

Early modern international trade payments: shackled by specie or set free by the pen?

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Abstract

The growth of England's money supply during the late seventeenth and early eighteenth centuries is commonly viewed as a key supporter of economic expansion and specie has been viewed as essential for payment settlement and for underpinning both credit and trade. This paper re-examines that assumption by analysing how international payments were made in practice. Using evidence from the ledgers of merchants engaged in Baltic, Northern European, and Levant trade, it shows that payments were typically settled through the transfer of debts held on reciprocal merchant current accounts, rather than by using specie. It also shows how Bills of Exchange functioned primarily to authorise the reassignment of existing debts within merchant ledgers. Consequently, the paper argues that inter-merchant credit should be included as a significant component of the early modern money supply and that the role of specie and Bills of Exchange has been overstated.

Introduction

The growth of the money supply during the period covered by this paper (1670-1740) has been regarded as an essential enabler of British economic growth, simply summarised as more money increases liquidity, reduces transactions costs and enables specialisation.¹ While credit's role is recognised within an emerging mixed monetary economy, specie in particular is viewed as central to payments, underpinning money and inter-merchant debt, and being the ultimate settlement mechanism for trade.² Thus, quantification of money supply has typically included specie in circulation, bank notes, bank deposits, and Bills of Exchange, such calculations relying heavily on estimates for these input factors.³ However the purpose of this paper is not to

¹ For examples see Nuno Palma. "Money and modernization in early modern England." *Financial History Review* Vol. 25, No. 3 (2018): 231-261; Patrick O'Brien and Nuno Palma. "Not an ordinary bank but a great engine of state: The Bank of England and the British economy, 1694-1844." *The Economic History Review* Vol. 76, No. 1 (2023): 305-329; and Forrest Capie. "Money and economic development in eighteenth-century England." in Leandro de La Escosura, (ed.) *Exceptionalism and industrialisation: Britain and its European rivals, 1688-1815*. Cambridge University Press, 2004: 1688-1815.

² Palma. *Money and Modernization*: 241.

³ For examples see Alejandra Irigoin. "Global Silver: Bullion or Specie? Supply and Demand in the Making of the Early Modern Global Economy" *London School of Economics, Economic History Working Papers* No: 285, (2018); Nuno Palma. "Reconstruction of money supply over the long run: the case of England, 1270-1870." *The Economic History Review* Vol. 71, No. 2 (2018): 373-392. Ling-Fan Li. "International credit market integration in northwestern Europe in the 1670s." *Financial History Review* Vol. 26, No. 2 (2019): 127-145; Alejandra Irigoin. "The rise and decline of the global silver standard" in Stefano Battilossi, Youssef Cassis, and Kazuhiko Yago, eds. *Handbook of the History of Money and Currency*. Singapore: Springer, 2020: 383-410; Patrick O'Brien and

challenge the underlying principle that growth in GDP was supported by growth in the money supply. Neither does this paper address the importance of specie for trade with Eastern economies such as China, where its absence would very likely have been a severe hindrance. Nonetheless, my study of the ledgers of contemporary merchants in the Baltic, Northern Europe and Levant trades, suggests that the role of specie for payments related to these regions was more limited than hitherto posited. Thus, as these areas contributed over 60% of English imports and exports around 1700, the materiality of silver or gold in enabling the growth of the early modern English money supply, trade and GDP growth, may have been overstated.⁴ Accordingly, while the literature to date has noted the exchange of debt liabilities held on reciprocal merchant current accounts being used to enable payments, it has not fully recognised its extent nor the significance of its contribution to money supply and payments.⁵ Further, this exchange of debt by merchants, especially through financial hubs such as Amsterdam, Hamburg and London, effectively acted as a “distributed” or “peer-to-peer” proto-bank payment institution.⁶ Hence, any attempt to understand the size of the early modern money supply and its growth should include money created through the exchange of debt between merchant current accounts.

This paper will explain my research methodology followed by an explanation of how inter-merchant payments worked, using modern bank payment networks for comparison. I then provide a representative example from my primary research sources of debt being exchanged between merchants’ current accounts for international payments. This will then be followed by a discussion and my conclusions.

Research Methodology

Merchants’ accounting ledgers have been used to analyse their financial behaviour. Ledger entries have been copied into a double entry bookkeeping Excel database enabling ledgers to be replicated and reconciled with the originals. Where available, such data is supplemented from merchants’ waste books or journals.⁷ To date, over 9,000 ledger entries have been transcribed from the ledgers of seven merchants.⁸

Nuno Palma. "Danger to the Old Lady of Threadneedle Street. The Bank Restriction Act and the Regime Shift to Paper Money, 1797–1821." *European Review of Economic History*, (2019) Vol. 24 No. 2: 390-426.

