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Metropolitan Financial Agents and the Emergence of Inter-regional Financial Linkages in England and Japan, 1760-1860

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Metropolitan Financial Agents and the Emergence of Inter-regional Financial Linkages in England and Japan, 1760-1860[1]

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Introduction

Financial market integration is considered to be a key factor in economic development in the early modern period and has been the subject of a series of systematic research in economic history over the last decade. However, historical research into the interactions between provincial and metropolitan financial agents and how they contributed to financial integration remains limited.[2] Moreover, we know little about how and when nationwide, regular and substantial flows of credit and information emerged in Europe, while we know even less about the emergence of such flows in other parts of the world.[3] The current paper stems from the research project that explores the nationwide financial and informational flows between metropolitan and provincial agents in two very different countries, Britain and Japan during the period 1760-1860.[4]

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[2] The evolution of interbank relationships or correspondent banking and its effects on financial stability and financial integration has been studied largely in the US history context. Weber 2003, James and Weiman 2010, Dupont 2017. On the early Meiji correspondent banking and the Bank of Japan, see Tsurumi 1991 and Ohnuki 2007 while the latter has also studied its effects on financial integration. On the correspondence banking in the 18th and early 19th century Britain, see Pressnell 1956, Black 1996, James 2012, Gent 2016.

[3] Recently more research attention has been cast on domestic financial market integration particularly from the comparative history perspective. Chiloshi et al 2018, Keller et al 2015, Saito and Settsu 2006, Saito 2012, Ma and Zhao 2020.

[4] Leverhulme Research Grant RPG-2017-161: Money Markets and Trade in Early Industrialisation: Britain and Japan, 1760-1860. The author is the researcher on the project.

The research currently being undertaken seeks to establish how far the interlinking of metropolitan and provincial financial agents was a response to the growing demand for credit from the mercantile sector involved in both internal and international trade. The project also aims to identify the factors influencing provincial and metropolitan agents' decisions with regard to inter-regional links, including their business and social networks and the local political environment. For this purpose, a comparison of the British and Japanese cases is deliberate and fruitful. At that time both countries, which were of geographically comparable size,[5] witnessed a marked expansion of trade over long distances and proliferation of both metropolitan and provincial financial agents. The policy environment within which Japanese traders and financial agents operated was far more restrictive than that experienced by their counterparts in Britain, with Japanese merchants largely confined to trade within the Japanese archipelago by the shogunate's government.[6] The comparison between the two countries allows insights into how the interaction between institutions and trade shaped the distinct patterns of financial integration and information flows in England and Japan.

Our research is firmly based on the newly constructed datasets of provincial and metropolitan financial agents in Britain and Tokugawa Japan for the period 1760-1860. The English dataset contains information on 1090 provincial financial agents who operated in the country banking business between 1760 and 1860. The total number of towns in which these agents were based is 397 across England and Wales. The Japanese dataset contains information on 421

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[5] Although the two countries were relatively comparable in size, Tokugawa Japan (292 km^2) was significantly larger than England and Wales (151km^2). The direct distance between Osaka and Hirosaki, the northern tip of Honshū Island, is 1056 km while that between Osaka and Satsuma, at the southern tip, is 877 km. It is 508 km from London to Carlisle and 457 km from London to Penzance.

[6] An isolationist foreign policy was enacted in 1639 by the Tokugawa government, under which foreign relations and trade between Japan and other countries were severely limited. Japanese nationals were prevented from leaving the country while trade continued with foreign nationals including the Chinese and the Dutch East India Company, the Koreans and the Ryūkyū Islands through designated ports such as Nagasaki and Tsushima under the tight control of the shogunate government. The isolation policy (*sakoku*) ended in 1854 when the country opened the ports of Shimoda and Hakodate.

provincial financial agents operating in a total of 197 towns. These Japanese financial agents operated as money changers (*ryōgaeya*), financial agents for feudal lords (*kakeya*), moneylenders (lending to fellow commoners as well as to feudal domains) and pawnbrokers. Many were also engaged in issuing paper currency (both privately and on behalf of the local domain). For both England and Japan, wherever a connection between provincial and metropolitan financial agents is identified in the original source, the metropolitan financial agent has also been entered into the dataset.

We have already discussed in a previous working paper how provincial financial agents played an important role in local money markets in both England and Tokugawa Japan and how they were responsible for making decisions whether or not to forge a connection with financial agents in the commercial centres.[7] The purpose of the current working paper is to identify what type of individuals and firms constituted the metropolitan leg of the inter-regional financial linkages, to estimate the degree to which metropolitan financial agents were part of the linkages, and to consider what might have given metropolitan financial agents an incentive whether or not to connect with provincial financial agents.

Metropolitan Financial Agents

In this research, financial agents are defined as individuals who were engaged in *de facto* banking as a distinct business enterprise in England and Tokugawa Japan. The definition is deliberately wide so that different types and sizes of individuals and firms can be captured in order to answer different questions. Those individuals and firms were involved in different types of financial services. Some operated as one-man/family businesses (especially so in Japan where the family/house was the base unit of business enterprise) while others joined partnerships and, in the case of England after 1826, joint stock banks. In building the datasets of Provincial Financial Agents, the primary method of data collection was, first, to identify Provincial Financial Agents from business

[7] Ishizu 2020.

records, bank archives and municipal histories (both published and in manuscript form) and, second, to establish whether they had connections with the commercial metropoles, namely London or Osaka, which was Tokugawa Japan's commercial capital although the political capital was Edo. In this working paper, the precise definition of Metropolitan Financial Agent (MFA) is therefore a financial agent based in London or Osaka who was identified as the metropolitan contact of a PFA in the dataset. Many of the MFAs captured in the dataset are highly likely to overlap with those individuals and firms that appear in the datasets and lists of, for instance, bankers or financiers compiled by previous researchers.[8] However, our datasets of MFAs do not entirely match with those of 'London bankers' or 'Osaka money changers', because our MFAs are specific individuals and firms with an identified provincial connection.

Private bankers constituted a majority of MFAs in London, although there were also wholesale merchants who provided financial services alongside their wholesale trade who constitute a smaller part in the dataset. The identification of a 'banker' in the 18th and early 19th centuries is somewhat vague, as merchants continued to perform *de facto* banking services throughout the period without having the formal title of a banking house. David Barclay, for example, whose business became the main constituent of the Barclays Ltd. of today, was a textile merchant in London who provided banking services for provincial merchants and manufacturers before emerging as a banker sometime in the mid-18th century.

London private banks fell into two broad groups of banks that were differentiated by their genealogical origin and business model. The first group of banks was often referred to as 'West End' bankers because of their location in London, but in recent scholarship, they are better known as goldsmith banks because of their early 17th century goldsmith roots. As goldsmiths, they originally produced jewellery from bullion, acted as custodians for the assets of

[8] On London bankers, Hiton-Price 1890; Joslin 1954; Temin and Voth 2013 and Gent 2016. On Osaka money changers, Nakagawa 2003.

