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Exchange Losses from International Electronic Funds Transfers: Time to Unify the Law

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I. INTRODUCTION

A significant and increasing percentage of international interbank fund transfers are now transmitted electronically.[1] Two organizations process the majority of electronic funds transfers ("EFTs"): the Society for Worldwide Interbank Financial Telecommunications ("SWIFT")[2] and the New York Clearinghouse Association's Clearinghouse Interbank Payments System ("CHIPS").[3] Neither of these organizations is currently subject to any international regulation,[4] and courts consistently

[1] *Banking Technology: The Interbank Networks*, EUROMONEY, Jan. 1982, at 128 [hereinafter *Banking Technology*].

[2] The Society for Worldwide Interbank Financial Telecommunications ("SWIFT") is a private organization composed of over 1000 member banks worldwide, and acting exclusively as a communication or message switching network for its members. N. PENNEY & D. BAKER, THE LAW OF ELECTRONIC FUND TRANSFER SYSTEMS ¶ 24.02(1)(b)(1980 & Supp. 1985). SWIFT members settle fund transfers through the use of corresponding bank account relationships, and SWIFT itself merely transmits instructions. SWIFT does not itself transfer the money from one bank to another. *See* Comment, *The Courts and CHIPS, SWIFT & FEDWIRE: A Proposal for Filling the Regulatory Gap*, 2 INT'L PROP. INV. J. 271, 276-79 (1984)[hereinafter Comment, *Filling the Gap*]; Comment, *Risk Allocation in International Interbank Electronic Fund Transfers: CHIPS & SWIFT*, 22 HARV. INT'L L.J. 621, 622-26 (1981)[hereinafter Comment, *Risk Allocation*].

[3] The New York Clearinghouse Association's Clearinghouse Interbank Payments System ("CHIPS") differs substantially from SWIFT. *See supra* note 2. CHIPS, as its full name suggests, is a clearinghouse through which transfers are actually effectuated and settled. Settlement of transfers takes place at the end of each day through a special deposit account created exclusively for CHIPS by the Federal Reserve Bank of New York. Comment, *Risk Allocation*, *supra* note 2, at 628-29. Transferor banks (those in a debit position with regard to EFTs processed that day) must pay money into the Federal Reserve account, and transferee banks (banks in a credit position) receive money from the Federal Reserve account. *Id.* CHIPS is responsible for about 90% of all international interbank funds transfers; it is also estimated that the SWIFT communications network handles about 75% of the messages involved in this clearing procedure. Byler & Baker, *SWIFT: A Fast Method to Facilitate International Financial Transactions*, 17 J. WORLD TRADE L. 458, 461-62 (1983).

[4] Both CHIPS and SWIFT handle domestic transfers as well as international transfers. Domestic transfers may be subject to national regulatory measures, but these measures generally do not apply to international transfers. For example, the Electronic Funds Transfer Act ("EFTA"), 15 U.S.C. § 1393 (1980), regulates only consumer transactions, not corporate EFT transactions. Comment, *Filling the Gap*, *supra* note 2, at 291-92. *See generally* Tallackson & Vallejo, *International Commercial Wire Transfers: The Lack of Standards*, 11 N.C.J. INT'L L. & COM. REG. 639 (1986).

apply common law principles in resolving disputes arising from international EFTs.[5]

The most common disputes arising from international EFTs involve failures or delays in transfers, or a combination of the two.[6] Losses attributable to these breaches or delays may include losses to principal, interest losses due to delayed receipt of transferred funds, and losses resulting from foreign exchange rate fluctuations between the expected and actual time of receipt.[7] Resolution of these disputes requires the determination of party liability and culpability for the losses.

While several proposals exist to attach principal and interest loss liability variously to the parties involved in the transfers,[8] no proposal has yet considered the losses attributable to fluctuating exchange rates.[9]

For a comparison of domestic EFTs and corporate EFTs, see Trotter, *Is Corporate EFT Coming of Age?*, 2 COMP. L.J. 87 (1983).

5 *See generally* Comment, *New SWIFT Rules on the Liability of Financial Institutions for Interest Losses Caused by Delay in International Fund Transfers*, 13 CORNELL INT'L L.J. 311, 315-20 (1980)[hereinafter Comment, *New SWIFT Rules*]; Tallackson & Vallejo, *supra* note 4, at 639-66; Comment, *Filling the Gap, supra* note 2, at 290.

6 Among other things, liability may result from: 1) improper transmissions; 2) erroneous information supplied by a participating bank or the central system (CHIPS or SWIFT); or 3) a participant's inability to settle the day's transactions. *See* Comment, *Risk Allocation, supra* note 2, at 630-31; N. PENNEY & D. BAKER, *supra* note 2, at 24-26. The failure to settle is usually caused by the insolvency of either the transmitting or receiving bank. Comment, *Risk Allocation, supra* note 2, at 631-44. Delays and faulty information may arise from systems failure, fraud, negligence, or force majeure. *Id.*

Force majeure results when "a part of the contract cannot be performed due to causes which are outside the control of the parties and could not be avoided by exercise of due care." BLACK'S LAW DICTIONARY 581 (5th ed. 1979). Losses due to force majeure are common when a country undergoes a violent change in leadership. Most recently, exchange losses were found to have been due to force majeure when the communist takeover of South Vietnam caused closings of branches of United States banks. *See* Vishipco Line v. Chase Manhatten Bank, 754 F.2d 452 (2d Cir. 1985); Trinh v. Citibank, 623 F. Supp. 1526 (D.C. Mich. 1985).

7 Comment, *Risk Allocation, supra* note 2, at 630. Losses may also include consequential damages. *See* Evra Corp. v. Swiss Bank Corp., 522 F. Supp. 820 (N.D. Ill. 1981)(consequential damages recoverable), *rev'd*, 673 F.2d 951 (7th Cir.), *cert. denied*, 459 U.S. 1017 (1982).

8 *See* Comment, *Risk Allocation, supra* note 2, at 631-33 (liability should be allocated according to principles of economic efficiency); Comment, *Filling the Gap, supra* note 2, at 290-301 (procedural and substantive review should be implemented to insure cost-effectiveness in liability allocation); *see also* SOCIETY FOR WORLDWIDE INTERBANK FINANCIAL TELECOMMUNICATIONS, USER HANDBOOK § 7 (1981)(incorporating Special Newsletter: Responsibility and Liability (SWIFT Board Paper 185, Apr. 1979))[hereinafter SWIFT USER HANDBOOK].

9 The United Nations Commission on International Trade Law ("UNCITRAL") recently recognized that "[w]ith exchange rates currently fluctuating daily, customer claims for reimbursement of exchange losses arising out of late payments are a more frequent occurrence." *Report of the Secretary General: Electronic Funds Transfer, reprinted in* 1982 U.N.Y.B. 276, 283, U.N. Doc. A/CN.9/221 [hereinafter *Secretary General's Report*]. It was ultimately concluded, however, that "[i]t would be premature . . . to attempt to unify the law in respect of electronic fund transfers at present . . . ." *Id.* This conclusion was based on the finding that "technology and the associated banking practices are rapidly changing, threatening to make obsolete any new legal rules which might be

It has been suggested that the SWIFT rules on allocation of interest losses might be extended to cover exchange losses,[10] but no such extension has occurred to date. Moreover, these rules would be inadequate to deal with exchange losses.[11] While extending the SWIFT rules would be useful in determining who should carry the risk of exchange loss,[12] such rules do not provide a means to determine the *extent* of liability for such losses.[13] As a result, even if the SWIFT rules were extended to govern exchange loss disputes, additional provisions specifically tailored to the exchange loss problem would still be needed.

This Comment suggests that uniform international rules dealing with the EFT exchange loss problem would improve and facilitate dispute resolution in this area. A uniform rule of law, if properly formulated, could be expected to reduce float,[14] forum shopping, and risk speculation in the courts. Most importantly, uniform rules would provide all parties involved in EFTs—including the transferor, the transferee, the clearinghouses (such as CHIPS), and the message switching networks (such as SWIFT)—with certainty as to the circumstances and extent of their potential liabilities.[15]

An essential element in allocating liabilities for exchange rate fluctuation losses under a uniform rule is the establishment of "time of pay-

developed even before they come into force . . . ." *Id.* Apparently, the United Nations advocates that each and every country having banks engaging in foreign interbank fund transfers develop its own laws to deal with the peculiar legal issues involved in EFTs. Such an approach can only add to the confusion.

10 Polo, *The Quality of Today's International Transfers*, in SOCIETY OF WORLDWIDE INTERNATIONAL FINANCIAL TELECOMMUNICATIONS, SWIFT INTERNATIONAL BANKING OPERATIONS SEMINAR 1981 117 (1981)[hereinafter SIBOS '81]; Comment, *New SWIFT Rules*, *supra* note 5, at 325-26; Comment, *Risk Allocation*, *supra* note 2, at 636.

11 *See infra* notes 81-115 and accompanying text.

12 *See infra* notes 116-23 and accompanying text.

13 *See infra* notes 124-34 and accompanying text.

14 In general banking practice, float has been defined as "[t]he time between when a check is written and when such check is actually deducted from bank account." BLACK'S LAW DICTIONARY 576 (5th ed. 1979). In the context of EFTs, this definition can be interpreted as describing the time between when a transfer is sent and when it is credited to the transferee's bank account. Both the transferor and the intermediary network can benefit by float. If the intermediary does not deduct from the transferor's account until payment is accepted by the transferee, the transferor has use of the transfer money during this float time. If the intermediary deducts from the transferor's account when the transfer is initiated and credits the transferee's account when accepted, the intermediary has use of the money during this period. However short this period may be, when all transfers are aggregated the potential interest and exchange gains to the floating parties and losses to the transferees are staggering. Uniform rules allocating liability for this float activity can be expected to reduce its prevalence.

