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INTERNATIONAL ELECTRONIC FUNDS TRANSFER SYSTEM: SWIFT AND ITS INTERFACE WITH THE NEW PAYMENTS CODE

Thomas J. Karl*

I. INTRODUCTION

Increase in international trade and travel in recent years has increased the volume of international payments, most of which have traditionally been handled by commercial banks.¹ Because paper provided the legal basis for these transactions, they were carried out via fairly complicated documents transmitted by mail. When the sums involved were very large or the time factor particularly important, Telex was used to expedite the procedure.²

These factors compelled the banking world to develop a computerized international transfer system.³ The desired system would facilitate processing international transactions through 1) a high degree of standardization in the types of documents, procedures, and security measures to be adopted; and through 2) the establishment of standards for the various parameters involved, such as currency and country codes, commission, etc.⁴ In addition, the system

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1. Trolle-Schultz, INTERNATIONAL MONEY TRANSFER DEVELOPMENTS, 9 J. Bank Research 73, 75 (1978). The author compares the speed of three methods, viz., bank drafts, air mail and electronic funds, of transforming funds in the context of steadily increasing international payments.


4. Id. at 7.
would have to expedite the vast body of transactions conducted by mail and would not be limited to the operations already handled by the Telex System. Furthermore, the system would eliminate a large number of errors, through the use of an automatic message system between the switching network and central computers of participating banks. Finally, tedious manual checking would have to be precluded by this system.

The international electronic funds transfer system, specifically known as the Society for World Wide Interbank Financial Telecommunication System ("SWIFT"), fulfills these requirements. This article will describe the SWIFT System, examine the manner in which risk of financial loss in fund transfer is currently allocated and determine how these losses would be allocated under the New Uniform Payments Code (New Payments Code).


7. The New York Clearing House Association's Clearing House Interbank Payments System CHIPS) is another international electronic funds transfer system. See Kutler, SWIFT U.S. Center to Start Up in February; Bank Connections Slated for 1980-81, Am. Banker, Dec. 4, 1979 at 3, col. 3. Because CHIPS is of limited use, however, this article will analyze the SWIFT system.

In the C.H.I.P.S. System, the Network's Central Clearinghouse keeps a record of messages and at the end of each day determines the net debits and credits of each member bank with the other member banks. The C.H.I.P.S. System is a clearinghouse system servicing only New York Banks. The clearinghouse transmits summary reports to each member bank and, on the next business day, sends a copy of this information to the Federal Reserve Bank of New York. Since SWIFT is only a message-switching network, however, it does not provide settlement services and each member bank must balance its accounts with correspondents. Some day, SWIFT might interface with a settlement system such as CHIPS or Federal Wire. See Fed. may link transfer net to C.H.I.P.S., American Banker, Nov. 16, 1979, at 1, col. 4.

8. Permanent Editorial Board for the Uniform Commercial Code, New Payments Code (1981) [hereinafter referred to as NPC]. The Permanent Editorial Board is an organization created by the American Law Institute and the National
II. THE SWIFT SYSTEM

SWIFT is a non-profit cooperative company organized under Belgian law, and wholly owned by over 1,044 member banks. SWIFT presently operates throughout Western Europe and North America, and is being extended to include the Far East, Mexico and South America. Every year shareholders elect a Board of Directors, which has the power to implement changes in provisions governing SWIFT's allocation of liability, to admit new members, to expel members, and to choose a General Manager.

The SWIFT System is thus an international transaction processing network owned by and serving the financial community world-wide. The System provides its users with a communication service for transactions previously sent by mail, Telex or cable. Message text standards have been designed, and users are able to transmit all types of customer and bank transfers, including foreign exchange, confirmation, credit/debit confirmations, statements, collection, letters of credit and documentary credits.
All SWIFT messages consist of an envelope bearing routing and system information, and the text. For each type of message, a defined format specifies a number of fields the presence of which may be mandatory or optional. Field contents are governed by rules in the message text standards.

A standard message, such as a payment order, takes less than forty-five seconds to be transmitted, compared with two to three minutes by Telex. If over 2,000 messages daily are hypothesized, SWIFT is obviously a substantial time saver. Speed, however, is not the most significant consideration. A greater advantage is that all messages are sent and received in a standardized format, eliminating ambiguity. Both sender and receiver understand exactly what the message says. This is not the case with messages sent by Telex.

