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Discharging the Discharge for Value Defense

Law Working Paper N° 606/2021
Revised February 2022

Eric L. Talley
Columbia University, Millstein Center for Global Markets and Corporate Ownership and ECGI

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Many thanks to Elisabeth de Fontennay, Vic Goldberg, Matthew Jennejohn, Eric Rasmusen, Robert Rosen, Sarath Sanga, Bob Scott, Leo Strine, Rory Van Loo, Ben Zipursky, and workshop participants at Columbia Law School for comments and discussions, to Alton Mathew for excellent research assistance, and to Sneha Pandya and Max Swan—both for research assistance and for making substantive contributions to this study. All errors are mine.

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Abstract

Despite its massive size, the corporate debt market is often considered a sleepy refuge for the risk-averse. Yet, corporate debt contracts are often mind-numbingly detailed. That complexity—when coupled with the financial stakes in play—can be a recipe for calamity. And in late 2020, calamity struck in the form of an accidental $1 billion payoff sent to Revlon Inc.'s distressed creditors—not by Revlon itself but rather by Citibank, the administrative agent for the loan. When several lenders refused to return the cash, Citibank commenced what many reckoned would be a successful (if embarrassing) lawsuit to claw it back. But in a dramatic 2021 opinion, a New York federal court sided with the creditors, applying an obscure equitable doctrine known as the "Discharge for Value" defense. The lenders could keep their wayward windfall, and Citibank got stuck with a sizeable write-down. Regardless of how it comes out on appeal, the case seems destined to feature prominently in contracts classes and textbooks for years to come. Against this backdrop, this Article makes three contributions: First, it spotlights several doctrinal and logical irregularities in the District Court's opinion. Second, it builds on these inconsistencies to critique the opinion from an economic policy perspective. Third (and most substantially), it presents novel empirical data to analyze how market participants have reacted to the opinion. Consistent with the policy critique, I document a rapid, precipitous trend towards writing and/or amending debt contracts to nullify the Citibank opinion in its entirety, manifested in a variety of "Revlon blocker" provisions that have appeared in hundreds of publicly disclosed contracts. The firms that adopt Revlon blockers are systematically the largest and most sophisticated companies in the public markets, and their rejection of Citibank appears to have met with general market approval. Beyond demonstrating how legal theory and empirical evidence can helpfully interact, this analysis underscores the critical role that default rules play in contract law and policy, and the high stakes involved in getting them right.

Keywords: Contract Design, Whac-a-Mole, Discharge for Value, Revlon Blockers, Restitution, Machine Learning, Computational Text Analysis, Mistake, Unjust Enrichment

JEL Classifications: K12, K22, G21, G35

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DISCHARGING THE DISCHARGE-FOR-VALUE DEFENSE

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Against this backdrop, this Article makes three contributions. First, it spotlights several doctrinal and logical irregularities in the district court's opinion. Second, it builds on these inconsistencies to critique the opinion from an economic policy perspective. Third (and most substantially), it presents novel empirical data to analyze how market participants have reacted to the opinion. Consistent with the policy critique, I document a rapid, precipitous trend towards writing and/or amending debt contracts to nullify the Citibank opinion in its entirety, manifested in a variety of "Revlon blocker"

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INTRODUCTION 149
I. SETTING THE STAGE 156
A. *Revlon's Leveraged Finance* 156
B. *Citibank's Historic Blunder* 162
II. THE *CITIBANK* LITIGATION AND ITS AFTERMATH ... 164
A. *Digging up (Banque) Worms* 166
B. *District Court Opinion* 169
C. *Appeal and Reception* 172
1. *Internal Critiques* 172
a. Burden Allocation 174
b. Logical Coherence 177
c. Significance of "Due and Payable" Claims 181
d. Synthesis 183
2. *External Critiques* 184
a. Information Forcing 184
b. Collaborative/Rational Contracting . 186
c. Efficient Allocation of Costs and Risks 188
d. Policy Arguments and "Commercial Reasonableness" 195
e. Transaction Costs and the Importance of Default Rules 198
III. THE BIRTH OF THE REVLON BLOCKER 200
A. *Diffusion and Semantic Content of Blockers* 203
B. *Who Adopts Blockers?* 208
C. *Market Response to Blocker Adopters* 213
1. *Revlon Blocker Adoption* 214
2. *Release of Citibank Opinion* 216
CONCLUSION 218

Electronic copy available at: https://ssrn.com/abstract=3906201



INTRODUCTION

For those seeking watershed moments in contemporary contract law, the area of corporate debt seems an unlikely target. Though gargantuan in size (over $10 trillion in the United States alone),[1] corporate debt markets have a storied reputation as a refuge for the risk averse—those seeking stable returns, low volatility, and few surprises. At the same time, the contracts governing corporate debt are themselves gargantuan—both lengthy and complex.[2] When coupled with immense financial stakes, that complexity can sow seeds of calamity. Vagueness, inconsistency, loopholes, opportunism, and unpredictable interpretations can conspire at times to transform a presumptively languid flotilla of corporate bonds into a tumultuous roller coaster ride.

Perhaps no roller coaster careened more violently than the one Revlon Inc.'s creditors rode from 2020 to 2021. Born of a $1.8 billion loan facility executed with a syndicate of lenders a half-decade earlier, this loan had the honor of attracting heated legal controversy not once, but twice within the year. And the second imbroglio seems destined to cast a long shadow over not only corporate debt markets, but contract law as a whole. The latter dispute occurred after Citibank, acting

1. Andrea Miller, *U.S. Companies Face Record $10.5 Trillion in Debt—Here's What to Know About the Corporate Bond 'Bubble'*, CNBC (Mar. 12, 2021, 2:31 PM), https://www.cnbc.com/2021/03/12/behind-the-corporate-bond-markets-10point5-trillion-debt-bubble.html.

