International Trade Finance From the Origins to the Present: Market Structures, Regulation, and Governance

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Abstract

We describe how the structure and governance of international trade finance – the oldest domain of international finance – evolved from the Middle Ages until today. Trade finance products initially consisted of idiosyncratic assets issued by local merchants and bankers. The financing of international trade then became increasingly centralized and credit instruments were standardized through the diffusion of the local standards of consecutive leading trading centers (Antwerp, Amsterdam, London). This process of market centralization/product standardization culminated in the nineteenth century when London became the global center for international trade finance and the sterling bill of exchange emerged as the most widely used trade finance instrument. The structure of the trade finance market then evolved considerably following the First World War and disintegrated during the interwar de-globalization and Bretton Woods period. The reconstruction of global trade finance in the post-1970 period gave way to the decentralized market structure that prevails nowadays.

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1. Introduction

Trade finance is the oldest domain of international finance. From the very beginnings of the history of international commerce, merchants and firms have been in need of working capital in order to finance their international commercial transactions and have looked for methods to reduce the risks involved in long-distance trade. Engaging in international trade requires immobilizing substantial amounts of capital for a relatively short (yet non-negligible) amount of time and also involves substantial risks for both exporters and importers. Trade finance encompasses all instruments and methods allowing firms to obtain capital in order to finance their international activities and/or reduce the risks involved in international trade.[1]

Recently, renewed attention has been paid in the literature to the methods and instruments used in financing international trade (International Monetary Fund, 2011; Bank for International Settlements, 2014; Niepman and Schmidt-Eisenlohr, 2017). Researchers have highlighted how shocks to the supply of banks' trade finance services can have severe repercussions on the volume of world exports and stressed the role of such shocks in the "Great Trade Collapse" that followed the 2008 global financial crisis (Ahn, Amiti and Weinstein, 2011; Del Prete and Federico, 2014; Paravisini et al., 2015; and Niepman and Schmidt-Eisenlohr, 2016).

This chapter reviews the main developments on the global trade finance market from the emergence of the bill of exchange in the Middle Ages up to the present day. Our aim is to describe how the structure of this market evolved over time as well as the implications of these changes for its governance. We describe the trade credit instruments used at different times and the role played by banks in the main international financial centers in financing merchandise trade. Finally, we analyze how the historical evolution of the international monetary and financial system reshaped the structure and governance of international trade finance.

[1] The modern literature distinguishes between the financing of international trade through products issued by banks (usually called "bank-intermediated trade finance") and the financing by the exporting and importing firms themselves (usually labelled "inter-firm trade credit"). See Asmundson et al. (2011) and Bank for International Settlements (2014).

Historically, the most widespread instrument for financing merchandise trade was the bill of exchange, whose use became generalized in the medieval period. Bills of exchange are private written orders by one party to another to pay a given sum at a given date. Since bills are generally payable at some date in the future, they are not only a means of national or international payment (as it is the case e.g. for cheques), but also credit instruments. In this chapter, we only focus on the use of bills as instruments of private credit for the financing of international trade. Initially, bills of exchange consisted of idiosyncratic assets which were issued by local merchant and banking firms. Trade finance products however became increasingly standardized from the sixteenth century onwards, and the financing of international commerce was progressively centralized around the successive leading trading centers of Antwerp, Amsterdam and London. This process of market centralization/product standardization culminated in the nineteenth century when London became the global center for international trade finance and a very liquid market developed for sterling bills of exchange. At that time, a substantial share of global trade was financed through the London money market in which all types of investors participated. The structure of the global trade finance market however disintegrated in successive steps during the interwar and post-war years and its reconstruction in the post-1970 period gave way to a decentralized market where trade finance products are issued locally by banks in the exporters' and importers' countries.

The rest of the chapter is organized as follows. Section 2 provides a brief summary of the origins of the bill of exchange and its evolutions in the medieval and early modern periods. Section 3 describes the emergence of London as the global center for trade finance in the nineteenth century. Section 4 explores how the market structure prevalent during the first globalization progressively disintegrated in the interwar period. Section 5 analyses how the trade finance market was reconstructed after the Second World War (WW2) and compares the methods and instruments used today in the financing of international trade with those in place before WW1. Section 6 concludes.

2. The emergence of trade finance products, 1100-1800

2.1. The origins of the bill of exchange in the medieval period

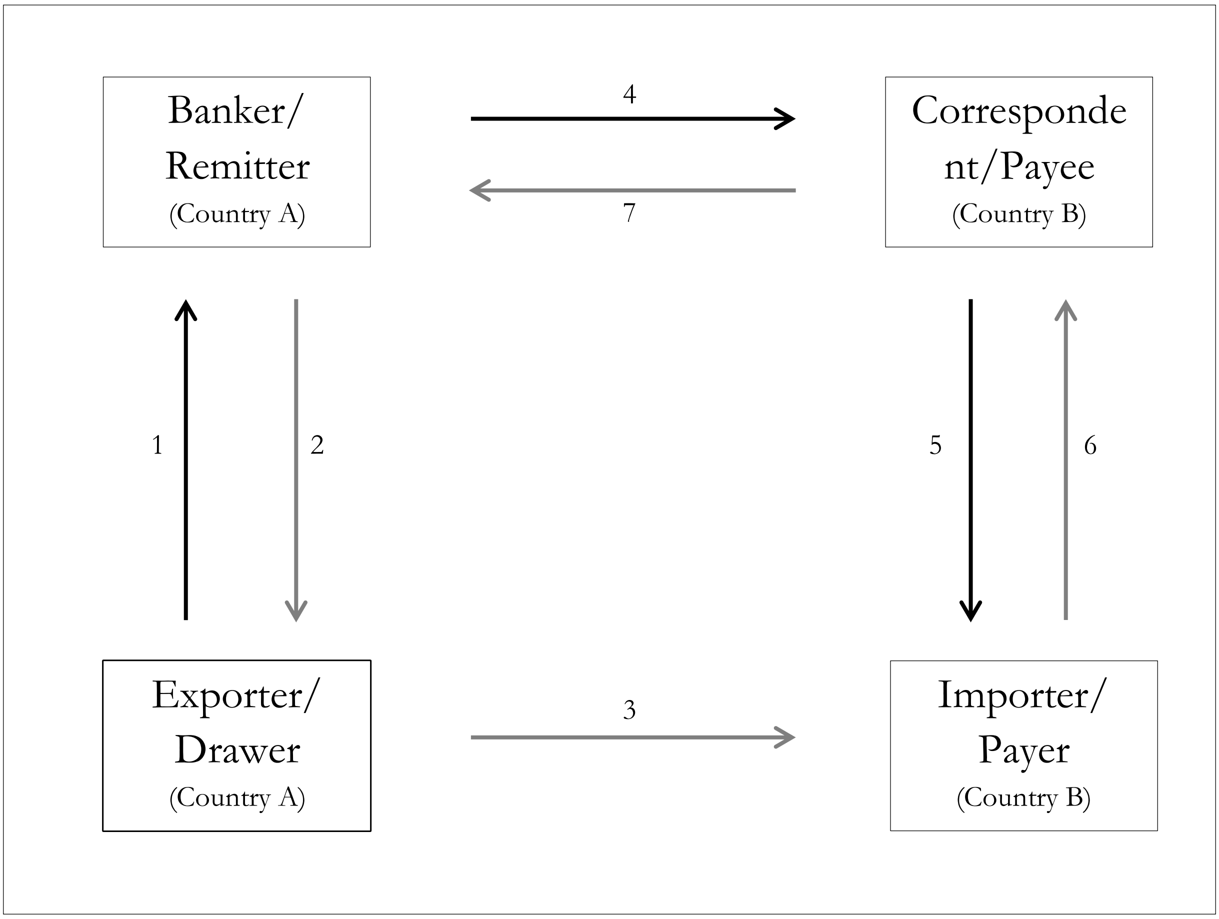
Trade finance was already present in the early civilizations of the Middle East (Joannès 2008) and was one of the pillars of the sophisticated banking systems developed in the Greek Mediterranean (Bogaert 1968; Cohen 1992). However, not much is known about the precise methods used to finance international trade in the Antiquity or at the time of the Arabic domination of the Mediterranean (Geva 2011). More information is available on the re-emergence of trade finance in the West after 1000 AD. The evolution of trade finance in Western Europe during the late medieval and early modern eras took place in a context of competing jurisdictions largely sharing a common legal framework – especially, thanks to the Roman heritage and canon law. Trade finance was also at the heart of discussions around the so-called "law merchant" or "*lex mercatoria*" – a set of commercial principles used by merchants across Europe.[2] In the medieval and early modern periods, Europe progressively developed an international standard for the financing of international commerce, which pioneered later developments in other branches of international regulation.

