Trade Finance in the Late Nineteenth Century: Accounting for Silver Risk

> "For some time after 1874 there was only a certain number of merchants who had become frightened about exchange. It was in 1876 that the great alterations in the method of financing shipments were made, and then a large number of those who traded to the East instead of drawing on London became so frightened about the fall in silver that they drew on Shanghai in taels, or on Hong Kong or on Japan in dollars, as the case might be. The shipper would draw a bill on Shanghai at 60 days, which a bank in London would buy at a rate of exchange they (the banks) fixed themselves, and this saved him from any further risk of a fall in the exchanges."
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> Mr. Provand, a trader with the East, testifying before the Gold and Silver Commission. Source: *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 160.

1. Introduction

In the former chapter, we have provided further descriptive evidence of Flandreau/Oosterlinck's asset pricing approach with respect to the credibility of the silver price and bimetallism in the field of sovereign debt. That this has received its, admittedly still limited, share of attention in the literature is largely self-evident.

Comparing silver- respectively gold-denominated government securities seems the best conceivable proxy for long-term expectations. Yet is it possible to find a corollary of 'silver risk' in other fields of finance, say, for instance, trade finance?

Contrary to what one might object intuitively, this does not need to imply a shift of attention to short-term capital movements that one can reasonably expect to find as a response (arbitrage) to the short-term variability of the gold silver exchange rate.[1] Instead, we look at the institution-level, and address those institutions that are historically associated with selling trade insurance: exchange banks, or, as they were sometimes referred to, 'international banks'.[2]

The intuition is that these institutions, their very *raison d'être* being the managers of exchange risk, will reflect their long-term expectations of silver prices in the way they price risk. This may have taken different forms. On the one hand, we may assume that their assessment of the eventual incredibility of silver led to a (hefty) premium on holding risk denominated in that metal. On the other, when silver was still considered credible, i.e. in the case of expected appreciation, one may expect a larger willingness to hold large chunks of their portfolios in silver denominated securities. Such long positions on silver would thus translate in a willingness to carry the exchange risk, rather than shifting it to clients in the silver-using countries.

With all this must come a disclaimer. The following paragraphs build on a —largely Japanese— tradition of business history documenting the evolution of nineteenth century Asian trade finance with a focus on the London capital market. Highly original in their own right, findings within this tradition have unfortunately remained under the radar of mainstream financial history, be it for linguistic reasons or

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[1] For literature on the latter, see the iconic groundbreaking work of Arthur Bloomfield: Bloomfield, Arthur I. 1963. *Short-Term Capital Movements under the Pre-1914 Gold Standard*. Princeton Studies in International Finance, no. 11. Princeton, N.J: International Finance Section, Dept. of Economics, Princeton University.

[2] Baster, Albert Stephen James. 1935. *The International Banks*. London: P. S. King & son, ltd. Other publications by the same author include: Baster, Albert Stephen James. *The Imperial Banks*. London: P. S. King & son, ltd., 1929; Baster, Albert Stephen James. 1960. *The Introduction of Western Economic Institutions into the Middle East*. Chatham House Memoranda. Oxford: Distributed for the Royal Institute on International Affairs by the Oxford University Press.

else. They were important for this chapter, in that they can all claim to have partially discovered the story behind ‘silver risk’ in nineteenth century trade finance.[3]

What follows is necessarily a hybrid account. True to the ethno-historiographical approach adopted in the other chapters, we revisit earlier findings, whether in English or Japanese or else, and explore their relationships by means of newly unearthed primary materials, constituting mostly descriptive, i.e. ‘narrative’ evidence. This is in no sense to be interpreted as a deficiency. In a sense, the narrative evidence is more informative than mere quantitative material, as it touches on the various aspects of bill finance in the nineteenth century. In bookkeeping manuals and treatises of the time I found an unusual yet indispensable companion for reconstructing the accounting workflow characteristic of sterling bills, currency drafts, interest bills, and so on.[4]

The conclusions are pertinent. We find very substantial proof that there existed a form of silver risk in trade finance. The key to our findings is, perhaps surprisingly, financial technology. ‘Silver risk’ was hard-wired into the contracts used for import- and export trade from and to East-Asia, either as the underlying mechanisms for pricing risk or as clauses defining who was to bear the risk. Researchers as Nishimura Shizuya,

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[3] For a recent, voluminous and seminal publication wrapping up Japanese research findings in this respect, see: 西村閑也, 鈴木俊夫, and 赤川元章. 2014. 国際銀行とアジア : 1870〜1913. 慶應義塾大学出版会. http://ci.nii.ac.jp/ncid/BB15855309. For two early, and still relevant papers, see: 石井寛治. 1979. “イギリス植民地銀行群の再編–1870・80年代の日本・中国を中心に.” 経済学論集 45 (1): p19–60. http://ci.nii.ac.jp/naid/40000858867; 石井寛治. 1979. “イギリス植民地銀行群の再編–1870・80年代の日本・中国を中心に-2完-.” 経済学論集 45 (3): Pp. 17–46.http://ci.nii.ac.jp/naid/40000859016.

[4] For a sample of such sources (in chronological order): 土子金四郎. 1895. 外国為替詳解. 哲学書院 , 有斐閣(發賣). http://ci.nii.ac.jp/ncid/BN15396567; 大槻爲八. 1909. 外國爲替實務誌. 同文館. http://ci.nii.ac.jp/ncid/BA34071138; 天野爲之. 1---. 外國爲替論. 早稲田大學出版部. http://ci.nii.ac.jp/ncid/BA58498851; 田代循. 1902. 銀行及外国為替論. 実業之日本社. http://ci.nii.ac.jp/ncid/BA60448153; 石川由郎. 1907. 英國爲替銀行ニ關スル復命書. 三井銀行. http://ci.nii.ac.jp/ncid/BN14148082.; 水野重也. 1908. 最新外國爲替. 宝文館. http://ci.nii.ac.jp/ncid/BA33745542; 田村秀實. 1908. 銀行實務誌. 同文館. http://ci.nii.ac.jp/ncid/BA34286892. Most of these publications can be found in full-text form in the digital library collection of Japan’s National Diet Library. There also exist a few (very helpful) examples of ‘grey literature’, i.e. as YSB-internal publications: 横濱正金銀行. 1923. 横濱正金銀行外國爲替実務見學報告書. Yokohama (?). http://ci.nii.ac.jp/ncid/BA84845781; 横濱正金銀行調査課. 1924. 發行銀行引受手形信用状取引ノ法律關係. 横濱正金銀行調査課. Yokohama (?). http://ci.nii.ac.jp/ncid/BN14786464; 横濱正金銀行調査課. 1931. 銀行實務より見たる英國手形法解説. 横浜正金銀行調査課. Yokohama (?). http://ci.nii.ac.jp/ncid/BA43172668;

Suzuki Toshio, Kitabayashi Masashi and others must be credited for explaining how trade finance related contracts (mostly bills of exchange) evolved considerably in the course of the nineteenth century (cf. infra).[5] Much more intricate than previously thought in the West, 19th century bankers had a very advanced understanding of the issues at stake. Japanese researchers, on the other hand, may be surprised to find how exactly this relates to larger stories as the credibility of bimetallism, the emergence of the classical gold standard, etc.

2. The Early Days: London as the Pivot of All International Trade Finance

[5] For the most representative examples: Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press; Nishimura, Shizuya, Toshio Suzuki, and Ranald C. Michie. 2012. *The Origins of International Banking in Asia: The Nineteenth and Twentieth Centuries*. Oxford University Press. 酒井一夫, and 西村閑也. 1992. 比較金融史研究：英・米・独・仏の通貨金融構造1870〜1914年. ミネルヴァ書房; Suzuki, Toshio. 2012. "The Rise and Decline of the Oriental Bank Corporation, 1842–84." In *The Origins of International Banking in Asia*, edited by Shizuya Nishimura, Toshio Suzuki, and Ranald C. Michie, 86–106. Oxford University Press. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199646326.001.0001/acprof-9780199646326-chapter-4; 北林雅志. 1982. "銀価下落期におけるイギリス植民地銀行–1870年代末〜80年代初頭にかけての為替取引方法の変化を中心として." 商学論纂 24 (3): p. 187–229. http://ci.nii.ac.jp/naid/40001787585; 北林雅志. 1987. "十九世紀末におけるイギリス植民地銀行の為替業務とポンド利付為替手形." 経営史学 21 (4): 1–28,1. http://ci.nii.ac.jp/naid/110000180968; 北林雅志. 1992. "イギリス植民地銀行の対銀価下落政策：香港上海銀行の Even Keel Policy を中心に." 経営史学 26 (4): 42–70,iii. doi:10.5029/bhsj.26.42; 北林雅志. 1999. "詐欺と管理–イギリス植民地銀行の支店管理." *Sapporo Gakuin University Review of Economics and Business* 16 (1): 31–60. http://ci.nii.ac.jp/naid/40004523679; 北林雅志. 2001. "19世紀後半アジアにおけるイギリス植民地銀行の支店活動." *Sapporo Gakuin University Review of Economics and Business* 18 (2): 33–62. http://ci.nii.ac.jp/naid/40004523712. Papers by different authors on the topic include: 小島仁. 1978. "第一次大戦以前 (一八九五〜一九一四年) の東洋為替と植民地銀行が果たした役割:東洋の銀本位制が国際金本位制に包摂されたしくみ、特に中国について." 国際経済 1978 (29): 135–44. doi:10.5652/kokusaikeizai.1978.135; 石井寛治. 1979. "イギリス植民地銀行群の再編–1870・80年代の日本・中国を中心に." 経済学論集 45 (1): p19–60.http://ci.nii.ac.jp/naid/40000858867; 石井寛治. 1979. "イギリス植民地銀行群の再編–1870・80年代の日本・中国を中心に-2完-." 経済学論集 45 (3): p17–46.http://ci.nii.ac.jp/naid/40000859016.

How did the financing of trade with East-Asian countries before the 1870s differ from the following decades? As can be gathered from the epigraph, 1876 in particular must be treated as a watershed. This is at least what emerges from Mr. Provand's testimony before the Gold and Silver Commission on 28th February 1887. The testimony is actually doubly relevant: apart from pinpointing a specific date, it also sketches the direct relationship between changes in bill finance and the silver price. The impact of yet other changes, namely in communication and transportation technology, which certainly played their role at the time, are omitted. At the same time, the account contains a certain bias. Mr. Provand was, as also succinctly noted in the Report of the Royal Commission, an *exporter* of goods from Great-Britain to the East.[6] His points therefore relate to only one side of European trade with East-Asia, and one that is probably the more complicated one.

The financing of Eastern exports to Western Europe by means of so-called 'import bills' is arguably more straightforward. The reason therefore is that such finance relates to trade operations that was carried out by traders whose unit of account was silver. The difference is an important one as the latter, by the virtue of operating on silver, were also isolated from silver's gyrations after 1874-75. Yet other differences existed, in particular with respect to the *usance* of such bills.[7] It is commonplace among economic historians that Great-Britain financed its exports on a long-term credit base, whereas import bills, i.e. bills drawn on Great-Britain from overseas, were non-renewable short-term credit instruments.[8] These aspects can, however, be safely

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[6] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 159.

[7] Nishimura makes a strong distinction between bills in terms of their usance, and reiterates that bills related to the importation of Asian goods into Great-Britain had a particularly short-term character. See in this context as well several articles in *The Economist*, where this is explicitly argued: "Adverse Exchanges. - High Rate Of Interest". *The Economist* (London, England), Saturday, September 3, 1853; pg. 985; Issue 523; "The Economist". *The Economist* (London, England), Saturday, October 9, 1858; pg. 1117; Issue 789.