2. *See, e.g.*, Adam B. Badawi, Scott Dyreng, Elisabeth de Fontenay & Robert Hills, *Contractual Complexity in Debt Agreements: The Case of EBITDA* (Duke L. Sch. Pub. L. & Legal Theory Series No. 2019-67, 2021), https://ssrn.com/abstract=3455497.

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as administrative agent for the loan, stumbled into a series of fateful mishaps that caused it to make a nearly $1 billion payout to Revlon's unsuspecting creditors—all by accident. Moreover, the transferred funds belonged *not* to Revlon, but to Citibank, for Revlon had neither directed a pay down on the loans nor provided the cash to do so. In yet another delicious coincidence, the lenders who reaped this wayward windfall were themselves hours away from launching a long-shot lawsuit of their own against Revlon and Citibank, seeking to recover the precise sum that had just (miraculously) fallen into their laps. That lawsuit was no longer needed, as the lucky lenders had just won the creditor equivalent of the Powerball lottery.[3]

On discovering its mistake, of course, Citibank promptly and urgently pressed for the return of the funds; but several lenders (representing about $500 million in face value) held fast, daring Citibank to sue if it wished to claw back its missing moolah. Citibank did just that, and the dispute eventually landed in Judge Jesse Furman's courtroom in the Southern District of New York for an animated bench trial in late 2020. The principal legal question was whether—on these facts—Citibank could obtain restitution for unjust enrichment under New York law, or alternatively whether the lenders were entitled to walk away with their fortuitous bounty. Most outside observers at the time (myself included) predicted that the bank would eventually eke out an expensive (if embarrassing) victory.[4] The law of restitution tends to look unfavorably on the recipients of mistaken benefits, and the known facts associated with this case seemingly fit the bill. That said, restitution is a strange and unpredictable bird, and the lenders advanced a full-throated defense, spotlighting a three-decade-old precedent in New York,[5] which they claimed accorded them "finders-keepers" rights. Their legal argument is more formally known as the Discharge-for-Value (DFV) defense, and it states

3. *See About*, POWERBALL, https://www.powerball.com/about (last visited Sept. 19, 2021).

4. *See* Chris Dolmetsch & Katherine Doherty, *Bank Error in Your Favor: Citi's Fight to Reclaim $900 Million*, BLOOMBERG (Dec. 7, 2020) https://www.bloomberg.com/news/articles/2020-12-07/bank-error-in-your-favor-citi-s-fight-to-reclaim-900-million ("Citibank has 'a pretty strong case, said Eric Talley, a professor of corporate law at Columbia Law School, but it's 'not so crystal clear that it doesn't involve a little bit of risk.'").

5. Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189 (N.Y. 1991).

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that the recipient of a mistaken payment, lacking knowledge of the error, can keep the funds and "should be able to consider the transfer of funds as a final and complete transaction, not subject to revocation."[6] Animating this principle is a longstanding policy goal of maintaining the finality of bank transactions, especially wire transfers that occur frequently throughout the day.[7]

In a noteworthy opinion issued on February 16, 2021, Judge Furman surprised many and sided with the lenders, holding that their DFV defense was successful and that the recipients were not on constructive notice of Citibank's mistake "at the moment they received the . . . wire transfers."[8] Even though the lenders were promptly notified of Citibank's mistake and had not changed their position in reliance, he held, the "magic moment" of fund transfer had already occurred, and the aforementioned judicial policy favoring finality of payments controlled.[9] The transferred funds could not be clawed back, and the lucky lenders could keep it in satisfaction of their debt claims. For its part, Citibank was left with an expensive write down, as well as the dubious consolation prize of stepping into the lenders' shoes as Revlon's new primary creditor (having effectively "purchased" the notes at a substantial market premium).[10] If Citibank wants to avoid outcomes like this in the future, the court warned, it should beef up its internal controls so as to "eliminate the risk altogether" that Black

6. *Id.* at 196; *see also* RESTATEMENT (FIRST) OF RESTITUTION § 14 (AM. L. INST. 1937).

7. *See Banque Worms*, 570 N.E.2d at 192–96.

8. *In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 396–97 (S.D.N.Y. 2021).

9. *Id.* at 423.

10. Jennifer Surane, *Citigroup Restates Earnings After Writing Down Revlon Loan*, BLOOMBERG (Feb. 26, 2021), https://www.bloomberg.com/news/articles/2021-02-26/citi-says-regulators-in-asia-probing-equity-sales-trading-desk. In May 2021, the court denied Citibank's motion for a stay on the judgment, finalizing its February opinion notwithstanding the appeal. *See In re* Citibank Aug. 11, 2020 Wire Transfers, No. 20-CV-6539, 2021 WL 1905002, at *7 (S.D.N.Y. May 12, 2021). Citibank may even be forced to re-pay some of the money to recipients who gave the errant payment back. *See* Jennifer Surane, Chris Dolmetsch & Katherine Doherty, *Citi Lawyer Cites Mystery Bank He Says Made Even Bigger Flub*, BLOOMBERG (Apr. 9, 2021), https://www.bloomberg.com/news/articles/2021-04-09/citi-says-it-knows-of-another-bank-making-big-payment-error.

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Swan events such as this one will happen again.[11] Citibank has filed an appeal with the Second Circuit, which is pending at the time of this writing.[12]

The reception of Judge Furman's opinion has been spirited, to say the least.[13] On the one hand, for law students, professors, and the legal press, it is hard not to get excited about the *mere existence* of this case. The facts are rich, the dispute newsworthy, and the stakes enormous. Regardless of how the case comes out on appeal, *Citibank* seems destined to find its way into the precedential pantheon of first-year casebooks, enlivening class discussions for years to come. That said, it is equally hard not to channel one's inner Oliver Wendell Holmes in suspecting that juicy cases like this tend to make bad law.[14] Numerous observers expressed significant unease about the outcome, focusing on the reasoning in the decision, its potential to unsettle debt markets, and its inconsistency with fundamental economic intuitions concerning contract design and governance.[15] (In the interests of full disclosure, I was one of these commentators, coordinating an amicus brief on behalf of myself and a dozen contract law professors lodging our concerns.[16])

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11. *In re Citibank*, 520 F. Supp. 3d at 451. *See also* NASSIM NICHOLAS TALEB, THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE (2007) (popularizing the "Black Swan" terminology to describe rare, highly improbable events).

