The Legal Construction of the Global Foreign Exchange Market

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Early analyses of globalization argued that footloose transnational corporations engaging in regulatory arbitrage, massive capital flows, and instantaneous financial transactions resulted in the severe curtailment, if not death, of state authority and policy autonomy. Such "hyperglobalist" proclamations were soon countered by scholars asserting the continued relevance of states in the emergence and functioning of global financial markets. States were not only identified as the authors of liberalization, but also as creators of new rules governing the recently "deregulated" markets. While the state was "reintroduced" into some financial markets, it was curiously absent from the market underpinning all cross-border transactions – foreign exchange. At one level the special position of the global foreign exchange market was not surprising. Trading in this largely electronic space was dispersed around the world and, given its status as an over-the-counter market, was constituted by globe-spanning, individually negotiated bilateral contracts. Many currencies, moreover, had succumbed to assaults mounted by participants in this largest and most liquid global financial market. Given these qualities, it was not a stretch of the imagination to conceptualize the foreign exchange market as unregulated and operating beyond the governance frontier of states.

Despite such features and the image they conjured, other aspects suggested that the global foreign exchange market might be well within the reach of state authority. Besides the trading of national currency instruments and the continual possibility of central bank interventions, the market was characterized by geographic and institutional concentration. During the past twenty years New York and London alone accounted for approximately fifty-percent of total turnover in the market (BIS 2001, 2004, 2007, 2010), and the highest daily trading activity took place when dealing in both centers overlapped. When the remaining five top financial centers were included, the concentration in global turnover increased to eighty percent. Further countering the dispersed image of this market was the centralization of dealing in about a dozen institutions in each of these dominant financial centers (BIS 2004 and 2010). These leading firms, moreover, formulated market wide trading practices and policy positions through their involvement in quasi-public organizations, such as the New York-based Foreign Exchange

Committee (FXC). Despite the possibility for exchanging a multitude of currencies, moreover, the U.S. dollar was used as one of the "legs" in a majority of trades. Far from being a decentralized electronic space, a core set of geographies and institutions dominated the market.

Such evidence had, however, minimal impact on global foreign exchange market research which largely focused on the factors influencing exchange rate movements. Relegating the state to an external position might simply have reflected how the market was truly beyond the reach of government agencies, authority, and even laws. National geographies and institutional milieus were not implicated in this global market's structure and functioning. Yet through the course of researching the foreign exchange market and its governance arrangements, it became clear that state-enforced explicit and implicit codes that were binding on market participants, or law, were significant factors in the foreign exchange market. Two legal instruments in particular demonstrated the importance of state authority – the Treasury Amendment (TA) and master netting agreements. In mapping their historical trajectories, it became clear that even this most globalized market was legally constructed.

The first legal instrument – the TA– was used by state, market, and quasi-public actors to curtail the ability of a government agency, the Commodity Futures Trading Commission (CFTC), to regulate the New York node of the global foreign exchange market. State law, in this instance, was used as a boundary mechanism preventing market oversight of a specific state actor. The New York node in the global foreign exchange market did not, however, exist in a legal vacuum. It was governed by private and state-based implicit and explicitly binding codes. The TA preserved this patchwork self-regulatory order and allowed it to develop further. Yet, by cordoning off the market from the CFTC, the TA contributed to the "unregulated" appearance of the global foreign exchange market.

The second legal instrument – master netting agreements – was part of an effort to address systemic disturbances created by settlement and counterparty risk in the market. In order for these agreements to

be viable, however, they required state-backing. Without this support, these private and explicit codes would not have gained traction in the market or have been binding. Once state enforcement was guaranteed and these contracts began to be used, the master netting agreements restructured market liquidity. Initially this took the generic form of reducing gross settlement and counterparty exposures to net amounts. State, private, and quasi-public actors, however, soon forged a link between these contracts and regulatory capital. Once the connection was established the standardized contracts could be used to minimize the amount of regulatory capital allocated to foreign exchange trading. With the state acting as the ultimate guarantor of rights, the master netting agreements constituted the market by restructuring liquidity.

To document the critical importance of state authority and enforcement in the global foreign exchange market, a variety of primary sources were employed. Archival materials, annual reports, periodicals, and a handful of interviews were used to map the historical trajectories of the TA and the master netting agreements. Documentary evidence contained in the Federal Reserve Bank of New York Archives and the Bank of International Settlement Archives proved to be particularly important in this endeavor. It provided key information about the reasons behind the creation of each legal instrument; the core problems involved in crafting each arrangement; and the factors determining their subsequent use and development. By providing the details about the origins of each legal instrument, such data proved to be particularly valuable in illuminating the foundational role of state authority and enforcement in the market. It revealed how the structure and operation of even this most globalized market was legally constructed.

Literature

Initially the rise of global finance was attributed to market actors and various communication and technological innovations, such as derivatives and computational advances. In these analyses cross-border financial integration undermined states' abilities to regulate their economies (Friedman 1999;

Harris 2004; O'Brien 1992; Wriston 1997). In response to such proclamations, some scholars asserted the continued relevance of the state in the face of rapid and volatile capital flows. While recognizing the more delimited authority of states over their political-economic territories, they cautioned against any proclamations about the "death of the state." Instead their research focused on how sovereignty was reconfigured (Cerny 1991, 1994; Helleiner 1999; Hirst and Thompson 1995; Underhill 1991, 1995; Sassen 2006). The collapse of the Bretton Woods monetary order, the move to flexible exchange rates, and the liberalization of exchange and capital controls were not the outcome of states being overwhelmed by market forces or telecommunication developments. Through, for instance, international cooperation or crafting new laws, states fostered and encouraged the very markets identified as curtailing their power (Burn 2006; Helleiner 1994; Walter 2005). Even with deregulation and liberalization, states did not necessarily withdraw from markets. A race to the bottom – or "competition in laxity" – was possible, but far from inevitable. Rather liberalization was often followed by a process of reregulation in which states expanded their supervision of markets (Cerny 1991, 1994) and, in some cases, led to a "race to the top" (Lütz 1998). The key role of states in markets might have shifted towards one of support, but their agents retained authority over the scope of global financial markets and the conditions under which participants operated (Dombrowski 1998).

