

**Report of the Advisory Group on Payment and Settlement System  
(Part – I)**

June 2000

M.G. BHIDE  
Chairman

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June 16, 2000

Dear Dr. Reddy,

It is a matter of great pleasure in forwarding you the Report of the Advisory Group on Payment and Settlement System covering the BIS guidelines on “Core Principles for Systemically Important Payment System”.

In this Report, the Group has critically examined two issues viz., status of our clearing house operations as well as responsibilities of the Reserve Bank of India (RBI) with respect to these core principles. Based on this assessment, the Group has recommended a set of actions to be initiated by the appropriate authority in order to improve the overall efficiency in our payment system. Some of the important measures recommended here include extensive legal reform especially empowering the RBI to oversee the payment and settlement system in the country, building up of an appropriate framework for ensuring at least the Lamfalussy standards for the deferred net settlement (DNS) system and such suitable framework for the real-time gross settlement (RTGS) system, encouragement of electronic-based transactions by affecting incentives of payment system users through appropriate pricing of various payment instruments and eventual hiving off of management of DNS and RTGS systems from the RBI with only settlement of funds be retained with the RBI.

The Group is thankful to distinguished members of the Advisory Group as also to Dr. A. Vasudevan, Executive Director and other senior executives of the RBI for their valuable contributions in preparing the Report. It also acknowledges the excellent secretarial assistance provided by Shri A. Sardar, Dr. H. Joshi, Shri A.G. Khiani, Mrs. J.Venkateswaran and Mrs. S. Sivan for this purpose.

With best regards.

Yours sincerely  
Sd/-  
(M.G. Bhide)

Dr. Y.V. Reddy  
Chairman  
Standing Committee on International  
Financial Standards and Codes

Reserve Bank of India  
Mumbai.

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## **Core Principles for Systemically Important Payment Systems**

### **Introduction**

In the course of the evolution of payment and settlement system in the country, the RBI has been undertaking not only regulatory but also promotional and directional activities. Of late, however, it has been devoting increasing attention towards making it a more modern and efficient one through numerous initiatives. Such efforts, among others, are evident in building up of an appropriate institutional set up through constituting Payments Systems Group (PSG) and Payment System Advisory Council (PSAC) within the RBI in 1998 and National Payments Council (NPC) with suitable representations from financial market in 1999. It is also instrumental in putting in place the requisite market infrastructure in the form of upgrading technological capabilities in clearing house operations in four major cities working on the principle of deferred net settlement (DNS) system as also in installing VSAT network in the country. These apart, the ensuing centralised funds management scheme (CFMS) as well as the real-time gross settlement (RTGS) system are also expected to improve substantially the efficiency of our payment system. The underlying objectives behind all these efforts are, as articulated in the monograph published by the RBI entitled “Approach to an Integrated Payment System in India” (1998), to “consolidate, develop and integrate” so as to build a robust and efficient payment system in the country.

However, while the current efforts are laudatory and are expected to bridge the gap between the domestic and international standards, there are several areas where significant steps are still required to conform to the core principles as propounded by the BIS. One of the most important areas in this regard is that there is no specific legal provision in the RBI Act, 1934 by which it would be able to regulate and supervise the payment systems in the country. This is especially critical because with increasingly new entities providing “payment gateways”, the RBI must be empowered suitably to act as a functional regulator rather than an institutional regulator so that any participant providing systemically important payment services should be regulated and supervised by it in order to ensure that safety and soundness of the financial system is not compromised. While these would essentially relate to wholesale payment systems, it should also have

the authority to review emerging new forms of retail payment instruments from time to time e.g., debit card, electronic money, transactions over internet etc. so long as these have direct relevance for the RBI in particular and bearings on the financial sector in general.

These apart, there are two other broad areas which deserve closer examinations. First, the present settlement mechanism relies entirely on DNS system. The critical problem here is that there is virtually complete lack of appreciation of any risk principally on account of institutional reasons such as state ownership of major banks. With the changing economic landscape in a deregulatory environment, there is an urgent need to put in place an appropriate framework of risk reduction measures. Second, given the huge size of our economy and the resultant burgeoning of transactions, we should endeavour to migrate progressively from paper-based to non-paper-based, electronic mode of transactions so as to reduce transaction costs and improve efficiency in payment systems. Differential pricing mechanism of various payment instruments as being practised in some developed economies could be an important step in this direction.