15 Float would be reduced as parties to an EFT would be deterred from delaying a transfer due to sanctions imposed by the rules. Choice of forum activity would be reduced as all rules would be universally applied without regard to the forum. Certainty would be provided simply because all EFTs would be employing the same rules of law.

ment."[16] Interest loss cases are analogous, as time of payment must be determined to establish the point from which interest is to be accrued. The calculation of interest damages, however, depends only on the length of the delay.[17] Once this time is established, interest in any jurisdiction can be computed from the time of expected performance to the time of actual payment. In contrast, the calculation of exchange losses involves a *comparison* between exchange rates at the time of expected performance and at actual performance. Determining time of payment alone dictates only what has already been paid.[18] The loss due to the exchange rate differential between the time of expected and actual payment must still be determined.

Depending on the jurisdiction in which suit is brought, foreign currency damage determinations may be based on the law of the chosen forum,[19] the forum chosen by contract,[20] or a contractual provision placing risk of loss on a particular party to the transfer.[21] Further, different jurisdictions may require that judgments be paid in a particular currency,[22] with different rules regarding applicable exchange rates.[23] A

[16] The determination of time of payment actually involves two questions: "First, when does the sending bank become bound to its payment message? Second, when, if ever, may the bank receiving the message to pay refuse to honor the payment request?" Comment, *Risk Allocation*, *supra* note 2, at 651. *See also Secretary General's Report*, *supra* note 9. *See generally* Comment, *New SWIFT Rules*, *supra* note 5, at 318; N. PENNEY & D. BAKER, *supra* note 2, at 24-16.

[17] *See* Comment, *New SWIFT Rules*, *supra* note 5, at 318 n.52.

[18] *See infra* notes 59-69 and accompanying text.

[19] For a discussion of choice of law theories and their relevance in the determination of currency exchange damages, see Comment, *Conversion of Judgments Measured in Foreign Currencies*, 39 WASH. & LEE L. REV. 165 (1982)[hereinafter Comment, *Conversion of Judgments*]. Courts have often ignored the parties' chosen forum, however, and have held the governing law to be the law of the place where the contract was to be performed. *See, e.g.*, Richard v. American Union Bank, 241 N.Y. 163, 149 N.E. 338 (1925). The law of the place where the customer paid for the transfer has also been selected over the parties' choice. *See, e.g.*, American Union Bank v. Swiss Bank Corp., 40 F.2d 446 (2d Cir. 1930).

[20] In Deutsche Bank Filiale Nurnberg v. Humphries, 272 U.S. 517 (1926), the United States Supreme Court based its damage determination on an obligation arising under West German law, the appropriate law as provided in the contract.

[21] In Delbrueck & Co. v. Manufacturers Hanover Trust Co., 609 F.2d 1047 (2d Cir. 1979), the court found the sending bank bound to a CHIPS transfer upon release of the funds, pursuant to the court's interpretation of the then prevailing CHIPS rules. *See infra* note 80.

[22] To date, no United States court has granted judgment in foreign currency. This "home currency judgment rule" has been attributed both to case law, dating back at least to the decision of Justice Holmes in *Deutsche Bank*, 272 U.S. 517, and statutory law, dating back to the Currency Act of 1792, An Act Establishing a Mint, and Regulating the Coins of the United States of 1792, 1 Stat. 246, 250, (codified as amended at 31 U.S.C. § 1501 (1982)). For a discussion of the genesis of the rule, see Brand, *Restructuring the U.S. Approach to Judgment on Foreign Currency Liabilities: Building on the English Experience*, 11 YALE J. INT'L L. 139, 157-63 (1985); *see also* Association of the Bar of the City of N.Y., *Foreign Currency Judgments: 1985 Report of the Committee on Foreign and Comparative Law*, 18 N.Y.U.J. INT'L L. & POL. 791, 795-99 (1986)[hereinafter *N.Y. Bar Report*]; Effros, *The Legal Nature of Obligations Payable in Foreign Currencies*, 11 N.C.J. INT'L L. & COM.

uniform rule which specifically delineates both the basis of damage determinations and the applicable exchange rule would thus reduce both confusion and conflict in the courts.

This Comment is divided into four parts. Section II briefly characterizes the nature of the foreign exchange loss problem in EFTs.[24] Section III broadly reviews the current law respecting exchange losses and discusses the increased complexity of the exchange loss problem due to the introduction of message-switching and clearinghouse intermediaries in EFTs.[25] Section IV reviews and evaluates the proposal to extend the SWIFT interest loss allocation rules to the exchange loss problem, ultimately concluding that the proposal does not sufficiently resolve the exchange problem as it relates to EFT intermediaries.[26] Finally, Section V presents two alternatives to deal specifically and exclusively with the allocation of exchange loss liability resulting from delays in EFTs.[27]

II. The Nature of the Problem

EFT exchange losses commonly arise whenever there is a delay in a transfer simultaneous to an increase (or decrease) in the value of the currency being exchanged ("transferor's currency").[28] When this is the case, any party involved in an EFT has the potential to cause exchange losses. Losses may result from: 1) the transferor's failure to effectuate the transfer according to the terms of its contract with the transferee, or at the applicable time as provided in the contract; 2) the intermediary's fail-

REG. 445 (1986). Four individual states, including New York, presently require judgment to be granted in United States dollars only.

23 According to current United States case law, if a foreign currency liability arises in the United States, the breach-date rule applies. Hicks v. Guinness, 269 U.S. 71 (1925). *See generally* Brand, *supra* note 22, at 141; Comment, *Conversion of Judgments, supra* note 19, at 170; Comment, *The Need to Retreat from Inflexible Conversion Rules—An Equitable Approach to Judgment in Foreign Currency*, 22 SANTA CLARA L. REV. 871, 873 (1982)[hereinafter Comment, *Inflexible Conversion Rules*]. The breach-date rule provides for exchange damages as of the date of breach. If a foreign currency liability arises in a foreign jurisdiction, the judgment-date rule applies, providing exchange damages as of the date of judgment. *Deutsche Bank*, 272 U.S. at 519. *See generally* Brand, *supra* note 22, at 141; *Conversion of Judgments, supra* note 19, at 170; *Inflexible Conversion Rules, supra*, at 881-82.

In Miliangos v. George Frank (Textiles) Ltd., 1976 A.C. 443 (H.L. 1975), the English House of Lords adopted the execution-date or payment-date rule, whereby defendant could choose to pay the plaintiff either in foreign currency or the equivalent amount in domestic currency on the date of payment. *See infra* text accompanying note 136. For discussions of the development of English law, see Brand, *supra* note 22, at 143-54; Comment, *Inflexible Conversion Rules, supra*, at 887-90.

24 *See infra* notes 28-41 and accompanying text.

25 *See infra* notes 42-69 and accompanying text.

26 *See infra* notes 70-115 and accompanying text.

27 *See infra* notes 116-49 and accompanying text.

28 *Secretary General's Report, supra* note 9, at 280.

ure to transfer the funds in accordance with its own guidelines, as incorporated in its contract with the transferor (if the contract with the intermediary does not provide a fixed time for transfer, any "unnecessary" or "unreasonable" delay causing exchange damages to either the transferor or transferee would normally lead to a breach of duty/negligence claim); or 3) the transferee's failure to accept the transfer at the time it is notified of the exchange and given the opportunity to accept payment.

There are three types of fund transfers: cash exchanges, credit transfers, and debit collections.[29] Exchange losses can arise when any of these methods is employed, though that potential increases as the number of intermediaries involved in the transfer rises. Direct cash exchanges occur when the transferee has an account with the transferor bank and the transferor simply instructs the bank to transfer funds into the transferee's account. Credit transfers are only necessary when the transferee does not have an account in the transferor bank, and the transferor bank instructs another bank (the transferee bank) to pay the transferee. The transferor bank is then obligated to pay the transferee bank the amount of the transfer.[30] The EFT is a debit collection if the transferor is required to make payment to a special deposit account held by an intermediary, such as the CHIPS fund.[31] The amount of the transfer is then debited from the fund and paid over to the transferee bank at the time the transferee instructs the intermediary that it accepts payment.[32]

Settlement of the transferor's obligation depends upon the transferor bank's relationship to the transferee bank. A transferor bank that has an account in the transferee bank may simply instruct the transferee bank to debit its account for the sum due.[33] If the transferor bank does not have such an account, or if the funds in such an account are insufficient to satisfy the indebtedness, the transferor bank can further instruct payment through correspondent banks.[34] Finally, payment can be made through

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29 *Id.* at 273-75. Most EFTs involve credit transfers. In any transfer the party seeking to transfer funds, whether a client of a bank or the bank itself, is termed the transferor (as generally used in CHIPS transactions) or sender (as generally used in SWIFT transactions). The bank, whether acting for itself or on behalf of a non-banking client, is termed the transferor bank (in a CHIPS transaction), or transmitting bank or sending bank (in a SWIFT transaction). The party to receive the transferred funds is termed the transferee or receivor, and its bank is termed the transferee bank or receiving bank.

30 *Id.* at 273-74.

31 *See supra* note 3.

32 *Secretary General's Report, supra* note 9, at 274-75.