⁴ Elizabeth Schumpeter. *English overseas trade statistics 1697-1808*. Oxford: Clarendon Press, 1960: tables V and VI. The proportion of trade I have quoted may be conservative; however, it serves to emphasize the importance of these trading regions at this time. By the late eighteenth century this proportion declined in favour of North America and Asia.

⁵ A “Current Account” was an open account in a merchant’s ledger that kept a running record of the financial transactions between two parties. A “debt liability” comprises an obligation to repay a debt, recorded in a merchant current account but not in any other commercial paper, owed by one party to another that can be transferred to a third party. See Craig Muldrew. *The Economy of Obligation: the culture of credit and social relations in early modern England*. New York: St. Martin’s Press, 1998: 101, wherein Muldrew records that, for domestic transactions, the deficiency of coin led to credit serving as the primary means of exchange leading to complex “webs of credit.” (p. 95). See also Carl Wennerlind. *Casualties of credit: The English financial revolution, 1620–1720*. Harvard University Press, 2011: 28-9, and O’Brien & Palma, *Danger to the Old Lady*, which excludes merchant current accounts from money supply.

⁶ A “distributed” or “peer to peer” system has a number of independent actors working in coordination, observing recognised rules, to provide a common outcome. This could be perceived as a single entity or institution.

⁷ A “waste book” recorded financial transactions as they happened. A “Journal” was used to formally record transactions transferred from the Waste Book, and indicated debits and credits, and the ledger account to which they were applied.

⁸ To date, I have studied 4 Baltic and 3 Levant merchants.

Figure 1a: The current account of Francis Jennings in Graffin Prankard's Ledger 1728-1731⁹

		Francis Jennings		D	
March	25	To Ball bot from Page	21100.30	30	597 11 6
June	23	To Sundry A/c for Supt sent him of Expedition	5744.63	159	31 3
Sept.	22	To Cash in a bill remitted him on Randolph Knipe F2280.16	202	03	12
		To David Skinner & Co drawn on y ^{rs} & redrawn value £ 222628.15	109	6215	1 12
		To Voyage of Expedition for goods of Carlo	1879.12	236	397
		To freight he recd for going Expedition	763	436	52 4 3
		To Dr. on his own A/c	286	20	7 2

Figure 1b: The Excel Extract of Francis Jennings' current account in Graffin Prankard's Ledger 1728-1731

Account	Ledger No.	Date	Description	Dr	Cr	Cum
Francis Jennings	50	17280720	Stock	£ 1,256	9	(£1,256)
Francis Jennings	50	17280720	Sundries per the Sadbury	49375 £ 3 at 37	£ 1,334 9 2	£78
Francis Jennings	50	17280720	Sundries per the Expedition	Cost 56334 £ 37 Exchange	£ 1,522 10 11	£1,601
Francis Jennings	50	17280823	George McKenzie paid him	4979 £ 16 at 37	£ 40 9 6	£1,641
Francis Jennings	50	17280823	George McKenzie paid him	663 £ 25 at 37	£ 17 18 9	£1,659
Francis Jennings	50	17281021	Goods per the Ann Pink	96508 £ 37	£ 2,608 6 0	£4,268
Francis Jennings	50	17281021	Iron per the Providence for ditto shipt by him	7199 £ 37	£ 194 11 4	£4,462
Francis Jennings	50	17290929	Cash for 20 dozen Hotwell Water send him per Sadbury	£ 3 4 8		£4,459
Francis Jennings	164	17300325	Sundry accounts for sundries sent him per Expedition	5744.6 £	159 11 3	£4,299
Francis Jennings	164	17300631	Cash in a bill remitted him on Randolph Knipe	F2280.16 £	63 12 7	£4,236
Francis Jennings	164	17300720	Account of Iron per Expedition	38799.4 at £ 36 is Sterling	£ 1,077 15 1	£5,314
Francis Jennings	164	17300720	Account of Deals for 40 planks per the Ann	280 at 36 is Sterling	£ 7 15 7	£5,321
Francis Jennings	164	17300720	Account of Iron per Parham	65431.18 at 36 Exchange is Sterling	£ 1,817 11	£7,139
Francis Jennings	164	17300720	Account of Iron per Ann Pink	81016.9 at F36 is Sterling	£ 2,250 9 1	£9,389
Francis Jennings	164	17300801	Profit & Loss for postage and brokerage	961.4 at 36 is Sterling	£ 26 13 12	£9,416