Given this perspective, the Advisory Group has deliberated in detail on the status of Indian payment systems vis-à-vis the core principles for systemically important payment systems. Concomitant with highlighting various limitations in our present systems, the Group has also attempted to sift through various issues that need to be addressed such that our systems conform to core principles. These issues have been captured under each core principle as indicated below. Section I has evaluated these principles with respect to DNS system followed by similar treatment in Section II with respect to the status of the RBI in the context of its responsibilities in applying core principles as suggested by the BIS.

In the context of RTGS system, the Group has felt that since the project is still at the stage of conceptualization, it may not be possible to review it vis-à-vis the core principles at this juncture. However, it is recommended that when the detailed guidelines for the RTGS are finalised, the core principles may be kept in view to ensure that the arrangements conform to the BIS guidelines. In this context, a periodic review may be done to ensure that this is achieved.

## **Section I**

### **Deferred Net Settlement (DNS) System** \*

*1. The system should have a well-founded legal basis under all relevant jurisdictions.*

It is found that though the present multilateral netting system is governed by the Uniform Regulations and Rules (URR), 1986, these rules and procedures are purely contractual in nature as agreed upon by banks amongst themselves. In other words, there is no legal framework behind the URR and, therefore, the rights and obligations of banks and the dispute resolution mechanism are not legally codified. Moreover, the present system of electronic funds transfer has no statutory recognition for transfer of funds through electronic media although we could go through the Indian Contract Act. In view of these gaps, the consequences are not fully predictable and hence, not transparent. These apart, it is also felt that the public at large are not much aware of their rights and

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\* Annexure provides a more detailed review of various elements under each of the ten core principles enumerated here.

obligations vis-à-vis banks, and to that extent, accountability of banks leaves much to be desired. Nonetheless, the system has been working satisfactorily primarily owing to state ownership of major banks and various standing facilities of the RBI coupled with high cash balances maintained by banks as part of their CRR stipulation.

The Group, therefore, suggests that there must be a well-founded legal basis for our clearing house operations working on the principle of deferred net settlement (DNS) system. In this connection, it is felt that it may be instructive to draw lessons from the experiences of the National Stock Exchange (NSE) and accordingly, it is agreed that a background paper would be prepared by the NSE which could be taken into consideration by the RBI.

*2. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.*

*3. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.*

The discussions in the Advisory Group have forcefully brought to the fore the fact that the URR, 1986 do not provide for any risk management strategy, though the system is not fraught with any major risk primarily on account of state ownership of major banks, various standing facilities of the RBI as well as binding CRR for banks. As a result, proper appreciation of financial risks in the form of liquidity risks and credit risks are perceived to be lacking amongst banks in our clearing house operations. However, it was argued that as we progressively scale down CRR to the unbinding level (i.e., cash balances required to be maintained for settlement purposes are higher than those to be kept as part of CRR), inter-bank exposures amongst banks under DNS system would be an extremely critical issue whereby these exposures if not properly monitored and capped would have the potential to cause systemic crises. Even under the present high CRR regime, it is found that some of the active foreign and private banks have been using up virtually all of their cash balances for settling their transactions and, therefore, the probability of occurring credit risk/liquidity risk for these sets of banks is relatively higher. The partial unwind system as part of default resolution mechanism as prevailing under the present arrangement has not found favour with the Group since banks are still exposed to settlement risk. As regards caps on presentation of instruments, since it is prescribed only in respect of private commercial banks, and central and primary co-operative banks on a *decentralized basis*, multilateral exposures cap, system exposures cap and loss sharing arrangement in a centralized environment for all participants which constitute the core of limiting risks are not addressed at all in the present framework. However, the Group has appreciated that since this would be possible only in fully centralized accounting and funds management structure with electronic messaging, presently the extant arrangement may have to continue. On return discipline, the Group maintains that it would be difficult to go without it. However, its treatment under RTGS environment would need to be suitably modified so as to impart irrevocability and

finality to its settlement. In view of these considerations, the Group has decided that a background paper on cross-country experiences of risk reduction measures for the DNS system be prepared in the RBI for future guidance.

With regard to RTGS system, the risk reduction measures associated with intra-day repo mechanism have already been addressed to by the Telang Committee on intra-day liquidity. However, on membership issue, since the RTGS system is characterised to be essentially a closed user group one, this issue warrants a closer examination.

