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TWO-CURRENCY, NOSTRO AND VOSTRO ACCOUNTS: HISTORICAL NOTES, 1400-1800

Abstract: Suppose a merchant in country A has dealings with an agent in country B. The indebtedness between the merchant (principal) and his foreign correspondent (agent) has to be settled in terms of B's currency. Fluctuations in the exchange rate give rise to gains or losses, borne by the merchant. This paper discusses one accounting treatment (in the principal's ledger) of the dealings between domestic principal and foreign agent. It also considers the treatment where the merchant serves as agent for a foreign principal. The discussion is illustrated by references to two 15th century Italian ledgers and to passages in several treatises on bookkeeping and accounts published in the period 1400 to 1800.

INTRODUCTION

According to Luca Pacioli, it was not important in which currencies (moneys) an entry would be recorded in the memorial by the person involved in the particular transaction, whether this was, for example, the merchant himself, his wife, child, or employee. The memorial was the book of original entry. The entries in it were then in due course entered in proper form – in an "accountantly" manner - in the journal, and from there in the relevant accounts in the ledger. The entries in the ledger, however, had to be made in the same currency in the money columns although in the narrative part of the entries "you can name the currencies that occur, whether ducats or florins or gold scudi or, whatever currency it may be" [Pacioli, 1494, chs. 6, 36]. In practice, the prefatory information given at the beginning of the ledger sometimes indicated the particular currency in which entries would be made (in the money columns). For example, the ledger (1453-1454) of the Florentine partnership of Della Casa and Guadagni, active in Geneva, states that the ledger will be kept in scudi "di 64 per marcho d'oro" [Cassandro, 1976, p. 199]. The opening statement in Sir Thomas Gresham's journal (1546), now in the custody of the Mercers' Company, London) declares, inter alia, that it "shalbe holden by poundes shillings and pence of money of Englonde."





Yet, well before Pacioli's Summa was published in Venice in 1494, the ledgers of many Italian merchants and bankers had personal accounts in which there were entries in two different currencies (in separate money columns). There are many such two-currency accounts in the Della Casa/Guadagni partnership ledger (mentioned above); for instance, there are personal accounts in which entries are made in scudi (in the outer money column) and also in *fiorini* or *lire* (in an inner money column). The ledger (1456-1459) of Giovanni Piccamiglio [Heers, 1959], a merchant in Genoa, includes accounts in which entries are made in lire (in the outer money column) and in sterling or doubles of Seville (in an inner money column). Angelo Pietra [1586] explained that such ledger accounts were conti a moneta doppia1; and Lodovico Flori [1636, p. 41] called them conti di moneta doppia. (Here, I use the term two-currency accounts or nostro accounts.)

However, the presence of two-currency accounts in early double-entry ledgers in no way contradicted Pacioli's prescription that the ledger accounts should be kept in only one currency. In the examples referred to above, the entries in the inner columns did not form part of the double-entry set of ledger accounts. Nevertheless, the entries in the inner columns contained important information, just as did inner columns in merchandise accounts for quantities of goods (e.g., barrels, pieces, weights, and so on) contained useful information, although they obviously did not constitute part of a double-entry system of inter-locking ledger accounts.²

Two-currency accounts, indeed much more than this subject, are discussed in the article "Early Accounting Problems of Foreign Exchange" by the late Professor Raymond de Roover [1944]. The title of that article, however, is misleadingly limited; the article is in fact largely concerned with the ways in which merchants and bankers used bills of exchange in 15th and 16th century Europe.

De Roover's article of 1944 has deservedly been praised by



¹"Moneta doppia; è quando fuori si ne mettono due, cioè scuti, e lire" Pietra [1586, fo. 29].

² Several authors seem to have been struck by the similarity, as regards their function as memoranda, of the inner (foreign-currency) columns of two-currency accounts and the inner quantity columns of merchandise accounts. For example, the discussion of two-currency accounts appears in close proximity to the discussion of quantity columns in merchandise accounts in the treatises of Flori [1636, p. 41] and Ricard [1709, p. XXVII]. The heading of Flori's chapter 12 is: "Come si referischino i conti di moneta doppia, e quelli, che hanno annesso Peso, ò Misura."



economic historians. Federigo Melis [1950, p. 523] observed that de Roover "had written brilliantly" (ha scritto brillantemente) on nostro accounts, and Henri Lapevre [1955, p. 356, n. 88] referred to the article as "très important." However, de Roover's discussion of two-currency accounts and related bookkeeping matters did not deal with all aspects of early practice. Further, in wartime U.S., de Roover evidently had limited access to early publications on bookkeeping and accounts (henceforth referred to here as "the early treatises"), and, in any case, his article referred to only a few books published after 1700. Moreover, new information about early treatises is of some relevance. The present article seeks to fill a few gaps, to supplement de Roover, and, in the process, to pay posthumous tribute to this versatile historian who contributed notably to several branches of study, including economic history, history of economic doctrine, and accounting history.

