

## B. Electronic funds transfers

### Report of the Secretary-General (A/CN.9/278) [Original: English]

#### INTRODUCTION

1. The Commission, at its fifteenth session in 1982, had before it a report of the Secretary-General which considered several legal problems arising out of electronic funds transfers (A/CN.9/221). In the light of those problems, the report suggested that, as a first step, the Commission should prepare a legal guide on the problems arising out of electronic funds transfers. The guide, it was suggested, should be oriented towards providing guidance for legislators or lawyers preparing the rules governing particular systems for such transfers.

2. The Commission accepted that recommendation and requested the secretariat to begin the preparation of a legal guide on electronic funds transfers in co-operation with the UNCITRAL Study Group on International Payments.<sup>1</sup> Several chapters of the draft legal guide were submitted to the Commission at its seventeenth session in 1984 (A/CN.9/250 and Add.1 to 4) and the remaining draft chapters were submitted to the Commission at its eighteenth session in 1985 (A/CN.9/266 and Add.1 and 2).

3. At its eighteenth session, the Commission requested the Secretary-General to send the draft Legal guide on electronic funds transfers to Governments and interested international organizations for comment.<sup>2</sup> It also requested the secretariat, in co-operation with the UNCITRAL Study Group on International Payments, to revise the draft in the light of the comments received for submission to the nineteenth session of the Commission for consideration and possible adoption.

#### A. Draft Legal guide on electronic funds transfers

4. Replies have been received from eight Governments<sup>3</sup> and seven international intergovernmental or non-governmental organizations.<sup>4</sup> The unanimous response was that the draft Legal guide was a useful tool for legislators

<sup>1</sup>Report of the United Nations Commission on International Trade Law on the work of its fifteenth session, *Official Records of the General Assembly, Thirty-seventh Session, Supplement No. 17 (A/37/17)*, para. 73.

<sup>2</sup>Report of the United Nations Commission on International Trade Law on the work of its eighteenth session, *Official Records of the General Assembly, Fortieth Session, Supplement No. 17 (A/40/17)*, para. 342.

<sup>3</sup>Australia, Germany, Federal Republic of, Hungary, Japan, Mexico, Netherlands, Tonga, United Kingdom of Great Britain and Northern Ireland. In addition to the replies from Governments, the secretariat has received a reply from the French Association of Banks and a report on "Electronic Funds Transfers in Belgium", prepared by the National Bank of Belgium, which bases its discussion of possible improvements in the rules governing electronic funds transfers on the Legal guide.

<sup>4</sup>Economic Commission for Africa, Economic Commission for Europe, Economic Commission for Western Asia, Commission of the European Communities, Organization for Economic Co-operation and Development, International Chamber of Commerce, Latin-American Federation of Banks.

and lawyers preparing the rules governing particular funds transfer systems. The replies from several Governments show that the list of legal issues contained in the final chapter (A/CN.9/266/Add.2) serves as a useful basis for consideration of the issues involved in preparing new legislation or the adaptation of existing legislation. Requests for copies of the final text of the Legal guide have been received from governmental and non-governmental sources in a number of countries.

5. The replies of Australia, Federal Republic of Germany and the United Kingdom contained suggestions for clarification of certain points in the draft chapters. These suggestions form the basis of the proposed modifications to the draft chapters as contained in the annex to this report. In addition to the modifications set forth in the annex, the annex to the chapter on Finality of Funds Transfer, entitled "National experience in reducing system risk", will be modified when the final text is prepared to reflect the current status of developments in the countries considered. Review of the draft chapters has also revealed several corrections of an editorial nature to be made to the final text.

6. The Commission may wish to consider adopting the Legal guide on electronic funds transfers and requesting that it be published in an appropriate manner.

#### B. Preparation of model rules

7. During the discussions leading to the decision to prepare the Legal guide on electronic funds transfers at the fifteenth session of the Commission in 1982, "several representatives expressed the view that the Guide might show areas in which the Commission could in the future prepare uniform rules. It was suggested that such uniform rules might be in the nature of a model law, which would be of particular value to developing countries, or might concentrate on certain aspects of international electronic funds transfers".<sup>5</sup> The Commission may wish to consider whether it would now be appropriate to begin the preparation of uniform rules and, if so, the nature of those rules.

