
NOTES

The Spufford Thesis on Foreign Exchange: the Evidence of Exchange Rates

Reinhold C. Mueller
University of Venice

In the introduction to his *Handbook of Medieval Exchange* (London: The Royal Historical Society, 1986), Peter Spufford developed an attractive thesis regarding the foreign exchange market in medieval Europe. In contrast to Raymond de Roover's persistent emphasis on the bill of exchange as almost solely a credit instrument employed in the medieval money market, Spufford underscores the importance of the bill as a means of transferring credit balances, both in its origins and in its use during the later Middle Ages.¹ John Munro had already expressed the need for a similar reorientation, while questioning de Roover's insistence on the use of the bill as a means of protecting a loan — and the lender — from the ecclesiastical censure of usury.²

But Spufford goes further and, on the basis of a specific historical example (the exchange between Venice and London, 1436-39), suggests that there were two rates of exchange quoted in any given banking-place, one for «investment exchange», where in effect “the de Roover orthodoxy” holds, because the remitter almost always stood to earn a profit on rechange, and another rate for “transfer exchange”, where the remitter lost, but the loss reflected merely the fact that he was paying for the service of transferring a sum of money. The author adds a kind of “*mea culpa*”: although long aware of the pitfalls of de Roover's unilateral concern for dry exchange, he writes, he had only recently become aware that “the two types of occasion for sending other bills of exchange, which I have called here transfer bills and investment bills, led to two

¹ This balanced view is found also in his *Money and its Use in Medieval Europe* (Cambridge University Press, 1988), pp. 394-95. The author remarks furthermore that the introduction of the bill of exchange was of greater significance for the commercial revolution of the Middle Ages than the creation of gold coinage (pp. 262-63).

² See his “Bullionism and the Bill of Exchange in England, 1272-1663: A study in Monetary Management and Popular Prejudice”, *The Dawn of Modern Banking* (Yale University Press, 1979), pp. 169-73.

different sets of rates, vaguely analogous to those existing today as 'Bank buys' and 'Bank sells'. I did not realize the difference early enough to distinguish them in this *Handbook*" (p. XLVI). How fortunate, for the difference does not exist!

Although de Roover never denied the use of the bill of exchange as an instrument for transfer, he was perhaps overly insistent in asserting its importance as a camouflage for otherwise usurious loans. Spufford meant to offer a more balanced view. But the thesis he developed, especially as regards a supposed double-track of rates of exchange, is simply based on a fallacy.

In the following note Spufford's line of argument will be reviewed and it will be shown that the novel thesis is based on a banal error in inputting a set of rates of exchange and on the resultant inversion of two curves and is itself therefore totally fallacious.

1. Part and parcel of the "de Roover orthodoxy" is the observation that a remitter almost always earned on exchange-rechange operations, since interest was "hidden" in the difference between the rate or price of exchange of the first bill in one city (*cambio di andata*) and the rate current in the other city to be applied to the second bill (*cambio di ritorno*).

Spufford admits the validity of this position, as far as it goes, "backed [as it is] with an immense amount of information". But he discovered an exception:

"Unfortunately not all rates for bills will fit the pattern. If an apparently similar graph [to that for Bruges and Barcelona, constructed by H. Sardy for de Roover and reproduced by Spufford] is drawn from the Borromei papers, it shows, on the contrary, that between 1436 and 1439, a bill drawn either from Venice on London or from Venice on Bruges, and then rechanged by the payee, would almost always have brought a loss to the deliverer".³

A graph representing some rates in London and in Venice, 1436-39, is produced (p. XLII). The "proof" of the exception is posed convincingly and constitutes the basis of an attractive-sounding thesis. Spufford draws the logical conclusion from his "discovery":

"(constant loss to the remitter) is quite patently unbelievable. The Borromei bills do not fit the de Roover pattern. Quite patently they cannot be investment bills. If they are regarded as straightforward transfers of funds, they become much more comprehensible. Deliverers who actually needed their money in another place were paying for its transfer..."