THE FUNCTIONS OF TWO-CURRENCY ACCOUNTS

The need for two-currency accounts arises in a particular business setting. It arises when merchant A in one commercial center uses the services of a business correspondent (or "friend") B located in a different commercial center (with a different currency) to transact some business transactions on his behalf. Also, B, the agent, has to be reimbursed by A (or make payments to A) in B's currency, the exchange value of which fluctuates in relation to A's currency. The risk of changes in the rate of exchange between A's "domestic" currency and the "foreign" currency (i.e., B's "domestic" currency) is borne by A. The entries in the inner columns (the foreign-currency columns) show the indebtedness between A and B in respect of transactions made within the merchant-agent arrangement, while the entries in the outer columns (the domestic-currency columns) show, when the account is closed and balanced, the profit or loss made by A as a consequence of changes in the rate of exchange. Thus, a twocurrency account serves two purposes: it shows the amount (and direction) of the indebtedness between the two parties, and it shows the principal's profit or loss on exchange.

It follows from the above that in one respect the entries in the foreign-currency columns are more significant than the entries in the domestic-currency columns, although as already noted, the former do not form part of the double-entry network of ledger accounts. The importance of the foreign-currency columns is emphasized by Oudshoff, described as a bookkeeper in Rotterdam, in his first-rate treatise of 1833. Oudshoff [1833,

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pp. 85-86] observes that in two-currency accounts, the foreign currency is the main or chief subject ("...in deze rekeningen de vreemde munt hoofdzaak is"). Thus, when the ledger is being balanced and closed, one must first ascertain the balance on the foreign-currency entries, then translate that balance into the corresponding domestic currency, and finally enter the amount in the domestic-currency column. (It is interesting that de Roover [1944, p. 402] writes that the "foreign currency is the ruling currency" in two-currency accounts). Oudshoff also notes that any profit or loss stemming from exchange-rate movements is no concern of the foreign agent ("...waarmede onze buitenlandsche vriend niets te maaken heef ..."). This profit or loss is disclosed as an equilibrating entry on the appropriate debit or credit side of the account, the counterpart entry being made in the profit-and-loss account (henceforth "P&L account").4

The earliest known written discussion of two-currency accounts is in a manuscript, dated 1458, by Benedetto Cotrugli of Ragusa, who, among other activities, was a merchant. The discussion [Tucci, 1990, p. 174] consists only of a few lines and would have been difficult for an uninformed merchant or bookkeeper to follow. But it clearly distinguishes between entries in the foreign currency ("muneta fuori") and those in the domestic currency, i.e., the currency in which the merchant's (principal's) books are kept ("ad moneta che costume a tenere il tuo libre sicondo lo costume della tua patria"). It also identifies the two purposes of a two-currency account. From the entries in the domestic-currency columns, the merchant can always see the profit or the loss on the account with the correspondent ("...sempre apare l'utile et lo danno di quel conto"). As regards the entries in the foreign-currency columns, Cotrugli conveys the idea that they always enabled the merchant to check or verify his position vis-à-vis his correspondent ("...per potere sempre riscontrare con chui hai da ffare").5



³ The same point is made in some other treatises, e.g. Irson [1678].

⁴Where appropriate, the profit or loss on exchange could be transferred to a particular merchandise account or similar type of trading account instead of being transferred to the P&L account. An example is in the model ledger in Coutereels [1603; ledger fo. 14]. The profit shown on one *nostro* account is transferred to the Voyage to Antwerp account (*Schepinghe op Antwerpen*), the balance on which is posted in due course to the P&L account. The profit in question arose out of the foreign agent's dealings in connection with a partnership venture, the transactions of which are recorded in the Voyage account. The option of transferring the profit (loss) on a *nostro* account to a merchandise account (or similar trading account) instead of to the P&L account is mentioned, in general terms, in the treatise by Flügel [1781, p. 27].

⁵Cotrugli's manuscript has been published, with an illuminating introduction, by Professor Ugo Tucci [1990]. There have been earlier printed versions of the manuscript, all seriously



Yamey, Two-Currency Accounts

NOSTRO AND VOSTRO ACCOUNTS

A merchant could use a particular foreign correspondent to carry out activities on his behalf. That same foreign correspondent could, in turn, use the merchant as his agent to carry out activities for him. Any debt arising out of those activities would then be settled in terms of the merchant's domestic currency, not the correspondent's. The merchant, acting as agent, would have an account in his ledger to record the outlays made and revenues received on behalf of his foreign correspondent.