One global market where researchers documented this dynamic of liberalization and reregulation was securities markets (Vogel 1996; Laurence 1996; Lütz 1998). The deregulation of these markets occurred through the abolition of fixed commission rates, weakening market segmentation, increasing product choice, and greater market access (Laurence 1996). While the United States (U.S.) initiated these trends, market and financial firm competition; liberal ideology; domestic institutional dynamics; and pressure by foreign regulatory agencies sparked liberalization trends in Britain, Japan, Germany, and other countries (Vogel 1996; Laurence 1996; Lütz 1998). Instead of producing deregulated markets, state promulgated laws and supervision actually increased. Whether it was the formation of new agencies similar to the U.S.

Securities and Exchange Commission,[1] or the creation of laws banning insider trading, securities markets were reregulated. In many of these countries, it involved a shift from an informal regulatory style to more formal and explicitly codified systems (Vogel 1996) in which there was a greater emphasis on strict disclosure laws, more precise definitions of fraud, and an increased willingness to monitor and prosecute wrong doing (Laurence 1996). This research on the reregulation of securities markets detailed how policy autonomy might have decreased, but the authority of states in securities markets grew in many countries (Vogel 1996; Laurence 1996; Lütz 1998; Underhill 1995).

While scholars have convincingly documented the liberalization and reregulation dynamic in securities markets, the pattern seems to be absent in the largest and most liquid market in the global financial system – foreign exchange. The move to flexible exchange rates, liberalization of interest rates, and the repeal of exchange and capital controls was not accompanied by the creation of new government agencies or state-promulgated laws. No single government-backed authority, moreover, defined acceptable trading practices, and an officially designated self-regulating body governing the market was not created (Osler 2010). States still appeared in the market, but it was generally in the guise of central bank intervention; the trading of national currencies; and in the form of regulators overseeing the financial institutions participating in a specific national trading node. In comparison to global securities markets, the foreign exchange market appeared to be the epitome of the ability of a financial market to operate independently from the authority, and limit the autonomy of, states.

Empirical research on the global foreign exchange strengthened, sometimes inadvertently, this image. Market microstructure studies focused on the impact of trader behavior, interaction, and decision making on exchange rate movements (Sarno and Taylor 2001; Osler 2010). States played a minimal role,

1 Lütz (1998) notes that one set of pressures came from suspicion toward cartelized self-regulatory arrangements. Even with liberalization they continued to be effective in Germany, but were seen as illegitimate and treated with suspicion by foreign financial institutions and regulators.

moreover, in descriptions of the market's institutional structure (Osler 2010). Even scholars attempting to dispel the notion of the global foreign exchange market as unregulated, concentrated on private governance and institutional structures. Whether it was an emphasis on the market's normative order or its bureaucratic organization (Cetina 2005, 2007; Clark and Thrift 2005; Oberlechner et. al. 2004, Zaheer 1998), these studies countered the idea of the global foreign exchange market as an anarchic frontier. Some research even drew attention to the continued importance of states in regulating the market. National courts, for instance, were identified as playing critical roles in interpreting and reinforcing model contracts used in foreign exchange derivative transactions (Braithwaite 2012). Anecdotal evidence suggested that central banks did more than intervene in markets for currency management purposes. They also actively monitored daily trading with an eye toward orderly markets (Zaheer 1998). Despite such evidence, the focus of this research on private governance orders reinforced the idea that the role and power of states in the foreign exchange market was minimal. As a result, claims about the continued importance of the state authority in global finance more generally were weakened. Yet as detailed in the historical trajectories of the TA and the master netting agreements, state enforcement and authority were critical for the structure and functioning of even this most globalized financial market.

The Treasury Amendment

Based on existing research, the primary importance of law in the global foreign exchange market is liberalization. Whether it was the move to floating exchange rates, permitting new foreign exchange derivatives, or the abolition of exchange controls, the primary significance attributed to states in the global foreign exchange market is their removal of legal barriers preventing an integrated foreign exchange market. Once the scope of the foreign exchange market expanded, however, it became a privately regulated space operating outside the reach of states. As revealed by the case study of the TA, however, the importance of law goes beyond liberalization. Public and private actors collaborated together to preserve existing governance arrangements by preventing a government agency, the CFTC,

from having regulatory authority over the New York node of the foreign exchange market. This action was not, therefore, about ensuring the market remained "deregulated." Rather the TA acted as a boundary mechanisms protecting the existing patchwork of public and private, and often implicit, governance arrangements. In this manner, the "unregulated" image of the market was legally constructed.

In 1974 the basis for federal regulation of futures trading, the Commodity Exchange Act of 1936, was amended. The alteration was sparked by the futures industry, "outgrowing its traditional status as an adjunct to farm markets and becoming part of global finance" (Jickling 1997). To address the changed market situation, new legislation was drafted that provided for the creation of the CFTC and expanded the definition of the goods falling under the Commodity Exchange Act. Now "services, rights, and interests" for future delivery joined butter, eggs, wool, cottonseed, soybeans, livestock, and a whole host of items falling under the "commodity" designation.[2] By enlarging the definition of a commodity, all forward dealings in the foreign exchange market potentially fell under the regulatory authority of the CFTC. This meant that along with transactions on exchanges, such as the Chicago Board of Trade or the Chicago Mercantile Exchange, trades in the over-the-counter (OTC) market were potentially subject to CFTC oversight.

To prevent the CFTC's authority being extended to the OTC markets, the U.S. Department of Treasury submitted a letter recommending that the new agency's powers be limited to foreign currency futures traded on organized exchanges:

> *The Department feels strongly that foreign currency futures trading, other than on organized exchanges, should not be regulated by the new agency. Virtually all futures trading in foreign currencies in the United States is carried out through an informal network of banks and dealers. This dealer market, which consists primarily of the large banks, has proved highly efficient in serving the needs of international business in hedging the risks that stem from foreign exchange rate movements. The participants in this market are sophisticated and informed institutions, unlike the participants on organized exchanges, which, in some cases, include individuals and small traders who may need to be protected by some form of governmental regulation.*

2 Pp. 49 of the Commodity Futures Trading Commission Act of 1974, 93d Congress, 2d Session, Committee on Agriculture and Forestry, United States Senate, November 15, 1974.