12. *See* Chris Dolmetsch, *Citi Faces 'Finders Keepers' in Fighting $500 Million Ruling*, BLOOMBERG (Feb. 17, 2021), https://www.bloomberg.com/news/articles/2021-02-17/citi-faces-finders-keepers-law-in-fighting-500-million-ruling.

13. *See, e.g.*, Matt Levine, *Citi Can't Have Its $900 Million Back*, BLOOMBERG OPINION (Feb. 17, 2021, 12:33 PM), https://www.bloomberg.com/opinion/articles/2021-02-17/citi-can-t-have-its-900-million-back.

14. *See* N. Sec. Co. v. United States, 193 U.S. 197, 400 (Holmes, J., dissenting) ("Great cases like hard cases make bad law.").

15. *See, e.g.*, Elisabeth de Fontenay, *The $900 Million Mistake:* In re *Citibank August 11, 2020 Wire Transfers (S.D.N.Y. Feb. 16, 2021)*, CAP. MKTS. L.J. (forthcoming 2021), https://ssrn.com/abstract=3844646; Sneha Pandya & Eric Talley, *How the Litigious Bird Caught the (Banque) Worm*, CLS BLUE SKY BLOG (Feb. 24, 2021), https://clsbluesky.law.columbia.edu/2021/02/24/how-the-litigious-bird-caught-the-banque-worm/.

16. *See* Brief of Professors of L. & Econ. as Amici Curiae in Support of Plaintiff-Appellant, Citibank v. Brigade Cap. Mgmt., LP, No. 21-487-CV (2d Cir. Jul. 23, 2021). This was one of several amicus briefs filed with the Second Circuit, and others similarly criticized the opinion. *See, e.g.*, Brief for Am. Bankers Ass'n et al. in Support of Plaintiff-Appellant's Appeal, Citibank

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This Article, however, does not endeavor to dwell on that doctrinal and theoretical pose-down; rather, it uses the *Citibank* opinion as a lens to understand empirically how contract law evolves, both in the courtroom and on the ground. To the extent that critics' skepticism about the outcome has practical merit (and is not merely armchair theorizing), it generates several empirical predictions about how sophisticated market participants would react. The most immediate of these—and my principal target here—is about whether/how private contracting practices responded to Judge Furman's surprise ruling. Notwithstanding the newsworthy outcome of the case (or one's assessment of it), virtually all commentators agree that the ruling still announces a *default* rule—one that can be altered (at some expense) by express contractual provisions.[17] Consequently, if *Citibank* imposed the disruptions and inefficiencies that critics claim, then it follows that sophisticated contracting parties would respond to the opinion *not* by altering their internal controls, but *rather* by changing their contract terms to narrow or negate (a.k.a. "discharge"[18]) the DFV doctrine altogether. And at least some market participants proposed this response, releasing model contractual provisions (popularly dubbed "Revlon blockers") that purportedly would do the job.[19] Anecdotal evidence suggests that at

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v. Brigade Cap. Mgmt., LP, No. 21-487-CV (2d Cir. May 7, 2021); Brief for Amicus Curiae Loan Syndications and Trading Ass'n in Support of Plaintiff-Appellant & Reversal, Citibank v. Brigade Cap. Mgmt., LP, No. 21-487-CV (2d Cir. May 6, 2021).

17. *See* Pandya & Talley, *supra* note 15.

18. As used in this Article, the word "discharge" is intended to play on dual meanings. While people can (and do) debate whether the lenders *legally discharged* their burden of proving the DFV defense, my results suggest that market participants have *functionally discharged* the DFV doctrine by explicitly defanging it through their debt contracts. *See Discharge*, DICTIONARY BY MERRIAM WEBSTER, https://www.merriam-webster.com/dictionary/discharge (last visited Sept. 19, 2021).

19. *See Erroneous Payment Provision*, LOAN SYNDICATIONS & TRADING ASS'N (Mar. 19, 2021), https://www.lsta.org/content/erroneous-payment-provision/; *Blackline of Draft of Erroneous Payments*, LOAN SYNDICATIONS & TRADING ASS'N (June 16, 2021), https://www.lsta.org/content/blackline-of-draft-of-erroneous-payments/. The Loan Market Association ("LMA") also released a template on June 30, 2021. *See* Amanda Montano, *What Happens if You Make a Payment in Error? – The LMA Responds to the Revlon Loan Dispute*, JD SUPRA (July 6, 2021), https://www.jdsupra.com/legalnews/what-happens-if-you-make-a-payment-in-1226386/.

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least some new debt contracts embraced such provisions shortly after the decision.[20] If, on the other hand, the *Citibank* opinion did not unsettle expectations or impose inefficient risks and costs, then market participants should not rush the exits; they should instead either do nothing or explicitly *embrace* the outcome in their contractual language.

These empirical questions are the key subject of this Article. Using a hand-collected data set of publicly disclosed debt contracts from January 2020 through the end of July 2021, I isolate the incidence of express contractual provisions related to mistaken payments. This time span allows one to analyze not only the response to the *Citibank* litigation and opinion, but also the practices that prevailed beforehand. I then use a variety of computational text analysis tools to assess the semantic content and structure of such provisions, and I deploy several standard empirical tools from finance to tease out both the drivers of adoption and market reactions.