[8] Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. Pp. 26 ff, esp. p. 28.

left out of the discussion for now. Let us first see what import bills entailed in terms of accounting workflow.[9]

For the exporting house in, say, Shanghai, the operation was actually quite simple. It drew a sterling denominated bill upon London, which it sold, at the rate of the day, to one of the exchange banks present in the city, or any other Chinese portal trading hub, for that matter. At the same time it sent out its goods ("mostly tea and silk", according to the Report of the Royal Commission). The exchange bank sent the bill on to London, where it was kept until maturity by the London bank. At maturity, the latter collected the payment —in British pound— from the London importer. If expressed schematically, the transfer of the trade contract, the merchandise and the compensation by the British importer looks as follows (figure 1):[10]

Fig. 1. the flow of goods, bills, and money (remittances/advances) in the case of the import of Eastern merchandise into Great-Britain

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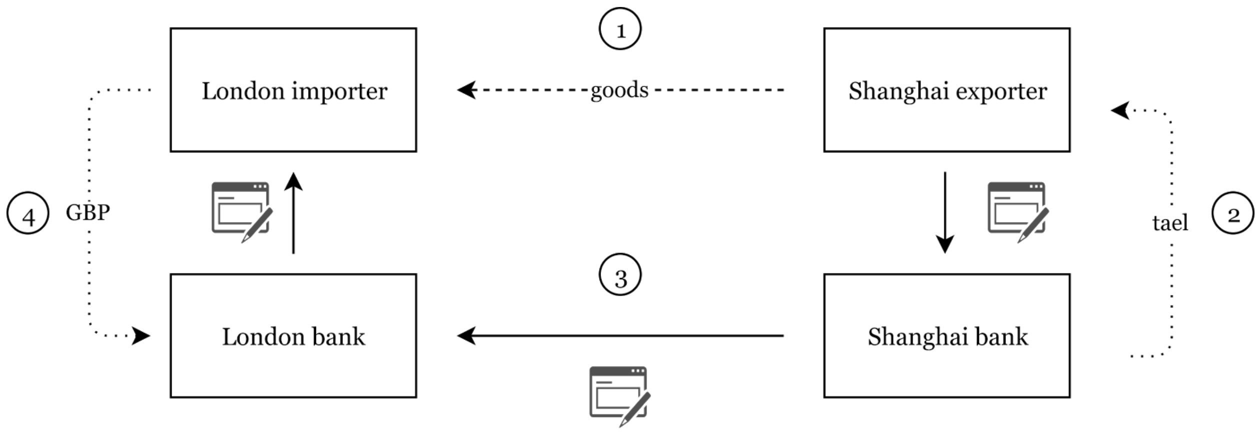
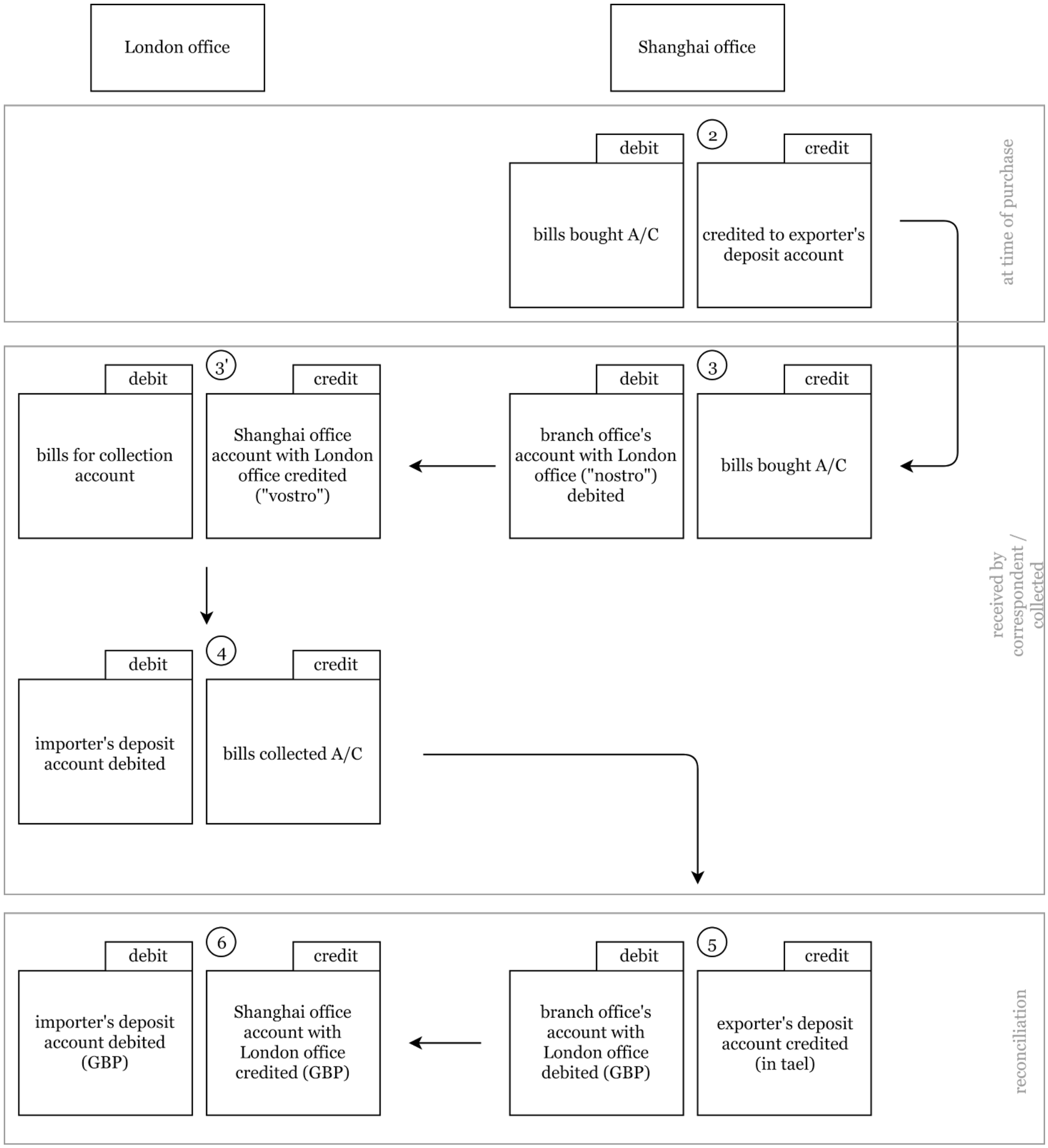
[9] Descriptive evidence of the activities of the English importer of East-Asian merchandise are also contained in the *Report of the Royal Commission*, but I was not aware of the latter until Suzuki Toshio recently draw attention hereto. See, in this respect, for the testimony of Mr. John Kenworthy Bythell (8 February 1887). In: *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. Pp. 92-108. Suzuki's discussion can be found in ?????, 西村閑也, 鈴木俊夫, and 赤川元章. 2014. 国際銀行とアジア : 1870〜1913. 慶應義塾大学出版会. http://ci.nii.ac.jp/ncid/BB15855309. Pp. ????????.

[10] For inspiration of the figures below, see especially: 石川由郎. 1907. 英國爲替銀行ニ關スル復命書. 三井銀行. http://ci.nii.ac.jp/ncid/BN14148082.; 安東盛人. 1957. 外國爲替概論 : その機構と機能. 有斐閣. http://ci.nii.ac.jp/ncid/BN0286978X. The former contains plenty of reproductions of examples of the accounting workflow associated with all kinds of bills. For a full list, see: 横濱正金銀行. 1908. 横濱正金銀行計表・帳簿・記帳模本. Yokohama (?). I used a copy from my personal collection. This bank-internal publication (a training manual?) proved particularly valuable when visualizing the accounting workflow of bill types. A high-quality scan can be found on figshare: Schiltz, Michael. 2016. "YSB Bookkeeping Workflow Illustrations 横濱正金銀行計表・帳簿・記帳模本 (internal Accounting Manual of the Yokohama Specie Bank, Japan). "https://figshare.com/articles/YSB_bookkeeping_workflow_illustrations/2074609. I suspect similar examples of 'grey' publications also functioned as the defining influence for several of Kitabayashi's papers referred to above.



The accounting workflow corollary to this transaction is illustrated in figure 2 below. It is clear that, from an exchange banking perspective, this is a clear-cut way of conceiving of a foreign exchange transaction. Upon buying the bill from the Eastern exporter, the exchange bank credited the exporter's account with the amount paid, and booked the acquired bill to its debit (as it had bought a debt) (2). When sending on the bill to the London office of the bank, it debited its 'nostro' account (*tōhō kanjō* 当方勘定) with the latter, and the Shanghai office could treat the bill to its credit under 'bills bought' (*kai kawase tegata* 買為替手形)(3). Conversely, the London office credited the Shanghai office account with itself (referred to as a 'vostro' account (*senpō kanjō* 先方勘定) as it is an account of an entity other than itself in a currency of that entity, yet belonging to the same bank network), and booked the bill to its debit side on the 'bills for collection' (*uketori tegata* 受取手形) account (3'). Upon maturity, the British importer's account with the London office was debited for the amount due, and the bill was booked as a bill collected ('credit') (4).

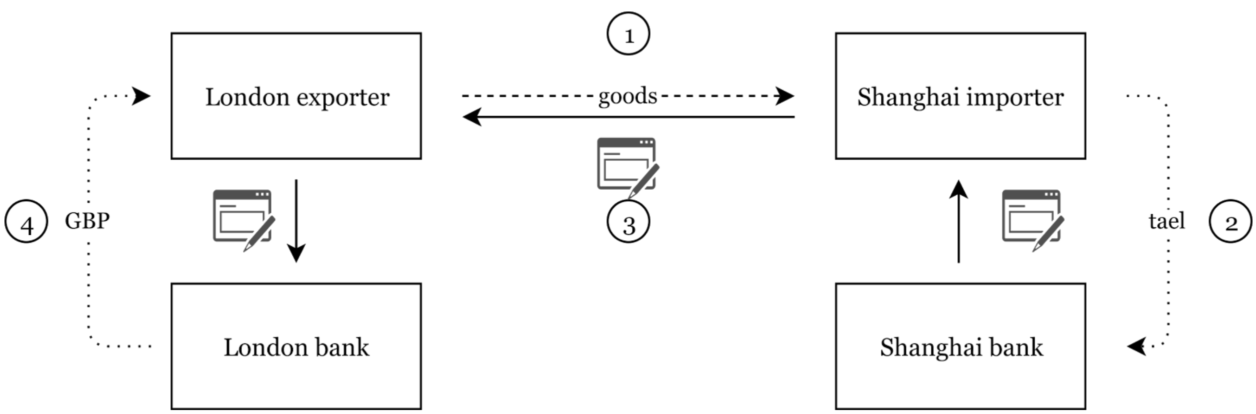
Fig. 2: accounting workflow associated with the import of Eastern merchandise into Great-Britain, before 1876



Rounding up, as can be seen in (5) and (6), the transaction between the Shanghai and London branches of the bank was settled in one and the same currency, namely British pound. For the the London office, the unit of account of which is GBP, this did not even affect its exchange position. For the Shanghai branch as a unit, on the other hand, it is strictly speaking a settlement in a foreign currency. As the latter keeps its books in the *tael* unit of account, the transaction resulted in a sterling denominated credit claim on the London office. In order for the latter to be settled, it had to enter in a reverse transaction, namely one in which its credit claim is matched by a London office claim on Shanghai —in other words, a transaction involving an 'export bill' originating in London, and, importantly *a consequent remittance of GBP from Shanghai to London*. Returning to the epigraph to this chapter, this is the kind of transactions Mr. Provand, the "trader with the East", was referring to.

As the reader will immediately note, the set of flows related to export bills is not a mirror image of the one relating to import bills (figure 3). This is crucial, as it will explain how fundamentally different export finance differed from import finance.

Fig. 3: the flow of goods, bills, and money (remittances/advances) in the case of the export of merchandise from Great-Britain to East-Asia, before 1876



First of all, the London exporting house did not draw on the Shanghai bank, but it, too, *drew on London*. It sent out its goods, for instance, cotton goods from Manchester, as we are told in the Report of the Royal Commission. Importantly, the goods were sent out on manufacturers' accounts as adventures, i.e. they were not the consequence of an earlier order from an East-Asian importer. As Mr. Provand described, this kind of export finance could thrive thanks to the existence of another entity, namely the consignee. Compare the following conversation between our merchant and the members of the Gold and Silver Commission:

> "'Now, suppose that in the year 1873 [...] you sent out a shipment of cotton to Shanghai?' —I bought an invoice of cotton goods in Manchester, and shipped it off. I drew on London for the amount of the invoice at six months, and if the proceeds had not returned from China within the six months, I had the bill renewed for, say, three months. By that time the proceeds of these goods would be back in my possession [...] 'In what form?' —In a sterling bill. The consignee of my cotton goods would sell them for taels (if in Shanghai), deliver the goods, get paid his taels, and go to the office of an Eastern bank in Shanghai, say the Oriental Bank or any bank, and buy a draft on London, which he would remit to me. [...] 'Your consignee would sell the goods?' —He would sell the goods, receive payment in taels of silver, go to the bank, and buy a draft in sterling on London, which he would remit to me. With the proceeds of that bill, when I received it in London, I would retire the original acceptance, and the transaction would be at an end. [...] 'But then you were trading with other people's capital?' —I am describing how 19 invoices out of 20 were treated."[11]

As indicated in this short exchange, the original bill the merchant drew on his London bank was never sent out of London; it was, hence, a so-called inland bill (*naikoku kawase tegata* 内国為替手形), *but its purpose was not the financing of domestic trade* (!), nor did it have a comparable and relatively short usance as ordinary inland bills. Around the 1870s, the usance of inland bills for long-distance foreign trade was typically 60 days sight (equal to eight months' date). It could be renewed several times (in most cases for 30 days per renewal, according to Mr. Provand), and it should therefore be treated as a particular type of inland bill, as Nishimura argued long ago.[12]

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[11] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 159-160.