³ The source referred to is Gerolamo Biscaro, "Il banco Filippo Borromei e compagni di Londra (1436-1439)", *Archivio storico lombardo*, 37 (1913), pp. 37-126 and 283-386. Biscaro's source was a ledger (not "papers") kept by the London branch of a company based in Bruges. Besides the rates on the Venice-London axis, there are rates of exchange between Bruges and London, where there were many rechanges (average rates in Bruges exceeded those in London) and some few between London and Genoa. Many exchanges were three-cornered: Venice-Bruges-London and back. See, in Biscaro, pp. 287, 290-91, 375-77.

He continues:

“There were thus two quite different types of occasion when bills of exchange were used. On the second type of occasion the transfer element was of primary importance.... De Roover failed to see that the second type of occasion could exist as well as the first”.

The author goes on to give examples from the fairs and from papal remittances further to prove his point.

On the basis of this observation, Spufford then formulates his hypothesis: «It would seem then that there were two sets of rates for bills of exchange, one for... those who wished to transfer funds, and the other for... those who wished to invest funds”. Each surviving historical source, he says, provides evidence only for the kind of rate of exchange that interested the principal party involved: papal collectors registered rates for transfer, merchant bankers provided news of current investment rates. Furthermore, the latter source — commercial letters —, says the author, do not record the rates of actual bills; their object “was to inform the recipients whether or not a profitable rechange could be made and so to encourage, or to discourage, them from investing money in bills of exchanges”. That was the kind of source exploited by de Roover at the Datini archives. “The Borromei information, on the contrary, [he continues] is drawn from actual bills, and would seem therefore to represent simple transfers of funds without any credit element”.

2. Although long aware that Peter Spufford's treatment of exchange, while extremely useful, contained new pitfalls, I only recently uncovered the underlying fallacy. Since it was his use of data culled at the beginning of the century by Gerolamo Biscaro from a ledger (not from “actual bills”) of the London bank of Filippo Borromei & Co. that led to his new insight, it was worthwhile returning to that source. Biscaro, who entitles his chapter on exchange “Operazioni di credito” (p. 283), states that only a small part of the bills recorded in the ledger served to pay for goods dealt in by the Borromei; that the company served rather as a banker for other merchants concerned with moving about their goods and their profits; that the real nature of the bills is not always clear from the accounts, but that probably a large part of the bills “covered loans by the banker to his clients” or interest-bearing deposits: “the price of exchange substituted the usury of the loan and of the deposit and its instability conferred the element of risk” (pp. 288-89) — and this was written, it might be noted, at a time when Raymond de Roover was still wearing short pants.⁴

In his long appendix, Biscaro transcribes sample accounts and he lists, among other data, the exchange rates mentioned in the ledger. A glance is

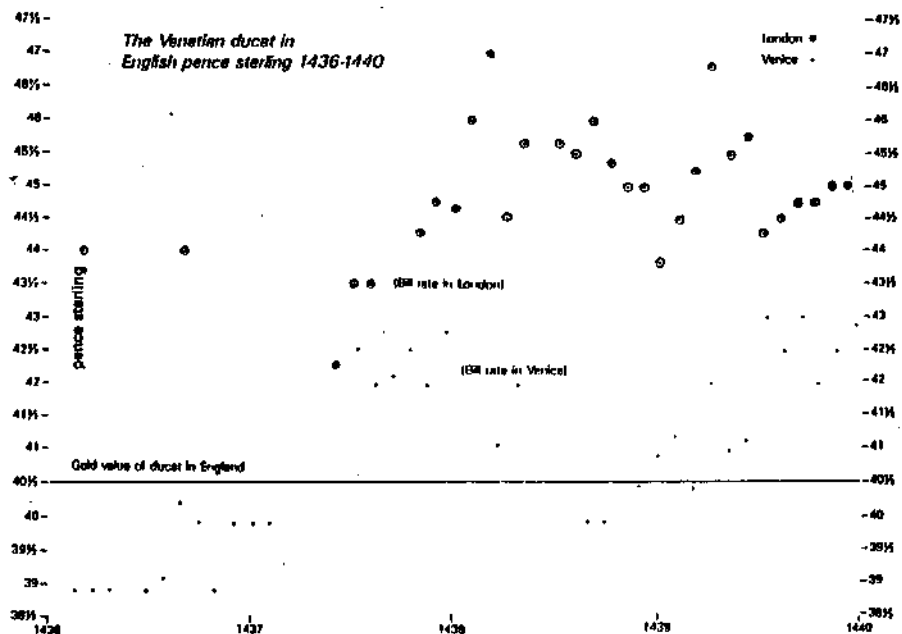
⁴ When he was older, de Roover treated Biscaro's work on the Borromei accounts with much respect. See his “Early Accounting Problems of Foreign Exchange”, *Accounting Review*, 19, 1944, pp. 381-407 (esp. at Table V).