*4. The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.*

At present, the areas which provide final settlement on the date of value include a) DVP in Government securities transaction, (b) inter-bank clearing and (c) high value clearing. In case of low value MICR clearing, same day settlement is not arrived at on account of returns as well as the statutory need for the drawee bank branch to physically verify the payment instrument. This situation may have to continue. Further developments in this regard have been indicated in the matrix enclosed herewith.

For the proposed RTGS system, an in principle decision to provide collateralised intra-day liquidity has been taken. It was noted that the modalities for operationalising this scheme are being worked out within the Bank.

*5. A system in which multilateral netting takes place should at the minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement exposure.*

This principle essentially relates to multilateral netting system i.e., DNS system. Despite the fact that there has not been any failure in our DNS system, the Group maintains that there is now a strong need to evolve a system of net bilateral, multilateral and system caps as also a loss sharing arrangement so that settlement is not disrupted in the event of failure of the single largest net debtor or multiple net debtors. It is also felt that resolution of such settlement risk should be essentially market-based.

*6. 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.*

The Group appreciates that since Central Bank money or fiat money is the most risk free among all assets, its use for settlement does not entail any credit risk. If, however, settlement is done offsetting claims on other assets e.g., maturity proceeds of CD, CP, credit card receivables etc., then participants are exposed to credit risk in the event of failure of the issuers of these instruments. In India, settlements are done only with the Central Bank money and, therefore, offsetting one claim against claims other than the Central Bank money is not relevant.

*7. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.*

High degree of security and reliability with the state-of-the-art cheque processing systems have been ensured in our clearing house operations. In the unlikely event of any one system failure, the provision of local back-up at major centers is available. The item-based magnetic media clearing software is another contingency measure. The proposed RTGS system will have Mumbai as the primary centre with other four major metro centers acting as hot standby to take care of any system failure.

*8. The system should provide a means of making payments which is practical for its users and efficient for the economy.*

The Group has deliberated on the issue whether it is possible to provide a road map for switching over from paper-based instruments to non-paper-based, electronic instruments so that efficiency in payment system is improved. It has, however, been agreed that without proper institutional infrastructure, particularly an efficient communication backbone throughout the country, it may not be prudent to put forward such a road map. Besides, the choice of mode of payment in India is expected to be paper-based in the foreseeable future. Moreover, the use of a particular instrument generally reflects societal choice, however inefficient such choice could be. It is in this context the Group recommends that RBI in its professed role as enabling the payment system to become efficient, should devote resources for conducting periodic survey on costing of various retail and wholesale payment instruments such that effective pricing of these instruments could take place in the economy. In other words, there should be clear incentives on the part of customers as well as intermediaries to switch over to non-paper based, electronic mode of transactions that require fewer resources. Canada and some European countries e.g., Norway and Sweden have been practising explicit pricing mechanism to achieve this. In India, a migration to such fee-based pricing of instruments may, therefore, be considered in right earnest.

*9. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.*

It has been decided that URR, 1986 as well as such other regulations and manuals should be made available to wider public for generating greater awareness of rights and obligations among all parties concerned with the payment system.

*10. The system's governance arrangements should be effective, accountable and transparent.*

The clearing house is an association of member banks governed by the Uniform Rules and Regulations of the Clearing House. It has a Standing Committee for day to day governance and a General Body where all major decisions are discussed and approved by the members. The members enter into contracts with the bank managing the clearing house wherein the duties and responsibilities are clearly spelt out.

The President of the Clearing House in co-ordination with the Standing Committee/General Body has the powers to suspend members from participation in the clearing house operations keeping in view the interests of the system as a whole.

It is also appreciated that the RBI have already initiated many measures which, when implemented, would go a long way in complying with the BIS guidelines. However, in order to ensure that desired objective is achieved, it is recommended that the relative progress should be closely monitored by a suitable Group constituted for this purpose.

To summarise, the following action points have emerged in Section I:

- Well-founded legal framework for the DNS system
- Risk reduction measures for the DNS system
- Membership under RTGS system
- Periodic survey on costing of various retail and wholesale payment instruments
- Suitable amendment in RBI Act 1934 to empower it to supervise payment and settlement systems in the country.
- Wider availability of URR, 1986 and other Manuals to the public.
- On-going review of existing as well as emerging new areas of payment and settlement systems.

