core principles. The starting point for that examination is the definition of the term "payment system." For purposes of the Report, a "payment system" is ". . . the means by which funds are transferred between banks. . . ." (Report at § 1.1). In particular, the Task Force has observed that:

[t]he designs of payment systems differ widely around the world. As described in previous [Bank for International Settlements] publications, the defining elements of a payment system are 'a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money'. The focus

of this report is on the funds transfer system at the core of such a system. (Report at § 6.4)(emphasis added).³

Core Principle VI focuses upon the credit and liquidity risks ". . . arising from the use of a particular asset to settle payments through a systemically important payment system" (Report at § 7.6.1). Two concepts are apparent in this characterization of the role of settlement in systemically important payment systems. First, banks and other financial institutions act as intermediaries in the settlement of payments, either as direct or indirect participants in a payment system, acting on their own behalf or as agents for others.⁴ Second, payments are "settled" through a payment system to satisfy legal obligations that arise from commercial or financial transactions.

These concepts are evident in the Task Force's discussion of the role "settlement assets" play in a funds transfer system:

Settlement assets are transferred among payment system participants to settle payment obligations. In other words, settlement assets are the assets that the participant receiving the payment ends up holding when the original payment obligation is fully extinguished. (Obligations between participants are not always settled by the transfer of a settlement asset; in some cases, an offsetting process may discharge obligations.) As holders of settlement assets, participants face both credit and liquidity risks. They face credit risk if the provider of the settlement asset could default on its obligation to them and liquidity risk if the asset ceases to be readily transferable into other liquid assets. (Report at § 7.6.1).

³ Although the Core Principles apply most directly to ". . . systems which involve only funds transfers, . . . [they] can also apply to the payments aspects of systemically important systems in which transfers of other financial assets, such as securities, and related transfers of funds are both settled." (Report at § 1.7).

⁴ As the Report notes, "[p]articipants [in a systemically important payment system] can be direct or indirect. . . ." (Report at § 6.4).

Although this characterization of settlement can be made to work, the Bank believes that there is a simpler, more effective, way to describe the legal and risk management processes that constitute settlement.

For purposes of the Core Principles, settlement should be understood as the process by which a legal obligation to pay is discharged by means of a payment (or series of payments) accomplished through a funds transfer system. This understanding is consistent with, though not dictated by, the law governing payments through funds transfer systems in the United States, Article 4A of the Uniform Commercial Code, as well as customary and trade usage concerning large value payments. Without such an understanding, confusion commonly results. As one legal commentator has noted:

. . . seemingly synonymous uses of the terms 'payment obligation' (or 'payment'), 'settlement obligation' (or 'settlement'), and 'discharge' sometimes generate confusion. In the funds transfer context, the underlying payment obligation refers to the obligation of the originator [the party originating the payment] to pay the beneficiary. This obligation arises from the underlying contractual obligation between those two parties. When the obligation is satisfied, it is said to be legally discharged.

* * * * *

The terms 'settlement' and 'settlement obligation' refer to an interbank payment obligation that arises from the acceptance of a payment order. That is, they refer to the payment obligation as between a sending and receiving bank. However, these interpretations are based more on customary and trade usage than on specific sections of Article 4A.⁵

Underlying Core Principle VI is the notion that the settlement of a commercial or financial contract effectively results in a substitution of credit and liquidity risks. Before payment is effected, the "seller" is entitled to performance by the "buyer" (i.e., the party that

⁵ R. Bhala, *Legal Foundations of Large-Value Transfer Systems* in International Monetary Funds, *The Payment System, Design, Management and Supervision* at 58 (ed. B. Summers, 1994).

received the goods, services or other benefits conferred upon it by the seller) in accordance with the terms of the contract between the buyer and seller. After payment is effected, the buyer (or the originator of a payment order, in the terminology used in Article 4A) is discharged, in accordance with applicable law. Thereafter, the seller may only look to its bank for further performance (e.g., withdrawal of the funds on the seller's account). Thus, settlement can be understood as the process of intermediated payments through a funds transfer system that accomplishes the discharge of an underlying contract and the assumption of credit and liquidity risks in respect of the settlement intermediaries.