Another attribute of the SWIFT system is that no time is spent decoding and checking for authenticity. The SWIFT system has a built in authenticator. This alone saves one, perhaps, one and one-half hours. Fraudulent misrepresentations are not possible. SWIFT is a sealed system, only member banks have access to its network. Banks can transmit payment messages ordering fund transfers in a wide variety of currencies. Settlement between the banks is effected by debits and credits to correspondent accounts. For example, if a Brussels bank wishes to transfer $500,000 to John Smith, a customer at a London

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15. Id. at 15.
16. Illustration was obtained from C. Reuterskiöld, supra, note 9, at 11.
17. SWIFT Information Brochure, supra note 3, at 4.
18. Id. at 6.
19. C. Reuterskiöld, supra note 9, at 11.
20. Id. at 12.
Bank, for deposit in the London bank's New York correspondent bank, the Brussels bank orders the New York bank to credit the London bank's account. If there are sufficient funds in the Brussels bank's account, the New York bank settles by debiting the Brussels bank's account and crediting the London bank's account.

Frequently, a bank wishing to make a transfer does not have a correspondent relationship with any banks with which the transferee has an account. If, for example, the aforementioned Brussels bank does not have an account with the New York bank that holds the London bank's account, (New York Bank B) the Brussels bank must settle the transfer through one of its correspondents (New York Bank A) which does have an account with New York Bank B. To transfer the funds to the London bank's account, New York Bank A debits Brussels bank's account. New York Bank B then debits New York Bank A's account and credits the London bank's account. Thus, the intended transfer from the Brussels bank's account to the London bank's account can be settled through New York Bank A's correspondent relationship with New York Bank B in New York.

The terminal operator in Brussels first enters the payment message in standardized format, as facilitating automated processing by SWIFT and the New York Bank. The message travels in seconds through the nation's lines to a regional processor, which collects all of the transactions in a given state. There, the messages are encoded and sent to an operating center which decodes

21. H. Lingl, supra note 6, at 624.
them and processes the transaction. Messages are then encoded again before transmission on international based lines to the regional processor in the receiving bank's state. If a message cannot be transferred, the sending bank receives notification on an "undelivered message" report.

The development of commercial and industrial information systems has required improvement in the methods used for the transfer of funds and fund information. Generating and moving paper wastes time and manpower. Of necessity, banks have found methods to automate processing payment instructions. A system that will accept automated input, transmit and receive information, and emit data in a form that can be fed directly to an automated processing system can offer improved efficiency and lower cost operation. With its multiple interfaces and message format standards, SWIFT provides the link to connect the automated systems of various banks. It is a vital component in the progress of international electronic funds transfer.

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23. C. Reuterskiöld, supra note 9, at 19.
24. The "undelivered message report" is issued to each sending bank once every 24 hours. It notifies the bank of all messages that have been sent by that bank that have not yet been delivered to their destinations. Usually these messages are undelivered simply because the receiving bank is logged out at the time that the report was issued. SWIFT, Information Brochure, supra note 3, at 15.
25. C. Reuterskiöld, supra note 9, at 10.
III. LIABILITY UNDER THE SWIFT SYSTEM

A. Types of Potential Losses

There are at least three types of losses a SWIFT participant may suffer: principal losses, interest losses, and losses resulting from foreign exchange fluctuations. Principal losses may arise if the funds of an erroneous transfer become unrecoverable following withdrawal from the account to which they were deposited. An interest loss, on the other hand, is caused by delays in the transfer process. For example, if $500,000 is transferred out of a customer's account and is not properly transmitted because of delay for one day, the amount that the $500,000 could earn in that one day is lost. Finally, foreign exchange losses are the result of a delay in the transfer coupled with a change in exchange rates. For example, if a Brussels bank transfers dollars to a London bank through SWIFT and the transfer is delayed, the London bank must obtain the dollars from another source. If the value of the dollar has risen, foreign exchange loss may result.

Questions have arisen regarding consequential losses. Under section 421(6) of the New Payments Code which is

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29. Id.
30. NPC § 421(6).
based on U.C.C. section 4-103(5), a transmitting account institution should not be at risk for consequential damages, absent bad faith of the other parties. This is because of the large number of orders which such institutions process, and the lack of any special knowledge concerning the parties to the order.

A recent court decision is consistent with this provision of the New Payments Code. In *Evra Corp. v. Swiss Bank Corp.*, a charter party had attempted to pay $27,040.62 by wire on its contract to Pandora. The charter party had lost its rights to a time charter as a result of a Swiss Bank's failure to order payment to Pandora's account at the Banque de Paris et des Pays Bas, S.A., in Geneva. Damages consisted primarily of earnings plaintiff would have made had the time charter continued. The court, applying New Payments Code section 421(6), held the bank not liable for $2.1 million in consequential damages claimed by Evra Corporation. This rule explicitly excludes consequential damages unless bad faith is proved.