33 Comment, *Risk Allocation, supra* note 2, at 625.

34 Correspondent banks are those in which both the transferor and transferee have accounts. The correspondent bank debits the transferor bank's account and credits the transferee bank's account. *Id.*

a clearinghouse such as CHIPS if both banks are members or have correspondent bank relationships with other banks that are members. In most instances the transferor bank would simply pay the amount due into the CHIPS fund, and CHIPS would then send payment to the transferee bank.[35] Matters may be complicated, however, if the transferor bank does not have sufficient funds to pay in full into the CHIPS account. The transferor might first need to engage in and settle other transfers as transferee before it can settle its account with the original transferee bank.[36]

At present, neither SWIFT nor CHIPS handles direct foreign currency exchanges.[37] SWIFT merely transmits instructions to transfer in the currency supplied by the transferor bank. CHIPS, on the other hand, collects and disburses all funds through its special account in United States dollars.[38] It is not the dealing in foreign currencies that may subject these organizations to currency exchange liabilities, however, but the control of the fund's disposition. The banks involved in EFTs may necessarily enter the foreign exchange market in order to transfer funds. Once in that position, their ability to meet their obligations may be altered by the combination of delays in the transfer of funds and fluctuating exchange rates.

Consider an example involving a CHIPS transfer. If a Swiss bank's transfer of dollars to a West German bank through CHIPS is delayed, the West German bank may try to obtain the dollars by other means in order to meet its own payment obligations. If the dollar has risen during the delay, the West German bank will incur an exchange loss when it obtains these replacement funds. However, once the delayed transfer has been completed, the West German bank may well be able to transfer the dollars received back into marks at the higher rate. A drop in the value of the dollar *after* the West German bank's "cover," however, may revive the loss since the transferred funds will be worth less than at the time of cover. At the same time, a combination of the Swiss bank's delay and the dollar's rise may have caused it to incur a higher obligation in francs

35 *Id.* at 628.

36 *Id.* at 628-30.

37 SWIFT is contemplating entering into the foreign exchange market. Such an expansion of operations is likely to take a great deal of money and time, and is not expected to occur anytime in the near future. *Banking Technology*, *supra* note 1, at 133.

38 As a member of the New York Clearinghouse Association, CHIPS is subject to the laws of the State of New York. New York law requires judgment to be granted in United States dollars. N.Y. JUD. LAW. § 27 (Consol. 1975). Interestingly, the New York Clearinghouse Association was a driving force behind the New York legislature's "deletion of language in section 3-107(2) of the Uniform Commercial Code, which had expressly provided for the payment in foreign currency of instruments denominated in that currency." *N.Y. Bar Report*, *supra* note 22, at 798. *See also* Brand, *supra* note 22, at 175.

before exchanging into dollars. Thus, one of the parties will have suffered a loss.[39] Transfers utilizing SWIFT would operate similarly, with SWIFT merely sending a message effectuating the transfer rather than actually handling the money.

At present neither SWIFT nor CHIPS has adopted rules that allocate this exchange loss risk.[40] Conceivably, the loss incurred in these situations, given the relatively short time of delays, may be too small to warrant the costs of litigation.[41] Judicially implemented risk allocation thus fails to ensure that exchange losses are borne by the party causing them. This practical limit of the law subjects the entire EFT system to tremendous potential abuses. Moreover, as discussed below, the difficulty in simply attempting to apply existing judicial rules to the EFT exchange loss case creates severe problems of its own.

III. State of the Law: Judgments on Foreign Currency Liabilities

Generally, the various jurisdictions apply three rules when determining exchange losses: the breach-date rule, the judgment-date rule, and the execution-date rule.[42] The effect of these rules depends upon whether the forum permits judgments entered in foreign currencies or requires judgment in the home currency only.[43] Each of the rules provides an equitable allocation of liabilities only in certain circumstances.[44] Courts have thus applied different rules in different circumstances, and no clearly defined or preferred rule has evolved either domestically, within single jurisdictions, or internationally.[45] While detailed explanation of these rules is beyond the scope of this Comment,[46] a brief descrip-

39 *See, e.g.*, Henne, *Foreign Exchange*, in SIBOS '81, *supra* note 10, at 59.

40 Comment, *Risk Allocation*, *supra* note 2, at 636.

41 Of course, if the exchange losses are tied in with other losses, namely principal and interest losses, litigation may be justified.

42 *See supra* note 23. The breach-date rule provides that a plaintiff entitled to a sum certain in a foreign currency will receive the home currency value of that amount converted at the applicable exchange rate on the date of breach. The judgment-date rule converts the foreign currency to the home currency at the exchange rate prevailing on the date of judgment. The execution-date rule, alternatively termed the satisfaction-date rule or payment-date rule, converts the currency award on the date of execution.

43 *See supra* note 22.

44 *See* Brand, *supra* note 22, at 177-81; Comment, *Inflexible Conversion Rules*, *supra* note 23, at 891-93; Comment, *Conversion of Judgments*, *supra* note 19, at 174. *See also infra* notes 47-55 and accompanying text.

45 This is evidenced by the dual approach of the United States federal courts, utilizing both the breach-date rule and judgment-date rule in varying circumstances. *See supra* note 23.

46 *See* Brand, *supra* note 22, at 139; Comment, *Inflexible Conversion Rules*, *supra* note 23, at 871.

tion of each is necessary.

A. The Typical Exchange Case: Application of the Breach-Date, Judgment-Date, and Execution-Date Rules

Foreign exchange problems most often arise in the sale of commodities denominated in foreign currencies.[47] When a buyer breaches an obligation to pay in a foreign currency, the seller often seeks recovery in its home currency. If the home currency has appreciated or depreciated in value since the date of contract, then either seller or buyer may receive a windfall depending on the rule employed by the forum.

If the home currency rule is employed in the seller's forum and this currency has appreciated in value, application of the breach-date rule would yield the best return for the seller—payment in the foreign currency to be converted into the home currency at the exchange rate on the date of breach.[48] Since the home currency has appreciated by the date of judgment or execution, application of either the judgment-date or execution-date rule would result in the seller's receiving a lesser amount of the home currency, determined by converting the foreign currency to the home currency at a time when the exchange rate is higher. Application of the breach-date rule, while providing the seller with the greatest return, does not necessarily create the most *equitable* result, however. If the seller here intended to use the foreign currency as a commodity (in order to be exchanged for home currency), then the breach-date rule does provide equity because the seller is awarded the same amount of the home currency it would have received had the foreign currency payment been received on time and then converted to home currency. If, however, the seller intended to use the foreign currency as cash (in order, for example, to purchase goods in the foreign state), then the value of the foreign currency should bear no relation to the value of the home currency. In this circumstance, seller is treated equitably whenever the loss experienced in terms of the foreign currency is fully compensated. As a result, the execution-date rule provides equity by awarding the seller the same purchasing power on the date of execution as it would have received had payment been timely.[49]

If the home currency has depreciated in value, application of the

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47 *See generally* Comment, *Inflexible Conversion Rules*, *supra* note 23, at 873-74.

48 The assumption made here is that the home currency continues to appreciate over time. Hence the rate of exchange (the amount of the foreign currency needed to purchase one unit of the home currency) will be lower on the date of breach than it would on either the judgment date or execution date. *Id.* at 875-76.

49 *See generally id.* at 874-75.

execution-date rule would yield the best return for the seller,[50] though again not necessarily the most equitable return.[51] In either case, application of the judgment-date rule would rarely result in the best return for either party,[52] and never result in the most equitable return.[53] The inequities of any one rule's universal application has led to two results. First, the courts apply different rules depending on the circumstances of the case.[54] Second, different courts apply more than one rule in similar circumstances.[55] Extending these rules to EFTs creates even more problems.

B. A Typical Exchange Case Involving an Electronic Funds Transfer

A typical EFT utilizing the CHIPS system involves a transferor and transferee from two different countries, and, because the CHIPS system requires it,[56] the use of United States dollars.[57] Suppose Swiss Bank wishes to send German Bank DM 4,000,000 through CHIPS in settlement of an obligation. The transfer is to take place on a Friday afternoon. Suppose further that at the time of the transfer the dollar has a value equal to DM 4. Swiss Bank deposits $1,000,000 into the CHIPS fund, but CHIPS delays paying German Bank and does not complete the transfer by the close of business Friday. The following Monday, the transfer is finally completed, but during the delay[58] the dollar has fallen

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50 The assumption here is that the home currency continues to depreciate. Hence the rate of exchange will be lower on the execution date than it would on the earlier judgment date or breach date.

51 If seller intended to use the foreign currency as a commodity to trade for home currency, it would be more equitable to convert the currencies at the rate of exchange prevailing on the breach date.

52 The judgment-date rule can provide the best return to the buyer if the home currency appreciates up to judgment date and then depreciates thereafter. It can provide the best return to the seller if the home currency depreciates up to judgment date and then appreciates thereafter.

53 *See supra* notes 48-49 and accompanying text.

54 *See supra* note 23.

55 Federal courts apply the judgment-date rule in some circumstances and the breach-date rule in others. *See supra* note 23. In contrast, the New York courts, since Kantor v. Aristo Hosiery Co., 222 A.D. 502, 226 N.Y.S. 582 (1928), have applied the breach-date rule in all circumstances. *See* Comment, *Inflexible Conversion Rules, supra* note 23, at 878.

56 *See supra* note 38.

57 A typical EFT utilizing the SWIFT system may involve a foreign transferor, a foreign transferee from a country other than the transferor's, the use of any currency desired by the parties, and the existence of other intermediaries such as correspondent banks, or even CHIPS, depending on the way in which the parties wish to transfer the money once the messages are sent. Transfers utilizing SWIFT may be exceedingly more complex than those utilizing CHIPS alone. For the sake of simplicity, the only typical exchange case involving an EFT that is presented here is one involving a CHIPS transfer. Nonetheless, the same questions and problems that arise in transfers utilizing CHIPS also arise in transfers utilizing SWIFT.