Characterizing settlement in this manner would make it unnecessary to focus upon the credit and liquidity characteristics of the "settlement asset" for purposes of Core Principle VI. This has several benefits. First, there is no need to develop a new form of liquidity risk -- liquidity risk in respect of the transferability of a settlement asset -- in order to establish a standard that is intended to mitigate systemic risks arising from payments accomplished through funds transfer systems.⁶ The understanding of counterparty credit and liquidity risk has

⁶ In connection with Core Principle V, Part 2 of the Report distinguishes between the forms of liquidity risk that arise in deferred net settlement and real-time gross settlement ("RTGS") systems, respectively, as follows:

Core Principle V covers the management of liquidity risk when a participant is unable to meet its settlement obligation in a deferred net settlement system. In systems which do not involve deferral of settlement, such as [RTGS] systems, liquidity risk arises differently. A participant making a payment through a [RTGS] system needs to have the necessary liquidity available on its account with the settlement institution in order for the payment to be accepted by the system for settlement. If there is insufficient liquidity in the system (or it is not sufficiently well distributed) to permit an even flow of payments in the course of an operating day, the result can be gridlock. . . . (Report at § 7.3.8).

The form of liquidity risk that is covered in Core Principle VI is, according to the Report, different:

improved dramatically along with recent developments in financial and economic theory and banks are using that understanding to manage their risks. In fact, the Bank believes that the focus on the transferability of a "settlement asset" in Core Principle VI distracts attention from the source of liquidity risk that the Task Force seeks to mitigate through adoption of that principle, ". . . liquidity risk in respect of claims on the settlement institution (rather than on other participants). . . ." (Report at § 7.6.2). Differences in the magnitude of risk or the manner in which those risks are managed should not be mistaken for different species of risk.

Settlement through a funds transfer system comprises the crediting and debiting of accounts of both the paying and receiving parties to accounts carried on the books of a common intermediary.⁷ Because those credits and debits are meaningless apart from the resulting claims against the intermediary, they cannot be transferred in the same way that other forms of property, such as gold bars or certificated securities, can be transferred. Title to or other property rights in

Participants in all systems face liquidity risk if another participant fails to make payments at the expected time. But even after a final payment has been made, the recipient may still face an additional form of liquidity risk if, in certain adverse circumstances, it is not possible to transfer the settlement asset into other claims, for example into claims on a central bank or other liquid assets. It is this distinctive form of liquidity risk -- liquidity risk in respect of claims on the settlement institution (rather than on other participants) which is considered in Core Principle VI. (Report at § 7.6.2).

The Bank recognizes that payment systems are subject to a variety of risks, including circumstances (such as exchange controls) that may impair transferability of funds. Accordingly, the Bank believes that it is appropriate for the Core Principles to require payment system operators, users and overseers to conduct a comprehensive evaluation of the entire range of potential risks, including risks arising in respect of claims on the settlement institution. However, the Bank believes that it is not necessary to mischaracterize liquidity risk in Core Principle VI in order to achieve that objective.

⁷ As the Committee is aware, payments also can be exchanged bilaterally through the crediting and debiting of so-called nostro and vostro accounts of the paying and receiving banks. Such arrangements normally lie outside the scope of the Core Principles. (Report at § 6.9).

an account balance can be exchanged between account holders of a common intermediary, by means of the appropriate account entries, but an account balance denominated in U.S. dollars at the Federal Reserve Bank of Chicago cannot be exchanged directly for an account balance at another central bank. However, an account holder at the Federal Reserve Bank of Chicago can sell dollars to and buy Euro from a party that either directly or indirectly has an interest in an account balance at the European Central Bank. This is common practice in the foreign exchange markets.

In the foreign currency markets, some of the currencies may be more "liquid" in some sense than other currencies. Some currencies may not be fully convertible, or subject to exchange controls, or to volatile price movements. None of those circumstances have any bearing on whether or not a systemically important payment system involving such currencies can be designed and operated with satisfactory controls over credit and liquidity risk arising in respect of claims on the settlement institution.⁸

Second, characterizing settlement as suggested above avoids the need to consider the offset of contract (or payment) obligations that results from netting as a form of "settlement" that does not involve a "settlement asset." It is far simpler to recognize that legally effective netting arrangements may discharge the underlying legal obligations of the parties to the netting arrangements without settlement.⁹ Furthermore, unless netting involves the substitution of a

⁸ The Bank recognizes that a precipitous decision by a country to suspend the convertibility of its currency could pose systemic concerns. The Bank believes that other principles, particularly Core Principle I, should be understood to require an ex ante assessment of the political risks that may arise in the functioning of a payment system. Core Principle VI should not be stretched beyond its stated objectives in an attempt to address such circumstances.