My analysis yields four key findings. First, a small but detectable trickle of Revlon blocker provisions began to take root right after Citibank's gaffe, just as the litigation was heating up. But that trickle swelled to a veritable flood almost immediately after the opinion issued in February 2021, culminating in *between 150 and 200 Revlon blockers disclosed per month* among publicly listed companies—a trend that substantially continued thereafter. By contrast, I could discern only a *single instance* of a provision that explicitly endorsed the trial court's interpretation of the DFV defense. This pattern is consistent with two of the reactions that disinterested observers widely offered about the opinion: (a) That the holding delivered a surprise result; and (b) that the surprise was an unpleasant one to many market participants.[21] Second, my analysis yields insights about the structure and content of the contractual

20. *See* Jenny Warshafsky, *Revlon Agent Clawback*, XTRACT RSCH. (Mar. 2, 2021).

21. Or, as Bloomberg commentator Matt Levine recently put it (in a piece summarizing this Article), "[t]he [trial court's] message here is something like 'banks need to be more careful with their money, and to teach them a lesson I won't let Citi have its money back.' And the banks responded, rationally, by changing their contracts so they don't have to be more careful." Matt Levine, *Insiders Trade in Outside Companies*, BLOOMBERG OPINION (Aug. 25, 2021, 12:25 PM), https://www.bloomberg.com/opinion/articles/2021-08-25/insiders-trade-in-outside-companies.

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provisions that adopters embraced. Using a variety of tools from machine learning, I show that—somewhat surprisingly—Revlon blockers do *not* follow a single "cookie cutter" template, where parties copy and paste identical template language from deal to deal with little variation. While the most prominent *model* provision is also the *modal* provision, my analysis suggests that there have also been at least two other clusters (or "families") of Revlon blockers that market participants have embraced, both of which are distinct from cut-and-paste near-clones of the model. Third, I show that adoption of blockers has been wide ranging across firms. Adoption does not seem limited to a single industry, sector, or incorporation jurisdiction. Adoptions do, however, tend to be more concentrated among firms with more at stake: although firm size is not dispositive per se, adoptions are strongly concentrated in companies with larger absolute and relative debt loads and issuers with high relative profitability (as measured by return on assets). Trading premia, in contrast (as measured by Tobin's Q), are negatively associated with adoption. These findings suggests that adoptions are concentrated among those firms with the largest stakes and with elevated prospects for shareholder-debtholder conflict. Finally, and somewhat more preliminarily, I uncover evidence about the relationship between Revlon blocker adoption and market reception. Using an event study approach, I find a positive (but modest) price response to the mean adopter's first disclosure of a Revlon blocker. In light of the possibility that news of blocker adoption may have leaked prior to its public disclosure, I also consider the effect of the *Citibank* opinion itself (which seems clearly to have been a surprise). Here, I find discernible positive abnormal returns for adopting issuers (as well as for predicted adopters) in the days following the opinion. While this evidence is admittedly partial and incomplete (e.g., it does not measure gains in contractual surplus to all parties), it is suggestive that the market on the whole has approved of Revlon blocker adoption.

My analysis proceeds as follows. Part I describes the colorful background to the *Citibank* case, including the roiling creditor dispute that Revlon (and Citibank) were already contending with by mid-2020. The part concludes with a more detailed description of how the erroneous transfer payment came about. Part II discusses the legal claims at stake in the trial

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court, concentrating on the delectably named *Banque Worms* case that established the New York precedent for the DFV defense some three decades ago, and which provided the key authority for the trial court's findings. The part then summarizes a variety of internal and external criticisms of the opinion—criticisms that themselves animate a variety of empirical questions. Part III takes on that empirical analysis, describing and analyzing my Revlon blocker data set, analyzing the textual content of such terms, assessing the characteristics of adopters, and gauging market responses. The Article then briefly concludes.

I.
Setting the Stage

As with many financial calamities, it is important to have a sense of the context against which Citibank's unfolded. Doing so will not only provide an important interpretive lens through which to evaluate the opinion itself, but it will also help frame the empirical analysis that follows. Accordingly, this part touches on the high points, with the most important insight being that the circumstances preceding Citibank's mistaken payment were anything but humdrum. This was no "clear day" blunder that dropped out of nowhere: rather, it occurred at the very peak of an acrimonious kerfuffle between Revlon and several of its major lenders—one that had already implicated Citibank directly.

A. *Revlon's Leveraged Finance*

To get a full sense of the backstory, one must go back to mid-2016, when the syndicated loans at issue were designed, executed and funded.[22] It merits observing that even prior to these loans, Revlon was hardly a stranger to leveraged finance. In fact, the company is widely recognized by corporate lawyers as the poster child and namesake for one of the most famous opinions in Delaware corporate law—one spawned from a debt-fueled hostile takeover of the company in the mid-1980s and successfully engineered by its current controlling share-

22. *In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 397 (S.D.N.Y. 2021).

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holder, Ronald Perelman.[23] That takeover was part of a mammoth wave of leveraged buyouts and recapitalizations that typified the decade, maneuvers that sowed the seeds for the large-scale reliance on both public and private debt that countless large companies exhibit today. By the mid 2010s, in fact, Revlon was no longer particularly special in the leveraged finance world—but rather it was just one of myriad companies that were recidivist users of corporate debt to finance their activities, including additional acquisitions.[24]

For Revlon, one such acquisition came in 2016, when the company announced a much-touted $900 million cash purchase of Elizabeth Arden, Inc.—the high-profile cosmetics, skin care and fragrance company. To finance the transaction, Revlon entered into a new $1.8 billion term loan facility with a syndicate of hundreds of lenders,[25] and Citibank was a key underwriter for the loan facility. The term loans were funded and publicly disclosed in early September 2016 (at the same time the Arden acquisition closed).[26] The 180-page term loan agreement[27] spelled out in arduous detail a structure whereby the loans were to be backed by a variety of assets consisting substantially of intellectual property (IP) owned by Revlon's chief operating subsidiary, Revlon Consumer Products Corp. (RCPC).[28] These IP assets included, inter alia, those associated with the newly acquired Elizabeth Arden line.[29]

After it had successfully recruited hundreds of third-party lenders into the syndicate, Citibank remained as a contractual party to the deal, serving as the administrative agent for the loan facility. In such a capacity, Citibank was obliged to pro-

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23. Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173 (Del. 1986).