Figure 1a is a typical example. Extracted from the ledger of Graffin Prankard between 1728-1730, this is the current account of Stockholm-based Francis Jennings, reproduced in Excel in Figure 1b.¹⁰ This is an abridged spreadsheet combining two separate ledger pages (50 & 164). The full Excel transcription, not shown here, also contains the commodities traded, their quantity and weight, the price by weight or volume, the exchange rate, and the ship. This rich level of detail is common in contemporary ledgers. Thus, transactions between the current accounts of multiple parties can be traced and, due to the nature of double entry bookkeeping, Prankard's reciprocal current account with Jennings can be reproduced because it was the inverse of Jennings' account with him.

⁹ Papers of Graffin Prankard, Bristol Merchant, DD/DN/7/2. South West Heritage Trust.

¹⁰ Graffin Prankard (d.1756) was a Bristol-based Quaker merchant who played an important role in developing the iron trade through Bristol in the first half of the eighteenth-century. His commercial letters and accounts, written between 1738-1756, are held at the South West Heritage Trust (Graffin Prankard Letter book, DD/DN/7/1/6). Also, see J. H. Bettey, "Graffin Prankard, An Eighteenth-Century Bristol Merchant." *Southern History* 12 (1990): 34-48, and Chris Evans, Owen Jackson, and Göran Rydén, 'Baltic Iron and the British Iron Industry in the Eighteenth Century', *Economic History Review*, Vol. 55, No. 4 (2002): 642-65.

Bank Payments and their Relationship to Credit

Merchants such as Prankard needed to pay suppliers like Jennings. Figure 2 shows how payments from remitters to beneficiaries could rely on transferring debt obligations via a third party. Today, that third party is a bank. To pay a beneficiary, a remitter deposits a sum with Bank A creating a liability in the ledger of Bank A reflecting what the bank owes the remitter. Bank A arranges for that sum to be paid to the beneficiary by transferring the liability from its ledger to the ledger of Bank B. The sum is then deposited in the beneficiary's account by Bank B creating a liability in its books, being what it now owes the beneficiary. This process is further simplified in Figure 3.

Figure 2: Interbank payment process

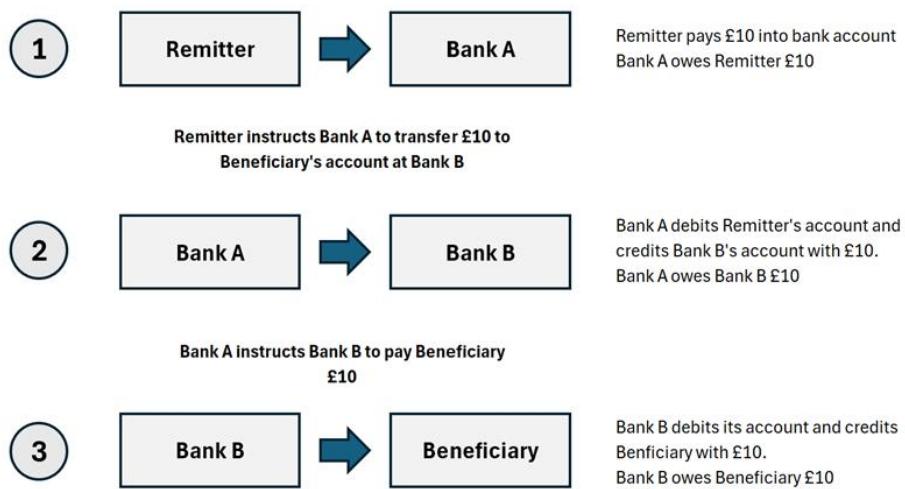
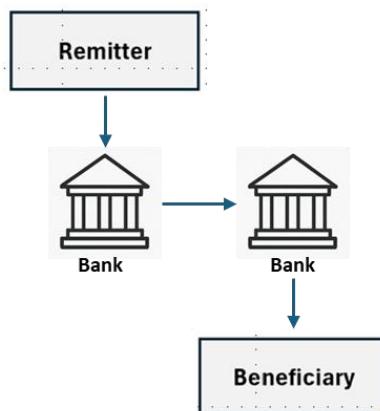