## **Section II**

### **Responsibilities of the Central Bank in applying Core Principles**

*A. The central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.*

In the absence of any specific legal provision, the RBI has taken upon itself the role of a regulator and supervisor of payment systems in the country. This is, therefore, more in the nature of convention rather than by any statute. However, recently the RBI has articulated its payment system objectives in a publication entitled “Approach to an Integrated Payment System in India” (1998) in that its efforts “... should center around the three basic themes: Consolidation, Development and Integration. These themes constitute a broad framework encompassing the whole gamut of issues - structural, technological, legal, economic - which affect the functioning of a modern payments system” (Page 4). This document also provides an overview of future major policies with respect to systemically important payment systems in the country. Major of them include establishment of real-time gross settlement (RTGS) system, centralised funds management system (CFMS), securities settlement system (SSS), integrated banking department within the RBI and data warehousing. It is, therefore, expected that when these major systems come in place in the economy, the RBI’s role in payment systems would be more clearly discernible. In fact, in the light of the current major initiatives undertaken by the RBI, it is recommended that while revising the publication indicated above, the RBI should make its role more explicit and binding upon relevant payment system operators.

With a view to institutionalising the process within the RBI, it may be noted that the Department of Banking Operations and Development (DBOD) has already been identified as the nodal department for policy formulation as well as payment system

oversight over payment and settlement systems in the country in co-ordination with the supervisory departments and the Department of Information Technology (DIT).

In this context, an issue which has seized the attention of the Group is whether there could be moral hazard behaviour with the RBI when it performs the role of a regulator as well as the payment system provider especially in the absence of any legal statute. The Group here feels that though the RBI should gradually come out of its role as a payment system provider except for settlement of funds, it should, however, initiate a cross-country survey on payment system objectives, their management and the relevant legal backing obtained in these countries to draw appropriate lessons from it.

*B. The central bank should ensure that the systems it operates comply with the Core Principles.*

At present, the RBI manages major clearing houses while others being managed by nationalised banks. These clearing houses operate on deferred net settlement (DNS) principle. In this regard, the Group recommends two courses of actions. First, necessary groundwork should be initiated now for implementation of at least the Lamfalussy Standards in the operations of our clearing houses, and similar core principles should also be adapted for our ensuing RTGS system. Second, in future the RBI should transfer the management of clearing house operations as well as that of the RTGS system entirely to a separate body/bodies to be constituted by the association of bankers for the purpose. The RBI should, however, retain with itself only the settlement function.

Moreover, in order to provide legal support to any electronic message-based payment and settlement system, a host of Acts viz., Indian Penal Code Act, 1860, Indian Evidence Act, 1872, Bankers' Books Act, 1891 and Section 58 of the RBI Act, 1934 need to be amended. The IT Bill, 1999 now passed in the Parliament should facilitate this process greatly. These apart, various other legislations e.g., Negotiable Instruments Act, 1881, Indian Stamp Act, Insolvency Law etc. also need to be suitably amended to provide support to the electronic transfer of funds under multiple payment systems.

*C. The central bank should oversee compliance with the core principles by systems it does not operate and it should have the ability to carry out this oversight.*

As indicated earlier, the RBI must be empowered suitably to act as a functional regulator rather than an institutional regulator in order to preserve the safety and soundness of the payment system. Accordingly, it is felt that Section 17(6) of the RBI Act, 1934 needs to be amended to empower the RBI to regulate and supervise all payment systems in the country.

Here one issue that has attracted the attention of the Group is how to deal with a non-bank participant in clearing house operations viz., the post office that also provides payment services to a vast section of people in the society. However, this should not pose any problem so long as the post office as direct member of the clearing house is bound by its rules and regulations.

*D. The central bank, in promoting payment system safety and efficiency through the core principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.*



At the domestic level, the cross-functional collaboration is manifested in the way the National Payments Council (NPC) has been constituted. Its members include apart from high level executives of the RBI, those of select major public sector banks, foreign banks, private sector banks, large non-banking financial company and public bodies, and that of the Government of India. The NPC has also constituted five permanent Task Forces in related areas wherein experts from the financial market have also been inducted such that management of change becomes smooth and broad based.

However, there is one area where the Group feels that there should be an institutional problem resolution mechanism when regulatory burden of different regulators e.g., the RBI the SEBI etc. impinges on the level playing field across participants.

At the international level, the RBI has been continually in touch with appropriate multilateral institutions e.g., BIS, IMF and World Bank as well as leading countries e.g., USA, UK, European Union (EU), Australia, Hong Kong etc. for regular exchange of views and expertise.