⁹ For purposes of this discussion, it is assumed that all relevant core principles must be satisfied. In particular, it is assumed that there is a "well-founded legal basis under all relevant

central counterparty (as in some forms of multilateral netting) it does not result in a substitution of counterparty credit and liquidity risks. The terminology suggested above is consistent with these distinctions. Considering settlement as the process involved in accomplishing discharge by means of payments transmitted through a funds transfer system allows offset by netting to be distinguished as a means by which discharge may be accomplished without settlement, not as settlement without a settlement asset. Moreover, that understanding of settlement focuses upon the issue Core Principle VI is intended to address, namely the additional credit and liquidity risk that is posed by the intermediary, the settlement institution.

Third, characterizing settlement as suggested above makes it unnecessary to distinguish whether a central bank that serves as the settlement intermediary is the bank of issue of a particular currency or not.¹⁰ On the contrary, the Bank believes that it is irrelevant to the implementation of Core Principle VI whether a central bank is or is not the central bank "of issue" of a particular currency. Regardless of which central bank issued the currency, the holder of an account is exposed to the credit and liquidity risks posed by the settlement institution at which it receives payment through a funds transfer system. If that institution is a central bank in a jurisdiction that has adopted the Core Principles and related principles for central bank cooperation, then the account holder faces remote -- perhaps only theoretical -- credit risk and

jurisdictions" (Core Principle I) for netting and that the system is designed to "provide prompt final settlement on the day of value. . . ." (Core Principle IV).

¹⁰ Part 2 of the Report states that:

[p]articular considerations arise if a systemically important payment system uses claims on a central bank to settle payments in a currency which the central bank does not itself issue. The settlement asset in this case carries no credit risk because the settlement institution is a central bank, but it is subject to the risk that participants' holdings of the settlement asset may not be readily convertible into claims on other institutions. (Report at § 7.6.6).

related liquidity risk. The Bank cannot see any reason why the credit and liquidity risks associated with an account at a central bank should change depending upon the currency in which account balances are denominated.

The Bank believes that the Committee's discussion of a related issue in the March 1997 report on *Clearing Arrangements for Exchange-Traded Derivatives* (the "March 1997 Report") is instructive. In that study, the Committee observed that clearinghouses for exchange-traded derivative contracts sometimes ". . . use private banks rather than central banks to effect money settlements . . ." and that, as a result, ". . . another source of credit and liquidity risks is the possibility of failure of a settlement bank." (March 1997 Report at 2).

In addition, the Committee observed that:

Clearing houses that utilise private settlement banks typically limit risks of settlement bank failures by selecting only the most creditworthy commercial banks. In addition, some clearing houses have structured their settlement agreements with the banks to minimise the clearing house's potential losses and liquidity pressures in the event that a failure should occur. Specifically, the agreements provide that transfers between clearing members and the clearing house on the books of each settlement bank are effected simultaneously and are final, and that final transfers of funds between settlement banks are effected as soon as possible. Together, these steps can reduce substantially the amount and duration of a clearing house's exposures to any one settlement bank.

The combination of risk management safeguards employed by exchange clearing houses has generally proved quite effective - in particular, there have been relatively few defaults by members of clearing houses in the G-10 countries, and none by settlement banks. (March 1997 Report at 2).

The Committee's depiction of typical settlement bank arrangements for derivatives clearinghouses shows that the credit and liquidity risks that arise in such arrangements can be responsibly managed, even if they ". . . cannot be made fail-safe." (March 1997 Report at 2).

Moreover, there is abundant evidence that clearinghouses and their settlement banks are increasingly aware of the credit and liquidity risks that are inherent in such systems. Accordingly, there is good reason to think that both clearinghouses and their settlement banks are capable of managing such risks in a manner that is consistent, not only with their private incentives to maximize profits, but also with the objectives of public policy. The Bank recognizes, of course, that the Core Principles may only indirectly apply to arrangements for the transfer of securities and derivatives and that the Committee has established a separate task force, together with the International Organization of Securities Commissions, to address settlement issues that arise in connection with such arrangements. However, the Bank believes that the Committee must intend for the Core Principles to be implemented in a manner that does not unnecessarily conflict with the principles enunciated in the March 1997 Report.

The Report justifies a preference for settlement of payment obligations by transfers of central bank funds by observing that ". . . [b]alances at the central bank are generally the most satisfactory asset used for settlement, because of the lack of credit or liquidity risk for the [account] holder, and they are typically used in systemically important payment systems." (Report at § 3.6.2). Where payment obligations are to be settled by transfers of ". . . a claim on a private, supervised institution", the Report mandates that ". . . system operators and oversees should determine whether the financial risk is more than negligible." (Report at § 7.6.4) (emphasis added). Furthermore, the Report characterizes such arrangements as "exceptional," buttressing the preference for settlement in central bank funds.