Figure 3: Simplified interbank payment process



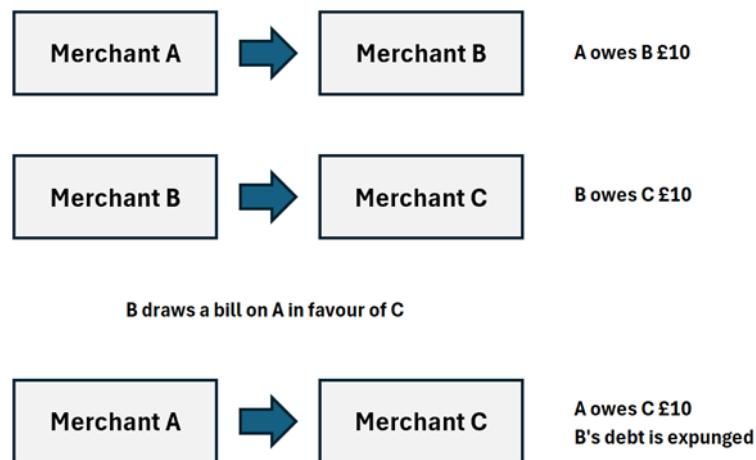
The electronic interbank messaging for modern payment transactions is virtually instantaneous whereas, during the period, such messages could take weeks or months. Also, today's transactions are settled via a heavily regulated international banking system which ensures the availability of payment liquidity at the

beneficiary's location.¹¹ Banks also manage the risks within the payment system, ensuring it is secure and not subject to loss or fraud.

Inter-merchant Payments and Debt Fungibility

While payment by specie was possible, it was not always available, it was cumbersome and was insecure for transfers between parties separated by great distances.¹² Alternatively, a debt owed by one party could be used to settle debts with other third parties. Hence debt is fungible, being a form of money with greater utility than specie as it is more easily and securely transferable between third parties over long distances. This is illustrated in Figure 4.

Figure 4: Illustration of the Fungibility of Debt



In this example, merchant A owes £10 to merchant B in London and merchant B owes £10 to merchant C in Stockholm. B draws a Bill of Exchange for £10 on A to the benefit of C in Stockholm. B has, thus, transferred an asset (A's debt to B) to merchant C and, in doing so, expunged his debt to C. What has taken place is a rearrangement of the assets and liabilities across the ledgers of three parties. The enabling mechanism is merchant B's use of a Bill of Exchange to effect a written, contracted novation of A's debt from B to C and, in doing so, reconciling the ledgers of all three parties to their simplest net residual state.¹³

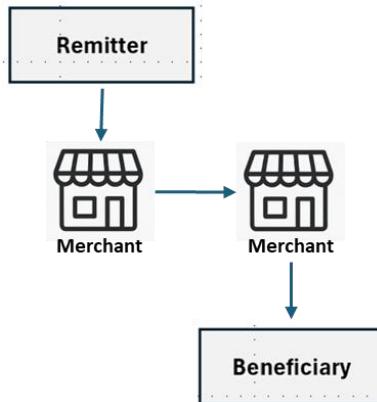
This process is further simplified in Figure 5 which is notably similar to the earlier interbank payment process in Figure 3.

¹¹ Payment liquidity. Having enough money in the right location at the right time to settle a transaction. See Ioana Duca-Radu and Livia Polo Friz (European Central Bank). "Liquidity distribution and settlement in TARGET2". *ECB Economic Bulletin*, Issue 5, 2020.

¹² See Jacob Price. "Multilateralism and/or Bilateralism: The Settlement of British Trade Balances with "The North", c. 1700." *The Economic History Review* Vol. 14, No. 2 (1961): 254-274. This article explains the difficulty of obtaining specie for cross border trade, especially where there is a significant trade imbalance such as existed between England and the Baltic region during the period, where Dutch coin was the preferred currency. Where specie was insisted upon, for example by Russia in the early eighteenth century, merchants were forced to go to great lengths and cost to secure sufficient coin.

¹³ In the context of a contract such as a Bill of Exchange, novation takes place when one contract party is substituted for another.