8. Preparation of the Legal guide has confirmed the general conclusions found in the report of the Secretary-General to the fifteenth session of the Commission that electronic funds transfers have developed in a partial legal vacuum (A/CN.9/221, para. 82). Although basic banking procedures are the same whether a funds transfer is made by paper-based means or electronically, and as a

<sup>5</sup>Report of the United Nations Commission on International Trade Law on the work of its fifteenth session, *Official Records of the General Assembly, Thirty-seventh Session, Supplement No. 17 (A/37/17)*, para. 70.

result many of the rules governing paper-based funds transfers can be applied to electronic funds transfers with appropriate results, many other rules should be reconsidered in the light of the new banking and legal environment. Decisions should be made as to such matters as the legal value to be given to the authentication of an electronic funds transfer instruction, the right of a bank to debit an account when the customer denies having issued an electronic funds transfer instruction and there is no independent paper record, and the frequency at which and the means by which a bank must inform a customer of debits or credits to his account and the obligation of the customer to inform the bank of errors.

9. To the extent that the use of electronics has led to changes in banking procedures, new legal rules are needed. It has been noted, for example, that rules as to the finality of a funds transfer have usually assumed a procedure whereby amounts were debited and credited to the customers' accounts throughout the banking day as funds transfer instructions were received by the bank, a process that is not followed in regard to most electronic funds transfers at the present time.<sup>6</sup> More strikingly, in those countries that in the past have relied on cheques (a form of debit transfer) for all or most non-cash funds transfers, there may be no body of law currently available to govern credit transfers, which are the most important form of electronic funds transfers.

10. These developments have led several countries to consider whether and to what extent the existing law should be modified.<sup>7</sup> It could be expected that in the near future other countries will embark on a similar review of the adequacy of the existing law in this area. Co-ordination of these national efforts would reduce the likelihood of incompatible legal regimes.

11. The vast increase in volume and in value of international electronic funds transfers has also increased the desirability of considering the adoption of a new legal regime to govern such transfers. The Commission is eminently well placed to undertake the task.<sup>8</sup>

12. The nature of the payment system is such that a legal regime governing international electronic funds transfers must either be restricted to limited aspects of the inter-bank relationship, similar to the coverage of the S.W.I.F.T. rules,<sup>9</sup> or it must create a substantially complete legal regime governing the rights and obligations of

the banks' customers as well as of the banks. The undertaking of the latter task would be similar in scope to the preparation of the draft Convention on International Bills of Exchange and International Promissory Notes.

13. Another possible approach, and one that might be thought to be preferable, would be to undertake the harmonization of rules in national legal systems governing both domestic and international electronic funds transfers. Such an approach can aim at the same result for electronic funds transfers on a world-wide scale that was achieved 50 years ago by the Geneva system for negotiable instruments within countries of the civil law tradition, i.e. reduction of legal problems arising in international funds transfers by harmonizing and modernizing domestic law.

14. Such a goal is ambitious. It might also be thought that the proposal to prepare model rules for electronic funds transfers is both premature and too late. The proposal might be thought to be premature because the technology and the resulting banking practices are still in a state of rapid flux.<sup>10</sup> It might be too late because, even though electronic funds transfers are a relatively new phenomenon in themselves, in countries where electronic funds transfer systems have already been implemented, they reflect the banking and legal environment already in place. Rules governing electronic funds transfers must be in conformity with that banking and legal environment. As a consequence, a legal regime designed especially for electronic funds transfers may be accepted most easily by countries which do not have a highly developed electronic funds transfer system already in place.

15. These difficulties could be overcome by preparing model rules that were flexible. Solutions could be drafted in such a way that they did not depend upon specific technology. Where two or more solutions seemed desirable because of the differences in banking systems, the model rules could present those solutions as alternative texts. While this would reduce the degree of harmonization that might be achieved by preparation of the rules, the number of points on which alternatives would be necessary might not be excessively large since there appears to be common agreement on many important issues. Where there is no common agreement, presenting alternative solutions might serve to enhance the utility of the model rules as a guide to national legislation in this field.

