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Creation of a Market Network: the regulatory approval of Chicago Board Options Exchange (CBOE)

Yuval Millo

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Abstract

The paper analyses the historical events that surrounded the evolution of the world's first exchange for financial options – Chicago Board Options Exchange (CBOE) – one of today's most successful derivative exchanges. The detailed narrative is focused on the relations between the American securities regulator, the Securities and Exchange Commission (SEC), and the developing options exchanges. The analysis shows how the regulatory values of the SEC, framed by the political and social circumstances of the time (1968-1973), underwent a dramatic transformation. This transformation was accompanied by the formation of a dense network of connections between the regulator and other market participants, as a result of which the proposal to set up an options exchange turned from a threat to the realisation of the SEC's goals to an important regulatory asset.

Introduction

The paper analyses the historical process through which the Chicago Board Options Exchange (CBOE), the world's first organised options exchange, gained regulatory approval from the Securities and Exchange Commission (SEC). By analysing the constellation of connections among the regulator, the existing exchanges and the new markets for options, the paper offers a detailed analysis about the shaping of financial markets. Two main intertwined processes are described. 1. The paper examines how the regulatory values and the political and organisational interests of the SEC, the American securities regulator, influenced the shape of options contracts and the structure of the markets that traded them. 2. The paper reveals how the new concepts presented by the organised options markets gave the SEC a new set of tools for enhancing its regulatory influence. The paper has two main sections. The first one describes the events that led to the creation of the political environment in which the proposal to set up a market for organised trading of options was made. The second section focuses on the regulatory approval process and the new market that evolved as a result.

Why is it important, more than 30 years after the event took place, to have a detailed historical analysis of the development of options markets? First, the creation of an options exchange was not an isolated historical event but was a pioneering attempt that initiated a long and influential line of markets that trade financial derivatives. By studying the circumstances that surrounded the creation of this first market, we can gain better

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understanding of today's exchanges. Second, historical research has several immanent methodological advantages than the study of more contemporary cases. The development of markets is a relatively long-term process. In many cases, the effects of regulatory policies or commercial initiatives can be assessed accurately only years or even decades after they were implemented. For example, this paper describes the evolution of organised options trading, one of today's most popular financial derivatives contracts. In contrast, the proposal to trade options initially encountered an immensely hostile regulatory reaction. In order to analyse the transformation that options underwent from being a threat to regulatory values to an important political asset, a broad historical perspective is applied. Another methodological advantage of a historical study is that access to information is less restrictive than in contemporary cases. This paper is based on primary documents and on interviews with persons who played pivotal roles in the creation of options markets. Documents were accessible mainly because they were no longer considered confidential. Likewise, most of the interviewees have retired since or are no longer members of the regulatory bodies or the exchanges that were involved in the historical narrative presented here. This factor helped in probing into areas of the regulatory decision-making process that would have been hidden if the events had been more recent.

The development of the SEC's expertise-based regulatory approach

In order to assess the significance of the regulatory approval process to the shaping of financial markets, it is necessary to discuss the regulatory values, norms and organisational structure that had developed at the SEC before the appearance of the options initiative. The SEC is an independent federal authority that regulates securities trading in the US. Established in 1934, in the aftermath of the October 1929 financial crisis, the SEC was the first federal agency dedicated to the regulation of financial markets. The defining event behind the formation of the SEC's organisational culture was the 1929 crash and the economic downturn that followed it. The events of 1929 and the early 1930s were commonly attributed to the excessive speculation in stocks and options that led to a market bubble and eventually to the crash (Bernstein 1996; Cowing 1995). As such, the SEC's organisational culture included a strong element of suspicion towards the financial markets, an element that was represented in the SEC's contentious attempts to curb out the extreme forms of speculative behaviour from the markets and to protect the investing public from adverse implications of such behaviour (Seligman 1982).

The operation of the SEC follows three sets of Congressional Acts according to which, among other things, the SEC was given the permission to add rules and regulations.[1] That is, the SEC was given the right to affect the structure of the markets directly. The Acts also set up the two-fold structure for the SEC. First, a decision-making body of five commissioners, headed by a chairperson (nominated by the president) – this part of the SEC is commonly referred to as the Commission. Second, serving under the Commission was a large staff composed of professional civil servants whose formal task was to advise the Commission about possible courses of action.

The SEC started to operate in the early 1930s and gradually gained a reputation for being a determined and focused financial regulator (Bear 2002). In spite of this reputation, in comparison with the historical exchanges, most notably the New York Stock Exchange

[1] The 1933 Securities Act, the 1934 Securities Exchange Act, and the 1940 Public Utility Act.

(NYSE), which was established in the 18th century (Sobel 1965), the SEC was a relative newcomer. This status difference was manifested in the dependency of the SEC on the established markets like the NYSE. For example, many of the initial rules and regulations of the SEC, especially with regard to market practices, were simply copied from the NYSE's rulebook (B* interview). Therefore, although many among the securities markets community respected the SEC for its strict and fearless regulatory approach, the agency rarely entered direct confrontational challenges with the well-established exchanges of New York and the main brokerage houses – 'the really big players' (M* interview).

These circumstances began to change when President John F. Kennedy, who supported the active regulation of markets, appointed as the head of the SEC William L. Cary, a former professor at Northwestern University. A case of a long-running fraud scheme was discovered in AMEX (Re & Re Company case, SEC Historical Society 2002). The fact that such illegal activity continued for such a long time without being detected by the SEC was perceived in political circles as an indication that the SEC did not have sufficient knowledge about the complex practices of the securities markets. The SEC's congressional oversight committee decided that a Special Study about the structure and the operation of securities markets would be produced. Extensive lobbying by the SEC's staff and chairperson Cary achieved in persuading the committee to allow the study to be conducted by a special force made up of SEC staff (L* interview). This decision, to allow the SEC to conduct the study, turned out to be crucially influential for the regulator.

The study team was given a very broad remit and was practically allowed to research every aspect related to the operation of securities markets. In addition, the fact that the study was a Congressional task, gave it priority over most other tasks within the SEC. As a result, the head of the team was given the permission to recruit, on an ad-hoc basis, staff members from any of the SEC's divisions as well as outside experts. In fact, the head of the study himself was an external expert, a securities lawyer from Chicago by the name of Milton Cohen. Cary, the SEC's chairman, suggested the nomination of Cohen whom he held in high regard due to the important role he played in the formation of the Public Utility Holding Company Act in the 1940s (Seligman 1982).

The securities Special Study was a complex and momentous task that resulted in multiple volumes of written work and took more than two years to be completed. The Special Study covered a multitude of areas related to the markets' structure and practices: selling procedures, broker-dealer practices, transactions fees, membership obligations and rights and many others (Securities and Exchange Commission 1963). The Special Study documented all of the different variants of practices that the securities exchanges of the time employed. Such a compilation of knowledge about securities markets had not existed previously: market practices were usually based on the particular rules of the exchange and typically differed substantially from their written versions. Therefore, the study became the first report produced by an American financial regulator about the way securities markets operated in practice. Equally important to the knowledge compiled in the study was the change that it brought to the status of the SEC among the regulated exchanges. The securities Special Study project was a concentrated analytic effort to understand the structure and the operation of financial markets. Gene Rotberg who took part in the study explained:

> My own personal view is that the great quality of the Study is […] this accumulation of simply how the securities markets work. That quickly became available to everybody on the staff and to the Commission, and in a sense, I think,

> created a mutual respect between the securities industry and the staff of the Commission - because they finally said, "Hey, these men and women know what we do for a living."
>
> (SEC historical society, roundtable on the Special Study, p 24)

Many in financial markets regarded the study as the most up-to-date information about the sector's strengths and problematic areas. The study's team became the most expert and knowledgeable group of people at the time on the subject of securities markets (M* interview). Furthermore, the fact that the study covered all of the exchanges helped to reinforce the experts status that was granted to the SEC's staff. For example, even experienced traders from any one of the exchanges knew very little about the practices in other exchanges. Thus, the handful of people who composed the team of the study was virtually the only group that had first-hand knowledge about the operation of all securities markets.