58 The length of the delay, of course, depends on when payment should have been made. From

to DM 3. When German Bank finally receives payment, the $1,000,000 is worth only DM 3,000,000, and German Bank sues CHIPS and Swiss Bank for DM 1,000,000. Putting aside the problem of allocating liability between the two defendants, application of the traditional exchange rules causes obvious problems.

The first problem involves the determination of the breach date. Most EFTs do not contractually stipulate time of payment.[59] Since the breach derives from negligence rather than from contract, a fixed time at which either defendant breached its duty cannot be found. Though it may be determined when payment was actually made ("time of performance"), this will not always help determine whether there was a breach. Thus the debate over "time of payment" in the EFT adds a new dimension to the currency exchange problem that is not present in the typical exchange case—namely, the need to determine when payment "should" have been made.[60]

If time of payment is deemed to be the time at which the transferor commences the transfer procedure,[61] then any exchange rate fluctuation between this time of payment and the time of performance gives rise to

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the time CHIPS collects the money from the transferor until the time it pays the transferee (the float period, *see supra* note 14), there is a delay. In a sense, then, every EFT involves a delay. Most delays, however, will be so short and the losses attributable to them so small, that the injured party will not bother litigating unless the exchange losses are tied in with other losses (such as interest losses) or unless one of the parties simply wants out of the transfer. The amount of the loss will depend on: 1) the amount of the principal sum transferred; 2) the period of the delay; and 3) the amount of exchange rate fluctuation occuring over that period.

59 There may be an underlying contract with a specified time of payment, the obligations of which the EFT is intended to satisfy. This specified date does not affect the determination of the breach date. While the breach of duty by the intermediary in the EFT—the delay in the transfer of funds—may have caused a breach of the underlying contract, the breach of the intermediary does not hinge on the time of payment in the underlying contract. For example, if Swiss Bank sought to pay an obligation early in order to take advantage of a beneficial exchange rate and payment was delayed by the intermediary until the due date, losses may have been incurred by Swiss Bank even though payment was timely according to the underlying contract.

60 There are various times at which payment may be determined to be final. The earliest point is the time at which transferee sends notice to the transferee bank, as in the Federal Reserve's FEDWIRE system which handles EFTs between banks with Federal Reserve accounts. *Secretary General's Report, supra* note 9, at 276. Other times include: 1) the time at which the sending bank releases the transfer message, *Delbrueck*, 609 F.2d 1047; 2) the time at which the receiving bank receives the transfer message, Buffalo Insulation Distrib. v. Marine Midland Bank, (N.Y. Sup. Ct., Apr. 11, 1972), *cited in Banking Decisions: Wire Transfer Complete Before Bookkeeping Entry*, 89 BANKING L.J. 851 (1972); 3) the time at which the receiving bank credits the transferee's account, Tenax S.S. Co. v. The Brimnes, 1973[1] All E.R. 769 (Q.B. 1973); and 4) the time at which the transferee is notified of the credit, Guaranty Trust Co. v. Lyon, 67 Misc. 334, 124 N.Y.S.2d 680 (Sup. Ct. 1953). *See generally* Comment, *Risk Allocation, supra* note 2, at 651; *Secretary General's Report, supra* note 9, at 276-77.

61 The transfer procedure generally commences upon the transferor's notification and instruction to the transferor bank of the anticipated transfer.

the breach-date measure of damages.[62] In the above example, time of payment would be the time at which Swiss Bank deposited the $1,000,000 into CHIPS, when the exchange rate was DM 4 to the dollar, while at the time of actual performance the exchange rate was only DM 3 to the dollar. Thus, German Bank would recover the equivalent of DM 1,000,000. This sum would be awarded in United States dollars according to New York law, and the rate of exchange would be computed as of the breach date. Thus German Bank would actually receive $333,333.33.[63] Applying the judgment-date and execution-date rules, damages would be measured by calculating the fluctuation between the date the transfer was effectuated and either the judgment date or the execution date.[64]

If time of payment is deemed to be when transferee actually receives payment, however, none of the three rules will yield exchange rate fluctuation damages.[65] There will be no liability for delay. In the above example, German Bank would therefore be forced to accept the equivalent of DM 3,000,000 actually received in the transfer.

Finally, there are several moments between the time the transfer is effectuated and when the transferee receives payment that might be deemed time of payment by a court.[66] These include: 1) the time CHIPS receives payment from the transferor; 2) the time CHIPS notifies transferee of receipt from transferor; 3) the time transferor's payment to CHIPS becomes irrevocable; and 4) the time transferee agrees to accept payment from transferor.[67]

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62 Though it appears contradictory, in this case the time of performance is the breach date, and both are distinct from "time of payment." This is in contrast to the typical exchange case, where time of payment is the contractually stipulated time at which payment was to be made, and failure to make payment at this time is a breach. Here the breach occurs only as a consequence of the change in exchange rate. Thus the breach arises only when the transfer goes through at an exchange rate different from that when it was sent, and the "breach date" is hence different from the time of payment.

63 The breach-date rule yields an exchange rate of DM 3 to the dollar, so a DM 1,000,000 recovery would yield $333,333.33.

64 If the dollar continues to fall and is only worth DM 2 on the date of judgment, the judgment-date rule would yield a recovery of $500,000. In this case, the transferee would have felt the same DM 1,000,000 loss on the date of breach, but by the judgment date this amount could be compensated only through payment of $500,000 due to the exchange rate at that time.

If the dollar has further fallen by the date of execution to only DM 1, the execution-date rule would compensate German Bank in the amount of $1 million, due to the 1:1 exchange rate at that time.

65 In this case, the time of payment would equal the above-determined breach date. *See supra* note 62. Thus there is no delay, and no liability for delay.

66 *See supra* note 60 for a listing of times that various courts have already deemed "time of payment."

67 Because a SWIFT transfer involves the exchange of numerous messages along with the ex-

The time of payment problem extends itself beyond the determination of damages to the question of which party to the transfer is liable. Once it is determined when payment should have been made, it is necessary to determine which party to the transfer was at fault in preventing the transfer from being completed at that time. As a result, the time of payment determination directs the court's attention to each party's duties throughout the course of the transfer. Another complicating element, then, is the role and potential liabilities of the intermediaries. In the example above, assuming German Bank is entitled to an additional DM 1,000,000 equivalent in dollars, who is liable—Swiss Bank or CHIPS? Should liability follow fault or is there an assumption of risk by Swiss Bank in utilizing the intermediary? Did German Bank itself assume the risk of loss by agreeing to accept payment via CHIPS? If CHIPS disclaims liability in its contract with Swiss Bank, is Swiss Bank necessarily liable? Was CHIPS really at fault in delaying payment to German Bank, or did it have valid security reasons for doing so?

The answers to these questions may depend on both the facts of the case and the chosen forum. All of the questions essentially collapse into one: in what circumstances and to what extent should the intermediary be held liable?[68] The speed of the EFT, the lack of written agreement between the transferor and the transferor bank regarding any particular transfer, the nature of EFTs as credit and debit transfers rather than cash transfers, and the increasing use of EFTs, all make immediate uniform resolution of the problem imperative. Moreover, as SWIFT and CHIPS themselves contemplate entering the foreign exchange market,[69] resolving the problem now would clarify their respective situations in the future.

IV. Extending SWIFT Rules on Allocation of Interest Losses to Allocation of Exchange Losses

At present, no statute governs international EFTs. As a result, only

change of funds, there are many other instances in a SWIFT transfer that could be deemed "time of payment."

68 The question is not exclusive to the EFT situation. Wire transfers and even in-hand deliveries of payments present the same question. At present, there is no available case law on the subject of exchange losses in EFTs. There is, of course, case law available on the subject of exchange losses in paper-based or mail transfers, but these cases do not address the relevant issue of finality of payment that is unique to the EFT. As a result, these cases will not be analogized. *See generally Secretary General's Report, supra* note 9, at 273.

69 Entrance into the foreign exchange market would involve the networks in currency swaps. Presently, of course, the networks' only involvement in foreign exchange dealings consist of facilitating transfers in which one or both of the parties intends, unknown to the intermediary, to effectuate an exchange of currencies either before or after the transfer.

private contracts and the courts allocate risks of principal, interest, and exchange losses associated with them.[70] SWIFT has promulgated its own rules and operating procedures to govern parties transferring through its network. These rules both delineate the responsibilities of the parties and fix liabilities for interest losses resulting from delayed transfers.[71] Although these rules and procedures could be extended to govern exchange losses,[72] such an extension alone would be inadequate.[73]

In contrast to the SWIFT rules, CHIPS disclaims liability for delay in any event, even if system error causes the losses.[74] Additionally, CHIPS retains liability for network-incurred fraud only up to the limits of a $25,000,000 insurance policy.[75] CHIPS also provides procedures for adjusting erroneous payments between banks through incorporation of the Council on International Banking ("CIB") Rules.[76] The CIB Rules "govern compensation for the lost availability [of funds] and do not apply to recovery of lost principal."[77] While the rules clearly contemplate interest losses, it is not clear whether they also apply to exchange losses. Moreover, even if the rules do apply to exchange losses, or can be extended to cover them, they would be inadequate insofar as CHIPS itself always disclaims liability.[78]

Only one court has thus far considered the enforceability of network rules and operating procedures. The United States Court of Appeals for the Second Circuit, in *Delbruek & Co. v. Manufacturers Hanover Trust Co.*,[79] upheld the irrevocability of a CHIPS transfer, thereby giving legal effect to the CHIPS rules defining finality of transfer.[80] Presently,

70 N. PENNEY & D. BAKER, *supra* note 2, at 24-6. *See generally* Annotation, *Duty and Liability of Bank Under Agreement to Remit Money or Establish Credit*, 45 A.L.R. 1052 (1926); Annotation, *Duty and Liability of Bank Under Credit Agreement to Remit Money*, 27 A.L.R. 1488 (1923). For case collections, see 10 AM. JUR. 2D *Banks* § 311-19 (1963); 7 C. ZOLLMAN, BANKS AND BANKING ch. 172, §§ 4751-62 (perm. ed. 1936 & Supp. 1954); 6 A. MICHIE, BANKS AND BANKING ch. 12, §§ 3-12 (rev. enlarged 1975 ed. & Supp. 1979); 9 C.J.S. *Banks and Banking* § 172 (1938); Tallackson & Vallejo, *supra* note 4, at 639-66.