De Roover (1953) describes how a number of gradual technical changes contributed to the evolution of trade finance in Western Europe before the 19th century. Until the 13th century, international trade was mainly financed on a local basis through fairly idiosyncratic lending practices. Commercial business was still organized as "caravan trade": missions were financed singularly through the creation of *ad hoc* partnerships (known in Italy as "*commendas*") among fellow citizens.

[2] The concept of "*lex mercatoria*" has been popularized esp. by Malynes (1686) in opposition to common law (see below, section 3). According to Malynes (1686, p. 44), international "law merchant" was a branch of natural law mainly concerned with three domains: commodity trade, specie flows, and bills of exchange – defined respectively as the "body", "soul", and "spirit" of commerce. On the idea that the medieval "law merchant" is the basis of current international trade regulation, see e.g. Milgrom, North, and Weingast (1990) for a supportive view, and Volckart and Mangels (1999) for an opposite one; most of this recent historical discussion, however, does not actually address the question of the financing of international trade. From a juridical viewpoint, the current consensus is that "*lex mercatoria*" was actually not natural law, but a specific branch of common law (Baker 1979); it existed as such, until the 18th century, also in civil law countries (Cerutti 2003). To date, many jurists are however skeptical about the very concept of "law merchant" (see e.g. Kadens 2012).

Although trade flows often connected the entrepreneurs' place of origin with an international trading center, their organization and financing took place on a strictly bilateral foot. Early commercial hubs like the popular Champagne fairs (12th-13th centuries) long lacked the clear juridical framework that would have allowed for the development of multilateral financial flows (Sgard 2015, p. 177).

Figure 1. The medieval bill of exchange



1. Issues bill of exchange; 2. Purchases the bill/provides cash; 3. Ships goods; 4. Sends the bill; 5. Presents the bill at maturity; 6. Pays the bill at maturity/provides cash; 7. Credits remitter at maturity.

This structure started to change during the 13th century when commercial business partially evolved into "sedentary trade", as merchants began to create stable networks of correspondents. This process did not concern the whole of Europe but was initially led by a number of Italian (especially, Tuscan) companies and only covered the areas in which they were active – largely excluding, for instance, the German and Baltic regions, as well as all extra-European places except Constantinople (De Roover 1953, pp. 38-50). Within this new business model, trade flows were organized multilaterally among the different vertexes of each correspondent network. Yet, within these new private trade networks, commercial business continued to be run by groups of fellow citizens (albeit on a much grander scale than before), and its funding came from within these very "clans". It was in this context that the the *bill of exchange* originally emerged. The original bill of exchange was not a standardized credit instrument, but rather a mere certificate – to be presented to a foreign correspondent – of a private credit contract passed between two *local* agents (De Roover 1953, pp. 91-94).

Figure 1 describes the functioning of the medieval bill of exchange based on an example drawn from De Roover (1953, pp. 45-47). The figure describes a transaction that took place in 1399-1400 between four Florentine businessmen, two based in the Flanders ("country A") and two based in Catalonia ("country B"). In order to finance his exports of Flemish goods to Catalonia, a Florentine merchant established in Bruges (the *drawer*) issued a bill of exchange and sold it to his Bruges-based banker (the *remitter*, also originally from Florence). By issuing the bill, the exporter ordered his importer (the *payer*, also a Florentine) to pay a given sum to a specified correspondent of the Bruges-based banker in Barcelona (the *payee*, another Florentine citizen). Through this operation, the exporter obtained cash from his Bruges banker before the importer paid for the goods and the banker therefore lent to the exporter on the security of the bill. After purchasing the bill, the Bruges banker sent it to his correspondent in Barcelona and, at maturity, the latter presented the bill of exchange for payment to the importer. Finally, once the bill had been encashed, the *payee* credited the *remitter*'s current account. In this example, the Bruges banker could secure repayment of his loan from the importer in Barcelona through his own correspondent in that city. However, since the bill was not negotiable, he had to finance the commercial transaction with his own capital until the bill's maturity.

Medieval bills of exchange were not standardized securities freely exchangeable on an open market, but idiosyncratic loan contracts passed between members of a closed business network. One good example of the idiosyncratic nature of the financing of trade in the medieval period is a 15th-century instrument known as "exchange on Venice" (*cambium ad Venetias*). At that time, Venice had become Europe's first stable commercial hub allowing for continuous trading throughout the year – or, as Luzzatto (1954) put it, a "permanent fair". Florentine merchants and banking companies established branches there and started to play a substantial role in the funding of trade flows to and from the Venetian marketplace, which stood at the junction between Western Europe and the Eastern Mediterranean (Mueller 1997). In order to finance their own commercial activities in Venice, companies like the Medici bank started to offer Florentine investors a new type of financial product– *de facto*, a placement in Florentine currency whose return was indexed on the Venetian interest rate (De Roover 1974). International trade to and from Venice was therefore financed by Florentine capital but only through non-marketable local credit contracts issued by Florentine companies.

2.2. The rise of negotiable trade finance instruments

The nature of the bill of exchange changed considerably in the early modern era with the introduction of *negotiability*, which transferred to the bearer of a bill the juridical protection previously granted exclusively to the original creditor. The recognition of negotiability transformed the bill of exchange from a mere certificate of a local credit contract into an exchange-traded financial instrument. This evolution resulted in a profound transformation of the trade finance sector; it fostered the decline of the medieval network companies and allowed for importing and exporting firms to lend directly to each other by purchasing each other's bills. By the mid-18th century, the financing of commercial transactions mostly took place though credits granted *between firms* themselves specializing in overseas commerce, and the role of bankers in the intermediation of trade credits had declined.

The introduction of negotiability followed from fundamental juridical changes that took place in the Low Countries in the early 16th century and were spread throughout Europe thanks to the influence of the region's leading commercial hubs. It is in Antwerp in the first half of the 16th century that the first negotiable bills of exchange appeared (Braudel 1982). From the 1510s until the 1560s, Antwerp played the role of commercial metropolis of Western Europe. After supplanting Bruges' early role as a regional hub and breaking Venice's monopoly on the spice trade, the harbor on the river Scheldt became the point of junction between several transcontinental flows (from England, the Baltic, Central Europe, the Mediterranean, and Iberia) for around half a century (Van der Wee 1963). At the Antwerp fairs, the new model of "sedentary trade" (pioneered by Italian network companies like Bardi or Medici and imitated by South German groups like Fugger or Welser) met with the old model of "caravan trade" (still practiced by English and Hanse merchants). While network companies could rely on a sophisticated management of inter-group liquidity for the financing of their operations, more primitive traders needed to quickly mobilize the proceeds of their sales in order to convert them into merchandise for re-export. To this aim, Northern merchants insisted on obtaining from the Antwerp authorities the recognition of the principle of negotiability of credit instruments. Charles V's decrees of 1537 sanctioned this principle in the Low Countries, and in the following decades the practice of *endorsement* was gradually extended to bills of exchange (De Roover 1953, pp. 94-100). Negotiability was the necessary condition for trade finance to escape its purely local dimension. Once the rights of the original creditor were allowed to be transferred entirely to the bearer, the latter actually became the new creditor: from a loan extended in the place *from* which the bill was drawn, the bill of exchange became a loan extended in the place *on* which the bill was drawn (Geva 2011, pp. 352-422).