24. According to Compustat data, the ratio of Revlon's debt to total assets from 2010–19 was 1.09 on average. The sector wide average (Standard Industrial Code 2844) was 1.54. Data on file with author.

25. Revlon, Inc., Term Credit Agreement (Form 8-K) (Sept. 7, 2016), https://www.sec.gov/Archives/edgar/data/887921/000156761916002919/s001409x1_ex10-1.htm [hereinafter 2016 Agreement].

26. *See* Sharon Terlep, *Revlon Agrees to Buy Elizabeth Arden*, WALL ST. J. (June 16, 2016, 10:37 PM), https://www.wsj.com/articles/revlon-agrees-to-buy-elizabeth-arden-for-870-million-1466110938.

27. 2016 Agreement, *supra* note 25.

28. *See* Complaint at 18, UMB Bank, Nat'l Ass'n v. Revlon, Inc., No. 1:20-cv-06352 (S.D.N.Y. Aug. 12, 2020) [hereinafter UMB Complaint].

29. *Id.*

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cess periodic interest payments to the lenders as well as the scheduled retirement of the loan in 2023.[30] In addition, if Revlon chose to pay down the loan early (an option it was free to exercise without penalty), Citibank was contractually required to notify lenders of such a paydown in advance and then to process its execution.[31] Several provisions of the loan facility were restructured in some (relatively modest) ways over the next few years, but it had remained substantially in its original form.

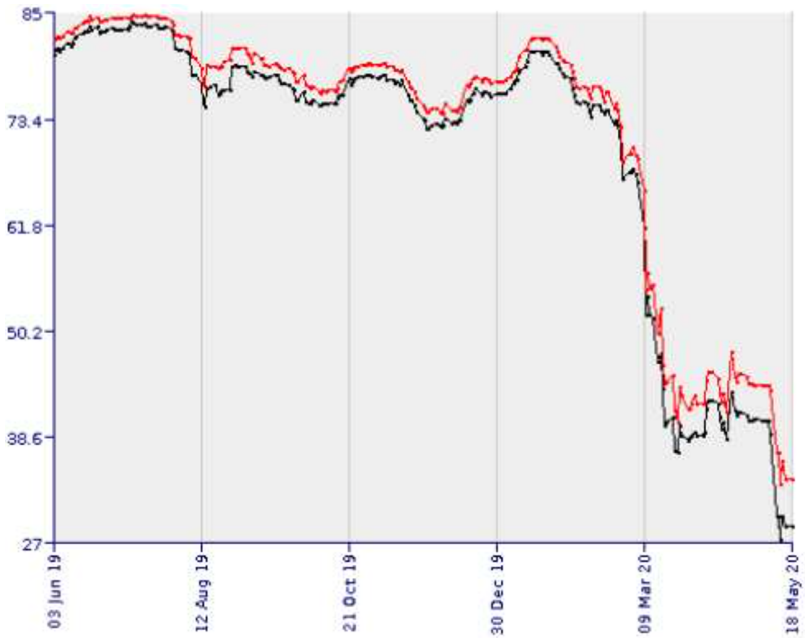


FIGURE 1: TRADING VALUE 2016 TERM LOANS (FACE VALUE = 100.0)[32]

In the latter part of 2019, Revlon began to experience a flagging cosmetics market—one that would only get worse as the onset of the COVID–19 pandemic set in during early

30. *In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 397–98 (S.D.N.Y. 2021).

31. *See id.* at 398–99; 2016 Agreement, *supra* note 25, § 2.11.

32. The diagram in Figure 1 is reproduced from a complaint by the creditors against Revlon. *See* UMB Complaint, *supra* note 28. Although the complaint is somewhat light on detail, the red and black lines denote the

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2020.[33] Revlon's stock price began to tank in response, losing over 50% of its value in the six months between November 2019 and May 2020.[34] Revlon's debt claims also got hammered, and they too began trading at steep discounts. As Figure 1 illustrates, the specific debt claims created by the 2016 term loan facility were no exception. The term loans were trading at around a 25% discount to face value through the end of 2019, and by the end of March 2020 that discount had ballooned to 60%.[35] In short, these numbers were ugly and growing worse. Try as it might, Revlon was hard-pressed to put lipstick on this pig—even with high-end product from the Elizabeth Arden line.[36]

As the spring rolled on, Revlon's financial advisers began considering means by which capital structure could be altered to free up much-needed cash to cope with a business environment that analysts increasingly considered unsustainable.[37] That investigation, in turn, led Revlon right back to one of the company's largest debt burdens: the 2016 term loan facility. Revlon's advisors floated a "solution" whereby the company would transfer the intellectual property assets out of the collateral pools backing the term loans and into the hands of newly created Revlon affiliates, who could then proceed to borrow against the newly unencumbered assets.[38]

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best prevailing offer and bid (respectively) in the secondary market for the 2016 loans.

33. Zoe Wood, *Sleeping Beauty Halls: How Covid-19 Upended the 'Lipstick Index'*, GUARDIAN, (Dec. 18, 2020, 10:34 PM), https://www.theguardian.com/business/2020/dec/18/how-covid-19-upended-the-lipstick-index-pandemic-cosmetic-sales-makeup-skincare.

34. *See, e.g.*, Revlon, Inc. (REV) Historical Prices from Oct. 31, 2019 to May 29, 2020, YAHOO! FIN., https://finance.yahoo.com/quote/REV/history?period1=1572566400&period2=1590796800&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true (last visited Sept. 27, 2021).

35. *See supra* Figure 1.

