

# The Securitisation of Transactions after Financial Crashes: The Case of Black Thursday, 1929

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## Introduction

This article zooms in on an operation that is key to modern finance but often neglected in its accounts, including accounts of the crises of financial capitalism: namely, the financial transaction, especially the exchange transaction. In the history of economics, this notion is usually associated with that of transaction costs, signalling the emergence of institutional from neoclassical economics. More generally, the notion of a transaction refers to a process in which a value item is passed on into another legal person's ownership. While this process can be unidirectional—for instance, in the case of settlement or inheritance—, in the economy and in finance it most often takes the form of an exchange transaction, that is, the mutual exchange of two value items that are held to be commensurate in value, and often in a (competitive) market. Such exchange transactions are highly formalised and ubiquitous in modern economies, operating through a medium of exchange (money) which at the same time makes it possible to establish the commensurability of different items and services in the form of a price.

Why would such a ubiquitous, inconspicuous, and seemingly simple operation—an operation that can be easily automated, as can be seen in the fact that in many segments of the financial market automated trading procedures now account for the overwhelming majority of exchange transactions—be interesting in terms of security perceptions and the economy? The answer that this article gives is that transactions become a security issue when they become *securitised*,<sup>1</sup> that is, associated with a threat perception. A recent example of the securitisation of financial transactions can be depicted in the very broad tendency of governments worldwide to identify

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*Buzan et al., Security; Wæver, Securitization.*

financial markets and their institutions as “critical infrastructures”<sup>2</sup> for the economy and for society as a whole.<sup>3</sup> As financial markets and institutions are held to provide key services to the economy and society—such as pricing, enabling corporate governance and transacting payments—any dysfunctionality attains the significance of a vital threat.

Yet, this article opts for discussing instances in which financial transactions themselves become problematised; that is, become thematic as such. It is one thing to see a security issue in the general setup of the modern financial economy (of which transactions are a part), as is often done in justifications of why the financial economy should be regarded a critical infrastructure;<sup>4</sup> but it is another to single out transactions as breaking points in terms of threat and risk to the stability of the financial system. The present article focuses on one such latter case—namely, an official committee report on “Black Thursday” in October 1929 and its protracted consequences—in order to highlight the coupling of financial and security considerations at the operational core of modern finance: formalised exchange transactions.

With respect to the theme of the present volume, the article’s first contribution relates to perceptions of how risks and insecurities are built into modern financial infrastructures. As will be shown, transactions should not only be regarded as something which is *enabled by* financial infrastructures (for instance, exchanges and communication technology), but as *part of* financial infrastructures themselves; they enable crucial financial processes, such as the formation of prices and the establishment of financial value. Threats perceived in financial transactions thus have the capacity to cast into doubt the viability of financial systems in general. They are public manifestations of an “infrastructural inversion” through which the basic modalities of infrastructures, often operating below the threshold of public attention, become visible.<sup>5</sup> Hence, in the social studies of finance and international political economy, this article contributes to the burgeoning literature on the role of infrastructures for the constitution of the financial system.<sup>6</sup>

As a second contribution, the approach taken here does not historicise risk and uncertainty in the sense that it aims at explaining the rise of secu-

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2 *Aradau*, Security.

3 *Brunner/Suter*, Information.

4 See *Muellerleile*, Traffic.

5 *Bowker/Star*, Things.

6 See *Brandl/Westermeier/Campbell-Verduyn (eds.)*, Infrastructure.

rity concerns around financial transactions from their historical contexts. Instead, the approach is comparative in that it reconstructs the problematisation (in a Foucauldian sense) of financial transactions in the wake of the 1929 stock market crash with reference to other historical moments in which transactions were problematised in response to financial crises—namely, the massive turmoil on the stock and option markets in the US in October 1987 and the most recent global financial crisis which first made itself felt in 2007 and had massive global consequences from 2008. The article thus represents a comparative study of the risk and security-related public questioning of exchange transactions as a key “market device” of modern finance.<sup>7</sup>