16. If the Commission accepts the suggestion that it undertake the preparation of model rules on electronic funds transfers, it may wish to assign the task to the Working Group on International Negotiable Instruments. It might wish to decide that the Working Group should begin its work by considering the legal issues set forth in the last chapter of the Legal guide as well as any other issues the secretariat might believe to be appropriate to place before the Working Group at that time.

<sup>6</sup>Chapter on "Finality of funds transfer", A/CN.9/266/Add.1, paras. 31-47.

<sup>7</sup>In addition to the report of the National Bank of Belgium, note 3, above, see the report from Australia of the Working Group Examining Consumer Protection Aspects of Electronic Funds Transfer Systems, which considers many basic aspects of the law governing funds transfers from the viewpoint of their impact on consumers. The preparation of a new law for large-value electronic funds transfers has been undertaken in the United States of America.

<sup>8</sup>The comments submitted by Hungary, Mexico and the United Kingdom anticipate the receipt of suggestions as to possible further steps that the Commission might take following preparation of the Legal Guide.

<sup>9</sup>The draft inter-bank compensation rules currently being prepared by the Commission on Banking Technique and Practice of the International Chamber of Commerce are of this nature.

<sup>10</sup>The comments of the Federal Republic of Germany state that for these reasons the preparation of rules by the Commission would not be desirable at this time.

## ANNEX

**Proposed modifications to the draft chapters of the legal guide on electronic funds transfers as contained in A/CN.9/250/Add.1 to 4 and A/CN.9/266/Add.1 and 2***A/CN.9/250/Add.1: "Terminology used in this guide"*

1. Paragraph 3, last sentence: delete the words "and will include the terms defined in this guide".

2. Paragraph 5, last sentence should read as follows:

"BIS has also published a monograph entitled 'Security and Reliability in Electronic Systems for Payments' (3rd ed., 1985)."

*A/CN.9/250/Add.2: "Electronic funds transfer systems in general"*

3. Paragraph 23, last sentence should read as follows:

"Even when a clearing-house established net balances for the participating banks, it does not affect the relationship between sending and receiving banks except as to the means of settlement and the consequences of a failure to settle."

4. Add a new paragraph 28a immediately following figure 4.

"28a. In a second commonly used pattern the inter-bank relationships are in the form of a triangle. The transferor bank instructs the transferee bank to credit the transferee's account and informs the transferee bank that it will be reimbursed by credit to its account with intermediary bank. By a second message, transferor bank instructs intermediary bank to debit its account and to credit transferee bank's account. The inter-bank messages are completed by a credit advice from intermediary bank to transferee bank, with appropriate references to the prior messages permitting reconciliation of the accounts."

5. Add a new section D as follows:

*"Credit cards and debit cards"*

"39a. The origins of credit cards and debit cards lay outside the banking system. As a result, they took on certain special characteristics which continue to apply today. The most evident of these characteristics are the names given to the two types of cards, the confusion over the proper distinction between them and the fact that the clearing channels are distinct from the clearing channels for other payment mechanisms.

"39b. Credit cards evolved from the credit tokens or cards issued by certain merchants to identify customers who were authorized to purchase on credit. The distinguishing feature of the travel and entertainment cards, which first appeared in the 1950's, and the bank-issued credit cards, which first appeared in the 1960's, was that the cards could be used with a large number of merchants. However, those cards retained the impor-

tant characteristic that they gave access to a line of credit and the debit was not made to the customer's current account in a bank. Therefore, in order for the customer to discharge his obligation arising out of use of the card, a separate funds transfer in favour of the card issuer had to be made.

"39c. If the debit arising out of use of the card is made to a current account in a bank, rather than to a separate credit card account, the transaction is usually referred to as a debit card transaction. Since the use of some cards can give rise to a debit to either type of account depending on varying circumstances, it can be difficult at times to distinguish between a debit card and a credit card. The legal significance of distinguishing between them normally lies in that credit card transactions may be subject to provisions of consumer credit legislation whereas debit card transactions are usually treated as funds transfers. In those countries where this distinction is made, a statutory definition of the two terms can be expected.