It is to be noted, however, that section 421 of the New Payments Code also establishes a consequential damage rule for account institutions which fail to post timely credits to the accounts of their customers. Thus, the result in *Evra Corp. v. Swiss Bank Corp.* would have differed had Pandora held its account with the Swiss Bank Corporation.

The aforementioned losses may be caused by a delay in transmission, introduction of faulty information, or

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32. NPC § 421(6).
34. See NPC § 421(6), comment.
a participant's inability to settle the day's transactions. Delay and faulty information may arise from hardware or software failure, mistakes by personnel involved in processing the transaction, or fraud.

For purposes of this analysis of liability, the transfer of funds by the SWIFT system can be divided into a three-stage process:

(1) The period prior to the release of the message;
(2) The period between the release of the message and the receipt of the message at the receiving bank's interface; and
(3) The period after receipt of the message. 36

The introduction of faulty information at any one of these three stages can cause losses. As a general rule, it seems that the SWIFT network should bear the risk of loss at stage two, the sending bank at stage one, and the receiving bank at stage three. 37

B. Error Caused by the SWIFT Network

SWIFT assumes liability for certain interest losses which it may cause by 1) "SWIFT system or personnel failure," by 2) messages which, though acknowledged by the system, are not delivered and do not appear on SWIFT's "undelivered message" report; and by 3) its failure to promptly notify members of operating center and regional processor failures. 38


37. Id. See also SWIFT, Information Brochure, supra note 3, at §§ 5, 6, 7(5).

The SWIFT User Handbook states that SWIFT will be liable for "direct loss or damage sustained by a member due to a "negligent act, error or omission by SWIFT in failing to perform the services as set forth in the User Handbook," or its failure to maintain the security procedures outlined therein. SWIFT's rules limit liability for "direct loss or damages" to nonrecoverable losses of funds representing the principal of a transfer message and interest losses associated with such losses. SWIFT expressly disclaims liability for any consequential damages other than interest losses. Moreover, it disclaims liability for the negligence of a user, the lack of cooperation between users, and a user's failure to follow the procedures in the User Handbook, provided such failure is established as an essential element that caused the loss or damage incurred.39

SWIFT's liability for its own errors and omissions is limited to 400 million Belgian francs.40 This limit is for any one loss or series of losses arising out of the same event. In the case of several claims for principal losses arising from a single event which affected a number of messages whose total amounts exceed the aforementioned maximum, the amount so claimed is apportioned among the participants on the basis of the principle amount of the message for which the claims have been made.

39. Id.
C. Bank Originated Error

1. Originating Bank Liability

The originating or sending bank, as the cheapest cost avoider, should bear the risk of errors arising prior to release of a message. Similarly, the receiving party should bear the risk for errors arising after its receipt. The New Payments Code, as well as recent case law, is consistent with this allocation.

Swift has developed a set of rules for allocating liability for lost interest between banks. The sending bank is liable for interest losses resulting from delays if it enters a message in an inappropriate format or if SWIFT fails to acknowledge the transmission of a message. The sending bank is also liable if SWIFT acknowledged a message and that message subsequently appeared on the "undelivered message" report and SWIFT did not respond to an urgent message, if the sending bank failed, or if a regional processor or operating center is not functioning.

The sending bank in all of these cases is the cheapest cost avoider because it is in the best position to reduce the probability that messages will be transmitted in an inappropriate format, and is in the best position to take

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41. To minimize costs, the operating risks involved in an electronic fund transfer system should be allocated efficiently. This allocation is grounded on two principles. The first is that the risk of loss should be placed on the party in the best position to discover and prevent defects and omissions. This is known as the "cheapest cost avoider." Secondly, strict liability should be imposed on the cheapest cost avoider when that party is also best able to absorb and spread losses. H. Lingl, supra note 6, at 631-32.

42. NPC §§ 401, 300, 302, 205.

remedial action if SWIFT fails to acknowledge or respond to transmission of a payment message, or if it has received notification that a bank has failed or that a regional processor or operating center is not functioning.