### Transactions: The Inconspicuous Core of Finance

The passing on and exchange of value items lies at the heart of finance, both conceptually and historically. The historical emergence of modern finance is often understood in terms of the role of credit for commercial ventures such as long-distance trade and for public projects like colonialism, colonial and inter-state wars and infrastructural projects. Hence, financial capitalism, said to predate industrial capitalism by centuries, is actually understood as credit capitalism.<sup>8</sup> However, upon closer inspection, an equally essential and even more deeply rooted function of finance is the processing of payments. In medieval society, making payments over long distances was a complicated affair, as legal tender had to be carried over long distances too. Hence, the invention of financial instruments, like bills of exchange, that made that transport unnecessary while safeguarding the reliability of payments being made on agreed terms and on an agreed date, was essential for the consolidation of long-distance trade, including early colonial ventures.<sup>9</sup> Up to the present day, the financial stature of a transactor—that is, their access to funds and assets—is not more important than their ability to initiate, process and finalise transactions effectively in such a way that payments can be made and received effectively, unambiguously and on time.

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7 *Muniesa et al.*, *Devices*.

8 *Braudel*, *Wheels*; *Lobo-Guerrero*, *Insuring*.

9 *Braudel*, *Wheels*.

The historical root of modern finance in the processing of payments is of paramount salience up to the present day. In operational terms, what is often termed “speculative finance” is fundamentally an immense intensification of exchange transactions in number and in volume. Technological innovations have repeatedly accelerated the velocity with which transactions can be processed, so much so that today the bulk of transactions in certain market segments is fully automated through “high frequency trading”, taking place within fragments of a second.<sup>10</sup> The role of transactions for the constitution of finance is also epistemologically based in the science of financial economics, founded in the twentieth century with the express aim of constructing models that emulate and/or prescribe the formation of prices on liquid securities markets. For this, the exchange transaction is the most important, albeit usually only implicit, element.<sup>11</sup> Finally, the entire project of cryptocurrencies, rolled out with the ambition to guarantee the effectiveness of payments in digital commercial environments, testifies to the continuing importance of being able to effectively make and receive payments.<sup>12</sup>

Thus, transactions can be regarded as part of modern financial infrastructures.<sup>13</sup> Like financial institutions, technologies and market models, transactions enable the financial economy. Yet they do so in manifold ways. First, as already mentioned, exchange transactions deliver an important service to the entire economy, namely, the pricing of economic values (including risks).<sup>14</sup> This service of pricing is irreducible to any of the other components of financial infrastructures. For instance, while history has seen many ways of information transmission in the financial system—through travelling traders, letters, telegraph and ticker tape, by telephone, or today through the internet—<sup>15</sup> and while the financial system has found many ways to analyse the economic value of assets through fundamental, technical or sentiment analysis, or through information markets, the price signal that inevitably results from the coupling of different exchange transactions on a competitive market cannot be attained by any other means than by a series of reciprocal and mutual transmission of two value items. While economies in general may rely on alternative ways of determining

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10 *Lewis*, Boys.

11 *Muth*, Expectations; *Ross*, Valuation.

12 *Nakamoto*, Bitcoin.

13 *Langenohl*, Transactions.

14 *Muellerleile*, Traffic.

15 *Braudel*, Wheels; *Stäheli*, Speculation; *Knorr Cetina/Bruegger*, Microstructures.

the price of a given commodity (for instance, at the decree of authorities or oligopolies), the effectiveness of transaction-based pricing is indispensable for the constitution of highly standardised global and liquid securities markets.

Second, this constitutive significance of transactions for modern finance has a more fundamental political-economic layer. Transactions produce prices in the way that industrial capitalism produces commodities. Indeed, prices are the commodities that the financial economy fabricates. As industrial production abstracts from the concreteness of labour and replaces it with labour time,<sup>16</sup> the financial production of prices abstracts from the economic point of reference (the company value, for instance) and replaces it with cross-referencing among cross-commensurated financial products.<sup>17</sup>

Third, transactions allot agency in the financial economy. Someone who is capable of transacting is equipped with financial agency, defined as the capability and right to make and receive payments through financial infrastructures. The relevance of this point becomes most clear when considering the severe consequences of blacklisting individuals and banning them from basic banking services, or politically motivated financial sanctions that typically take the form of excluding individuals or institutions from transaction infrastructures. Blacklisting cripples individuals' financial agency, effectively putting at risk their employment, housing and social relationships.<sup>18</sup> Financial sanctions against institutions or entire political economies belong to the most feared means of international confrontation short of military intervention, and have historically been named "economic weapons".<sup>19</sup>

The towering significance of transactions for constituting economic (and social and political) actorhood has two implications. First, as many market segments are fully automated, financial agency is not limited to humans alone. In their infrastructural quality and their constitutive character for actorhood, transactions are not necessarily human-centred.