> *Where the need for regulation of transactions on other than organized exchanges does exist, this should be done through strengthening existing regulatory responsibilities now lodged in the Comptroller of the Currency and the Federal Reserve. These agencies are currently taking action to achieve closer supervision of the trading risks involved in these activities. The Commodity Futures Trading Commission would clearly not have the expertise to regulate a complex banking function and would confuse an already highly regulated business sector. Moreover, in this context, new regulatory limitations and restrictions could have an adverse impact on the usefulness and efficiency of foreign exchange markets for traders and investors . . .*
>
> *In view of the foregoing, we strongly urge the Committee to amend the proposed legislation . . . This could be accomplished by inserting a new section at an appropriate place reading as follows:*
>
> *"Sec. —. Nothing in this Act shall be deemed to govern or in any way be applicable to transactions in foreign currency, security warrants, security rights, resales of installment loan contracts, re-purchase options, government securities, mortgages and mortgage purchase commitments, or in puts and calls for securities, unless such transactions involved the sale thereof for future delivery conducted on a board of trade."*[3]

Pointing to the sophistication of market participants and the robust nature of existing regulatory arrangements,[4] the Treasury argued for the exemption of the OTC market from the new legislation. The efforts of the Treasury were effective and received the support of Congress (CFR 1986), as the recommended section in the above letter was imported practically wholesale into the new legislation. Only one change was made with the reference to "puts and calls for securities" being removed. The paragraph limiting the reach of the CFTC became known as the TA. With its creation, the TA did not alter existing market arrangements. Rather, the new legislation drew a boundary around the designated markets for the sole purpose of excluding them from the regulatory oversight of the CFTC. It was within this legislative boundary that the New York node of the global foreign exchange market, which accounted for an average of 17 percent of global turnover during the last twenty years, developed.

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3 Letter to the Hon. Herman E. Talmadge, Chairman, Committee on Agriculture and Forestry, U.S. Senate, from Donald L.E. Ritger, Acting General Counsel, Department of the Treasury, July 30, 1974, contained in pp. 49-51, Senate Report, No. 93-1131, 93d Congress, 2d Session, August 29, 1974.

4 There is an interesting correspondence between the date of this letter and the efforts to revive the FXC. A month after the Treasury sent this letter, the FRBNY began to make arrangements to revive the Committee and make it more policy oriented.

The exclusion of the OTC market from the purview of the CFTC did not mean there was a regulatory vacuum. The governance of the OTC market operated along the lines of "self-regulation" (FXC 1985).[5] This meant, according to the Federal Reserve Bank of New York (FRBNY), that all participants adhered to a set of principles, practices, and ethics which were reinforced by peer pressure and state agencies. The federal authorities acting as "referees" were the Federal Reserve, the Office of the Comptroller of the Currency, and the FRBNY (FXC 1985). They focused on creating principles for the effective internal control of transactions; establishing and strengthening internal management information systems; and improving the on-site examination process of bank foreign exchange operations (FXC 1985).

While an official "self-regulatory organization" was not designated, several industry organizations were also active in shaping the market's governance structure. One of these groups was a FRBNY-sponsored industry organization – the FXC. This quasi-public association was populated by the most active and respected financial institutions in the New York foreign exchange market and was created to engage with a variety of policy and market practice issues. Another important FRBNY-sponsored association was the Financial Markets Lawyers Group. This collection of lawyers drawn from Foreign Exchange Committee (FXC) member firms, assisted with the legal dimensions of various policy issues (including the TA and the master netting agreements). Along with these quasi-public organizations were private groups. The U.S. branch of the Association Cambiste Internationale, a professional traders group and an *ex officio* member of the FXC,[6] for instance, assisted with the development of trader codes of conduct. Another organization, the International Swaps and Dealers Association (ISDA), also contributed to market governance by assisting in the development of master netting agreements during the 1990s and

5 The description of the New York FX market governance was provided by a speech given by Margaret Greene, Senior Vice President of the FRBNY, to the Midwest Chapter of FOREX USA (Association Cambiste Internationale) on April 12, 1985 in Denver, CO.

6 In a speech to the Midwest Chapter of FOREX USA on April 12, 1985, Margaret Greene, Senior Vice President of the FRBNY, alluded to the role of this organization in the FXC. The professional trader organization was to, "bring issues of concern to the Committee's attention," and "give serious and thoughtful attention to its recommendations and reports" (FXC 1985).

fostering the enforceability of these contracts in multiple jurisdictions. These official organizations and formalized trading codes were all in addition to the institutionalized practices and normative orders identified by researchers (Cetina 2005, 2007; Clark and Thrift 2005; Oberlechner et. al. 2004; Zaheer 1998).[7] Together these elements constituted the patchwork governance structure that the TA prevented the CFTC from joining.

While the TA cordoned off the foreign exchange market and its governance arrangements, the legal boundary was soon contested. Efforts to trade government security and foreign currency options in the early 1980s began a two-decade legal struggle over the boundaries drawn by the TA. In the initial stages of the conflict, the court system figured prominently. A series of lawsuits dealing with foreign exchange involved disputes over the key terms in the TA.[8] These included which actors, instruments, transactions, and market formations fell under the purview of the CFTC. The results of these court battles simply complicated matters. Given that the CFTC was tasked with protecting the general public from derivatives, the sophistication of the investor was sometime used in legal rulings to decide whether the transactions at hand fell under the Commodity Exchange Act. In other cases the issue of whether currency actually changed hands, as opposed the right to purchase or sell a currency, was the deciding factor. Given the ambiguity resulting from the court rulings, by the mid-1990s a concerted effort to draft new legislation that addressed the definitional issues began.

Figuring prominently in the drafting of the new legislation were the collaborative efforts of state and non-state actors. Particularly active in this process were the FXC and the Financial Markets Lawyers Group. Based on *amicus* briefs created for court cases in which the regulatory boundaries specified by

7 Federal Reserve Bank of New York Archives (FRBNYA), 260, Foreign Exchange, "Guidelines for the Management of Foreign Exchange Activities, draft," Foreign Exchange Subcommittee, December 5, 1986.