To summarise, following action points have emerged in Section II:

- Cross-country survey on payment system objectives, their management and the relevant legal statute
- Implementation of at least Lamfalussy standards for the DNS system and similar standards for the RTGS system
- Hiving off of management of DNS and RTGS systems from the RBI with only settlement of funds be retained with the RBI
- A number of Acts e.g., EFT Act, Indian Penal Code Act 1860, Negotiable Instruments Act 1881 etc. need to be suitably modified to encourage electronic transfer of funds
- Suitable amendment to RBI Act, 1934 to empower it to supervise all payment systems in the country
- Constitution of an institutional problem resolution mechanism comprising multiple regulatory bodies to ensure level playing field across participants
- Revision of publication entitled “Approach to an Integrated Payment System in India” (1998) to underscore RBI’s supervisory role over all payment and settlement systems in the country.

Sd/-  
(M.G.Bhide)

Sd/-  
(R.P. Chitale)

Sd/-  
(V. Deuskar)

Sd/-  
(R.H. Patil)

Sd/-  
(A. Shah)

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\* Annexure provides a more detailed review of various elements under each of the ten core principles enumerated here.

## **MEMORANDUM** **Constitution of Advisory Group on “Payment and Settlement System”**

A Standing Committee on International Financial Standards and Codes has been set up by Governor, Reserve Bank of India on December 8, 1999 with the objectives of

identifying and monitoring developments in global standards and codes pertaining to various segments of the financial system, considering all aspects of applicability of such standards and codes to the Indian financial system, chalking out the desirable road map for aligning India's standards and practices in the light of evolving international practices, periodically reviewing the status and progress in regard to codes and practices, and making available its reports to all concerned organizations in public or private sector (copy of Governor's Memorandum in Annexure).

The Standing Committee in its first meeting held at New Delhi on January 13, 2000 decided to constitute non-official Advisory Groups in ten major subject areas encompassing 43 different standards/codes. In this regard, one of the subject areas identified is "Payment and Settlement System". Accordingly, an Advisory Group on "Payment and Settlement System" under the Chairmanship of Shri M.G.Bhide, Chairman, NIBM, Pune is constituted with effect from February 8, 2000 with the following as members.

1. Dr. R.H. Patil, MD, NSE, Mumbai
2. Dr. Ajay Shah, Professor, IGIDR, Mumbai
3. Shri Vishnu Deuskar, MD, ABN Amro Securities Pvt. Ltd.
4. Shri Rajendra P. Chitale  
Chartered Accountant, C/o M.P. Chitale & Co., Mumbai.

Shri K. Kanagasabapathy, Adviser-in-Charge, Monetary Policy Department, Reserve Bank of India/Dr. R. Kannan, Adviser, Department of Economic Analysis and Policy will be convenors to the Advisory Group.

The terms of reference of the Advisory Group are as follows:

- (i) to study present status of applicability and relevance and compliance of relevant standards and codes,
- (ii) to review the feasibility of compliance and the time frame over which this could be achieved given the prevailing legal and institutional practices,
- (iii) to compare the levels of adherence in India, vis-à-vis in industrialized and also emerging economies particularly to understand India's position and prioritize action on some of the more important codes and standards,
- (iv) to advise a course of action for achieving the best practices appropriate to us; and
- (v) to help sensitize the public opinion on the above matters through its reports.

The Chairman may co-opt other non-officials as members and officials as special invitees and decide to have meetings on schedules and at places of his convenience.

Secretarial assistance to the Advisory Group will be provided by the Reserve Bank of India. The Reserve Bank will also provide the following facilities to the Chairman and Members and special invitees to the Advisory Group:

- a) reimbursement of return air fare by executive class to attend the Advisory Group meetings
- b) provision of local transport and local hospitality
- c) reimbursement of a sum of Rs.500 per diem to outside members to meet incidental expenses
- d) necessary arrangements for conducting the meetings preferably in the RBI premises.

The Advisory Group is expected to submit its Reports as and when they are ready and a final report in any case within a time frame of one year from the date of the first meeting.