Second, transactions outweigh other aspects of financial infrastructures when it comes to allotting and distributing financial agency. This is epitomised in contemporary decentralised finance, where the capability to make

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16 Postone, Time.

17 Langenohl, Sinnverengung; Langenohl/Wetzel, Finanzmärkte.

18 De Goede, Chain.

19 Mulder, Weapon.

and receive payments through crypto transactions does not at all depend on institutions of the traditional financial system.<sup>20</sup>

I argue that transactions and in particular exchange transactions—that is, the enabling of reciprocal transmissions of commensurate value items—tie together key operations of financial infrastructures. Exchange transactions produce prices, the fundamental and irreducible commodity of the modern financial economy; through price production, they enable fundamental calculative services for the entire modern economy, including the pricing of company value (and hence corporate governance) and economic risks; and they define who and what can be regarded an actor in financial market activity.

### The Inconspicuousness of Financial Transactions, Challenged

The pre-eminent significance of transactions is rarely recognised, either in financial discourse or in more critical approaches in fields such as international political economy or the social studies of finance. It is only relatively recently that they have received greater attention, within the emerging framework of financial infrastructure studies.<sup>21</sup> However, in this paper, I wish to focus on those moments when transactions do become problematised in finance.<sup>22</sup> This is the moment “when transactions turn awry”,<sup>23</sup> that is, when crises in the financial system are attributed to malfunctions in transactional processes.

Most recent examples for such a problematisation of financial exchange transactions are concerns about cyber-attacks against financial institutions, which have notably been reported as disrupting transaction processing and in particular the attainment of transaction finality<sup>24</sup> (that is, the agreement by both parties to the transaction (and potentially third parties) that a transaction has duly taken place and has produced complementary results in all accounts involved<sup>25</sup>). In another context, the emergence and consolidation of crypto currency-based transactions was based on an express

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20 *Caliskan*, Platform.

21 *De Goede/Westermeier*, Geopolitics; *Pinzur*, Semiotics; *Muellerleile*, Traffic; *Brandl/Westermeier/Campbell-Verduyn* (eds.), Infrastructure.

22 *Langenohl*, Prices; *Langenohl*, Transactions.

23 *Langenohl*, Transactions.

24 *Rella*, Blockchain.

25 *Langenohl*, Prices.

concern with the security of trade transactions in digital payment environments, where it was feared that such environments invite each party to betray the other by not paying for a received service or by withholding that service after receiving payment.<sup>26</sup> However, transactions have also been problematised after significant financial crises, like the one caused by Black Monday in 1987 or by the global financial crisis unfolding after 2007. While 1987 gave reason to make bottlenecks and resulting time lags in digital data transmission responsible for the crash of segments of stock and derivatives markets in the US,<sup>27</sup> the much larger financial meltdown since 2007/2008 has been attributed, among other things, to a multiplication of increasingly complex transactional relationships corresponding to the inflation of derivative securities based on real estate prices in the US.<sup>28</sup>

This research invites the argument that the problematisation of transactions in financial crises creates what one could call an *emic praxeology* of finance. While there can be an unproblematic presumption of the reality of transactions both in financial models and in the financial economy as long as things run smoothly, in times of crisis transactions can become entry points for disruptions that are inexplicable through standard models and procedures in finance. These disruptions thus demand additional explanations which may reference changes in technologies, financial structures, or even broader societal-institutional dynamics. This chapter focuses on whether and how transactions were problematised as roots of the world financial crisis of 1929. Before engaging in the empirical discussion, it is worthwhile briefly detailing the research interest and the value it may add to existing research.