The improved appreciation to the SEC's professional knowledge served as a basis for the development of a new relationship between the SEC and the exchanges. Whilst before the publication of study many at the exchanges regarded the SEC as little more than a government body to which they had to submit forms, after the study, as the historical material in this paper reveals, the SEC gradually became recognised as a source of expertise. Indeed, it gradually became essential for the exchanges to share plans and ideas with the SEC, not only because they were committed to do so by law, but mostly because it came to be known that among the SEC's staff were some the most knowledgeable experts about securities markets of the time. Stanley Sporkin, who was the director of the SEC's enforcement division in the late 1960s, described the effects of the study:

> We had a redistribution of power, which started, I think, with the Special Study. It went away from Wall Street down here to Washington. The Commission [SEC] was always a secondary player up until that time. Wall Street was run by [people who] treated the SEC like it was some secondary organization... But starting with the Special Study, it was the emergence of the SEC as the power broker. Everybody looked to it.
>
> (SEC historical society, roundtable about enforcement)

The transformation of the SEC from a marginalised regulator to a prominent power-broker in the field consisted of many interrelated processes. The growing expectations by market participants to receive knowledgeable advice from the SEC motivated the staff to develop this aspect of their activity. This, in turn, led to the emergence of 'star regulators' – persons who, through their unique advantageous positions in the network of connections between markets and the regulators, were regarded as experts in both regulatory procedures and, after the study, in market practices. A prime example of the development of such an expert is Milton Cohen, the lawyer who headed the study.

Milton Cohen, who even previously had been regarded as a first-rate securities lawyer and therefore a competent interpreter of the law, was seen after the study as an important constitutive factor in the law-*making* process. The professional leadership of Cohen during the conduct of study was interpreted outside the SEC (by both opponents and supporters of the study) as evidence of his personal influence over both the professional and the political operations of this organisation. Since the study was quickly and widely recognised as a milestone in American financial regulation, Cohen, who was seen as the main force behind the study, gained a reputation for being one of the most influential figures in the field.

The wide recognition in the SEC's expertise gave it both the professional confidence and the political backing to tackle thorny issues that previously had not been subject to direct regulatory scrutiny and intervention. The following sections describe how the status that the SEC gained after the study, coupled with its improved ability to recognise problematic sectors of the markets, played a crucial role in the formation of options markets. In turn, this process should be understood in the light of a fundamental change that the SEC was undergoing at that time – the reinterpretation and the assignment of new organisational meanings to two core values upon which the agency's regulatory vision was based: the maintenance of an equal competitive field and the protection of private investors.

Pivotal in this process was the regulatory relationship between the SEC and the NYSE. The NYSE's seniority in the securities markets field in terms of trading volume, prestige, and expertise were undeniable. Moreover, over the decades the exchange's stable economic prominence has been translated to a significant political influence. Although all exchanges were put under the regulatory regime of the SEC, many at the SEC admitted that the NYSE was not comparable with any of the other exchange (B* interview).

From the mid-1950s it increasingly became evident to the SEC that the members of the NYSE were benefiting from the advantageous position that the exchange had in the securities field in ways that were problematic from the SEC's regulatory regime. A constant point of contention was the fees that non-members had to pay for execution of transactions on the NYSE floor. The level of commissions paid for the execution of such transactions was fixed, regardless of the size of the transaction or the frequency at which certain market participants made them. In the presence of fixed minimum commissions, broker-dealers who were members of any of the small, regional exchanges, but were not members of the NYSE[2] and performed transactions at the New York Stock Exchange – a daily practice for many of them – had to pay high commissions for the service. It has to be stressed that fixed minimum commissions for non-members were charged in all markets, but because of the dominance of the NYSE, the vast majority of these payments went to that exchange. This circumstance had put broker-dealers who were members of regional exchanges at a disadvantageous position in comparison with NYSE members, because the former had to charge their customers relatively higher prices for execution of transactions than the prices offered by NYSE members.

The SEC's position about fixed fees was that the practice contributed to the development of unfair competition among the exchanges because broker-dealers who were not members of the NYSE had to pay, on average, more for the transactions than NYSE members did and therefore had to charge higher fees from their customers. However, when the SEC tried to use the NYSE's internal ruling apparatus in order to stop the practice, it frequently faced a problem stemming from the organisational structure of the exchange – the fact that the NYSE was a members' cooperative made actions against specialists practically impossible:

> One of the problems was that whenever we would go in and have an inspection they would find that some of the specialists had done a lousy job, but because they were members of the exchanges and it was a voting system nobody could get

[2] Membership prices at the NYSE were typically 2-5 times higher than in most of the regional exchanges (Rotberg interview).

> these guys removed, nobody could compete with them. They had enough of a voting block so that the exchange could not do anything about it.
>
> (M* interview)

A possible solution to such problems was to change the SEC's rules so that the activities of the specialists that were impairing the free competition of other exchanges would be made illegal. However, such a step would have required the SEC to confront directly with powerful members of the NYSE (for example, all of the important brokerage houses on Wall Street were members). Moreover, solutions to some of the problems were beyond the then existing regulatory remit that the SEC was granted and therefore could have been made only through the American Congress. In that case the staff, the professional level of the SEC, would have to get the consent and support of the political part of the organisation – the Chairman and the Commissioners – and then orchestrate a persuasive lobbying effort in order to gather the needed votes to change the law. It was unlikely that the pre-study SEC would have either the professional confidence or the political backing needed to achieve any of these tasks. Therefore, from the SEC's point of view the NYSE was not only seen as the most important exchange in the field, but was also gradually regarded as a regulatory challenge waiting to be tackled.

The historical trend described so far – the rising ambitions of the SEC to increase its regulatory powers framed the motivation to abolish fixed commissions. Ultimately, it was hoped, competitive commissions would bring about a market environment in which investors would be offered better execution prices. However, in the dense social arena of securities markets, the promotion of such an initiative carried with it important effects on the SEC's relations with the exchanges. The fact that the SEC fought the fixed commissions in practice aligned the potential implications of the regulator's actions with the views of the regional exchanges. In addition, the fact that the SEC began to show such a level of involvement in the inter-exchange environment put into motion an organisational behaviour pattern that would prove to be of a determining impact on the development of options markets.

As part of its efforts to abolish the fixed rates, the SEC asked its supervising Congressional committee to set up a series of public hearings in which the NYSE was called to explain why fixed commissions were still needed. Fixed commissions accounted for a significant portion of the NYSE's overall intake and the NYSE's representatives at the Congressional hearings opposed bitterly to opening the commissions to competition (M* interview).

One of the NYSE's long-standing claims against the introduction of competition to the operation of the specialists was that a competition-driven mechanism for the assurance of liquidity would not be 'economically viable'. The phrase 'economically viable' was used frequently in Congressional hearings in which the SEC tried to bring about changes in exchanges rules. S*, an SEC's staff member who headed the hearings team describes:

> They [NYSE] had brought a couple of Nobel Prize economists, to the public hearings, I think that Samuelson was there. I remember cross-examining him. He argued that the commissions would be driven down through a negotiated rate system to a point at which the firms would have 'destructive price competition', which was the term that was used. Therefore, the firms would have to cut back on their expenditures for supervision, quality training, and the brokerage business would therefore diminish in term of its efficacy and its ability to prevent fraud. Using as an analogy what would happen if airlines would have free and openly

> negotiated rates – they would become unsafe, because they would have spent less money on safety. […] I remember that the opening question at the cross-examination [after Samuelson presented his argument] was: 'what do you think would happen if the OTC market had un-fixed, negotiable commissions?' Unfortunately, he argued that the same thing would happen, that firms would find it very unprofitable. He did not know that there were *no* fixed commissions in the OTC markets and in fact the rates [there] were considerably lower [than in the organised exchanges] and there were no adverse consequences. We, I'm afraid, told him that on the cross-examination.

(S* interview)

The Congressional hearings did not immediately bring about the abolition of the fixed commission; the American Congress abolished fixed commission rates as part of its 1975 amendments to the Securities Exchange Act (the 1934 Act) (Securities and Exchange Commission 1975). Nevertheless, as the previous example showed, the hearings were regarded as a resounding success for the SEC. The success of the SEC's staff in presenting a persuasive argument for the abolishment of fixed commission rates, while facing strong resistance from the strongest players of Wall Street, was an extraordinary achievement for a government regulator. It was the first time that the financial regulator confronted directly, and publicly, with the most distinguished securities exchanges. This dramatic confrontation, in essence, put to a comparative trial the professional expertise of the two institutions - and the SEC had the upper hand.