Figure 5: Simplified inter-merchant payment process



Thus, in the absence of an inter-bank payment system, merchants of the period performed the role, later undertaken by banks, of facilitating payments between remote parties. Such payments largely worked through the exchange of debt obligations between two or more parties, supported by long-established merchant practice and the aggregate capital, liquidity, and reputation of the merchant community.¹⁴ The related Bills did not create the debt, they acted as the inter-party messaging system, enabling the movement of debt from one merchant's current account to that of another in the facilitating merchant's ledger.¹⁵ Thus, inter-merchant debt and the ability to transfer it from one party to another, provided an effective, sophisticated and resilient payment system.¹⁶

Example Extracted from Graffin Prankard's Ledger

Francis Jennings was an agent in Stockholm, responsible for buying iron from Swedish foundries and shipping it to Prankard in Bristol. Jennings typically requested payment from Prankard via Hamburg or Amsterdam. Figure 6 is a schematic of the process by which Prankard settled a purchase of iron from Francis Jennings, who was repaid by drawing Bills on Prankard's correspondent, David Skinner, a Hamburg merchant.

Skinner was a buyer of rice shipped by Prankard from Carolina. He also collected the proceeds of Bills in favour of Prankard drawn on other Hamburg merchants. However, the balance accumulated on Prankard's current account with Skinner from these sources was insufficient to cover the cost of the Bill drawn by Jennings. Thus, Skinner drew Bills on Prankard's London correspondent, John Dilley, to cover the cost of his payment to Jennings.

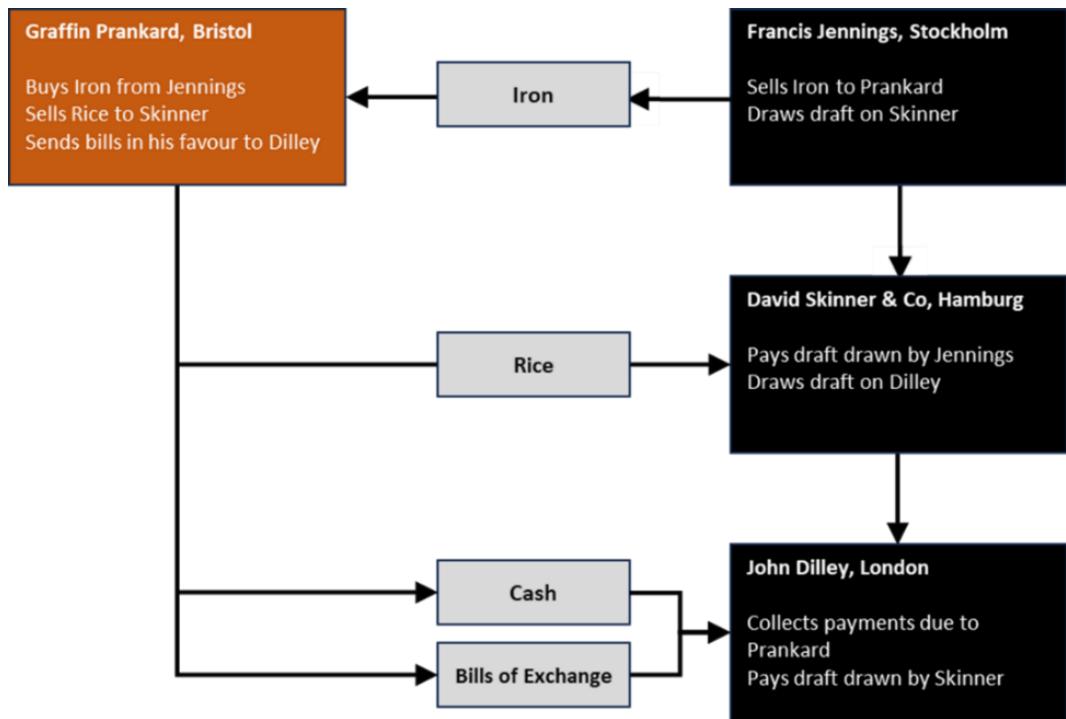
¹⁴ See Jim Bolton and Francesco Guidi-Bruscoli. 'Your flexible friend': The bill of exchange in theory and practice in the fifteenth century." *The Economic History Review* Vol. 74 No.4 (2021): 877-8, wherein they describe the essential interconnection of Double Entry Bookkeeping, Bills of Exchange and trusted merchant networks for the effective operation of 'exchange banking' between Italian banks in the sixteenth century.

¹⁵ See J. Sperling. "The International Payments Mechanism in the Seventeenth and Eighteenth Centuries". *The Economic History Review* Vol.14, No. 3 (1962): 446–68.

The use of Bills to facilitate settlement of obligations is noted in Alan Sangster. "The Diffusion of Double Entry Bookkeeping before 1800." *Accounting Historians Journal*, Vol. 52, No. 1 (2025): 95–113

¹⁶ See Pierre Gervais. 'Mercantile Credit and Trading Rings in the Eighteenth Century'. *Annales: Histoire, Sciences Sociales* (French Ed.) Vol. 67, No. 4 (2012): 731–63 for an exploration of credit was used as a mechanism for payment in mid-eighteenth-century France.