London's wealthy and lent bullion to the public and to the king.[9] Many goldsmith banks were badly hit by the Stop of the Exchequer in 1672 but those who survived or emerged after the Stop had by the early 18th century shifted towards services for private finance, taking deposits from the public, and investment in stocks and increasingly government bonds.[10] The number of goldsmith bankers stood at 43 in 1700, but had fallen to 15 by 1738. After the 1730s there appear to have been no new entrants into goldsmith banking, rather there were regular exits from this category from the 1750s. By 1760, the number of goldsmith banks in business was around ten.[11]

The other group of bankers, historically known as 'the City bankers' because of their clustering in and around Lombard Street, are more often referred as discounter banks because their business was devoted to discounting short term commercial papers for mercantile clients. This was in contrast to the goldsmith banks, which undertook little or no discounting of commercial papers such as bills of exchange.[12] Discounter banks began to emerge in London from around 1760 in response to the general expansion of commerce and trade in Britain. Many discounter banks were familiar with handling bills of exchange because their origins were often in mercantile trading. London merchants were a source of credit and capital for provincial tradesmen and producers, often through partnership with provincial businesses. They had already acted as London agents for provincial businesses since the 16th century and this continued well into the 19th century.[13] London merchants ran banking businesses alongside wholesale trading, and like Barclays, gradually came to be known as bankers. The growth of discounter banks after 1760 was such that it is estimated that the number of London banks during the period 1797 and 1809 was 68-69, modestly

[9] Kerridge 1988.
[10] Quinn 1997.
[11] Temin and Voth 2013.
[12] The goldsmith banks instead focused on long-term mortgages and other forms of secured lending.
[13] Chapman 1992.

rising to 75 in 1814.[14] Of these 75, all except for the nine goldsmith banks were discounter banks.[15]

The business practices of goldsmith banks and discounter banks were distinct, and these differences determined why certain London financial agents established a connection with provincial financial agents while others did not. Goldsmith bankers had an exclusive client base of aristocrats, landed gentry and high-ranking clergymen, as well as wealthy merchants. They took deposits from these wealthy individuals and offered safekeeping of specie and agent services for the execution of their daily financial transactions in London. Despite goldsmith banks paying no interest on deposits, clients saw sufficient advantage in keeping specie in these banks' hands, such as safe custody of their deposits, the ability to draw drafts on a bank, and the use of overdraft facilities. Goldsmith banks were able to grow because of their ability to attract deposits from the wealthiest members of the population, and indeed deposits made up the greater proportion of goldsmith banks' liabilities.[16] According to Gent's recent study, the balance sheets of the largest goldsmith banks already exceeded £ 1 million each by 1791, which was far greater than the value of those of discounter banks.[17] Goldsmith banks therefore focused on medium to long term lending to aristocratic clients secured against the collateral of land and real assets. They regarded lending by the discounting of short-dated commercial papers such as bills of exchange and promissory notes as unsecured and risky, and hardly engaged in any bill discounting. Characteristically, they were not engaged in providing agency services for provincial country banks.

As new entrants to London's banking community, discounters were less successful in attracting deposits from the wealthy landed clientele. Instead they relied on wholesale deposits from mercantile clients and provincial country

[14] Clapham 1945; Gent 2016, 264.
[15] Temin and Voth 2013. In contemporary Amsterdam, cashiers operated in a similar manner to London private bankers and there were about 60 of them. Jonker 1996.
[16] The bank partners supplemented these with personal deposits on which interest was paid.
[17] Gent 2016. 98.

banks. In return for agency services, discounter banks required country banks to maintain a minimum credit balance with them (known as the London balance). As noted above, the balance sheets of many discounter banks tended to be smaller than those of goldsmith banks. Discounter bankers actively discounted short dated commercial papers such as bills of exchange and promissory notes. This was a form of short term lending on an unsecured basis in which a bill was purchased at a discount on its face value before it reached its maturity date; the bills usually had one to three months to go.[18] These bills of exchange were brought to discounter banks not only from within London but also from the rest of the country for settlement in London. The large number of bills sent to London in turn encouraged discounter banks to develop increasing connections with provincial country banks. Many country banks sought correspondent banks in London to settle the bills for them and the discounter banks met this need.

Unlike England, Tokugawa Japan was politically divided; a third of the country's land including Osaka was governed by the shogunate while the rest was divided amongst over 200 individual domains. The Osaka financial agents therefore operated under the broad rule of the city's Magistrate which was part of the remit of the shogunate's government. In Osaka metropolitan financial agents consisted of money changers and wholesale merchants. The origin of money changers in Osaka was in the early 17th century when the shogunal government announced that tax revenues must be paid in silver. Under the shogunate government, provincial domain lords were required to collect their taxes in rice crops, ship them to Osaka where the rice was converted into silver and remit the money to Edo. Osaka's money changers thrived on this silver exchange business. By the time Osaka was becoming the country's commercial and financial centre under the shogunate regime in the mid-17th century, many of the city's wealthy money changers had already been engaged by provincial domains across the country to act as their official financiers. In 1669, at least 28 money changers were known to act as *kakeya*, financial agents who were appointed to handle

[18] Sometimes the bill with six months until maturity was discounted.

financial transactions in Osaka on behalf of provincial domains.[19] However, tax receipts and financial services for feudal domains did not fully account for the proliferation of money changers in Osaka. The city's rise as the commercial and financial hub of the country's commercial distribution system and the associated need for money exchange were also behind the proliferation of money changers at that time. In 1662, ten of the most wealthy money changers in Osaka were appointed by the shogunate to form the Association of Money Changers (*ryōgae nakama*). A commercial boom occurred in Osaka during the 1690s and 1700s led to an increase in the number of money changers; there were 155 money changers in the city by the 1700s (excluding petty exchangers).[20] The number continued to rise as the Association of Money Changers had about 350 members in the 1710s. The debasement in 1736 further accelerated the boom due to increased silver currency supply in the Osaka money market and the Association members rose from 367 in 1728 to 393 in 1739, then reached 532 in 1759.[21]

The decade from 1767 is known as a period when the shogunate's government, under the leadership of Councillor Tanuma Okitsugu (1719-1788), attempted to intervene more directly in Osaka's money market. Historically the shogunal government had directly intervened in Edo's money market while largely leaving the Osaka money market in the hands of the Association of Money Changers under the broad supervision of the Osaka Magistrate.[22] The new interventionist policy by the government extinguished the buoyant financial conditions that had brought prosperity to money changers in the earlier part of the century. This was reflected in a decline in the membership of the Association: the number of members dropped to some 360 in the mid-1760s less than ten years after peaking at 532 in 1759.[23]

[19] Nakagawa 2003, 24.
[20] Ibid. 199.
[21] Ibid.52.
[22] In Edo (present day Tokyo), financial transactions on behalf of the Bakufu government made up a large proportion of moneychangers' business. Nakagawa 2003.
[23] In the same year, there were also 89 minor moneychangers who did not belong to the Association and 56 petty exchangers of *zeni* (copper coins). Nakagawa 2003, 67.