The differences between the conflicting worldviews that was brought to a dramatic clash in the Congressional hearings referred directly to the dichotomy between the traditional regulatory view of the markets and between the view held commonly by other market participants – the dichotomy between the 'normative' and the 'economic' views of the world. As the findings show, this dichotomy was about to be transcended. The fact that the SEC had superior knowledge about the way markets operated *in practice* gave the regulator the ability to develop a new policy. As a result of this new regulatory strategy, the traditional trade-off that existed when choosing to operate according to one of the two conflicting worldviews was avoided. Instead of applying one of the two external bodies of knowledge – a normative set of rules or an economic one – the SEC started to rely on the practices as they were observed in the markets as a starting point for the development of a regulatory approach. This in effect reversed the flow of knowledge that was related to the performance of financial regulation. Instead of only informing market participants about regulatory requirements, the SEC studied how the participants operated in the markets and then applied this knowledge in its rules. The following section, which describes the options market initiative, shows that this process does not only explain the increased political power the SEC gained, but also reveals how several of the distinctive boundary lines that had existed between commercial and regulatory market participants dissolved and, as a result, how the regulator turned into a fully-fledged market participant.

The options exchange initiative

If examined from a more traditional viewpoint, then the approval of the options exchange initiative and the shaping of early options markets may be described as a story of conflicting sets of norms and values. Namely, a dialectical relationship existed between the regulatory vision that the SEC was beginning to realise from the mid-1960s onward, and between the implications that the options initiative had on that vision. Such a theoretical approach would conclude that the conflicting relationship was solved when the SEC approved the options initiative. In contrast, the detailed examination of the historical narrative presented in the following sections reveals a process through which norms were transformed and a new regulatory approach was created. The next two sections of the paper describe this development of the options initiative and influence, and the regulatory transformation that accompanied it. The first section gives a description of commodities markets, the cultural and economic background of the options initiative. The following section examines the regulative and normative meanings of the initiative and the clash of these meanings with the political ambitions of the SEC.

The transformation of the SEC's approach changed options from a threat to a core regulatory value to a valuable political resource. As the analysis shows, this transformation took place mainly through the connections that developed between the SEC and the material and organisational aspects of the options markets. Hence, the process was not merely the change the regulator had undergone, but rather the change of the network of connections in which the SEC was an important node.

Originally, the commodities-based contracts contained mutual obligations of the buyer and the seller to, respectively, deliver and pay for a specified quantity of the commodity of a certain quality on a set date. Those contracts were concerned with future events and were presented as tools for limiting the risk of farmers and of merchants. For example, a typical contract might include the obligation to deliver 20 tons of potatoes of a given variety and of a given quality at a given date in return for a set amount. The Chicago Board of Trade (CBOT) was the first exchange in the US in which forwards were traded, in 1851. The forwards were designed for the specific needs of the two parties involved in the transaction and were therefore a useful solution for the suppliers of agricultural commodities and for traders who bought the products which had no use outside the particular setting. Gradually, as commodities trading became a thriving commercial activity, more traders wanted to trade without being limited by the specific bilateral restriction, a characteristic that limited the potential liquidity of the commodities markets (Cronon 1991). This was the main motivation for a development of a standardised forward contract – the futures contract. The CBOT (and later, other organised futures markets) standardised the parameters for the commodities that underlined the forwards (eg, quality, weight, delivery time).

The initial significance of the standardisation process was that any two members of the exchange could become part of a futures transaction by simply buying and selling standardised contracts. The creation of standardised futures also had more profound implications. First, by standardising the terms of the contracts – the delivery times, the quantities and the qualities of the underlying commodities and the price to be paid – the CBOT had in fact turned the contracts *themselves* into tradable items, thereby creating a new type of product and a new market. While forwards were inseparable from a single, specified future transaction, the tradable futures enabled traders to have an indefinite number of transactions until the expiry date of the contract, each carrying the possibility of making a profit. Second, by introducing the concept of standardisation to the Chicago commodities markets, CBOT expanded enormously the range of products that could potentially serve as underlying assets on the basis of which futures could be written. As the story of the options initiative reveals, the standardisation of contracts, and consequently, their tradability were achieved through a multi-faceted political and technological effort in which both commercial and regulatory market participants took parts. Similarly, the standardisation concept itself served as a source for powerful and influential commercial motivation. Members of the

CBOT, and members of other futures markets quickly realised that the more standardised commodities they succeeded in defining, the more types of contracts there were to be traded potentially.

The combined effect of the standardisation and increased tradability of commodities futures contracts also played a crucial part in the creation of a distinction between the commodities exchanges and the rest of the agricultural community, a distinction that will have important implications on the development of financial derivatives. First, the standardised commodities and standardised contracts based on them gave the traders the option to end their dependence on the underlying commodities – buying or selling an off-setting contract before the expiry date would effectively negate the trader's obligations to deliver or pay for the commodity. Second, standardisation helped to increase the trading volume in the markets, a factor that contributed to the formation of a new market behaviour that further deepened the differences between traders and others in the agricultural community. While farmers and commodities' spot traders (ie, those who traded the underlying commodities) were dependent on stable volumes of transactions to make profits, futures traders needed a certain level of uncertainty in the spot markets for their livelihood. Futures contracts, ensuring a delivery of a commodity at a specified price on a certain date, became more valuable, and their prices rose, as the delivery and the price of the commodity became less certain.

The futures traders dependency on a moderate degree of volatility in the underlying cash markets, combined with the cyclical nature of these markets, were among the motivations for the expansion trials of the Chicago commodities exchanges. Indeed, these differences in preferences between the traders and the rest of commodities' community help to explain the underpinning historical pattern of the futures market from which the initial motivation for the options market originated. The prosperity of both the agricultural community and that of the commodities exchanges relied on a continuous supply of commodities. However, while for the rest of the community the flux of commodities was a stream of physical goods that were bought and sold, for the vast majority of commodities traders the commodities on which the contracts were written were little more than symbolic representations of the physical commodities. For the traders, unlike the rest of the agricultural community, what was the nature of the underlying product was of less significance than how well the futures based on this product traded. This perception helps to explain the fact that since the inception of the standardised futures contract, dozens of different futures contracts were presented in the markets, among them contracts based on a variety of products like plywood, soybeans, frozen poultry and many others (Falloon 1998). This "contract-centric" approach can help to explain yet another phenomenon. Since the contracts themselves were tradable, when they expired, mostly the transaction did not include delivery of the goods. Instead, the traders bought contracts that negated their obligation from the original ones, those were cleared vis-à-vis the original contracts and the traders pocketed the differences between the two transactions.[3]

The gradual evolution of a new conceptual worldview for the futures trading community underpinned, and largely, enabled the revolutionary change from agricultural commodities to stock options. The CBOT traders were an integral part of the cultural and economic landscape in which they grew, but in the mid-1960s, after several decades of gradual growth in the conceptual distinction, differences between the futures traders and the rest of the agricultural community turned into influential factors. In this period commodities markets experienced a period of very low prices volatility, partially due to government-imposed

[3] Statistics show that typically only 2-5% of the traded contracts were settled in delivery (Johnson 1976).

minimum prices for the agricultural products on which popular futures were based: corn, wheat, and soy beans (Cowing 1965). As a result, volumes in futures markets started to decline. Members of the futures exchanges, the futures traders, suffered from dramatically reduced profits and began to look for new products on which to base futures contracts. F*, a leading member of the CBOT at the time describes the situation in the market:

> This was like 1968… and I think our trading volume at the Board of Trade was at its very low and we were looking for a new product to trade.