8 Key cases in the 1980s included CFTC v. American Board of Trade, Inc. (1986); Board of Trade of Chicago v. S.E.C. (1982); and CFTC v. Sterling Capital Company. In the 1990s the important cases were Tauber v. Salomon Forex (1992); CFTC v. Dunn (1992 and 1994); and Dunn v. CFTC (1996).

the TA were challenged, they developed wording and principles for new legislation that would resolve the conflicting court opinions.[9] Like the TA, the goal was to ensure that as many foreign exchange transactions as possible were not subject to CFTC oversight.[10] Toward this end, it was argued that the CFTC's jurisdiction should be based on whether the FX transactions occurred on a board of trade, such as the Chicago Mercantile Exchange and the Chicago Board of Trade.[11] In addition they further specified what constituted a "sophisticated" investor:

> *The exclusion does apply [therefore the CEA (Commodity Exchange Act) does <u>not</u> apply] to the following OTC transactions:*
>
> *- (a) The parties to an FX transaction are "appropriate persons" under the CEA, plus natural persons with total assets exceeding at least $10 mil. This definition is similar to the parties covered by the CFTC's swap exemption; or*
>
> *- (b) One of the parties to an FX transaction is supervised by a federal financial markets agency.*
>
> *Comment: The purpose of this provision is to give the CFTC jurisdiction under the CEA to prosecute boiler rooms, bucket shops and the like. If an OTC FX transaction is not excluded from the CEA under (a) or (b) above, the CFTC would have anti-fraud jurisdiction; no other provisions of the CEA would apply.*[12]

To convey these points it was decided that the FXC should be the spokesperson for the FX market, and over the next several years FXC members provided testimony at Congressional hearings focused on amending the Commodity Exchange Act (including the bill that became the Commodities Futures Modernization Act of 2000).[13] The Financial Markets Lawyers Group was also involved. Its members conveyed the above views and spoke with other people involved in the legislative process (trade associations, such as ISDA, and Congress).

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9 It is interesting to note that the position of the CFTC was supported by the Chicago Board of Trade and the Chicago Mercantile Exchange. Both organizations wrote briefs arguing that the authority of the government should be extended. FRBNYA, 260.01, "Foreign Exchange Committee Meeting," October 1, 1992.

10 FRBNYA, 260.01, "Draft Treasury Amendment," December 2, 1996.

11 FRBNYA, 260.01, "Treasury Amendment Position Paper," Sullivan & Cromwell, March 25, 1994.

12 FRBNYA, 260.01, "Proposal to Amend the Treasury Amendment to the Commodity Exchange Act," September 3, 1996.

13 John J. Finigan, Jr., FXC, testified in the case of Senate Bill 257 on February 13, 1997 and Paul G. Kimball, Chair of the FXC, testified in hearings surrounding the CFTC reauthorization on May 20, 1999.

With the passage of the Commodities Futures Modernization Act of 2000, which reauthorized the CFTC for another five years, it appeared that the efforts of the FXC and Financial Markets Lawyers Group were successful. In the Commodities Futures Modernization Act, the general principles that had been continually stressed by FX market participants were confirmed and clarified:

> *. . . nothing in the CEA applies to transactions in foreign currency, government securities, and other similar instruments unless these instruments are futures or commodity options traded on an organized exchange. The bill defines "organized exchange" as a trading facility that either serves retail customers, permits brokered or similar agency trades, or performs a self regulatory role. New section 2(c)(2) also excludes from CFTC regulation foreign currency transactions (other than those conducted on an organized exchange) between specified regulated entities and persons who are not eligible contract participants (i.e. retail customers).*[14]

Based on the new legislation, if foreign currencies were traded on an organized exchange or other entity with an explicit self-regulatory function, it was subject to CFTC oversight. All other foreign currency transactions – spot, forwards, options, etc. – were excluded from the CFTC's authority.[15] Oversight of the market was left to the government agencies tasked with regulating the firms involved in transactions, such as the Federal Reserve, the Office of the Comptroller of the Currency, and the Securities and Exchange Commission. Only when retail customers were involved was it possible for foreign exchange to be subject to CFTC regulation. Over twenty-five years after its creation, legislation based on the TA was still being used as a boundary mechanism to protect existing governance arrangements in the New York node of the global foreign exchange market.

The historical trajectory of the TA indicates that the state authority, in this case legislative, played a similar role in the global foreign exchange market as it did in the securities market. In this case liberalization was followed by a particular type of reregulation. Instead of expanding the authority of a

14 Report, Commodity Futures Modernization Act of 2000, 106th Congress, 2d Session, Report 106-390, August 25, 2000.

15 The revisions to the TA in the Commodity Futures Modernization Act also removed the distinctions between "transactions in" and "transactions involving" foreign currencies. It thus codified the decision in Dunn V. CFTC, 519, U.S. 465 (1997). Report, Commodity Futures Modernization Act of 2000, 106th Congress, 2d Session, Report 106-390, August 25, 2000.

government agency, however, the TA and subsequent efforts to preserve its key tenets were designed to prevent the CFTC from having oversight over the OTC foreign currency market (and those in government securities, derivatives, mortgage, etc. as well). In this instance law was not used to simply limit the scope of the market and define acceptable trading practices. Rather it preserved existing, and often implicit or informal, market governance arrangements. Through reregulation, the "unregulated" quality of the OTC foreign exchange market was, in other words, legally constructed.

Master Netting Agreements

The master netting agreements revealed a different role for law in the global foreign exchange market. As demonstrated by the historical development of these contracts, they were not used to delineate the scope of the foreign exchange market or a government agency's regulatory authority. Rather the law constituted the global foreign exchange market. It did this in two ways. The first was that the use of a standardized contract by financial institutions was predicated upon its enforceability by the state. The second was that the master netting agreements restructured market liquidity. Initially this occurred simply through freeing up capital that would have been allocated to foreign exchange dealing if gross settlement was employed. In time, however, through the joint efforts of private and public actors, master netting agreements were incorporated into accounting conventions and *Basle I* capital standards. As a result legally enforceable netting by novation became a legitimate mechanism for minimizing the amount of regulatory capital on their balance sheets. In this manner the law constituted the structure and operation of the global foreign exchange market by enabling the use of master netting agreements and restructuring liquidity.