All money changers who belonged to the Associtaion were engaged in *de facto* banking business, by taking deposits, issuing various commercial papers such as *furi-tegata* and *azukari-tegata*, settling payments and making loans. Starting as simple copper coin (*zeni)* exchangers, they had by the early 18th century already transformed themselves into exchangers of silver and early bankers.[24] Larger money changers were also engaged in currency trades between gold, silver and copper.[25] For them, the copper-silver exchange trade became a secondary interest although it remained a lucrative business for the numerous petty exchangers (*zeniya*) who met the needs of petty tradesmen and households for day-to-day payments.[26]

A considerable amount of capital was required to operate a money changing business. The assets of the largest businesses such as Ten'ōjiya Gohei and Kōnoike Zen'emon in the 1830s and 40s for example easily surpassed 270,000 *kanme* of silver (equivalent to 400,000 *ryō*).[27] It was also common for money changers to run other branches of trade alongside their money changing and to re-invest any profits gained from it in the financier business. For example, one of the most prosperous money changers, Kōnoike Zen'emon, was an (arable) land developer and a successful brewer alongside running his moneychanging business. The house of Mitsui operated a successful textile merchant business.

Despite the scale of capital required, the operating size of a money changing shop tended to be modest. Only some 25 men staffed the shop of Kajima-ya, one of the most pretegious money changers, consisting of senior managers and junior clerks. Due to the modest operating size and limited staff, the number of clients that a money changing shop had as current account holders might have been

[24]Shikano 2000, 208-12.
[25] Nakagawa 2003.
[26] Shikano 2000, 208. Everyone has to start somewhere; the success story of one moneychanger over some thirty years was depicted by Ihara Saikaku (1692/2018). A widow in the Kitahama district of Osaka spent 20 years accumulating an amount of her own money which she then began to lend to others. Her son used the money and started as a *zeniya*. Within ten years, he found himself selling silver and gold currencies as a member of the moneychanger association. His success continued until he finally became a *kakeya* for feudal domains.
[27] Shikano 2000, 207.

limited, typically made up of wholesalers (in Osaka and beyond) and feudal domain lords. For example, Shikano estimated the number of current account holders of medium ranking money changers to be about 30. However, Nakagawa, by contrast, reported that Zeniya Saichirō's house had more than 100 customers although these may include some who engaged in transactions without a current account.[28]

To open an account with a money changer was considered a privilege and, moreover, a visible indication of creditworthiness in Osaka's commercial community. A new application to open an account would be thoroughly scrutinised and could be rejected if the money changer was concerned about the applicant's standing in the city's commercial community. Similar to London goldsmith banks, money changers paid no interest on credit balances but mercantile clients were keen to lodge specie with them not only because of the safekeeping and convenience it offered but also for the privilege of accessing the exchangers' bills/notes (*furi-tegata*) was vital for the survival of Osaka's merchants where 90% of commercial transactions were settled using some forms of commercial papers.[29] A bill/note drawn on a higher status money changer would be more easily accepted by other businessmen.

Money changers and their wholesaler clients in Osaka formed a tiered, hierarchical credit system according to the size of business and social status. Only the most prestigious, prosperous wholesalers were able to hold an account with the prestigious money changers while middle to small scale merchants held accounts with medium-ranking money changers.[30]

Each prestigious money changer and a number of medium-rank money changers formed a group based on a quasi-parent-and-child relationship. As the 'parent'

[28] Ibid, 209; Nakagawa 2003, 114.
[29] The London Discounter banks paid some interest on Country Bank current accounts, which was typically 1 – 2.5%. London agent banks demaneded country banks to maitian a minimum positive balance in London.
[30] Shikano 2000, 212.

house, the prestigious money changer would provide the 'child' house with the initial capital required to set up a business and supervise its business conduct. Medium rank money changers would hold an account with the parent house, inherit some of their clients, and receive emergency funds in time of liquidity shortage.[31] Importantly, this system functioned as a de facto clearinghouse for the settling of bills and notes between money changers. Medium rank money changers were able to clear bills through the mutual clearing system between the parent money changer houses. This clearing system continued to serve the Osaka commercial community until the fall of the Tokugawa regime in 1867. Originally, only the money changers who belonged to the Assotication were able to issue *furi-tegata* bills which were the principle means of payment in Osaka, and the acceptance and clearing of bills with non-members or petty exchangers (*zeniya*) were prohibited. However, as Nakagawa has illustrated, by at least the 1830s, the city's credit system had expanded to such a degree that wholesalers who acted as *de facto* money changers and petty exchangers routinely issued bills for their clients, and these bills were routinely cleared by the medium rank money changers, who effectively used the system to expand their businesses.

In both London and Osaka, therefore, the number of metropolitan financial agents proliferated during the 18th and 19th centuries, and comprised two broad types of financial agent. One type, London's goldsmiths and the prestigious money changers in Osaka, were long established, had the wealthiest people amongst their clients, and opted for a conservative lending strategy. The other type of agent, the discount banks in London and the medium-ranked money changers in Osaka, were new entrants, willing to accept less affluent clients and actively seeking new lending opportunities.

[31] The relationship also operated the other way, in that 'minor' money changers would also provide funds to the parent house when in need of cash.

Patterns of Metropolitan-Provincial Linkages

It is estimated that the number of country banks in England and Wales reached its peak in 1812.[32] By then, London financial agents had already long been participating in wider networks of provincial financial agents. Our data shows that in this year, a total of 86 London financial agents were engaged by provincial financial agents across England and Wales. These London financial agents provided correspondent agency services for a total of 518 provincial financial agents from 276 provincial towns across England and Wales. This equates to 91% of all PFAs across the country in that year.

Many London financial agents acted for only a few provincial financial agents. This included those who had roots in the early goldsmiths, such as Hoare & Co. and Drummond & Co. Drummond & Co., for example, which had originally operated as a goldsmith in Charing Cross, had developed a sound banking business in the 1710s but our dataset suggests that they had only one provincial connection in Northampton.[33] Some other goldsmith banks seem to have had a small number of provincial connections but those connections may have lasted over a sustained period. Ayton and Lees & Co., another long-established goldsmith bank, had four provincial linkages, one of which, the connection with Crompton & Co. of Derby, had already been established by 1761.[34]

[Table 1: London agents with 10 or more provincial linkages 1812]

There are, however, other London agents that had clearly built up a dense and geographically diverse network of provincial linkages. Table 1 shows thirteen London financial agents that had 10 or more provincial linkages. In particular, four agents, Esdailes (linked with 33 PFAs), Barclays (29), Downs (28) and

[32] The number of country banks grew from a dozen in around 1750 throughout the latter half of the 18th century. It is estimated that it reached its peak, 707 banks, in 1812. While this estimate includes the country banks in the Home Counties, our dataset contains a total of 568 PFAs, i.e. country banks, in 300 provincial towns across England and Wales, excluding those in the Home Counties, in the same year. Dawes and Ward-Perkins 2000.
[33] Bolitho and Peel 1967; Orbell and Turton 2001.
[34] Crompton & Co. Royal Bank of Scotland Archives CNE/11

Mastermans (28) stood out, all having a large number of PFAs under their agency. Of these four major London agents, Esdailes had strong connections with PFAs based in the South West and the West Midlands. Downs also covered the South West and the South Wales, in addition to the East Midlands and the eastern parts of Yorkshire. Mastermans appeared to focus on Cumbria and West Midlands regions and the West Riding of Yorkshire in addition to its connection with the South West. Barclays' focus on the East of the country was thanks to its connection with the Norwich agent, Gurneys. The Gurneys originally operated a banking business in Norwich but then expanded, largely through marriage, to form a pseudo-branch bank network across eastern counties based on the parent bank in Norwich. Barclays were able to take advantage of not only the Gurneys' banking dynasty network but also the wealth of local knowledge they possessed when Barclays established a correspondent relationship with the Norwich agent in 1785.[35]

[Figure 2: London MFAs with their correspondence PFAs: Esdailes & Co., Downs & Co., Barclays & Co. and Masterman & Co., 1812]

Interestingly, industrialising regions such as the North West and the West Midlands did have linkages with these four major London agents, but the number of such linkages/correspondences does not stand out in relation to those of the other regions. Similarly, only 14 agents held a correspondent relationships with the four major London agents despite that the total of 56 PFAs existed in Yorkshire in 1812. It appears that, in 1812, the major London banks were not yet taking full advantage of financing possibilities in the upcoming regions of the North and the Midlands.