First, from a point of view that is interested in the securitisation (Buzan et al. 1998) of transactions, while transactions have been problematised in the financial sector on several occasions, this has happened in significantly different ways.<sup>29</sup> Responses to cyber-attacks and crypto projects capitalise on the specific transaction vulnerabilities that emerge from digital technologies;<sup>30</sup> the response to the 1987 crash, on the contrary, focused on a lack of computer and data transmission capacities.<sup>31</sup> Analyses of the

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26 Nakamoto, Bitcoin.

27 Muellerleile, Traffic.

28 Langenohl, Transactions.

29 Buzan et al., Security.

30 Langenohl, Prices.

31 Muellerleile, Traffic.

profound and protracted global financial crisis unfolding since 2007 have been relatively uninterested in technology; instead, the crisis tends to be attributed to an inflation of derivative logics in the context of eroding traditional financial relationships such as those between lending banks and borrowers, which have been replaced by mushrooming derivatives transactions on credit markets.<sup>32</sup> These examples show that the infrastructural centrality of transactions for the financial economy has not produced a coherent pattern of securitisation. Rather, transactions can be posited as the “referent object”<sup>33</sup> of securitisation—that is, as that which is itself threatened in its functionality *for* the financial system—, or as a threat *to* the financial system, with the two attributions sometimes blending into each other. An analysis of whether and how transactions were problematised in the wake of the world financial crisis of 1929, as undertaken in this paper, adds to our understanding of the oscillation of transactions in their attribution as referent objects of threats and as threats in themselves.

From a historical and sociological point of view, the question arises at which points transactions, as the historical and conceptual core of finance, received institutional boosts, challenges and transformative impulses. Notwithstanding the important recent reminder that finance also includes asset classes that are rarely traded but kept so as to produce constant revenue,<sup>34</sup> the idea of the centrality and ubiquity of transactions, and especially exchange transactions, continues to prevail in finance. Yet this claim does not imply any essentialism in terms of transactional logic as finance’s core. Rather, we should ask how finance’s transactional logic has been iteratively strengthened, challenged and transformed. For instance, while the political perception of the 1987 crisis articulated in what has become known as the Brady Report (named after the chairman of the “Presidential Task Force on Market Mechanisms” that produced it) was couched in a technological idiom that demanded more computer capacity so as to be able to face future inflations of transactional processes, thus effectively valorising transactional logics,<sup>35</sup> the Financial Crisis Inquiry Commission Report analysing the roots of the global financial crisis 20 years later dis-

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32 Langenohl, Transactions.

33 Buzan *et al.*, Security.

34 Adkins *et al.*, Economy.

35 *Presidential Task Force on Market Mechanisms*, Report, 21–22.

played a certain scepticism regarding the unquestioned amplification of “structured transactions” in the mortgage market.<sup>36</sup>

Analyses such as these reveal that crises attributed to transactions can problematise different aspects of them, and show that they can have the propensity to validate financial practices or to question them. Hence, I analyse the political responses to the 1929 financial crisis from the point of view of how, and which aspects of, financial transactions were problematised, and with a view to the question of whether and how the transactional logic of finance was valorised or challenged.

## Methodology

As in an earlier paper with respect to the financial crises of 1987 and 2008,<sup>37</sup> I will concentrate on the official report of a commission set up by the US government to investigate into the causes of Black Thursday in 1929 and the aftermath.<sup>38</sup> This is known as the Pecora Report, named after the chairperson who, after initial failure, made the commission’s activities more effective, producing analyses of large amounts of documents and of public committee interviews with financial professionals and stakeholders.

My analytical strategy resembles a discourse analysis in the tradition of Michel Foucault, which is interested in historical discursive practices of problematisation. “Problematisation” here refers to a discursive process in which certain phenomena observed by contemporaries are questioned regarding their ethical viability in the absence of clear normative structures, for example legal norms.<sup>39</sup> Hence, problematisation refers not to the criticism of any kind of deviant behaviour and practices but to practices which operate in a realm that is under-regulated with respect to socially institutionalised norms. In the context of this chapter, problematisation thus does not refer to disapproval of evidently deviant behaviour, such as the breaking of laws and existing financial regulation. Rather, it refers to those sectors in finance where practices and processes become possible whose normative status is unclear and whose ethical viability becomes a matter of concern, in particular under conditions of crisis. In the Pecora Report, and in the

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36 *The Financial Crisis Inquiry Commission*, Inquiry, 234.