Figure 6: Prankard - Settlement Schematic of an Iron Transaction



These transactions can be traced through Prankard's ledger as shown in Figure 7, which shows the balance of Francis Jennings' current account with Graffin Prankard between 1728 and 1731. Jennings' credit balance of over £9,000 was built by his buying iron for Prankard, whose reciprocal current account in Jennings' ledger would have shown an equivalent overdraft. Partial repayment occurred in September 1730, when Jennings drew a Bill for £6,245:4:2d on Prankard's account with Skinner in Hamburg.

Figure 7: Francis Jennings' Current Account with Graffin Prankard (1728-1731)

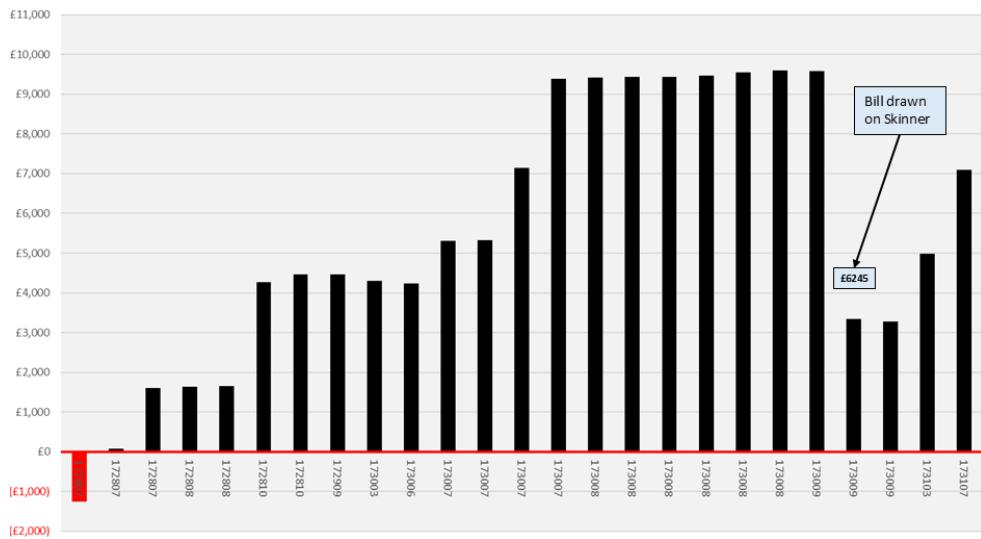


Figure 8 shows that Skinner's current account with Prankard was usually overdrawn, indicating that Prankard's reciprocal account in Skinner's ledger was in credit. However, Jennings' Bill drawn on Skinner in September 1730 triggered the transfer of £6,245 to his account in Skinner's ledger, causing Prankard's account with Skinner to go overdrawn. Unless Skinner had permitted this overdraft, Jennings' Bill would not have been paid. To repay Prankard's overdraft, Skinner drew several Bills on Prankard's account with John Dilley in London.

Figure 8: David Skinner's Current Account with Graffin Prankard (1730 -1732)