sufficient to discover that Spufford and his assistants *inverted the two series of rates* at the moment of inputting the data into a computer programme, *registering as rates in London those in Venice and viceversa*.⁵ The error in listing the data (*Handbook*, pp. 201-05, in shillings, pence and mites sterling per ducat) was transferred directly to the graphs produced (pp. 202-03, in pence sterling per ducat) and to the fusion of the two in one graph (p. XLII; probably to avoid crowding, fewer than half the rates are plotted). *The higher curve is thus labelled London, the lower curve Venice when it should be the other way around*. In fact, the data gathered by Biscaro (pp. 377-79), which are in the sample accounts he provided in transcription, show that the Venice rates were always higher than the London rates; the former average about 45 pence sterling per ducat, the latter about 41 pence over the four years covered by the Borromei ledger.⁶ For the sake of clarity, the erroneous graph is reproduced below (Graph 1), together with a corrected version (Graph 2).

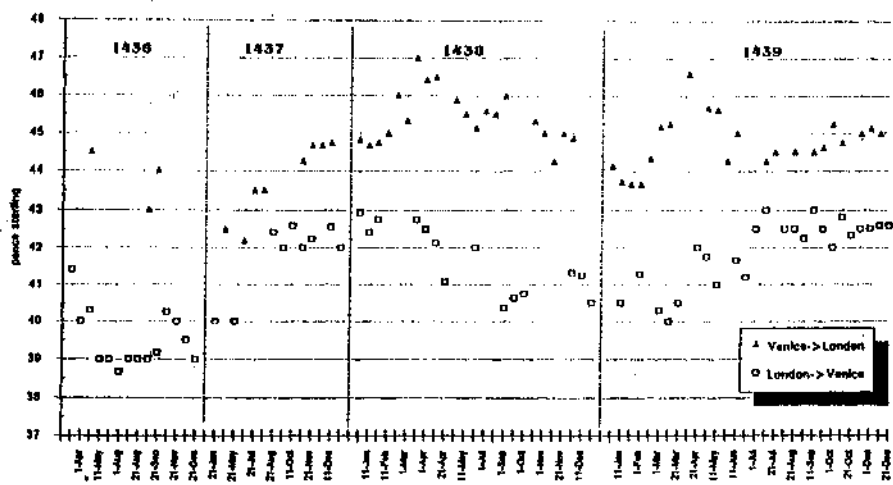
⁵ The lists are entitled "Movimento del cambio di Venezia su Londra" and "Movimento del cambio di Londra su Venezia", i.e., "The fluctuation of rates of exchange quoted in London on Venice" (pp. 377-79). On the chance that Spufford had actually discovered an error in Biscaro without mentioning it. I tracked down and studied a microfilm of the original ledger, which today is still preserved in the Borromei family archive; an analysis of the exchange accounts showed that Biscaro's study was perfectly correct.

