Alexander Engel/Boris Gehlen

»The Stockbroker's Praises are Never Sung«

Regulation and Social Practices in U.S. and German Stock and Commodity Exchanges, 1870s to 1930s

In the aftermath of the 1907 financial panic, the United States witnessed the rekindling of a longer standing debate on how to improve their comparably weak financial institutions. Several legislative committees on both the state and federal level compiled a vast amount of material about the monetary and banking system as well as about exchanges. The most prominent output of these public debates was the formation of the Federal Reserve System in 1913[1], while for the moment a public regulation of exchanges was kept off the table, not least due to the exchanges' successful lobbying. One widely received contribution to the public debate on stock exchange reform was a voluminous book by William C. Van Antwerp, the secretary of the New York Stock Exchange (NYSE), who in 1913 lachrymosely complained about his peers' public image:

> »The stock broker's praises are never sung; if he has good qualities, one seldom hears of it. [...] In the novels and on the stage he becomes sleck [sic], cunning, convivial, and slippery, while there is ever about him a rank smell of money and a Machiavellian sublety [sic] that enables him to get something for nothing.«[2]

Not surprisingly, Van Antwerp's own view on stock brokers was quite different. Selection processes within the stock exchange would guarantee that only the best characters – regardless of their social origins – could deal in the stock markets. »Nowhere else among business men does this silent and sure appraisal of worth find a more perfect result.«[3]

Obviously, public views and self-images of stockbrokers, commodity traders and other persons who actively traded at the stock and commodity exchanges in modern capitalist societies were, and are, extremely disparate. On the one hand, those »greedy speculators« appear to threaten public welfare, to trigger financial and economic crises, to turn serious business into despicable gambling, and thus to constitute a major intrinsic problem of capitalism. On the other hand, they are described as agents of efficiency, as promoters of general prosperity and financial participation (as well as democracy), as most honourable representatives of the cutting edge commercial institution. This extreme antagonism of views is not specific to certain times or places. It is rather invariant, and the core positions, arguments, and tropes are surprisingly persistent over time and space.[4] It is somewhat astonishing that, at least on the face of it, there never really developed a prominent middle ground between veneration and damnation of the exchanges, given on the one hand the continuous existence and central economic role of exchanges (hinting that a certain fruit-

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1 *Eugene N. White*, The Regulation and Reform of the American Banking System, 1900–1929, Princeton 1983; *Niels Frederick Krieghoff*, Banking Regulation in a Federal System. Lessons from American and German Banking History, Diss., London 2013.

2 *William C. Van Antwerp*, The Stock Exchange from Within, New York 1913, p. 261.

3 Ibid., p. 264.

4 See *Alexander Engel*, Futures and Risk: The Rise and Demise of the Hedger-Speculator Dichotomy, in: Socio-Economic Review 11, 2013, pp. 553–576; *Alexander Engel*, Zank um Zwiebeln. Kontroversen um agrarischen Börsenterminhandel in den USA (1954–72), in: Bankhistorisches Archiv 39, 2013, pp. 40–58. A current perspective on stock exchanges' ethics: *Sven Grzebeta*, Ethik und Ästhetik der Börse, München 2014.

fulness of the institution has become acknowledged) and on the other hand the constant evolution of an ever stronger framework of rules within which the exchanges operate (as evidence of their destructive potential).

While there are limits for the institutional approach to economic and social history that became so prominent in the last two decades, there is certainly upside in treating the exchange as a rule-based system. Stock as well as commodity exchanges are characterized by the extreme ease and efficiency with which transactions can be conducted. In open outcry trading on the exchange floor, it takes nothing more than two or three quick gestures to buy and sell tons of grain or an interest in a company. To do this literally in the blink of an eye is possible only because all the conditions of every such transaction, the way it is to be conducted and what constitutes good and bad practice, have already been explicated, agreed on and meticulously formalized and written down beforehand. The rulebook of the exchange tries to do away with any uncertainty, any unpleasant practice that may arise, focusing the trade on the only two parameters that matter: How many for how much? It is evident that, while firmly set and fixed in the short run, the whole set of rules with and under which the exchanges operated changed in the long run, or at least was discussed to be changed. The written rules and the processes that developed them were, furthermore, embedded in another set of informal rules, in the dynamics of the social groups involved, and the discourses by which the practices became conceptualized and judged.

In the following, we will analyze the evolution of regulatory frameworks, social practices, and discourses concerning stock and commodity exchanges in the United States[5] and Germany[6] from the 1870s to the 1930s. The American case is usually viewed as the most important, most progressive and aggressive instance in the development of modern financialized capitalism. Germany, in contrast, is often cited as an example of a more reluctant approach, a more embattled and uneasy appropriation of modern industrial and financial capitalism against strong conservative resistance. However, such preconceptions overstate differences for the period up to 1930. They downplay both the strong reservations in U.S. society to many aspects of modern capitalism and the degree to which exchanges as commercial institutions were actually advanced and embraced in Germany, especially so in the realms of economic theory. This could be elaborated in a comparative approach, but a comparison is explicitly not what the following chapter is about. Rather, treating both the U.S. and the German case is intended to broaden the stage, so to speak, to get a wider view on concurrent developments that can be found in many countries at the time and to stress how these developments influenced and referenced another.

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5 Some background on the U.S. case: *Jerry W. Markham*, The History of Commodity Futures Trading and its Regulation, New York 1987; *Mary O'Sullivan*, The Expansion of the U.S. Stock Market, 1885–1930: Historical Facts and Theoretical Fashions, in: Enterprise and Society 8, 2007, pp. 489–542; *Julia C. Ott*, When Wall Street Met Main Street. The Quest for an Investors' Democracy, Cambridge/London 2011; *Jonathan Levy*, Freaks of Fortune. The Emerging World of Capitalism and Risk in America, Cambridge/London 2012.

6 For the German exchanges, see for example: *Rainer Gömmel*, Entstehung und Entwicklung der Effektenbörse im 19. Jahrhundert bis 1914, in: *Hans Pohl* (ed.), Deutsche Börsengeschichte, Frankfurt am Main 1992, pp. 135–290; *Knut Borchardt*, Einleitung, in: *id.* (ed.), Max Weber. Börsenwesen. Schriften und Reden 1893–1898, Tübingen 1999, pp. 1–111; *Morten Reitmayer*, Bankiers im Kaiserreich. Sozialprofil und Habitus der deutschen Hochfinanz, Göttingen 1999; *Christof Biggeleben*, Das »Bollwerk des Bürgertums«. Die Berliner Kaufmannschaft 1870–1920, München 2006; *Alexander Engel*, Die Regulierung des Börsenterminhandels im Kaiserreich, in: Bankhistorisches Archiv 38, 2012, supplement 48, S. 27–39; *Boris Gehlen*, ›Manipulierende Händler‹ versus ›dumme Agrarier‹: Reale und symbolische Konflikte um das Börsengesetz von 1896, in: Bankhistorisches Archiv 39, 2013, pp. 73–90.

Public attention for the phenomenon of stock and futures trading clearly peaked whenever it went catastrophically wrong, i.e. in the context of financial and economic crises. While stock market crashes had been discussed publicly for as long as they had happened, the crash of 1873 and the subsequent economic downturn in Europe and North America can be viewed as the first major crisis in a new setting. For long, exchanges were rather peripheral institutions for the economy as a whole. With the rise of the modern company and with bigger businesses (financed through the issuance of shares) becoming the backbone of an industrial economy after the middle of the 19th century, stock exchanges took centre stage. Concurrently, commodity exchanges rose to prominence in an increasingly globalised commodity trade. Thus, the beginning of the 1870s marks the beginning of our analysis. The end of it is given by the Great Depression, a crisis so severe it left Germany and the United States with fairly different economic orders, both compared with each other and their former ones.

In between the larger crashes of 1873 and 1929, a number of smaller crashes and market turbulences occurred, as well as other instances of public concern, like market manipulations and corrupt brokerage practices. In the following, we will focus on a selection of such events that catalysed discourses about the exchanges' character and caused efforts towards institutional reforms and regulations. We describe commercial practices, regulations and rules as well as semantics and narratives in order to comprehend how the exchange worked as a social entity and to what extent the alleged social coherence of traders as a group had an impact on politics and public regulations. We focus on processes in which rules and institutions in the affected markets were considered to be revised, regardless whether new rules were sought to be implemented by law or by a self-governing body. In doing so, we refer to Friedrich August von Hayek's assumption of competition as a discovery procedure as well as to Hansjörg Siegenthaler's figure of fundamental learning.[7] Both assume that market actors are able to learn and to adjust transactions and institutions effectively in order to increase or regain stability. Beyond that, especially Siegenthaler stresses the role of uncertainty and the recourse on experience as a guide in times of fundamental changes which might explain the resilience of established frameworks, not only in financial markets. Our hypothesis is that in and after speculative overtrading or episodes of malpractice, a radical institutional change often is demanded but seldom implemented, because experience and specific market knowledge – and to a certain extent experience and knowledge-based power – of both market participants and political protagonists lead to an evolution of market institutions instead of a systemic revolution.

Basically, four fields of institutional evolution enter the limelight: First, the attempt to set up national rules and regulations under which the exchanges were allowed to operate; second, the rules of the organized market itself which were generally implemented by an exchange as the market's governing body; third, the contract design of items dealt in, i.e. futures, stocks and other securities, whose binding nature and information quality are essential for functioning markets and effective price-finding; fourth, the regulation of transactions in these items, and thus the composition and performance of market actors. Rather than reconstructing the institutional evolution in these four fields in the U.S. and German exchanges comprehensively (that would require a whole book of its own), we take the liberty of highlighting especially interesting developments. Regarding the U.S. case, we focus on the NYSE as the prototypical stock exchange and also take a look at the Chicago Board of Trade (CBOT) as the world's most important commodity exchange. The U.S.

7 *Friedrich August von Hayek*, Der Wettbewerb als Entdeckungsverfahren, Kiel 1968, pp. 8–10; *Hansjörg Siegenthaler*, Regelvertrauen, Prosperität und Krisen. Die Ungleichmäßigkeit wirtschaftlicher und sozialer Entwicklung als Ergebnis individuellen Handelns und sozialen Lernens, Tübingen 1993.

exchanges were essentially self-regulated for most of the time we look at, while the German exchanges had been subjected to public oversight and regulation to a much higher degree. Therefore, we will discuss the German case more generally, focusing only occasionally on specific exchanges, notably the (stock and produce) exchange in Berlin, which became especially targeted in German discourse and legislation.

In the following, we first give an overview of the public and academic discourse on exchanges. We then turn to the institutional makeup of the exchanges, especially regarding their membership. The rivalry between exchanges and the effect of this rivalry on the formation of rules is studied in section III, the position of the organized exchanges to more informal and less organized trading places in section IV. The four remaining sections are devoted to the chronological development of exchange regulation, starting with the challenge of the 1873 crisis. Section VI deals with the reinforced attempts and struggles of legislators to create comprehensive exchange laws in the 1890s, with a focus on the German *Börsengesetz* of 1896. The two final sections give an overview of the emergence of a new regulatory regime in the United States following the widely discussed German example: Section VII highlights the crisis of 1907 as a catalyst to regulatory change, section VIII shows the subsequent development in the 1920s, notably the emergence of a commodity exchange law, and gives an outlook of the regulatory impact of the Great Depression.

I. Exchanges in Public Opinion and Academic Discourses

While stock and commodity exchanges can be considered key components of the modern capitalist economy only after about 1870, they had already existed in Europe for more or less than three centuries.[8] The public and academic discourse on the exchanges since the 1860s connected to earlier views especially on the stock and bond markets, which were unanimously negative. Both the public and early economists considered the »paper exchanges« as mere gambling-houses, which were not only unproductive for society (as they did not create any wealth but just redistributed it randomly), but also brought out the worst in people: greediness, readiness to cheat (e.g. by spreading false rumours) and last but not least an overall deterioration of proper manners.[9]

A shift from utter disapproval to a distinctively ambivalent view becomes visible in the middle of the 19th century, notably in French writing.[10] Mostly referring to the financing of railways, the socialist and anarchist Pierre-Joseph Proudhon attributed a productive function to stock exchange speculation: the well-judged allocation of capital.[11] The productive effect, however, appears as inseparable from the destructive side of speculation. In

8 *Fernand Braudel*, Civilization and Capitalism 15th–18th Century, vol. 2: The Wheels of Commerce, Berkeley/Los Angeles 1992, pp. 97–114; *Oscar Gelderblom/Joost Jonker*, Amsterdam as the Cradle of Modern Futures Trading and Options Trading, in: *William N. Goetzmann/K. Geert Rouwenhorst* (eds.), The Origins of Value. The Financial Innovations that Created Modern Capital Markets, Oxford/New York etc. 2005, pp. 189–205; *Lodewijk Petram*, The World's First Stock Exchange, New York/Chichester 2014.