(F* interview)

The CBOT membership decided to set up a committee composed of members of the exchange, which was instructed to find new products for contracts. One of the initial ideas that the committee discussed was to set a contract based on a well-known stock market index, preferably the Dow-Jones Industrial Average. This idea was rejected after consultation with the CBOT's team of lawyers. This team was led by Milton Cohen, who after heading the SEC's Special Study of securities markets, left the public service and joined a Chicago law firm. Cohen pointed out that it was unlikely that the SEC would approve trading in such contracts that were not based on physical commodities and therefore could only be settled through the transfer of payments (Falloon 1998). Nevertheless, the thriving securities market, a sharp contrast to the dormant commodities market of the time, motivated the committee members to look for a stock-based solution to the problem of low trading volumes in the futures markets. Consequently, the committee instructed Joseph Sullivan, a newly recruited staff member who was appointed as a research and development vice president for the CBOT, to focus his efforts on the securities markets. R* was a lawyer at the CBOT's law firm during that time:

> There was a lot of interest at the CBOT at trading stock futures, among the [CBOT] membership, What happened, as I remember, was that Joe [Sullivan] had his research guys wander off, particularly to Wall Street. I think they came back with the clear impression that if the securities community would have to sell something [to customers], they'd prefer to sell options, on the theory that they're less risky. [...] [M]y impression at the time was that the mentality of the securities investors is one-way: you take a view on the market and you want to bet on that view. You don't want to suffer the consequences on the event that you'd be wrong. So, to that extent that you could put a safety net under your investment, so much the better and options gave them the opportunity to do that. In the futures situation, god help you should get locked in a volatile market because you're going to lose your shirt. [T]he guys on Wall Street were telling the guys in Chicago: 'We can sell your options to the public a lot easier than we could convert them to being futures traders.'

(R* interview)

As the quote shows, many at the securities community regarded the commitment implied in futures contracts to buy or sell the underlying assets on expiry (or to buy an off-setting contract) as a threatening aspect of futures. As the following sections show, such opinions were merely one part of a broader view about commodities markets, a view held not only by the commercial market participants, but also by the SEC. In late 1968, the CBOT's committee adopted Sullivan's recommendations and decided to develop a market for stock options. This decision placed the CBOT's initiative squarely in the regulatory territory of the SEC and it meant that in order to develop an organised exchange that would trade options, it was necessary to receive an approval from the SEC.

One of the practical consequences of SEC's organisational characteristic of having a strong professional staff was that each major proposal submitted to the SEC (eg, the approval of a new exchange or a new type of contract) had to go first through a meticulous examination by its staff. The CBOT's proposal to trade stock options in an organised exchange had to undergo such a long, exhaustive approval process. The historical process through which this regulatory approval was given proved to be much more than merely achieving an agreement between two institutions. In effect, the social construct that was created during the approval process had a significant influence on the conceptual and organisational form that options markets took.

Stock options and the SEC

One of the influential factors in the discussions between the SEC and the CBOT's team was the social distance between the worlds of commodities and securities that was implied in R*'s quote. This social distance was first expressed by the fact that there was very little knowledge about options among the staff of the SEC. In fact, most of the staff were not aware of the basic concepts of options trading. M*, who was a senior member of the SEC's division of market regulation when the discussions with the CBOT's team took place explains:

> One big problem was that we [SEC's staff] didn't know anything about options. […] We had a bunch of guys, many of whom came straight out of law school to work for us. A very few had a little bit of experience with Wall Street law firms and when they saw that they were not going to become partners they said: 'What the hell, we'll try the SEC,' and they wanted to see if that would assist them in their search when they would leave the SEC and go into private practice to become a partner in a law firm. I don't recall anybody who came to us after having been a house counsel or a general counsel at a brokerage firm. […] There was nobody in market regulation who knew the first thing about options.[…] [N]one of us really thought that we really understood options with the exception of [G*] who was an academic economist.[4] There was no major economics staff. None of our lawyers had any experience on the Street. We were *tabula rasa* for this. We had to have things explained to us. Our problem was that we didn't want to approve anything we didn't understand. We wanted to learn about it.

(M* interview)

The reasons behind this lack of knowledge point at two important structural features of the SEC. First, a large majority of the SEC's staff was composed of lawyers. As such, the economic and mathematical concepts involved in options trading were not familiar to most of the staff. Second, as this description of the typical career path of SEC's securities lawyers shows, most lawyers joined the SEC armed with only theoretical knowledge about financial markets. The SEC, being a government agency, could not compete with the Wall Street firms for the most qualified personnel and as a result, much of the knowledge that did exist at the SEC about the actual market practices came from experienced staff members or as a result of exceptional initiatives like the Special Study. The effect of the SEC's limited knowledge about options was exacerbated by the fact that the CBOT's team proposed a type of market that had never existed previously – a securities-based contract that was to be traded in a

[4] Gene Finn was the SEC's chief economist at the time.

commodities-style exchange. Therefore, the mental task that faced the SEC's staff was double: they had to learn and understand the concepts related to commodities trading, and they had to examine critically these concepts and appreciate how these concepts could be incorporated into the regulatory system that had been developed originally to monitor and supervise the trading of securities.

The larger regulatory structure also added an aspect of conflict to the social distance between the securities and the commodities worlds. Since the beginning of their regulation, commodities markets were regulated by the Department of Agriculture. In 1936, as part of the Commodity Exchange Act, the American Congress ordered the creation of a branch within the Department of Agriculture responsible for, among other things, the regulation of agricultural futures contracts: the Commodity Exchange Authority (CEA). Unlike the SEC that traditionally focused its regulatory efforts on the market practices (eg, disclosure procedures, suitability of products, obligations and rights of different market participants) and their enforcement, the CEA, coming from an agricultural background, concentrated its resources on the products themselves (eg, standardisation of quality categories, enforcement of storage and delivery standards). Since, as discussed earlier, commodities markets developed through a continuous process of standardisation and classification of products, the regulation of futures by the Department of Agriculture was focused on the products and not on the trading and market structure issues. For these reasons, in the securities trading world an impression developed according to which futures markets were very lightly regulated. G*, the SEC's chief economist at the time, describes the common approach among the SEC's staff to the regulation of agricultural commodities:

> It was the Board of Trade that had to come and deal with the Commission and for them it was a hell of a shock because the agricultural people that regulated the board of trade at that time never did anything. They let them do anything they want. Pre-CFTC[5] they did nothing.
>
> (G* interview)

Similar opinion, but from a different perspective, was expressed by C*, one of CBOT's lawyers:

> In that time, there was no CFTC and it was regulated by the CEA, which was a division of the Department of Agriculture. The oversight by the CEA was not nearly as stringent as the SEC's oversight.
>
> (C* interview)

These two elements – the mutual ignorance of the two worlds and the different concepts of regulation – were in large part responsible for the maintenance of the social distance between the securities and the commodities world. This social distance, however, was by no means the only result of the operation of these factors. As the findings presented below show, these factors contributed to the formation of a particular organisational worldview in the SEC. The accumulation of expertise that followed the Special Study, combined with the new options initiative provided the SEC with motivation to reinvigorate and to give new practical meaning to some of its core regulatory values: protection of the investing public and the maintenance of fair markets.

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[5] The Commodities Futures Trading Commission (CFTC) was established in 1974, replacing the CEA.

In order to understand the reasons behind the lengthy regulatory approval process that the options proposal underwent, it is necessary to analyse how the differences between the commodities world and the securities world were perceived at the SEC and how the conceptual and organisational boundary lines between the two realms were constructed. Many of the practices that were presented by the SEC as related to its organisational value of 'protecting the public' were based on mediation between the 'public' and the professional markets participants. In the case of commodities markets, the core value of protection was interpreted as a normative demand for the creation and maintenance of an effective boundary line between the 'naïve' and the professional. At the SEC in the mid- to late 1960s, commodities markets were regarded as the type of market activities from which investing public should guarded. The SEC, as many others in securities markets, whether they were regulators or not, regarded futures markets as 'forums for the professional to fleece unsophisticated or inexperienced investors' (Pashigian 1986: 56). This institutionalised regulatory perception had an important impact on the reaction to the options proposal, which in turn had a major impact on the shape the CBOE, and the rest of the field took later on.

The combination of lack of knowledge about commodities at the SEC, the lax regulation of the field (as it was perceived), and the fact that futures trading included an inherent element of future obligation, created the initial suspicion toward the options initiative. However, the element that triggered the regulatory 'defence instinct' was the very element that made futures so successful a century earlier – standardisation. According to L*, the director of the SEC's department of trading and markets, standardisation of options and its implications caused grave concerns at the SEC:

> It was just that before the agency was willing to allow it to go [to approve CBOE's proposed plan], it had to recognise the potentials for overreaching and questioning of protection of the individual retail person who was what they were going after. Because you could get customised options. They [the CBOT team] were trying to make this a general commodity for the individual. That was the primary concern.