Master netting agreements emerged from efforts to deal with systemic risks created by the dramatic growth in the globalizing foreign exchange market. The end of Bretton Woods and the move to floating exchange rates ushered in a period of volatility and dramatic growth in the foreign exchange market. In 1969 daily turnover in the foreign exchange market was a bit less than $1 billion dollars. By 1977 it had

increased to $5 billion (Luca 1995), and three years later it was $100 billion (Grabbe 1996). The accelerating growth had important implications for the globalizing foreign exchange market's infrastructure – the payments system. Between 1854 and 1965, payments volume averaged one-and-a-half times to five times annual GNP (Perold 1995). By 2005 this figured had increased to $75 in payments for each dollar of GDP (Kahn and Roberds 2009). A substantial source of this payments growth came from wholesale financial services (Kahn and Roberds 2009). Complicating matters further was the geographically and temporally diverse settlement systems implicated in the distribution of foreign exchange transactions across multiple financial centers and denominated in different currencies.

The increased importance of the foreign exchange market in payment systems and the complexity entailed in a globalized financial system meant that settlement disturbances threatened to produce liquidity crises. The first payments disturbance emerged at the beginning of the foreign exchange market's meteoric ascent with the failure of Bankhaus Herstatt in 1974. This medium-sized German bank was very active in the foreign exchange market. Its collapse and subsequent closure by German authorities started a chain reaction disrupting payment and settlement systems. Prior to its closure on June 26, 1974, and in anticipation of U.S. dollars being transferred through the New York settlement system, counterparties paid Deutsche marks to Bankhaus Herstatt. When the German bank was ordered into liquidation, the U.S. dollar settlements approximating $200 million were not completed. As a result the financial institutions involved in these transactions were fully exposed to the value of those trades. The incident was the "first and most dramatic case of a bank failure where incomplete settlement of foreign exchange transactions caused severe problems in payment and settlement systems" (Galati 2002: 56). The severity of the liquidity crisis was revealed by the fact that settlement risks soon after bore the general moniker of "Herstatt risk."

The Bankhaus Herstatt incident and other bank failures during the same year, sparked efforts to create a uniform contract that would prevent future systemic disturbances.[16] The contract, or the *International Chamber of Commerce's Uniform Custom and Practices for Foreign Exchange Contracts* (FOREXCO) as it was called, was designed to clarify the treatment of forward exchange contracts in various countries under conditions of counterparty insolvency. In the process of developing the contract, existing best market practices would be codified into international standards.[17] While FOREXCO did not contain any provisions for netting, it grappled with a core aspect found in the master netting agreements. This element was the close-out of outstanding forward contracts and open payments in the case of counterparty insolvency or other conditions of non-performance. During the eight years it took the Basle Committee on Banking Supervision (BCBS) workgroup and national banking industry associations to develop the contract, the issue of insolvency proved to be highly intractable.[18] Besides trying to define insolvency or handle claims emerging form the interruptions in the payments process at various stages, i.e. non-, partial, or full settlement of a contract, a critical issue was whether FOREXCO terms would be upheld in various jurisdictions. Resolving the matter proved to be so difficult that the insolvency provisions were actually dropped from FOREXCO at one point.

16 The three failures were Franklin Bank (U.S.), Bankhaus Herstatt (Germany), and Israel-British Bank. The failure of the Israel-British Bank was due to fraudulent lending and Franklin Bank was due to risk taking in the foreign exchange market. The FRBNY took over Franklin's FX book and unwound its positions. In the case of Bankhaus Herstatt the financial institution was allowed to fail. It was the Herstatt experience that raised the issue of how to handle the liquidation of outstanding forward foreign contracts when one counterparty becomes insolvent (Goodhart 2011). It sparked the impetus to create a uniform foreign exchange contract to deal with this matter.

17 Bank of International Settlements Archives (BISA), BS/77/11, Letter to B.S. Wheble, Brown, Shipley & Co. Ltd. from George Blunden, BIS, December 13, 1976, and FRBNYA, Backlund Files, Box 107314, Office Correspondence, November 14, 1977.

18 It was the product of the BCBS workgroup composed of the representatives from central banks in the U.S., Germany, and the Netherlands; the International Chamber of Commerce (ICC); a representative from the European Economic Community; and the heads of foreign exchange departments from three banks (two from Zurich and one from London). The suggestion to include the ICC came from a Bank of England representative on the BCBS, Rodney Galpin. Perhaps indicative of the close relationship between the Bank of England and the London merchant banking community, the idea of utilizing the ICC appeared to come from a suggestion of B.S Wheble. Wheble was affiliated with the London merchant bank Brown Shipley & Co., and was Chairman of the ICC's Banking Commission.

Even though counterparty insolvency was later reinserted back into FOREXCO, concerns about the contract's lack of state enforcement continued to be a significant problem. When the agreement was finalized, it was distributed to national banking associations for approval. While the BCBS hoped it would be adopted, it was under no illusions.[19] Such an approach was wise. Archival evidence suggests that the issues surrounding insolvency resulted in FOREXCO being sidelined. Comments by the FXC, which became involved in development of FOREXCO, captured the continued centrality of concerns surrounding bankruptcy. In their annual report the FXC praised FOREXCO for codifying "many of the important elements of good market practice," but they thought the contract, "was not fully satisfying to the extent that uniform rules cannot give contracting parties the assurance, in the event of litigation, that the terms of the rules will always prevail" (FXC 1984: 9). In the words of Deputy General Counsel of the FRBNY, Ernest Patrikis, the contract risked "private law" succumbing "to national insolvency laws."[20] Foreign exchange positions would thus "be guided by national law and not the ICC [International Chamber of Commerce] rules."[21] Such concerns meant the eight year effort ended with FOREXCO never being used.