The rise of Antwerp as Europe's leading commercial center contributed to the spread of the "Antwerp custom", which gradually imposed itself as the new international standard. By the early 17th century, the negotiable bill of exchange had become the staple instrument for financing intra-

European trade, allowing for a complete disjunction between the location of the borrower and that of the lender. Formally, the principle of negotiability of the bill of exchange stood in contrast to the medieval juridical tradition and was adopted much more slowly by national legislations (De Roover 1953, pp. 100-118). The "Antwerp custom" continued to provide the benchmark for legislation long after the Flemish city had declined as a center for international trade. In France, for example, it was integrated almost literally into the Code Savary of 1673, which later provided the basis for the Napoleonic Code of Commerce. Amsterdam then replaced Antwerp as the leading commercial hub and the bill on Amsterdam became an increasingly popular instrument (Gillard 2004). However, this did not put the principle of negotiability into question as both cities had the same commercial laws. While the list of banking places was very limited and determined by oligopolistic Italian companies during the late medieval age, the infrastructure allowing for the financing of trade became free-entry in the 17th and 18th centuries, in terms of both geography and demography (Flandreau *et al.* 2009).

While the introduction of negotiability changed the structure of the trade finance market and trade finance products evolved considerably in that period, their circulation still remained relatively limited. The new negotiable bill of exchange appears to have circulated mostly among merchant firms themselves for the payment of reciprocal debts. Although bills of exchange could well be vehicles of financial contagion - as it was spectacularly the case during the crisis of 1763- contagion seemed to spread mostly to agents themselves specializing in international commodity trade (Schnabel and Shin 2004; Santarosa 2015; Quinn and Roberds, 2015). International commerce was therefore still mostly financed on a decentralized basis, through credits extended by specialized agents in the exporters' and importers' countries.

3. Trade finance during the first globalization and the bill on London

Between the second half of the 18th century and the early 20th century, the emergence of a large discount market for bills of exchange in London and its progressive internationalization led to a profound transformation of the global trade finance market. Bills of exchange drawn on the London City started being used to finance commercial transactions taking place across the whole globe and circulated as highly liquid and safe money market instruments. The global trade finance market became increasingly concentrated around one financial center, where highly-standardized products were issued by specialized agents but bought by all kinds of investors. These evolutions allowed for the transformation of trade finance from an "insiders'" sector dominated by specialized firms to a broadly-accessed one. A great diversity of domestic and foreign investors now purchased sterling bills on the London market and therefore contributed to finance international commerce.This gave Britain a central role in financing the global trade boom of the second half of the 19th century and in regulating firms' access to trade finance.

One important step in the rise of London as a trade finance center was the creation of a large discount market for bills of exchange during the second half of the 18th century (De Roover 1953, pp. 129-142). Malachy Postlethwayt, the author of a reference 18th century commercial dictionary, pointed out that it was around a new credit instrument – the so-called *inland bill*- that the London discount market initially emerged (De Roover 1953, pp. 139-140). The inland bill was a bill of exchange drawn and payable in England and was therefore a purely domestic credit instrument.

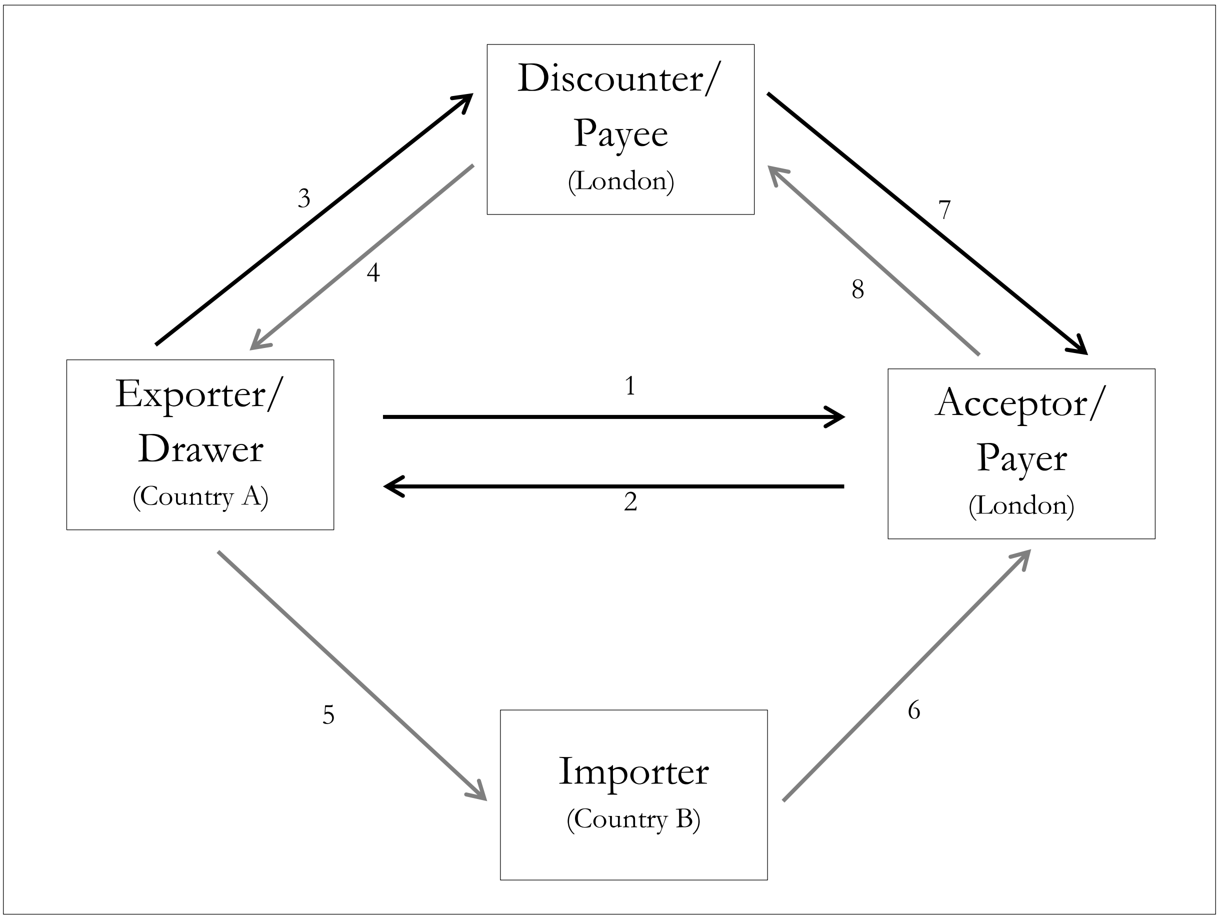
The emergence of this domestic type of bill of exchange followed from changes in the English jurisdiction extending the principle of negotiability from international to domestic credit certificates. This widespread adoption of negotiability in England had not come without difficulties. In the early 17th century, mercantile courts had been abolished. Commercial cases were now ruled by central courts (Rogers 1995, pp. 20-26), which first attempted to hinder the adoption of negotiability, thus preventing domestic merchants from mobilizing their credits as they could do on the Continent (De Roover 1953, pp. 109-113). The fear that English commercial law might diverge from the international rules that had developed in Antwerp was Gerard Malynes' main motivation in writing his famous 1622 treatise on "*lex mercatoria*", in which he argued that that commercial law should remain independent from the common law. However, even though legal standards regarding credit certificates developed on a parallel track in England and on the Continent, they ended up being not substantially different – except for some minute details (Geva 2011, pp. 423-466). While English courts were initially more reluctant than Continental lawmakers to recognize the principle of negotiability, they lately proved more aggressive in extending it to all forms of private credit certificates and, especially, to domestic ones (Richards 1929, pp. 44-49).