9 Two 18th century accounts that reflect this: *Thomas Mortimer*, Every Man His Own Broker. Or, A Guide to Exchange-Alley, London 1765; *Honoré-Gabriel Riqueti de Mirabeau*, Dénonciation de l'agiotage au roi et à l'Assemblée des notables, s.l. 1787.

10 On the following, see also and in more detail: *Alexander Engel*, Vom verdorbenen Spieler zum verdienstvollen Spekulanten. Ökonomisches Denken über Börsenspekulation im 19. Jahrhundert, in: Jahrbuch für Wirtschaftsgeschichte/Economic History Yearbook 54, 2013, issue 2, pp. 49–70.

11 *Pierre-Joseph Proudhon*, Manuel du spéculateur à la bourse, 3rd edition, Paris 1857, pp. 1–8.

a similar vein, Émile Zola later, in 1891, depicted the bourse of Paris in his novel »L'Argent« (»The Money«) as a place that ultimately brings massive destruction and even death to the lives of people engaging in a speculative frenzy, but that frenzy brings life and prosperity to poor, underdeveloped areas of the Levant at the same time, as the Parisian investments are channelled there.[12]

A still more consequential reinterpretation of exchange-related speculation was delivered by German economists, starting in the 1860s. Otto Michaelis[13] and, especially, Gustav Cohn[14] reinterpreted exchange-related speculation as productive: The exchange allowed for effortless speculation on price differences and thus could lead to a most foresightful, exact pricing and consequently to less volatile prices. This idea not only pertained to stock and bond markets, but first and foremost to commodity exchanges, especially grain exchanges. The emergence of futures trading at commodity exchanges since the middle of the 19th century had allowed speculation on commodity price differences, both on rising prices (bull speculation) and falling prices (bear speculation) without actually acquiring or selling the commodity in question: in futures markets, standardized contracts for future delivery of a good were traded that did not refer to a specific, existing quantity of the good, but to an abstract quantity. Instead to deliver or take the good, usually both parties agreed on a cash settlement that involved no delivery, resulting in rather speculative markets that were seemingly disconnected from the effective trading of the good, but nevertheless dominated the pricing of the good.

While Cohn believed that the practice of futures trading principally allowed for productive speculation that enhanced the pricing process by focusing on the allocation and processing of information – undisturbed by the demanding efforts of actually and properly handling grain, cotton, sugar, coffee, and the like –, he strongly rejected the Scottish idea that markets produce correct, optimal results more or less »automagically«. Instead, Cohn shared the traditional view on exchanges as disgusting places of immoral manoeuvres and manners. In terms of concepts, the exchange-based speculative market was viewed as the ultimate form of a most highly developed market, but practically, real markets of that type appeared so deficient that they called for reform, to advance the speculative markets towards the ideal, in order to allow them to fulfil their »economic purpose«. In other words, the enrooted animosity against the bourse was reframed: The exchange appeared no longer as an inherently bad institution, but on the contrary as a potentially fruitful one, that, however, unfortunately was misused by persons of bad character, with bad manners and unsuitable motives. That idea necessitated a conceptual separation of useful and unwarranted speculation. In rationalizing the persona of the speculator, denying its ›animal spirits‹, and – similar to Van Antwerp – liking it to the soberly calculating »honourable merchant«, useful speculation was vested in professional speculators (depicted as well-capitalized and intellectually capable). Amateur speculators had to be excluded or educated.

While the German economists developed well-reflected theories on the principal usefulness of speculative markets – a theoretical basis that served as a starting point for the 20th century academic discourse on speculation, which by and large took place in U.S. academia –, the public in Germany, wider parts of Europe, and even North America kept

12 *Émile Zola*, Money (L'argent), London 1902.

13 *Otto Michaelis*, Die wirtschaftliche Rolle des Spekulationshandels (1. Abschnitt), in: Vierteljahrschrift für Volkswirtschaft und Kulturgeschichte 2, 1864, pp. 130–172.

14 *Gustav Cohn*, Zeitgeschäfte und Differenzgeschäfte, in: Jahrbücher für Nationalökonomie und Statistik, 1866, no. 7, pp. 377–428; *Gustav Cohn*, Die Börse und die Spekulation, Berlin 1868; *Gustav Cohn*, Ueber Differenzgeschäfte, in: *id.* (ed.), Volkswirtschaftliche Aufsätze, Stuttgart 1882, pp. 669–704.

a most sceptical, often furious view on the exchanges and their speculative markets.[15] Compared to the older discourse, it became less of an issue that effortless speculative profits seemed socially unjustified compared to earnings from productive, hard »honest labour«. Instead, the key role of exchanges for the workings of the modern capitalist market economy, as it had developed in the middle and late 19th century, became the main concern. The mayhem of speculation was no longer affecting only those people who chose to enter the gambling house. Instead, stock market crashes became connected to general economic downturns, and price movements generated at grain, sugar, coffee, or cotton exchanges concerned the life of the masses, which spend the lion's share of their budget on food and other basic necessities.

Building on the traditional narrative of exchange speculation as a pernicious, manipulative practice, unfavourable price developments were attributed to the wrongdoings of speculators. Both the commotions resulting from the occasional economic downfall of larger market participants and the alleged everyday ruin of ordinary men tempted into speculation reinforced a sense of menace within the society. Hence, the agenda of German political economists like Cohn to exclude small outsiders from the exchange was rooted equally in the notion that their alleged incompetence affected the pricing process and in the conviction that they – and society at large – need to be protected from themselves. Time by time, the position softened, and more effective education on financial matters became preferred over bare exclusion. Especially in the U.S., speculation by the general public became more and more accepted or even welcomed, even if the alleged incompetence of the stockholding men in the street was brought forward (by the bigger players in the markets) as an explanation for the 1929 crash. However, even in the U.S. stock markets of the late 1920s, active public participation remained limited.[16]

The public opinion, anyway, targeted the larger players as culprits and the small outsiders as victims. The common conceptualization of the speculative market as organized on the floors of the exchanges consisted for the most part of two parties of professional speculators conducting a tug of war: bear speculators that were specialized in and profited from bringing prices down on the one hand, and bull speculators on the other hand, who effectuated and fed on rising prices. The unwitting men in the street, who tried their luck at the exchange, were seen as neither bulls nor bears, but lambs to fall victim to either side.

The drama of such a tug of war is depicted in one of the closing chapters of Zola's novel, and even more broadly and detailed by Frank Norris in his 1903 novel »The Pit«.[17] According to Van Antwerp, contemporary stock brokers accepted »with good the epic touch of playwright and novelist who thus take poetic liberties with them and their profession. But the iron enters into their souls when you term them non-producers and parasites«.[18] The stock brokers' sensitivities notwithstanding, such stereotypes were part of an anti-capi-

15 Some examples of pamphlets that reflect this view: *Henry D. Lloyd*, Making Bread Dear, in: The North American Review 137, 1883, no. 321, pp. 118–136; *Charles William Smith*, Commercial Gambling: The Principal Causes of Depression in Agriculture and Trade, London 1893; *Gustav Rühland* [= *Gustav Ruhland*], The Ruin of the World's Agriculture and Trade. International Fictitious Dealings in Futures of Agricultural Produce and Silver, with Their Effect on Prices, London 1896.

16 In the months before the crash, about seven or eight million U.S. citizen held stock, which equals about an eighth of the adult population or a quarter of all U.S. households. While this represents a sizeable part of the population, it should be noted that the majority of stock holders held them passively. For example, only 1.5 million Americans had a brokerage account. *Edwin Burk Cox*, Trends in the Distribution of Stock Ownership, Philadelphia 1963, p. 63; *Ott*, When Wall Street Met Main Street, p. 2.

17 *Frank Norris*, The Pit. A Story of Chicago, New York 1903.

18 *Van Antwerp*, The Stock Exchange from Within, p. 262.

talistic rhetoric that, however, had a more lasting impact on German than on U.S. political debates. More or less similar in both countries was the farmers' scepticism about capital markets and exchanges, especially commodity exchanges.

In the United States, this sentiment carried the populist movement which became organized in the short lived »People's Party« (1891–1908). It had a considerable impact on U.S. politics in the early 1890s but left no lasting imprint. Still, the distrust of farmers towards the commodity exchanges remained deeply entrenched. In its fight against tougher federal legislation in the 1920s, the CBOT intensified its public relations efforts towards farmers, as they found that »there exists in rural districts a majority opinion that is hostile to the Board of Trade«.[19] In Germany, the criticism of the farmers mingled with anti-capitalist, right-wing, nationalistic (and ›*völkisch*‹), as well as anti-Semitic narratives.

On the moderate end of the spectrum, German political economist Gustav Ruhland, in an 1896 pamphlet on behalf of the »German Farmers' Union«, went sick about the fact that venerable commodity business such as the grain trade was turned into a »›a Monte Carlo without the music‹, at which the great international capitalists sit and hold the bank«.[20] Futures trading, Ruhland raged on, constituted gambling with bread, »an abuse of bread directly antagonistic to the spirit of Christianity that must be forbidden in a Christian State«. On the more extreme end of the spectrum, anti-capitalistic and anti-Semitic writings as such of Otto Glagau, Friedrich Kolk or Arthur Richard Weber[21] had become quite popular in the wake of the 1873 crisis. Kolk and Weber went so far as to explicitly interpret the system of speculative markets as being a Jewish conspiracy.

Most of the political parties were at least sceptical about exchanges and stock brokers. Only the liberal parties generally promoted exchanges, while all others – for different reasons – attacked them, aimed for (strict) public regulation, or wanted to abolish them straight away. Especially during the discussion about the Stock Exchange Act since the 1880s and 1890s, the political climate was rather hostile for the German exchanges.[22] Still, their outright abolishment was not up for serious discussion, at least since around 1900. Instead, the conversation shifted to potential ways in which ›bad speculation‹ could be eliminated without hurting ›good speculation‹. Could one trust, as Van Antwerp did in the U.S. case, the internal mechanisms and the self-regulation of an exchange to bring up commendable stockbrokers and commodity traders? Or, as Cohn believed, was government intervention necessary to achieve that aim? In order to discuss such questions, it is necessary to turn to the actual institutional makeup of the exchanges.

II. The Exchanges: Access and Participation

The role model of (stock) exchanges in the U.S., the NYSE, allowed only members to trade at the exchange for own and third-party account. For the number of members was strictly limited to 1,100 since 1879 (previously 1,060 since 1869) by the exchange's constitution, market access was exclusive. The NYSE laid down and enforced rules not only

19 Report of the Special Public Relations Committee, 1924, in: The University of Illinois at Chicago, Chicago Board of Trade Records, series V, subseries 3, box 279, file 7/14 (»1935–1936«).

20 *Ruhland*, The Ruin of the World's Agriculture and Trade, p. 51.

21 *Otto Glagau*, Der Börsen- und Gründungsschwindel in Berlin. Gesammelte und stark vermehrte Artikel aus der »Gartenlaube«, Leipzig 1876; *Friedrich Kolk*, Das Geheimnis der Börsenkurse und die Volks-Ausraubung durch die internationale Börsen-Zunft, Leipzig 1893; *Arw Solano* [= *Arthur Richard Weber*], Der Geheimbund der Börse, Leipzig 1893.