⁶ It is worth mentioning that in the ledger the dates of the quotations in London are the actual dates of issue of the bills, while the rates quoted in Venice are known only at the date of the bills' acceptance in London, that is (as we know from other sources), some five to seven weeks after issue and thus considerably before usance, which was normally three months after the date of issue (see Biscaro's note, p. 377). Biscaro chose to date both series, however, by ten-day periods or "decades" rather than by exact dates of issue or acceptance. Since the date of issue and hence the maturity of bills issued in Venice on London cannot be known from the ledger kept in London, the date is not refined enough to show how many bills were redrawn on Venice nor do they permit calculation of a series of rates of profit or interest on rechange, after the manner of Giulio Mandich (for the years 1336-40) or of de Roover precisely on the Venice-London axis, or his article on "Cambium ad Venetias". See G. Mandich, "Per una ricostruzione delle operazioni mercantili e bancarie della Compagnia dei Covoni", in *Libro giallo della Compagnia dei Covoni*, A. Saporì, ed., Milan: Cisalpino, 1970; the appendices contain lists of over 400 exchange rates (absent from Spufford's compilation). R. de Roover, *Rise and Decline of the Medici Bank, 1397-1494*, Cambridge: Harvard University Press, 1963, Table 22, and *idem*, "Cambium ad Venetias: Contribution to the History of Foreign Exchange", in his *Business, Banking and Economic Thought in Late Medieval and Early Modern Europe*, J. Kirshner, ed., Chicago, 1974, pp. 45-49. Many of the bills here considered were surely redrawn, for the Borromei, like all merchant-bankers, depended on profits from lending via rechange (see Table, below).

Graph 1
Spufford's Figure, Showing the inverted labels



Graph 2
The Venetian ducat in English pence sterling 1436-1440



The correction of this seemingly banal error in inputting data results in the exact reversal of Spufford's inspiration: the correct data do nothing other than confirm the much-maligned "de Roover orthodoxy" on the function of rechange operations in the medieval money market and constitute no basis whatsoever for the hypothesis that there existed a double series of exchange rates, one for transfer bills, the other for investment bills. How, in any case, could one kind of money have had different prices in the same market at the same time? So the merchant-bankers, as remitters and exchange dealers, generally stood to profit from their transactions: in the case in point, precisely by exploiting the rule of the game that *pecunia presens* (the ducat in Venice) is generally worth more than *pecunia absens* (the ducat in London). Just how handsomely the Borromei of London profited over all from their exchange business can be seen at a glance from Table 1.

Table 1
The Contribution of Foreign Exchange to Net Profits
of Filippo Borromei & co. in London, 1436-39
(in pounds sterling)

	1436	1437	1438	1439
<i>on merchandise</i>				
profits	£ 46/0/0	149/17/6	136/8/7	207/2/11
losses	—	1/3/5	53/3/0	44/19/6
net	46/0/0	148/14/1	83/5/7	162/3/5
<i>on exchange</i>				
profits	75/17/9	255/4/10	199/15/1	207/3/11
losses	—	136/2/11	103/14/1	14/2/7
net	75/17/9	119/1/11	96/1/0	193/1/4
commissions avc. (£ 117 in 4 years)	30/	30/	30/	30/
net + commissions	105/17/9	149/1/11	126/1/0	223/1/4
<i>global net profits of the company</i>	24/17/8	303/4/5	215/1/8	387/12/1
<i>approximate contribution of exchange to net profits:</i>	(400%)	49%	58%	57%

Source: derived from de Roover, "Early Accounting Problems of Foreign Exchange", Table V (fin turn an adaptation of Biscaro, "Il banco Filippo Borromei", pp. 381-85); also *ibid.*, p. 308.

Some further observations on Spufford's treatment of exchange can also be made. When one reads commercial letters, such as those preserved in the Datini archives one notes that different kinds of merchants operated in each market or banking-place. Some were specialized speculators whose primary activity was "playing the market" by making credit available locally and speculating on the advantage to be had from the difference in rates on exchange-rechange operations. Others had mixed interests and were involved both in commerce and in exchange. In the body of the letters we have communications on bills of exchange actually issued, some to pay for goods or simply to transfer a balance, some with precise instructions to the correspondent to redraw or to re-remitt. Two considerations follow. Firstly, the rates quoted by both kinds of operator from the "big board" (or, rather, from brokers' "listini") on a given day are generally exactly the same — there is not the slightest hint of the existence of a double track of rates. Secondly, the rates often listed at the end of a letter are not merely abstract information meant to orient the correspondent, as Spufford holds (pp. XLIII-IV), but are confirmed in the body of the letter when actual exchange operations of interest to the specific correspondent are discussed — whether these involve "transfer bills" (remittances, to pay, or drafts, to collect) or "investment bills". An actual case in point. Francesco Datini's principal agent in Venice was Zanobi di Taddeo Gaddi, an unspecialized merchant-banker, while his principal specialized dealer in Venice at the time was Manetto Davanzati, who did little else. Davanzati is the one who gives up to eleven quotations at the end of each letter and who is especially clear on the conditions relating to arbitrage. Both agents, however, were utilized for speculative exchanges by the Datini bank, an operation that lasted between 1398 and 1402.⁷ It was the Datini bank that produced, *inter alia*, a book with a running record of all exchange rates quoted in Florence on all the banking places of interest to the company.⁸