Accordingly, the same foreign correspondent could be both an agent and a principal *vis à vis* a particular merchant. In such a case, the merchant's ledger would have two separate accounts for the same correspondent. But whereas it would be a two-currency account as regards activities made on behalf of the merchant, the account recording the merchant's outlays and revenues on behalf of his correspondent would be an ordinary personal ledger account with only one set of money columns, with entries in them expressed in the domestic currency. The Della Casa/Guadagni ledger includes several examples of correspondents with two accounts – one as agent, the other as principal.

In Italy, the term *nostro* (or variant) was used for the foreign correspondent's account as agent, and the term *vostro* (or variant) for his account as principal. The term *nostro* (= our) tended to be used when the merchant was a partnership (*compagnia*), and *mio* (= my) when it was an individual. For no obvious reason, the word *vostro* (= your) was commonly used for the correspondent when acting as principal, although the more appropriate *loro* (= their) was also used if the correspondent was a partnership, or *suo* (= his) if it was an individual.⁸

The connection between a nostro account and a vostro ac-







flawed, as Tucci has demonstrated in detail. Cotrugli's short account of two-currency accounts was omitted from all those versions.

⁶The same correspondent could also have had other personal accounts in the merchant's ledger as well. Flügel [1781, pp. 24-25] includes the following types: *conto corrente, conto di tempo, conto di deposito* and *conto di compagnia*. Note the use of Italian terms in a treatise written in German.

⁷ The words *de noi* were sometimes used instead of *nostro*.

⁸ The Italian words were translated into other languages, e.g., mon compte/son compte and mijn rekening/zijn rekening. It seems that in Germany, the use of the Italian words was often preferred to their German equivalents. The use of Italian terminology (as illustrated in footnote 6 above) was sometimes deplored. Christian Hingstedt, a bookkeeper in Hamburg, noted, with satisfaction, that the tendency to favor foreign terminology was declining. Hingstedt [1804, p. 9] writes, inter alia, that "Man schreibe also künstig nicht mehr...mio Conto, suo Conto, loro Conto und nostro Conto... sondern... meine Rechnung, seine Rechnung, ihre Rechnung und unsere Rechnung...." The terms vostro and nostro are still used today by British banks.

count may be noted. Continuing with the earlier example of A and B, the entries in the foreign-currency columns in the *nostro* account (in B's name) in A's ledger should mirror exactly the entries in the *vostro* account (in A's name) in B's ledger, except that debits and credits would be reversed.

NOSTRO/VOSTRO: A DIGRESSION

As de Roover [1944, p. 402] noted, the difference between a *nostro* account and a *vostro* account was clearly set out in a treatise in English by John Carpenter [1632, pp. 57-58]:

Note. But you must remember to make a difference betwixt his Account and your Account. – As for example...

All which another doth for you, you shall write it, *Such* are on my Account.

And, contrarily, that which you doe for him, you shall write it, *Such are on his Account...*

Several other authors also clarified the difference between *vostro* and *nostro* accounts; nevertheless, it seems that the distinction was not always understood.

Oudshoff [1833, p. 10] included a long explanation of the need for *nostro* and *vostro* accounts because his own experience showed him that many pupils had difficulty understanding the matter. He noted that a person familiar in practice with business readily understood the difference between *nostro* and *vostro* even if he had no knowledge of bookkeeping itself.

Hendrik Waninghen (or Waningen), author of a successful treatise, seems to have been confused about the distinction. Waninghen's treatise in Dutch was published in the 17th century in several editions, with some differences in the title, and also in a French version with two editions [Ten Have, 1933, pp. 29-30]. Without acknowledgment, a large part of the Waninghen book was rendered into English in Carpenter's treatise of 1632.

According to de Roover [1944, p. 401] Waninghen explains carefully "that a *Vostro* account is opened for a foreign principal and a *Nostro* account for a foreign agent." Although the illustrative accounts in Waninghen do include examples of the two types of account, at least in one passage in the text the two types are confused. The passage appears, in faithful translation, in Carpenter [1632, p. 44]. Without going into detail, it is enough to state that Carpenter, like Waninghen, wrote *inter alia* as follows: "...to the end that you may understand, that which you sell for the Account of some one, or that which hee buyes for you,

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ought to be put Creditor for his Account, since that he is the demander, both of the one and the other..." The passage clearly is at odds with another passage in Carpenter [Carpenter, 1632, pp. 57-58], which is quoted in the de Roover article and in the text above. The contradiction seems to have escaped de Roover's customary vigilance. 10

There is, indeed, good reason to believe that Carpenter was not responsible for the correct passage on pages 57-58 of his book. It is far more likely that it was written by Ralph Handson, self-styled "accomptant." A tangled story involves Waninghen, Handson, and Carpenter.¹¹

In a note to the reader in Richard Dafforne's [1635] *Merchants Mirrour*, Handson wrote that he had "collected" Notes "out of *Henry Waninghen* in French, for mine own use." Handson presumably translated into English the passages he selected from Waninghen. He did not publish his Notes. ¹² Carpenter, however, had "surreptitiously" acquired them, and a large part of his treatise of 1632 consists of passages corresponding to parts of Waninghen's text. Carpenter, incidentally, also used material he took without acknowledgment, from published English treatises. There is little that is original in his book.