The Bank concurs that the settlement of payment obligations in systemically important payment systems through transfers of central bank funds across accounts maintained at a central bank that subscribes to the Core Principles and the related principles and responsibilities for

central bank cooperation is typically a satisfactory means of mitigating the credit and liquidity risks that arise in such systems. As a practical matter, central banks in jurisdictions that have implemented sound and effective standards for banking supervision present only remote or theoretical credit risk.

The benefit of settling systemically important payments transactions by transfers of central bank funds is evident. Nevertheless, the Bank believes that it is important to take into consideration the likely costs of creating an express preference for such settlement arrangements and for setting a high standard that only settlement arrangements involving private settlement intermediaries must meet. The Bank believes that it is not only unnecessary to prescribe specific mechanisms for dealing with the credit and liquidity risks that arise in payment systems, but also contrary to the Committee's stated objective to allow different ". . . designs or technologies to be used to achieve safety and efficiency in systemically important payment systems." (Report, Foreword). Furthermore, the Bank believes that the preference for settlement in central bank funds contained in Core Principle VI, as presently formulated, may have other adverse consequences.

The Committee observes that "[i]n considering whether such exceptional cases [settlement through "tiered" arrangements involving private sector banks] comply with Core Principle VI, system operators and overseers should determine whether the financial risk is more than negligible." (Report at § 7.6.4). The Bank does not believe that the Committee can, or should, try to substitute its judgment for that of system operators, the banks and other financial institutions that participate in payment systems, or the relevant supervisors in determining how much, and what kinds, of risk are "more than negligible." Moreover, the Bank does not believe that private sector payment arrangements necessarily should be considered "exceptional cases."

For the reasons discussed above, the risks that arise in connection with the operation of a systemically important payment system are not different in kind depending upon whether a central bank or private settlement bank carries the accounts through which settlement is effected.

In addition, the Bank observes that in some jurisdictions only some payment intermediaries have access to central bank accounts. In those jurisdictions, such as the United States, an explicit preference for settlement in central bank funds might have an adverse competitive impact on institutions that do not have accounts. That harm could be reduced or eliminated by extending account access more broadly. However, the decision to restrict access to central bank payment services may be based upon a policy judgment regarding the trade-off between systemic risk mitigation and moral hazard propagation and a concern that broader access may increase moral hazard. Core Principle VI, as presently formulated, would interfere with such judgments.

The Bank believes that sovereign jurisdictions, in consultation with the relevant central bank or other monetary authorities, should be free to make responsible decisions regarding the range of institutions and arrangements that are possible given the tradeoff between the systemic benefits of broad account access and the risks of increased moral hazard.¹¹ Therefore, as indicated above, the Bank suggests that the explicit preference in Core Principle VI for settlement in central bank funds should be deleted and the principle should be amended to make it clear that, regardless of the nature of the institution that serves as the common settlement intermediary, the settlement arrangements in a systemically important payment system must pose

¹¹ The Bank does not exclude the possibility that a country could decide that any degree of moral hazard is unacceptable and, therefore, structure its payment system in a way that does not involve any public institutions. In that case, the Bank believes that it is, nevertheless, desirable for settlement arrangements for such systems to have "little or no credit risk and little or no liquidity risk."

little or no credit risk and little or no liquidity risk. The Bank offers the following language for the Committee's consideration:

Core Principle VI (Proposed Amendment)

Settlement arrangements for systemically important payment systems should pose little or no credit risk and little or no liquidity risk.

The suggested revisions are intended to reflect the Bank's view that the principle should be a performance standard and to eliminate any inference that particular settlement arrangements are mandated. The Bank also suggests that the Committee reserve any discussion of settlement directly through a central bank account as one acceptable means of meeting the standard set forth in Core Principle VI for the body of the commentary on the principle.

Alternatively, the Committee may choose to make it clear that the preference for settlement in central bank funds is itself dependent upon many factors and is only intended to establish a presumption that central banks in jurisdictions that adopt the Core Principles offer one effective means of managing the relevant credit and liquidity risks. So long as the Committee makes it clear that arrangements utilizing private settlement banks are not inherently "exceptional" or disfavored, and that the risks inherent in such arrangements are not unique or unmanageable, the Bank believes that such amendments would be acceptable.