37 *Langenohl*, Transactions.

38 *United States Senate Committee on Banking and Currency*, Practices.

39 *Foucault*, Truth, 295–296; *Foucault*, Sexuality, 14–24.

legislative initiatives that followed it, transactions are addressed in precisely this sense.

## Analysis and Findings

The processes surrounding what is referred to as Black Thursday (24 October) 1929 have been the subject of an intense debate among economists of different schools for decades.<sup>40</sup> The crisis was one of the biggest meltdowns in financial history, exacerbated by urges to overleveraged investors to sell securities at any price. The crash of 1929 is held responsible for the protracted global economic downturn of the late 1920s and early 1930s. The securities trade in the US was severely disrupted for more than five years.

Hence the Pecora Report, published in 1934, addressed not only the causes of the 1929 stock market crash, but also financial practices in its aftermath to 1933. It was meant to portray the imperfections of the US financial market as a whole. Interestingly, the report's main thrust dovetails with Kindleberger's analysis of Black Thursday and its consequences, which highlights the "instability of credit and fragility of the banking system, or impacts on production and prices when the credit system becomes paralyzed through loans rendered bad by falling prices – all of which go far, in my judgment, to explain what happened in the early stages of the 1929 depression."<sup>41</sup> Kindleberger, in delineating his analysis from a monetarist or Keynesian view on the crisis,<sup>42</sup> foregrounds self-amplifying dynamics in both the build-up and the bursting of a speculative bubble, and argues that the ultimate mistake in handling the crisis was the lack of preparedness of any major financial institution to assume the role of lender of last resort.<sup>43</sup>

It is the aspect pertaining to the build-up of the bubble that mainly preoccupies the Pecora Report. Its opening paragraphs make clear that the US financial economy had become an issue of national significance that could not be ignored and whose effects on the political economy could not be overestimated:

*Transactions in securities on organized exchanges and over-the-counter markets are affected with a national public interest. Directly or indirectly*

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40 See Kindleberger, Depression; and the summary of the debate in: Kindleberger, Manias, 64-68.

41 Kindleberger, Manias, 67.

42 Kindleberger, Manias, 64-68.

43 Kindleberger, Depression.

*the influence of such transactions permeates our national economy in all its phases. The business conducted on securities exchanges has attained such magnitude and has become so closely interwoven with the economic welfare of the country, that it has been deemed an appropriate subject of governmental regulation.*

*[...] [D]ue largely to development of the means of communication—the expanding network of telephone, telegraph, ticker, radio, and newspaper facilities—the entire Nation has become acutely sensitive to the activities on securities exchanges. While only a fraction of the multitude who now own securities can be regarded as actively trading on the exchanges, the operations of these few profoundly affect the holdings of all. Moreover, the currently realizable value of securities held by banks, trust companies, insurance companies, endowed institutions, and the like, is dependent upon market quotations and consequently the welfare of countless individuals who have a financial interest in such institutions is directly affected by activities on the exchanges.<sup>44</sup>*

This highlighting of the significance of the securities markets for the “entire Nation”, “countless individuals” and their “welfare” marks any greater stock market turmoil as a case of threat to the nation. Consequently, the report embarks on the task of investigating the reasons for the crash of 1929 and its consequences. Crucially, it finds “manipulation” by powerful groups to be a core cause:

*The true function of an exchange is to maintain an open market for securities, where supply and demand may freely meet at prices uninfluenced by manipulation and control. In the past this function has been fulfilled most imperfectly. The exposure of the extent and effect of manipulative practices upon organized exchanges was one of the most salutary and important accomplishments of the investigation.<sup>45</sup>*

The “manipulative devices” the reports mentions in the subsequent pages are practices characterised as illicit like pools, options, price manipulations by specialists or short selling.

Yet the Pecora Report does not start out with a problematisation of those manipulative practices, but with a review of the massive increase in numbers of transactions, the fees that institutions earn from them and the

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44 United States Senate Committee on Banking and Currency, Practices, 5.