The correct passage in Carpenter [1632, pp. 57-58] begins with the word "Note," and the first sentence is printed in italics.





 $^{^9}$ The passage corresponds to the *disciple*'s answer to the *master*'s 27^{th} question in Section IIII of Waningen's book:

⁽a) Version in Dutch [Waninghen, 1613]:

[&]quot;Overmits men sal verstaen, watmen voor yemandts reeckeninghe vercoopt of wat hy voor ons reeckeninghe incoopt, dat daer voor zijn reeckeninghe moet Credit staen, te wijl hijt beyde is eysschende"

⁽b) Version in French [Waningen, 1615]:

[&]quot;A fin qu'on entende, que ce qu'on vend par la compte de quelqu'un, ou ce qu'il achete pour le nostre, que cela se doibt mettre Credit pour son compte, puis qu'il est demandeur, & de l'un, & de l'autre ...".

¹⁰ De Roover's small lapse is understandable. The Waninghen text is often long-winded, boring, and *repetitive*. As Irson [1678, ch. 1] put it, "*le mauvais* style & *les frequentes* repetitions qui se pourroient abreger" *renders* "*la lecture ennuyeuse*."

¹¹ For further details, see Yamey [1957] and Yamey et al. [1963, pp. 167-168].

¹² There is only one known published work by Handson [1669]; his broadside (single sheet) *Analysis* ..., of which the third edition is dated 1633. There must have been earlier editions. In the fourth "corrected and enlarged edition" of 1669, there appears the following somewhat perplexing statement, inserted, it seems, as an afterthought:

NOTA. That...Also, All Accompts of Exchange and of parties residing in Forrain Countries, are to be kept with a double Margin, viz. The inward Margin for the Money of the place beyond the Seas, and the outward for the place where you reside.

ф

De Roover [1944, p. 401] suggested that the use of italics was intended "to attract the attention of the reader." The use of the word "Note," I suggest, was also used to attract attention, not that of the reader, but that of Handson himself, the compiler of the Notes. This inference stems from the fact that the incorrect passage in Carpenter (p. 44) also begins with the word "Note," printed in italics. I suggest that when Handson was working on his Notes, he realized that a passage in Waninghen he had already translated was erroneous. He therefore wrote a correct statement, beginning it with the word "Note" as a reminder to himself. At the same time, he added the word "Note" to the incorrect passage to draw his own attention to the fact that it was wrong. In due course, Carpenter saw the correct statement and inserted it at the end of a short section on a subject on which it had no bearing. Carpenter was an inept plagiarist. 13

EXPLAINING TWO-CURRENCY ACCOUNTS

Only a few of the many treatises published between 1494 and 1800 include a detailed explanation and discussion of two-currency accounts in their texts, as distinct from illustrative examples in their model sets of account books. Many did not include any discussion or illustration at all, beginning with Pacioli [1494]. Presumably their authors considered the subject too advanced or complicated for their intended readers, if these were mainly students of the subject or their teachers. Other treatises included examples of two-currency accounts in their model account books, without any reference or with only a very brief and perfunctory reference to them in their expository text. It is as though the subject was considered too complex to be explained concisely in words, or that it could only be made clear, even to more experienced readers, in the form of a worked-out example or two.

The first treatment of two-currency accounts in the published literature is in John Weddington's *Breffe instruction*



¹³Richard Dafforne [1670, pp. 51-53], an Englishman who spent some time in The Netherlands and was knowledgeable about Dutch treatises, noted that there were contradictions in Carpenter concerning the *nostro/vostro* question. He indicated other passages in Carpenter which, like that on pp. 57-58, were correct statements. One example is a short un-titled section which begins with the word "Note" [Carpenter, 1632, pp. 12-13]. There is no corresponding section in Waninghen. (Incidentally, in two sections immediately following the section in question, the initials "R.H." appear in an account title.) Although the discussion in Dafforne is not always easy to follow, it is evident that the respondent in the question-and-answer dialogue ended up being frustrated by the contradictions: "these HIS MY seems to me an *Androgyne*, or *Hermaphrodite*, from which (as I conjecture) a good *Facit* can never issue."