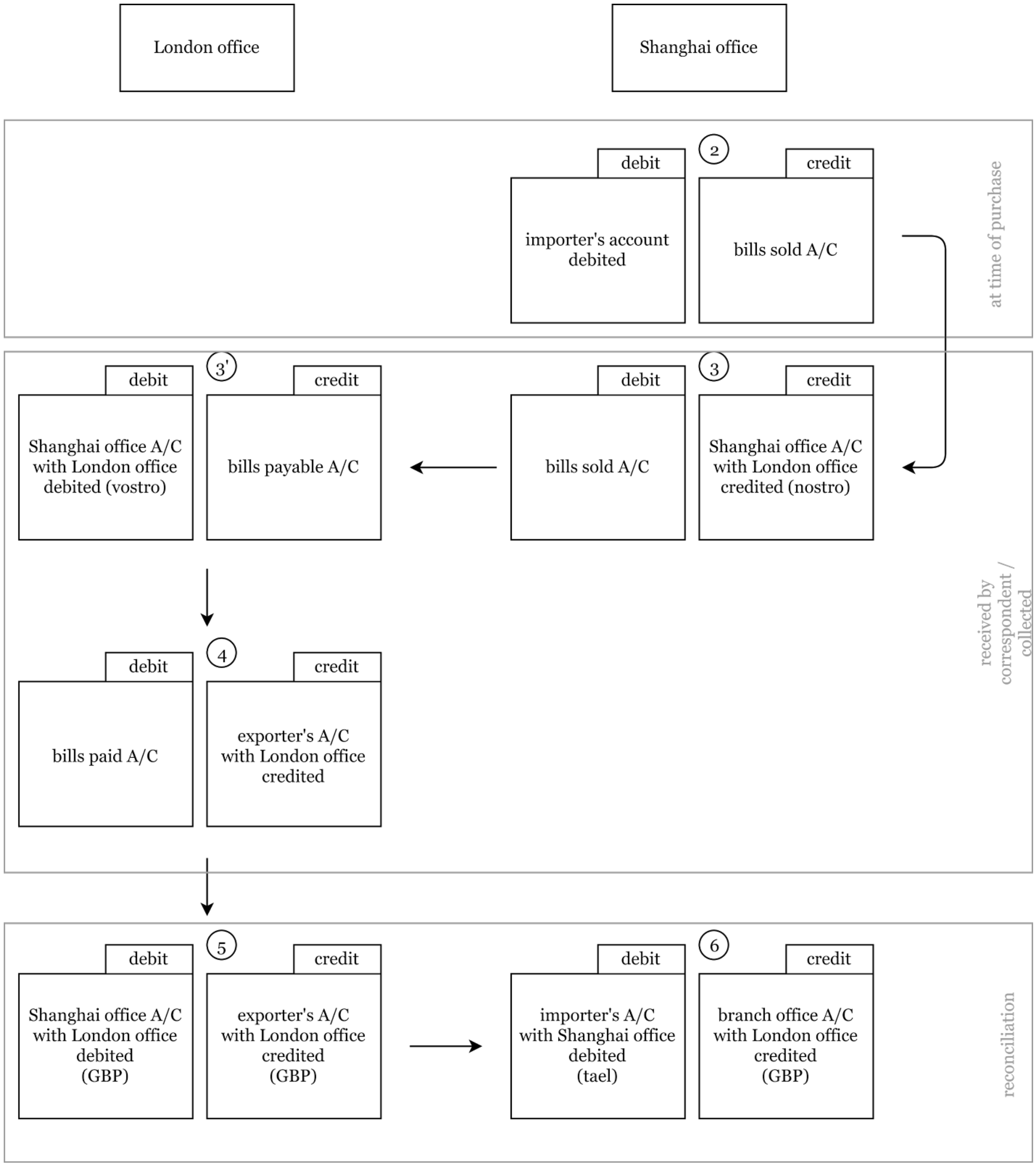
[12] "Thus, the standard usance of bills could have been different from what could be termed the standard period of transactions. If we take the case of export trade with countries like India, China, Australia [...], the time needed for the transportation of the goods and the time needed

Note as well the role of the London banker. His role as made it possible for the merchant to keep his inland bill with Great-Britain, thanks to which that bill can be renewed, as we saw, sometimes several times. In the language of the aforementioned *Report*: "'Then an exporting merchant in England before 1874 used to draw upon his own credit?' —He used to draw it might be on a bank in London or elsewhere, or on a firm, in which case he would pay a commission to them for accepting his draft, or it might be on a house that was doing the business with him on joint account."[13] The consignee, on the other hand, played an equally important role. Through the purchase of a sterling remittance draft on London (*rondon-ate stāringu sōkin kawase tegata* ロンドン宛スターリング送金為替手形), he/she created the opportunity for the Shanghai bank office to replenish its tael-holdings the latter had paid out when buying bills from Shanghai based exporters (cf. supra). In other words, although the set of flows related to export bills is rather different from the one related to import bills, the corollary accounting workflows are perfectly complementary (fig. 4):

Fig. 4. accounting workflow associated with the export of merchandise from Great-Britain to East-Asia, before 1876; using a sterling draft

for sending back the money proceeds could together have been as long [...] as eight or nine months till the sixties [...]. In spite of this the export trades to those distant parts were financed by drawing four or six month's bills on London or Liverpool. *Thus, standard usance of bills was in many instances just a fiction to rig up a semblance of respectability by which financing of these long-distance trades was more palatable to the banks which discounted these bills*." Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. P. 33. Italics mine.

[13] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 160.



As the principles of steps (2) to (4) have been explained in figure 2, that needs no repetition here. I only draw attention to the settling of accounts in steps (5) and (6). It is clear that, when compared with figure 2, the accounting workflow implied that, for the London office, the transaction once again does not result in a foreign exchange operation; for the Shanghai office, on the other hand, it does constitute a foreign exchange operation, yet one it needs in order to recoup taels it had paid out when acquiring export bills from domestic exporters. Debts and credits between the branches/offices could be cleanly offset (*sōsai* 相殺).

3. 1876 and Beyond

The old ways of trade financing eroded after the mid 1870s, however, as argued in our epigraph. A host of factors contributed to the demise of the consignment system, and contrary to what the reader might have come to believe from Mr. Provand's testimony, they were not all monetary ones. As a matter of fact, profound changes in the technologies of transportation and telecommunication were equally forceful drivers of change and innovation.

First of all, the opening of the Suez canal in 1869 allowed ships to travel between Europe and Eastern Asia without navigating around Africa, thereby reducing the sea voyage distance between Europe and India by about 7,000 kilometres, or 4,300 miles.[14] Related to the latter,[15] the introduction of more fuel-efficient ocean steamers made shipping considerably faster. It also boosted their use, as they were ideally fit to take advantage from the new shipping route. At the same time, this led to the progressive abandonment of sailing vessels for Eastern trade. For them, the canal was not a practical option, as using a tug was difficult and, especially, expensive; this distance saving was

[14] Studies on the impact of the Suez Canal on the trade between Europe and (East-)Asia are surprisingly scarce. For a representative digest: Adams, John. 1971. "The Impact of the Suez Canal On India's Trade."*Indian Economic & Social History Review* 8 (3): 229–40. doi:10.1177/001946467100800301; Fletcher, Max E. 1958. "The Suez Canal and World Shipping, 1869-1914."*The Journal of Economic History* 18 (4): 556–73. http://www.jstor.org/stable/2114548.

[15] 吉田勉. 2014. "船舶技術に対するスエズ運河開通のインパクト." 技術と文明 : 日本産業技術史学会会誌 : *Journal of the Japan Society for the History of Industrial Technology* 19 (1): 21–33. http://ci.nii.ac.jp/naid/40020250771.

not available to them.[16] To be exact, the distance gained by the Suez Canal and the practicalities involved made that so-called steamers started to replace 'tea clippers' from the early 1870s.[17]

The telegraph added efficiency to the mix, especially after 1872, when the Eastern Telegraph Company was established (two years earlier, in 1870, the London to Bombay telegraph line had been completed). As convincingly argued by Lew and Cater, it reduced, among others, the time ships spent in port and allowed ships to travel farther among ports to collect more valuable cargo. This was not all. As the global telegraph network expanded rapidly, it shifted the world economy 'onto real time'. What this meant for international trade practices would soon be obvious: another way in which the telegraph "enhanced capital saving was in allowing merchants in remote locations to increase their inventory turnover rates."[18] Indeed, telecommunication eventually dealt a deathblow to the practice of 'adventuring' that underlay all pre-1870s bill financing.[19] The consequences of its demise for bill financing are important, and will be discussed in later paragraphs.

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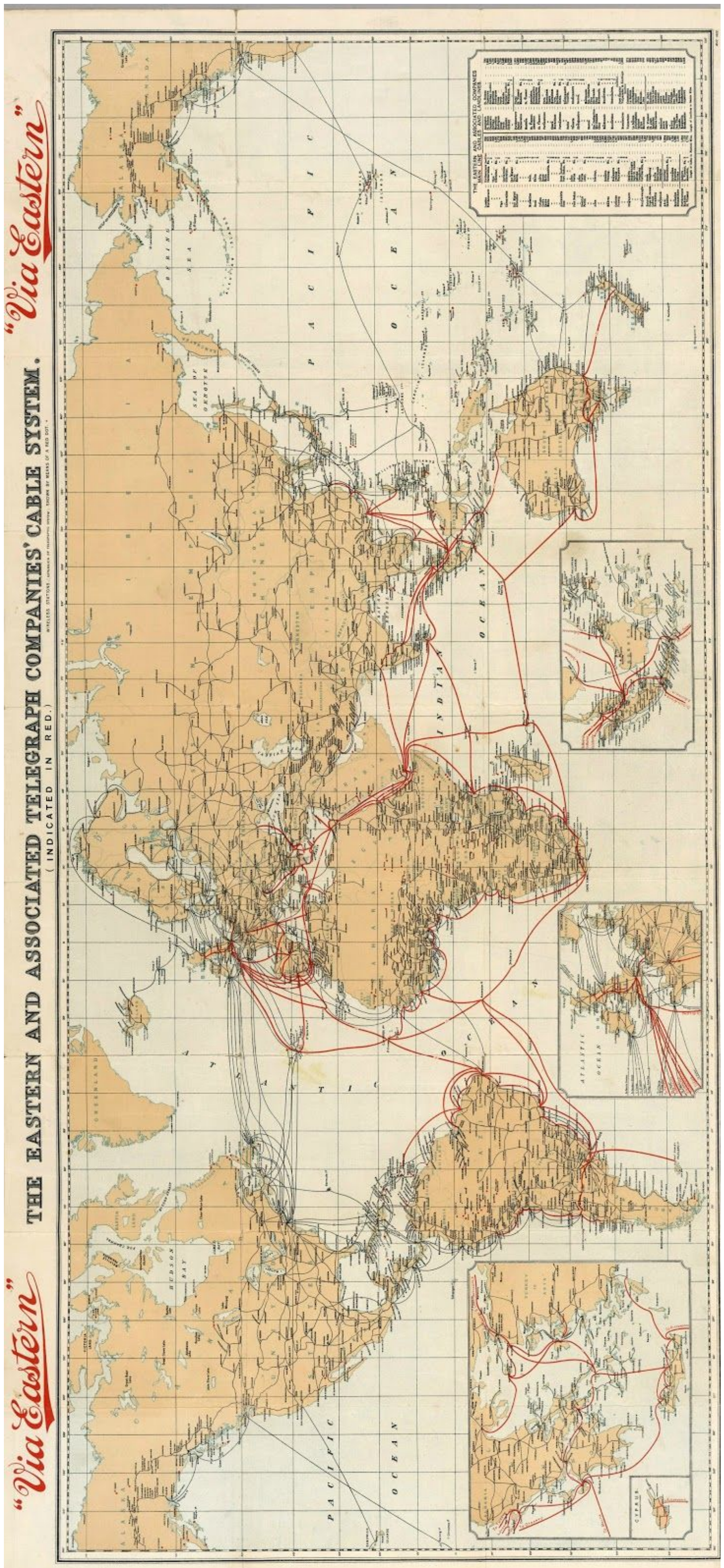
[16] Jarvis, Adrian (1993). "Chapter 9: Alfred Holt and the Compound Engine". In Gardiner, Robert; Greenhill, Dr. Basil (eds.). *The Advent of Steam - The Merchant Steamship before 1900*. Conway Maritime Press Ltd. pp. 158–159.