In the correspondent banking relationship, a London agent would offer to act as the provincial correspondent's agent in return for a fee. Very early correspondent relationships can already be seen from 1600 between London goldsmiths and

[35] Barclays Bevan & Co Barclays Bank Archives 0364-0050-0074.

provincial landowners and tax collectors.[36] In the 18th century, London banks agreed to provide various services for a fee as a percentage of the total value transacted, plus a minimum average balance that the country bank needed to leave in its account. Some London banks paid interest on those positive balances, but at rates well below 5%, which was the limit set by usury laws. The London bank might also stipulate a maximum overnight overdraft limit to cover exceptional deficits created by differences in the timing of presentation of bills for payment, on which interest was charged.

Every financial transaction between London and provincial financial agents needed a written instruction, as letter writing was the primary means of communication.[37] Figure 3 shows the contents of business letters sent from Backhouse & Co in Darlington (in the country of Durham) to its London agent, Barclays & Co during the twelth months of 1816-17.[38] A large part of these communications concerned the provision of means of payment consisting of commercial papers such as bills of exchange, promissory notes, (bankers) drafts, and inter-bank transfers. We can see that every piece of commercial paper, be it a bill of exchange or a promissory note sent to London, needed to be accompanied by a letter.[39] As Pressnell has argued, the increasing use of bills of exchange and commercial papers drawn on London was the key factor that promoted the emerging correspondent relationship between the London and provincial money markets from the second half of the 18th century.[40] Country banks were active discounters of bills of exchange particularly in the latter half of the eighteenth century. If the demand for bill discounting from local customers became greater than could be met by a country banker's capacity, the bank could send the bills to its London agent bank for re-discounting.[41] In London, the London banks (and later bill brokers) would match the bills with other London banks which had

[36] Kerridge 1988, 52-54.
[37] Hudson 2014.
[38] Backhouse & Co. Barclays Bank Archives 0388-0024
[39] These communications between PFA and MFA acted as what a reconciliation staff would do in today's banks managing the nostro and vostro accounts. Gent 2016, p.213.
[40] Pressnell 1956.
[41] For the importance of bills of exchange for 18th-century provincial merchants and manufacturers, see Hudson 1986.

surplus funds for discounting, at a commission. As a discounter, London banks continued to be liable for the full value of the bill until it was finally settled by its issuer or acceptor. Once a bill was of two months duration or less, London banks were allowed, if needed, to get it discounted at the Bank of England.[42] Unlike goldsmith banks, discounter banks prospered in the bill discounting business.[43]

[Figure 3: Nature of correspondence: Backhouse & Co. of Darlington and its London agent Barclays & Co. 1816-17]

Conversely, the Darlington agent was in the habit of warning Barclays & Co every time a draft was issued on them. Backhouse & Co was able to request that funds be transferred for their clients via Barclays and, in these cases, the transfers could be between individuals within Darlington who held an account with another bank. Correspondent services also included investment in stocks and shares. In the case of the Backhouse-Barclays correspondent relationship, many communications concerned the purchase, sale and dividend collection of stocks and shares on behalf of local clients in Darlington. Backhouse & Co itself also occasionally invested in Exchequer Bills that were procured by Barclays on their behalf. Likewise, a substantial volume of communications concerned information about the creditworthiness of individuals and firms. Backhouse would request advice from Barclays regarding the degree of creditworthiness of individuals in London or in a distant location. Likewise, Barclays would request information about individuals in Darlington who held accounts with Backhouse.

When considering the financial networks between metropolitan and provincial financial agents in Tokugawa Japan, it is important to be reminded that unlike in England, the country was politically divided between the ruling shogunate

[42] The bills that were discounted by both country and London banks were inland (as opposed to foreign) commercial bills of six months duration or less. As the Bank of England demanded 'two good London names' (endorsement references) on any bill discounted at the Bank, country bankers had to have the endorsement of the London agent bank. King 1936; Pressnell 1956.
[43] Gent discusses the different business models that were pursued by goldsmith banks and discounter banks in London. Gent 2016.

and well over 200 individual domains and that provincial financial agents had to operate under the rule of their local domain. Such political fragmentation meant that financial transactions related to the finances of provincial domains constituted a great part of the business of Osaka financial agents.

As mentioned above, Osaka money changers were already engaged in domain finance in the mid-17th century. At least 28 money changers were known to act as *kakeya* agent for provincial domains in 1669.[44] The duty of a *kakeya* agent was to collect the money received from the sales of tax rice in the Osaka rice market on behalf of a provincial domain and to remit the funds to the domain's office in the city of Edo, where the funds were spent on the running expenses of the domain office and the lord's household. This was due to the fact that under the shogunate's rule, every domain lord was required to reside in Edo every other year while his wife and the heir had to permanently live there in the absence of the lord. Every domain therefore maintained the office and the officials to staff the office and the residence for the lord's households in Edo. From around the 1700s, as rice prices fell in the Osaka market, many domains also came to rely on their *kakeya* agent for loans, for which the tax rice served as collateral.[45] The creditor *kakeya* agents thus became heavily involved in the debtor domain's finance. The domain was obliged to keep its creditors informed through the provision of financial statements and to invite them to discuss repayment plans. The *kakeya* agent would monitor the domain's repayment efforts, advising on its fiscal and economic policies.[46] In most cases, the Osaka agent's contacts were the domain's samurai officials who were posted to head the domain's Osaka office. These samurai technocrats belonged to a domain's Treasury Office (*Kanjō-gata*) and would negotiate with the *kakeya* agents over repayment schemes. In this typical interaction between the Osaka financial agents and provincial bureaucrats, there would therefore appear to have been little scope for provincial financial agents to be engaged or acquainted with Osaka financial agents.

[44]Nakagawa 2003, 24.
[45] Mori 1970.
[46] Takatsuki 2013.

However, our research has found evidence that shows that direct interaction between provincial and metropolitan financial agents actually occurred on a number of levels. Figure 4 illustrates the three types of linkages that provincial financial agents made directly with Osaka financial agents at some point during the period 1760-1860, namely loan negotiators, remitters and merchant network. We found that during these years 48 provincial financial agents in at least 39 separate towns had a recognised connection with Osaka through one of these linkage types. This equates to 19.7 % of total number of towns in the dataset. Merchant network type is typically seen in the cases of Ōmi merchants (today's Shiga prefecture) who were known for peddling textiles and other goods from the commercial centre of the Kinai region across the country and eventually opened branches in provincial towns. As seen in the chart, many Ōmi merchants settled to open branches especially in the eastern regions of the country. With their headquarters in Ōmi and increasingly in Osaka, Kyoto and Edo, the merchant diasporic branches maintained a close connection with the headquarters and other provincial branches.