[1567]. Weddington, an Englishman, had practical experience of mercantile affairs in Antwerp, where for some years he was the agent of Sir Thomas Gresham and also taught accounting. The text of his book does not mention two-currency accounts, but they do make an appearance in the model ledger. The ledger is that of Thomas Lane, "merchant of London and now resident in Andwarpe." One account of Francis Durant has inner columns for entries in "sterlinge" to the left of the main columns for entries in the (domestic) currency of the ledger [Weddington, 1567, ledger A, fo. 34]. The heading of the account, on the credit side, is "Francis Durant marchant of London, for this my account..." (italics added). It is a nostro account. The last entry on the debit side has an entry, only in the outer column, for the profit ("... whiche I finde to be cleare gavnid"), which is credited to the "accompt of gayns and losses." In addition to the nostro account, there is an account in Durant's name "for this his accompt ..." (italics added), without columns for entries in sterling [Weddington, 1567, ledger A, fo. 30]. It is a vostro account.

James Peele, who had practical experience of business and accounting, wrote two books on bookkeeping and accounts. The first [Peele, 1553] has nothing on *nostro* and *vostro* accounts. His later treatise [Peele, 1569, ledger A, ff. 26, 31], no doubt influenced by Weddington, has examples of two-currency accounts in the model ledger, including one for the merchant's "factour [agent] in Spaine," and another for his "factour in France." The profit on the latter, disclosed in an entry in the account "to make the eng. Monie even," is transferred to the P&L account. The profit in the former is, however, "borne to the accompte of voyages into Spaine" (a trading account, the profit on which is in due course transferred to the general P&L account). (The comments in Peele's text on the above two *nostro* accounts are not illuminating, and one of them is not even correct.)

There were, however, a few treatises which treated two-currency accounts at greater length, although even then their readers were likely to have had recourse to the illustrative examples in the model ledgers. Two of the more extensive discussions are presented here. They are sustained attempts to explain a subject which, as Lapeyre [1955, p. 356] has put it: "le problème le plus ardu de toute la science des comptes,…c'est celui du change extérieur."

Claude Irson was a "Iuré Teneur de Livres, nommé par Sa Majesté [of France] pour l'ordre & l'examen, verification, & liquidation de toutes sortes de Comptes." His interesting book, "composée de l'ordre de Monseigneur Colbert," was published in Paris



in 1678. His discussion of two-currency accounts begins with the fifth rule in chapter 5:

CINOUIEME REGLE

Que les Comptes des affaires que l'on a dans les Pays étrangers, où la Monnoye ordinaire du Livre n'a pas cours, doivent estre tenus en Monnoye double, c'est à dire en la Monnoye étrangere, & en la Monnoye ordinaire du Livre.

Lors que l'administration pour laquelle le Livre est tenu, suppose des Affaires propres, qui se font dans des Pays estrangers où la monnoye ordinaire du Livre n'a pas cours, c'est une necessité indispensable detenir les Comptes en deux sortes de Monnoyes, sçavoir en la Monnoyeestrangere & en celle qui est commune à tout le Livre: parce qu'on ne peut obliger le correspondant à rendre compte qu'en la Monnoye deson administration, & qu'il seroit impossible d'en faire la verification & l'appurement, si l'on ne l'avoit pas tenu en sa Monnoye: il est aussi necessaire de la tenir en la Monnove commune du Livre, tant par la relation que chaque partie d'un Compte a avec celle d'une autre Compte, que pour pouvoir tirer le Bilan, & voir si le Livre est juste. Pour la pratique de cette Regle on a accoûtumé de faire, au Debit & au Credit des Comptes de nos Correspondans ou Commissionnaires des Païs étrangers, qui font des affaires pour nostre Compte propre, une colomne en dedans où l'on met la Monnoye ètrangere, de laquelle il n'est pas fait mention dans les rencontres, n'y ayant que la Monnoye commune du Livre qui doit toûjours indispensablement estre en deux endroits.

Irson then refers the reader to examples of two-currency accounts in his model ledger "pour avoir une plus grande intelligence de cette pratique." The first of several such accounts is the "Compte du Sieur Humphray Willette de Londres," who also has a vostro account. Irson's text then continues:

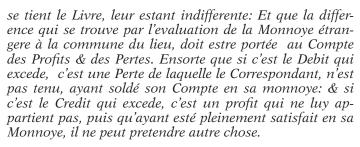
SIXIEME REGLE

Que les Comptes en Monnoye doubles doivent estre soldez en la Monnoye étrangere, & que l'inegalité qui se trouve dans la Monnoye commune du Livre, doit avoir sa rencontre au Compte des Profits & des Pertes.