[17] MacGregor, David R. 1983. *Tea Clippers: Their History and Development, 1833-1875*. 2nd Revised & enlarged edition. Annapolis, Md: Naval Institute Press.

[18] Lew, Byron, and Bruce Cater. 2006. "The Telegraph, Co-Ordination of Tramp Shipping, and Growth in World Trade, 1870–1910." *European Review of Economic History* 10 (2): 147–73. doi:10.1017/S1361491606001663. Compare as well: Ejrnæs, Mette, and Karl Gunnar Persson. 2010. "The Gains from Improved Market Efficiency: Trade before and after the Transatlantic Telegraph."*European Review of Economic History* 14 (3): 361–81. doi:10.1017/S1361491610000109.

[19] Compare Nishimura: "A merchant firm relying on mails every four weeks would be inconceivable today, and from this we can get an idea of how different commercial activities were in the middle years of the nineteenth century. To this lack of telegraph was added the slowness and uncertainty of transport by sailing vessels. [...] Not only merchants, but also manufacturers, were probably forced to maintain a large inventory of raw materials if they wanted to insure the smooth working of their factories, because of the uncertainty of supply. Thus inventory investment appears to have played a much more important part than in the present day and the financing of these goods in store must have been a great burden on the money market." Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. Pp. 77-78.

Ill. 1: The Eastern Telegraph Company Network in 1922



Source: Eastern Associated Telegraph Companies. 1922. “Via Eastern: The Eastern and Associated Telegraph Companies’ Cable System.” London: Waterlow & Sons Limited. David Rumsey Historical Map Collection.
http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~272463~90046267:Via-Eastern---the-Eastern-and-Assoc#.[20]

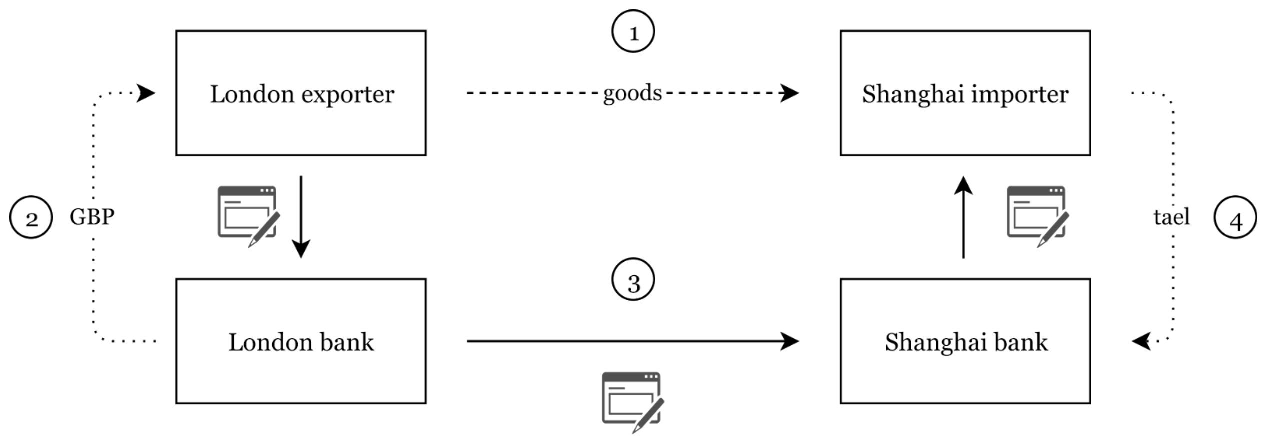
So how exactly was bill financing affected in the mid-1870s? As already indicated in Mr. Provand’s testimony, the fall of the silver price added an extra stress-factor to the changes in trade finance that developed in the early 1870s. To put it simply, merchants became unwilling to carry the risk that their exports to East-Asia would not find a buyer because of ‘adverse exchanges’, and, instead, sought to secure a safe return on their shipments rather than engage in speculation. The following is what the *Report of the Royal Commission* had to say about it:

> “‘[The merchant house] transferred the risk to the bank?’ —It transferred the risk to the bank of a fall in exchange. ‘But on the renewal?’ —There could be no renewal of such a draft in this country, because this draft went out of the country. It was drawn on the consignee in Shanghai against the goods and in 19 cases out of 20 the bill of lading and the policy of insurance would be attached to the draft when it was handed into the office of the bank here in London.”[21]

What the *Report* describes can be summarized graphically, as follows:

Fig. 5: the flow of goods, bills, and money (remittances/advances) in the case of the export of merchandise from Great-Britain to East-Asia, after 1876; the use of silver denominated drafts

[20] For explorations of the connect between telegraphy and empire see: Kennedy, P. M. 1971. “Imperial Cable Communications and Strategy, 1870-1914.” *The English Historical Review* 86 (341): 728–52. http://www.jstor.org/stable/563928; Winseck, Dwayne R., and Robert M. Pike. 2007. *Communication and Empire: Media, Markets, and Globalization, 1860-1930*. Duke University Press Books; Wenzlhuemer, Roland. 2012. *Connecting the Nineteenth-Century World: The Telegraph and Globalization*. Cambridge University Press.
[21] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 160-161.



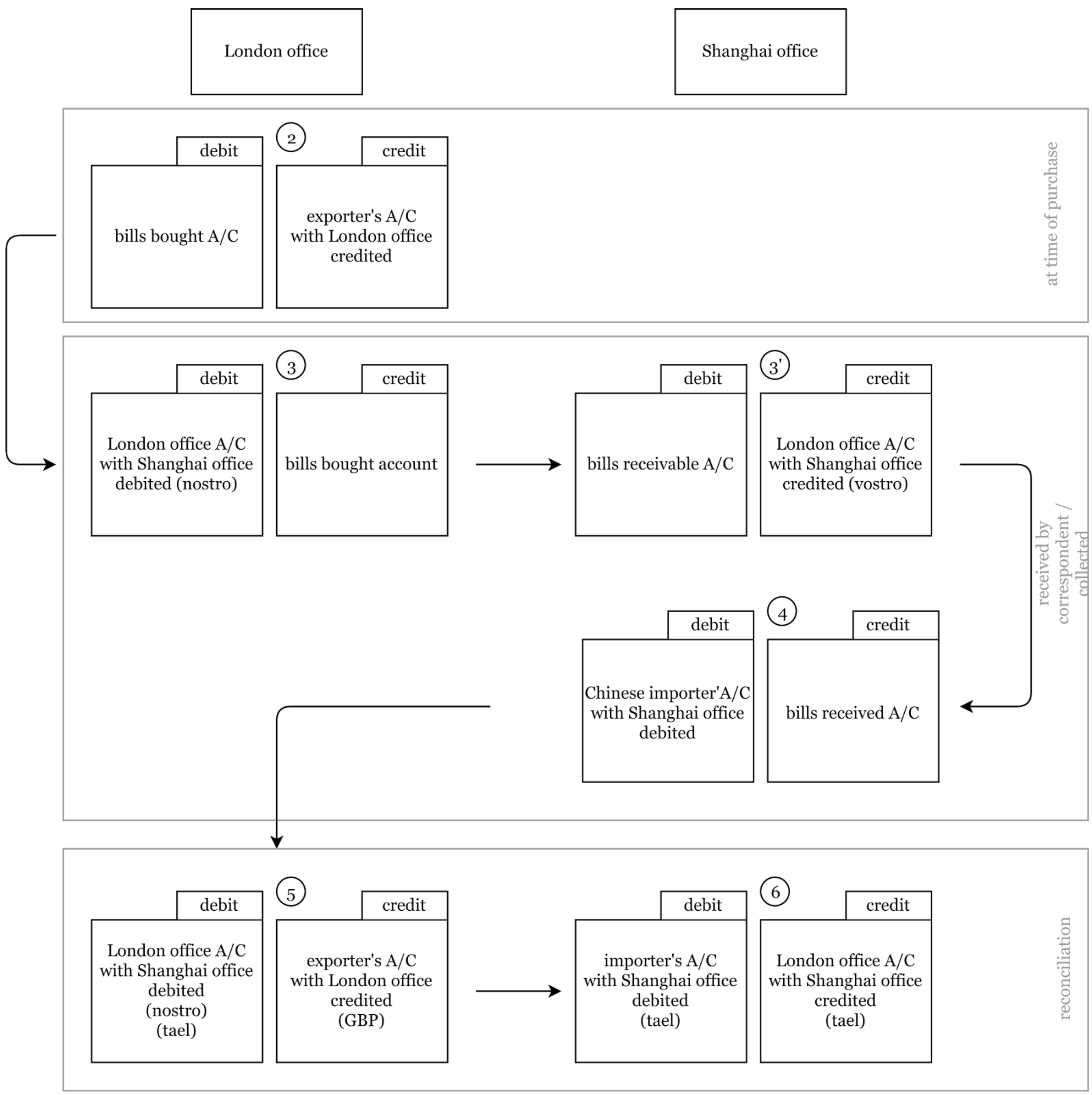
The consequences of such transaction will be explained in a minute. Again, the *Report* speaks for itself:

> "'But now [i.e. after 1876] [the merchant] draws on the consignee to whom he sends out a shipment?' —To a large extent. There are still some merchants who draw in Manchester on London. There are two ways in which it is done. He may draw on London and run his risk of the exchange, waiting till the proceeds came home. 'That is a method which has been given up?' —To a large extent. The other way is often done. He draws on London for the sake of getting cheap money, and at the same time telegraphs to his correspondent in Shanghai to buy forward as much exchange in sterling as the proceeds of the goods will amount to, thus ensuring himself a certain return for the goods when the proceeds come home. [However,] there is no forward business with Shanghai, or very little."[22]

There existed, however, serious problems with the settling of such transactions. As we see in figure 5, the merchant sent out his products to East-Asia (1), and bought a *tael*-denominated bill (*chūgoku-ate gin tegata* 中国宛銀手形) on Shanghai from his London banker (2). The latter sent it on to the Shanghai office (3), where the money was collected, at the bill's maturity (4), from the importer in China. In terms of accounting workflow, however, this posed new challenges, as can be seen in figure 6:

[22] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 160-161.

Fig. 6: accounting workflow associated with the export of merchandise from Great-Britain to East-Asia, after 1876; using a silver denominated currency draft



Again, steps (2) - (4) are quite straightforward. The British exporter draws a bill on Shanghai in tael, and the London bank buys this bill. The London bank credits the merchant's account to the amount for which it has purchased the bill, and books the bill as 'debit' as a bill bought (2). Next, when sending on the silver denominated bill, it debits its 'nostro' account with the Shanghai office (in *tael*), and books the bill to its credit as a 'bill bought' (3). The Shanghai office, on the other hand, credits the London office's vostro account, and books the bill as 'debit' as a 'bill receivable'. Once it debited the Shanghai importer's account with the bank for the amount due, it could book the bill as 'bill received'.

From the settlement in (5) and (6), however, it is clear that the London office faced a mismatch. It had engaged in a foreign exchange transaction, and found itself carrying the exchange risk for the period between the purchase of the bill and the latter's maturity, several months later. One understands the Gold and Silver Commission's surprise that the risk had effectively been transferred to the bank, whereas a reverse 'cover' transaction was not possible.[23]

If anything, this 'Achilles heel'[24] was at odds with the conservative exchange-banking attitude of the pre-1870s, when exchange banks hedged all their bets, thanks to the then stable gold-silver ratio. Mr. Provand was very direct in his indictment: "it is a speculation",[25] no more, no less, as there appeared to be no commensurate exchange cover. This, he assumed, explained the high rates for trade insurance with China and Japan (according to the report, frequently into 12% *per annum* or more):[26]

[23] 北林雅志. 1987. "十九世紀末におけるイギリス植民地銀行の為替業務とポンド利付為替手形." 経営史学 21 (4): 1–28,1.http://ci.nii.ac.jp/naid/110000180968. Esp. p. 7. Compare as well *The Economist*: "The present system throws all the risk on the bank, which should not incur it [...]" 'Why Have The Anglo-Indian Banks Fared So Badly In 1881?'. *The Economist* (London, England), Saturday, April 22, 1882; pg. 469; Issue 2017.
[24] 北林雅志. 1987. "十九世紀末におけるイギリス植民地銀行の為替業務とポンド利付為替手形." 経営史学 21 (4), p. 12.
[25] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 161.
[26] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 161ff.