While FOREXCO was shelved, efforts do deal with Herstatt risk did not cease. The continued growth in the foreign exchange market in the early 1980s only further increased the specter of systemic crises arising from settlement issues. At this time all outstanding contracts with a particular counterparty were settled one at a time or through gross payments. The gross settlement procedures raised the possibility of settlement risk in two ways. Administrative mechanisms for processing gross payments came under pressure. Given the large amounts being handled, mistakes could be costly and even detrimental to settlement. A related issue was the impact of these gross settlement procedures on financial

19 BISA, BS/82/79, Letter to Dr. Roesle from Peter Cooke, BCBS Chairman, November 16, 1982.

20 FRBNYA, 260, Foreign Exchange, 1979-80, "Proposed ICC Rules on Foreign Exchange Control," April 14, 1980.

21 FRBNYA, 260, Foreign Exchange, 1979-80, "Proposed ICC Rules on Foreign Exchange Control," April 14, 1980.

institutions' capital levels and counterparty exposure. As the volume of foreign exchange contracts grew "absolutely and in relation to capital," the "lines sufficient to meet counterparties' needs appeared to be disproportionate to bank size" (FXC 1983: 5). Because of the use of gross amounts during settlement, the amount of credit provided to each institution became "disturbingly large" in relation to the specific balance sheets. Counterparty exposure compounded settlement risk concerns.

Recognizing the possibility of a systemic liquidity crisis, the FXC, with the support of the FRBNY, began exploring various options for dealing with settlement and counterparty risks. In April 1983 the FXC held a meeting in which various options were explored. These involved mark-to-market calculation, various types of netting procedures, and establishing a clearing house (FXC 1983). The reaction of the FXC members to the mark-to-market strategy is unclear, but it would appear that establishing a clearing house was deemed to be quite costly. Netting, on the other hand, appeared to be one of the least expensive options and received the most support. Along with FRBNY legal counsel, a group of lawyers employed by the FXC member institutions – a forerunner to the Financial Markets Lawyers Group – was then tasked with further exploring different netting procedures. The outcome of their research was the recommendation to develop a bilateral model contract that employed netting and contained provisions that provided for the closing-out of contracts in the case of counterparty insolvency.

In 1984 the "master agreement" was finalized. The structure of the agreement allowed for the netting of contracts with the same value date and currency instead of separate contracts and the transfer of gross payments. In other words, the master contract would replace the individual contracts and create a net obligation. Once signed by the two counterparties, moreover, the resulting contract provided for the automatic netting of all future transactions for the same value date in selected currency pairs. Netting by "novation" would, as a result, lower outstanding capital commitments. In addition, the master contract contained a provision for the "mandatory acceleration and closing-out of the covered obligation" in the case of counterparty insolvency (FXC 1984). This meant that the master agreement reached maturity at a

"time just prior to the party's insolvency." (FXC 1984: 12) The contract listed the procedures to be used to determine the net outstanding amounts for the master agreements. At that point, respective payments were due, and further damages could not be obtained at a later date. In 1985 the master agreement was published and interested banks began negotiating the complexities involved in implementing such a contract.

As the master agreement was being finalized, the London branch of a large bank active in the FXC and the New York market, Chemical Bank, decided to pursue a similar project in London. Its London dealing room was interested in instituting a "real-time computer system among foreign exchange traders that would match (that is confirm) transactions and then provide a net bilateral position, by currency, for settlement."[22] To accomplish this goal, Chemical Bank encouraged a group of banks to study the feasibility of such an arrangement. Upon concluding the study, they decided to develop a master agreement, based on the FXC model, but tailored to English law and not limited to transactions involving predetermined pairs of currencies. In addition they set out to design an electronic interface that would connect with each bank's existing systems and handle the netting operations. The electronic interface would be a fee-based service (FXNet) that was run by a handful of the banks involved in the feasibility study. Further refinements of the FXC master agreement continued in 1985 and 1986, and in May 1987 FXNet began implementing automated netting.[23] In 1989, fifteen banks in London and six in New York were using the netting arrangements.[24]

22 FRBNYA, "Netting Interbank Foreign Exchange Transactions," February 27, 1986.

23 The London agreement was also assessed to see if it would stand in the event of a bankruptcy in the U.S. of the parent counterparty. The U.S. law firm tasked with this project indicated that the London master netting agreement would hold.

24 By December 1995, FXNET serviced 29 institutions operating out of 57 offices in 9 locations, including New York, London, Zurich, Tokyo and Singapore, and an additional 19 offices were in the process of joining the system.

At this point in the master netting agreements' development, it is clear that the contract had a very different trajectory than FOREXCO. Larger financial institutions[25] began to use the FXC master contract and its London derivation. The master netting agreement, unlike FOREXCO, was not shelved. The divergent trajectories of the two model contracts appeared to hinge upon the issue of insolvency. In both the New York and London variants of the master netting agreements, efforts were made to design a robust netting by novation contract regime with state-backing. Where uncertainty surrounded the status of master netting agreements during insolvency, laws were amended to reflect the standing of these model contracts (Nalbantian et. al. 1993). Such efforts were done to prevent insolvency representatives from having the power to unbundle the master netting agreement by choosing to perform a profitable contract and to default on loss-producing transactions.[26] This "cherry picking" would result in the transformation of the solvent party of the master agreement into one of the general creditors awaiting settlement. Users of master netting agreements would, in other words, lose their privileged position. This situation was seen to potentially have implications for systemic liquidity. A counterparty's exposure to the insolvent firm could increase and thus place pressure on the solvent institution's liquidity. Given the numerous transactions and inter-linkages between financial institutions and the impact on payment systems, unexpected increases in exposure could lead to systemic liquidity contractions. Only with state backing could insolvency representatives be prevented from cherry picking. Laws were critical for privileging the parties to master netting agreements and ensuring that firms would not have to worry about their counterparty exposures being subject to uncertain recovery. A contract between two private actors was, as a result, fundamentally dependent upon state-enforcement.

As the use of these legal instruments grew, they began to constitute market liquidity. Initially this assumed the form of firms being able to minimize the amount of free capital allocated to foreign

25 Due to the cost and complexity of implementing such agreements, they were primarily used by pairs of individual banks. Smaller players in the FX market delayed using such master agreements due to the cost of implementation.