Comme les correspondans étrangers ne sont obligez de compter des affaires de leur administration qu'en leur propre Monnoye, il s'ensuit que le Compte en doit estre necessairement soldé en leur Monnoye, celle du lieu, où







The second example of extensive treatment of the subject matter is in Robert Hamilton, *An Introduction to Merchandise* [second edition, 1788]. After some experience in the family business, Hamilton became professor of natural philosophy at Aberdeen University and later professor of mathematics. He achieved some prominence as an economist with his *Inquiry Concerning the Rise and Progress of the National Debt* (1813). Hamilton [1788, p. 327] discusses two-currency accounts as follows:

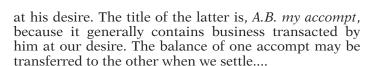
INNER COLUMNS FOR FOREIGN MONEYS

If an accompt with a foreigner is to be settled in British money, we have no occasion to compute the value of the articles in foreign money, and the entries are the same as in domestic trade: But, if the accompt is to be settled in foreign money, we must enter the value of each article [entry], reduced to that money, in an inner column. In these accompts, if we are able to receive the money which is due us, at a more advantageous rate of exchange than we expected when the debt was contracted, or pay the money which we owe, at a cheaper rate, there is a gain obtained; on the contrary, a loss is sustained, if the rates of exchange undergo the opposite alterations....

If the sums of the inner columns be equal, there is nothing due by the one party to the other; and then, if the sums of the outer columns be unequal, the difference is gain or loss. But, if the inner columns be unequal, the balance due from one party to the other must be valued at the current rate of exchange; and, after the value is added to the proper side, the difference of the outer columns is the gain or loss.

If we have different transactions with a foreigner, some of which are to be settled in British, and some in foreign money, the articles should be entered in separate accompts. The title for the former is, *A.B. his accompt*, because it generally contains business transacted by us





Reasonably detailed discussion of *nostro* and *vostro* accounts are also to be found in some other treatises, including Flügel [1781, pp. 26-28] and Oudshoff [1833, pp. 9-10, 85-86], both already referred to above.¹⁴

MISCELLANEOUS TOPICS

Placing of the Columns: It has been assumed implicitly so far that in two-currency accounts the foreign-currency columns are the inner columns. This seems to have been the usual arrangement in practice and is to be found in all the early treatises I have seen.

There were, however, exceptions in practice. Ceccherelli [1913, pp. 26-29] reproduced a two-currency account in an early Italian ledger in which the foreign-currency entries are in the outer columns. It may have been an advantage of this placing that the space for the posting reference – giving the page number of the original entry in the journal or of the particular account in the ledger to be debited or credited – was next to the domestic-currency entry, thereby reducing the likelihood of mistakenly posting the foreign-currency amount. Many of the authors of treatises achieved the same end by placing the posting-reference space between the inner and the outer currency in the more common arrangement.

Converting Foreign-Currency Entries into the Domestic Currency: Two-currency accounts were used in early accounting to deal with fluctuations in rates of exchange. Yet, few of the early treatises deal explicitly with the question of which exchange rates the merchant should use when extending entries in the inner columns of *nostro* accounts into the outer (domestic currency) columns. Perhaps authors considered the choice of rate to be self-evident; for example, that the rate ruling at the date the entry is made in the outer column. In my view, a different explanation is more plausible. Most merchants and their book-



¹⁴Matthieu de la Porte included a long section on "Comptes des Correspondans" in his Science des negocians of 1704, a successful treatise of which there were many editions. The section includes discussion of two-currency accounts. However, it is confused and contains a few errors. De la Porte, incidentally, refers to the domestic-currency columns as les colomnes ordinaire and the foreign-currency ones as les colomnes extraordinaires [De La Porte, 1704, pp. 170-174].



keepers were not preoccupied with the question of the precise determination of periodic profits or with the value to be placed on an asset when the ledger was being balanced and closed. Authors of treatises by and large reflected this attitude. The choice of rate did not, of course, affect the amount which the merchant owed his foreign agent or which the latter owed the merchant. That indebtedness was the relevant figure of direct interest to the merchant and was to be found in the inner columns.

References in certain treatises to the choice of exchange rate are noted here. John Mair [1736, p. 81], author of the most frequently issued textbooks in English on bookkeeping and accounts in the 18th century, observed that, when the ledger is balanced and closed, via a *balance* account, any balance shown in the inner columns should be converted by "valuing the Foreign Money at the current Rate of Exchange." Matthieu de La Porte [1704, p. 174] made the same point, as did Hamilton, quoted above, and Oudshoff [1833, p. 85].

As regards the entries to be made for the foreign agent's receipts and payments on behalf of the merchant, Flügel [1781, p. 27] observed that there were differences of opinion as to the rate of exchange to be used. However, the best view was that the conversion should be made at the rate of exchange ruling when the transaction was being entered in the merchant's books.