> "—There is no forward business with Shanghai, or very little. As the produce business from India enables the banks to buy bills on London "forward," they in turn sell their own bills on London 'forward,' chiefly as remittances for proceeds of imports sold in India. They thus obtain 'cover' transactions, [...]. All the before-mentioned [sic.] conditions are wanting in the trade with China and Japan. There is nothing similar to India Council bills sold on these countries, and China and Japan have only two principal exports, tea and silk, most of which is shipped between June and September, and tea cannot be sold 'forward,' but only after it has arrived and been sampled. The banks are, therefore, unable for the greater part of the year to obtain 'cover' business in China and Japan as they do in the trade with India, and on this account they will not buy drafts on China and Japan against shipments, except at rates which cost the merchant about 12 per cent, for the use of the bank's money while the draft is running, and he must either pay this to the bank to be relieved of the risk of a fall in exchange, or wait the return of his proceeds, meanwhile taking the risk himself."[27]

To a certain extent, Mr. Provand was right. Although hedging strategies definitely existed (cf. the following chapter), they may not have been equally opportune or feasible to certain exchange banks, nor might they have been willing to hedge their exchange transactions.[28] As we know from Suzuki Toshio's work on the Oriental Banking Corporation, expectations of a rebound of the silver price in the late 1870s fueled the willingness to take the silver risk and take long positions on silver,[29] to the detriment of pretty much all exchange banks in India at the time.[30] Especially the decision to lock up

[27] *Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices*. 1887–1888. London: Eyre and Spottiswoode. P. 161.

[28] Possibly informed by (misleading) contemporary journalistic coverage, the idea that hedging strategies were unknown at the time persists until today. For a very recent example, see: Bonin, Hubert, Nuno Valério, and Kazuhiko Yago, eds. 2015. *Asian Imperial Banking History*. Ashgate Pub Co. Esp. pp. 11ff.

[29] Mr. Murray Robertson, then Chairman of the Chartered Mercantile Bank of India, London and China relates his bank's decision to the monetary conferences discussed in the former chapter: "[Our] bank took a wrong view of the result of the Paris Conference". In: 'Why Have The Anglo-Indian Banks Fared So Badly In 1881?'. *The Economist* (London, England), Saturday, April 22, 1882; pg. 469; Issue 2017.

[30] Suzuki, Toshio. 2012. "The Rise and Decline of the Oriental Bank Corporation, 1842–84." In *The Origins of International Banking in Asia*, edited by Shizuya Nishimura, Toshio Suzuki, and

its working capital in long-term Indian government securities cost the banks very dearly. *The Economist* put it as follows: “The bank which buys stock with the view of selling out at a possible profit, instead of with a view to hold for investment purposes, is simply gambling, and deserves a gambler’s fate.”[31]

Against the backdrop of these flawed managerial decisions, there was however also a structural problem. Again, Nishimura must be credited with discovering how the ‘structural problem’ of 1870s bill finance related to earlier developments. Put simply, the ameliorations in both speed and distance had caused the usance of bills to become considerably shorter (typically, from 6 months to 4 months).[32] This is also clear from his computations (usance goes back up again afterwards, for reasons that we will explain in later paragraphs):

Ill. 2. Bill usance, 1870-1904: Nine year moving average of unlapsed currency of bills held by Parr’s Bank and Liverpool Union Bank

Ranald C. Michie, 86–106. Oxford University Press. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199646326.001.0001/acprof-9780199646326-chapter-4.

[31] ‘Why Have The Anglo-Indian Banks Fared So Badly In 1881?’. *The Economist* (London, England), Saturday, April 22, 1882; pg. 468; Issue 2017.

[32] References in *The Economist* with regard to this discussion abound. See: ‘Usance of Indian Bills’. An East India Merchant. *The Economist* (London, England), Saturday, June 30, 1866; pg. 769; Issue 1192; ‘The Shortened Usance Of Indian Bills’. *The Economist* (London, England), Saturday, July 7, 1866; pg. 792; Issue 1193; ‘Usance Of Indian Bills’. An East India Banker. *The Economist* (London, England), Saturday, July 7, 1866; pg. 798; Issue 1193. ‘Usance Of India Bills’. Australian Merchant. *The Economist* (London, England), Saturday, July 14, 1866; pg. 823; Issue 1194; ‘The Bill Circulation Of The United Kingdom’. *The Economist* (London, England), Saturday, June 28, 1873; pg. 775; Issue 1557; ‘The Usance Of Eastern Bills’. *The Economist* (London, England), Saturday, December 28, 1878; pg. 1520; Issue 1844; ‘Eastern usance of bills’. W. Rathbone. *The Economist* (London, England), Saturday, January 25, 1879; pg. 94; Issue 1848; ‘The Usance Of Eastern Bills’. Exchange. *The Economist* (London, England), Saturday, February 1, 1879; pg. 124; Issue 1849; ‘Usance Of Bills From The East’. *The Economist* (London, England), Saturday, March 1, 1879; pg. 234; Issue 1853; ‘The Usance Of Indian Bills’. *The Economist* (London, England), Saturday, April 22, 1882; pg. 472; Issue 2017.

Source: Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. P. 98; p. 130.

Arduous demands —mostly from journalistic outlets as *The Economist*— to reduce the bills' usance, plausible they might have seemed at the time, drew sharp criticisms from merchants.[33] They argued that the transportation of goods from India to

[33] Compare footnote 27. Nishimura provides a summary of the debate: Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. Pp. 36-39. Interestingly, and with a hint to the difference between 'real bills' and 'finance bills', the *Economist* argued against long usance from the viewpoint of 'sound' versus 'unsound' finance:

> "[W]ith the introduction of steam and fast sailing clipper ships, the need for such a long credit was removed, and by the subsequent opening of the Suez Canal the conditions of business have been so changed that long bills are now not only unnecessary, but positively mischievous. They afford dangerous facilities for reckless financing, for, as transactions with China can now be readily enough completed within three months, the employment of six months' bills enables a trader to have the use of money for several months after the goods, which constituted the security for the advance, have passed out of his possession. [...] *Goods have been shipped to or from this country, not with a view of realising a profit upon their sale, but simply as a means of raising money*."

London took four months and that, until the sale of the goods had been effected, six to ten months after shipment were necessary.

From a banking perspective however, bringing down the usance of bills was even more problematic, as it squeezed the market: now there were less bills in circulation against which opposite claims could be bought. Consequent "excessive competition for exchange business" had not only brought down profits. It turned out, again according to *The Economist*, that it had also also given rise to "illegitimate" competition: "in the competition for exchange business, latterly, 'options' have been granted, allowing a merchant to call for his telegraphic transfer when it suited him best, and, of course, with money rising in India, when it suited the banks least".[34]

It is nowadays commonplace to point to the reduction of bill usance as a main factor behind the fate of the once mighty Oriental Banking Corporation.[35] Yet this issue was obviously not confined to OBC, and it is hence difficult to blame it on ill-inspired managerial decisions within the OBC cadre alone.[36] It turns out that *all* exchange banks,

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The Economist (London, England), 9 November 1878, p. 1315. Italics mine.

I surmise this distinction most probably found its roots in the aftermath Overend-Gurney crisis. For a discussion of the latter, see: Flandreau, Marc, and Stefano Ugolini. 2013. "Where It All Began: Lending of Last Resort at the Bank of England Monitoring During the Overend-Gurney Panic of 1866." In *The Origins, History, and Future of the Federal Reserve*. Studies in Macroeconomic History. Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139005166.006. Suzuki Toshio has provided a very thorough history in Japanese: 鈴木俊夫. 1998. 金融恐慌とイギリス銀行業―ガーニィ商会の経営破綻. 東京: 日本経済評論社.

34 'Why Have The Anglo-Indian Banks Fared So Badly In 1881?'. *The Economist* (London, England), Saturday, April 22, 1882; pg. 468; Issue 2017.

35 Suzuki, Toshio. 2012. "The Rise and Decline of the Oriental Bank Corporation, 1842–84." In *The Origins of International Banking in Asia*, edited by Shizuya Nishimura, Toshio Suzuki, and Ranald C. Michie, 86–106. Oxford University Press. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199646326.001.0001/acprof-9780199646326-chapter-4; 北林雅志. 1982. "銀価下落期におけるイギリス植民地銀行–1870年代末～80年代初頭にかけての為替取引方法の変化を中心として." 商学論纂 24 (3): p. 187–229. http://ci.nii.ac.jp/naid/40001787585.

36 For an apparent example of such approach, see: McGuire, John. 2004. "The Rise and Fall of the Oriental Bank in the Nineteenth Century: A Product of the Transformations That Occurred in the World Economy or the Result of Its Own Mismanagement." In *Asia Examined Proceedings of 15th Biennial Conference of the Asian Studies Association of Australia*.

with the notable exception of the Hong Kong and Shanghai Banking Co (the latter did not adhere to the agreement of bringing usance down),[37] saw sharp drops in their semestrial amounts of 'bills receivable'; their business results for the late 1870s were comparably abysmal.[38]

Realizing that a shorter usance of eastern bills was not in their interest, the associated banks unsurprisingly reversed the earlier decision in 1882.[39] *The Economist* dryly noted: "The shorter usance, it was stated, was, in a manner forced upon certain of those institutions by the London banks, who refused to re-discount bills with more than 4 months to run; but as other of the Indian banks, who had not been similarly coerced, took 6 months papers, those who attempted to restrict themselves to 4 months' bills believe they have suffered in the competition".[40]

4. The rise of 'interest bills' ('advance bills')

Financial innovation did not come to a standstill in 1876. Yet another year would turn out to have a profound impact on 19th century bill financing. Not surprisingly, it was again a crisis that triggered a shift in banking practice. The year was 1886, and the events were a series of serious losses by the until then successful Hong Kong and Shanghai Banking Corporation (HSBC).[41]

Canberra: Asian Studies Association of Australia (ASAA) & Research School of Pacific and Asian Studies (RSPAS), The Australian National University.

[37] Mackenzie, Compton. 1954. *Realms of Silver; One Hundred Years of Banking in the East*. London: Routledge & K. Paul. P. 65.

[38] 北林雅志. 1982. "銀価下落期におけるイギリス植民地銀行–1870年代末〜80年代初頭にかけての為替取引方法の変化を中心として." 商学論纂 24 (3): p. 187–229. http://ci.nii.ac.jp/naid/40001787585;

[39] This episode is well detailed by Compton MacKenzie: Mackenzie, Compton. 1954. *Realms of Silver; One Hundred Years of Banking in the East*. London: Routledge & K. Paul. PP. 64ff.

[40] 'The Usance Of Indian Bills'. *The Economist* (London, England), Saturday, April 22, 1882; pg. 472; Issue 2017.