The inland bill became a popular means of payment for domestic transactions in England and was exchanged on an increasingly large discount market. By the end of the 18th century, the London discount market became the national money market of the burgeoning English economy and the place where demand and supply of short-term credit met in England. Country banks with surpluses kept funds with London correspondents, which were typically invested in bills supplied by country agents with deficits (Scammell 1968, pp. 115-130).

Although the discount market developed in England as an essentially domestic market, it was soon used for financing international trade as well. By the end of the Napoleonic Wars, London had supplanted Amsterdam not only as an intra-continental, but also as an inter-continental commercial hub. At that time, intercontinental trade was still financed differently from intra-European trade. While the negotiable bill of exchange prevailed for the financing of European trade, commercial transactions between continents required immobilizing capital for much longer periods and were still financed through idiosyncratic arrangements. For example, Anglo-Indian trade was for a large part financed through long-dated bills issued by "agency houses" (Chapman 1984). During the first half of the 19th century, however, instruments used to finance domestic, intra-continental, and inter-continental trade were progressively homogenized, and bills of exchange drawn by agents located anywhere in the world became traded on the London discount market. Already in the 1850s, the majority of bills discounted on the London market were drawn by borrowers located outside Britain, and a large share of these "foreign bills" originated from outside Europe (Flandreau and Ugolini

2013). The London discount market progressively became an almost exclusively international market and the inland bill disappeared from circulation by the beginning of the 20th century (Nishimura 1971).

Figure 2. The bill on a London acceptor (or acceptance)



1. Draws a bill; 2. Accepts the bill; 3. Sells the accepted bill; 4. Discounts the bill/provides cash; 5. Ships goods; 6. Makes payment (“provision”) before maturity; 7. Presents the bill at maturity; 8. Pays the bill at maturity/provides cash.

Figure 2 gives an example of how bills on London (or acceptances) could be used to finance a commercial transaction between two merchants located anywhere in the world. An exporter in country A had sold goods to an importer in country B and needed to finance production and/or shipment. The importer could instruct the exporter to draw a sterling bill (covering the amount of the sale) on a London acceptor with which she had a relationship. The acceptor "accepted" the bill by putting its signature on it (in exchange for a fee) and, in so doing, she committed to repay the bill holder at maturity. Once the bill carried the signature of a reputable acceptor, the exporter could discount it against cash on the London discount market at the current market interest rate. The bill could change hands several times in London and be purchased by various types of investors. Once arrived at maturity, its current holder asked for payment in sterling to the acceptor, who, in the meantime, had arranged to obtain payment from the importer. Bound to pay bills of exchange at maturity even if they did not receive payment from the importer, acceptors were the *de facto* guarantors of the loans extended by discounters to the exporters/drawers.

The standardization of credit instruments negotiated on the London discount market was made possible by the emergence of an informal set of governance rules enforced by a few powerful players who regulated outsiders' access to this attractive credit platform. In particular, specialized intermediaries known as "*acceptance houses*" emerged in London at that time. These institutions, whose founders often originated from the continent, had close ties with foreign countries and guaranteed (accepted) bills on account of their customers abroad in order to allow them to borrow from investors in the London bill market. Acceptance houses were not the only institutions accepting bills of exchange in that period as bills drawn on merchant firms continued to circulate and British commercial banks also provided acceptance facilities to their customers. However, the acceptance houses' connections abroad and extensive knowledge of merchants and firms in foreign countries allowed them to accept bills on account of a large number of foreign customers. By screening potential drawers/borrowers and establishing which of them were eligible for their guarantee, they acted as "gatekeepers" to the London discount market and regulated firms' access to the world's largest center of international trade finance (Accominotti, Lucena, and Ugolini, 2018).

Investment in the bill market was also encouraged by the Bank of England's adoption of lending-of-last-resort policies. The Bank of England's commitment to rediscount eligible bills of exchange contributed to their high liquidity even when market conditions deteriorated. By setting formal and informal eligibility rules for bills and by monitoring the discounters, the Bank of England encouraged the orderly production of credit instruments on the money market. Therefore, the Bank used its market power (i.e., its monopoly of emergency lending in crisis time) as a means of fostering standardization on the London bill market. In so doing, the Bank reduced the credit and liquidity risk of the sterling bill and contributed to its status as an international "safe asset" (Flandreau and Ugolini 2014).

In the period from 1870 to 1914, London was the global center for the financing of international trade and its discount market morphed into *the* global money market. During those years, the role of London as the world's commercial center remained largely unrivalled, and the adoption of the international gold standard made the bill on London – drawn from any country, but payable by a London acceptor and eligible for rediscount at the Bank of England – the most widely demanded short-term financial instrument in the world (Lindert 1969; Flandreau and Jobst 2005). A great variety of investors contributed to finance the global trade boom of 1870-1914 through purchasing sterling bills. The increasing depth of the London discount market at the beginning of the 19th century encouraged the emergence of the "bill brokers" or discount houses, which specialized in buying bills of exchange and financed themselves through short-term deposits and credits from commercial banks (King 1936). Other English financial institutions and investment trusts, as well as foreign central and commercial banks, also invested in sterling bills. This evolution involved a disconnection between the location of importing and exporting firms and the location of the lenders. Through the platform of the London market, British and foreign investors could now lend funds to borrowers located in any country and finance a commercial transaction occurring in any part of the globe – not necessarily involving a trade flow to or from London.

While the London market gave firms wide access to trade finance services, entry was not completely free. Local "gatekeepers" and "monitors" had the power to regulate access to this central platform and extracted profits from their position. In particular, the London acceptance houses benefitted from the fees they charged in exchange for their signature/acceptance of bills. The London discount market was therefore at the center of the system of British Global Governance that emerged before the First World War.[3] Foreigners admired and jealoused the position of Britain in the global trade finance market and, at the turn of the twentieth century, potential competitors pondered how to end London's monopoly and the "tribute" paid to it (Broz 1997).

The substantial transformation experienced by the London discount market between the mid-18th century (when it emerged as a purely domestic platform) and the late 19th century (when it became a purely international one) took place without any formal modification in the legal status of the bill of exchange. The only important juridical initiative of the period – the Bills of Exchange Act of 1882 - limited itself to ratifying existing practices and rules codified by common law courts during the 17th and early 18th centuries (Geva 2011, pp. 528-584). Although their importance in financing international trade remained limited, other discount markets modelled after the English one also developed on the European Continent in the course of the 19th century. The lifting of previous legal restrictions to the circulation of domestic credit instruments at the end of the Ancien Régime allowed for the emergence of these markets (Ugolini 2017, pp. 55-61). The legal benchmark for bills of exchange on the Continent was at that time the Napoleonic Code de Commerce, which still faithfully followed the original "Antwerp custom". Therefore, the only significant legal change in the long history of Western trade finance was the introduction of the principle of negotiability in 16th-century Antwerp. However, informal regulation and the eligibility standards governing firms' access to trade finance facilities evolved throughout the period. British acceptance houses and the Bank of England both contributed to set such standards and their role in regulating access to trade finance was a direct consequence of their market power. A similar pattern prevailed on the Continent, where merchant

[3] Britain's central position in the regulation of global trade finance echoes its importance in setting standards and regulating international commodity trade itself. See Sgard (2018) for a discussion based on the case of the London corn market in 1885-1930.

banks and banks of issue also established domestic standards by modifying eligibility criteria (Ugolini 2017, pp. 134-143).