36. And even if it could, the lipstick was all but certain to be obscured under an N-95 mask anyway.

37. *See Rating Action: Moody's Views Revlon's Transactions as Distressed Exchange, Downgrades Unsecured Notes to C*, MOODY'S INVESTORS SERVICE (May 8, 2020), https://www.moodys.com/research/Moodys-views-Revlons-transactions-as-distressed-exchange-downgrades-unsecured-notes—PR_424166 ("Revlon's operations and restructuring actions have consumed a large amount of cash (over $150 [m]illion) over the past year, and Moody's expects the company to be free cash flow negative in the year ahead.").

38. *See* UMB Complaint, *supra* note 28, at 3–4.

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To pull off the proposed restructuring, however, Revlon would need to alter several contractual covenants from the 2016 indenture that appeared to prohibit this type of collateral shifting. In order to do that, it was going to need the consent of a majority of lenders (tabulated through a vote tied to principal loan balance held).[39] Most rational lenders, of course, would be reluctant to approve the removal of collateral unless offered some type of incentive. Here, Revlon borrowed a well-worn page from the playbook of strategic debt restructuring: as part of the deal, consenting creditors would be afforded the opportunity to exchange their claims for newly-issued debt securities that had less attractive financial terms but a higher-priority claim on the relocated IP collateral—effectively pushing them ahead of the 2016 term loan claims they were leaving behind.[40] In other words, creditors who voted to approve the restructuring were going to be permitted to "cut the line" to collect ahead of any hold-outs. While not an uncommon refinancing tactic, such proposals frequently rankle incumbent creditors, who feel (often justifiably) that they have been pitted against one another in a Hunger-Games-worthy battle royale over scarce resources,[41] each frantically attempting to backstab others so as to move up in line through their vote.[42] Of course, the great irony of such situations is that if *all* creditors responded in such a way, they would *all* cut the line simultaneously, and in the end no one would have moved up (in a relative sense) from where they all started.[43]

Typically, when debt is held by a large number of investors (as was Revlon's), the collective action problem described above is difficult to counteract, and a restructuring proposal like this one has a good chance of succeeding—even as it causes the assenting bondholders to be grumpy about their

39. *See* 2016 Agreement, *supra* note 25, § 10.1(a)(E).

40. UMB Complaint, *supra* note 28, at 43.

41. avadaakadavra, *The Hunger Games – Cornucopia Bloodbath [HD],* YouTube (Sept.7, 2012), https://www.youtube.com/watch?v=C7EIW_C0-9c.

42. Within the world of publicly traded debt, this type of aggressive restructuring is sometimes called an "exit exchange" offer, and it has been a staple of refinancing since it was upheld as presumptively valid in the 1980s. *See generally* Katz v. Oak Indus., Inc., 508 A.2d 873 (Del. 1986).

43. For more on the strategic aspects of this type of restructuring, *see* Antonio E. Bernardo & Eric L. Talley, *Investment Policy and Exit-Exchange Offers Within Financially Distressed Firms,* 51 J. Fin. 871 (1996).

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predicament. Indeed, several of Revlon's lenders reluctantly acquiesced to the restructuring proposal. But in something of a surprise, several large creditors managed to coordinate with one another, executing a mutual cooperation agreement in which they collectively agreed to vote against the planned May 2020 restructuring.[44] With mounting opposition (and negative votes) from a large bloc of lenders, Revlon now faced a far steeper challenge to restructuring the term loans in the manner it had planned.

Facing this burgeoning creditor rebellion,[45] Revlon began counter-mobilizing.[46] In late spring of 2020, the company entered into several new revolving lines of credit, all with existing term lenders who supported the restructuring plan. As observers at the time widely noted, it was an open secret that this new borrowing had little to do with Revlon's capital needs.[47] It had a lot to do with ginning up votes, however: for hidden within the original 2016 term loan agreement was a provision that bestowed additional votes on new "Revolving Commitments" extended by any term lender—votes that the lenders were entitled to cast alongside their existing claims for purposes of consenting to a restructuring.[48] By entering into such (allegedly "sham") arrangements with a curated coterie of confederates, critics contended, Revlon was rigging the vote in its favor. It evidently worked, for when the dust finally settled in May 2020, the majority of 2016 term loan creditors (joined by the new votes tied to the revolvers) narrowly approved the restructuring proposal by a bare *half of one percent*,[49] thereby enabling

44. UMB Complaint, *supra* note 28, at 27.

45. *Id.* at 5–6.

46. *See, e.g.*, Revlon, Inc., Current Report (Form 8-K) (Apr. 14, 2020), https://www.sec.gov/Archives/edgar/data/0000887921/000095014220001109/eh2000629_8k.htm.

47. *See, e.g.*, *Predatory Priming: How Can Investors Protect Their Priority?*, O'MELVENY: ALERTS & PUBLICATIONS (Sept. 9, 2020), https://www.omm.com/resources/alerts-and-publications/publications/predatory-priming-how-can-investors-protect-their-priority.

48. 2016 Agreement, *supra* note 25, § 1.1. The terms of the restructuring required Revlon to procure the consent of the "Required Lenders," defined under the 2016 Credit Agreement as "holders of more than 50% of . . . the sum of (i) the aggregate unpaid principal amount of the Term Loans then outstanding, (ii) the Revolving Commitments then in effect, if any . . . ."

49. UMB Complaint, *supra* note 28, at 40.

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the collateral removal and significantly undermining further the remaining value of the 2016 Term Loans.

As one might surmise, the dissenting "hold-out" lenders were fit to be tied, and several proceeded to draft a complaint alleging: (a) that the refinancing had breached the 2016 term loan agreement, (b) that the new revolvers also abrogated the agreement, (c) that the restructuring was invalid, (d) that all of this had been done with Citibank's active assistance and encouragement; and (e) that the principal balance on the term loans was immediately due and payable. UMB Bank—a purported assignee of several objecting lenders—filed its 117-page complaint detailing their objections on August 12, 2020.[50] Even today, as one reads the lenders' complaint (and understands it as such), the sheer degree of acrimony between the parties captured in the rhetoric is notable.[51]

Just as the legal fracas between Revlon and its creditors was in its ultimate pre-launch countdown, fate famously intervened. Unbeknownst to the attorneys finalizing and filing the UMB complaint, the prior 24 hours had been a doozy, both for Revlon and (especially) for Citibank. For it was on August 11, 2020—just a day before the creditors sued—that Citibank's employees lapsed into one of the most infamous "fat finger" faux pas in financial history, erroneously sending a face-value payoff of the bonds to all the hold-outs.