71 SWIFT USER HANDBOOK, *supra* note 8. *See infra* note 81.

72 *See supra* note 10.

73 *See infra* notes 81-115 and accompanying text.

74 NEW YORK CLEARINGHOUSE ASSOCIATION, RULES GOVERNING THE CLEARINGHOUSE INTERBANK PAYMENTS SYSTEM, rule 15 (1981).

75 *Id.* rule 16(b).

76 *Administrative Procedure No. 2, Errors Other than System Caused*, in NEW YORK CLEARINGHOUSE ASSOCIATION, CHIPS ADMINISTRATIVE PROCEDURES, *adopted* Oct. 29, 1970. *See* COUNCIL ON INTERNATIONAL BANKING, INTERBANK COMPENSATION RULES (1980)[hereinafter CIB RULES]. Article III, ¶ 3 limits application of the rules to errors not caused by CHIPS.

77 CIB RULES, *supra* note 76, art. I.

78 Comment, *Risk Allocation*, *supra* note 2, at 640, 641.

79 609 F.2d 1047.

80 Delbrueck, a German banking house, entered into three foreign exchange contracts with Her-

neither SWIFT nor CHIPS have rules allocating risk of exchange loss, so there are no exchange rules for the courts to hold enforceable. On the basis of the *Delbruek* decision, however, it appears that if such rules are promulgated the courts would hold them enforceable.

The SWIFT rules presently allocate liability for interest losses due to late payment by delineating the responsibilities of each party to a SWIFT transfer.[81] In addition, SWIFT rules provide a procedure for

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statt Bank, a West German bank. *Delbrueck*, 609 F.2d at 1049. Two of these exchanges were due on June 26, 1974 (one for $2,500,000 and the other for $10,000,000). The third exchange, for $10,000,000, was due on June 27, 1974. *Id.* at 1049-50. According to the Circuit Court, the following events transpired:

> In accordance with the authorization procedures, Delbrueck sent a telex message to Manufacturers [Hanover Trust Company, a New York bank with which it had an account] on June 25, 1974 ordering Manufacturers to transfer, on June 26, a total of $12.5 million to Chase [Manhatten Bank, a New York bank with which Herstatt bank had an account] for the account of Herstatt. In addition, early on the morning of June 26, Delbrueck authorized the payment of $10 million due on June 27.
>
> Then the problems began. Herstatt was closed by the German banking authorities around 10:30 a.m. [EST] on June 26. Chase heard of the closing and immediately froze payments out of Herstatt's account but continued to accept incoming transfers. Delbrueck sent a telex message to Manufacturers at 11:30 a.m. requesting that the $10 million transfer to be made on June 27 be stopped. On June 26 Manufacturers transferred to Chase via the CHIPS system the payment which had been ordered to be made that day, namely, $10 million transferred at 11:36 a.m. and $2.5 million at 11:37 a.m. Delbrueck called Manufacturers at around 12:00 noon and later sent a telex message, trying to stop or recall the $12.5 million in payments which had already been made . . . . At around 9:00 p.m. the evening of June 26, Chase formally credited Herstatt's account with the $12.5 million.

Id. The issue in the case was "whether the transfer of funds via CHIPS at 11:36 and 11:37 were final." *Id.* at 1050. The court concluded that the transfers were final and irrevocable when sent:

> Although the Clearing House previously had no specific rule concerning the finality of CHIPS transfers, all member banks must have believed that once transfers were released, they were final, except for adjustments made for clerical errors. Delbrueck's conduct supports this fact, because it initially requested stop payment only on the $10 million to be paid on June 27, apparently believing that the June 26 transfers had been made and were irrevocable.

Id. The court further supported this holding by noting changes in the CHIPS rules after the Herstatt failure to allow revocation of transfers, by analogy to U.C.C. §§ 3-410 and 4-303, and by recourse to the common law treatment of choses in action. *Id.* at 1051.

81 Responsibilities are allocated as follows:

(1) The sending bank is responsible if:
   (a) SWIFT did not acknowledge the message,
   (b) it received an acknowledgment, but the message appeared on the report of undelivered messages,
   (c) it entered an urgent message, but received no delivery notification from SWIFT,
   (d) it entered a message in an inappropriate format,
   (e) it failed to react promptly to a SWIFT notification that a bank, regional processor, or operating center is not functioning;
(2) The receiving bank is responsible if:
   (a) it failed to carry out the payment date instructions in the message,
   (b) it failed to react promptly to system messages,
   (c) it failed to reconcile adequately incoming messages according to sequence numbers, or
   (d) it failed to adhere to SWIFT's terminal correction policy;
(3) SWIFT is responsible if:
   (a) it acknowledged a message to the sender, but failed to put the message on the undelivered message report and failed to deliver the message,
   (b) it or its personnnel failed to perform,

making claims against SWIFT.[82] If a delayed payment results in an interest loss, and if both the sending bank and receiving bank disclaim any fault, then the two banks must jointly present a claim to SWIFT on behalf of the sending bank.[83] Each interest loss by itself must exceed 100,000 Belgian Francs ("BF")[84] before SWIFT will hear the claim.[85] Interest losses from separate events cannot be accumulated to meet the BF 100,000 requirement.[86] Once these conditions are met, SWIFT must then either substantiate the claim by determining that it failed to meet its responsibilities, as outlined above, or reject it.[87] If SWIFT accepts the claim it will reimburse the transmitting bank with year-end credits.[88] If SWIFT rejects the claim it will charge the transmitting bank BF 30,000.[89] Whenever a claim is rejected or disputed the transmitting bank may seek arbitration by serving written notice upon SWIFT within three months of the rejection.[90] If total claims accepted in any one year exceed SWIFT's BF 20,000,000 "interest loss contingency item" in its annual budget, awards are shared pro rata.[91]

The SWIFT rules, as promulgated, establish a number of procedures useful in determining exchange damages.[92] First, by providing an internal mechanism for adjudicating claims against SWIFT, the rules minimize choice-of-law problems and forum shopping.[93] Second, the rules

(c) it failed to notify members promptly of failures of banks, operating centers, and regional processors.

SWIFT USER HANDBOOK, *supra* note 8, § 7.

82 *Id.* § 7(b).

83 *Id.*

84 SWIFT is a not-for-profit cooperative company organized under Belgian law. SWIFT's Articles of Association provide that "[a]ll matters which are not provided for in these Articles of Association shall be governed by the 'Gecoordineerde Wetten op de Handelsvennootshappen' (Consolidated Acts on Commercial Corporations)." SWIFT, Articles of Association of Society for Worldwide Interbank Telecommunications, art. 43 (1979)(*incorporated in* SWIFT USER HANDBOOK, *supra* note 8, § 7(b)). The SWIFT USER HANDBOOK provides that "[a]ll relations including the rights and obligations between SWIFT and the users shall be governed by the laws of Belgium." *Id.* § 7, ch. 7, ¶ 3.

85 *Id.* at § 7(b), § 7 comments at 4.

86 *Id.* at § 7(b).

87 *Id.*

88 *Id.*

89 *Id.*

90 *Id.* at § 7, ch. 7, ¶ 4. All disputes going to arbitration "shall be finally settled by the court of arbitration sitting in Brussels, Belgium." *Id.* at § 7, ch. 7, ¶ 1. Once made, "the decision of the Court of Arbitration is not liable to appeal or any other recourse before arbitrators except for correction of material errors appealed for within thirty days following notification of the Court's decision." *Id.* at § 7, ch. 7, ¶ 3.

91 *Id.* at § 7. Each member bank pays a proportionate share into the BF 20,000,000 "interest loss contingency item."

92 *See generally* Comment, *New SWIFT Rules*, *supra* note 5, at 323-25.

93 *Id.* at 323.

help to determine liability by delineating the responsibilities of each transfer participant.[94] Third, in establishing an "interest loss contingency item" into which all member banks must pay, the rules distribute the losses caused by SWIFT among all members.[95] Finally, the rules alleviate the problem of determining time of payment in international EFTs[96] by defining such terms as "time of receipt,"[97] "value date,"[98] "pay date,"[99] and "cutoff time."[100]

Yet the SWIFT rules have their weaknesses. For example, allowing SWIFT to adjudicate claims against itself, and thereby determine its own liability, creates an obvious conflict of interest.[101] While SWIFT may have little incentive to reject any valid claim,[102] it nonetheless does have incentive to minimize claims: the lower the claims in any one year, the less likely it is that member banks will have to restock a depleted contingency fund for the following year.[103] Insofar as SWIFT is composed solely of member banks, it is in the obvious interest of the members as a group, and hence the organization as a whole, to minimize the claims paid out. Moreover, the rules fail to provide completely both a forum for claims against member banks, and procedures for enforcing liability rulings against members.[104]

Additionally, the SWIFT rules are replete with ambiguous phrases. In defining the standards of care for each participant, the rules do not define a "fail[ure] to react promptly,"[105] a "fail[ure] to reconcile adequately,"[106] or a "fail[ure] to perform."[107] While the rules do provide

94 *Id.* at 324.