Abraham de Graaf [1693, p. 34], a writer on bookkeeping with an original approach, has an interesting discussion of choice of exchange rate. He considers the case of a purchase of merchandise by the foreign agent on behalf of the merchant. He explains that it is better to enter a sum in the domestic-currency column of the nostro account at a higher rather than a lower amount than that indicated by the prevailing exchange rate. The reason behind this advice is that, if the corresponding debit entry in the merchandise account were lower, the merchant might think the merchandise cost less and so sell it too cheaply since the apparent profit on the re-sale would appear to be high enough to satisfy him. This possibility cannot be completely ruled out.¹⁵ De Graaf goes on to make the point (which assumes that the re-sale price is not affected) that, though the higher purchase price causes the profit shown on the merchandise account to be lower than it would otherwise be, the profit shown on the nostro account, when it is balanced, would be correspondingly



¹⁵ The point de Graaf made had been made earlier by Pacioli [1494, ch.12], who advised that values of items in the opening inventory should be put higher rather than lower, so that you can more easily succeed to make a profit. See Yamey [1994, pp. 118-119].



higher. He concludes that, as regards the net effect on the merchant's P&L account is concerned, it does not matter whether the purchase price had been set too high or too low; the balance on the P&L account would be exactly the same.

Entries only in the Inner Columns: It was the general practice for the foreign agent's expenditure on acquiring merchandise for the merchant to be entered in the *nostro* account in the inner column as well as in the outer column (converted at the appropriate rate). But what about other outlays the agent made on the merchant's behalf and would be entitled to recover, or the commission that was the agent's reward? Practice was not uniform. It seems that some merchants entered these expenses and commission in both columns, while others did not do so.

Giovanni Piccamiglio adopted the former course. A foreign agent's incidental expenses were entered in his *nostro* account in Piccamiglio's ledger in both the foreign and the domestic-currency columns. The counterbalancing debit entries were made in the P&L account. When a *nostro* account was balanced, the excess of credit over debit entries (or vice versa) in the outer columns, was credited (or debited) to the same P&L account. ¹⁶

The Della Casa/Guadagni ledger [Cassandro, 1976] includes a large number of *nostro* accounts. The entries for the foreign agent's incidental expenses (such as brokerage and carriage) and the commission payable to him are made only in the foreign-currency columns and not in the domestic-currency columns. It follows that this treatment gives rise to the recording of smaller profits (or larger losses) on the *nostro* accounts when these are balanced than if the treatment used by Piccamiglio had been used. But the P&L account would not be debited directly for the expenses and commission. The two treatments thus would have the same net effect on the balance of the P&L account. Of course, the amount of the indebtedness between agent and principal shown as the balance on the inner columns would not be affected at all by the particular treatment used, but the balance on the outer columns would differ according to the treatment used.

It is not possible to establish which of the two treatments was used more widely in practice, or whether there were re-



¹⁶The language used in the Piccamiglio ledger was "latin médiéval génois riche en incorrections, fantaisies et néologismes" [Heers, 1959, p. 10]. The types of expenses entered in nostro accounts included censaria, corretagius cambiorum, missorum, and impoxita literarum, i.e., brokerage and letters. The P&L account is avarie diverse or racione avariarum. A debit entry in a nostro account to transfer a profit to the P&L account is as follows: ... pro cressimento istius racionis de racione avariarum....[Heers, 1959, p. 320].



gional or national differences. In the great majority of early treatises, the latter method seems to have been illustrated, with incidental expenses and commission being entered only in the inner columns.¹⁷

Only one attempt at explaining why that treatment is to be preferred has been encountered. According to Hamilton [1788, p. 328], discussing the recording of commission due to the foreign agent:

This method of entry [i.e., amount not being extended to the outer column] is better than charging *Profit and Loss*, or *Commission-accompt Dr. to our Correspondent A.B.*, for if that method were used, an imaginary gain would appear on balancing our correspondent's accompt, which would be counterbalanced by a latent loss in a different accompt.

It is not clear what Hamilton meant by "imaginary" and "latent" in the passage just quoted. The meaning is elusive, although Hamilton, a careful expositor, may have had some subtlety in mind.

Entries only in the Outer Columns: Entries made only in the domestic-currency columns of a *nostro* account obviously neither increase nor reduce the amount of the indebtness between agent and merchant as shown in the foreign-currency columns. Those entries do, however, affect the profit or loss shown in the domestic-currency columns when the account is balanced.

Entries of this kind are to be seen in several *nostro* accounts in the Della Casa/Guadagni Ledger [Cassandro, 1976, e.g., p. 415]. In several cases, it is clear that the debit or credit related to matters arising out of the agent's dealings, although not affecting his debt to or from his principal. For example, there is a credit entry for a profit made by the partnership in connection with a foreign-exchange transaction recorded in that account.¹⁸ I believe that this explanation also applies to other entries where the underlying circumstances cannot now be ascertained in the absence of other account books.

It is not at all clear why entries of this kind were made in *nostro* accounts. It seems somewhat anomalous that transactions or events that did not affect the foreign agent were recorded in what, in a major respect, was a personal account



¹⁷ Scali [1755, fo. 19] is one exception.