(L* interview)

The fact that the options initiative proposed to standardise the contracts incorporated within it a potential threat to the separation between the worlds of the professional traders and of the general investing public. That is, the initiative was to take a financial product that had been, until then, traded in limited numbers and only within a small community of professional traders and bring it to a much larger audience – to the general investing public. Moreover, CBOT's options initiative was regarded as, potentially, an expansion of the dangerous practices that prevailed in futures markets into securities market where the 'public' traded. This possibility was seen as doubly dangerous as merely the trading of futures markets. It was not only that contracts that were conceptually complex would be now based on securities, and thus would enforce the SEC to regulate them, but also it was suspected that the standardised nature of the contracts would attract the lay investors into that den of sophisticated sharks, where, it was feared, they may lose their hard-earned life's savings.

In the light of this organisational worldview it is easy to see why the idea of approving a market in which the public will be exposed to commodities-style trading practices was conceived as a threat to the core values of the SEC. In addition to the fact that the organisational *raison d'être* of the SEC was put under threat, many among the SEC's staff felt that it would be immoral to approve such a market and that by doing so they would betray the American public. For example, B*, who was the head of the SEC's enforcement division at the time, recalls arguments among SEC's staff members about the approval of the options proposal in which: 'very hard things were said: 'How can you even think to approve such a thing!? You're a disgrace!' Very hard things,' (B* interview). On another occasion L*, the head of the trading and markets division, said that options would be approved 'over his dead body' (C* interview).

This organisational vision, which regarded options as an obstacle to the maintenance of separation between the investing public and the 'professionals' was still strong when the CBOT's team presented its options initiative for the first time. Nevertheless, the transformation that the SEC was undergoing at the time, the transition from a regulator that played an external role in the market to a full political market participant, had a dramatic effect on the core regulatory values that the organisation held. The historical narrative indicates that the SEC's regulatory values changed in a way that turned options from a practically banned financial product to a strictly controlled one. That transformation was not merely a 'softening' of the original view but rather a reinterpretation of it in the light of the new political role that the SEC was aiming to perform.

The post-study years in which the SEC's importance grew in the securities markets' community also signalled a similar increase in the importance of staff within the SEC. Many of the initiatives that were approved by the Commission originated from the staff and, after the success of the Special Study, data and recommendations that were included in staff reports were considered carefully. Similarly, one of the most indicative areas about the strength of the SEC's regulatory values was the opinions expressed by staff members. Those opinions, which were expressed in SEC's documents and by SEC's members during meetings with CBOT representatives, were effective in consolidating the SEC's values in the evolving new network of connections. In addition, the publication of the opinions was constitutive in the development of a strong opposition to the options initiative and, thus, contributed to the fact that two years after the CBOT team first made contact with the SEC about the options market proposal, there was still no indication that an approval would eventually be given. The pattern of the interaction between the SEC's staff and the CBOT also contributed greatly to this long delay. This interaction resulted in an increasingly detailed plan. Typically, the CBOT's team sent a document describing a certain aspect related to the operation of the market. The SEC's reaction was then a request for more details about certain areas of the description, followed by further detailed explanations, and so on. This process, which caused much frustration to members of the founding team (F* interview), also resulted in the formation of an elaborate body of knowledge about the structure and practices of the proposed market. Therefore, due to the detailed exchange of concepts and plans, and although the options exchange itself was not approved yet after two years of such interactions, many of the market's trading practice and products were already designed.

The fact that the approval of the proposal was delayed by two years had yet another unintended effect on the actual approval of the options exchange. This effect, in turn, reveals another layer in the intricate process of the regulatory shaping of derivatives markets. The construction of the SEC's new set of regulatory practices took place in the context of a broader political change. The political climate at the SEC, as in many other parts of the American administration, had undergone a significant change with the election of Richard Nixon as President in 1968. Nixon did not hide his disapproval of the SEC's interventionist regulatory mode of conduct, and replaced Chairperson Manuel Cohen, who was a staunch supporter of a 'hands-on', interventionist regulatory approach with Homer Budge, a former

Federal judge. According to leading figures among the SEC's staff at the time, although Budge held much milder views than Cohen about the level of intervention that the regulator should have in the markets, he actually did very little to suppress the momentum of interventionist activity that existed at the SEC at the time (G* interview, M* interview). Since Budge was not prepared to act directly against his staff's recommendations, who were opposed to the options exchange, the two years in which the Commission was chaired by Budge was the time when the material describing in increasing detail the operation of the options market was accumulating. In many respects, then, Budge's chairmanship prepared the ground for a more dramatic change that came with the nomination of William Casey as the chairman.

Unlike his two predecessors, Casey came to the SEC from the securities business, had extensive connections with Wall Street firms, and in general tended to be attentive to the wishes of that sector. Theodore Sonde, a senior member of the SEC's enforcement department mentioned that:

> [B]ill Casey […] was surrounded by a number of people who had just come from large Wall Street firms.
>
> (Theodore Sonde in SEC's Historical Society, 2002: 26)

Support from the securities markets community was important to Casey for another reason. Casey was nominated chairperson of the SEC towards the end of Nixon's first presidential term and a short time after he commenced his position in Washington, the early stages of the 1972 presidential campaign started. As a republican candidate, Nixon was hoping to gain political and monetary support from Wall Street firms. For example, shortly after he took office, Casey presented a plan to restructure several of the SEC's departments. (SEC's Historical Society 2002: 22-3). These plans had implications on the securities markets communities and thus it was critically important for Casey, who recruited support for Nixon among that sector, to get support for the plans:

> Casey held industry structure hearings [in Washington] […] just before he went up to New York for fundraising for Nixon. […] That's why he had those hearings: to get those guys down there, to get them softened up and then he went to New York where he was going to rake all that money.
>
> (G* interview)

It is safe to assume that CBOT's proposal to open an options exchange was not heading the list of issues that the leading Wall Street firms wished to discuss with the SEC. However, as documents and interview material show, both the established securities exchanges and the big New York broker-dealer firms showed interest in the developing options exchange initiative. As described in more detail in the following section, the pioneering effort of the CBOT's team to open an options exchange was watched closely by the securities exchanges. C*, a lawyer on the CBOT's team, mentioned that some of these exchanges, especially the American Stock Exchange (AMEX), regarded the CBOT's attempt as a test case. That is, a first, successful options market would mean that others may also start similar markets without bearing the risks involved in being the first to sail the uncharted water (C* interview). Furthermore, as Sullivan's research in New York showed, the major broker-dealer firms also supported the idea of an organised market for options because, for them, options opened a potential new source of revenue. For these reasons, the SEC's Commissioners and the Chairman Casey experienced little resistance to the CBOE initiative from the securities community.

The initial positive reaction of the securities exchanges to the options initiative should also be understood in the light of the troublesome period that these markets had undergone previously. As result of the general volatile economic climate in the early 70s securities markets were suffering from a long stint in which volumes were low and relatively few new stocks were issued (Kapstein 1994). In similar manner to the commodities markets a number of years earlier, the members of the securities exchanges, whose profitability was reduced during the slow period, were looking at stock options as a product that may help in returning trading volumes to their markets. H*, who was a staff member of the SEC during this period, explains:

> [Y]ou have also to establish the timeframe here. The securities market has just gone through their worst period in modern times. The period from ’71 to ’75 was incredibly unprofitable time for securities markets. […] Options were then sort of the saving grace product in the mid-’70s period. Because in an environment of low IPOs, lousy for investment banking, before the hostile tender offer [period] kicked in, options were the only sales product that was selling and making money.
>
> (H* interview)

The connection between Casey and important figures in the securities community brought about a situation in which the interests of the established securities exchanges (who largely supported the options market idea) were represented, by proxy, in the discussions between the SEC and the CBOT’s team about the new options market. However, since the majority of the SEC’s staff was still opposed to it, those interests were not strong enough to support an approval of the options proposal.

Unlike the above-mentioned, broad, structural elements, the last two factors in the complex constellation of events that facilitated the regulatory approval of the options initiative derived from the realm of inter-personal relations. First, Casey’s leadership changed the staff-Commission relationship significantly. According to L*, who headed the SEC’s division of trading and markets when Casey arrived at the SEC, Casey’s management style contributed to the formation of a more influential Commission in the decision-making process of the SEC:

> Casey was a very dominant person and probably started what I would think was the control of the chairman over the agenda and really in the policies of the Commission more.
>
> (SEC historical society 2002)

B*, who worked under Casey as the head of the SEC’s enforcement division mentioned that Casey was ‘a very demanding boss’, especially when the matters concerned making of decisions (B* interview). For the SEC’s staff of the early 1970s this was a substantial change. In the years after the Special Study, the staff, and especially the more senior members of it, became used to operating in an organisational environment that was receptive to new ideas, and in which, frequently, those ideas won the support and the backing of the Commission (as the fixed commissions case showed). In contrast, an opinionated chairperson who promoted a definite agenda limited the ability of the staff to influence the outcome of the SEC’s decisions.