[41] King, Frank H. H., and Frank H. H. King. 1987. *The Hongkong Bank in Late Imperial China, 1864-1902: On an Even Keel*. The History of the Hongkong and Shanghai Banking Corporation v.1. Cambridge [Cambridgeshire] ; New York: Cambridge University Press. Pp. 318ff. For a

This had several implications. For once, it was behind the debate about HSBC's often-misunderstood hedging strategy, the 'even keel', which is the subject of the following chapter. Yet it also turned around exchange banks' expectations with respect to long-term evolutions in the gold-silver ratio. Startled by HSBC's misguided bets, and with the memory of the fall of the mighty Oriental Bank still fresh, exchange bankers realized that even the slightest hint of taking on silver risk would not fly with their shareholders anymore.[42] This translated, first, in a public relations campaign to acquiesce the public that the business of exchange banking was not 'gambling'. In the parlance of the day, the objective became to demonstrate that "… the principle of banking is to turn over money, and not bury it in the East".[43]

In the field, it also led to the creation of the interest bill (*ritsuki tegata* 利付手形), designed with the explicit aim of avoiding all exchange rate risk.[44] Interest bills were a quite radical innovation indeed, and not only because of the interest clause they contained ("with interest added at …% per annum, from the date hereof to approximate due date of remittance in London"). More importantly, and in contrast to all of the above examples of bills, interest bills concerned a *deferred* exchange transaction (*ato-barai* 後払い), i.e. the exchange was not effectuated at the time of buying the bill yet at the time of its collection. For that very reason, they had to contain an exchange clause (*kawase monku* 為替文句), typically formulated as follows: "Payable at the current drawing rate … at sight on London". Let us have a look at how the flows of bills and payments were affected:

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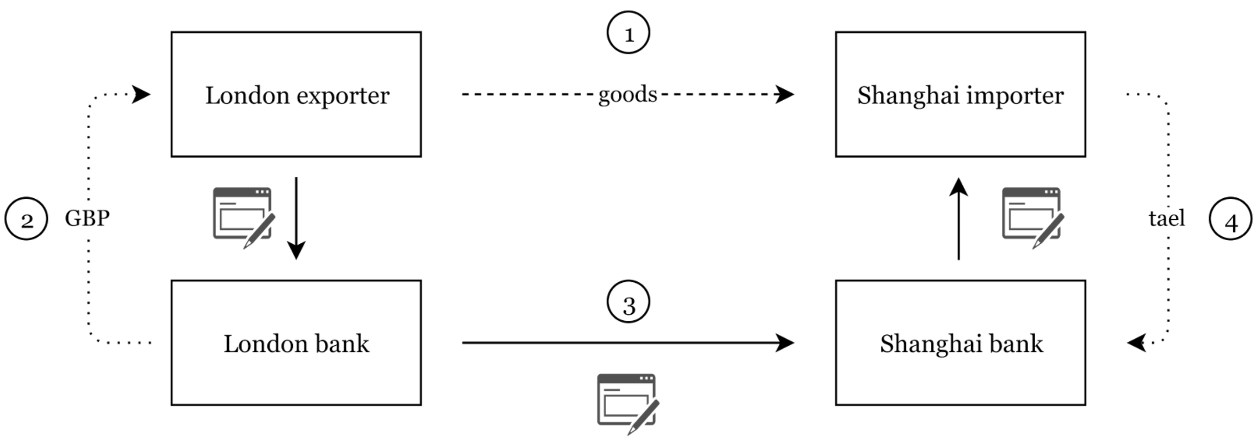
conjecture of why the 'even keel' policy failed HSBC, see: 北林雅志. 1992. "イギリス植民地銀行の対銀価下落政策：香港上海銀行の Even Keel Policy を中心に." 経営史学 26 (4): 42–70,iii. doi:10.5029/bhsj.26.42. Esp. pp. 54ff.

[42] Suzuki shows that the shares of all exchange banks, including HSBC, took a hit around 1879. Suzuki, Toshio. 2012. "The Rise and Decline of the Oriental Bank Corporation, 1842–84." In *The Origins of International Banking in Asia*, edited by Shizuya Nishimura, Toshio Suzuki, and Ranald C. Michie, 86–106. Oxford University Press. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199646326.001.0001/acprof-9780199646326-chapter-4. P. 99.

[43] *The North China Herald*, 10 September 1886, p. 288.

[44] For a very concise discussion of the latter, see: Spalding, William Frederick. 1917. *Eastern Exchange, Currency and Finance*. London, New York [etc.]: Sir I. Pitman & Sons, ltd. P. 60ff.

Fig. 7: the flow of goods, bills, and money (remittances/advances) in the case of the export of merchandise from Great-Britain to East-Asia, after 1876; the use of sterling denominated interest bills



Ill. 3 A typical example of an interest bill:

£1,000 London, July 10, 1904

At three months after sight, pay this First of Exchange (Second and Third unpaid) to the order of ...., the sum of One thousand Sterling with interest added thereto at 7% per annum, from date hereof to approximate due date of remittance in London.
Payable at the current drawing rate for the International Banking Corporation's draft at sight in London.

Value received,
Signed by

Yokohama Specie Bank ________ (name)
Yokohama, Japan ________ (address)

Source: 石川由郎. 1907. 英國爲替銀行ニ關スル復命書. 三井銀行. P. 72-73.

Although it is not immediately clear from the above Fig. 7, the British exporter's role in the transaction is finished at the moment he sells his bill to the London bank. His account is credited, and that is it (2). The bank sends the bill on to Shanghai (3), where it will be presented at maturity to the importing merchant, who pays the bank the amount due, not at the rate of the day but at the rate expressly stipulated in the bill; and he pays the interest accruing from the date of sending in London until the date of remittance to London (4). Note again that the exchange transaction is not concluded at the moment the British exporter sells his bill in London, but when the importer in Shanghai remits his money (hence the alternative term 'advance bills').[45]

What had led to the use of such instruments? According to the *Report for the year 1892 on the trade of Shanghai* within the British Foreign Office Diplomatic and Consular Reports on Trade and Finance, the shift to drawing sterling-denominated bills for imports into Shanghai (i.e. what, from the viewpoint of Great-Britain would be considered 'export finance') was related to what it called the "Alteration of Mode of Import Business - Indent Trade":[46]

> "The long-continued fluctuations in the exchange values have been compelling merchants to alter their mode of doing business, especially in the import trade. Instead of holdings goods on stock or to arrive to meet the requirements of the market, merchants prefer to sell to the native dealers before ordering the goods in England. They settle the price in silver and the exchange at the same time, and then transfer their orders by telegraph to Manchester. The buying and selling and the fixing the rate of exchange are thus practically simultaneous operations; the bank takes the risk of exchange and the foreign importer has no farther [sic.] interest in the transaction than earning his commission, which he deducts when he hands over the goods and gets paid by the Chinaman. The latter is the real merchant, for he takes all the risk and gets all the advantage for a favourable turn on the market, while the foreigner is relegated to the inglorious role of a mere commission agent. *The banks have the risk of exchange, but they again protect themselves by buying and selling bills to the same extent* [cf. infra],

[45] Mackenzie, Compton. 1954. *Realms of Silver; One Hundred Years of Banking in the East*. London: Routledge & K. Paul. P. 46.
[46] Foreign Office. 1892. Annual Series. No. 1266. Diplomatic and Consular Reports on Trade and Finance. China. Report for the year 1892 on the trade of Shanghai. Reference to previous report, Annual Series No. 1101. P. 4. A partly corrective review of the latter appeared in the *North China Herald*: Vol. LI No. 1368, October 20 1893, Pp. 601-602. For a rare explanation of the indent system in secondary literature, see: Motono, Eiichi. 1994. "Bonded Warehouses And The Indent System, 1886-95." In *Japanese Industrialization and the Asian Economy*, edited by Heita Kawakatsu and A.J.H. Latham, 108–28. Routledge. DOI: 10.4324/9780203024959.ch5

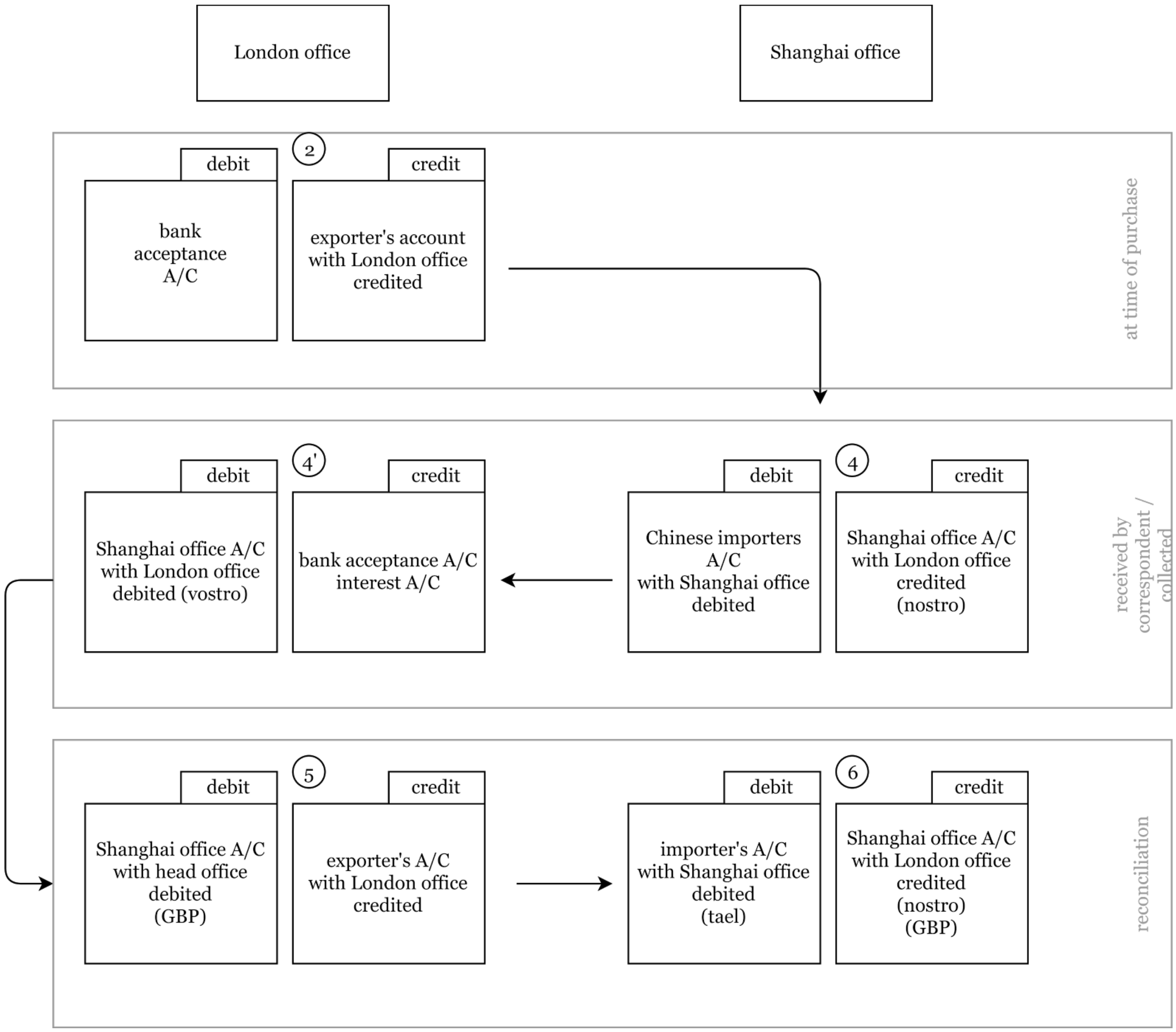
so that, however exchange may vary, a loss on the operations one way is balanced by a corresponding gain on the other."[47]

Doubtlessly aided by the telegraph, (mostly British) import merchants in Shanghai had, by the late 1880s,[48] relieved themselves of the former necessity to maintain large inventories. Instead, they changed their roles from traders into commission agents by collecting orders (hence: 'indent trade' or 'indent system', or *kaitsuke itakusei* 買附委託制) from native Chinese traders. The latter possessed a superior knowledge of the demands of their clientele, but instead had to incur the exchange risk involved in the transaction. The Shanghai-based (British) merchant, on the other hand, could avoid exposure to exchange risk by entering into forward exchange contracts (*sakimono kawase keiyaku* 先物為替契約) with his banker.[49] For the exchange bank, trade contracts embodied in sterling denominated interest bills were even more attractive. Not only were they to receive the lucrative (high) interest rates attached to such bills. As they received remittances for such bills in British pound, they could once more cleanly settle inter-branch accounts by using the proceeds of sterling denominated interest bills in order to balance obligations accumulated by bills bought in Shanghai for imports into Great-Britain (cf. supra, §2) and denominated in the same currency.

Let us then briefly review the accounting workflow.

Fig. 8: accounting workflow associated with the export of merchandise from Great-Britain to East-Asia, after 1876; using a sterling denominated interest bill

[47] Foreign Office. 1892. Annual Series. No. 1266. Diplomatic and Consular Reports on Trade and Finance. China. Report for the year 1892 on the trade of Shanghai. Reference to previous report, Annual Series No. 1101, P. 4. Square brackets and italics mine.
[48] Kitabayashi, relying heavily on the reporting of the *North China Herald*, perceives the early roots of the indent trade system as soon as 1887, i.e. in the wake of another bout of severe silver depreciation and volatility. Compare: 北林雅志. 1987. "十九世紀末におけるイギリス植民地銀行の為替業務とポンド利付為替手形." 経営史学 21 (4): 1–28, p. 13ff.
[49] 北林雅志. 1987. "十九世紀末におけるイギリス植民地銀行の為替業務とポンド利付為替手形." 経営史学 21 (4): 1–28, p. 12.



First of all, the bank in London credits the British export merchant's account, and debits its bank acceptances account (2). When the bill arrives in Shanghai and is collected at maturity by debiting the Shanghai merchant's bank account, the Shanghai branch credits its account with the London branch (4); next, *only after the remittance reaches the London branch*, the latter debits the Shanghai branch account with itself, and credits its own bank acceptance account, and, not to forget, the 'interest account' (4'). It is through this creation of a foreign exchange transaction at the Shanghai branch that a) the London office wards of exchange risk, and b) the Shanghai office replenishes its tael holdings at the rate of the day.