Sd/-  
(Y.V. Reddy)

May 25, 2000

### ANNEXURE

#### **Core Principles for Systemically Important Payment Systems\*** *Deferred Net Settlement System*

Core Principles	Elements	Status	; :
<b>1.The system should have a well-founded legal basis under all relevant jurisdictions.</b>	<ol style="list-style-type: none"> <li>1. The rules and procedures of the systems should be enforceable</li> <li>2. <i>The consequences of the rules and procedures of the system should be predictable.</i></li> <li>3. The legal issues arising out of the system should not be poorly understood</li> </ol>	<ol style="list-style-type: none"> <li>1. <i>Paper based and Electronic payment and settlement systems in India are governed by the contract between the participant banks / financial institutions / users / Service Providers and regulations thereof are agreed upon mutually by them.</i></li> <li>2. As the rules and procedures are contractual, the consequences are not fully predictable.</li> <li>3. The contractual rules and regulations of the existing system are properly understood. However, the RBI does not enjoy a statutory position in overseeing the Clearing House function. The statutory backing for regulation of multiple payment systems, cheque truncation, electronic</li> </ol>	<ol style="list-style-type: none"> <li>1. A v needs to To acc should effectiv brought</li> <li>2. The t membe custom suitable should : may un</li> <li>3. (i) 1934 n regulati systems (ii) N.I.</li> </ol>

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Source: Report of the Committee on Payment and Settlement Systems, Bank for International Settlements, Basel, Switzerland (July 2000).



<p>2.The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.</p>	<p>1. Participants should clearly understand the financial risks in the systems and where they are borne.</p> <p>2. Define clearly the rights and obligations of all parties involved and all such parties should be provided with up-to-date explanatory material</p> <p>3. <i>Relationship between the system rules and other components of the legal environment should be clearly understood and explained.</i></p> <p>4. Key rules relating to financial risks should be made publicly available</p>	<p>1. <i>The present arrangements do not provide for proper risk management strategies. This is primarily on account of state ownership of major banks, high cash balances under CRR and standing facilities provided by the Central Bank.</i></p> <p>2. The Model Uniform Rules and Regulations of Clearing Houses, ECS-Credit and Debit, EFT Procedural Guidelines clearly define the rights and obligations of all the participants (banks as members and settlement bank) in the Payments and Settlement System.</p> <p>3. The Model Uniform Rules and Regulations governing the Clearing Houses have been framed by the Central Bank under Section 58 of the RBI Act, 1934. The linkages between the system rules and the legal environment are well established as several components of the system are guided by the provisions under the Mercantile Laws such as the Negotiable Instruments Act, Public Debt Act, Contract Act, Agency Act, etc.</p> <p>4. The Model Uniform Rules and Regulations, MICR Procedural Guidelines, Electronic Clearing Service (Credit / Debit) Guidelines, Electronic Funds Transfer Guidelines are made available to the participants (banks). In addition, ECS (Credit / Debit) guidelines are made available to the corporate customers.</p>	<p>1. The i standar issue al associat This sh review.</p> <p>2. As and obl and lai and ba elabora the rela and his based transact the CI address</p> <p>4. It is Website and Re Uniforr clearing Service Electro to inci market large.</p>
<p>3. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and</p>	<p>1. Basis for establishing where Credit and liquidity risks are borne</p> <p>2. Allocation of responsibilities for risk management and risk containment</p>	<p>2. Rule 11 of the Model Uniform Rules and Regulations provides the facility of partial unwind. The clearing is carried out by withdrawing all instruments drawn on the defaulting bank as though it did not participate in the clearing. The credit due in respect of instruments presented by the defaulting bank is held in a suspense account and in the event of any returns the amount is debited to the suspense account. The balance amount if any is credited to the defaulting members.</p> <p>The credit balances in the accounts of banks on</p>	<p>1. <i>New framew risks to</i></p> <p>2. The entirely for evo risk ma be a c Users mutual sharing would Howevr centrali account</p>