22 *Gehlen*, ›Manipulierende Händler‹ vs. ›dumme Agrarier‹.

for membership, but for every issue considered worth to be governed. Thus, it was a self-governing body responsible to no other than its members.[23]

Contrary to Van Antwerp's quoted allegation, access to the exchange thus did not depend so much on »character« or »skills«, but on solid financial background, networks, and co-optation. The strict limitation of membership created a captive market for access – with increasing prices for a seat (Figure 1). Despite some cyclic and crises-induced downturns (1893, 1907), prices rose almost continuously from the 1870s onwards. In 1901, e.g., a membership amounted to the 160-fold of a blue-collar worker's annual wage.[24] As a result, the NYSE gradually became a more and more exclusive organization which was dominated by New York's financial elite and reminded contemporaries of plutocratic structures.[25] In 1910, the 1,100 members of the exchange represented only 448 firms. That indicates a further concentration process and the emergence of larger financial business groups. Moreover, the most renowned and influential ones – »J. P. Morgan & Co.« on the one hand, »Kuhn, Loeb & Co.« on the other hand – symbolically represented the two (respectively three) major ethnic groups within the Exchange: By far the largest group was of Anglo-American origin (60–67%), followed by Germans (7–8%) and Jews (8–9%) – the latter often being of German origin as well. As an effect of the First World War, German Bankers partially lost influence within the exchange.[26]

While the membership composition of the CBOT[27], the dominant grain exchange of the United States, differed from the NYSE, organizational principles were very much the same. The CBOT had not been founded as an exchange at all, more as a business club intended to develop into a chamber of commerce.[28] Instead, the rooms of the Board became used more and more often for business transactions, marking the beginnings of an exchange that henceforth became the main purpose, and, finally, synonymous with the CBOT. The board expanded from 535 members in 1860 to 1,793 in 1880 and stayed at about that size in the following decades (1,808 in 1900, and 1,610 in 1920).[29] Originally made up only of Chicagoans from many different lines of business, the body of members both narrowed in on grain dealers, commission merchants, and brokers and expanded geographically to incorporate ever more members from all over the Grain Belt, the United States, and finally, the world; a certain focus was on New York members (about 8% in 1920). As at the NYSE, trading in the Chicago pits was limited to CBOT members, but, in contrast to the

23 *Ranald C. Michie*, The London and New York Stock Exchanges, 1850–1914, London 1987, p. 194.

24 Own calculations referring to Historical Statistics of the United States 1789–1945. A Supplement to the Statistical Abstract of the United States. Prepared by the Bureau of the Census with the Cooperation of the Social Science Research Council, Washington 1949, p. 68.

25 *Richard Ehrenberg*, Börsenwesen, in: Handwörterbuch der Staatswissenschaften, 2nd edition, vol. 2, pp. 1024–1052, here: p. 1033.

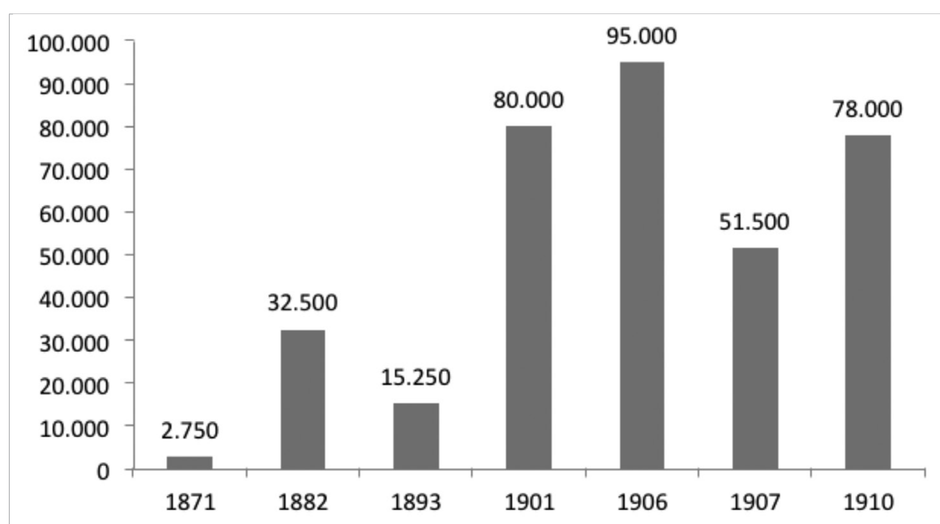
26 For data see *Petra Moser*, An Empirical Test of Taste-Based Discrimination Changes in Ethnic Preferences and their Effects on Admissions to the NYSE during World War I. NBER Working Paper 14003, 2008, URL: <http://www.nber.org/papers/w14003> [1.11.2016], pp. 11–12; for a description of New York's financial elite see *Susie Pak*, Gentlemen Bankers. The World of J. P. Morgan, Cambridge/London 2013.

27 For the 19th century history of the exchange, see *Jonathan Lurie*, The Chicago Board of Trade, 1859–1905. The Dynamics of Self-Regulation, Champaign-Urbana 1979; *William G. Ferris*, The Grain Traders: The Story of the Chicago Board of Trade, East Lansing 1988; *William Cronon*, Nature's Metropolis: Chicago and the Great West, New York/London 1992, chapt. 3; *Levy*, Freaks of Fortune, chapt. 7.

28 *Charles Henry Taylor*, History of the Board of Trade of the City of Chicago, Chicago 1917, p. 146; *Lurie*, The Chicago Board of Trade, p. 25.

29 Own calculations from the membership lists in the Annual Report on the Trade and Commerce of Chicago for the years 1860–1923, compiled for the Board of Trade, Chicago 1860–1923.

Figure 1: Membership Prices at the New York Stock Exchange in US Dollars[30]



NYSE, the number of members was not fixed. In the late 1860s, any person of which the Board of Directors approved could become member for a modest initiation fee of $25.[31] Effective January 1, 1878, the requirements for new members were tightened, the initiation fee was upped to $1,000, and at the same time memberships became transferable. There are no readily available »market prices« for CBOT memberships, but the initiation fee for new memberships obviously served both as an upper boundary for the market prices and an indication of how much money interested persons were actually willing to pay. This fee was quickly increased to $5,000 at the end of 1881 and then to $10,000 starting in the year 1886. Then, the amount stayed constant for three decades until another increase to $25,000, effective January 1917. Even though these numbers were generally well below the prices of NYSE memberships, they as well served to confine membership privileges to the mercantile-financial elite.

It should be noted, however, that the exclusive right of members to deal at a stock or commodity exchange referred to *direct* market access (and influence to shape the rules), but, of course, *mediate* access (that came without influence to shape the rules) was possible as well. Generally, specialized brokers, brokerage firms, investment banks, and later investment trusts or – in the German case – universal banks acted as intermediaries of orders for third-party account and charged commissions for it. Due to a concentration process in both countries, institutional actors became dominant at the exchanges in the long run and their interests influenced the market design to a certain, but only a certain, extent.

At least in the 1870s and 1880s, the German exchanges were self-regulated bodies just as their U.S. counterparts, but they were being operated mostly by the semi-public chambers of commerce or similar bodies and their constitutions usually had to be approved by

30 Source: *Kurt von Reibnitz*, Die New Yorker Fondsbörse (Stock Exchange). Ihre Geschichte, Verfassung und wirtschaftliche Bedeutung, Halle a.d. Saale 1912, S. 86, for a larger data series see *Moser*, An Empirical Test of Taste-Based Discrimination Changes in Ethnic Preferences and Their Effects, Figure 3.

31 This and the following is taken from the Rules and By-laws of the Board of Trade, as printed in the Annual Report on the Trade and Commerce of Chicago for the years 1869, 1877, 1881, 1885, and 1916.

a state government. Generally, every »honourable man« could trade at the exchanges; restrictions for market access were very low, and the markets by no means were exclusive.[32] At least this is true at first glance. While access was indeed barely regulated formally, the right to set and to enforce rules within the governing bodies usually was restricted to and defended by the same social group as in the United States: the financial and mercantile elite. For example, as Julia Laura Rischbieter has shown for the coffee exchange in Hamburg, the Association of Coffee Trading Firms (»Verein der am Kaffeehandel betheiligten Firmen«) managed to keep an exclusive access to the Hamburg coffee futures markets, especially by providing a clearinghouse (*Liquidationskasse*).[33]

A clearinghouse adds a level of security and control to a stock or futures market: Instead of trading directly with each other, running the risk of default by the counterparty, two traders used the clearinghouse as a middleman.[34] If one trader defaulted on the contract, it was to the harm of the clearinghouse (funded jointly by all traders), not the other trader. The use of a (certain) clearinghouse could be explicitly prescribed in the rules of the exchange, or (as in the case of the Hamburg coffee traders) it could become a de facto standard amongst insiders, effectually shielding against outsiders – who were allowed to trade at the exchange but were kept from using the clearinghouse – to enter into any deals.

Among the German exchanges, Berlin stands somewhat out; it became both the most important German stock market, as did the NYSE in the U.S., and it dominated German futures trading in grains even more clearly as the CBOT did North American trading. The *Ältestenkollegium* of the Berlin »Korporation der Kaufmannschaft«, which ran the Berlin Stock Exchange during the 19th century, was dominated by representatives of banks and merchant companies who usually originated from the bourgeoisie. Banking and finance in Imperial Germany remained socially exclusive, obstructing social mobility.[35] Correspondingly, neither institutions nor the composition of its bodies changed substantially when the leading position of the *Korporation* was finally successful attacked by the »Verein Berliner Kaufleute und Industrieller« which represented mostly businessmen of medium sized firms of the consumer goods industries.[36] Rather by informal arrangements than by formal regulations, the pattern of persons involved at the Berlin Exchange corresponded with the »concentric circles« Morten Reitmayer detected for the whole financial elite in Berlin with representatives of the large German banks in its centre, more or less affiliated private and regional bankers who depended on and cooperated with the large banks. However, the large banks never made full use of their market power but let the smaller ones participate in all businesses and governing bodies even in the exchange. Arguably, these banks got their market share by the grace of »Deutsche Bank«, »Darmstädter und Nationalbank«, »Dresdner Bank«, »Disconto-Gesellschaft«, and »Commerzbank« and their representatives – especially after the Stock Exchange Act of 1896 that accelerated concentration in German Banking.[37]

Other than the U.S. exchanges, which specialized either in equities or in commodities, German exchanges often combined both under one roof. As in larger German cities, a

32 *Borchardt*, Einleitung.

33 *Julia Laura Rischbieter*, Mikro-Ökonomie der Globalisierung. Kaffee, Kaufleute und Konsumenten im Kaiserreich 1870–1914, Köln/Weimar etc. 2011.

34 *Ernst Brenner*, Die Liquidationskassen der Terminbörsen, ihre Funktionen und ihre Struktur, Bonn 1926; *James T. Moser*, Contracting Innovations and the Evolution of Clearing and Settlements Methods at Futures Exchanges, Working Paper, Federal Reserve Bank of Chicago, Chicago 1998; *Peter Norman*, The Risk Controllers. Central Counterparty Clearing in Globalised Financial Markets, Chichester 2011.

35 *Reitmayer*, Bankiers im Kaiserreich, p. 122.

36 *Biggeleben*, Das »Bollwerk des Bürgertums«, pp. 111 and 116.

37 *Reitmayer*, Bankiers im Kaiserreich, pp. 53–66.

local exchange and a corresponding (municipal) regulatory framework had often been in existence since before the 19th century. New kinds of markets were usually attached as a new department to the existing organization, whereas in the United States they led to the establishment of new, specialized exchanges. The joint German treatment of stock and commodity exchanges is also reflected in the terms (»*Börsenterminhandel*« pertains to both stock and commodity time bargains, while the English term »futures trading« is limited to the specific practice of trading commodities in standardized contracts for future delivery) and the legislative efforts; the German consideration towards exchange reform made no clear distinction between either form, whereas in the U.S. the speculative markets for stocks and commodity were discussed in different public discourses. This, nevertheless, did not keep exchanges from attempts to widen their scope. The CBOT, for example, established the »Chicago Board of Trade Stock Exchange«, which was incorporated by the State of Illinois in 1887 but discontinued its service early in 1889.[38]

III. Self-Regulation and the Competition of the Exchanges

Ultimately, the supervisory authority of the German exchanges rested with the administration of the federal states they were located in. While U.S. exchanges were usually also formally incorporated by state governments, the exchanges were left utterly to themselves prior to the First World War and developed their own regulation according to »market needs«. Their success depended on their ability to attract members and – above all – transactions to the market they governed. The existence of rivals or competitive exchanges theoretically forced the bourses to anticipate and adopt favourable rules. Institutional competition could lead either to a race to the bottom or to a specialization by sophisticated laws (and favourable taxes) as can be observed with regard to corporate governance in the U.S. – making small Delaware become the »headquarter« of American corporations.[39]

In a similar manner, a division of business shaped the leading financial market in New York. The NYSE implemented high standards not only for membership but also for the listed securities – including specific publication requirements in order to improve transparency. In consequence, mostly secure standard securities – such as government bonds or sound railroad companies – were traded. In doing so the NYSE only covered a part of the whole market. Riskier securities or shares of emerging companies were traded either at the Consolidated Stock and Petroleum Exchange, at first specialized in mining companies, or at the »Curb« – a marketplace for the securities at the curbstone right in front of the NYSE. Both trading places – a substantial over-the-counter (OTC) business throughout the whole country existed as well – had lower (Consolidated) or no (Curb) barriers for brokers, but they were to a certain extent (personally) interlinked with members of the NYSE. In short: The higher the standards of market access the larger the amount of defensive securities traded.[40]

38 The University of Illinois at Chicago, Chicago Board of Trade Records, series VI, subseries 12/13/14, box 80.

39 *Rudolf Wiethölter*, Interessen und Organisation der Aktiengesellschaft im amerikanischen und deutschen Recht, Karlsruhe 1961, pp. 147–153. Ibid. for a comparative history of corporate governance regulations.