45 United States Senate Committee on Banking and Currency, Practices, 30.

principal danger to the general public arising from this increase in transactions.<sup>46</sup> The very first chapter is titled “Securities Exchange Practices”, and its first section “Extent and importance of transactions on exchanges”.<sup>47</sup> Exchange transactions are flagged as a core problematic, but also as a jumping-off point for the investigation:

*Operations on organized exchanges have assumed extraordinary proportions. On 34 organized exchanges throughout the country, 1,525,018,217 shares were traded in during the year 1928, 1,849,454,014 during the year 1929, and 561,729,033 during the year 1932. As of July 31, 1933, there were listed on those exchanges 6,057 common and preferred stock issues with a total market value of \$95,051,876,295; and 3,798 bond issues with a total market value of \$49,080,819,993.<sup>48</sup>*

The increase in the number of exchange transactions prior to the crash is directly correlated with the enabling of new, problematic forms of trading, in particular, short trading (that is, leveraged speculation with borrowed money which, when the chain broke down, forced asset owners to sell their assets at any price). The implication is that the sheer number of transactions alone already indicates some underlying problem. At the same time, the report underscores its interest in an increasing number of transactions of groups within financial institutions, which received payments for processing transactions. Another point that the report stresses is the imbalance in the number of transactions executed by different groups participating in the exchange. An example cited is that 27 percent of all transactions were handled by exchange members, as opposed to the general public,<sup>49</sup> and the profits they received from handling transactions for themselves “were chiefly derived at the expense of small investors who purchased a few stocks at a time.”<sup>50</sup> A further example mentioned in the report is the exaggerated share in the volume of transactions by specialist traders.<sup>51</sup> As an example, it refers to a “specialist [in American Commercial Alcohol who] handled for his own account more than one-fifth of all shares bought and sold”.<sup>52</sup>

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46 *United States Senate Committee on Banking and Currency, Practices*, 5–7.

47 *United States Senate Committee on Banking and Currency, Practices*, III.

48 *United States Senate Committee on Banking and Currency, Practices*, 5.

49 *United States Senate Committee on Banking and Currency, Practices*, 19–20.

50 *United States Senate Committee on Banking and Currency, Practices*, 22.

51 *United States Senate Committee on Banking and Currency, Practices*, 25.

52 *United States Senate Committee on Banking and Currency, Practices*, 28.

The number and volume of transactions serves in the report as summative evidence of the causes for and the impact of the crash of 1929. The imbalances in the respective share of trading volume among the different constituencies are rendered in the form of tables especially in the first chapter of the report, where “the net commissions received by member firms and individual members of 29 organized exchanges” and “the net interest received by member firms of the same exchanges for the period between January 1, 1928, and August 31, 1933”<sup>53</sup> are shown as follows:

	<i>Commissions</i>
New York Stock Exchange.....	\$1,561,649,477
New York Curb Exchange.....	46,029,588
27 miscellaneous exchanges....	<u>41,989,626</u>
Combined total commissions.....	1,640,008,691
	<i>Interest</i>
New York Stock Exchange.....	\$320,040,673
New York Curb Exchange.....	1,358,731
27 miscellaneous exchanges....	<u>4,054,568</u>
Combined total interest.....	325,453,972

These tables provide the general foundation for the report’s approach, which after the first chapter proceeds with process reconstructions of problematic practices referring to breaches of fiduciary responsibilities, moral hazard, biased information policies up to outright disinformation, and stock price manipulation. Transactions, therefore, serve as a quantitative indication for estimating the size of hazards emanating from the concentration of trade volume in the hands of groups that the report contrasts with the “general public”.

As a last result of this analysis, it can thus be established that the report regularly contrasts specialised stakeholder groups at the exchange with a much broader spectrum of society, for instance, the non-exchange member investors, the “small investors”, or, most generally, the “American investing public”.<sup>54</sup> Furthermore, the report regularly refers to regulatory legislation as a consequence of the crashes since 1929, especially the Securities Exchange Act of 1934. In alignment with the report’s emphasis on manipulative practices, it highlights prohibitions on effecting transactions

53 *United States Senate Committee on Banking and Currency, Practices*, 6.

54 *United States Senate Committee on Banking and Currency, Practices*, 137.

involving moral hazard or manipulative intentions.<sup>55</sup> The identification of problematic financial market practices thus leads to the conclusion that the state must intervene and make such problematic practices outright illegal.