26 Wood and Terray (1989) and Nalbantian et. al. (1993) discuss how U.S. law was changed to ensure the legal enforceability of netting by novation and close-out in the case of counterparty insolvency.

exchange trading. In this manner financial institutions utilizing the model contracts were more liquid than under conditions of gross exposure and settlement. Starting in the late 1980s, the type of capital minimized by the master netting agreements shifted. This emerged from the efforts of state and non-state actors to allow netting by novation and close-out netting to become a tool for reducing regulatory capital obligations on a financial firm's balance sheet. The FXC and FXNet bilateral contracts were given systemic implications. It appears that this occurred when the FXC, with the backing of the FRBNY, expressed support for the inclusion or recognition of contract netting (or netting by novation) in the Basle capital rules being developed. Such efforts were successful as netting by novation was incorporated into *Basle I:*

> *When the Capital Accord was in its final stages of polishing, the issue of netting surfaced. The supervisors did not have the time to review the issue of netting in any detail. The recognition of netting by novation of the type used by FX Net was intended to get the netting foot in the door. It was the only statement on netting that could be agreed to within the limited time. Other forms of netting had not been reviewed. Indeed it was the United States that insisted on this language. The language of netting was a liberalization not a narrowing of policy. Recognition of netting will mean that a bank will have a lower capital requirement.*[27]

Under *Basle I,* a financial institution using the master netting agreements could, "reduce its on- or off-balance sheet assets and/or liabilities and thereby minimize the amount of required capital allocation" (FXC 1988: 10). The privileging of netting by novation was based on the premise that it reduced both liquidity and counterparty risk (BIS 1989). In addition, the particular concept of netting used in the FXNet master contract became the only legitimate method. The inclusion of netting by novation in *Basle I* led to an increased use of netting arrangements.

The importance of netting by novation for minimizing the amount of regulatory capital required for foreign exchange trading emerged as a central factor behind the adoption of later instantiations of the master netting agreements. In the early 1990s, the FXC, the "Lawyers Group" (now a formalized group although it did not carry the Financial Markets Lawyers Group moniker), the British Bankers Association,

27 FRBNYA, Basle Supervisors' Approach to Netting, Ernest T. Patrikis, June 18, 1990.

and an informal London lawyers group began formulating master agreements for spot, forward, and options transactions. The first agreement, the International Currency Options Market Master Agreement, was finalized in 1992. The following year the International Foreign Exchange Master Agreement (IFEMA) was completed.[28] As with the earlier netting agreements, IFEMA was backed by state law (in particular, jurisdictions in New York and England). At this time, the ability of these contracts to minimize regulatory capital became a significant element in their development. It was a central factor spurring the completion of IFEMA and its utilization by financial firms.

As IFEMA was being finalized, an accounting rule requiring banks to report unrealized gains and losses from trading on their balance sheets was being changed. The Financial Accounting Standards Board's Interpretation 39 created a link between IFEMA and Tier 1 capital requirements. Interpretation 39 specified when and under what conditions financial institutions could offset particular assets and liabilities on their balance sheet. Instead of having to list each asset and liability separately, the firm only had to report net, as opposed to the gross, transaction amounts. Lower levels of assets or liabilities could thus be reported, and as a result, Tier 1 capital ratio requirements could be lower. Besides providing this general guidance, Interpretation 39 permitted such offsetting when legally enforceable master agreements were used. Notes from an FXC meeting capture the importance of the new rule for the speedy completion of IFEMA:

> *A co-chairman of the Market Structure subcommittee then discussed FASB Interpretation 39, released in March 1992. This statement clarifies the conditions under which institutions are required to report on their balance sheets the gross value of their marked-to-market credit exposures on derivative products. The subcommittee co-chairman said that Great Britain reportedly has a similar accounting convention. He stated that this interpretation, which will go into effect for most institutions in the first quarter of 1994, can significantly affect institutions' capital ratios. For banks, changes in capital ratios can incur a real cost in terms of FDIC risk-based premiums.*
>
> *The co-chairman added that Interpretation 39 allows these gross exposures to be netted for counterparties which whom there are master agreements including ongoing netting or close-out in case of default. This allowance should spur interest in netting agreements such as the ISDA master*

28 In the case of the latter agreement, its formation was driven by the increased use of netting as a standard procedure and a need to develop standard procedures for settling trade disputes (i.e. confirmation procedures and settling disputes using taped phone conversations).

> *agreement and the spot-and-forward agreement currently being drafted by the Lawyers Group. The co-chairman added, however, that systems to track netted exposures by counterparty still need to be put into place at many dealers.*[29]

As noted in the above excerpt, IFEMA satisfied those conditions as specified in Interpretation 39. This alteration in accounting rules was, moreover, an important factor spurring the completion of the agreement. The "enormous capital benefits for every institution using the agreement" actually were identified as a significant point to stress when FXC representatives encouraged other institutions to adopt the agreement.[30]

The impact of the master netting agreements on financial institution regulatory capital levels did not simply spur the completion of IFEMA and become a feature in its promotion. It appeared to be behind financial institutions' decisions to begin utilizing these model contracts. As noted by the Bank for International Settlements (BIS) in 1996, several years after the agreement was finalized, liquidity and the minimization of regulatory capital were a factor in financial institutions' use of IFEMA:

> *However, despite the potential risk-reducing benefits, the market survey indicated that not all banks use bilateral obligation netting agreements. When they do net, more often than not their netting is limited to close-out provisions (mainly to take advantage of favourable capital treatment of netted positions and to improve their leverage ratio), while routine settlements continue to be conducted on a gross, trade-by-trade basis. Obligation netting is mostly confined to the largest banks and their largest counterparties (BIS 1996: 16).*

Two points stand out from the BIS analysis. The first is that master netting agreements were utilized due to their impact on regulatory capital levels. In this manner, these model contracts were used as a mechanism for a type of regulatory arbitrage in relation of capital requirements. The second was that the benefits accruing from the use of master netting agreements was not uniformly distributed across the market. Larger firms were better positioned to employ these contracts. Implementing such agreements was costly and required a high level of operational capacity. They also depended upon repeated bilateral dealings in the same currency for the same value date. Because of their size and participation in the

29 FRBNYA, 260.01, "Foreign Exchange Committee Meeting," June 4, 1992.

30 FRBNYA, 260.01, "Foreign Exchange Committee Meeting," February 2, 1994.

interbank market, the larger financial firms were better poised to take advantage of the lower regulatory capital levels enabled by the master netting agreements. Liquidity might have remained a key driver behind the use of these agreements, but the balance sheet benefits were dependent on the size and wealth of the financial institutions engaging in foreign exchange transactions.