40 *Michie*, The London and New York Stock Exchanges, 1850–1914, pp. 204–208; *O'Sullivan*, The Expansion of the U.S. Stock Market, pp. 490f.; *Samuel Armstrong Nelson*, The Consolidate Stock Exchange of New York. Its History, Organization, Machinery and Methods, New York 1907; New York Curb Exchange, Summary of Report of Committee on Stock Exchange Investigation of the National Association of Securities Commissioners on the New York Curb Exchange, New York 1929, p. 14.

This market structure had several implications. First, access to the securities market was as easy as in Germany. Second, there was a fluent passage between the submarkets – at least in the 1870s for both brokers and securities: If a security performed well at the Curb, the NYSE might have put it on its list. Third, all-embracing regulations did exist neither for the requirements of a security nor for the broker's business conduct. Fourth, beyond these official markets mainly for professional brokers or speculators (even at the Curb market) so-called bucket shops existed where no securities were traded but speculation on stock exchanges quotations was possible. They were no exchanges at all but more or less betting offices for gamblers. During phases of overtrading, those bucket shops especially attracted investing novices who wanted to make a quick buck by profiting from rises and thus did their bit to intensify the speculative atmosphere.[41]

While commodity futures exchanges provided markets just as the stock exchanges did, there are a number of notable differences in their scope. Stock exchanges offered to trade hundreds and thousands of stocks, most of which came and went, but commodity exchanges offered just one or two, at best very few firmly established goods. While it was useful for the NYSE, at least for some time, to nurture a coexistence with the Curb and the Consolidated as »trial markets« for new stocks, such an arrangement made no sense for a commodity exchange. Just as the stock exchanges, however, the commodity exchanges faced a challenge in the form of the bucket shops, which will be treated in more detail in section IV of this text.

Another important difference between stock and commodity markets was that the commodity exchanges did not look out for investment capital; instead, they were meant to aid and attract the effective trade in that good and as such then became interesting for pure speculation in prices as well. In almost any case, it was the local wholesalers in a certain commodity that put up a futures exchange in the hope to strengthen their market position. The competition between different exchanges for the same good – like among the grain exchanges of Chicago, Minneapolis, Kansas City, Duluth, and other marketplaces of the Grain Belt – was in fact a competition between the cities' large grain dealers and a joint competition of all the larger dealers organized in exchanges against the lesser dealers and against the dealers from peripheral places. The latter has been shown convincingly (and had been anticipated by the contemporaries)[42] for the case of the Hamburg futures market in coffee.[43]

The competition between different commodity exchanges for the same good often did not last long – as soon as one emerged as a larger market, the advantage of having greater liquidity usually gravitated business towards the central market and subordinated the others to regional sub-markets (or to give up completely) – as was the case with Chicago and the other Grain Belt exchanges, or with the New York Cotton Exchange, who topped the New Orleans Cotton Exchanges, which in turn had subdued the other exchanges of the South. Both in the U.S. and Germany, single dominant futures markets evolved that had no national rival to fear – Chicago and Berlin for grain, New York and Hamburg for coffee and (cane) sugar, New York and Bremen for cotton, and so on.

This concentration does not imply that the commodities themselves became traded exclusively at said centres. Rather, futures trading had increasingly detached from the actual handling of the commodity, which aided the process of concentration. In a setup remarkably similar to that of the stock exchange, commodity exchanges provided the opportuni-

41 *Robert Sobel*, The Curbstone Brokers. The Origins of the American Stock Exchange, New York 1970, p. 63.

42 Protokoll der Sitzung des Ausschusses des Deutschen Handelstags vom 19. bis 20. November 1889 in Berlin, pp. 18f., Westfälisches Wirtschaftsarchiv K 2, Nr. 439.

43 *Rischbieter*, Mikro-Ökonomie der Globalisierung, pp. 132–182.

ty for dealing standardized contracts for the future delivery of important primary products such as grain and cotton, so-called futures. These contracts were almost never fulfilled by actually delivering the commodity: If in the meantime the current price had risen above the contracted price, the buyer of the futures contract received the difference from the seller (so he could go and buy the commodity from anyone else, if he wanted, without paying more than specified in the futures contract), and if the current price had gone below the contracted price, the seller received the difference from the buyer (so the seller could dispose the commodity at the current lower price without a disadvantage). In consequence, both parties incurred the same loss or gain as if actual delivery and payment of the commodity had taken place, but without the »burden« of actually handling the good: Trading futures essentially meant betting another trader on the development of a commodity price. This mechanism could be used for speculation as well as a tool in the commodity trade itself, i.e. for risk management and/or buying time. In effect, commodity exchanges became financialized centres of world markets for key staples of the economy.

For lesser exchanges, usually the only chance to survive was to create specialized markets, e.g. by designing contracts of lesser size (to attract participants interested in dealing small amounts) or for special varieties of the good. Influential market participants held memberships at different exchanges, which led to a certain convergence of interest among the different exchanges' bodies of members and further cooled down direct competition. An instructive example in the case of the CBOT is its fight against an inner city rival, the Chicago Open Board of Trade, that had formed in 1880. A number of CBOT members participated in the Open Board as well, much to the dismay of their fellow CBOT members. Still, the Open Board withstood any legal and denunciatory attack and survived as a niche marked of minor importance. In 1929, the CBOT had a share in the U.S. wheat futures markets of 83.5%, the Open Board of 2.6% (making it number 4 behind Minneapolis and Kansas City, but ahead of Duluth).[44] It ultimately focused on contracts of considerably lower size, which – combined with lower membership costs – allowed a lesser cast of traders with more limited financial means to enter the market. Later on renamed MidAmerica Commodity Exchange, it finally joined forces with the CBOT in 1986 as sort of a »junior« market with mini-contracts.

At the same time, the NYSE fought a competitor in their city as well. Outside brokers tried to establish a rival market place in 1885. They build up the Consolidated Stock and Petroleum Exchange by amalgamating existing markets for securities not dealt at the NYSE. As soon as the Consolidated attracted a certain trading volume, it threatened to deduct investment capital from the NYSE[45], particularly because about 300 to 400 members of the NYSE (and thus a third of its membership) were associates of the Consolidated, too. The overlapping of the 1,100 members of the NYSE and, originally, 2,400 members of the Consolidated resulted from the market structure. Especially riskier papers of mining companies were not admitted at the NYSE at first, so that everyone who wanted to trade in mining shares or bonds was referred to a different market place. By establishing the Consolidated with a membership being more than twice as large as its own, a major competitor of the NYSE had evolved for the first time since the merger of the NYSE with the Big Board in 1869.[46]

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44 *George Wright Hoffman*, Future Trading upon Organized Commodity Market in the United States, Philadelphia 1932, pp. 54f.

45 Meeting of the Governing Committee, October 22nd 1884, Minutes vol. 3, p. 380, NYSE Archives RG 1-2.

46 *Michie*, The London and New York Stock Exchanges, 1850–1914, pp. 202ff.; *Robert Sobel*, The Big Board. A History of the New York Stock Market, New York 1965, pp. 110–114, *O'Sullivan*, The Expansion of the U.S. Stock Market, pp. 494f.

However, the NYSE had anticipated the rising demand for industrial securities other than those traded at the exchange, especially since the traditional market for railroad stocks and bonds was still suffering from the ramifications of the 1873 panic, i.e. the reorganization and consolidation of railroads. The key invention of preferred stock in the late 1880s increased the demand of industrial securities. They sometimes granted only minor property rights and usually paid lower dividends than common stock but guaranteed stable dividends which the corporation had to pay preferred and before the claims of common stock-holders could be satisfied. Thus, preferred stocks created a rather secure investment, while common stocks remained riskier securities. The NYSE rapidly admitted preferred stock to its stock list, and by doing so helped to make it become popular.[47] But while this invention attracted more or less conservative investments, more speculative securities were still being demanded by many investors. The constitution of 1878 had already contained a rule for a department for unlisted securities[48] in order to open up a market for more speculative securities that were not yet considered to be worth being put on the official list; at the same time, the NYSE considered relaxing restrictions for trading: Brokers who were no formal member of the NYSE should, if admitted, be able to act as subscribers only of the Unlisted Department but should nonetheless be subjected to the duties of the exchanges' constitution.[49]

The leading exchange in New York thus reacted to the challenge of the Consolidated, but it went further. The early success of the Consolidated and the dual membership in each exchange led to an aggressive policy against the rival exchange. The NYSE refused to cooperate with the Consolidated.[50] Moreover, it forbade, by the threat of expulsion, a dual membership and any security transaction with any other exchange in New York City. This rule included members as well as partners.[51] Later on, the NYSE also banned every direct communication line – either telegraphs or telephones – from its building to outside trading places. The control of information became the essential factor of NYSE's success.[52]

In consequence, the Consolidated Stock Exchange gradually became less important and operated henceforth rather as a market place for odd lots. Its membership decreased to 671 in 1913, and the Consolidated became more and more prone to manipulations. In the end, the NYSE got rid of a rival, which it never called a rival, but »not an exchange in any proper sense of the word«, because it only »traded on New York Stock Exchange quotations«.[53] At the same time, the NYSE segmented the securities market as well – by attracting big money and referring retail investors (and shady characters) to the Consolidated. One effect of this new market structure was that the NYSE tended to concentrate on professional speculation, while retail investors and novices dealt at different places and thus – theoretically – did not constitute a threat to the financial system because failures at the Consolidated caused only minor losses, unable to generate a domino effect.

47 *Thomas R. Navin/Marian V. Sears*, The Rise of the Market for Industrial Securities, 1887–1902, in: The Business History Review 29, 1955, pp. 105–138, here: pp. 117–120.

48 Constitution and By-laws of the New York Stock Exchange revised 15.9.1878, article IV (12), NYSE Archives RG 1-2.

49 Meeting of the Governing Committee, 3.3.1882, Minutes vol. 3, pp. 113ff., NYSE Archives RG 1-2; *O'Sullivan*, The Expansion of the U.S. Stock Market, pp. 496f.

50 Meeting of the Governing Committee, 22.10.1884, Minutes vol. 3, p. 391, NYSE Archives RG 1-2.

51 Constitution of the New York Stock Exchange, 30.10.1885, article XVII, NYSE Archives RG 1-2; *O'Sullivan*, The Expansion of the U.S. Stock Market, p. 496.

52 *Michie*, The London and New York Stock Exchanges, 1850–1914, passim.

53 Digest of the Preliminary Work of the Special Committee, 25.6.1913, Special Committee on Bucket Shops, pp. 84f., 87 and 90, NYSE Archives RG 1-2.

IV. Outsider Establishments: Bucket Shops and the Curb

While most German exchanges, at least in principle, were open to any »honourable citizen«, the private and ever more exclusive nature of the main U.S. exchanges prompted the emergence of rival places to speculate at. In that, organized exchanges with (thin) rulebook s like the Consolidated or the Chicago Open Board marked only one end of the spectrum. Unorganized exchanges like the Curb provided open, informal marketplaces for the men in street – in this case, literally the men in the street, as the Curb, by definition, lacked a building of its own. At the other end of the spectrum were the bucket shops, small betting establishments with the outer appearance of a minor exchange.