In the overall picture, the analysis of the Pecora Report affirms this chapter's earlier arguments about transactions as parts of financial infrastructures, which become problematised when they "turn awry" and which are depicted in the commission reports on the market crash of 1987 and the outbreak of the financial crisis in 2008.<sup>56</sup> However, in the case of the Pecora Report, their significance in the crash attains a form that differs from their significance in discussions of later crises, as explained below.

With respect to the crisis of 1987, the Brady Report stressed the bottlenecks in information technology that resulted in "transaction delays", that is, time lags in processing transactions.<sup>57</sup> In regard to 2008, the FCIC Report identified the substitution of traditional lending relationships between mortgagers and banks with countless financial exchange transactions emanating from new credit derivatives like collateralised debt obligations as one major source of the crisis, leading to a mushrooming of derivative products and resulting in an effacement of real markets risks: "[W]here banks traditionally took money from deposits to make loans and held them until maturity, banks now used money from the capital markets—often from money market mutual funds—to make loans, packaging them into securities to sell to investors."<sup>58</sup> But in the Pecora Report, the sharp increase in the number of transactions is framed as an indication, or a warning sign, of underlying illicit and problematic financial practices, like trading on credit, short selling or trading for oneself. As a consequence, the report recommends legal limits on the right to execute transactions, for instance, in case of potential moral hazard.

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55 Like in *United States Senate Committee on Banking and Currency*, Practices, 54–55.

56 *Langenohl*, Transactions.

57 *Presidential Task Force on Market Mechanisms*, Report, 56.

58 *The Financial Crisis Inquiry Commission*, Inquiry, 42.

We can summarise these findings in the following table:

	Pecora Report	Brady Report	FCIC Report
focus of problematisation	increase in number of transactions, imbalance regarding the respective share of different groups in them	congestion of transactions resulting from limited computer power and integration of different market segments (stocks and options)	replacement of traditional mortgagelender relationships by derivative credit transactions
threats identified	<b>indication of illicit trading practices</b>	<b>resulting in</b> time lags, unclear finality of transactions	<b>resulting in</b> opacity of credit market risks
remedies recommended	legal limits to transaction rights	increase of computer power and market integration	macroprudential regulation

Table 1: Different problematisations of transactions in three post-crisis commission reports

The table gives an indication of the major differences between the Pecora Report and the two more recent ones. While the latter see transactions as a *causal operator* in the crisis, the Pecora Report rather represents them as an *indication of underlying structural causes* for the crisis. It is not the sheer number and volume of transactions as such that constitute the problem, but the illicit practices which these numbers evidence. The Pecora Report views transaction numbers and volumes as valuable seismographs for structural imbalances in the financial system, crucially including the differential power of the different stakeholder groups, with the “general trading public” or “the small investor” finding themselves in the weakest position. In contrast to this perspective, transactions are more part of the problem for the Brady and the FCIC reports, as their numbers and volume do not give any reliable indication of *underlying* problems; rather, their numbers and volume contribute to *causally* creating the problem in the first place.

### Conclusion: The Historic Specificities of a Ubiquitous Financial Form

These findings give us ground to reflect on the infrastructural approach to financial market crashes. Transactions are generally seen as central parts of the financial economy, and were seen as such in the official reports on the

three crises discussed in this chapter. From today's perspective, we might be tempted to say that in all three reports, transactions are components of infrastructures, that is, of "matter that enables the movement of other matter".<sup>59</sup> In the realm of finance, they move information and enable pricing in competitive and (usually) highly liquid securities markets. But when problematised, they are also revealed to inhabit roles that cannot necessarily be derived from their alleged infrastructural functions. In this respect, the Pecora Report differs from the Brady Report and the FCIC Report in treating transactions as a diagnostic instrument that reveals structural problems in the financial system. Numbers, sizes and distributions of transactions are first and foremost evidence that some fundamental problem exists—they are not necessarily always and already a cause of the problem. The Brady and FCIC reports, by contrast, see transaction dynamics as direct *causal* factors in a crash, without taking the opportunity to see the volume of transactions as *indication of a deeper structural crisis*.