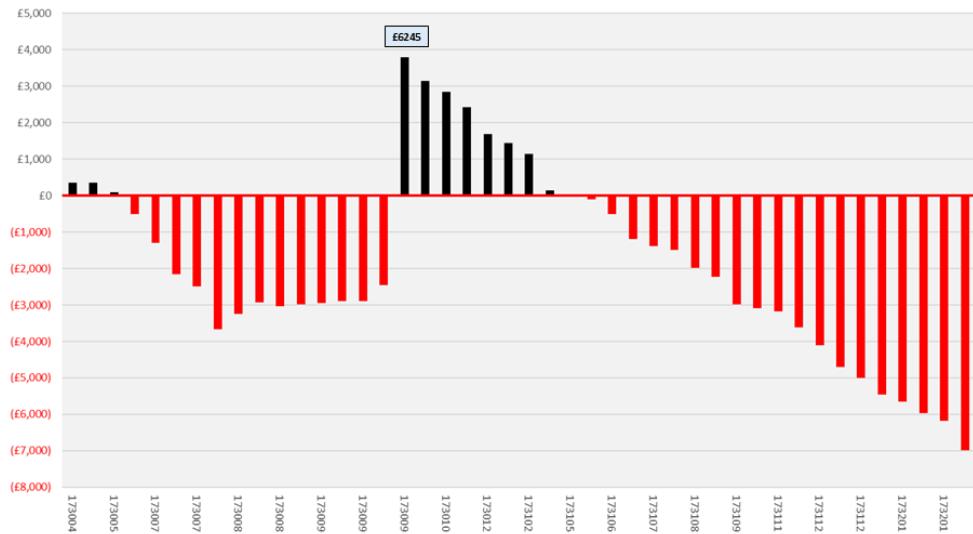
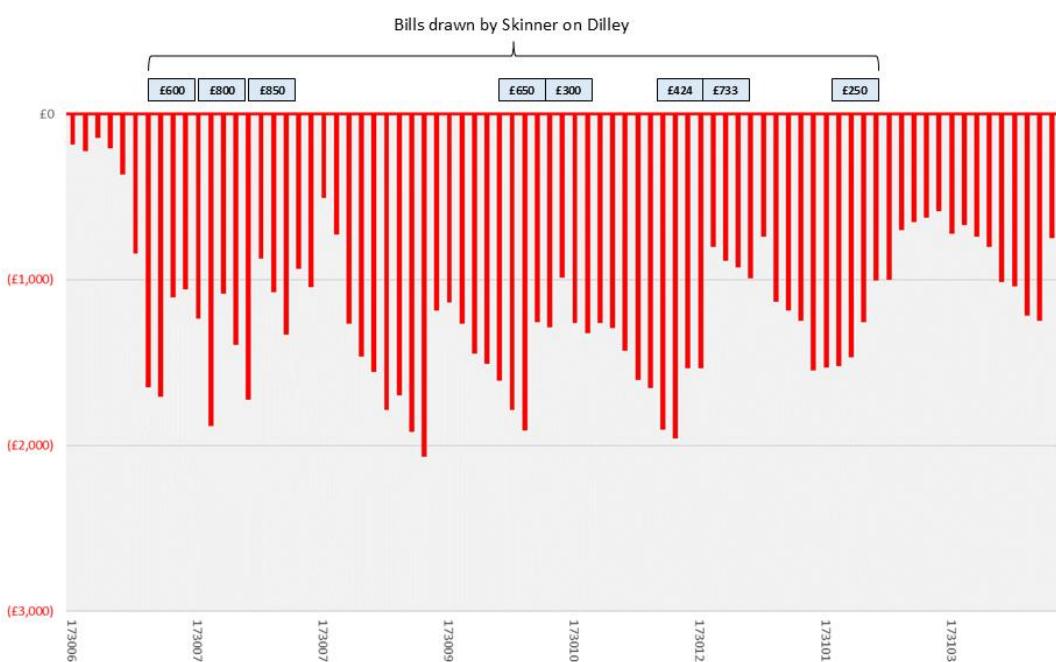


Figure 9 shows that John Dilley's current account with Prankard was continuously overdrawn between 1730-31. Prankard's reciprocal account with Dilley would, thus, have been continuously in credit, a position built by his remittance of Bills to Dilley who collected them on his behalf. This credit balance was drawn down by periodic payments. Those in favour of David Skinner are annotated.

Figure 9: John Dilley's Current Account with Graffin Prankard (1730-1731)



These charts show that there were multiple contemporaneous reciprocal current account relationships in play. Prankard and Jennings in Bristol and Stockholm; Prankard, Jennings and Skinner in Bristol, Stockholm and Hamburg; and, finally, Prankard, Skinner and Dilley in Bristol, Hamburg and London. The chain of debt exchange that enabled Prankard to pay Jennings in Stockholm by ultimately drawing on debts that Dilley owed him in London was linked by Bills that authorised the debt transfers.

To further illustrate this, Figure 10 is a summary of the financial transactions for Skinner and Dilley in Prankard's ledger. Skinner's current account shows the entry for Jennings' Bill for £6,245:4:2d. Skinner was able to fund the payment of this draft by collecting sundry Bills, the proceeds of Bills totalling £7,315 drawn on John Dilley, and from the value of rice he bought from Prankard. Dilley's account was funded by cash, collecting 164 third party Bills sent by Prankard, and other sundry payments. It was decremented by cash payments, third party Bills drawn on Dilley and Bills drawn by Skinner.