Second, the legacy of the Special Study came to the fore again, only that this time it affected positively not the SEC's staff, but the CBOT's team. As mentioned earlier, Milton Cohen, the most respectable name to come out of the securities Special Study, was heading CBOT's options initiative. Casey, in spite of holding different views about the role of the financial regulator from Milton Cohen, acknowledged Cohen's expertise and respected his opinions. Consequently, Cohen's presence gave the CBOT team a 'direct line to the Commission' (C* interview) – the ability to present ideas and plans directly to the commissioners and the chairman without having to go first via the staff, which largely opposed the options initiative.

In late summer 1971, more than two years after the CBOT first presented the options proposal to the SEC and after an extensive exchange of documents and a long chain of meetings, Cohen requested a private interview with Casey. According to Cohen, the only remaining witness from that meeting[6], Casey was convinced about the options concept and simply asked what order to give to the staff so that the options initiative would be realised (CBOE 1998). Cohen's status as one of the most respected securities lawyers of the time, and especially the respect and appreciation from which he enjoyed at the SEC played a major role in securing the regulatory approval for the options market. However, as this section shows, Cohen's status was just one factor among many that played a part in the regulatory approval of the options exchange. The changes in the general political climate of the American administration, and especially the closer relations between Wall Street and the SEC had significant roles in bringing about the regulatory approval.

In spite of the importance of this initial regulatory approval, the formal agreement between the regulator and the initiators of the options exchange was only another step in the gradual formation of the new market network. In particular, as the following section shows, the SEC's core values were not discarded because of the approval. On the contrary, in the environment that was created after the approval the organisational norms regarding competitiveness and protection of the investing public played an even more decisive role than they did before organised options markets existed.

Options markets in operation

In October 1971, the SEC gave its consent for the opening of an organised exchange for the trading of options. Nevertheless, the particular constellation of persons, events and interests that resulted in the approval to trade options did not create an overnight change in the institutionalised views that the SEC's staff held about options. Options were still regarded as an exceptionally dangerous area of financial markets. For example, the official regulatory text that introduced the options exchange includes grave warnings about the possible implications of the trading in the new contract:

> The Commission is of the opinion that in addition to the novelty of exchange option trading, such trading may involve complex problems and special risks to investors and to the integrity of the marketplace.
>
> (SEC, 1973: 1)

The warnings implicitly refer to the two areas at which options were conceived as threats to the SEC's values – protection of the investors and the ability to maintain fair and competitive

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[6] William Casey died in 1989.

markets. A different SEC rule from the same period helped in creating an operational framework for the SEC's other core regulatory value – protection of the investors – with regard to options:

> The rule require[s] the broker or dealer to have a reasonable basis for believing, after reasonable inquiry and before recommending any transaction in options to any customer, that the transaction is not unsuitable for the customer.
>
> (SEC 1973)

The approval of the options initiative made the maintenance of the separation between securities markets and commodities markets impossible and, from the SEC's point of view, this situation left the investing public exposed to possible manipulation by professional traders. The rule quoted above shows part of the initial reaction of the SEC to this change: the beginning stages in the creation of the new legal and organisational entity of the options broker-dealer. Needless to say, broker-dealers existed in securities markets and were subject to regulatory scrutiny then. In contrast, as the quote shows, in options broker-dealers were requested to be specifically vigilant and to assess the suitability of the products to prospective customers. Thus, the broker-dealers were practically assigned as gatekeepers, or selective buffers, who would help to monitor the transfer of customers from one realm (commodities markets) to another (securities markets). As the following section shows, the values embedded in these rules were part of a special legal framework that was designed to monitor and regulate the activity in the newly formed market. The new options market - the Chicago Board Options Exchange (CBOE) – was given the regulatory status of pilot programme. This status implied that the continuation of the regulatory approval was dependent on satisfying not only the initial requirements of the SEC, but also additional ones that may arise in the duration of the pilot programme. In addition, the SEC ruled that any changes or additions to the practices or structure of the options market would be brought to the approval of the Commission and alterations made by CBOE would be applied only after examination and approval (SEC 1973: 2).

The pilot programme status and the practices it entailed were the basis of the organisational infrastructure through which the SEC participated in the shaping of options markets. Naturally, the status expressed the cautious suspicion that still existed at the SEC towards options, but this does not fully exhaust its implications for development of options markets. First, the status of CBOE as a pilot programme created a framework for a set of practices that otherwise would have probably been regarded as overly interventionist by the exchanges. Thus, the pilot programme status helped to lower the political cost of regulation and helped to legitimise it. Second, the obligation of the CBOE to provide detailed reports about their intended moves gave the SEC the ability to accumulate first-hand information on the practices in options markets as these developed. By doing so, the SEC hoped to maintain a similar knowledge base to the one that was translated so successfully to political power after the securities Special Study.

The SEC's dual challenge – to maintain its political power among the exchanges and, at the same time, to keep practicing its organisational core values – seemed even more demanding after the approval of the first options market. The SEC had to prove to the regulated markets that it had not lost its motivation and vigour although the Commission approved options that the staff opposed to so strongly. In addition, the SEC was facing a growing regulatory field as more exchanges followed the initial success of CBOE and submitted their own plans for the trading of options. This set of circumstances implied that, in order to follow its regulatory value that called for the encouragement of competition, the SEC had to play an active part in the competitive field, and in particular, to mediate between the more established exchanges of the East Coast and the 'regionals' – the regional exchanges. Maintaining the competition according to this regulatory perspective implied that the identity of the 'favourite-underdog' combinations and the issues had to change constantly.

The American stock exchange (AMEX) in New York was not a 'regional' exchange in the full sense of the word – it was not the only stock exchange in its area. However, other characteristics motivated the SEC to assign the 'underdog' definition to the AMEX. For example, M*, who was deputy director at the SEC's division of market regulation in the late 1960s and early 1970s, explains:

> I was very pro-competition. It was obvious that you do anything you can to encourage competition. That meant keeping the regional exchanges alive. They never really competed in a major way with the New York market [NYSE]. But they did a lot of things; they came up with a lot of innovations in trying to do so, in trying to compete with [NYSE] members' business. Competition was very desirable. Even if it wasn't successful, it had a healthy impact and I wanted to help […].
>
> (M* interview)

The declared rationale behind the encouragement of competition, as the quote shows, was directed at bringing about a better market environment for all of the participants. However, the practice through which this end was promoted also served another goal – the enhancement of the SEC's regulatory power. As the options trading in CBOE was entering its second year (1974), the SEC received a similar proposal to that of CBOE from AMEX. Granting a swift approval to AMEX's proposal would mean that the young options exchange in Chicago would face direct competition from an early stage. This in itself was not the main reason that prompted the staff of the SEC to recommend to the Commission to accept the proposal:

> The AMEX came in… they had something that was interesting to us. […] AMEX said that they were not going to be trading options on AMEX-traded stocks, just NYSE-traded ones.
>
> (M* interview)

The fact that the AMEX intended to offer options that were based on NYSE-traded stocks was interpreted by the SEC as a potential increase in the competition between NYSE and AMEX. This interpretation was based on the assumption that the NYSE would also want to enter the options market in the near future. The common opinion at the SEC about this possibility was that trading of both stocks, and the options based on these stocks, at the same exchange, especially in the young market environment of options might enhance the dominance of the NYSE even more. Therefore, if the AMEX proposal was to be approved quickly, the NYSE would enter a more competitive market for NYSE-based options. Therefore, by allowing the AMEX to trade options, the SEC promoted competition and increased its political power with regard to the NYSE. Such use of options as means for the creation of political power in the regulatory arena was possible because of the restrictive regime that the CBOE's pilot programme status implied for the entire options field. Originally, as seen before, this regime came as a reaction of the SEC's staff to the threat that options represented to the motivation to protect the investing public from professional traders. However, by taking part in shaping the new market environment in which options were traded, the SEC turned options from a threat to a resource.