5. Interest bills and the debate on 'real bills' versus 'finance bills'; a 19th century carry trade

If not for the nineteenth century exchange banker, interest bills pose some serious interpretative hurdles for the financial historian. Looking forward to the discussion on the construction of the database underpinning most of this book's findings, these bills were, at least for the period 1898-1908, not included in the Midterm Reports' flow data, but treated as a particular category under 'statement of loans and bills discounted' (*kashikin oyobi tegata waribiki no koto* 貸金及ビ手形割引ノ事).[50] Why is this? Second,

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[50] This very fact has caused considerable misunderstandings among students of Yokohama Specie Bank foreign exchange operations. Notably Taira, who pioneered the network approach to YSB flow-of-funds, surmised that interest bills were listed in both 'statement of loans and bills discounted' and the 'statement on foreign exchange holdings and movements'. Hence, he omitted them from his analysis as it would otherwise amount to double-counting the data. Ishii, on the other hand, has convincingly argued that the interest bill data cannot have been included in the statement on foreign exchange holdings and movements, as Japan's trade deficit with Great-Britain in this period should in any case have resulted in very large transfers of funds from Great-Britain to Japan (as exports from Great-Britain to Japan would have been financed by bills bought in London and sent to Yokohama and Kobe for collection). Consequently, Taira's analysis, which seems to show a reverse flow of funds from Japan to Great-Britain, must be mistaken. Yet another interpretation can be found in Bak (Park). In his view, interest bills functioned as remittances (*sōkin* 送金) of foreign exchange which were sent by the branch/office in charge of collection (*toritate-ten* 取立店) to the branch/office that had purchased the bill (*kaitori-ten* 買取店). In other words, Bak believes that interest bills were a means of settling accounts *between branches* (in Japanese referred to as remitting (*kaikin* 回金) (as opposed to reimbursing)). In this view, including the interest bills in the flow of funds also amounts to double-counting, yet in a way different from Taira's interpretation. However, as is clear from e.g. interest bills handled by the New York office, *interest bills were also used for trade transactions*.
See, in this context: Ishii Kanji 石井寛治. 1999. *Kindai nihon kin'yū-shi josetsu* 近代日本金融史序説. 東京大学出版会. P. 250-251; Ishii Kanji. 1994. "Japanese Foreign Trade and the Yokohama Specie Bank, 1880-1913", in Olive Checkland, Shizuya Nishimura, and Norio Tamaki (eds.), *Pacific Banking, 1859-1959: East Meets West*. New York: St. Martin's Press. Pp. 22-23. 平智之. 1984. "第1次大戦前の国際金本位制下における横浜正金銀行–日銀の兌換制維持政策との関連において-上-." 金融経済, no. 208 (October): p41–81. http://ci.nii.ac.jp/naid/40000792001; 平智

and more puzzling, what explains, at least in the case of the Yokohama Specie Bank, their continued transfer from the London (and New York) branch to the Yokohama headquarters *after* 1897, in other words after Japan adopted the gold standard? Tokyo's decision to move onto the gold standard had at least eliminated exchange rate risk between Japan on the one hand, and Great-Britain and the U.S. on the other. One would expect that instruments to hedge such risk had lost their rationale as well.[51] Ishii Kanji's conjecture that interest bills "were very profitable" so as to justify their use well into the early twentieth century is not particularly helpful, I feel.[52] [53]

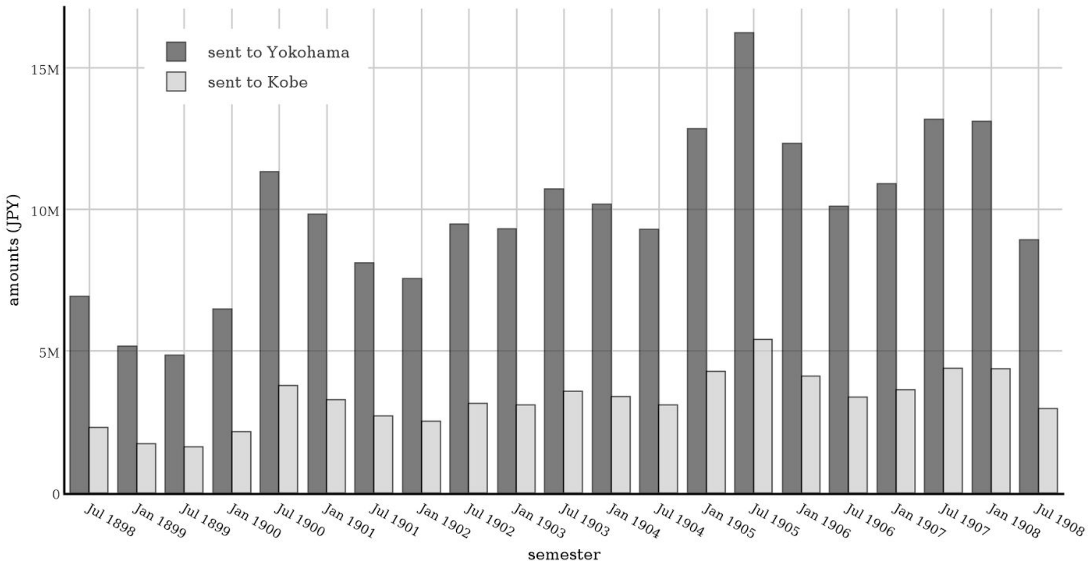
Fig. 9. Estimates of interest bills sent from YSB London branch to Yokohama headquarters and Kobe branch, June 1898 - June 1908 (unit: JPY)

之. 1984. "第1次大戦前の国際金本位制下における横浜正金銀行–日銀の兌換制維持政策との関連において-下-." 金融経済, no. 209 (December): p1–27. http://ci.nii.ac.jp/naid/40000792007. Bak Jun Geon 朴埈健. 1992. "産業資本成立期における横浜正金銀行の資金循環構造–利付為替手形の処理問題を中心として." 経済論究, March, p. 147–162. http://ci.nii.ac.jp/naid/40000909339. For primary evidence on the nature of interest bills handled by YSB's New York office, see: 橫濱正金銀行總務部行報係. 1911. 行報. 橫濱正金銀行總務部行報係. February 16. http://ci.nii.ac.jp/ncid/AA12169139.

[51] This was argued as well by contemporaries. See, for instance: 小林緑. 1910. 実践国際為替. 宝文館. http://ci.nii.ac.jp/ncid/BN15396727. P. 741.

[52] Ishii Kanji. 1994. "Japanese Foreign Trade and the Yokohama Specie Bank, 1880-1913", in Olive Checkland, Shizuya Nishimura, and Norio Tamaki (eds.), *Pacific Banking, 1859-1959: East Meets West*. New York: St. Martin's Press. P. 12.

[53] Ishii sees the profitability of these instruments for banks, but it is not unthinkable that buying an interest bill (an exchange cover) may have been *cheaper* (rather than buying an uncovered bill) for the *buyers* of those bills as well. Given the availability of information on interest rate differentials and forward discounts(/premia) published in the so-called *course of exchange*, they could have calculated their relative gains with approximate certainty. 小林緑. 1910. 実践国際為替. 宝文館. http://ci.nii.ac.jp/ncid/BN15396727. P. 778-779. Einzig, and later Bloomfield, came to similar conclusions in the context of exchange dealings in Russian ruble and Austrian crown, arguing that these operations were almost always covered, including *after* their stabilization in terms of gold: Bloomfield, Arthur I. 1963. *Short-Term Capital Movements under the Pre-1914 Gold Standard*. Princeton Studies in International Finance, no. 11. Princeton, N.J: International Finance Section, Dept. of Economics, Princeton University. P. 39; Einzig, Paul. 1937. *The Theory of Forward Exchange*. London: Macmillan and Co., limited. Pp. 41ff.



Perhaps the key to the interest bills riddle is again to be found in Nishimura's seminal discussion of late nineteenth century bill finance. As seen in §3, Nishimura traced the shortening of bill usance after the 1860s to the proliferation of the telegraph and drastic improvements in transportation technology. Much to his surprise, however, bill usance lengthened once again in the second half of the 1880s, i.e. more or less with the introduction of interest bills.[54] Clearly, this shift cannot be related to a renewed deterioration in technological circumstances. Other reasons can be ruled out as well. Increases in bank overdrafts for domestic trade certainly shrunk the share of shorter term inland bills in the total amount of bills held by banks, and would thus naturally have translated in a longer average usance;[55] but such longer average could not possibly grow to such long terms as suggested by Nishimura's calculations (the nine-year moving

[54] Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. Pp. 27-28.
[55] Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. PP. 55-64; pp. 70ff.

average being more than 45 days for Parr's Bank and 50 days for Liverpool Union Bank).[56] What, then, is behind this change?

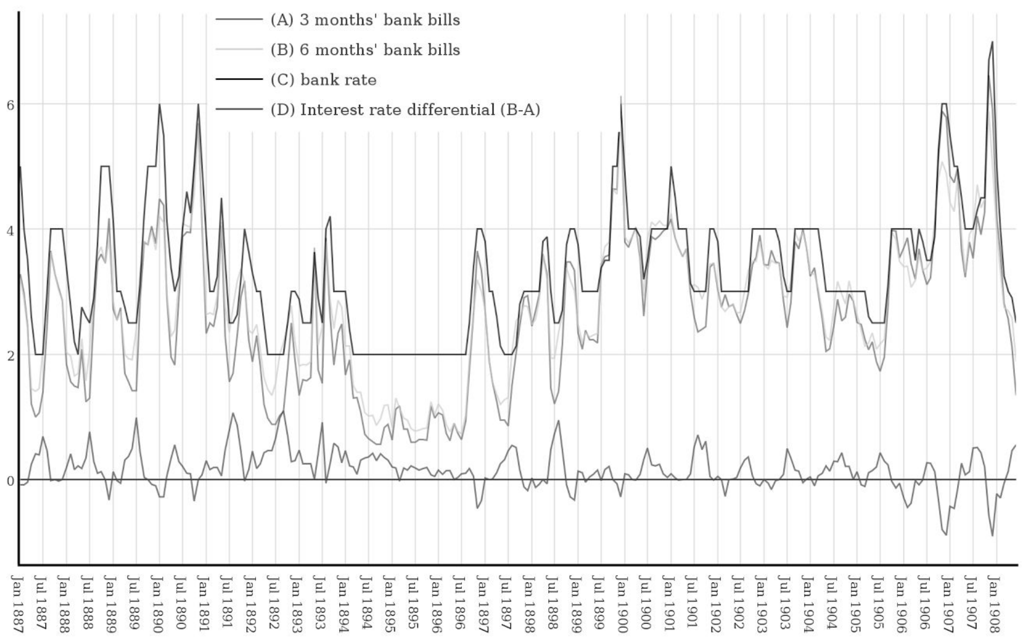
In an almost buried passage, we do find however clear hints to the possibly shifted nature of the bills from his sample. This cannot be easily demonstrated in quantitative terms, nor do we find much direct evidence in journalistic outlets of the day, but, as we shall see, we possess considerable evidence to conclude that what follows is the only explanation possible. Concretely, Nishimura conjectures that the higher average usance of bills especially throughout the nineties must be explained by the high number of *finance bills* in his sample.[57] He reaches this conclusion by a comparison of the discount rate of 3 months' and 6 months' bills with the general level of interest in the period. It turns out that, when the level of interest was low, the discount rate of 6 months' bills was higher than that of 3 months' bills; yet, if the level of interest was high, the discount rates of 3 months' bills was higher.[58]

Fig. 10: discount rate of 3 months' and 6 months' bills, their differential, and British bank rate, 1887-1908 (unit: %).

[56] In the hypothesis that bills were renewed only once, these averages amount to a usance of respectively 3 months and 3.3 months.

[57] Nishimura has picked the term 'finance bills' after Spalding's seminal works on bill finance, I presume; Spalding himself distinguished these finance bills from earlier, and similar, uses of bills for smoothing the liquidity of firms and credit houses. At the time, however, there appears not to have been a unified terminology for such kind of trade contracts. One sometimes finds 'accommodation bills'; on other times, they are referred to as 'acceptance credits' —both terms do however originate in earlier banking practice on the European continent. For an example of the former and its explanation, see: Rogers, James Steven. 2004. *The Early History of the Law of Bills and Notes: A Study of the Origins of Anglo-American Commercial Law*. 1st pbk. ed. Cambridge Studies in English Legal History. Cambridge ; New York, NY: Cambridge University Press.