4. The disintegration of global trade finance, 1914-1939

4.1. The First World War and disruptions in the London money market

The role of London in the global trade finance market progressively declined during the First World War (WW1) and interwar years. The war itself resulted in severe disruptions in the functioning of the London discount market. John Maynard Keynes (1914) described how the political developments of the summer 1914 affected the City. Even before Britain declared war on Germany in August 1914, the July crisis led several continental countries to declare a moratorium on foreign exchange payments and to close their Stock Exchanges. The changing nature of foreign exchange market transactions, and the increased reliance on large banks and telegraphic transfers for large dealings had made the widespread use of capital controls possible for the first time. Foreign debtors who had drawn bills on London were prevented from remitting funds to the acceptors in order to reimburse their debts (Keynes, 1914; Roberts, 2013). London acceptors were nevertheless bound to repay the bills' holders (the ultimate lenders) in pounds sterling at maturity and they therefore had to draw on their own liquid assets in order to honor their guarantees on trade finance credits. The situation was especially serious for British financial institutions that had accepted/guaranteed large amounts of bills relative to their liquid or total assets and several acceptance houses found themselves unable to assume their liabilities.

The failure of acceptance houses could have precipitated a complete breakdown of the machinery of the London discount market and severe disruptions in the British financial system. However, in order to avoid such a collapse, the British Government and Bank of England reacted strongly (Roberts, 2013). Emergency measures soon allowed British acceptance houses to postpone payment of all bills coming due and borrow directly from the Government for a period that could be prolonged until the end of the hostilities (Greengrass, 1930, p. 102; Spalding, 1933, pp. 241-245). These measures avoided Britain a banking crisis (Roberts, 2013). However, for the first time, the liquidity of the world's most widespread trade finance instrument – the sterling bill – had been put into question. In addition, restrictions on capital flows and the difficulties of conducting international commerce in times of war severely weakened the role of London as a global trade finance center.

4.2. Revival of trade finance in the 1920s and dual market structure

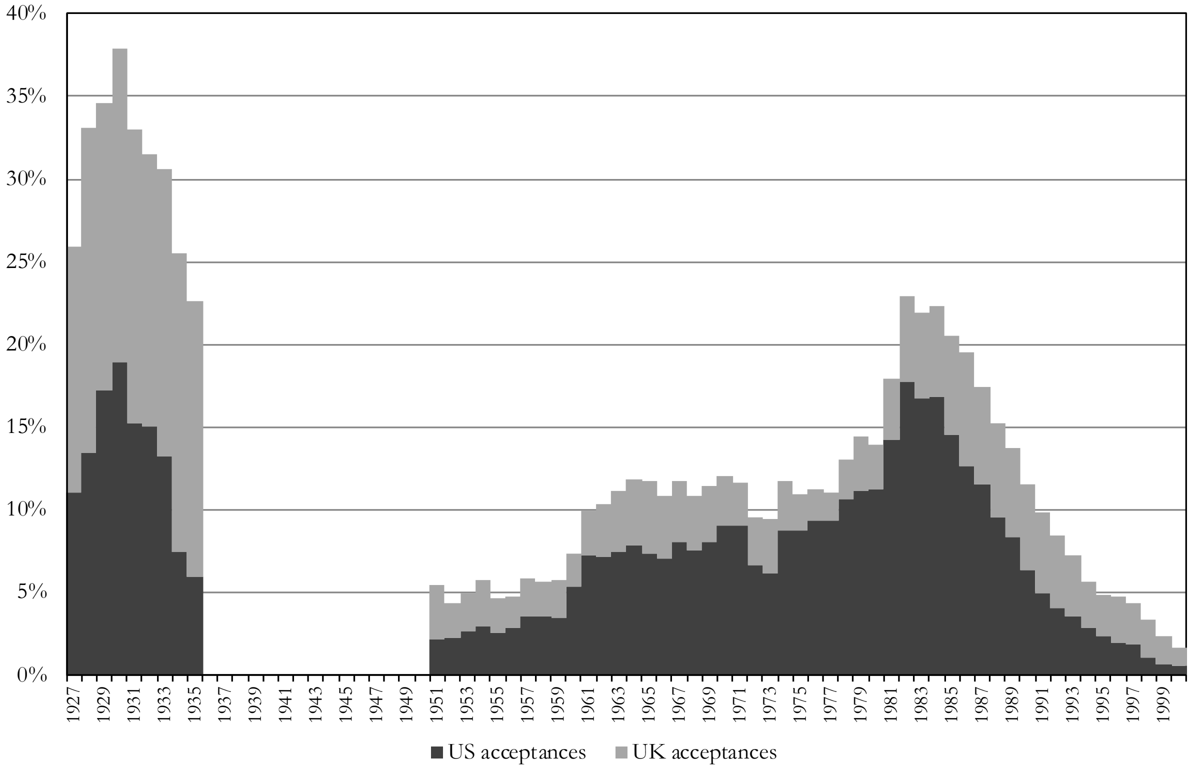
Following WW1, the global trade finance market was gradually reconstructed on the basis of the same instruments that had prevailed in the nineteenth century. After most European currencies were stabilized in the mid-1920s, international trade and capital flows resumed in the second half of the decade and the demand for credit from importing and exporting firms increased considerably. However, London's hegemony was now challenged by the emergence of another large acceptance market in New York. The centralized architecture of the global trade finance market that had prevailed before WW1 gave way to a dual structure where London and New York competed actively for the financing of international commerce.

The United States had emerged from the war as the world's biggest creditor and leading commercial power and this paved the way for the rise of New York as a trade finance center. The origins of the New York acceptance market dated back to the years 1908-1912 when, following the 1907 banking panic, US authorities mandated a special commission (the National Monetary Commission) to produce reports on various foreign countries' banking systems. The unassailable predominance of London in international trade finance in the nineteenth century provided one of the main motivations for the financial reforms eventually leading to the foundation of the Federal Reserve System. A well-known banker unofficially advising the Commission, Paul Warburg, argued that one of the main weaknesses of the US financial system was the absence of a large money market as in London (Warburg, 1910). Restrictions on US national banks' foreign banking and acceptance activities before WW1 and the lack of a liquid market for trade finance products obliged American firms to finance their international trade transactions via the London market. This involved considerable costs for those firms and their access to trade finance facilities was subject to the good will of British acceptance houses and the Bank of England.

As of 1913, US monetary authorities therefore attempted to mimic the main features of the London money market (Ferderer, 2003; Eichengreen, 2010; Eichengreen and Flandreau, 2012). The Federal Reserve Act of 1913 removed restrictions on US national banks' and Federal Reserve member banks' acceptance activities. In the following years, a market for dollar denominated bankers' acceptances developed in New York (Ferderer, 2003). In contrast to London where the largest share of bankers' acceptances was issued by small acceptance houses specialized in trade finance, in the United States, the business of accepting bills of exchange was dominated by the country's largest commercial banks (Accominotti, forthcoming). The US acceptance market also received direct support from monetary authorities as the Federal Reserve Banks bought a substantial share of US bankers' acceptances in the 1920s (Eichengreen and Flandreau, 2012). At the end of the 1920s, the volume of dollar acceptances increased considerably and New York started competing with London for the financing of world trade.