The network of connections through which the organisational value of competition was performed had multiple implications on the shaping of options markets. Although many at the SEC were still sceptical about the potential success of an organised exchange for options, they nevertheless operated in order to create an environment in which several options-trading exchanges would compete. Furthermore, the evolving options markets were not seen only as the arena in which competitive activity would take place: the options contracts themselves were as seen as tools for the development of such an environment. This use of options as tools for the promotion of a competitive environment was most visible during the discussions between the SEC and the AMEX, about the exchange's proposed options programme. These discussions took place while CBOE was already trading options, but was still subject to the restrictive pilot programme status. G*, the SEC's chief economist at the time, describes:

> When the CBOE went into operation in 1973 the Commission, I felt was dragging its feet on approving CBOE options because the AMEX was going to go out of business if it didn't have options. AMEX was in terrible, terrible shape. I don't think that the AMEX would have survived if they had not got in the options business.

(G* interview)

One of the demands of the pilot programme status was that new options that the exchange wished to add (ie, based on stocks that were not used before as underlying assets) would need to be approved first by the SEC. This requirement was included in the pilot programme in order to control the underlying stocks that would be used for writing of options. The main concern behind the step was that options written on stocks for which a liquid market did not exist (or for which it was probable that illiquid market conditions may develop) might create situations of high volatility in the stock markets as traders who would need to buy or sell stocks as part of their options contractual obligations would drive prices sharply. In extreme cases, it was feared, such demands may cause traders not to be able to fulfil their obligations at all and thus damage the credibility of the options markets. These concerns served as the motivation for the rule, but as seen earlier, the praxis that evolved in the options market gave additional meanings and uses to the rule. The SEC was using the rule as a method to control not only the identity of the stocks that would be used for options, but also the timing in which those options would be added to the market. By doing so, the SEC in effect used the approval of options to encourage the creation of a multi-exchange competitive environment.

Such ad-hoc cases helped the SEC to construct a set of organisational practices through which its value of promoting competition was performed and its power in the inter-exchange arena increased. However, as options became more popular and more exchanges applied for trading programmes, the use of a bilateral framework for management of the field became increasingly cumbersome. In the example above, the SEC was trying to control the competitive ability of AMEX in comparison with that of CBOE, the only other major options exchange in existence at the time. As more exchanges began trading options and wished to expand their trading repertoire, it became increasingly hard to predict the outcomes of such regulatory interventions. The SEC then created a more systematic way to control the new resource that has developed in options markets – the access to underlying stocks.

As the trading of options became more popular and especially as options gradually became a prominent element in institutional investors' portfolios, the demand for options on more stocks increased. Supply, however was restricted by a combination of two SEC regulations. First, the SEC ruled that only highly capitalised stocks that were regularly traded in large volume would be allowed to serve as a basis for options. This restriction limited the available stocks on which options could be written to a narrow group. Second, multiple listing of options on the same stock was not allowed until the mid-1980s. The meaning of this restriction was that only a single exchange was allowed to trade options on a certain stock at any given time.

As in the previous rule, which simply restricted the access to options, the initial reason for this rule was the will to limit systemic risk. The concern was that multiple listing would encourage arbitrage between the various options markets and this, in turn, would be translated to concentrated demand for certain stocks and would increase market volatility at the typically volatile hours that precede the expiration of options. The common hypothesis at the SEC about the dangers of multiple listing of options was that most arbitrage transactions would take place on the trading day in which the options were to expire. It was believed that on that day, close to expiry, the discrepancies between the prices of the options in the different markets would be the biggest, due to different demands for the underlying stock (T* interview).[7] The SEC itself, after selecting the pool of stocks that were allowed to serve as underlying assets for options, allocated the stocks to the exchanges. The CBOE and AMEX, being the two initial competitors in the field were the first two exchanges that were allocated stocks, and witnessed the power-creating aspects of the rule:

> The Commission was holding back when they began the allocation process [of stocks on which options were to be written]: 'You get so many, you get so many'. In other words, they would not give CBOE more because they had to give more to the AMEX. […] [W]hat happened was that CBOE came in and asked for more stocks [to write options on] and the Commission would say: 'well, you've got to show us that your anti-manipulation is complete' and the CBOE would tell us: 'Tell us what to do' and the Commission would say: 'Well, no. You've got to propose what you should do'. […] And the thing was that the AMEX would come in and say: 'These are our rules and they are the same as what the CBOE got' so – bingo, no problem. […] [F]or whatever reason the delay was enabling the AMEX to get up to speed, to get their operational thing ready so they could start getting stocks. I think that CBOE had about 30 stocks and then the AMEX started getting stocks. It wasn't very many. I felt that CBOE's lead was probably cut in half by regulatory delay. That was my perception that the AMEX needed it badly. The two problems were happening at the same time: AMEX was having a hell of a time, CBOE was trying to get more stocks and was having trouble getting them.
>
> (G* interview)

This example shows how effective the use of the rule for achieving the dual goal of the SEC was: the creation of a competitive multi-exchange field while maintaining a large degree of dependency of the exchanges on the regulator. The ban on multiple listings in different exchanges in effect institutionalised the practices through which the SEC exerted its power over the exchanges and helped the control of access to options to become a relatively standardised process. From the exchanges' side the effects of this strategy were significant.

[7] The SEC later changed policy about multiple listings and even advocated that inter-market arbitrage that followed multiple listing has contributed to a more efficient marketplace (Levitt Speech, 1995).

The turning of options from a threat to a political resource brought about a structural situation in which having access to stocks became a determining factor to the success of the exchanges. P*, who at this stage was the chairperson of CBOE, explains:

> For a long while there were plenty of good stocks left to be picked. Like the old Civil War saying goes: 'Whoever gets there first is probably going to get the most.' Almost without exception whichever exchange that listed options on a stock first had the dominant market share trading in options on that stock. So our ability to [expand] was all predicated on […] the fact that the AMEX were being held off.
>
> (P*, interviewed by MacKenzie)

Although the purpose of the SEC's ban on multiple trading of options was, among other things, to promote competition, the restriction also contributed to the creation of a turf war between the options exchanges that in effect impeded the competition. For example, in August 1975 the AMEX filed a civil suit against CBOE accusing if of submitting a false application to issue options on Boise-Cascade stock while not having the actual intention to use the stock for options, in order to prevent AMEX from using the stock (Paul and Cohen 1975). Naturally, such a consequence was not an intended result of the SEC's strategy. However, the case shows how powerful and effective the organisational and normative structure that evolved in the options exchanges field was. Limited access to options was a result of a compromise between the regulator's worldview and specific political circumstances. This compromise played an important role in the shaping of options markets and, as the example above shows, structured the relations between the different market participants.

A more general look at the options market corroborates this analysis. It is plausible that CBOE was suffering from the fact that it was indeed the pioneering market. Namely, the CBOE had to prove to the SEC that its market infrastructure and its practices were sound and safe – a long and costly process – while the AMEX, and other markets that followed, simply had to copy the already-approved CBOE regulations. Accordingly, it would be safe to assume that a regulatory piggy-backing process followed this circumstance. However, had this process been the most influential driving force behind the spread of options markets then one might expect, given the proved profitability of options markets at that stage, that all other exchanges would copy the CBOE model and gain swift approval from the SEC. This did not happen. Although 10 of the 12 securities exchanges either submitted proposals to trade options to the SEC or discussed such proposals, only two of the regional exchanges were approved to trade options in 1974-5: the Pacific Stock Exchange (PSX) and AMEX. L*, the director of the SEC's division of market regulation, and later a commissioner, summarised the SEC's strategy at that period:

> That was the advantage of keeping the regionals [regional exchanges] alive, they gave us the weapon of competition.
>
> (L* interview)

In many respects the regulatory approach presented in this quote captures the transformation that the relations between the SEC and securities exchanges had undergone in the period that the paper describes. That is, the use of the competitive field as an advantage that increased the SEC's regulatory influence and political power.

Conclusion

The historical narrative presented in the paper sheds new light on several commonly accepted assumptions about the role that financial regulators take in the evolution of capital markets. In particular the empirical data referred to two main points related to this process: the nature of the interactions between financial regulators and other market participants, and the role that regulatory values (eg, 'fair competition') play in the evolution of markets.