B. *Citibank's Historic Blunder*

Although the details of Citibank's blunder have been documented in detail by now,[52] it is worth briefly noting what transpired at a high level. As mentioned above, several of the term lenders were *not* holdouts, but instead had acceded both to approve the restructuring and to exercise the right to exchange their existing debt contracts with "new" debt contracts with higher priority claims against the shifted IP collateral. The mechanics for making the change required Citibank (as administrator) to round up the various consenting creditors

50. *Id.* UMB Bank also claimed to be the new Administrative Agent on the Term Loans, but principally brought its suit pursuant to an assignment of rights from several Term Lenders that opposed the 2020 restructuring. *Id* at 12.

51. For example, the complaint uses the term "theft" six times and some form of the verb "steal" eight times. *Id.*

52. *See, e.g.*, Levine, *supra* note 13.

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and "migrate" their accounts over into the new debt securities.[53] Such measures—conventionally called "roll ups"—are common during corporate refinancings. But executing such migrations can often be cumbersome, since (a) the consenters and the holdouts must now be treated differently and (b) the migrations typically occur at an interim point between scheduled interest payments, so that the borrower must generally make good on whatever partial interest has accrued as of the date of the roll-up. The process of executing a roll-up is cumbersome enough that in practice, it has become routine to simplify step (b) by making the partial interest payment to *all* lenders, even the holdouts who are not migrating their claims. Such categorical interest payments usually concede a small benefit to these holdouts, but they do so in the name of administrative ease.

Consequently, in order to execute the roll-up, Citibank planned to make an interim interest payment to all of the term lenders, but then "rapture" the consenting lenders out of the population and into their new claims.[54] To do this, however, Citibank's internal systems required a series of manual acrobatics to override the system's hard-wired instructions that all debtholders must receive identical treatment in all matters.[55] The most efficacious way to coax the software system into performing this feat was evidently to treat *all* creditors (even the holdouts) as if their position was being liquidated, moving holdouts' balances out of the account, and parking it temporarily in a shadow (or "wash") account.[56] Once the consenters had migrated out to their new positions, the wash account balance could simply be shifted back as part of a "rebuild" of the holdouts' original position.[57] The process for orchestrating these maneuvers evidently involved several manual overrides made in less-than-intuitive locations in Citibank's software program. Through a series of mishaps and crossed wires (documented at greater length in court proceedings), these manual entries were mis-entered, the errors went undetected by the triple-layer Citibank review process, and a nightmare scenario

53. *See In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 399 (S.D.N.Y. 2021).

54. *Id.* at 400.

55. *Id.* at 400–01.

56. *Id.*

57. *Id.* at 401.

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ensued: at the close of business on August 11th, Citibank not only paid out the partial interest (around $7.8 million) to all lenders as planned, but it also inadvertently released the balance of the wash account to the holdouts—returning to them the face value of their loans (around $900 million all told)—the full sum they were hoping to recover in their imminent lawsuit.[58] Making matters worse (for Citibank), Revlon had neither authorized nor bankrolled an early liquidation of the holdouts' claims. Citibank had made the mistaken transfer with its own money.[59]

On the morning of August 12th, some thirteen hours later (and just as the lawyers for the holdouts were preparing to file their own complaint), Citibank employees discovered the erroneous transfer and sent several (progressively panicked) notices to the hold-out creditors, informing them of the mistake and urgently requesting the return of the wayward payments.[60] Although several lenders cooperated, ten of them—representing around $500 million in principal—dug in, refusing to return the cash.[61] From their perspective, their litigious prayers had just been unexpectedly and miraculously answered, and they were not about to return anything. If Citibank wanted to claw back its ill-fated transfer, it would have to file a lawsuit of its own.

And that's just what Citibank did.

II.
THE *CITIBANK* LITIGATION AND ITS AFTERMATH

Though already expecting to become a co-defendant in the term lenders' breach of contract lawsuit, Citibank now found itself as the sole plaintiff in a much more pressing claim, seeking to recover a half-billion-dollar misguided payment of its own cash. Citibank filed suit within a week of the error, and

58. *See id.* at 396, 400–05; UMB Complaint, *supra* note 28, at 116. The creditors were also seeking prejudgment interest and costs. *Id.*

59. *See In re Citibank*, 520 F. Supp. 3d at 404.

60. *See id.* at 405.

61. *See id.* at 397–98 (Those refusing to return the mistaken payments were Brigade Capital Management, LP; HPS Investment Partners, LLC; Symphony Asset Management LLC; Bardin Hill Loan Management LLC; Greywolf Loan Management LP; ZAIS Group LLC; Allstate Investment Management Company; Medalist Partners Corporate Finance LLC; Tall Tree Investment Management LLC; and New Generation Advisors LLC.).

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the consolidated cases eventually landed in U.S. District Court Judge Jesse Furman's courtroom in the Southern District of New York. Trial took place in December 2020, over the (then) unconventional platform of Zoom, with most witnesses appearing via affidavit.[62]

While Citibank asserted several claims against the defendants (including restitution, unjust enrichment and conversion), the central legal issue in the case was simple: whether the equitable principles of New York state law would allow Citibank to claw back the mistaken payment, or whether the lucky lenders were entitled to keep their unexpected bounty.[63] In garden-variety restitution actions that involve mistaken payments, Citibank appeared to stand a strong chance for success. Like most states, New York law "generally treats a failure to return money that is wired by mistake as unjust enrichment or conversion and requires that the recipient return such money to its sender."[64] Moreover, equitable considerations typically cut even *more* decisively in the transferor's favor when the recipient has not changed its position due to the payment.[65] These principles were at the core of Citibank's affirmative claims, and the court held that they shared substantially "overlapping elements",[66] requiring that the plaintiff (Citibank) prove that the defendant (the lenders) mistakenly received a benefit from the plaintiff; if they did so, then equity would or-

62. *Id.* at 410.