The New Payments Code agrees with the imposition of liability for errors upon the sending or transmitting bank. Section 204 places liability upon the transmitter for any transmissions which have been materially altered. The transmitter is liable to all prior transmitters as well as all subsequent transmitters. The measure of damages under section 204(4) is limited to "the amount paid on the order, plus interest calculated on the basis of the average Federal Funds Rate, as published by the Federal Reserve Banks of New York..."45

Sections 401 and 411 together establish liability for delayed transmissions. Section 401 specifies which transmission delays are precluded from liability. Basically, a delay is excused only if there has been good faith effort to transmit the order. Furthermore, under section 401(3), if the customer is advised in advance that the order will be impeded, there is no reliance. So long as there is an alternative means to send the order, there is no liability.46

On the other hand, the NPC contains no section which specifically discusses unexcused delays. This should be a refinement included in the next revision. Only section 411 appears to establish liability, and the measure of damages is established in section 411(6) as the "amount which could not have been realized by acting in accordance with

44. NPC § 204(6).
45. NPC § 204(4).
46. NPC § 401.
reasonable commercial standards, plus interest calculated on the basis of the average Federal Funds Rate, as published by the Federal Reserve Bank of New York...."

Where there is bad faith, the measure of damages includes actual loss, if any, suffered by the party as a proximate consequence. 47

Institutions under the 300 series of the New Payment Code are liable for errors in their transmissions. 48 "Errors" are defined in section 300, while section 302 provides for prompt investigation and provisional adjustments. 49 Section 302 limits the amount of the error (as defined in section 300) to the lesser of the amount of the error or $500. This obviously is to prevent fraudulent claims. For example, if an unlimited dollar amount were allowed, a person could claim an error of $10,000. The bank would provisionally credit his account with $10,000 and the claimant could abscond with the money.

The New Payments Code also establishes liability, as do the SWIFT rules, where a bank transmits funds ordered by its customer to the wrong person. Under section 205, if a bank sends a wire ordered by its customer to the wrong person, the payor account institution is liable. The amount of such damages shall not exceed the amount of the order as drawn (which is presumed to be the amount of the order), plus interest. 50

As previously stated, the New Payments Code for the most part is in accord with SWIFT rules, placing liability on the sending or transmitting bank for its errors.

47. NPC § 411.
49. NPC §§ 300, 302.
50. NPC § 205.
However, there are minor differences that justify revision if the New Payments Code is to be applied to SWIFT transactions.

2. **Receiving Bank Liability**

The rules of the SWIFT system also impose liability on the receiving bank for errors caused by the receiving bank if it fails to carry out the payment due in the message, to react to system messages promptly, to reconcile incoming messages according to sequence numbers, or to follow SWIFT's terminal connection policy.\(^{51}\)

The New Payments Code parallels the SWIFT rules regarding the receiving bank's liability.\(^{52}\) Section 204(3) imposes liability on a receiving bank to all funds transferors (or sending banks up the line) who have given value on that order. The receiving bank is liable if it fails to give value on the order in accordance with the terms of the order as transmitted to it by the drawer or sending bank.\(^{53}\)

The comment to section 204 of the New Payments Code provides an example.\(^{54}\) Norway asks the Brown Bank to wire funds to Scott at the Potter Bank. The Potter Bank, when it gets the wire, will be a funds transferee (receiving bank) and the Brown Bank is the last prior funds transferor (sending bank). If the Potter Bank does not give the funds to Scott, (either because of the Potter Bank's mistake or because the order was altered at some time after leaving Brown Bank) the Potter Bank is liable.

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52. NPC §§ 204, 205, 421, 401.
53. NPC § 204.
54. NPC § 204, comment.
This is because as a funds transferee it has not given value on the order in accordance with the order sent by the Brown Bank. Moreover, the Brown Bank can enforce this liability if the originator of the transfer demands a re-credit. Just such a situation occurred in Shrewsbury v. Dupont National Bank.\(^5\) The sending bank, upon re-crediting its customers account, was entitled to indemnification from the receiving bank for an error caused by the receiving bank.\(^56\)

Under section 204, damages shall not exceed the amount of the order as drawn, which is presumed to be the amount paid on the order, plus interest.\(^57\)

As in the case of a sending bank, section 205 also imposes liability on the receiving bank for having ultimately paid the wrong person. Section 205(1) provides:

> Any person which gives value on or for an order to any person except the claimant or an account institution transmitting or receiving funds on its behalf is liable to the claimant...\(^58\)

This section establishes liability of a receiving account institution which pays an order to any person except the payee or funds transferee (the claimant).

Finally, sections 401 and 411 together impose liability on the receiving bank when a delay occurs.