[Figure 4: Types of linkages between Osaka MFAs and PFAs 1760-1860]

In loan negotiator type, an Osaka financial agent who acted as a domain creditor interacted with a provincial financial agent who had been appointed by that domain to act as its representative in negotiations with the Osaka creditor. As part of any repayment, the domain had to ship tax rice which had been submitted as collateral to Osaka, where the Osaka creditor would dispose of it. Fluctuations in rice prices in Osaka as well as in local rice markets meant that a domain would from time to time have to request a deferral in rice shipment. On these occasions, the Osaka creditor would demand a guarantee from local financiers or merchants (PFAs). For example, in the 1760s, six merchants in the Murakami domain jointly submitted their own lands and properties as security for this purpose to the Osaka money changer house Hirano-ya, who was a creditor of the domain.[47] A similar joint guarantee was submitted by one Fukaya

[47] Murakami-shishi 1999.

Hanzaemon to the Osaka creditor of the Nishio domain in the 1860s.[48] In other domains such as Kaga, Kuboya Kihei, who had originally run a successful shipping business in the town of Wajima, was appointed as an official negotiator by the domain and moved permanently to Osaka to carry out this duty. In this kind of case, the Osaka creditor money changers recognised Kuboya as an equal counterpart.[49] In the case of Tottori domain, Osaka financial agents engaged provincial financial agents to act as their local agents. We find that two rice wholesalers in the castle town of Tottori, Ōtsu-ya and Fukuichi-ya, acted as local agents for three Osaka money changers, Hirano-ya Gohei, Kōnoike Kiroku and Kuwana Jinbei, all of whom made large loans to the domain over several generations between 1742 and the 1810s.[50] The Tottori agents advised on the various commercial initiatives promoted by the domain to boost production and trade in the hope of improving on its loan payments, and represented the interest of Osaka agents in any negotiations with the domain. Hirano-ya explained that the Osaka-Tottori connections lasted because the Tottori merchants 'had been familiar with us over generations'.[51] These cases suggest that local PFAs essentially acted as short-term guarantors for local domains and Osaka creditors accepted their guarantees. Over time the Osaka MFAs recognised the advantage of local knowledge that local PFAs had about the credit risks of the given domain and the information advantage led them to seek out local PFAs as intermedirias. The information asymmetries gave a sufficient motivation for the Osaka MFAs to estaglish a linkage with PFAs.

[Figure 5: Negotiatior PFAs and domain debt size 1760-1860]

Arguably, the commitment by provincial financial agents to the loan negotiation processes proved to be effective for maintaining the domain's creditworthiness.

[48] Nishio-shishi 1976.
[49] Wajima-shishi 1975.
[50] Tottori-kenshi 1981.
[51] The direct contact with Osaka proved to be vital for the survival of the Tottori merchants. Both Ōtsu-ya and Fukuichi-ya were able to survive as successful rice wholesalers for at least a century while many of their fellow merchants disappeared, suggesting that the Osaka linkage was beneficial for their business. Tottori-kenshi 1981.

Figure 5 shows twelve domains where provincial financial agents acted as the loan negotiator and the size of the domain debt.[52] We can see that the domains with PFA negotiators tended to be larger debtors suggesting that the involvement of PFAs offered some degree of assurance to the domain creditors and also implying that the metropolitan creditors were satisfied with the creditworthiness of the negotiator PFAs. It is plausible that provincial domains with sound finances employed local PFAs as representative to find the best loan deals that were available in Osaka and that local PFAs, as the guaranter to the lending, were committed to secure the favourable loan terms.

Figure 4 shows that direct metropolitan-provincial connections also emerged out of the regular remittance of monies using bills of exchange between provincial financial agents and metropolitan wholesalers (Remitter type). This connection was based on the inter-regional trade between the provincial and central markets. Money changers in Osaka as well as Edo and Kyoto included provincial merchants amongst their account holders. The evidence shows, for example, that Echigo-ya, a shipping merchant in Tsuchisaki (Akita domain) was in the habit of sending bills of exchange to Kojima-ya Jizaemon, a money changer in Osaka, from as early as 1717.[53] Hyōgu-ya of the castle town of Sabae was a money changer and was connected with the Izumi-ya money changer house in Osaka through the remittance of bills of exchange.[54] Similar examples of remittance connections between PFAs and money changers in Kyoto (Hino-ya), and Edo (Tonomura-ya) can also be seen.[55] Wholesalers in Osaka and Edo were engaged in *de facto* financial business, and bill finance was one of these financial services on which they thrived. The bill drawn by a provincial financial agent on the

[52] After the fall of the Tokugawa regime, the new Meiji Government inherited all the debt that belonged to the former domains. The Government compiled three lists of domain debt in 1872: (1) the loans that originated before 1843, (2) the loans that were made between 1844 and 1867, and (3) debt that occurred from 1868 and 1871. The unit was in *yen*. Figure 5 was compiled from the list (1) and (2). As the debt amount is aggregated, it is not possible to distinguish the amount of debt owed to metropolitan creditors from other creditors, i.e. provincial/local creditors. Domain debt data is not available for the Fukushima domain although a PFA represented the domain in the loan negotation. Hansai Shobunroku 1872.
[53] Akita-shishi 2004.
[54] Sabae-shishi 1999.
[55] Nagoya-shishi, 1999; Kōfu-shishi 1984.

metropolitan wholesaler would then be presented by the shipper to the Osaka wholesaler. Whether he presented the bill to his money changer or redeemed it himself, the wholesaler was able to use the clearinghouse mechanism in Osaka to clear the bill.[56] For regular bill transactions, provincial financial agents held an account with their metropolitan wholesaler, and were allowed to use overdraft facilities.[57]

It appears, therefore, that metropolitan financial agents in London were more active participants in networks with provincial financial agents than their Japanese counterparts. By 1812, they provided correspondent banking services for 90% of all provincial towns with PFAs across the country. While many London agents, especially the goldsmith banks, had connections with a limited number of PFAs, those who were willing to take advantage of provincial bill discounting tended to have a large number of provincial connections.[58] By contrast, Osaka financial agents forged provincial linkages in various ways, including through operations such as loan negotiations and bill financing, but the number of metropolitan-provincial linkages that can be observed in the dataset is significantly smaller than in the English case.

Motivations for MFAs to Forge Linkages with PFAs

What gave metropolitan financial agents the incentive to explore connections with provincial financial agents? Or, to be more precise, does the fact that London financial agents appear to have participated in denser provincial financial networks than their Osaka counterparts mean that they had a stronger incentive to do so? One way to examine this is to consider the decision making of

[56] Shimbo 1967; Shizume 2008.

[57] For example, in the port town of Muya in Tokushima the House of Yamanishi, which was a fertiliser wholesaler, in the 1830s opened a current account with two money changers in Osaka and one in Edo. Yamanishi had originally only held an account with a wholesaler in Osaka, but as the volume of his transactions and his credit balance grew in Osaka, he went on to directly open an account with high ranking money changers. Morimoto 2020.