<p>contain those risks.</p>	<p>3. Limits on credit exposure and on-going monitoring and analysis of the credit and liquidity risks</p> <p>4. Operational procedures to include the implementation of risk management decisions through limits on exposures, by pre-funding or collateralising obligations</p>	<p>account of clearing cannot be used by the bank till the return discipline is over. This is done to minimise liquidity risk. Further, the return discipline in clearing ensures that only fully cleared effects are made available to the customers.</p> <p>3. Limits on presentation at 10% of the Net Demand and Time Liabilities <i>are</i> prescribed only in respect of private commercial banks and central and primary co-operative banks on a decentralised basis. There is no system of monitoring and analysing the credit and liquidity risks.</p> <p>4. There is no explicit system of pre-funding or collateralising obligations. The high liquid balances in terms of Cash Reserve Ratio maintained by the banks subserve the requirement of prefunding.</p>	<p>extant continu</p> <p>3. Ther limits in centrali possible account messag decentr The C forerun</p> <p>4. As i risk rec introdu</p>
<p>4. The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.</p>	<p>1. The time when payments are accepted and time when final settlements actually occurs, participants may still face credit and liquidity risks</p> <p>2. Prompt final settlement at the end of the day of value</p> <p>3. At least one Payment System to provide real-time final settlement during the day</p> <p>4. An effective intra-day liquidity mechanism is necessary</p>	<p>1. The credit risk for participants is limited on account of the fact that the credit balances on account of clearing are not permitted to be used by the bank till the return discipline is over. Similarly, withdrawal of funds by the customer is permitted only when there are clear funds in the account.</p> <p>2. Same day settlement occurs in respect of DvP transactions (Government Securities), inter-bank clearing and high value clearing. In the case of low value MICR clearing same day settlement is not arrived at due to returns as well as the statutory need for the drawee bank branch to physically verify the payment instrument.</p> <p>3. Same day deferred final settlement is provided for (i) DvP in Government Securities transactions, (ii) inter-bank clearing, (iii) high value clearing.</p>	<p>1. There proper fund m: place.</p> <p>2. As a introdu for MIC distinct concept the settl</p> <p>3. Fina could t system</p> <p>4. In pr by RBI day liq for im being w</p>
<p>5. A system in which multilateral netting takes place should at the minimum, be capable of ensuring the timely completion of daily</p>	<p>1. Strong controls to address settlement risk</p> <p>(a) System must have the ability to</p>	<p>1. Settlement risk is addressed through a system of partial unwind. There has not been a single instance of failure to settle on a daily basis in all systemically important payment systems till date.</p> <p>(a) No such measures are in place.</p>	<p>1. Net framew options contrib fixation (Caps),</p> <p>(a) As g</p>

<p>settlements in the event of an inability to settle by the participant with the largest single settlement exposure.</p>	<p>withstand the failure of the largest single net debtor-underlying approach in many payments systems that settle on a net basis for limiting credit and liquidity risk</p> <p>(b) Access to liquidity in adverse circumstances</p> <p>2. Financial risks of the failure of more than one institution during the same business day</p> <p>3. Implications of more than one institution failing should be evaluated taking into account the benefits of reduced settlement risks and any other consequences such as for the management of liquidity.</p>	<p>(b) Section 18 of the RBI Act empowers the Central Bank to purchase, sell or discount any bill of exchange from a bank for the purpose of regulating credit.</p>	<p>(b) A contribution (Caps), should situation part of</p> <p>2. Need / multi-systems ability limits a where r</p> <p>3. As in</p>
<p>6. 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.</p>	<p><b>1. Whether the settlement asset used leaves the holder with significant credit risk</b></p> <p><b>2. Settle by offsetting one claim against another</b></p>	<p>1. Where the final settlement is effected in the books of the Central Bank – the holder faces no credit risk.</p> <p>2. There is no legal basis for such offsetting process.</p>	
<p>7. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.</p>	<p>1. <i>High degree of security and operational reliability</i></p> <p>2. <i>Contingency arrangements</i></p> <p>3. <i>Reliable technology and adequate back-up</i></p> <p>4. <i>Effective business procedures, well trained and competent personnel.</i></p> <p>5. <i>Degree of systemic importance of the</i></p>	<p>1. High degree of security and reliability is achieved with the state-of-the-art Cheque Processing Systems.</p> <p>2. In the unlikely event of any one system failure the provision of local back-up at major centres is available. The item-based magnetic media clearing software is another contingency measure.</p> <p>3. Proven technology applied for Payment Systems with adequate back-up facilities in the local centre as well as in the remote centre</p> <p>4. Well laid out business procedures and trained and competent personnel to man the systems</p> <p>5. As indicated above</p>	<p>5. It is e</p>