Other than the Consolidated, the Curb had a special status and was by and large accepted by the NYSE, for it provided a non-regulated test market for speculative securities, especially for new stock. Usually, newly issued shares are always highly speculative securities, particularly if corporate governance obligations were as low as at that time. E.g., a regulated procedure for initial public offerings did not exist, the market alone decided about the quality of securities with the qualification that prices or transactions could easily be manipulated due to low legal standards. The Curb, where around 200 or 300 brokers traded, was closely but informally linked to the NYSE. Sometimes stock traders at the NYSE and Curb brokers belonged to the same firm – and it was estimated that more than 80% of the Curb's transactions were by order of NYSE members. If securities traded at the Curb performed well, the NYSE put them on its list, if they belied the expectations, they were not traded anymore. Thus, the Curb was a trial market somewhere in between – with a substantial function for the whole securities market in New York. Besides the fact that the Curb was never considered as a rival but as a complementary market, the NYSE benefitted even more from its existence: Because the unregulated Curb had no formal organization for a long time, a formal cooperation with the NYSE could not exist. Thus, no official or member of the NYSE could be blamed for speculative dealings at the Curb, although the members of the NYSE benefitted most from the transactions and securities assessment outside its main building.[54] This functional division of business established mainly by the NYSE's policy since the panic of 1873 was finally regarded as dysfunctional as a result of the panic of 1907. This panic had several consequences for the securities market to be outlined later.

The Chicago Board of Trade initially faced off with competing institutions outside the city – the grain exchanges of other Grain Belt cities – rather than with inner city rivals. However, the more dominating the position of the CBOT, the more did it focus on smaller, upcoming establishments that presented itself as an alternative to the CBOT; both within Chicago and within the Grain Belt as a whole. In most cases, the new establishments duplicated the outlook of the typical trading floors but turned out to be mere bucket shops.[55]

While the men in the street were far from being financially able to start even a single transaction at the CBOT and would have to make use of brokers anyway, the bucket shops effectually allowed anyone who stepped in to bet even the smallest amounts of money on the constantly evolving course of the grain prices, as signalled on the chalkboards of the »trading room«. However, the prices were not generated through these kinds of »micro-

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54 See *Michie*, The London and New York Stock Exchanges, 1850–1914, pp. 207f.

55 On bucket shops and their relation to the major organized exchanges, see *Ann Fabian*, Card Sharps, Dream Books, & Bucket Shops. Gambling in 19th-Century America, Ithaca 1990, pp. 153–203; *Lurie*, The Chicago Board of Trade, pp. 75–105 and 168–199; *David Hochfelder*, »Where the Common People Could Speculate«. The Ticker, Bucket Shops, and the Origins of Popular Participation in Financial Markets, 1880–1920, in: The Journal of American History 93, 2006, pp. 335–358.

trades«, but bucket shop owners simply operated a telegraph in a hidden back office that fed in (and sometimes distorted in favour of the bucket shop owner who in effect betted against all his customers) the current prices which the CBOT – or in the cases of stock markets, the NYSE – disseminated all over the country in order to enforce them as the most important, or even only relevant gauge of the market. Consequently, bucket shops could not, and did not intend to, generate any impact on the commodity or stock markets.

Even if stated differently in public, the CBOT had nothing to fear from those establishments in terms of market share and power (it had to fear the Open Board, and consequently denounced it as a bucket shop). Still, bucket shops insisted publicly on being exchanges of the very same nature as the CBOT and other established exchanges, a sentiment widely shared by the public. The bad reputation of the bucket shops as gambling halls was conferred upon the CBOT, adding to the troubles of the CBOT members to justify their institution to an already sceptical, even hostile public.

The first thing organized exchanges tried in their fight against bucket shops was to cut off the flow of price information. Already in 1878, the NYSE signed an exclusive contract with a telegraph company that immediately cut all telegraph lines from the NYSE to the bucket shops.[56] An attempt to get bucket shops legally prohibited was considered not feasible at the time, and, moreover, the NYSE feared damage to its image from such an attempt.[57] However, cutting off telegraph lines did not prove to be the silver bullet. On the one hand, telegraph lines were often secretly wiretapped, and on the other hand, it was even open to discussion if the organized exchanges had an exclusive right to the quotations they were producing. Bucket shop proponents claimed a victory in 1889, when the Illinois Supreme Court ruled against the CBOT in this matter.[58]

After 1900, both the established exchanges of the Grain Belt and those of New York joined forces under the leadership of NYSE and CBOT in their battle against the bucket shops and their attempts to establish themselves as the only »proper«, respectable, economically sound and useful speculative markets.[59] In 1905, another lawsuit of the CBOT against a major bucket shop operator – »C.C. Christie« in Kansas City – went before the U.S. Supreme Court. In a milestone verdict delivered by Judge Justice Oliver Wendell Holmes, organized exchanges were ultimately granted exclusive rights to their quotations. Moreover, Holmes helped the case of the CBOT and other organized exchanges to differentiate themselves from the bucket shops.[60] The whole argument in favour of speculation rested on having a body of *professional* speculators: »Speculation of this kind by competent men is the self-adjustment of society to the probable«, while incompetent persons – found in seedy bucket shops, but not in respectable exchanges – not only »bring themselves to ruin by undertaking to speculate in their turn«.[61]

The verdict drew a clear line between legitimate organized exchanges run by the mercantile-financial elite, and smaller institutions aimed at »common people«, which were deemed illegitimate places of gambling. Its importance cannot be overstated. Even in the late 1920s, the CBOT still quoted Judge Holmes on the backside of its information pam-

56 Special Committee on »Black Boards« and »Bucket Shops«, 1878, NYSE Archives RG 1-2.

57 Report, 2.2.1884, Law Committee, Opinion of Counsel F 3, NYSE Archives RG 1-2.

58 New York and Chicago Grain and Stock Exchange v. Chicago Board of Trade, 19 N.E. 855 (1889).

59 CBOT to NYSE, 19.2.1904, and an attached bill to prevent interstate telegraph and telephone lines used to promote gambling, Law Committee, Reports and Resolutions F 2, NYSE Archives RG 1-2.

60 For a detailed analysis, see: *Jonathan Levy*, Contemplating Delivery: Futures Trading and the Problem of Commodity Exchange in the United States, 1875–1905, in: AHR 111, 2006, pp. 307–335.

61 U.S. Supreme Court: Board of Trade v. Christie Grain & Stock Co., 198 U.S. 236 (1905).

phlets for visitors to the gallery above the trading floor to underscore a serious, useful economic nature of its establishment (after 1930, more adequately aimed at tourists, a picture of the grand view from the CBOT tower replaced the justificative text).[62] Armed with the 1905 decision, the CBOT consequently aimed at any bucket shop operation that was brought to its knowledge, using private investigators to determine their nature, and consequently alarmed the police whenever it appeared that telegraphic quotations were used illegally. These operations were continued well into the 1920s, until the bucket shops had finally vanished.

After outlining the relations between organized exchanges run by the mercantile-financial elite and other similar – or not so similar – institutions, and after showing the temporary nature of the latter, it is time to look at the regulatory developments regarding organized exchanges. The remainder of this paper will observe these developments in a roughly chronologic order, stressing financial crises as an important (albeit not the only) trigger for institutional change. We start with the first major crash after stock and commodity exchanges had become core elements of modern capitalism, i.e. the crisis of 1873.

V. The Financial Crisis of 1873 as a Regulatory Challenge

The crisis of 1873 affected both the U.S. and Germany. The economies were interlocked as the increased money supply in Germany (and Europe) spilled over to the U.S. where it fuelled the flames of speculation, especially in railroad stocks. The U.S. market for railroad stocks and bonds expanded rapidly and led to economically unjustified investments that came upon a weak financial and monetary system. Moreover, the quality of investments could not be assessed properly because of low corporate governance standards. In September 1873, the renowned investment house »Jay Cooke & Co.«, heavily involved in railroad speculations, could not meet its obligations anymore. Its failure and that of other companies caused a bank run with the consequence of several banks crashing.

The NYSE at first responded to that panic with a panic reaction. It closed its doors for an indefinite period on September 20th and thus exacerbated the panic, which was followed by a six-year-depression.[63] Beyond this initial and temporary reaction, the NYSE deemed it unnecessary to introduce institutional changes regarding the access to its own market. However, the governing committee of the NYSE scrutinized the organization and detected several imperfections in the market as a whole. The post-panic measures of the NYSE demonstrated its relevance for the competing exchanges and thus the entire Wall Street complex. During the suspension of trade, no member of the NYSE was, under threat of expulsion, allowed to trade in stocks in an outside market. Nevertheless, this regulation had no impact at all, because almost every member firm traded while the official market was closed. However, when the NYSE reopened and prices had steadied, no charges were preferred in this matter.[64]

This process is quite typical for self-regulated bodies. Self-regulation often generates group conformity instead of norm conformity: Even though there was a rule that was generally accepted, a majority ignored it because of exceptional circumstances[65] – as it was the case during the suspension of trade in 1873. The NYSE and its governing committee were

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62 The University of Illinois at Chicago, Chicago Board of Trade Records, series V, subseries 2, box 173.

63 *Sobel*, The Big Board, pp. 97f.

64 *Robert Sobel*, Panic on Wall Street. A History of America's Financial Disasters, New York 1968, pp. 187–192.

65 See also *Rischbieter*, Mikro-Ökonomie der Globalisierung, pp. 108–111.

faced with the (simple) fact that the absorbing interest of a securities dealer is to deal in securities. The conclusion of this observation was quite simple as well. A rule could only be effective if the membership costs were lower than the opportunity costs. As soon as there existed a more cost-effective alternative, memberships and transactions would have been relocated. Thus, the NYSE could not simply try to discipline its members by threats but had to develop further incentives to keep the brokers in line. The best incentive, however, promised to be even more exclusivity for the members. Henceforth the main strategy of the NYSE was to defend and to extend exclusivity by making it harder for the rival exchanges to deal in securities. Gradually the NYSE regained market control by hampering market access for outside brokers. The fight against the Consolidated in the 1880s also fitted this bill.

Besides these outward efforts, and as a necessary precondition, the setting of internal rules and the specific form of their enforcement structured brokers' social relations. As the reaction on the 1873 crisis had already shown, rules were not an end to themselves. The main purpose of exchanges' institutions was to enable transactions by implementing a system of rules that made the markets workable. Superior standards such as »moral« or »justice« (in a legal sense) were of minor importance. An analysis of internal trials shows how flexible rules were enforced and how they functioned as a permanent threat to all brokers to not overly engage in questionable transactions.[66] Because the governing committee was »the sole judge« and its decisions were »final and conclusive«[67], it was not possible to contest a verdict at regular courts. Regularly the punishment for deviant behaviour was to suspend a broker for a certain time period up to one year; since the late 19th century even an expulsion was possible in case of serious offenses. Moreover, peers judged peers. As a result, the hierarchical position within the group influenced judgments. There is evidence that the same offence did not result in the same verdict. While powerful actors were discharged, minor brokers were seriously judged.[68] In some cases, bad conduct was charged as well, and if a broker did not behave socially adequate, he could even be judged if every market transaction had been correct.[69]

The case of Charles Neukirch 1897/98 is very interesting in this regard as it offers insights into the enforcement of rules. He complained that the transaction which led to his expulsion »[was] not unusual and has been in vogue in the exchange for many years«. Although he had obviously good arguments, his complaints were strictly rejected – and he was ruined financially and socially: »I have suffered the severest penalty in the power of the Exchange to inflict, with all the disgrace and dishonor attaching to it in social, business and financial relations.«[70]

Neukirch was a fall guy who was used as a warning. Correspondingly, the number of charges always increased in the aftermath of financial crises, which made internal judgments become a specific form of public communication by demonstrating the power and the will to enforce rules and to strictly penalize unsolid speculators – even if their misconduct happened far away from the Exchange. For example, the entourages of »J. P. Morgan

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66 *Boris Gehlen*, Börsenhändler vor »Gericht«. Zur ökonomischen Logik von Ehrvorstellungen an der New York Stock Exchange vor 1914, inaugural address, Bonn February 5th 2014 (Publication in preparation).

67 Constitution of the New York Stock Exchange 1885, p. 26, NYSE Archives Publications 1-C-2.

68 Meetings of the Governing Committee, 16.12. and 30.12.1896, Minutes vol. 5, pp. 60–78, NYSE Archives RG 1-2.

69 Meetings of the Governing Committee, 25.7.1894 and 18.4.1895, Minutes vol. 4, pp. 610 and 650, NYSE Archives RG 1-2.

70 Report Charles Neukirch, 12.12.1898, pp. 1 and 5. Governing Committee Minutes, Correspondence, Reports F 3, NYSE Archives RG 1-2.