[58] On the other hand, a few notable London discounter banks like Coutts only held one or two provincial connections but their transaction volumes were large. Coutts arguably handled about a half of all the London-Scotland financial flows through its correspondent relationships with the Bank of Scotland. Gent 2016.

metropolitan financial agents regarding whether or not to participate in any provincial financial networking in relation to alternative opportunities for investment that might have existed in Osaka/Edo or London. Analysis of financial investments by individuals or firms ideally requires the use of balance sheet data, but the number of surviving historical balance sheets from the 18th and early 19th centuries is limited.[59] Nonetheless, we may be able to obtain some limited comparative insights on this question by relying on some of the recent literature, in both English and Japanese, that has begun to make use of the limited number of surviving balance sheets or their premodern financial system equivalents.

In London, it was discounter banks rather than goldsmith banks that were keener to exploit the correspondent relationship with country banks. Did discounter banks therefore have a stronger motive to connect with country banks? We know that as late entrants to the London banking community, discounter banks were unable to attract the deposits of wealthy noblemen, nor were they able to focus on secure, long-term lending as did the goldsmith banks. However, if we rely on the recent research findings of Temin & Voth (2013) and Gent (2016), we find that despite their distinct banking practices, the average rate of net profitability of goldsmith and discounter banks was similar in the final two decades of the eithteenth century between the 1790s and the 1820sbut thereafter declined for the faster-growing discounters as they began to suffer worse loan losses. Goldsmith banks could only charge 4-5% per annum for secured mortgage loans to their exclusive circle of clients consisting of aristocrats and wealthy merchants with landed properties,[60] combined with investment in government bonds that yielded close to 5%, the rate in both cases being capped at 5% by the usury laws. However, due to their low expenses ratios, the gross

[59] The London banks were in the habit of routinely generating balance sheets and profit and loss sheets. The chief cleark did this at least annually but more usually quarterly or semi-annually. These financial documents were however only for the eye of the partners and only a limited number of them have survived. After 1826 the joint-stock banks published them.

[60] Loans did not exceed more than 2-2.5 times cash reserves. Sometimes a bank made loans against government securities on condition that it had the right to sell the tradeable securities in the event of non-payment. Gent 2016, 140.

interest margin on all interest bearing assets averaged 4.7% until the end of the Napoleonic War in 1815,[61] although it thereafter declined to an average of less than 3% after 1830.[62] Goldsmith banks paid little or no interest on clients' deposits, and their operating expenses and loan losses were low due to the low transaction turnover; Gent estimates operating expenses at less than 15% and loan losses averaged less than 5% of net interest revenue.[63] These figures mean that the net margin on lending assets was slightly less than 4%, and produced a 2.5% - 3% net return on assets (after accounting to the cost of maintaining conservative levels of non-interest-bearing cash reserves).[64]

According to Gent, discounter banks were achieving a similar net margin and return on assets as the long-established goldsmith banks. Although discounters were obliged to pay some interest to attract retail deposits or to justify imposing minimum balances on the accounts of their correspondent country banks, Discounter banks would earn a much higher gross margin on bill discounting of 6.5% annualised including fees (as the compounding effects were not well understood and were therefore not subject to the usury laws) and these remained high until the credit crisis of 1825. Discounter banks charged country banks for correspondent services, requiring them to pay a percentage of the total value of transactions handled in addition to the bill discounting charges. The majority of the revenues of discounter banks came from their bill discounting charges, in contrast to the goldsmith banks, which rarely engaged in bill discounting. Discounter banks had to pay the higher operating expenses associated with handling the larger number of transactions in bills of exchange that required more staff and were subject to Stamp Duties, and they also tended to suffer greater loan losses than goldsmith banks because of the lower quality of borrowers and security. However, even after accounting for these costs and losses, it seems that discounter banks were able to achieve a comparable

[61] This was due to that yields in the secondary market for government bonds were often higher than 5% in the period until 1815 and the usury laws only applied to the nominal coupon rate.
[62] Gent 2016.
[63] Gent 2016.
[64] Temin and Voth 2013; Gent 2016.

profitability rate to that of the goldsmith banks in the initial decades of their development, but (as always in banking) those that were tempted to grow too fast ended up experiencing ex post greater loan losses as lending standrads weakened. It is highly probable that the rapid growth in the use of bills of exchange to finance both domestic and international trade and the higher interest margin from bill discounting provided an incentive for the initial establishment of discounter banks in London; these developed the relevant expertise that made them the natural provider of correspondent banking to the provincial country banks (where most of the Industrial Revolution expansion was taking place). In the period from the 1790s,[65] as the Bank of England began rapidly growing its own bill discounting, the country banks were increasingly drawn to access the liquid money market in London by using a London discounter bank as correspondent.

In Osaka, lending to provincial domains was a popular form of investment for money changers and wealthy wholesalers in Osaka throughout the Tokugawa period. Money changers and wholesalers possessing higher status and ample resources made direct loans to domains while those with more limited funds were still able to invest a small amount of money by participating in a joint loan scheme.[66] Domain lending was popular because its rate of return remained high during the 17th and early 18th centuries while the profit rates accruing to wholesalers in Osaka began to decline in the early 18th century.[67]

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[65] Whether or not this applies to the period before the 1790s is an interesting question; little research has examined the corresponding banking by London banks before the 1790s. Our research exploring this issue is currently work in progress.

[66] These joint loan schemes called *eda-tegata* or *eda-shōmon*, were often used by a domain to raise short-term funding (less than a year).

[67] Case studies of Osaka wholesale merchants, cited by Saito and Settsu, suggest that the rates of profit over assets during the period around 1700 were significantly above 10% but began to fall in the mid 18th century and remained below 3% until the end of the Tokugwa period. During the 17th century, Osaka's wholesalers dominated the nation's commercial distribution system and provided credit to provincial merchants. Saito and Settsu 2006; Saito 2017. On the other hand, the average rate of interst on loans (by Kōnoike Zen'emon) to domains in the early 18th century was slightly over 12% before beginning to show a secular decline. Miyamoto 1971.

From around 1700, however, many domains began to run into financial deficit and the risk of default/non-repayment began to rise. The rate of return on domain lending began to decline, and continued to do so throughout the 18th century.[68] This prompted a change in investment strategy amongst their creditors in Osaka. The largest money changers such as Kōnoike Zen'emon focused on domain lending while abandoning the provision of commercial finance for wholesaler clients altogether from the 1700s.[69] The loan contracts were individually drawn to reflect the rank, creditworthiness and repayment ability of each domain and the prestigious money changers only made loans to the domains of the most creditoworthy. As domains in Eastern Japan had historically kept a closer relationship with the Tokugawa shogunate, any loans to these domains were more likely to be protected by the shogunal government. However, while not enjoying similar privileges, many domains in Western Japan were keen economic and fiscal reformers, promoting commercial production, financing exports to central markets, and issuing paper currency.[70] These (high) quality domains were also allowed to keep the loan facilities for a long period of time. Individual loans to provincial domains by the large money changers such as Kōnoike and Mitsui were large and were fully backed by their own capital. Their lending strategy therefore focused on secure lending to high quality domains on the strength of their own capital.

To avert the increased risks involved in domain lending and to diversify the lending portfolio, middle-sized money changers and wholesalers invented new lending techniques to continue lending to domains. As domains generally borrowed from multiple lenders who knew each other in the Osaka community, the fellow creditors often formed an informal creditor group with a view to enforcing repayments by the domains. Middle-sized money changers and

[68] Saito and Settsu 2006; Saito 2017

[69] Mori 1970; Miyamoto 1983.