While the restructuring of liquidity was one way the master netting agreements became constitutive of the FX market, another dimension emerged as the use of these model contracts became more widespread. Upon the completion of a trade the terms of the deal such as price and the type of transaction were confirmed. Confirmations were always contractual and binding arrangements even if they were only verbal and based on implicit understandings of rights and obligations. As the use of master netting agreements became more widespread, however, confirmations acquired a decidedly explicit legal hue. Once two institutions began using the master netting agreements, they became the standard terms employed for the different types of currency deals specified by the model contract. Any variations from these standard terms had to be documented at the time of the trade. As the use of the model contracts grew, confirmations became legal devices that directly referenced the master netting agreements. In this manner, the confirmation became the tip of the legal documentation iceberg and thus constitutive of the FX market.

The history of master netting agreements point to how law does not simply impact the scope of the global foreign exchange market and the institutions tasked with regulatory oversight. The comparison of the different trajectories of FOREXCO and later master netting agreements versions, indicate the critical importance attached to these contracts having state backing. Even if they specified standard terminology that might reduce uncertainty in foreign exchange dealing, they only gained traction in the market when the model contracts were enforced by states. Once this was secured, the adoption of master netting agreements increased. Initially this was related to their ability to minimize levels of free capital. Later, and through the joint efforts of public and private actors, netting by novation was linked to regulatory

capital. Parties to these model contracts could now use them to minimize the amount of regulatory capital allocated to foreign exchange trading. As a result, state-enforced master netting agreements constituted the global foreign exchange market by restructuring liquidity.

Conclusion

A recent discussion of the preeminent master netting agreements – the ISDA model contracts – focused on how portions referring to national courts and jurisdictions in this private transnational law were not mere "window dressing" (Braithwaite 2012). While ISDA master agreements contained provisions for the use of private arbitration, national courts were identified as fulfilling and even performing more effectively the functions attributed to private dispute resolution (ibid). By making interpretations that recognized the statute character (Choi and Gulati 2005-2006) of these model contracts, the courts were seen to play a critical role in supporting and reinforcing the "private practices that underpin the ISDA documentation" (Braithwaite 2012: 800). While noting the importance of national courts for the operation of the OTC derivatives markets, the argument was based upon the presupposition that ISDA master contracts were a form of private transnational law operating independently of the state. Only after the fact were state institutions playing an important role.

Yet, as revealed by the history of the master netting agreements, of which the ISDA contracts are a subset, this premise is flawed. State enforcement was not ancillary to these contracts or a factor that only became important after they were widely used in markets. Instead, as revealed by the divergent trajectories of FOREXCO and the FXC master netting agreements, the use of these contracts was dependent upon their state-based enforcement. Without this foundation the master netting agreements would have faced a similar fate as FOREXCO. As demonstrated by the history of these two model contracts, even in the most globalized financial market the state remains the ultimate guarantor and enforcer of economic rights (Sassen 2006).

The history of the master netting agreements indicates another substantial role for law in the foreign exchange market. State-enforced netting by novation was always a tool for minimizing the amount of free capital allocated to foreign exchange trading. After the master netting agreements began to be used by financial institutions, however, state, market, and quasi-state actors created a linkage between netting by novation and close-out netting and regulatory capital. Initially this appeared to include getting netting by novation's "foot in the door" through its inclusion in *Basle I.* Several years later the link between netting by novation and Tier1 capital was sufficiently established that it was included in accounting conventions. In this manner the master netting agreements reconfigured liquidity in the global foreign exchange market. Archival evidence even demonstrated the importance of this liquidity dimension for spurring the completion of IFEMA and its impact on financial firms utilization of such model contracts. The state-backed master netting agreements thus restructured liquidity, and as a result, constituted the foreign exchange market.

The critical importance of state enforcement present in the master netting agreements was also evident with the TA. The TA and subsequent collaborative efforts by state, market, and quasi-state actors to defend its key tenets were all oriented around limiting the regulatory authority of the CFTC over foreign exchange, government securities, mortgage and other OTC markets. The TA thus acted as a boundary protecting existing governance arrangements and, ironically, gave the New York node of the global foreign exchange market its "unregulated" appearance. While the data presented focused on the U.S., a similar governance arrangement, emphasizing flexibility and implicit codes, appears to exist in the most important trading node in the global foreign exchange market – London. In the United Kingdom (U.K.), only certain instruments traded in the foreign exchange market are subject to regulation by the Financial Services Authority. The instruments falling under the oversight of this agency have a surprising familiar designation including being traded on an organized exchange or taking the form of an exchange traded instruments. Transactions conducted in sterling; the foreign exchange and bullion wholesale deposit markets; and in the spot and forward foreign exchange and bullion markets are not regulated by

the Financial Services Authority (FXJSC 2009). Instead these markets fell under the Bank of England's oversight. A familiar set of governance institutions, to those in New York, also exist in the U.K. markets – the London Foreign Exchange Joint Standing Committee and the Financial Markets Law Committee (both operating under the auspices of the Bank of England). As a result, in London the "unregulated" character of the London foreign exchange market also appears to be legally constructed.

Together the TA and the master netting agreements recover the importance of the state enforcement in the global foreign exchange market. As a result, conceptualizing the market as unregulated market, in contradistinction to the more regulated global markets, such as securities, is problematic. While the relationship between states and the foreign exchange market was clearly altered by liberalization, the importance of states in markets did not disappear. Like the securities market, the foreign exchange market was subject to both dynamics of liberalization and reregulation. States remained, moreover, the ultimate guarantor of rights. Thus while the foreign exchange market might be the closest to the ideal of a global financial market, it does not operate outside the purview of states. In fact, state enforcement remains a critical factor in the structure and functioning of even this apparently "unregulated" market.

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