& Co.« or »Kuhn, Loeb & Co.« »suggested« a charge against a member of the NYSE because it had manipulated the market and supported a hostile acquisition which was detrimental especially to John Pierpont Morgan's interests.[71]

All in all, Van Antwerp's (and others') notion of »commercial honour« occurs as a functional instrument to organize markets. In their own view, stock brokers (or merchants in general) acted morally correct when they fulfilled contracts and accepted full responsibility for any transaction they made. Because »commercial honour« was functionally restrained to market organization and, moreover, its semantics opportunistically changed when markets shifted, it did not suit as a general moral model. Nevertheless, it was one core element of NYSE's exclusive organization.

The complicated and gradual development of exclusive market access and its evasion in New York did not correspond with the German experience, where public regulation of stock exchanges played a significantly greater role – and it were the stock exchanges, not the commodity exchanges, that were primarily challenged by the crisis of 1873. In Germany, it took the form of a multi-causal financial crisis which resulted from a combination of deregulation (stock corporation act 1870), increased money supply due to reparations from the Franco-Prussian War 1870/71 and a national euphoria in the aftermath of the German Unification.[72] As a consequence, the German stock market developed rapidly, it also attracted novices. On the one hand, restrictions to found stock companies had been removed, and this liberalization increased the supply of new stocks. On the other hand, the demand rose because of a shift in investments: Using the French reparations, the state was able to reduce its debts and therefore curtailed the issue of secure government bonds, which led to further investments in stocks. Then, the euphoric *Gründerzeit* (time of the founders) turned into the *Gründerkrise* (founders' crisis).

The market crashed in 1873, but already before the peak of the speculation frenzy, commonly dated to the autumn of 1872[73], the contemporaries were well aware of regulatory deficits. First, they observed that the stock corporation act facilitated fraudulent business foundations and gave only few rights to investors.[74] The latter allowed the founders to exploit the investors by simple manoeuvres. Second, the (many) investor novices themselves were criticized for not being careful enough. Thus, the following debate faced these problems of protecting un-experienced investors and improving the information quality of initial public offerings and stock issues in general.

A more liberal and a rather (state-)paternalistic argument can be extracted from the various debates in the aftermath of the crisis of 1873.[75] The liberals argued that it would be sufficient just to improve the information quality e.g. of stock issue prospects, because the market actors, especially the investor novice, had learned from the founders' crisis to be more cautious in investment decisions.[76] The paternalists preferred an investors' protection by law. In the end, a compromise was negotiated in such way that the information

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71 Meetings of the Governing Committee, 14. and 30.1.1903, Minutes vol. 5, pp. 646–662 and 668f., NYSE Archives RG 1-2; *Reibnitz*, Die New Yorker Fondsbörse, pp. 57ff.

72 *Markus Baltzer*, Der Berliner Kapitalmarkt nach der Reichsgründung 1871. Gründerzeit, internationale Finanzmarktintegration und der Einfluss der Makroökonomie, Münster 2007, pp. 4–12.

73 *Charles P. Kindleberger*, Manien, Paniken, Crashs. Die Geschichte der Finanzkrisen dieser Welt, Neuauflage, Kulmbach 2001, p. 295.

74 *O.V.*, Ueber Actiengesellschaften, in: Deutsches Handelsblatt 1, 1871, pp. 93ff., 118ff. and 134f.

75 For details see *Sibylle Hofer*, Das Aktiengesetz von 1884 – ein Lehrstück für prinzipielle Schutzkonzeptionen, in: *Walter Bayer/Mathias Habersack* (eds.), Aktienrecht im Wandel, Bd. 1: Entwicklung des Aktienrechts, Tübingen 2007, pp. 388–414.

76 Bericht über den Entwurf eines Gesetzes betreffend die Commanditgesellschaften auf Actien und die Actiengesellschaften, 27.2.1884, Rheinisch-Westfälisches Wirtschaftsarchiv 1-20-24.

quality was improved by implementing (slight) prospectus liability, strengthening the supervisory board and curtailing founders' exclusive rights while an investors' »protection« was implemented by the back-door. In fact, it was no protection but exclusion of the retail investor and beyond. The revised stock corporation act of 1884 determined the minimum par value of new stocks at 1,000 M, while the average annual amount Germans could spend for savings fluctuated between 30 and 70 M at that time. Thus, after all only the rich and the super-rich (and, of course, banks) were henceforth able to invest in stocks, and even *mediate* market access for minor investors was de facto prohibited.[77]

This is somewhat comparable to the case of most commodity futures exchanges, both in Germany and the United States, as the standardized futures contracts only allowed to trade in multiples of a large volume of the good, like multiples of a thousand bushels of grain. However, while small traders could not afford to actually buy such a large share or such a large volume of wheat, there was still a chance that they could afford to trade on those markets in differences.

In futures trading, contracts become due in future months, and in most European stock markets shares were to be delivered and paid only at the end of the month (»ultimo«). This allowed opening market positions and then closing them again before those days on which effective delivery was due. Initially, opening a position came without any cost at all, capital was only required when the position was closed again, and at a loss. As often the obligation to pay the winning counterparts the difference was not or could not be honoured by the losing party, the practice evolved to deposit a margin when a position was opened, i.e. a certain fraction of the nominal contract value that had to be deposited at a third party, later on usually a clearinghouse was put up by the exchange specifically for that purpose. The margins hardly ever were more than 10% of the contract value, more usually 5% and below. Consequently, a speculation in differences based on the value of a contract with a nominal value of 1,000 M required only 50 M when a 5% margin was asked for. This practice leveraged gains and losses tremendously and made speculating on margins an extremely risky business.[78] The margin was readjusted regularly by the exchange itself, a parameter that could be used to dampen overheating speculation or heating up a sluggish market. While large nominal contract values effectively kept small investors away from a »buy-and-hold« investment, it was less effective in keeping smaller traders out of risky margin trading.

Still, by restricting market access in favour of larger, well-capitalized, often professional speculators, the revised Stock Corporation Act of 1884 could be interpreted as a stabilizer of financial (or at least stock) markets without deteriorating the circumstances of corporate finance substantially, which more or less was concentrated at the universal banks and influenced banking concentration. Generally, the importance of the securities market in Germany was not as high as in the U.S. and, moreover, had a different structure with a high market share of public and mortgage bonds. Institutional investors such as insurance companies or pension funds were rare as well due to public investment restrictions. As a further side-effect of the *Gründerkrach*, the Prussian Government started to nationalize private

77 The minimum stock price was not lowered until the reform of the act in 1965 – with obvious effects on the capital market's structure. See *Boris Gehlen*, Aktienrecht und Unternehmenskontrolle: Normative Vorgaben und unternehmerische Praxis in der Hochphase der Deutschland AG, in: *Ralf Ahrens/Boris Gehlen/Alfred Reckendrees* (eds.), Die »Deutschland AG«. Historische Annährungen an den bundesdeutschen Kapitalismus, Essen 2013, pp. 165–193.

78 If a 1,000 M contract was bought on a 5% margin and then advanced 2.5% to be worth 1,025 M, the investor made a 25 M gain on his 50 M margin, i.e. a profit of 50%. Of course, if the contract lost 2.5%, the investor lost 25 M out of his 50 M, i.e. half of the initial investment. The leverage often ruined those who had little capital and invested it all.

railroads by buying railroad stock from 1879 onwards – not for capital market reasons[79], but certainly with effects on the stock market, as the railroad stocks, a very popular object of speculation during the founders' boom, vanished from the market.[80]

VI. Exchange Law Legislation in the 1890s: The *Börsengesetz*

The larger financial crises, i.e. those of 1873, 1907, and 1929, drew public attention primarily to the stock markets. In between those crises, a noticeable focus was on the commodity exchanges and the new institution of futures markets. Here, it was not any single huge market breakdown that prompted awareness, but rather the seemingly continuous stream of attempted corners which send prices temporarily on a roller-coaster, and also the phenomenon of depressed agricultural prices in the late 1880s and 1890s, which was blamed on bear speculation in agricultural futures markets. In addition, both agricultural producers and lesser intermediaries in peripheral places felt that the innovation of futures trading had shifted market power towards the large merchants in the important trading hubs, who operated the futures exchanges in the first place. As a consequence, the public outcry that cumulated in the U.S. and Germany around 1890 (followed by similar sentiments of the public in other highly developed countries in the 1890s) started legislative attempts to tackle speculative futures trading, and the antagonistic agricultural interest fuelled those attempts for several years to come.

In the United States, the accusation that futures trading drove down prices had been taken up by the mounting farmers' movement already at the end of the 1880s; they demanded a federal prohibition of futures trading. In 1892, after extensive hearings[81] and in spite of protests from the exchanges and parts of the business world[82], House and Senate passed a bill which would have imposed prohibitively heavy financial burdens on futures traders. As, however, the Senate had made slight amendments, the House needed to vote again very shortly before the end of the 52nd Congress, and it never happened. The bill effectively died as public pressure waned.[83] After the initial attempts to outright prohibit futures trading failed (even if more or less accidentally), a much more drawn-out process of legislative considerations and actions ensued, without any comprehensive law to show for in the next few years. The commodity exchanges, as well as the stock exchanges, kept self-regulating.

In Germany, several scandals in both stock and commodity speculation in the late 1880s and early 1890s rekindled the debate over exchange regulation. It seemed that the 1884 stipulations on contracts were not sufficient to guarantee a smoother operation of the markets, and a more explicit protection of investors was demanded. At the same time, the somewhat more prohibitive access to the German stock market after 1884 and the vanishing of

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79 *Boris Gehlen*, Zwischen Wettbewerbsideal und Staatsräson: Die Diskussionen im Deutschen Handelstag über Regulierung und Verstaatlichung der Eisenbahnen, in: Jahrbuch für Wirtschaftsgeschichte/Economic History Yearbook 52, 2011, issue 2, pp. 119–149.

80 *Rainer Gömmel*, Entstehung und Entwicklung der Effektenbörse im 19. Jahrhundert bis 1914, in: *Pohl*, Deutsche Börsengeschichte, pp. 135–290.

81 U.S. Congress. Committee on Agriculture. House, »Fictitious Dealing in Agricultural Products« U.S. Congressional Hearings [HAg 52-A] (1892).

82 Dealings in »Options« and »Futures«: Protests, Memorials and Arguments against Bills Introduced in the Fifty Second Congress, published by the New York Cotton Exchange, New York 1892.

83 *Cedric B. Cowing*, Populists, Plungers, and Progressives. A Social History of Stock and Commodity Speculation, 1890–1936, Princeton 1965; *Lurie*, The Chicago Board of Trade, pp. 105–125.

the popular railroad stocks following the nationalization of the railroads meant that speculation in commodity futures had become more interesting to small investors/speculators, and thus the whole *Börsenwesen*, i.e. stock as well as commodity futures markets, came into view.

In the highly politicized debate, market access was one of the topics of interest. The defenders of the exchanges argued that it was again the uninformed public (and its demand for profits) that caused speculation-related problems. Among them was Max Weber, an intimate expert of the *Börsenwesen*, who stated in 1896 that »really all general problems with futures trading can be traced to the fact that speculators without capital and power of judgment are brought in too easily«.[84]

Problematic speculation was declared an outsider phenomenon rather than a systemic defect because professional merchants and speculators, the so-called honourable businessmen (*ehrbare Kaufleute*), were considered to be well aware of the risks of futures, which moreover were said to be used mostly for hedging reasons, i.e. to insure against price risk in the actual commodity trade. Furthermore, the existing regulations would suffice because the exchanges and their members would not tolerate un-businesslike behaviour and would exclude any member involved in corners, fraud, etc. But, again, the assertion that self-regulation was more efficient than public regulation was true for group conformity rather than for norm conformity. There are various examples that actors of the exchanges' inner circle involved in corners were not expelled as were, by contrast, actors regarded as troublemakers anyway – even though their involvement in a corner could not be proved.[85]

However, there was a common sentiment against stock and produce exchanges since the mid-1870s, so the legislator convened an enquiry into exchange practices and then prepared a bourse law coming into effect in June 1896.[86] Market access was not regulated in general but for *Börsenterminhandel*, i.e. futures trading in commodity and time bargains in stock trading. Henceforth anyone who wanted to trade in futures should sign in a specific bourse register (*Börsenregister*), and henceforth only transactions between registered persons were legally enforceable; obligations from other transactions could legally be evaded before court, as they were deemed gambling debts. But especially for the fear to be publically branded as gamblers, the professional futures speculators did not sign in the register. In their point of view only gamblers relied on public protection granted by the register, while every honourable businessman would fulfil his duties contracted bona fide. The boycott of the register finally led to its abolishment when the law was revised in 1908. Instead, some occupations (primarily mercantile and banking) were declared to be *termingeschäftsfähig*, i.e. principally enabled to trade in futures and carry out time bargains in stocks. All such transactions between those persons became legally enforceable; transactions between them and outsiders were enforceable only if the outsiders provided additional security deposits. In the end, the debate about the bourse law did not result in a substantial shift of direct market access, but again more or less favoured professional insiders over retail investors.