If we grant the correctness, if also the exaggerated insistence, of de Roover's technical analysis of the credit aspect of foreign exchange, we can also be sure that he never denied the utility of bills of exchange for

⁷ At one point Gaddi's deputy in Venice wrote that his principal "non vuole questi cambi di trarre e rimetere"; it is not entirely clear whether the phrase expressed a general concern or referred to a specific order or to a controversy over the commission (one per mille) that the agency habitually charged. Archivio Datini, Prato, b. 550, Gaddi to Pisa, 25 October 1399.

⁸ *Ibid.*, 222, vacchetta di lettere del Banco, segnato "A", which contains 44 pages of quotations, 12-15 rates per business day, between 13 November 1398 and 3 July 1400, a source that would have been very useful for Spufford's compilation. The period covered was that of maximum involvement by the Datini firm in exchange speculation.

transferring actual credit balances when needed. He held that any bill, even a one-way transfer bill, involved credit, since it was payable at a future date, as well as in a different currency and in a different place.⁹ He merely stated, repeatedly, to be sure, that a remitter's profits on exchange could be known only from his "returns", that is, if the drawee paid in the second city by redrawing on the first. No one, including de Roover, would deny that credit balances had to move about, whether it be to pay for goods or to transfer liquidity — and not only that of papal collectors.¹⁰ Of course the remitter who needed to constitute a balance in another city paid something for the service, as did the drawer who desired to utilize in loco a balance due him elsewhere. Each tried to choose, if possible, a period with the least unfavourable rate of exchange but the actual cost of the service for a one-way bill is generally uncalculable except through a complicated comparison of the relative costs of goods in both places; only the commission charge ("provvigione"), the brokerage fee ("senseraggio") and the eventual brokerage tax or consular fee are easily totalled. Those cases in which exchange rates were quoted as a percentage of the same *valuta* were relatively few and were practically limited to certain cities of the Italian peninsula.

A final consideration regarding types of exchange. Biscaro mentions as a separate kind those bills that merely speculated on differences in rates of exchange. In fact, all remittances that simply represented loans were also speculative, since the interest due by the borrower was higher the greater the difference between prevailing rates on exchange-rechange. It might be said that the only purely speculative exchange operation was arbitrage — buying in one market and contemporaneously selling in another, a speculation that often tempted the specialists, such as the Datini bank operation and the company of Manetto Davanzati.

The purpose of this note has been to rectify the inadvertent technical error made in the course of Spufford's collection of exchange data and his consequent error in formulating a thesis regarding the very nature of foreign exchange. The value of the bulk of the author's *Handbook*, to be sure, stands, as does his emphasis on the transfer element in exchange, alongside the use of the bill as a credit instrument. As the author writes, the bill of

⁹ See, e.g., his *Money, Banking and Credit in Mediaeval Bruges*, Cambridge, Mass.: Mediaeval Academy of America, 1948, pp. 49, 52.

¹⁰ Lay princes might also be interested in transferring funds. For example, when Paolo Guinigi, lord of Lucca (1400-1430), invested in Venetian government bonds, 1412-14, he transferred almost all of the total of 40,000 florins via bills of exchange on Venice (see my "Foreign investment in Venetian Government Bonds and the Case of Paolo Guinigi, Lord of Lucca [early 15th century], in press).

exchange was introduced to facilitate genuine commercial transactions and its "use or misuse" purely as a credit instrument was derivative.¹¹ On the other hand, that derivation, by Florentine experts who clearly manipulated the rules of the game to serve precisely the credit function, was immediate and thorough.

¹¹ *Money and its use*, p. 395.