95 *Id.*

96 *Id.* at 324, 325.

97 "The time of receipt of a message at the [receiving bank] shall be the output time." SWIFT USER HANDBOOK, *supra* note 8, § 7.

98 "The value date defines the date when the amount of the transfer is at the disposal of the receiving bank." *Id.*

99 The pay date "defines the date on which the receiving [bank] or a third bank is requested to credit or pay the beneficiary customer (private person or any other non-banking institution)." *Id.*

100 "Cutoff time is the latest time of day . . . for receiving banks to apply same day value to effect funds transfers in domestic currency in favor of third banks." *Id.*

101 Comment, *New SWIFT Rules*, *supra* note 5, at 323.

102 *Id.*

103 There are, of course, arbitration proceedings available for those banks whose claims are not accepted by SWIFT, *see supra* note 90, but insofar as arbitration decisions are final and non-appealable, this option does not afford injured parties sufficient protection. *Id.*

104 *See New SWIFT Rules*, *supra* note 5, at 323.

105 *See supra* note 81, ¶¶ (1)(e), (2)(b), (3)(c)(quoting SWIFT USER HANDBOOK, *supra* note 8, § 7).

106 *Id.*, ¶ (2)(c)(quoting SWIFT USER HANDBOOK, *supra* note 8, § 7).

107 *Id.*, ¶ (3)(b)(quoting SWIFT USER HANDBOOK, *supra* note 8, § 7).

objective measures for determining fault,[108] they also introduce uncertainties and potential disparities in the adjudication of claims among different forums.

Furthermore, establishing the contingency fund unnecessarily limits the liability of SWIFT, and hence its member banks, when SWIFT is at fault. Although limiting claims to losses exceeding BF 100,000 and charging unsuccessful claimants a BF 30,000 penalty may "eliminate small claims and minimize frivolous claims,"[109] it also discriminates against would-be successful claimants by deterring them from pursuing their claims and burdening them with a loss of up to BF 100,000 (the minimum claim requirement), even though they may have been completely free of fault.

Finally, SWIFT definitions clarifying time of payment only settle the sending bank's liabilities upon the release of the transfer message.[110] The receiving bank's liabilities are unclear because it is not specified when the receiving bank becomes bound to accept a payment order.[111] Ideally, the receiving bank should not be bound upon receipt, but should be granted a limited right to refuse payment so that it may retain control of the credit it wishes to extend.[112] The time period must not be excessive, however, because interest and exchange problems would then arise anew.[113]

Each of the above problems can conceivably be corrected within the framework of the present SWIFT rules.[114] The principal problem with extending these rules to exchange losses, however, is that they wholly fail to determine the extent of losses. The rules stipulate when and in what circumstances each of the parties to a transfer is responsible, but do not stipulate the extent of each party's potential liabilities. The old problem of which rule applies (the breach-date rule, the judgment-date rule, or the execution-date rule) remains for resolution at the discretion of the adjudicating body.[115]

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108 *New SWIFT Rules*, *supra* note 5, at 324.

109 *Id.*

110 Comment, *Risk Allocation*, *supra* note 2, at 651-52.

111 *Id.*

112 *Id.* at 652. *See also Secretary General's Report*, supra note 9, at 278.

113 Comment, *Risk Allocation*, *supra* note 2, at 65. *See infra* note 123 and accompanying text.

114 *See infra* notes 116-23 and accompanying text.

115 As noted, such an approach leads to cross-forum discrepancies and general confusion. *See supra* notes 42-55 and accompanying text. As a result, extension of the SWIFT rules as they now exist is thoroughly unsatisfactory.

V. Modification of SWIFT Rules

There are two ways in which the SWIFT rules could be modified to govern the risk of exchange losses successfully.[116] The first modification is operational, and entails drawing a detailed "model" contract to govern all EFT transactions. The second modification is procedural, requiring the establishment of an independent tribunal to adjudicate all exchange loss claims arising from a SWIFT transfer. Either modification necessitates both general changes in the existing SWIFT rules (for the purpose of remedying the problems noted above),[117] and specification of the applicable exchange rule in appropriate circumstances.[118]

A. The Model Contract

The first option provides for a model contract to be utilized in all EFTs. All parties to an EFT would be required to agree to the model contract's terms, stipulating the circumstances under which each exchange rule would be applied to achieve the most equitable result. Once such an approach were instituted by SWIFT, it could easily be adopted by other networks. Moreover, insofar as such standardized rules would provide certainty and fairness, those networks that fail to adopt the rules would find themselves at a competitive disadvantage with those which do. Provided such a contract is judicially validated in all forums adjudicating EFT exchange problems, the arrangement would provide enforceable uniformity on an international scale without necessitating

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[116] There is also a legislative alternative to modifying the SWIFT rules, involving an international multilateral agreement or uniform national legislation. This alternative, while attractive, does not appear at present to be viable. *See generally* Comment, *Risk Allocation*, *supra* note 2, at 655-56; *infra* notes 147-49 and accompanying text (discussion of the independent tribunal).

[117] Modifications of the existing rules would improve the handling of interest losses equally as well. General modifications may include:

1) Providing procedures for enforcing liability judgments. One such procedure might provide that all future payments sent to any bank that has an outstanding liability judgment against it by other member banks through the SWIFT system, be withheld until the liability is met.

2) Replacing the contingency fund with a contingency insurance fund, the proceeds of which are to be used to purchase insurance. When damages in any one year exceed the insurance coverage, member banks are to pay in the remainder proportionately so that all losses are fully compensated.

3) Removing the limitations on and requirements for bringing a claim. If claims of under BF 100,000 are expected to burden SWIFT unduly, arbitration procedures can be arranged with a right of appeal to SWIFT.

4) Defining time of payment for the receiving bank as the time the receiving bank is notified of the exchange and has the opportunity to accept payment (insofar as sending bank's liability is concerned), and the time the receiving bank has accepted payment (insofar as receiving bank's liability is concerned). Such an arrangement prevents receiving bank from claiming exchange losses incurred between the time it had the opportunity to accept and the actual time of acceptance, while enabling it to retain control of the credit it wishes to extend.

[118] *See infra* notes 124-34 and accompanying text.

international legislation, uniform national legislation, or the formation of an independent tribunal. The remaining question, then, is whether all jurisdictions will enforce such a contract. The answer, of course, depends on the content of the provisions.

1. The Model Contract—Content

The common EFT occurs so swiftly that written authorization is impossible. As a result, it is impractical to require written authorization by a specifically negotiated contract for each individual EFT. This may be one reason why CHIPS and SWIFT require membership for the use of their systems, since membership includes agreement to abide by the rules of the network. Once the bank agrees to the provisions and is inducted into the organizations as a member, it is subject to the terms of the membership contract in all future uses of the system. This membership contract is the subject of the model contract provisions presented here.

The contractual rules allocating risk of exchange loss must include two substantive sections: 1) the responsibilities of each party to the EFT must be delineated in order to determine which party is liable; and 2) rules must be established for determining the extent of each party's liability. In other words, liability must first be identified and then calculated.

The SWIFT rules on interest loss allocation provide a satisfactory framework for determining who is liable. The responsibilities of parties in a clearinghouse system (such as CHIPS), however, differ from those of parties in a message switching network (such as SWIFT). As a result, this section of a contract designed for the use of both types of network must be exceedingly general, stipulating only that each party is liable for exchange losses it causes. In this circumstance, the court would have to be the ultimate arbiter of which party is at fault in a transfer. To ease this decision, the contract should permit the individual networks to supplement this section of the contract with a list of each party's specific responsibilities,[119] but the contract should strictly prohibit the network from escaping liability when it is at fault for a delay.

As an alternative to the single model contract to be utilized by both types of network, different model contracts may be drawn for each. In this case, the responsibilities of all parties to a transfer would be delineated much like the SWIFT rules do now,[120] though they would have to be somewhat more specific. Once again, the network should be prohib-

119 Such supplementary rules could be similar to the present SWIFT Rules. *See supra* note 81.
120 *Id.*

ited from escaping liability when its own actions cause the exchange losses.

In determining whether there is exchange liability, the court must first determine whether the transferee intended to exchange the transferred currency into another currency upon receipt. If so, it should be apparent that the failure of the transferee to receive the transferred funds in a timely manner resulted in an inability to exchange the funds at a favored exchange rate, thereby causing exchange loss.[121] The court must thus determine if there was a delay, and if so which party was at fault. The contract should provide guidelines for this determination by specifying exactly when each party's responsibilities end; the so-called "time of payment."

Ideally, the contract should provide that: 1) the sender should be liable for any exchange losses occurring between the initiation of any erroneous transfers or messages and the initiation of the ultimately acknowledged transfer or message; 2) the network should be liable for any exchange losses occurring between the sender's initiation of the ultimately acknowledged transfer or message and the time when the receiving bank is notified of the exchange and has the opportunity to accept payment;[122] and 3) the receiving bank should itself be liable for any exchange losses incurred between the time at which it was notified of the exchange and had the opportunity to accept payment, and the time at which it actually accepted payment.[123]

The second part of the model contract, establishing the extent of liability, should provide guidelines for the application of the exchange rules.[124] Which are the most equitable rules depends on the currency in which the award must be made in any particular jurisdiction.[125] Thus, different guidelines must be drawn for jurisdictions with the home currency rule and jurisdictions that allow foreign currency judgments.[126]

121 If the court determines that the transferee did not intend to exchange the currency upon receipt, there should be no exchange losses. *See supra* notes 48-49 and accompanying text.