London, however, had not said its last word. When continental European commerce resumed following the currency stabilizations of the 1920s, a large share of the associated credit demand still remained directed to the City (Greengrass, 1930, p. 30). London's geographical location, the structure of its money market, and the British acceptance houses' expertise in intermediating credit for foreign merchants and firms remained clear advantages in the trade finance business.

Figure 3. Share of world trade financed by US and UK bankers' acceptances, 1927-1935 and 1951-2000



Sources: UK acceptances outstanding at the year-end are from Baster (1937) for 1927-1935, the Bank of England's *Quarterly Bulletin* (Statistical Annex, various issues) for 1950-1978 and the Bank of England's Statistical Interactive Database (series RPAATHH, RPAATHI and RPATBJI) for 1979-2000. The Bank of England's *Quarterly Bulletin* did not disclose the amount of acceptances granted by UK deposit banks until 1964. To correct for this, we augmented the total of UK acceptances outstanding for 1951-1963 by ten per cent (deposit banks accounted for approximately 10 per cent of total UK acceptances in 1964). Statistics for UK acceptances cover all sterling and foreign currency acceptances until 1996 and eligible sterling acceptances thereafter. US acceptances outstanding are from Board of Governors of the Federal Reserve System (1943, pp. 465-467) for 1927-1935, Board of Governors of the Federal Reserve System (1976, pp. 714-719) for 1942-1970, Carter et al. (2006, series Cj1185) for 1971-1996 and Board of Governors of the Federal Reserve System (2002, p. 82) for 1997-2000. We exclude US acceptances used for the financing of domestic trade until 1963 but published statistics do not allow making this distinction thereafter. However, the use of bankers' acceptances for financing US domestic trade had become miminimal by the 1960s. World exports are from Federico and Tena (2018)'s World Trade Historical Database for 1927-1935 (see Federico and Tena 2016) and from the International Monetary Fund's *International Financial Statistics* for 1950-2000. An average maturity of 90 days is assumed to obtain the amount of bankers' acceptances issued annually in the US and UK.

Figure 3 displays the share of world trade financed through acceptances drawn on US and UK banks, annually, from 1927 to 1935 and from 1951 to 2000. The figure clearly illustrates the dual structure of the global trade finance market in the 1920s. In 1930, New York and London were financing equal shares of global trade; as much as 38 per cent of world exports were financed through acceptances drawn on banks in these two financial centers. This intense competition between London and New York banks in the global acceptance market led to a lowering of the fees they charged in exchange for their guarantees and contemporaries complained that it resulted in a cutback in the standards set by intermediaries and monetary authorities to regulate access to trade finance services (Baster, 1937, p. 300).

4.3. The collapse of trade finance in the 1930s

The revival of acceptance financing of the 1920s was however short-lived. The world economic crisis of the 1930s soon contributed to a disintegration of the existing structures of international trade finance. One major driving force behind this development was the collapse of world trade that occurred during the Great Depression due to the decline in world income and increase in trade tariffs (Kindleberger, 1976). Between 1929 and 1933, world exports declined by almost 30 per cent in real terms and this considerably reduced the firms' credit *demand* (Federico and Tena, 2016).

At the same time, the financial crisis of the 1930s also affected the *supply* of trade finance. A wave of financial crises and the imposition of capital controls in Germany and Central European countries in the summer of 1931 jeopardized the reimbursement of bills drawn on London and New York banks by firms located in the region and resulted in the freeze of the US and British banks' Central European credits (Harris, 1935; Ellis, 1941). Once again, London's acceptance houses were the most severely affected because they strongly specialized in intermediating trade finance for continental customers. These houses experienced a run on their deposits and their balance sheets contracted (Accominotti, 2012). In the United States, by contrast, the acceptance business was mostly dominated by the largest commercial banks, which were more diversified and therefore less impacted by the European crisis (Accominotti, forthcoming). However, maybe in an effort to strengthen the credibility of the dollar's gold parity, the Federal Reserve withdrew its support to the New York acceptance market in 1931 and considerably reduced its holdings of bankers' acceptances. This put the expansion of the New York market to a hold (Eichengreen and Flandreau, 2012).

The emergence of regional trading blocks in the second half of the 1930s resulted in a complete reorganization of the global trading system. Many countries imposed quantitative restrictions on trade flows and bilateral clearing agreements with Central European and Latin American countries proliferated. These agreements were based on the principle of reciprocal trade and left the management of the bilateral trade balance to a government agency or compensation office (League of Nations, 1935). They therefore resulted in increased state interference in international commerce. In addition, capital controls as imposed by many countries' governments in the 1930s reduced the scope for extending cross-border credits and led to a further disintegration of the global trade finance market. In 1935, the New York and London discount markets only financed 23 per cent of world exports (as opposed to 38 per cent in 1930). Trade finance products also progressively ceased to be the exlusive keystone of the London money market. During WW1, British authorities had issued an increasing volume of Treasury bills. The Treasury bill - backed by government debt - replaced the bankers' acceptance - backed by private firms' debt - as the most important money market instrument in the interwar period (Greengrass, 1930; Truptil, 1936).

Ironically, just a few months before the start of the global economic crisis that would result in the weakening of the bill of exchange system, this system received its first formal juridical codification at the supranational level. In 1930, the Convention on the Uniform Law of International Bills of Exchange was signed in Geneva. This initiative was promoted by the League of Nations and was one of the first attempts at establishing a uniform international financial regulation.[4] The Convention was mostly based on the Continental legal tradition. Although relatively similar, the Convention formally differed from the English legislation on several details. In view of these formal differences, however, Anglo-Saxon countries refused to ratify the Convention, thus preventing the

[4] To be precise, the process had been started before WW1 with the two conferences of The Hague in 1910 and 1912, but it had been put on hold by the outbreak of the conflict (Moshenskyi 2008, pp. 170-172).

establishment of a uniform international legal standard. This legal loophole in the regulation of payment instruments persists to date.[5]

5. The reconstruction of trade finance after WW2

5.1. The era of state-regulated trade and finance

The outbreak of the Second World War (WW2) finalized the disintegration of the world's trading system and trade finance market that had been initiated during the 1930s. The war was accompanied by further restrictions on international commercial and financial transactions. When international trade resumed at the end of WW2, the old channels to finance commercial activities were reactivated. The London merchant and clearing banks as well as the main American commercial banks resumed their business of granting trade credits to exporters and importers - both at home and abroad- through acceptances.

In doing so however, suppliers of trade finance were confronted with new challenges. Under the newly established Bretton Woods system, international payments were subject to tight government regulations. The Bretton Woods conference of 1944 organized a system of fixed exchange rates where the US dollar was the dominant currency, and countries maintained restrictions on international capital movements (Eichengreen, 1996). Many of the bilateral clearing agreements that had been put into place in the 1930s were maintained alive after the war. These combined measures reinforced the principle of state regulation of international payments and trade.