With regard to the stock market, a so-called *Börsenzulassungskommission* was implemented as well – a body created at the Berlin Stock Exchange already beforehand became mandatory for every German Exchange. It was a regulated (and supervised) self-regulated body that reviewed prospects of stock issues and thus guaranteed (and determined) a certain quality standard of stock issues.

84 *Max Weber*, Die Börse: II. Der Börsenverkehr, Göttingen 1896, p. 78 (quote translated from German).
85 *Rischbieter*, Mikro-Ökonomie der Globalisierung, pp. 108–111.
86 *Johann Christian Meier*, Die Entstehung des Börsengesetzes vom 22. Juni 1896, St. Katharinen 1992.

The *Börsengesetz* further invented official brokers (*Kursmakler*) which had to be officially approved. They collected bits and offers of commercial brokers including minimum and maximum prices for each stock and assessed one rate a day being valid for every transaction in this stock (*Einheitskursverfahren*). This theoretically steadied prices and more or less eliminated outliers. By contrast, every transaction made at the NYSE was published, influenced stock rates and evoked either price supports or further sales. Thus, quotations at the NYSE were by far more volatile than at the German exchanges – and made the NYSE that cautious to whom (and when) its quotations should be reported.[87]

Finally, the *Börsengesetz* ruled that a balance sheet had to be published if a company that was transformed into a stock corporation wanted to sell shares via the exchange. So it had to behave for one year as a ›public‹ stock corporation before it was one de facto. As it had to issue stocks anyway, which were at first bought by consortium banks, this rule had two implications: It strengthened the position of the banks in the process of (initial) public offerings (again), and it improved the information quality for investors (and reduced the issue of highly speculative securities), because no bank would have managed substantial amounts of stock for at least one year without confidence in a sound future performance. Finally, the underwriting bank owned the stock to be offered at the exchange and thus took the risk of not selling it, as well. With regard to the stock market, the *Börsengesetz* weakened the exchanges by strengthening the role of universal banks as major intermediaries.[88]

The impact of the *Börsengesetz* on the German futures exchanges, on the other hand, remained negligible – with one, albeit extremely important, exception: The strong agrarian interest in shaping the actual law heavily targeted the Berlin grain exchange.[89] Not only did it interdict futures trading in grain and milling product, it stipulated that henceforth, the board of the exchange had to include representatives from agriculture and milling, i.e. from ranks that bitterly opposed the institution of futures trading. The grain traders who led the exchange refused. The exchange was thus formally dissolved in 1897 – but factually, the members informally continued their business; first in a neighbouring building (the *Feenpalast*), and after the police dissolved this »shadow bourse«, without formal meetings in the floors of the so-called *Comptoirhaus*, in which they took offices. After a compromise was negotiated, the grain exchanges became reinstated in 1900. Still, the interdiction of futures trading remained a problem. However, the definition of futures trading had been much too tight in the law, so that it was possible to circumvent the prohibition by relying on techniques and an organization of trading that was slightly modified. The circumventive strategy only worked by confining the market to the inner circle of traders, which both effectively kept outsiders from the market and dis-embedded the Berlin market from the international futures markets, diminishing its importance and relevance.

87 *Martin Bürger*, Die Arten der Kursfeststellung an den Weltbörsen Berlin, Paris, London und New York, Diss., Heidelberg 1913.

88 *Richard Tilly*, Public Policy, Capital Markets and the Supply of Industrial Finance in Nineteenth-Century Germany, in: *Richard Sylla/Richard Tilly/Gabriel Tortella* (eds.), The State, the Financial System and Economic Modernization, Cambridge 1999, pp. 134–157, here: pp. 140f.; *Caroline Fohlin*, Finance Capitalism and Germany's Rise to Industrial Power, Cambridge/New York etc. 2007.

89 *F. Goldenbaum*, Auflösung und Wiederherstellung der Berliner Produktenbörse, in: Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich 24, 1900, pp. 1057–1131 and ibid. 25, 1901, pp. 239–289; *Alfred William Flux*, The Berlin Produce Exchange, in: The Economic Journal 10, 1900, issue 38, pp. 245–250; *Reginald Hawthorn Hooker*, The Suspension of the Berlin Produce Exchange and Its Effect upon Corn Prices, in: Journal of the Royal Statistical Society 64, 1901, issue 4, pp. 574–613; *Biggeleben*, Das »Bollwerk des Bürgertums«, pp. 297–307; *Engel*, Die Regulierung des Börsenterminhandels im Kaiserreich.

The 1908 revision of the exchange law, upholding the interdiction of futures trading in grain only symbolically, explicitly approved and endorsed a market based on the circumventive trading techniques, as long as it was confined to those who actually produced, processed, or dealt in grain. This shut the door very effectively for small outside speculators but was far from shutting down speculation in grain, as the larger grain trading businesses had been the main speculators anyway.

When the revised version of the exchange law was enacted, it put a certain end to a German discussion that had been conducted very intensively and of which people finally became tired for years to come. The general outline of the German regulatory regime concerning the *Börsenwesen* was in place and remained essentially unchanged in many core aspects in the following decades. Consequently, the remainder of this paper will focus on the U.S. case.

VII. The NYSE and the State in the Crisis of 1907

After the reform of the Stock Corporation Act in 1884 and the *Börsengesetz* of 1896, and not least due to the existence of the *Reichsbank* as a lender of last resort, the German financial system was quite stable before the First World War. In contrast, most depressions of the U.S. economy correlated with overtrading and financial panics, especially in 1893 and 1907. While the crisis of 1893 again resulted from shaky investments in railroads and from an undecided currency policy (Sherman Silver Act) that created uncertainty amongst investors and led to an alienation of capital from New York City, the panic of 1907 arose from »a perfect storm«.[90] It began with a failed corner by the so-called Morse-Heinze group that had challenged the »United Copper Company«, but the short sellers were able to deliver all stock. Afterwards, shares of United Copper lost roughly 80% of their value within two days. Charles Wyman Morse and Fritz Augustus Heinze were ruined as were the related banks. After the strong bull period since the dawn of the century, the breakdown alarmed investors. A bank run began, and the »Knickerbocker Trust Company« – closely linked to Morse-Heinze group – broke down not least because Knickerbockers' competitors refused aid: »Wall Street was gaining its revenge on the Morse-Heinze clique, but at the same time was committing suicide.«[91] In consequence, many banks and trust companies had to close their doors as depositors withdrew money from their accounts. Thus, the money supply decreased, for it depended significantly on the bank deposits in New York City. The panic of 1907 again brought the structural deficits of the U.S. financial markets to light, especially the absence of comprehensive regulations and a central bank: During an economic downturn, the money supply shrank when deposits were withdrawn and the banks' liquidity declined. There was no lender of last resort to remedy liquidity shortages of single banks or trusts. Thus, failed speculative manoeuvres as in the case of Heinze and Morse basically constituted a threat to the whole national economy (and beyond) as a pro-cyclical trend in money supply exacerbated the economic downturn.[92]

The revision of the *Börsengesetz* was put in place in 1908, but it had already been prepared since around 1900. Thus, it did not immediately react on the economic crisis of 1907 which was – in Germany – first of all a liquidity crisis because of dysfunctional payment

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90 *Robert F. Bruner/Sean D. Carr*, The Panic of 1907. Lessons Learned from the Market's Perfect Storm, Hoboken 2007.

91 *Sobel*, The Big Board, p. 192; *Hermann Schumacher*, Die Ursachen der Geldkrisis. Vortrag gehalten in der Gehe-Stiftung zu Dresden am 18. Februar 1908.

92 *Richard Tilly*, Geld und Kredit in der Wirtschaftsgeschichte, Stuttgart 2003, pp. 144ff.

methods. Despite a bank enquiry in 1908/09, the crisis had no regulatory impact in Germany at all.[93] This was truly not the case in the United States. For the first time, the general public became a major player in the debates concerning the stock markets – at state level (the Hughes Commission in New York 1905 originally investigating business behaviour of life insurances but finally including banks' business as well) and at federal level (the Pujo Commission investigating the »Money Trust« since 1912).[94]

President Theodore Roosevelt, in an address to Congress delivered January 31st, 1908, neatly summed up the new urgency to take up legislative action and explicitly pointed to the *Börsengesetz*:

»I do not know whether it is possible, but if possible, it is certainly desirable, that […] there should be measures taken to prevent at least the grosser forms of gambling in securities and commodities, such as making large sales of what men do not possess and ›cornering‹ the market. […] The great bulk of the business transacted on the exchanges is not only legitimate, but is necessary to the working of our modern industrial system, and extreme care would have to be taken not to interfere with this business in doing away with the ›bucket shop‹ type of operation. We should study both the successes and the failures of foreign legislators who, notably in Germany, have worked along this line, so as not to do anything harmful.«[95]

Until then, at best tentative attempts for public regulation (or taxation) were made in New York State. But generally, Wall Street officials were politically powerful enough to stop investigations at early stages – and by adjusting their constitutions and by-laws. This twofold strategy can be observed in the reaction to the 1907 panic as well. The NYSE closed down its Unlisted Department that, however, never had been fully accepted by the NYSE members anyway. Already in 1896 a minority of a special committee criticized the Department for watering down the high standards of the NYSE, which figuratively acted as »the famous Dr. Jekyll and Mr. Hyde; laboring to elevate the standard of financial and corporate morality through the medium of his Committee on Stock List, and compelled to work evil by lowering that standard through the Unlisted Department«.[96] It still took until 1909 to abolish the Unlisted Department and to strengthen the powers of the Committee on Stock List.[97] Henceforth, only members (and their employees) had access to the NYSE, and a new Committee of Business Conduct enforced a new code of conduct for them.[98]

As the public interest in stock exchanges practices rose in the aftermath of the 1907 panic, the same process of argumentative differentiation as in Germany can be observed: The honourable broker traded at official exchanges (and – in their view – the most honourable at the NYSE), while the un-informed outsiders dealt in, now increasingly incriminated, bucket shops and wasted their savings: »Our duty is to protect these victims against the consequences of their own folly by closing down the doors now open to them.«[99] But this

93 *Reitmayer*, Bankiers im Kaiserreich, pp. 328f.

94 *Vincent P. Carosso*, Investment Banking in America. A History, Cambridge 1970, pp. 110–155; Report of the Committee Appointed Pursuant to House Resolutions 429 and 504 to Investigate the Concentration of Control of Money and Credit, submitted by Mr. Pujo, 28.2.1913, Washington 1913.

95 *James Daniel Richardson*, A Compilation of the Messages and Papers of the Presidents 1789–1908, vol. XI, New York 1908, pp. 1290f.

96 Minority Report (Rudolph Keppler), 22.1.1896, Special Committee on the Unlisted Department, p. 3, NYSE Archives RG 1-2.

97 Special Committee of Five on Unlisted Department, 7.7.1909, NYSE Archives RG 1-2.

98 Meeting of the Governing Committee, 25.2.1913, and Report of the Special Committee in Regard to Transactions by Members outside of the Exchange in Securities Listed on the Exchange, 20.2.1914, Minutes vol. 7, pp. 1 and 66f., NYSE Archives RG 1-2.