122 Such a rule makes the network liable for every exchange loss occurring between the time it receives a valid payment or message and the time it sends or transmits the payment or message. This may seem excessive, but due to the volume of transfers each day the network's exchange losses should balance with its exchange gains over the long haul. If not, an objective standard of "unreasonable" delay can be inserted in the contract.

123 *See supra* note 117.

124 This is the section that the present SWIFT rules are lacking altogether.

125 Some jurisdictions, such as the United States federal courts and various states including New York, demand that exchange loss damages be awarded in the home currency, in this case United States dollars. *See supra* note 22. Other jurisdictions, such as the English courts, permit entry of judgment in foreign currencies. *Miliangos*, 1976 A.C. 443.

126 The necessity for such guidelines flows from the unwillingness of some courts, particularly the

Application of the exchange rules involves a three-step process. First, it must once again be determined whether the receiving bank intended to convert the money from one currency to another upon receipt.[127] There can only be an EFT exchange loss if the receiving bank had such an intention.[128] Since exchange losses often result from delayed payments rather than breached payments, what the receiving bank does with the money already received provides evidence as to what it intended to do with the whole.[129] If the receiving bank kept the money in the form of the currency received, it may be assumed that it intended to use the currency as cash rather than as a commodity, and thus the bank suffered no exchange loss by the delay.[130] If, however, the receiving bank converted the money into a different currency upon receipt, it is reasonably likely that it would have done the same had it received payment on time. If the transferred currency depreciated against the converted currency during the delay, the receiving bank will have suffered an exchange loss.

Second, the amount of the exchange loss must be determined. In an

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United States federal courts, to abide by contractual stipulations specifying the currency in which judgments are to be paid. *See supra* note 22.

127 *See supra* notes 48-49, 121 and accompanying text. While it would be beneficial if the receiving bank could state its intent in the contract, this is not possible simply because the parties to a transfer do not enter into a separate contract for each transaction. *See supra* Sec. IV.A.1. (*Model Contract—Content*).

In some cases the currency exchange may precede the transfer, as when transferor first exchanges currency in order to pay in United States dollars through CHIPS. In these cases the transferor bank may be the one to suffer from the exchange loss, as when CHIPS delays payment and the receiving bank refuses to accept, forcing payment back to transferee bank in what may be depreciated dollars. This situation is essentially equivalent to the one in which transferee intends to exchange currencies upon receipt. In both situations the party suffers an exchange loss due to a delay in the transfer.

128 *See supra* notes 44, 49, 121 and accompanying text.

129 When there is a delay in a transfer, the transferee has the option of accepting or rejecting late payment. If it accepts late payment, the transferee is essentially receiving a portion of the total amount due—the total amount less the exchange and interest losses suffered as a result of the delay. Thus, the transferee's intent is evidenced by its actions upon late receipt of this portion of the funds due.

If the transferee rejects late payment, application of the basic mitigation rule dictates that the extent of exchange losses will be no different than if the transferee had accepted late payment. *See* U.C.C. § 2-712 (1978). The failure of the transferee to receive any portion of the amount due, however, renders difficult the determination of its intent upon timely receipt. The court must then look to other factors, perhaps the transferee's other dealings and contractual obligations with other parties around the time of expected receipt, to determine its intent.

Obviously, the delay itself may have caused the receiving bank to change its plans. Normally, however, it could be expected that a bank would change its plans only if it foresaw a benefit in doing so. As a result, it is reasonable to conclude that the bank would have changed its plans with respect to the greater amount received as to the lesser amount. In essence, the intent before receipt is not as relevant as the intent after receipt.

130 *See supra* notes 48-49, 121 and accompanying text.

EFT the amount of the currency transferred does not change during a delay; the value of that currency may change, however. Consider the earlier example,[131] and suppose German Bank had all along intended to exchange dollars into deutschemarks upon receipt. German Bank thereby claims a DM 1,000,000 default as the amount of exchange loss it experienced due to the delay. The amount of recovery should therefore be denominated in terms of the currency in which the loss was "felt," and in which the money was intended to be used, even if the ultimate award is not made in that currency.[132] Obviously, if the receiving bank intended to use dollars and $1,000,000 were sent, German Bank would have received $1,000,000 and would thereby have suffered no exchange loss due to delay. It is precisely because German Bank intended to have the use of DM 4,000,000, and only received the equivalent of DM 3,000,000, that it has suffered a loss. As a result, the only way to compensate German Bank equitably for its loss is to award it the value of DM 1,000,000. This can be done in two ways: 1) German Bank can be awarded DM 1,000,000; or 2) German Bank can be awarded an alternate currency equivalent of DM 1,000,000 utilizing the execution-date rule, thereby enabling German Bank to convert the alternate currency to DM 1,000,000 immediately upon receipt.

The final step in the application of the exchange rules is to ensure equity. In an exchange loss case, only the party experiencing loss has been treated inequitably, and that party must be compensated to the extent that it "felt" the loss. The injured party feels the loss in the currency in which the money was to be used. In the above example, by the time German Bank received the money its DM 1,000,000 loss was the equivalent of $333,333.33. But German Bank did not feel the loss in terms of dollars. On judgment day, when the value of the dollar had further depreciated to only DM 2, a damage award of $333,333.33 would not adequately compensate German Bank. Such an award would only compensate German Bank for two-thirds of its loss. Therefore, in jurisdictions without the home currency judgment rule, the contract should stipulate that damages from exchange loss are to be awarded in the form of currency intended to be used by the injured party. In the above example, German Bank would simply receive DM 1,000,000, no matter what the cost to the delaying party.[133]

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131 *See supra* notes 39-41 and accompanying text.

132 In other words, the court can simply order that judgment be executed in the home currency in an amount equivalent to DM 1,000,000 according to the prevailing exchange rates when payment is made.

133 Such an approach may be thought to encourage delays where the transferor's currency is appreciating against the transferee's. The longer the transferor waits to pay, the less it must eventu-

In jurisdictions employing the home currency judgment rule, the contract may have to be exceedingly more complicated. While the judgment-date rule will never apply,[134] five factors affect whether the breach-date or execution-date rule is the most equitable in a given situation: 1) whether the home currency is the transferor's currency or the transferee's currency; 2) whether the payment obligation is denominated in the home currency or the other currency; 3) whether the transferee intends to convert the transferred currency upon receipt; 4) which party suffered the exchange loss; and 5) whether the exchange loss results from a depreciating or an appreciating currency. To simplify matters, the contract can simply state that "the most equitable rule" is to apply, with equity defined as compensating the injured party in a home currency amount equivalent to the foreign currency loss felt by the injured party. In the above example, the execution-date rule would be the most equitable, compensating German Bank the home currency value of DM 1,000,000 on the date of execution and thereby enabling it immediately to convert the award into the amount of deutschemarks in which it felt the loss.

2. *Enforceability of the Model Contract*

It is unclear at this time whether courts would enforce such a contract as proposed here. It appears, based on *Delbrueck*[135] and basic contract law, that United States courts would be willing to enforce at least the substantive provisions of such a contract. The British House of Lords decision in *Miliangos v. George Frank (Textiles) Ltd.*[136] indicates that the courts of the United Kingdom would be willing to enforce the

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ally pay in terms of its own currency. This is not the case for two reasons. First, the transferor usually cannot be certain as to the intended use of the transferee. If the transferee intends to utilize the currency sent, the failure of the transferor to pay when due will not alter its obligation to pay the same amount later, plus interest losses. *See supra* text accompanying note 49.

Second, the transferor's payment obligation is often denominated in the transferor's currency. In this case, even if the transferee intends to exchange the currency upon receipt, the transferor is precluded from intentionally delaying the transfer in the hopes of paying less later simply because he is obligated to pay a sum certain in its own currency. As a result, delay can only give rise to potential interest and exchange losses, rather than exchange gains.

In sum, the only circumstance in which the transferor may have incentive to delay is when all of the following factors apply: 1) the payment obligation is denominated in the transferee's currency; 2) transferee has agreed to accept payment in an alternate currency; 3) the transferor is certain as to the transferee's intent to transfer any alternate currency, upon receipt, into its own currency; and 4) any potential interest loss liability for delayed payment is less than expected exchange gains. Such a circumstance is not likely to arise very often, for obvious reasons.

134 *See supra* note 53 and accompanying text.

135 609 F.2d 1047.

136 1976 A.C. 443.

procedural provisions.[137] Apparently, the United Kingdom courts would also be more willing to accept the substantive provisions of the contract than United States courts would be willing to accept the procedural provisions.[138]

Regardless of strict enforceability, however, the merits of this model contract lie in its uniformity of results rather than operational consistency.[139] Even through application of its archaic rules, United States courts can arrive at the same results as would be provided by strict enforcement of the model contract provisions. Specifically, the United States courts can effectively apply the execution-date rule by either ordering execution of its judgment to take place on the judgment date, or reserving final judgment until execution can be made.[140] As mentioned above,[141] United States courts can avoid the home currency judgment rule by paying the injured party the value, in dollars, of the loss felt in the foreign currency. Thus, while the contract may not be specifically enforceable in many jurisdictions, the intended effect of the contract may be realized as long as courts adhere to the purpose and goals of the contract.

B. The Independent Tribunal

The second proposed modification would provide for a single in-

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137 The House of Lords granted a Swiss plaintiff an award in Swiss francs for damages suffered as a result of a British defendant's breach of a contract governed by Swiss law. The obligation was expressly to be made in Swiss francs.