	<i>system and the availability of alternative arrangements for making payments in contingency situations</i>		appropri reductio would l situatio
8. The system should provide a means of making payments which is practical for its users and efficient for the economy.	<p>1. Interest in the efficiency of the system for operators, users and overseers</p> <p>2. Use fewer resources</p> <p>3. Trade-off between minimizing resource costs and other objectives such as maximizing safety</p> <p>4. System which is consistent with the demands of the market</p> <p>5. To provide a given quality of service in terms of functionality, safety and efficiency at minimum resource cost.</p> <p>6. Where systems have inadequate intra-day liquidity mechanisms, they can face a risk of slow turnover or even gridlock</p> <p>7. The design of the Payment System should be appropriate for the country's geography, its population distribution and its infrastructure</p>	<p>1. Central Bank as the overseer of the payment system has taken several initiatives to increase efficiency of the system by inducting technology and changes in procedures. The commercial banks as participants are effective partners in this process.</p> <p>2. The system of Currency Chests and the Remittance Facilities Scheme of the Central Bank enables faster movement of funds and results in the use of fewer resources by the participants.</p> <p>4. The Central Bank plays the dual role of a regulator and service provider. This is further combined with its developmental role in modernising the system.</p> <p>5. The Central Bank in its developmental role also acts as the service provider. In most cases, the initial capital investment for setting up a system is undertaken by the Central Bank with the running costs being shared among the constituents. This ensures that the resources available are judiciously used for the benefit of the system.</p> <p>6. The bulk of the transactions pertaining to cheque clearing are settled on a T+1 or T+2 basis. However, all large value customer payments and inter-bank payments are settled on value date leading to immediate turnover of funds. Thus situation of gridlock is avoided.</p> <p>7. As cash transactions are the major components for effecting payments, there is a well established network of Currency Chests across the country to take care of the customers payment needs. Similarly for settling transactions based on paper payment</p>	<p>2. It i underta payer facilitat market. RTGS system</p> <p>3. Effor Bank to Transfe incentiv</p> <p>4. Effor Bank to Transfe incentiv</p> <p>6. In j intra-da on a propose been t situatio</p> <p>7. Keep in tele and tak comput industry</p>



	<p>8. Design of systems should be flexible to adapt to the development of the market for payment services both domestically and internationally</p>	<p>instruments, a large number of clearing houses have been made operational. Inter-city funds transfers and settlement are also effected.</p> <p>8. The domestic payment system has been modernised in major centres with the state-of-the-art equipment using MICR technology. Similarly INFINET network would be increasingly used for all funds based and MIS applications.</p>	<p>group “INFIN network comme country inter-cit system to ful electror membe</p> <p>8. The Deferre systems take int convert cross b date. 7 paymer account Contin (CLSS) Straigh</p>
<p>9. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.</p>	<p>1. All access criteria should be stated explicitly and disclosed to interested parties</p> <p>2. The rules of the system to provide for clearly specified procedures for orderly withdrawal of participants</p>	<p>1. The access criteria laid down for becoming members of the clearing house are explicit and are disclosed. Constituents have to be banks fulfilling certain other minimum criteria. (This is not applicable in the case to Post Offices). For other players in the market such as PDs, SDs, MFs explicit rules of eligibility have been laid down by the Central Bank.</p> <p>2. The Model Uniform Rules and Regulations for Clearing Houses provide for orderly removal of a member from the clearing house in case its continuance may cause dislocation / risk to the smooth functioning of the system. Further, the Central Bank keeping in view the interests of systemic stability and risk containment and management may decide to place a bank under moratorium or under liquidation. In such situations, the bank is not permitted to participate in clearing. Usually such decisions are communicated to the clearing houses well in time.</p>	
<p>10. The system’s governance arrangements should be effective, accountable and transparent.</p>	<p>1. Need for effective, accountable and transparent governance</p>	<p>1. The clearing house is an association of member banks governed by the Uniform Rules and Regulations of the Clearing House. It has a Standing Committee for day to day governance and a General Body where all major decisions are discussed and approved by the members. The members enter into contracts with the bank managing the clearing house wherein the duties and responsibilities are clearly spelt out.</p>	

	<p>2. Proper incentives for management</p> <p>3. Management to have appropriate tools and abilities to achieve the systems objectives</p> <p>4. Governance arrangements should provide accountability to owners</p>	<p>2. The Standing Committee and the General Body provides proper incentives for management as all members actively participate in decision making</p> <p>3. The President of the Clearing House in coordination with the Standing Committee / General Body has the powers to suspend members from participation in the clearing keeping in view the interests of the system as a whole</p> <p>4. The Uniform Rules and Regulations ensure accountability to the system as a whole and not to the owners as there are no private service providers.</p>	
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