"39d. When first developed, credit cards were used to create paper-based debit transfer instructions, and this use is still common for both credit cards and debit cards. These paper-based debit transfer instructions are usually transmitted between banks and other financial institutions by special clearing channels. It is common for them to be truncated early in the clearing process and for only the essential data to be sent forward to the institution holding the customer's account. The addition of magnetic stripes to the back of cards, and more recently the addition of micro-circuit chips, has permitted them to be used as access devices to various forms of electronic funds transfers."

6. Paragraph 49, last sentence should read as follows:

"The category of customer-activated electronic funds transfers might also be considered to include the preparation by the customer of computer memory devices containing debit or credit transfer instructions and the lodgement of those devices with the bank or, where permitted, directly with the automated clearing house."

*A/CN.9/250/Add.3: "Agreements to transfer funds and funds transfer instructions"*

7. Paragraph 13, last sentence should be deleted and replaced by the following:

"It is also followed in respect of cheques in an increasing number of countries including Belgium, Denmark, the Federal Republic of Germany and Sweden, while other countries such as Australia, France and Switzerland are planning to introduce this procedure."

8. Paragraph 32, add the following to the end of the paragraph:

"More advanced telecommunication networks record the calling line identity as part of their normal opera-

tion and this information can be made available to the called terminal. Not only would an intruder on the system have to simulate the authentication procedures, but he would have to do so on a line normally used by an authorized user."

9. Paragraph 46, second sentence should read as follows:

"Where the transfer is identified only by account number, [...] the bank can identify the account to be debited only by reference to that number and it is believed that in most States this practice is legally justified either under general principles of law or as a result of contract between the bank and the customer."

10. Paragraph 49, last sentence: the words "(with the current exception of France and the United Kingdom)" should be deleted.

11. Paragraph 53, last sentence should read as follows:

"The incompatibility of formats may preclude the clearing [...] or limit the access [...]"

12. Paragraph 56, third sentence: delete the words "(e.g. S.W.I.F.T. and, in a different sense, CHIPS)".

13. Paragraph 69 should read as follows:

"In many parts of continental Europe it is common practice in an inter-bank transfer to credit the transferee's account with an interest date one or two banking days subsequent to the entry date. The time can stretch to four calendar days over an ordinary weekend. This period of one or two banking days is intended to allow the transferee bank to receive settlement from the transferor bank prior to the date on which the transferee would begin to earn interest. The funds can be withdrawn or transferred to another account immediately. However, they do not draw interest until the indicated interest date. Moreover, if they are withdrawn before that date, the customer is charged for the relevant period. This practice assures the banks a minimum period during which neither bank is paying interest on the amount transferred in addition to any period of time necessary to make the transfer."

*A/CN.9/250/Add.4: "Fraud, errors, improper handling of transfer instruction and related liability"*

14. Paragraph 17, third sentence should be deleted and replaced by the following:

"In some proposed home banking systems it would not be feasible to use a plastic card for authorization purposes; therefore the authorization procedure may depend on the use of a PIN or password alone. In other systems the PIN or password, which the customer uses over a period of time, may be combined with a transaction number which is unique to that transaction."

15. Paragraph 24, sixth sentence should read as follows:

"However, an encryption standard which is highly secure today may be rendered insecure within a few years by the development of more powerful computers allowing exhaustive search for encryption keys or, in the case of public key cryptosystems, by the development of new techniques for factoring the large numbers on which they are based."

16. Paragraph 36, last two sentences should be deleted and the following inserted:

"However, errors in a fully automatic system are much harder to prove, especially where only one transaction has been affected. Accordingly, the question of allocation of responsibility for any losses arising is itself a serious problem for the customer. Other types of error may affect many customers because of the extremely large numbers of transactions processed by computer. Furthermore, because of the increasing complexity of computer systems now in use or planned for the future, it is virtually impossible to validate them completely. As a result, there is a possibility of massive failure out of all proportion to prior experience and it is essential that fallback positions be prepared by banks for this eventuality."

17. Paragraph 61, add a new sentence at the end as follows:

"Such disclaimer provisions should be drafted in clear and unambiguous terms so that customers can know precisely for which circumstances and types of loss the bank or other party will, or will not, accept liability."