[58] Although never stated explicitly, I surmise Nishimura's discussion might have been inspired by several remarks formulated earlier by Spalding. See, in particular: Spalding, William Frederick. 1915. *Foreign Exchange and Foreign Bills in Theory and in Practice*. 2d impression. London, New York [etc.]: Sir Isaac Pitman & Sons, ltd. Pp. 192 ff. An earlier mentioned contemporary hinted at a similar dynamic, but does not address the issue of finance bills. See: 小林緑. 1910. 実践国際為替. 宝文館. http://ci.nii.ac.jp/ncid/BN15396727. Pp. 778-782.



Source: Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. PP. 122-127. Note that, as we define the interest rate differential as the difference between the rates of 6 month's bills resp. 3 month's bills (B-A), we allow for a negative differential in case the rate for 3 month's bills is higher than the former.

In case bills would only have been drawn for an underlying commercial transaction (i.e. if those bills were 'real bills', in the antiquated parlance of the day), the (positive (+) or negative (-)) value of the differential between the discount rates of 6 month' and 3 month' bills (R_{6m} - R_{3m}) would be largely proportional to the general interest rate level; in other words, the supply of 6 months' bills would be procyclical. After all, the drawing of commercial bills was a mere function of economic up- or downturns. In the case of an economic boom, increased demand for bills would not only cause the interest rate level to go up. It would also result in a sharp increase in 6 month's bills (and a consequent higher discount rate for the latter), as merchants would want to secure the use of money largely irrespective of its cost. In the case of an economic downturn or bust, a fall in demand for bills in general would also imply a decrease in 6 months' bills greater relative to 3 months' bills. Put mathematically, their supply and discount rate were *positively related* to the general level of interest.

Finance bills, however, were radically different in that their supply was (/is) sensitive to the level of interest, and not the other way around.[59] For obvious reasons, and contrary to the aforementioned commercial bills, their supply, and the aforementioned differential (R_{6m} - R_{3m}) was *inversely related* to the interest rate level (this is also clear from fig. 10, in which the bank rate is plotted against the differential between longer and shorter term bills):

> "When the general level of interest rates was low, banks and bill-brokers would have been ready to discount six month's bills. Foreigners who wanted to tap cheap money in London would have wished to draw six month' bills on London and discount them there, for a six months' bill would have ensured the use of cheap money for six months. Therefore, more six months' bills would have been drawn, which meant that the supply of these bills was greater, so that their discount rate would have been higher than that of three months' bills."[60]

One passage in *The Economist*, apparently unknown to Nishimura, links the sharp increase in London finance bills expressly to the Sino-Japanese war: "It is true that, speaking generally, there is not much to be said against these finance bills themselves, and [...] with the recent transfer to this country of the proceeds of the Japanese Indemnity Loan, they have played a useful part."[61] [62] Fast growing use of

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[59] For a discussion: Spalding, William Frederick. 1915. *Foreign Exchange and Foreign Bills in Theory and in Practice*. 2d impression. London, New York [etc.]: Sir Isaac Pitman & Sons, ltd. Pp. 192ff.

[60] Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. P. 42.

[61] 'London Bankers And French Finance Bills'. *The Economist* (London, England), Saturday, October 12, 1895; p. 1331.

[62] It turns out that another contemporary publication corroborates the role of the Sino-Japanese War in popularizing the use of interest bills: 佐野善作. 1905. 清國貨幣問題・滬漢金融機關調査報告. 東京高等商業學校.http://ci.nii.ac.jp/ncid/BN15641897. See as well: Schiltz, Michael.

finance bills is further corroborated by other leads we possess about bill finance for East-Asia. For one, it might explain why interest bills continued to be sent from YSB's London and New York offices to the Yokohama headquarters after 1897, as pointed out above. If thought of as finance bills, this would imply that they were not used by merchants to insure against silver risk (which obviously did not exist anymore), but rather used by the Eastern exchange banks to take advantage of low British interest rates and make handsome profits from the differential with (high) rates within Japan (and Shanghai, obviously).[63]

We know that the possibility of such *carry trade* continuously existed, especially in view of evolutions in the London acceptance market towards the end of the nineteenth century.[64] [65] For bills related to East-Asia, one bookkeeping manual from 1907 provides the following narrative evidence: "The interest rate in London is, on

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2016. "清國貨幣問題・滬漢金融機關調査報告."
https://figshare.com/articles/   /4212180.

[63] Note, furthermore, that, in times of high rates in London, the process was reversed. In other words, when the Bank of England signalled a desire for tightening the money supply, the Eastern banks were quick to get their money out of 'risky' operations in Asia, into 'safe' securities in London. This corroborates other evidence on the procyclical nature of capital flows to and from the periphery, which was reported by Bloomfield: Bloomfield, Arthur I. 1963. *Short-Term Capital Movements under the Pre-1914 Gold Standard*. Princeton Studies in International Finance, no. 11. Princeton, N.J: International Finance Section, Dept. of Economics, Princeton University.

[64] Nishimura notes in particular the rapid increase of deposits (and, because of the latter, bank offices) in the city of London around 1890 and later, and the consequent search for high-yielding investments this brought about. See: Nishimura, Shizuya. 1971. *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*. London: Cambridge University Press. P. 55-64.

[65] For the 1890s *The Economist* makes mention of finance bills drawn from the European continent and finding their way to the London market: 'London Bankers And French Finance Bills'. *The Economist* (London, England), Saturday, October 12, 1895; pg. 1331-1332. This is taken up as well by Spalding: Spalding, William Frederick. 1915. *Foreign Exchange and Foreign Bills in Theory and in Practice*. 2d impression. London, New York [etc.]: Sir Isaac Pitman & Sons, ltd. Pp. 75ff.

Later, i.e. in the beginning of the twentieth century, American finance bills increasingly found their way to London. See in this respect: "The Money Market." *The Economist* (London, England), Saturday, September 6, 1902; pg. 1380; U.S. borrowing by means of finance bills was especially massive in 1906. 'The United States'. *The Economist* (London, England), Saturday, March 17, 1906; P. 451; 'The Monetary Position In The United States And Its Effect Upon International Markets'. *The Economist* (London, England), Saturday, May 5, 1906; P. 758-759.

average, between 3 and 4 per cent. [The international exchange banks] there purchase 'Eastern bills' [i.e. interest bills] on India, China and Japan. Given that the interest [on the latter] is normally around 6%, and given that they purchase Eastern bills by means of low-interest London funds, they are obviously running a very profitable business."[66] This was certainly so after the Russo-Japanese War. According to the same source: "The interest on interest bills to East-Asia is normally 6%, but last year, due to problems in Russo-Japanese relations, the rate was increased to 7%".[67] In other words, even when estimating the yearly cost of London acceptance credit to be around 5% in the 1900s, arbitraging must have been a lucrative affair.[68] And indeed, the share of interest bills in the total 'bills sent' portfolio of YSB London is very high (consistently more than 60% after 1898).[69] Looking at the absolute numbers, shown in Fig. 9, interest bills were, to no one's surprise, particularly attractive in the aftermath of Japan's war with Russia (1904-05), when another wave of military build-up resulted in a domestic credit squeeze.[70]

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[66] 石川由郎. 1907. "英国為替銀行ニ関スル復命書". 三井銀行. P. 67.
[67] 石川由郎. 1907. "英国為替銀行ニ関スル復命書". 三井銀行. P. 76. Nishimura, in another publication, takes the rate to have been continuously between 6% and 8%. Nishimura, Shizuya. 2012. "British International Banks in Asia, 1870–1914: An Introductory Essay." In *The Origins of International Banking in Asia*, edited by Shizuya Nishimura, Toshio Suzuki, and Ranald C. Michie, 55–79. Oxford University Press. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199646326.001.0001/acprof-9780199646326-chapter-3. Esp. pp. 64-66.
[68] Nishimura, Shizuya. 2012. "British International Banks in Asia, 1870–1914: An Introductory Essay." In *The Origins of International Banking in Asia*, edited by Shizuya Nishimura, Toshio Suzuki, and Ranald C. Michie, 55–79. Oxford University Press. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199646326.001.0001/acprof-9780199646326-chapter-3. P. 65-66.
[69] For a table showing the percentage of interest bills within the total of London bills drawn on Japan (all branches), see: 石井寛治. 1999. 近代日本金融史序説. 東京大学出版会. http://ci.nii.ac.jp/ncid/BA41843751. P. 248.
[70] The first wave of militarization was enacted as the 'postbellum fiscal administration' in the aftermath of the Sino-Japanese War (1894-95). For a discussion of the latter, see: Japan. Ōkurashō. 1900. *Report on the Post-Bellum Financial Administration in Japan, 1896-1900*. Tokio: Printed at the Government Press; Schiltz, Michael. 2012. "Money on the Road to Empire: Japan's Adoption of Gold Monometallism, 1873–971." *The Economic History Review* 65 (3): 1147–68. doi:10.1111/j.1468-0289.2011.00619.x. For the most representative sources in Japanese, see: 小野圭司. 2008. "明治末期の軍事支出と財政・金融–戦時・戦後財政と転位効果の考察." 戦史研究年報, no. 11 (March): 41–63. http://ci.nii.ac.jp/naid/40016054419; 兵頭徹.

Yet another lead are the YSB Midterm reports. As said before, interest bills were for the period of 1898-1908 not categorized under flow data, yet under 'statement of loans and bills discounted'. A look at the explanatory notes to these tables reveals that bills were mostly drawn against collateral, typically "for interest bills bills drawn by the Head Offices and sent to Hongkong and Shanghai, cotton; [...] for bills drawn by the London office and sent to Yokohama, Kobe, [...], spinning products, iron products, pharmaceuticals and sundry goods [*zakka* 雑貨], [...]; for bills drawn by the New York office and sent to Yokohama, Kobe, Shanghai, machinery and ironware [...]".[71]

Especially because the Mid-term Reports chose to list these assets, it seems to suggest that the latter were not goods that were the object of a commercial transaction, but conveniently collateralizable assets, pledged to obtain credit; it tried, in other words, to reassure its shareholders that these lending operations were safe. If the above conjecture is true (and it seems hard to come up with a viable alternative explanation), then the story ends with a remarkably 21st century twist: a great deal of transactions related to interest bills may thus well have been early examples of Chinese commodity finance...[72]

1996. "日清戦後財政と松方正義(1)." 東洋研究, no. 121 (November): 103–27. http://ci.nii.ac.jp/naid/40002658649; 兵頭徹. 1998. "日清戦後財政と松方正義(2)." 東洋研究, no. 130 (December): 29–52. http://ci.nii.ac.jp/naid/40002658672; 兵頭徹. 1999. "日清戦後財政と松方正義(3)." 東洋研究, no. 133 (November): 79–105. http://ci.nii.ac.jp/naid/40002658684. Particularly relevant for the discussion here is: 能地清. 1981. "日清・日露戦後経営と対外財政 1896〜1913 : 在外政府資金を中心に." 土地制度史学 23 (4): 19–40. http://ci.nii.ac.jp/naid/110007018410.

[71] 横浜正金銀行. 1898. 第三拾七回半季報告. Yokohama (?). P. 23. Square brackets mine. Similar remarks can be found in later Midterm reports. Interestingly, the Midterm reports also report a breakdown of amounts of funds per branch being lent against particular types of commodities. From such tables then becomes obvious that certain financial instruments, as bonds, stocks and deposits could also be pledged. Ibidem. In this respect, I must add that, supposedly for the intangible nature of such securities, branch managers were urged to exercise restraint in accepting them. See, in this respect: 横濱正金銀行. 1908. 第壹回東洋支店長会議録. [横浜正金銀行]. http://ci.nii.ac.jp/ncid/BN04887997. Esp. pp. 361ff.

[72] The implications of the use of commodities (typically, copper) as collateral for loans in the Chinese economy has become hotly debated in 21st century financial journalism. Sadly, because of the opaque nature of the transactions and the general lack of documentation about this part of the Chinese 'shadow banking' system, the topic is struggling to find its way in the academic literature. For some very rare examples: Tang, Ke, and Haoxiang Zhu. 2015. *Commodities as Collateral*. SSRN Scholarly Paper ID 2355674. Rochester, NY: Social Science Research Network.

http://papers.ssrn.com/abstract=2355674; Peck, Anne E. 2001. “The Development of Commodity Exchanges in the Former Soviet Union, Eastern Europe, and China.” *Australian Economic Papers* 40 (4): 437–60. doi:10.1111/1467-8454.00136.