> Miliangos has been extended from the denomination of damages for breach of contract to personal and property damages arising from claims in torts, debts due, restitution awards under a British statute governing frustration of contract, and liquidated or unliquidated damages arising from contracts governed by British law. Consequently, it is now a general rule that when judgment in a foreign currency is appropriate, a British court will grant such a judgment and determine conversion rates as of the actual date of payment, or, if necessary, the date on which the court authorizes enforcement of the judgment.

N.Y. Bar Report, *supra* note 22, at 795.

138 This is because present application of the breach-date and judgment-date rules by the federal courts is based on a long line of Supreme Court precedent, *see supra* note 23, as is application of the home currency judgment rule, *see supra* note 22. While both practices have been repeatedly condemned, *see generally* Brand, *supra* note 22; *N.Y. Bar Report*, *supra* note 22; Comment, *Conversion of Judgments*, *supra* note 19, they have not yet been discarded. The English courts are likely to accept the substantive provisions of the model contract because, based on the decision in Federal Commerce & Navigation Co. v. Tradex Export ("The Martha Envoy"), 1977 Q.B. 324 (C.A.), *rev'd on other grounds*, 1978 A.C. 1, 1977 [3] WLR 126 (H.L.), the courts have already shown a willingness to enforce contractual provisions denominating the form of currency in a transaction.

139 The rules may not be enforced as they were intended, but as long as the courts of the various jurisdictions reach the same results in cases having the same facts, the purpose of the uniform rules will have been met.

140 In these cases, the courts would technically be applying its mandated judgment-date rule while effectively producing execution-date results.

141 *See supra* note 132 and accompanying text.

dependent forum to adjudicate all claims arising from a SWIFT transfer.[142] SWIFT would no longer hear claims against itself. After the applicable exchange rule is determined, all exchange loss problems in SWIFT transactions would be resolved in the same forum, applying the properly identified rule. Nothing could be more uniform nor easier to administer. Thus, the inquiry into the exchange problem as it affects SWIFT transactions would be at an end. Nonetheless, two questions are raised by the provision of an independent forum. First, would the decisions of the independent forum be held enforceable by the interested state and national courts having concurrent jurisdiction over such claims? Second, could the independent forum's jurisdiction be extended to the adjudication of all EFT disputes, including those effectuated through networks other than SWIFT?[143]

The *Delbruek*[144] decision suggests that, to the extent the establishment of an independent forum is a matter of contract between member banks and SWIFT, the decisions of the independent forum would be given force of law. Use of an independent tribunal is analogous to any contract stipulating arbitration for settlement disputes between the contracting parties, with the independent SWIFT forum here acting as the arbitrator. As such, it is likely that any court with jurisdiction over claims adjudicated by the independent forum will uphold its decisions.

When extending adjudication to all EFT disputes, including those not utilizing SWIFT, however, the question arises whether an international tribunal with jurisdiction over only one subject matter can ever be created, and if so on what basis and under what authority. Conceivably, all banks engaged in EFTs can agree to submit themselves to the jurisdic-

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142 International courts and tribunals ("ICTs") are generally concerned only with public international law, and those that presently exist "have nearly all been established on the basis of multilateral international treaties." Tomuschat, *International Courts and Tribunals*, in 1 ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW (Settlement of Disputes) 92, 93 (R. Bernhardt ed. 1981). Since SWIFT is a private organization, it is doubtful that a multinational agreement establishing an ICT to settle these essentially private disputes will be reached. What is contemplated here is not so much an international tribunal that will apply international law, but an independent tribunal whose task is to adjudicate disputes between member banks of different nations, or between member banks and SWIFT, using an established set of procedural rules. These rules would be established by agreement of all present and future member banks, and would include rules such as those set out in the model contract. *See supra* text accompanying notes 116-34. The important element, however, is that SWIFT itself, inasmuch as it may be a party to a claim, have no part in its adjudication.

143 Obviously, other networks could each provide for their own independent forums. Such an approach would certainly be costly. Moreover, such an approach could also lead to adjudicative competition at the expense of fairness. If the independent court of one network rules in favor of the receiving bank in a dispute, the court of another network would have incentive to rule for the sending bank in an identical circumstance. As it is the sending bank that normally chooses the network, the latter network above would obviously then be in the more favorable position.

144 *See supra* notes 79, 80 and accompanying text.

tion of the independent forum, as can all of the networks. The problem, however, is that certain networks may not agree to submit to the independent forum's jurisdiction for fear of their own potential liabilities. These networks may thus seek to establish their own tribunal or other adjudicatory process.[145]

The problems associated with different networks having different forums, however, may be no more significant than those associated with different networks having different model contracts. The primary concern is not that all nations treat all EFTs effectuated through all networks in exactly the same way, but that all nations treat all EFTs in any one network in a consistent manner. Since the members of any one network will know what to expect when they use that network, choice-of-law problems will not arise. There is, however, the potential problem of inconsistent rules between multiple networks used in the same transfer. While this potential problem may not be inconsequential, it should not pose a barrier to the establishment of network forums. The SWIFT and CHIPS networks are presently used in the same transaction quite often,[146] and to date there have been no reported cases detailing a conflict in their joint use. To the extent this problem may arise, however, a single "international" forum with jurisdiction over all EFTs may be better suited to handle EFT claims than are numerous network forums. Inasmuch as this alternative may not presently be viable, the multiple network forums should, at least temporarily, adequately resolve most EFT exchange loss disputes.

In order for there to be a single "international" forum with jurisdiction over all EFTs regardless of the network utilized, either every bank engaged in EFTs or every nation in which those banks are located would have to sanction that forum's authority.[147] Neither is likely to occur in the near future. On the one hand, it can be expected that existing networks will combat any attempts to usurp authority over its own transfers. Consequently, the banks that are members of existing networks will refuse to submit to the forum's jurisdiction. On the other hand, state recognition of an international forum would necessitate either a multinational agreement or independent national legislation in each nation having banks engaged in EFTs. Either of these would be extremely difficult to achieve in light of the recent conclusion of the United Nations Commission on International Trade Law ("UNICTRAL") that "[i]t would be premature . . . to attempt to unify the law in respect of electronic fund

[145] *See supra* note 143.
[146] *See supra* note 3.
[147] Tomuschat, *supra* note 142, at 93. *See supra* note 142.

transfers at present."[148] While uniform national legislation is a viable alternative for the future,[149] for the present it holds little hope. SWIFT alone, for example, has members from over forty nations. Since no nation has yet passed legislation dealing with international EFTs in general, it is unlikely that over forty could be expected to pass this more specific legislation in the near future.

VI. CONCLUSION

The implementation of model contracts or the establishment of independent network tribunals could provide numerous benefits in easing the recovery of exchange losses suffered in delayed EFTs. These include: 1) a reduction in forum shopping—either an independent forum will be mandated by contract, or all forums would be mandated by contract to implement the same substantive and procedural rules; 2) more certainty in foreign exchange dealings through EFTs; 3) a reduction in float activity,[150] as parties would hesitate to delay in transferring money for fear of exchange loss reprisals;[151] and 4) a reduction in the need for parties to resort to litigation as clear rules governing liability develop over time.[152] Finally, the fact that injured parties would receive compensation for delayed transfers would lead to increasingly efficient procedures and developments in the EFT field.

Clearly UNCITRAL was mistaken in concluding that technological advances preclude unification of the law with respect to EFTs.[153] Improved technology does not render good law bad, rather it improves good law by broadening its reach. As technologies improve, the procedures employed by organizations such as SWIFT and CHIPS may change, the

148 *Secretary General's Report*, *supra* note 9. *See supra* note 9.

149 *See generally* Comment, *Risk Allocation*, *supra* note 2, at 652-58. Principles already developed with respect to Giro accounts may provide a framework through which some EFT disputes may be effectively resolved. The word "giro" is taken from the greek word "gyro," meaning circle, and describes payment systems in which the customers themselves initiate and control payments from their own financial accounts. Vergari, *Electronic GIRO for the United States*, 6 COMPUTER L.J. 101, 102 n.5 (1980). For a comparison of the Giro system and EFTs, see Ellinger, *The Giro System and Electronic Transfers of Funds*, 2 LLOYD'S MAR. & COM. L. 178 (May 1986). For a discussion concerning the development of a possible electronic Giro system, and the interrelation between Giro and EFTs, see Vergari, *supra*, at 101; White, *The Coming Credit: The Developing Electronic GIRO Capability*, MAG. BANK ADMIN., Dec. 1975, at 34.

150 *See supra* note 14.

151 The speed of EFTs alone has already resulted in substantial reductions in float. Byler & Baker, *supra* note 3, at 462.

152 At the outset, banks may bring many more lawsuits solely for the purpose of collecting on exchange losses. As clear liability rules develop, however, exchange losses should occur less frequently due to broad-based compliance, and hence the number of suits should decline.

153 *See supra* note 9.

period of time in which a transfer can be completed may be shortened, and the risks of error and delay may be diminished. However, such improvements cannot impair the effectiveness of rules and laws which place liability on fault, measure delays with recourse to discrete and necessary events, and impose liability only to provide equity. While it may be too early to draft international legislation, or grant an international court exclusive jurisdiction over EFT exchange problems, these limitations are due to inherent weaknesses in the international system rather than to the complexity of EFT problems.

The exchange problems created by EFTs are fairly complex, but uniform rules can, if not resolve them, at least pave the way for their resolution. For now, uniform standards can best be applied through the organizations that fostered the growth of EFTs. Ultimately, through acceptance of these standards by the courts or legislatures of individual nations, these standards can be termed international. It is up to SWIFT and CHIPS, however, to make the first move.

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