99 Digest of the preliminary work of the Special Committee, 25.6.1913, Special Committee on Bucket Shops, p. 42, NYSE Archives RG 1-2.

was far from being easy, because it was hard to proof that bucket shops only attracted gamblers and that the only goal was to speculate in price differences excluding the delivery of stocks.[100]

Certainly, the NYSE was worried about the increasing public speculation debates since 1907. This can clearly be shown by the revision of the relation to its trial market, the Curb. The Curb Brokers had recognized the shift of public opinion as well and tried to distance themselves from the mere gamblers by setting up rules and shaping an organization of their own. They therefore tried to cooperate with NYSE.[101] But the NYSE refused to formalize the heretofore informal supervision over the Curb market, for it was considered »much wiser to stand absolutely aloof, as they [=NYSE Governors] will be less liable to be criticized than if they exercised a partial supervision which was ineffectual and unsatisfactory«.[102] The NYSE still wanted to profit from more speculative dealings in riskier securities than it would have admitted for its own organization but did not accept liability for this market. Thus, the Curb stayed independent – and still acted henceforth by the grace of the NYSE.

The public demanded for public regulation of the exchanges, explicitly following the German role model[103], and with regard to a standardization of requirements for stock corporations even accepted by NYSE officials.[104] Still, the investigations of the National Monetary Commission in 1913 did not substantially change the self-regulatory regime. The major financial innovation in the aftermath of the 1907 crisis was the establishment of the Federal Reserve System – amongst other advantages making the money supply in the U.S. less dependent from Wall Street's activities. The non-existence of a lender of last resort had been without a doubt the major bottleneck of the U.S. financial system prior to the First World War.[105]

VIII. A New Regulatory Regime: The Development in the U.S. Until the 1930s

Usually, during phases in which a market expands, its regulation is rarely revised. So, after the threat of public regulation had been warded off in 1913, the regulatory framework of stock markets in the U.S. did not change significantly in the 1920s. Still, market participation and practices shifted slightly during the boom of the ›golden twenties‹, driven

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100 Digest of the Preliminary Work of the Special Committee, 25.6.1913, Special Committee on Bucket Shops, pp. 154–157, NYSE Archives RG 1-2.

101 Meeting of the Governing Committee, 23.6.1909, Minutes vol. 6, p. 472, NYSE Archives RG 1-2.

102 Meeting of the Governing Committee, 19.1.1910, Minutes vol. 6, p. 512, NYSE Archives RG 1-2.

103 For the most frequent arguments pro and contra see *Samuel Untermyer*, Speculation on the Stock Exchange and Public Regulation of the Exchanges. An Address Delivered before the American Economic Association at Princeton, N.J., 29.12.1914, Princeton 1914; *Otto H. Kahn*, The New York Stock Exchange and Public Opinion. Remarks at Annual Dinner. Association of Stock Exchange Brokers Held at the Astor Hotel New York, 24.1.1917, New York 1917.

104 Memorandum for J.G.D., 3.12.1913, Library Committee, Letter books vol. 2, pp. 14ff., NYSE Archives RG 1-2; Van Antwerp to Brown, 5.12.1913, Library Committee, Letter books William C. Antwerp vol. 1, pp. 278–279, NYSE Archives RG 1-2.

105 *Richard Tilly*, Zur Geschichte der Bankenregulierung, in: *Dientrich von Delhaes-Guenther/Karl-Hans Hartwig/Uwe Vollmer* (eds.), Monetäre Institutionenökonomik, Stuttgart 2001, pp. 3–27, here p. 21.

to a large extent by mass consumerism. Some general trends shall be outlined concisely: The importance of the U.S. for the world (capital) market increased substantially after the First World War. By transforming from a debtor to a lender state the U.S. economy attracted foreign capital – one consequence being a modest level of interest rates (easy money). The success of war bonds had to a certain extent promoted securities investments especially for the middle classes. Alongside the invention of investment trusts collecting small amounts of money for securities investment reasons, Main Street met Wall Street not only literally. The new buyers also shifted the requirements of securities, because speculation on margin became more and more important. Literally, the long-term investors yielded the floor for the short-time speculators. The hardly supervised over-the-counter business expanded due to the increased demand for securities as well. These developments, of course, attracted parvenus and also shady characters, which entered the market aggressively and lowered standards of issued securities. To a certain extent they replaced the bucket shops.[106]

In contrast to this un-regulated development of the market from the bottom up, the Curb brokers had founded the New York Curb Exchange in 1911 after the formal cooperation with the NYSE had been rejected. It formalized listing requirements and shaped a formal market place, still for mostly risky securities. The Curb's and NYSE's submarkets had moreover become divided more strictly due to the abolition of the Unlisted Department.[107] Finally, the Curb went indoors in 1921 – not least because the hubbub in Wall Street had become more and more confusing after the number of brokers had expanded.[108] Trading over 700 individual shares a day, the transaction volume of stocks dealt in at the Curb rose more than the thirty-fold – from about 15 million in 1921 to about 500 million shares in 1929.[109] During the economic upswing of the 1920s, stock prices quadrupled while industrial production »only« doubled. Before the panic of 1907, both indicators had moved more or less the same[110], which indicates the bubble tendencies in the 1920s. When the markets crashed on »Black Thursday«, the pile of shards came to light: Beyond the haute finance still represented by the NYSE, a new class of investors and (hardly regulated) stock issuers had gradually entered the stock markets – attempting to enforce their own rules and lower standards. The minor investors, which moreover often financed their speculative securities' investments by credit, turned out to be the victims of this development, for there was hardly any protection of minor investors' rights in that segments of the market.

The bitter experience of 1929 and the following years spurred federal efforts towards securities regulation. The Securities Act of 1933 (48 Stat. 77) effectively compelled all issuers of securities to fully disclose all information necessary for investors to judge the paper, as the so-called blue sky laws that were enacted in many of the states to regulate the issuance of securities in the previous two decades had been not very effective in that respect. The Securities Exchange Act of 1934 (48. Stat. 881) in addition regulated the secondary market, i.e. the further trading of securities after they had been sold by the issuer, and established the Security Exchange Commission as an oversight agency. While these steps seem relatively far-reaching when compared to the former complete lack of federal intervention in stock market regulation, they actually do follow developments in the commodity futures markets that had been going on for several years.

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106 *O'Sullivan*, The Expansion of the U.S. Stock Market, pp. 526–534; *Sobel*, The Big Board, pp. 235–261; *Ott*, When Wall Street met Main Street.

107 *O'Sullivan*, The Expansion of the U.S. Stock Market, pp. 502–506; for more details see *Sobel*, The Curbstone Brokers.

108 New York Curb Exchange, Summary of Report of Committee on Stock Exchange Investigation, pp. 16ff.

109 Ibid., pp. 28–31.

110 *Sobel*, The Big Board, p. 228.

The 1905 Supreme Court decision strengthened the position of the commodity exchanges in their battle to gain public legitimation, but at the same time it reinvigorated the attempts by their opponents, specifically agricultural producers, to stifle futures trading by federal legislation. As has been shown in the previous section, and illustrated by Roosevelt's demands before congress in 1908, the *Zeitgeist* favoured federal regulation of the exchanges. Consequently, a string of bills to that end was introduced for consideration of the Congress in the following years, and quite a few – primarily directed against the cotton exchanges, and also against the grain exchanges – received consideration by hearings before the Committee of Agriculture of the House of Representatives, but without becoming actual law.[111]

Suggestions to plainly abolish futures trading were doomed to fail, as the economic use and necessity of »properly conducted« futures trading had become more and more accepted. What proved successful, instead, was to establish public control over the actual rulemaking at the exchanges. We have stressed that those were private associations with the right to make their own rules, which could not be contested before regular courts. However, the success of the larger exchanges in claiming key functions for the economy, which was a helpful argument in cementing their legitimacy, could now be turned against them: The operations of the CBOT and the New York and the New Orleans cotton exchanges had become so crucial for the U.S. grain and cotton markets as to constitute a legitimate public interest in the determination of how they should be conducted.

The first avenue along which federal authority entered into the rule-making was the question of the standardization of commodities. In order to have a homogenous, liquid, and effective futures market, the contracts dealt in this market had to be standardized, and in consequence, the commodity involved needed to be well defined.[112] The selection and definition of those varieties and qualities on which the futures markets were built was a powerful tool of the exchanges to govern and control the commodity market as a whole. In 1914, the U.S. Cotton Futures Act effectively conferred the right to define the grades for which cotton futures could be traded to the Secretary of Agriculture. It did so indirectly, as federal law could not regulate commerce directly (except for interstate commerce), this was the prerogative of the different states. Making use of the federal right to impose taxes, all cotton future contracts were subjected to a »tax in the nature of an excise of 2 cents for each pound of the cotton involved in any such contract«[113], which was prohibitively high. However, any contract in accordance with the requirements of the Department of Agriculture was exempt from that tax. The original Act of 1914 was ruled unconstitutional for formal reasons and replaced by the U.S. Cotton Futures Act of 1916 (39 Stat. 476), to the same effect.

Along that line, attempts were made to also enter into the definition of grain grades. They came to fruit in the early 1920s and actually went much further than the Cotton Futures Act. The Future Trading Act of 1921 (42 Stat. 187) levied a prohibitive tax on all grain futures contracts except those fulfilling certain conditions, but this construction was

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111 Examples of such hearings: [HAg 60-G] Prevention of ›Dealing in Futures‹ on Boards of Trade, etc. (1909), [H5-2] Prevention of ›Dealing in Futures‹ on Boards of Trade, etc. Vol. 2 (1910), [HAg 61-L] Prevention of Dealing in Futures (1910); [HAg 62-J] Cotton and Grain Antioption Bills (1912), [H122-7] Grain Exchanges (1914), [H74-9] Regulation of Cotton Exchanges (1914), [H91-7] Control of Grain Exchanges (1914).

112 On standardization in the grain trade in general, see *Lowell D. Hill*, Grain Grades and Standards. Historical Issues Shaping the Future, Urbana 1990. On the role of standardization for the emergence of futures trading, see: *Alexander Engel*, Buying Time: Futures Trading and Telegraphy in Nineteenth-Century Global Commodity Markets, in: Journal of Global History 10, 2015, issue 2, pp. 284–306.

113 United States Cotton Futures Act, 38 Stat. 693, § 2.

now ruled unconstitutional by the Supreme Court. The Act became quickly replaced by the Grain Futures Act of 1922 (42 Stat. 998), which derived its authority from the statement that futures trading is for the most practical purposes interstate commerce. This construction was upheld before the Supreme Court and formed the basis of the Securities Act of 1934.

The Grain Futures Act plainly prohibited any futures trading except for that at so-called contract markets. Organized exchanges could apply at the Department of Agriculture for the status of a contract market, provided they fulfilled a number of requirements intended to maintain a proper conduct of business. The Department of Agriculture was given discretion to investigate the exchanges at any time to secure that they conducted as requested, to compile futures market statistics, and to publish the results in order to make the operation of the exchanges transparent to anyone involved in the grain business. The concept of the contract markets was, unsurprisingly yet unsuccessfully, bitterly opposed by the organized exchanges. As a consolatory side effect, it at least did finally away with any competing establishments and ultimately ended the »bucket shop war«: The exchanges of the mercantile-financial elite won out as the only proper marketplaces of their kind, but at the same time lost their autonomy.

In order to handle the administrative tasks, the Department of Agriculture established the Grain Futures Administration, which was transformed into the Commodity Exchange Commission in 1936, when the Commodity Exchange Act (49 Stat. 1491) amended the Grain Futures Act to cover a larger number of commodities and deepen the regulatory control of the markets in question. As a consequence, both the futures markets and, with the establishment of the Security Exchange Commission in 1934, the stock markets had become subjected to a public oversight agency. The scope, responsibilities, privileges, and funding of the oversight agencies were expanded in the decades to come, expanding a regulatory regime for the United States exchanges in which, in principle, a public agency closely followed and acted on any new development that took place in and around the trading floors.

The principle idea already came up in the context of the German exchange law in 1896, when it was stipulated that representatives from agriculture and milling had to be included in the board of the Berlin produce exchange. This measure would have secured a major influence of outside interest in the making of the rulebook, although, to be fair, it would practically most likely have had an obstructive instead of a constructive effect. This was the reason the exchange virtually suspended itself in 1897 and was only re-established in 1900, after a compromise was found that limited outside influence.

All in all, the exchange law legislation attempts of the 1890s and 1910s, in all countries, aimed to solve any problems in the commodity and/or stock markets by crafting general, catch-all rules. As the self-regulatory experiences of exchanges – we have illustrated them especially for the case of the NYSE – have shown, this had been a doomed approach for dealing with an institution that is, in effect, constantly evolving. The concept of a hands-on public oversight agency presented a solution; a solution that today is still at work in the regulatory regimes for the exchanges of modern financial capitalism.