[70] Roberts 2002; Nishikawa and Amano 2004. Takatsuki argues that Osaka creditors combined an arm's length approach and a market-based approach to the borrower domains and that it was amongst the domains financed by a market-based approach that developmental domains such as Satsuma and Chōshū emerged to lead the Meiji Restoration. Takatsuki 2012 and 2013.

wholesale merchants also borrowed money to continue lending to domains.[71] In the case of Kōnoike Eizaburō, a medium to high-ranked money changer,[72] for example, a little over 50% of the business's lending capital to provincial domains was externally sourced from fellow money changers belonging to the Kōnoike Group, as well as from temples, samurai and commoners. Eizaburō would combine these funds with his own capital to make loans to seven provincial domains, which made up over 90% of total lending of Eizaburō's house during the 1780s and 1850s. During the 1780s, Eizaburō charged domain borrowers on average 11.7% p.a. while paying 6.8% p.a. to the 'depositors'. By the 1850s, however, the net interest margin had fallen because domain loan interest had gone down to 9.6% p.a. and the interest Eizaburō paid on 'deposits' had risen to 8.4%. p.a.[73]

One plausible suggestion is that in this context of declining profits from domain lending it became more enticing for Osaka financial agents to shift their focus on commercial finance to merchant clients in Osaka as well as in distant locations.[74] For example, when one fertiliser wholesaler, the Nakanishi-ya House of Muya in Tokushima, was allowed to open an account with the money changer house of Kajima-ya Sakugorō in Osaka, the latter was struggling because of falling income from domain lending.[75] Regular income from the 'interest' charged to wholesalers on overdrafts was increasingly important for these money changers; this interest is estimated as being 1.5%, around twice as much as the interest charged on other short term loans. In fact, in the case of the house of Nuno-ya Kichirobei, a medium-ranking money changer in Osaka, we know that in 1867, 62 % of the profits from interest-bearing short term assets were derived from

[71] Nakagawa 2003, 129-30.
[72] The house stemmed from the most prestegiou money changer house of Kōnoike Zen'emon in the 1700s.
[73] Nakagawa 2003, 233-5 and 250. This lending by Eizaburo resembles today's 'shadow banking' whereby 'shadow banks' fund loans to somewhat riskier borrowns by themselves borrowing from tranditioanl ('core') banks. I am grateful to Dr. Gent's feedback.
[74] Despite the relative decline in the role of Osaka's wholesalers in the national distribution system from the early 18th century, recent literature has emphasised the continued importance of Osaka wholesalers' credit provision to provincial wholesale merchants. Nishimukai 1991.
[75] Morimoto 2020.

overdraft charges.[76] Higher interest charges could, of course, jeopardise the repayment ability of the client, which was why money changers only allowed wholesalers of higher creditworthiness to open accounts with them. Because all wholesalers belonged to some kind of trade guilds (*nakama*), each of which monitored their members' business conduct, in this way, money changers were able to keep monitoring costs low and to reduce information asymmetry risks. Overall, in Osaka, long established MFAs were achieving a reasonable return on asset by pursuring a low-risk business strategy (like London goldsmith banks) and they were able to able to expand their lending by lending to other Osaka MFAs where they had sufficient nformation advantage. On the other hand, it was the new entrants who were left with the higher ineterst rate and higer risk lending to borrowers at disant locations and PFAs.

In both England and Tokugawa Japan, therefore, we find that financial linkages with PFAs were more likely to be forged by those metropolitan financial agents who were relatively new entrants to the financial community in the commercial capitals, than by those who were long established and prestigious, and seeking an alternative or additional source of income to their more traditional secure lending and/or government/domain finance. New business opportunities with PFAs provided these metropolitan agents with an increased rate of profitability, although the costs of monitoring the conduct of distant financial agents and any related losses may also have been high. While such similarities can be observed, however, there is little evidence that Osaka financial agents were able to grow through systematically using deposits from provincial financial agents in the same way as the London discounter banks. Moreover in the absence of bill discounting practices in Tokugawa Japan there was no incentive for Osaka financial agents to explore provincial financial linkages in search of a potentially profitable discounting business.

[76] This does not include income from domain lending. Nakagawa 2003, 129.

Conclusion

During the 18th and 19th centuries, metropolitan financial agents proliferated in both London and Osaka. The MFA communities in both these cities consisted of two broad types of financial agents. One was those agents who were long established and able to attract the wealthiest clients. These agents were London's goldsmiths and the prestigious money changers in Osaka, although in both cases they comprised a minority of all MFAs in the two cities. The other type of agents was new entrants to the financial community who were more willing to meet the increasing demand for commercial finance from mercantile clients. London's discounter banks and medium-ranking money changers in Osaka represent this type. In both England and Japan, financial linkages with PFAs were more likely to be forged by the latter type of MFA, who were searching for an alternative or additional source of income to the more traditional secured lending and/or government/domain finance that had already been largely monopolised by the first type of MFAs . New business opportunities with PFAs provided this second type of agent with a rate of profitability that was comparable to that achieved by MFAs of the first type whilst applying a different skill set that did not directly compete with the latter.

However, while such similarities between the two countries can be observed, it is also clear that London MFAs participated more actively in networks of provincial financial agents. By 1812, 90% of all English provincial towns with PFAs were connected with London through some kind of contractual correspondent relationship between PFAs and MFAs. Discounter banks in particular developed dense correspondent networks with PFAs across the country which brought them significant profits from the discounting of provincial bills of exchange, as well as from deposits pledged by PFAs. By contrast, it appears that MFAs in Osaka as well as in Edo lagged behind their London counterparts in forging provincial linkages: only 19% of provincial towns had a recognised connection with MFAs during the period c.1760-c.1860 with which we are concerned..[77] Besides, many of

[77] Correspondent banking relationships not only facilitated the flow of capital and information but could also transmit financial instability from one region to another in early 19th century

the connections that can be observed were made in the context of domain finance, in which Osaka financial agents were heavily involved. Crucially, although provincial-metropolitan linkages in both countries were emerging out of private-based commercial finance, there is little evidence to suggest that becoming involved in commercial finance for PFAs offered Osaka MFAs a significantly higher rate of profit, as compared to the premiums in gross interest accruing to London discounters from the bill discounting business. In this regard, it is suggestive that when early Meiji financial reformers in the second half of the 19th century promoted the establishment of a nation-wide interbank correspondent system by 'importing' it from the West, they claimed that bill discounting practices needed to be introduced in tundem with this reform, arguing for the need for Western style commercial laws relating to the negotiability of bills of exchange.[78]

England. James 2012; Ishizu 2013. This was also the case in the early US money markets; Weber 2003; Weiman 2010; Dupont 2017. In contrast, few examples are known of inter-regional transmission of liquidity shortage in Tokugawa Japan.
[78] Tsurumi 1991.