Figure 10: Graffin Prankard's Iron Purchase Payment Settlements via Hamburg and London (Apr 1730 to July 1731)

	Debit						Credit					
	£	s	d	£	s	d	£	s	d	£	s	d
David Skinner & Co (Hamburg)												
Net proceeds of Rice shipment from Carolina	1,172	12	5									
Proceeds of Rice shipped from Bristol	105											
Total Sundries				1,277	12	5						
Drafts drawn on John Dilley in London				7,315	0	0						
Sundry drafts				510	0	0						
Total				£9,102	12	5						
3 drafts drawn on them							1,176	16	4			
Shipping disbursements							44	6	4			
Commission & Brokerage charges							45	16	6			
Profit & Loss on Exchange							5	4	4			
Total Sundries										1,272	3	6
Shipments of Iron from Skinner to Prankard										410	6	1
Draft drawn by Francis Jennings for Shipment of Iron from Stockholm										6,245	4	2
Total										£7,928	1	9
John Dilley (London)												
Cash per 164 bills of exchange remitted to him				7,831	6	10						
Sundry accounts				393	3	6						
Interest received				1	1	0						
Cash received				790	15	0						
Total				£9,016	6	4						
Returned bills							309	0	0			
Commissions & Postage							22	18	4			
Cash paid to third parties							1,709	12	0			
Sundry bills paid							1,869	1	0			
Total Sundries										3,910	11	4
Bills drawn by David Skinner & Co										4,357	5	0
Total										£8,268	16	4

Conclusion

This paper has examined the role played by credit held on the ledgers of merchants in bilateral and multilateral international payments. Without methods of payment, international trade between merchants could not have taken place. But without credit, neither could payments. As shown above, debts held on merchant current accounts were potential money, available as a means of payment or settlement with third parties.¹⁷ This conversion of debt to money is observed when Prankard's credit balance with Skinner's was used to pay Jennings and, similarly, his balance with Dilley was used to pay Skinner. Thus, the aggregate of debt in merchants' ledgers, could be considered part of the "overall monetary mass," and a key enabler of unilateral and multilateral payments.¹⁸

Inter-merchant credit occurred easily, not least of all because of the very nature of double entry bookkeeping. It also occurred, unavoidably, at every stage of a trading chain. Jennings used credit from iron manufacturers, Prankard used credit from Jennings and then granted credit to his buyers, and doubtless, they provided credit to their customers. In parallel, to enable his payments to Jennings, Prankard provided credit to his London and Hamburg correspondents through the positive balances he built with them as they collected Bills on his behalf or traded with him. This was not unique as to be able to trade, all merchants had no choice but to be either creditors or debtors leading to vast amounts of trade credit across the entire merchant community as illustrated above by Prankard's net credit / debit positions. As well as being both necessary and unavoidable, such debt held on reciprocal current accounts between merchants also provided the means for the payments system to work. Credit and the long-established practice of international payments through the transfer of debt were, arguably, the most important institutions that enabled domestic and international trade to function. And, by acting in this way, merchants formed part of a distributed payment system, using Bills as the messaging process that authorised the movement of debt from one current account to another. Consequently, Bills did not create debt, but they did arrange for it to be relocated.

However, none of this required specie as a means of settlement nor as an anchor to underpin the system. References to using gold and silver coin are rare in merchants' ledgers or letters, neither do they routinely request payment in specie. There is no indication from their commercial behaviour that the background presence or absence of precious metals influenced their willingness to trade or grant credit. Specie may have been the medium of settlement for trade with Asia, but there is little evidence from my Baltic or Levant merchants that it was a material factor for their payments. The analysis of the merchants studied indicates that the growth of credit, and its use for payments, was unconstrained by specie. Rather, mercantile practice had evolved to use the exchange of debt to provide a proto-bank payment system that was not superseded until a greater role for formal banks emerged later in the eighteenth century. Until that point, evaluating the

¹⁷ See Xavier Cuadras-Morató and Joan R. Rosés. "Bills of Exchange as money: sources of monetary supply during the industrialisation of Catalonia, 1844–741." *Financial History Review* Vol. 5, No. 1 (1998): 27-47 and, Thomas Ashton. "The Bill of Exchange and private banks in Lancashire, 1790-1830." *The Economic History Review* Vol. 15, No. 1/2 (1945): 25-35

¹⁸ As described by Pierre Gervais, the "overall monetary mass" which comprised commercial paper (Bills of Exchange and promissory notes) and current accounts. See Pierre Gervais. *Mercantile Credit*: 696.

role of money supply should take less account of specie and Bills and greater account of value of payments made via the exchange of debts across merchants' current accounts effected by using Bills as the method of authorisation. Such a revised focus would likely increase estimates of money supply during the period.

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