The historical narrative of the evolution of options markets focuses on the interactions between the various institutional actors that took part in the creation of markets. If a commonly accepted worldview would be applied to the historical case then the various actors would probably be classified as belonging to one of two archetypical groups. A good example for the application of such a dichotomy to financial markets is the characterisation of Miller (1986) of the constitutive powers of financial regulators. Miller suggests that many of the sophisticated financial derivative products existing today were developed because financial entrepreneurs were trying to break away from regulation.[8] According to Miller, new and innovative financial products, did not fall under the existing regulatory definitions and thus allowed their users to be free from regulatory constrains such as reporting, or compliance with strict risk-mitigation practices. The 'action-reaction' hypothesis makes an implicit assumption about the nature of the financial entrepreneurship process. According to this assumption the regulators and the financial initiators are engaged in a symbolic tennis game: the financial entrepreneurs launch a new type of product, which challenges the abilities of the existing regulatory regime, and the regulators react by changing the regulations.

As the historical case of options markets show, such a simple taxonomy tends to gloss over the complexities embedded in contemporary financial markets and to produce an accurate analysis. In contrast, a more fruitful comparison can be offered between the empirical findings of the options case and more sophisticated approaches about the evolution of regulation. Ayers and Braithwaite offer an alternative to the mutually excluding division between regulation and deregulation, a dichotomy they regard as arbitrary and contrived (Ayers and Braithwaite 1992).[9] In their analysis, Ayers and Braithwaite predict that in complex fields, such as financial markets, the relations between regulators and regulated would tend to shift from a pattern of command and control, in which the regulators dictate to regulated the regulatory goal and the means through they are to be achieved, to an interactive pattern they refer to as 'enforced self-regulation'. In the second phase, the regulatory goals are still chosen by the regulator, but the ways in which they are attained are dependent on the expertise of the regulated. The 'enforced self-regulation' scheme assumes implicitly that there is a separation between the 'what' element of regulation, the value-based, normative demands that underline the regulatory practice, and the 'how' element, the means through which these demands are tackled.

The historical evidence in this paper tends to support some of the general premises of Ayers and Braithwaite's hypothesis. The events in the paper show that the approval of options markets had traits of distributed regulatory action. In fact, the SEC and the CBOE distributed the work on the evolving market between them according to the comparative strength of each

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[8] Many of the examples that Miller uses are taken from Over the Counter (OTC) derivatives markets, markets that followed a different historical path from the ones described in this paper. However, since Miller's argument is paraphrased in general terms it represents the 'regulators-chase- markets' approach.

[9] The fundamental premises of this approach are similar to the ones of the 'market reconstruction' school (Block 1994) and the 'regulation studies' approach (Bryant, Hooper and Mann 1993; Rhodes 1997).

actor: the SEC had more political power and the CBOE had more knowledge about options trading. However, the options story includes another important element – the intertwined relations between normative demands and technical knowledge. The historical narrative shows that no meaningful separation between the normative demands that the SEC made about options trading and between the inherent features of options contracts existed. On the contrary, in the initial historical phase described above there was resistance to the trading of options because the ability to perform deferred, leveraged, transactions – one of the fundamental characteristic of options – was seen as a potential threat to the SEC's regulatory value of protecting the investing public. Furthermore, the options case shows that the normative assessment, with regards to the safety of trading options in an organised exchange, depended on the ability of the SEC to transform the seemingly technical knowledge about options to political currency.

This evolution of options markets also corresponds with more recent approaches that were applied to the study of regulatory environments. Leyshon and Thrift (1996) suggest that there is a discursive plurality in the interfaces between regulators and corporations that brings about frequent changes in the content and boundaries of the economic system. If we add this insight to the hypothesis about enforced self-regulation we see that complex regulatory fields, like the one that evolved around options markets, call for very different analytic perspectives from the ones that divide the institutional agents to regulators and regulated. Instead, as the historical description implies, in an environment where it is necessary for the institutional agents to cooperate in order to influence the shape of the regulatory action, the nature of the ties among the various actors is as important as their motivations.

This theoretical perspective, which assumes that there is a dynamic, multi-focal regulatory environment is related to the concept of decentred regulation offered by Julia Black (2001, 2002). According to Black, regulation is not a process that the state or its agents activate, but it is rather an outcome, or multiple outcomes, of interactions among actors. This approach also differs radically from command and control approaches, not only because it distributes the regulatory action among the agents, but because it also detaches the responsibility for the regulatory process from a single agent, or a group of agents, and transfers it to the relations among the different actors. In other words, the question 'who regulates?' is replaced by the question 'how is regulation performed?' This question, which according to previous theoretical approaches to regulation was seen as a technical derivative of the worldview of the regulator, has moved to the fore. Since no single agent performs the regulation, but instead it is seen as an emerging organisational, political and, more recently, technological phenomenon, it cannot be reduced to a string of pre-determined procedures. Instead, the network of connections through which regulatory activity takes places should be regarded as the organisational infrastructure where rules, practices and procedures evolve and take shape. As the paper shows, such a network includes the various interfaces between the actors, as well as the material and technological artefacts that they use.

The two main elements discussed above – seeing regulatory space as a multiplicity of connections and accentuating the performance aspect of such a space, rather than the motivation behind the actions – are related to some of the basic concepts of the actor-network theory from the sociology of science (for several relevant references see Callon and Law 1995; Haraway 1991; Latour 1987, 1988). In addition to these two elements, the analysis in this paper relates to another important concept from the actor network theory, the concept of translation. According to actor-network theory, agency cannot be attributed to any single actor, because any meaningful action is always distributed through the network of connections. However, by assuming that agency is distributed, actor-network theory did not eliminate the concept of power in the network. Actors can create and maintain bases of power by performing a successful translation, by relocating a procedure, a practice or a concept from their existing context to a new one, one that serves better their interests or their worldview. Put differently, translation is a rerouting of connections in the network in such a way that connections pass through a certain node in the metaphorical topological structure of the network thereby causing that node to increase in influence.[10] As the evidence in this paper shows, the evolution of the organisational infrastructure of options markets is composed of a string of such translation attempts, some were successful and others that failed, which in aggregate shaped the relative power centres across the network.

Finally, it should be noted that the empirical material that the paper presents, combined with the notions discussed above, about the distributed regulatory action and the network-based agency, can serve as a starting point in a future discussion about the relations between regulatory values and the regulatory action. From a first look, the regulatory approval of CBOE may be described as an outcome of a struggle between two normative claims that existed in the SEC's regulatory worldview – supplying protection to the investing public and encouraging competition. However, the detailed historical account shows that ideological elements like 'competition' and 'public protection' did not exist as independent forces but rather as relational ones. That is, the ability of various actors to use ideological elements as sources for motivation was dependent on the positions that the actors held in the network of connections that composed the evolving options markets. For example, for the SEC the notion of competition included an inherent component that called for abolishment of the structural advantages of the NYSE. That is, the notion of competition was not an abstract concept that was simply applied to a case or series of cases, but rather was embedded in the market network. In other words, the material, political and organisational conditions of the market bounded the regulatory motivation.

[10] An exemplary analysis of a case in which successful translation was performed is in Akrich (1992).

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Appendix: list of interviews

All interviews were recorded.

(Q*), interviewed by Yuval Millo, Chicago, April 2000

(D*), interviewed by Yuval Millo, Chicago, March 2000

(E*), interviewed by Yuval Millo, Washington, DC, April 2001

(U*), interviewed by Donald MacKenzie

(F*), interviewed by Yuval Millo, Chicago, April 2000

(G*), interviewed by Yuval Millo, Baltimore, MD, April 2001

(V*), interviewed by Yuval Millo, Washington, DC, April 2001

(H*), interviewed by Yuval Millo, Washington, DC, April 2001

(I*), interviewed by Yuval Millo, Chicago, April 2000

(R*), interviewed by Yuval Millo, Washington, DC, March 2001

(K*), interviewed by Yuval Millo, Chicago, March 2000

(J*), interviewed by Yuval Millo, Washington, DC, March 2001

(T*), interviewed by Yuval Millo, Washington, DC, April 2001

(L*), interviewed by Yuval Millo, Washington, DC, March 2001

(S*), interviewed by Yuval Millo, Washington, DC, April 2001

(M*), interviewed by Yuval Millo, Washington, DC, March 2001

(C*), interviewed by Yuval Millo, Chicago, March 2000

(O*), interviewed by Yuval Millo, Chicago, April 2000

(B*), interviewed by Yuval Millo, Washington, DC, March 2001

(P*), interviewed by D. MacKenzie, Knoxville, Tennessee, October, 2000

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