¹⁸Cassandro [1976, p. 415] wrote: "...avanzati chon Arigho di Spangna del sopra ditto chanbio"



in the name of that agent. It would have been possible to have made the entries directly in the P&L account (or an intermediate account). It may well be that most merchants did just that. In any event, however, the choice of treatment did not affect the eventual balance shown in the firm's P&L account.

ALTERNATIVE TREATMENTS

According to Benedetto Cotrugli, writing in mid-15th century Italy, a merchant who was involved in foreign-exchange transactions should use two-currency accounts in his ledger. If he did not do so, he was not worthy of being called "merchant" (*Se pure non lo farai, non se' degno d'essere nominato mercante* [Tucci, 1990, p. 174]). Some 120 years later, Irson [1678] declared that it was an indispensable necessity (*necessité indispensable*) to have two-currency accounts for foreign correspondents acting on the merchant's behalf.¹⁹

Yet, there were other ways of keeping or recording the information a merchant needed in order to determine how he stood *vis-à-vis* his foreign agent. The merchant could have a personal account for the agent, with entries being made, in domestic currency, in the only money columns in the account. He would also keep a record outside the ledger, in foreign-currency terms, of his dealings with the agent. Whenever he thought fit, he could adjust the agent's personal account for the profit or loss on exchange with an appropriate entry in the P&L account. Clearly, this was a less "accountantly" solution than the *nostro* account favored by Cotrugli.

There was, however, a more "accountantly" alternative to the *nostro* account. That alternative was an accounting treatment associated with Venice although it was not used by all Venetian merchants of the 15th and 16th centuries. Here is the description of de Roover [1944, p. 398] of this Venetian method and his adverse assessment of it:

Casanova (1558) was the first Venetian writer to touch upon the problem of foreign exchange. If his description of commercial practices is accurate and trustworthy, it seems that *Nostro* accounts were little used in Venice but were replaced by an impersonal account called 'Exchange with Antwerp,' (London, Lyons, or whatever the place might be). The exchange differences



¹⁹See Irson extract quoted above. The same words are used by Samuel Ricard [1709, p. XXVII], a French-born merchant who traded in Amsterdam. Ricard's discussion is derived from Irson's.



were eliminated from the current accounts with correspondents abroad by using a fixed exchange rate. As a result of this procedure, exchange differences appear in the Exchange accounts just mentioned.

This method has the serious defects of being cumbersome, of involving extra work, and of necessitating the arbitrary choice of a fixed exchange rate. I do not know why this method was preferred in Venice. It is certain that Venetian business practices frequently differed in important respects from those of other Italian cities.

There is evidence which suggests that this Venetian method was sometimes used outside Venice. Simon Ruiz (1526-1597) was one of the most important merchants of 16th century Spain. His career as merchant is the main subject of Henri Lapeyre's [1955] *Une famille marchands: les Ruiz.* The surviving ledgers pertaining to the early years of Ruiz's running of the family enterprise suggest that, as regards dealings with foreign correspondents, Ruiz used a treatment very similar to that described by the Venetian Alvise Casanova in 1588 [Lapeyre, 1955, p. 358].²⁰ In due course, Ruiz modified his accounting treatment in various ways.

Jan (= Giovanni) della Faille, the Elder (1515-1582) is the principal subject of Wilfrid Brulez's [1959] monograph *De firma Della Faille....* Jan was the factor in Antwerp of the de Hane business located in Venice, established by a Flemish merchant who settled there. Jan also traded on his own account and was prominent in the commercial community in Antwerp, itself the center of the international trading system. It seems clear, from a short paragraph in Brulez's [1959, pp. 42-43] book, that della Faille followed the Venetian method of treating accounts with his foreign agents.

Both Simon Ruiz and Jan della Faille were leading merchants who operated on a large scale. For them, the two-currency *nostro* account was not indispensable. Yet, although not





²⁰ De Roover [1944, p. 406, note 65] draws attention to the fact that Casanova, in some of his examples, uses the names of real-life merchants, including Anton Fugger and the Bonvisi. Casanova also has an account for "Giovan della Faglia" (= Jan della Faille), the merchant mentioned in the penultimate paragraph of this paper. Casanova was not the only author to use the names of real merchants. For example, Weddington has a *nostro* account for "Johan de la Fallio, merchant of Andwarpe," in his model ledger [Weddington, 1567, ledger A, fo. 20]. Michel van Damme, the son of a patrician merchant, and himself a merchant in Rouen, has a ledger account in his model ledger, "*Martin de la Faille d'Anvers mon compte*…" [Van Damme, 1606, ledger fo. 2]. Maarten (= Martin) de la Faille (1545-1620) was the son of Jan de la Faille and in business with him.



indispensable, the treatment involving entries in two currencies was an eminently "accountantly" solution to the problem created by fluctuating exchange rates and the use of agents located in foreign trading centers. It is a solution which has had a long history.

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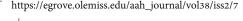
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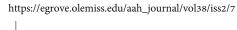


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