D. Fraud

Although fraud and error may be difficult to distinguish at times, informed bankers no longer doubt that

\(^{55}\) 10 F.2d 632 (D.C. Wis. 1927).
\(^{56}\) Cf. Restatement (Second) of Agency § 478, Comment f (1958).
\(^{57}\) NPC § 204.
\(^{58}\) NPC § 205 (emphasis added).
computer crime represents a significant problem, so banks take substantial security measures. 59

SWIFT rules do not interfere with the principle that liability for fraud occurring at a bank should be placed on that bank. SWIFT assumes the risk of loss due to fraud by its employees, agents or subcontractors arising out of the operation or maintenance of regional processors, operating centers, communication facilities and transmission lines but disclaims liability for "fraud involving persons not directly or indirectly employed by SWIFT". 60 Consequently, SWIFT is not liable for fraudulent transfers introduced by non-SWIFT personnel. Moreover, SWIFT limits its liability for fraudulent transfers to one billion Belgian francs. 61 Although these disclaimers affect only unusual instances of fraud, to create the optimal incentive to prevent fraud, SWIFT should bear the risk of fraudulent transfers introduced by non-personnel.

In general, the allocation of liability for fraud contained in the SWIFT rules appears to be consistent with the prescriptions for allocating liability to the cheapest cost avoider. However, SWIFT should bear the risk of loss caused by fraudulent activities that alter information in messages after release from the sending bank and before receipt by the sending bank.


60. SWIFT User Handbook at § 7, ch. 7, paragraph 2.21(c).

61. Id. at paragraph 2.3.
IV. LEGISLATIVE RESPONSES TO THE INTERNATIONAL ELECTRONIC FUND TRANSFER

There is as yet no codification of rules for participants in an international electronic funds transfer system. Several reasons could justify codification of the rights and liabilities of participants in such a system. Legislation could increase economic efficiency by shifting liability to the cheapest cost avoider where the parties fail to do so by private agreement. In addition, a codification could clarify expectations of liability, eliminate uncertainties created by different substantive provisions in national laws, and structure a set of uniform rights and obligations not expressly agreed to by the participants.

Legislation specifically addressing electronic funds transfer has been limited. The United States enacted the Electronic Fund Transfer Act in 1978, which concerns consumers' rights and specifically excludes interbank transfer. The scope of federal regulations dealing with interbank fund transfer is limited to bank use of the Federal Reserve Communication System. Moreover, the Uniform Commercial Code fails to define the obligations and rights arising from electronic fund transfer among banks involved in an international network.

The New Payments Code appears to be the most useful codification of rights and liabilities of participants in a fund transfer system. The advantage of the New Payments Code is that it provides legislation regarding interbank electronic fund transfer. There is no other legislation currently in effect.

The primary benefit of international codification of laws regarding electronic funds transfer is that such an effort would eliminate uncertainty created by differing substantive provisions of national laws. In addition, such a codification could be an effective means of unifying the laws applicable to different payment systems.

The main source of the uncertainty is absence of a single code or law applicable to every transaction. National laws apply differently to transfers originating or transmitted to different nations although the transfers are otherwise identical. Thus, the outcome of litigation may depend upon the forum.

In addition to conflicting substantive provisions, there is even dispute over the principle which should determine applicable law. Some courts have characterized electronic orders as executory contracts and have held that the governing law is that of the place where the contract is to be performed. Others have applied the law of the place where the customer paid for the transfer.


68. Lingl, supra note 6, at 623.

Clearly this uncertainty would be reduced by drafting a uniform code of liability. However, it is questionable whether the New Payments Code will be utilized in the international context because of the uniformity that is required in the international setting. Incorporating the New Payments Code by reference is a possible solution. In any event, it is almost certain that the New Payments Code will make substantial contributions by clarifying the rights and liabilities governing bank-to-bank, bank-to-merchant and bank-to-consumer transactions.

V. CONCLUSION

Because of the recent growth of international trade, the steady increase in the value of international payments, and the emphasis on speedy transmissions, a more efficient transfer system in the banking world was needed. International electronic fund transfer systems like SWIFT were therefore implemented, making a substantial impact on the international transfer of messages and funds.

In turn, this recently implemented electronic network rendered the need for an international codification of laws imperative. Such legislation would eliminate ambiguities created by differing substantive provisions in national laws. In addition, such a codification could be an effective means of unifying the laws applicable to different payment systems.

The New Payments Code, as analyzed within this paper, parallels the current decisions and private rules in the international electronic fund transfer system. It specifically addresses interbank transfers in a national
perspective, but, more importantly, provides a framework through which disputes in interbank transfers can be resolved in an effective manner. Whether the New Payments Code will be adopted internationally is questionable. In the event it is not, it almost certainly will provide a framework for drafters of an international code.