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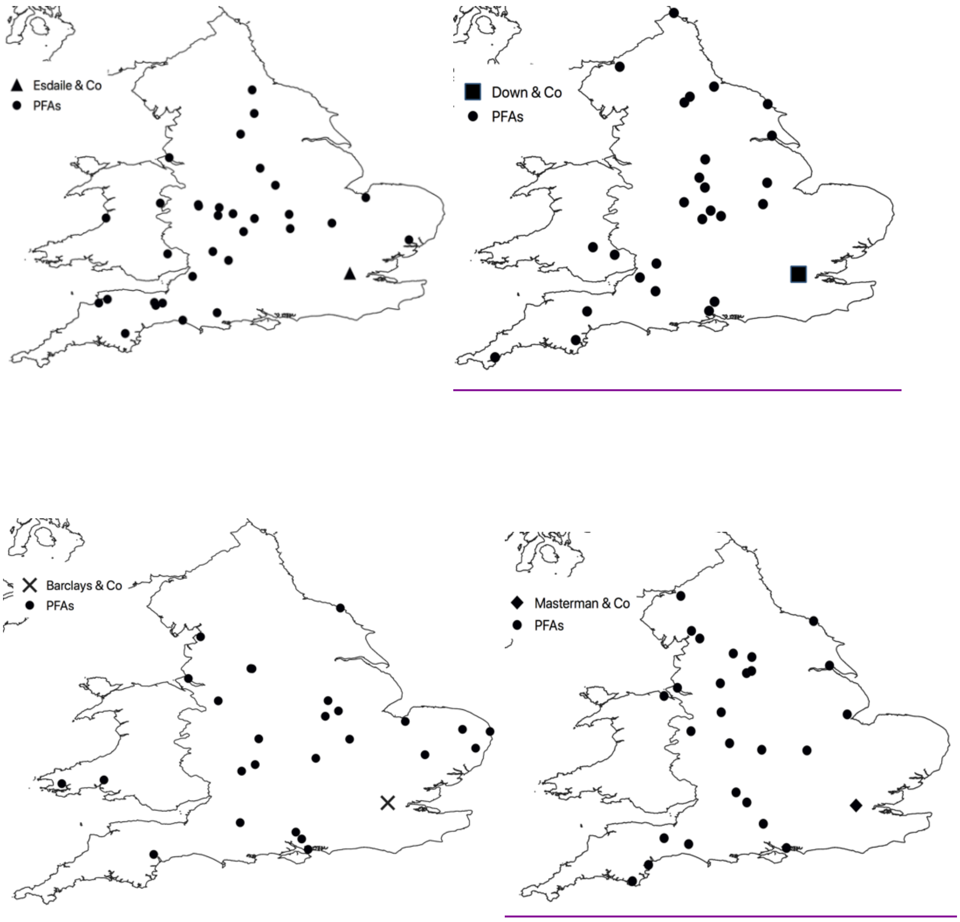
Tables and Figures:

Table 1: London financial agents with 10 or more provincial linkages 1812 (from the dataset)

MFAs	Correspondent PFAs
Esdailes & Co	33
Barclays & Co	29
Downs & Co	28
Mastermans & Co	28
Glyn Mills & Co	24
Roberts Curtis & Co	22
Spooner Atwood & Co	22
Forster & Co	21
Fry & Co	21
Jones Loyd & Co	14
Lubbock & Co	11
Perring & Co	11
Were Bruce & Co	11

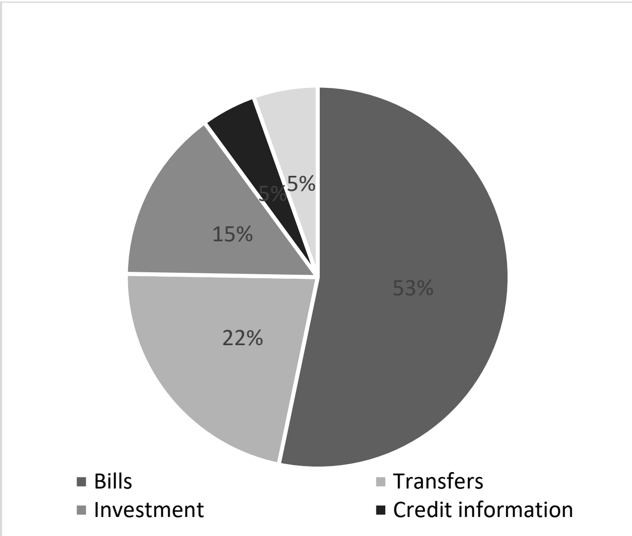
Figure 2: London MFAs with their correspondence PFAs: Esdailes & Co., Downs & Co., Barclays & Co. and Masterman & Co., 1812 (from the dataset)



Note: All locations represent one PFA except for the following:

Town	PFAs	MFA
Gloucester	2	Esdailes & Co
Bristol	2	Downs & Co
Bury St Edmunds	2	Barclays & Co
Camerthan	2	Barclays & Co
Liverpool	2	Barclays & Co
Carlisle	2	Mastermans & Co
Kendal	2	Mastermans & Co

Figure 3: Nature of correspondence: Backhouse & Co. of Darlington and its London agent Barclays & Co. 1816-17



Source: Backhouse & Co. Balance Sheets Barclays Bank Archives 0388-0024

Figure 4: Types of linkages between Osaka MFAs and PFAs 1760-1860 (from the dataset)

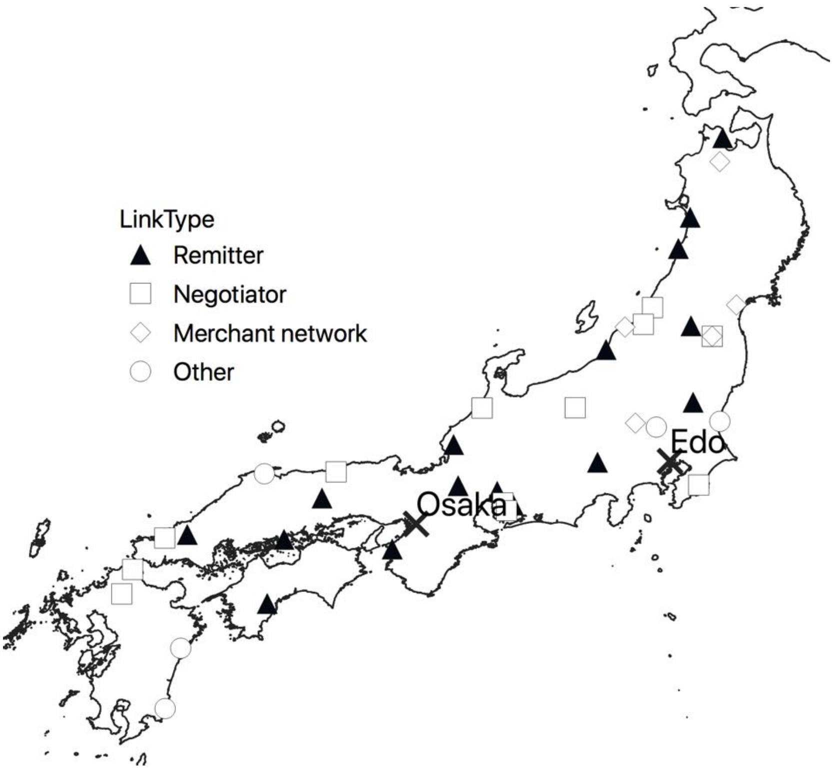


Figure 5: Negotiatior PFAs and domain debt size 1760-1860 (from the dataset)