Institutions engaging in trade finance had to deal with these constraints and adapt their activities to the new regulatory environment of the post-war years. In the early post-war years, any credit granted in the United Kingdom to a foreign resident or British company in foreign ownership had to

[5] In 1988, the United Nations Commission on International Trade Law (UNCITRAL) tried to fill this loophole by seeking convergence between the Anglo-American and Continental legal traditions. Although approved by the General Assembly on 9th December 1989, the resulting United Nations Convention on International Bills of Exchange and International Promissory Notes never entered into force, having been ratified by no country to date (Murray 1994; Moshenskyi 2008, pp. 172-174).

be authorized by the exchange control (Bank of England, 1967, p. 250; Steffenburg, 1949, p. 74). Financial institutions engaging in trade finance devoted considerable efforts to ensure that the international transactions they financed were done in accordance with government regulations. For example, they had to verify that every importer seeking a short-term credit had been issued a valid import license. E. Steffenburg, a partner at the London merchant bank Hambros, noted in 1948 how the compliance with domestic and foreign regulations was the most time-consuming task performed by his bank's staff in the post-war years (Steffenburg, 1949, p. 66). Although restrictions to foreign lending were progressively removed over the 1950s and 1960s and current account convertibility was restored, international trade and finance remained regulated by state authorities until the early 1970s.

5.2. The global trade finance market in the post-Bretton Woods years, 1973-1985

Following the collapse of the Bretton Woods system in 1971-1973, capital controls were progressively removed. The revival of international trade of the late 1970s and early 1980s resulted in increased demand for trade credits by firms. Since the United States was now at the center of the global trading system and the US dollar had consolidated its status as the dominant international currency, it is mostly through the US market that the world's exporters and importers sought to finance their commercial activities. The US bankers' acceptance market experienced a new boom in the late 1970s. This development was facilitated by US banking regulation. Acceptances were eligible for discount as well as open market purchase by the Federal Reserve Board and they could also be used as collateral for advances. In addition, they became exempt from reserve requirements in 1973, making the activity of accepting bills an attractive business for American banks (Jensen and Parkinson, 1986; LaRoche, 1993).

US bankers' acceptances accounted for a substantial share of the financing of global trade in the 1970s and 1980s (Hervey, 1983; Jensen and Parkinson, 1986) and, in 1982-1984, around 17 per cent of world exports were financed through this instrument (figure 3). Despite this revival, however, the New York market never regained the importance it had had at the end of the 1920s in the financing of world trade. Starting from 1985, the issuance of US dollar bankers' acceptances steadily declined and, at the beginning of the 2000s, they only financed a negligible share of global exports (figure 3). Several reasons explain this decline. First, with the deregulation of financial markets, substitutes for acceptances developed for financing merchandise trade in the 1980s. In particular, the growth of the commercial paper market allowed large corporations to borrow directly from non-financial investors and without the signature/guarantee of a US money-center bank (Jenson and Parkinson, 1986, p. 10). In addition, acceptances lost their privileged regulatory status in the United States when the Federal Reserve Board of Governors also exempted other forms of short-term assets such as asset-backed commercial paper from capital requirements at the end of 1990 (LaRoche, 1993, p. 82). This made the issuance of acceptances a less attractive activity for US financial institutions. American banks therefore played an increasingly marginal role in the financing of world trade from the 1980s onwards.

5.3. International trade finance in the first and second globalization

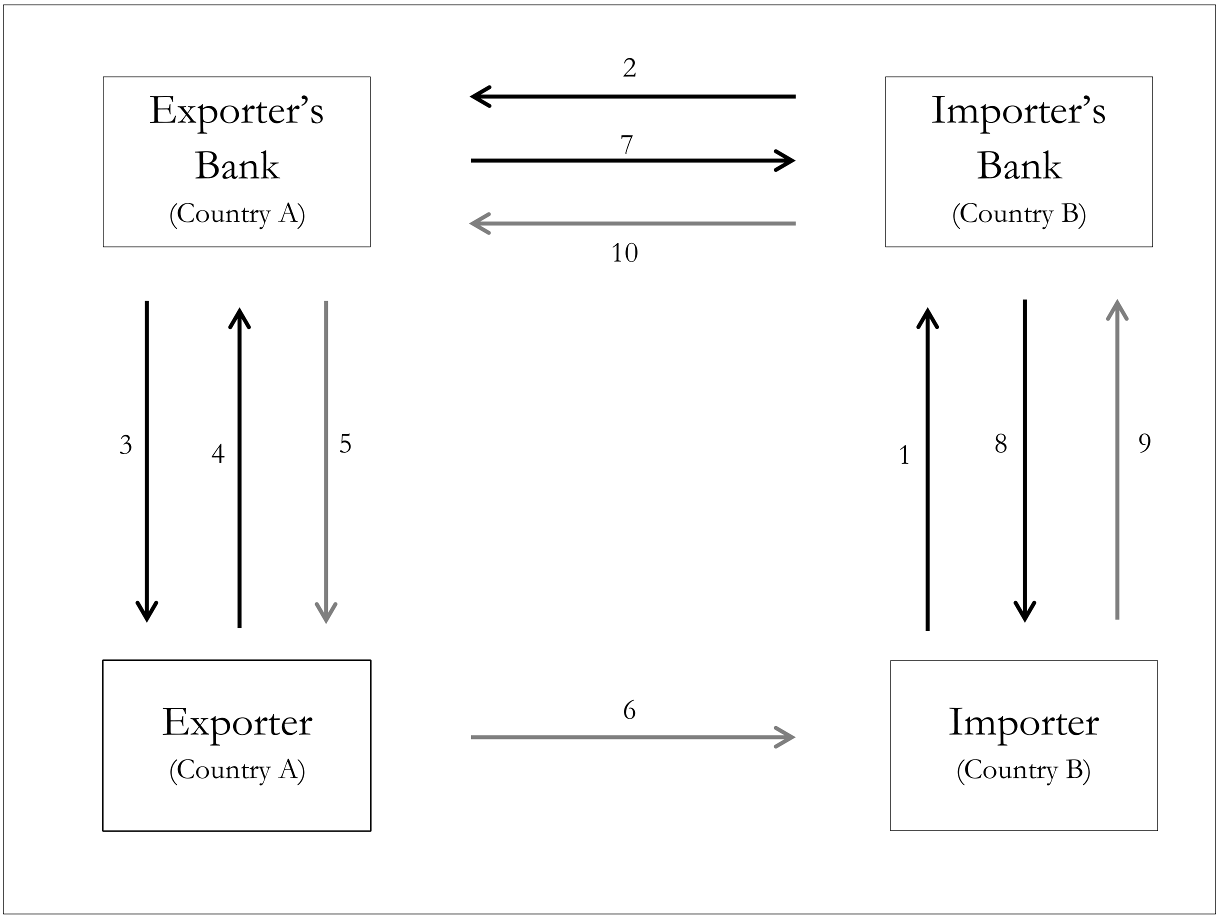
The failed revival of the acceptance market in the post-war period left the second globalization of the late 20th century with a trade finance infrastructure that is profoundly different from that which prevailed during the global trade boom of the 19th century. While the methods of financing commerce have evolved profoundly, trade finance nowadays appears to be mostly intermediated by local banks in the exporting and importing firms' countries - as it was the case at the very origins of this market- rather than through a global platform such as that developed in London over the course of the 19th century.

Exporters and importers around the world nowadays finance their activities in various ways. They first rely on inter-firm trade credit, in which case commercial transactions are financed directly by exporters (*open account* method) or pre-paid by importers (*cash in advance*/pre-payment method). However, national and global banks also offer various forms of trade finance services. They provide direct loans and overdraft facilities to firms in need of working capital (Cooper and Nyborg, 1997;

Amiti and Weinstein, 2011) and large corporations also borrow in the US or Euro commercial paper markets (Asmundson et al., 2011). Finally, banks offer specific trade finance products aiming at insuring exporters against their importers' default risk, the most common of which are the *letter of credit* and *documentary collections* (Amiti and Weinstein, 2011; Bank for International Settlements, 2014; Niepman and Schmidt-Eisenlohr, 2016, 2017).