These findings show that talking about the "functions" of transactions in financial infrastructures is itself problematic, as it ignores the historicity of how transactions become operative in finance and how they are expected to function. The securitisation of finance as a "critical infrastructure" for the entire economy, or even for the whole of society, that is typical of our present condition, thus runs the risk of essentialising highly standardised and automated exchange transactions as the ahistorical core of finance. In doing so, it ignores the historical fact that the constitutive reliance of finance on this particular type of transaction is a fairly recent phenomenon. For instance, David Pinzur has shown that other modalities of transacting financial items were quite widespread in the US well into the second half of the nineteenth century; for example at cotton exchanges, where the commensuration of cotton with financial securities involved much more complicated negotiations between financial institutions and cotton producers. As a result, exchange prices for cotton-based securities emerged rather from those negotiations than from a quasi-automatic commensuration on the basis of supply and demand, as was the case with the grain markets at the Chicago Board of Trade (CBOT).<sup>60</sup> Even as this kind of financial pricing eventually gave way to a Chicago-style pricing that presupposed highly standardised and cross-commensurated commodities, its historical presence indicates that standardised exchange transactions, typical of to-

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59 Larkin, *Liquidity*, 329.

60 See Pinzur, *Semiotics*; Pinzur, *Power*; Pinzur, *Infrastructure*.

day's market, have been just one way among others to operate financial pricing.

Infrastructural inversion in finance,<sup>61</sup> as a typical response to large-scale financial crises, does not unproblematically reveal the substantial roots of a given infrastructural malfunction. Rather, it is first of all indicative of historically circumscribed frames of perception—in other words, of “situations” of security which historically differ with respect to how the crisis situation is defined and identified, which interpretive frames are used for such identification, and which repertoires are recommended to tackle the security situation.<sup>62</sup> As Larkin noted, infrastructures do not automatically become visible when they fail; instead, they become visible as the consequence of a political act— an act of securitisation, as this chapter has argued.<sup>63</sup>

Yet, if exchange transactions in the financial economy differ so greatly in how they are securitised and perceived as entangled with financial crises, what then is the use of linking different problematisations of transactions in financial crises in the first place? What unites standardised exchange transactions despite different critical approaches to them? I argue that it is the social form of the exchange transaction that makes it possible, indeed requires that we identify them as constitutive, if highly problematic, components of modern finance. Transactions have clear and documented beginning and end points; they exclude any rights or obligations that would precede their beginning or follow their completion; they unambiguously define financial agency and accountability; and, through their capacity to commensurate different value items within standardised valuative frames called markets, they produce financial prices. They are “market devices”, that is, “objects with agency”<sup>64</sup> whose social form permits their serialisation, inflation, automation, and projecting over the entire financial economy and beyond. As market devices, transactions attain the potential to constitute the financial economy as what it is held to be today: an infrastructure.

Against this background, the different securitisations of transactions discussed in this article reveal different aspects of the inherent vulnerabilities of a financial system that is considered as an infrastructure. The Brady Re-

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61 *Bowker/Star*, Things.

62 *Bonacker et al.*, Historicization.

63 *Larkin*, Liquidity.

64 *Muniesa et al.*, Devices, 4.

port capitalised on the insufficiency of the technical substrate of calculative infrastructures, while the FCIC Report revealed transactions as powerful tools in the constitution of a hyper-complex arrangement of securities trading whose opacity is in the way of an effective oversight. However, it is the Pecora Report that offers the most complex problematisation of financial transactions, revealing two entangled but highly different layers of transactions' functionality for finance: first, their potential to include large segments of the population – “the general public” – in financial agency, and second, their diagnostic function in locating imbalances in the distribution of trading volumes that might indicate structural problems in the financial system requiring political regulation. In other words, without literally considering finance to be an infrastructure, the Pecora Report effectively questions the notion that financial markets, if unchecked by political regulation, can ever be fully functional infrastructures.

Even if standardised exchange transactions are held to be indispensable parts of modern financial infrastructures, the characteristics of their social form defy any functionalist reasoning regarding their place in finance precisely because that form can build up, inflate and trigger financial crises. In other words, the very ubiquity of exchange transactions in modern finance is less an indicator of their infrastructural functionality than a reminder of the inherent frailness of finance as an infrastructure.

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