A letter of credit (or documentary credits) is an instrument, which allows a bank to guarantee an importing firm's payment to an exporter. The importer's bank issues a letter of credit guaranteeing the exporter that payment will be made upon presentation of a set of documents providing evidence that the merchandise has been shipped. The letter of credit is often "confirmed", in which case payment is also guaranteed by the exporter's bank. While a letter of credit in principle only consists in a payment guarantee granted by the exporter's and importer's banks, it is also often coupled with a working capital loan. Upon acceptance of the letter of credit by the issuing bank, the exporter often sells it to her own bank at a discount, therefore obtaining cash before receiving payment from the importer (Amiti and Weinstein, 2011, pp. 1845-1846 and figure 4). The operation in that case is substantially (albeit not formally) similar to that involved in a medieval bill of exchange (figure 1): the exporter borrows from her local bank upon presentation of a claim on the importer, and the lending bank recovers its credit through its correspondence with the importer's bank abroad. In the case of documentary collections, by contrast, banks do not guarantee payment nor lend working capital but only provide assistance to the exporter and importer in completing the transaction through handling documents (bill of lading etc.) and assisting in the collection of payment (Asmundson et al., 2011; Bank for International Settlements, 2014; Niepman and Schmidt-Eisenlohr, 2017). Finally, exporters can purchase insurance from non-bank, insurance companies against their importer's payment default or obtain guarantees from public export credit agencies (Bank for International Settlements, 2014).

Figure 4. The confirmed letter of credit



1. Applies for letter of credit; 2. Sends letter of credit; 3. Confirms letter of credit; 4. Sells letter of credit; 5. Discounts letter of credit/provides cash; 6. Ships goods; 7. Sends documents; 8. Presents documents at maturity; 9. Pays at maturity/provides cash; 10. Credits at maturity.

The structure of the twenty-first century's global trade finance market differs from that of the first globalization in several dimensions. First, trade finance nowadays is mostly intermediated on a local basis. While in the nineteenth century commercial transactions taking place in any part of the globe were financed through the London financial center, trade finance products are nowadays mostly intermediated through national banks or branches of global banks located in the exporter's and importer's country. Local or regional banks accounted for the majority of the global trade finance supply in 2011 (Bank for International Settlements, 2014, p. 11). As a result, the regulation of the global trade finance market is much more decentralized nowadays than it used to be in the first globalization. While the London acceptance houses – in connection with the Bank of England – defined the standards governing firms' access to trade finance in the nineteenth century, such standards are now set by banks at the local level. Centralization around London before WW1 involved that most banks offering trade finance services were under the implicit regulation of the Bank of England, whereas regulation of local and global banks is now left to national authorities.

This difference in the structure of the trade finance market mostly reflects the more decentralized structure of the global trading system in the second globalization. The decentralized organization of international trade finance nowadays somehow resembles that which prevailed at the origins of this market in the medieval period. However, even in periods when trade finance was mostly intermediated locally, global actors have been involved in its provision as they maintained a network of branches in local markets. Between one-fourth and one-third of trade finance today is provided by the local branches of global banks (Bank of International Settlements 2014, p. 11). This situation echoes the international pre-eminence of Italian and South-German banking groups in the late Middle Ages (De Roover 1953).

One implication of the recent market structure is that firms located in countries where the banking system is underdeveloped might suffer from a lack of intermediation, a phenomenon known as the "trade finance gap" (Asmundson et al., 2011). Firms' access to trade finance might also be more sensitive to shocks to the domestic financial system. For example, Amiti and Weinstein (2011) provide evidence that Japanese firms whose local bank endured more severe losses during the crisis of the 1990s reduced their exports more than others. At the same time, access to trade finance remains reduced during episodes of global financial crises if exporters finance themselves through branches of global banks or through domestic banks depending on foreign capital for their refinancing. In particular, many researchers have noted how the global financial crisis of 2008 affected the supply of trade finance and resulted in credit constraints for firms engaging in international commerce (Ahn, Amiti and Weinstein, 2011; Del Prete and Federico, 2014; Paravisini et al., 2015; and Niepman and

Schmidt-Eisenlohr, 2016). This drying up of financing facilities partly contributed to the collapse of world trade that took place in the year following the crisis.

Another aspect of today's trade finance market is that credits are rarely securitized. The introduction of negotiability in the sixteenth century allowed bills of exchange financing commercial transactions to circulate much more widely than they had done previously. In the nineteenth century and interwar period - and to a lesser extent, in the 1970s and 1980s- bankers' acceptances drawn by firms around the world on leading financial houses in London and New York were used as money market instruments and purchased by a great variety of bank and non-bank investors. However, starting in the 1980s, the decreased use of trade finance products for money market transactions substantially narrowed the range of investors involved in the provision of trade finance. While global banks have recently attempted to securitize their trade finance portfolios or specific trade finance credits, demand for such products from non-bank investors remains limited due to the lack of standardization and knowledge of this type of products (Bank for International Settlements, 2014, pp. 27-30). The ultimate source of funding for international commercial transactions nowadays comes from either the trading firms themselves (in the case of inter-firm credit or when a letter of credit is issued but not discounted by the exporter's bank) or from their banks (in the case of a letter of credit coupled with a working capital loan). Therefore, in contrast to the pre-WW1 period, when investors in bills of exchange were diverse and did not necessarily have specific knowledge of the ultimate borrowers, providers of capital for the financing of international trade nowadays mostly consist of local banks that are in direct contact with the borrowing firms.

6. Conclusion

This chapter has presented a long-term perspective on international trade finance with a special focus on the structure and global governance of this market. We found that similar trade finance instruments have remained in use over more than eight centuries. The bill of exchange, which traces its roots back to the Antiquity but only became common use in the West in the 13th century, has survived under different forms in the global economy and is still used today for financing commercial transactions. This instrument has proven to be extremely flexible and the variety of its uses corresponded to the major evolutions in the structure of the global trade finance market.

Medieval bills of exchange were idiosyncratic instruments designed by a few local merchant bankers corresponding between different cities. They were therefore instruments of localized bank-intermediated trade finance. During the early modern period, the appearance of the negotiable bill of exchange allowed trade finance instruments to circulate more widely, although their distribution remained mostly limited to firms specializing in international commerce. The disconnection between the location of the borrower and that of the lender became complete during the 19th century, when the standardization of bills (or acceptances) turned the London acceptance market into the world's staple money market. With the disintegration of the global economy in the interwar and post-WW2 period, however, the acceptance market almost disappeared and failed to be revived after 1980 when international trade experienced a new boom. Whereas the global trade finance market was highly centralized around the City of London during the first globalization, trade finance nowadays mostly consists in a range of products offered to firms by local banks - or the local branches of global banks – as it was the case at the origins of this market.

This evolution in the structure of international trade finance has implications for the global governance of this market. In the nineteenth century, the governance and regulation of trade finance were exercised by the leading political power of the time - Britain. Firms willing to access the facilities offered by the London discount market needed to obtain a signature from a reputable London financial institution and the British acceptance houses and commercial banks set the standards required to obtain such credits. At the same time, the main trade finance suppliers were located in London and subject to the informal regulatory authority of the Bank of England. The pre-eminence of Britain in the governance of the global trade finance market was however challenged during the interwar period when London acceptance houses had to compete with the large US commercial banks in the provision of trade finance services. Nowadays, criteria governing firms' access to trade finance credits are defined on a local basis, while regulation of banks offering trade finance services is left to national authorities. Whereas the international financial system that emerged in the nineteenth century allowed Britain to regulate trade finance globally, the more decentralized structure that prevails nowadays makes international control over the trade finance market less feasible and pushes back its governance into a sort of anarchy.

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