63. *Id.* at 396.

64. *Id.* In a similar vein, New York law holds that an unlawful conversion occurs "when someone, intentionally and without authority, assumes or exercises control over personal property belonging to someone else, interfering with that person's right of possession." *Id.* at 413–14 (quoting Colavito v. N.Y. Organ Donor Network, Inc., 860 N.E.2d 713, 717 (N.Y. 2006)). "To establish conversion, a plaintiff must show (1) its 'possessory right or interest in the property' and (2) 'defendant's dominion over the property or interference with it, in derogation of plaintiff's rights.'" *Id.* (quoting Chefs Diet Acquisition Corp. v. Lean Chefs, LLC, No. 14-CV-8467, 2016 WL 5416498, at *7 (S.D.N.Y. Sept. 28, 2016)); *accord* Colavito, 860 N.E.2d at 717.

65. *See, e.g.*, Nat'l Bank of Com. v. Nat'l Mechs.' Banking Ass'n., 55 N.Y. 211, 213 (1873).

66. *In re Citibank*, 520 F. Supp. 3d at 414 (first citing Briarpatch Ltd. v. Phoenix Pictures, Inc., 373 F.3d 296, 306 (2d Cir. 2004) (unjust enrichment); then citing Aaron Ferer & Sons Ltd. v. Chase Manhattan Bank, Nat'l Ass'n, 731 F.2d 112, 125 (2d Cir. 1984) (money had and received); and then citing United States *ex rel.* Ryan v. Staten Island Univ. Hosp., No. 04-CV-2483, 2011 WL 1841795, at *5 (E.D.N.Y. May 13, 2011) (payment by mistake)).

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dinarily dictate that the benefit should be returned. Most commentators at the time (including this one) conjectured that while the lenders had some colorable claims, they would eventually be required to give back the errant bounty.[67]

All that said, the area of restitution is notoriously strange and unpredictable; no doubt appreciating this predilection, the lenders scoured New York case law for authority that would enable them to assert a "finders-keepers" equitable right to keep the cash. And lo and behold they stumbled on a doozey, in the form of the Discharge-for-Value (or DFV) doctrine, an affirmative defense stating that the recipient of a mistaken payment may lawfully retain the funds in satisfaction of a payment that is owed so long as the recipient is unaware of the error.[68] The real-world application of this principle is relatively uncommon, but when invoked it is typically buttressed by a subsidiary policy goal of maintaining the finality of bank transactions, especially wire transfers that occur frequently throughout every single day.[69] They repeatedly pointed to the DFV defense as the principal principle to govern the mis-paid principal.

A few months after trial concluded, Judge Furman issued a February 2021 opinion that surprised many observers, finding that the lenders had successfully asserted a DFV defense and holding accordingly that the wayward windfall was theirs to keep.[70]

A. *Digging up (Banque) Worms*

So how did the Lenders manage to secure their victory? To answer this question, it is necessary to dig a little deeper into the restitution wormhole. The DFV doctrine—a long-standing component part of the law of restitution[71]—had

67. *See, e.g.*, Dolmetsch & Doherty, *Bank Error in Your Favor: Citi's Fight to Reclaim $900 Million*, *supra* note 4 ("Citibank has 'a pretty strong case,' said Eric Talley, a professor of corporate law at Columbia Law School, but it's 'not so crystal clear that it doesn't involve a little bit of risk.'").

68. *See* Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189, 192 (N.Y. 1991); RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 67 cmt. d (AM. L. INST. 2011).

69. *See Banque Worms*, 570 N.E.2d at 196.

70. *In re Citibank*, 520 F. Supp. 3d at 451.

71. *See, e.g.*, RESTATEMENT (FIRST) OF RESTITUTION § 14(1) (AM. L. INST. 1937).

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been last on prominent public display in New York during the early 1990s, in a 30-year-old precedent delectably known as *Banque Worms v. BankAmerica International*.[72] Though seen only intermittently in the years since its publication, *Banque Worms* remained good law, lurking in the doctrinal waters of New York (possibly awaiting—not unlike the fabled Norse serpent Jörmungandr—its own jurisprudential Ragnarök). And by spotlighting *Banque Worms*, the lenders found a sympathetic ear in Judge Furman, who found the factual "fit" between its stated facts and the Citibank gaffe sufficiently close to compel the same outcome.

In many ways, the district court was onto something with the analogy: similar to the Citibank dispute, *Banque Worms* involved an agent who—ostensibly acting on behalf of a borrower—erroneously sent full payment of an outstanding corporate debt to a creditor, who then fought to keep the money (successfully).[73] The agent in that case was the then-prominent West Coast bank Security Pacific,[74] which had contracted with a debtor—an Australian company named Spedley Securities, Inc.—to act as Spedley's agent for executing payments on various line of credit (LOC) arrangements.[75] One of Spedley's principal LOCs was with the French financial firm Banque Worms, and by 1989 the balance on the loan hovered at around $1.9 million.[76] Under the terms of the LOC, the debt matured (and thus became due and payable) every three months, but Banque Worms also enjoyed a recurring option to "roll over" the debt at the conclusion of each three-month term (an option it had previously exercised multiple times).[77]

In spring of 1989, however, Spedley appeared to be on the brink of financial distress, and its creditors (Banque Worms included) grew antsy about being stiffed on their claims. Seeking an escape hatch, Banque Worms informed Spedley that it would not exercise its option to roll over its

72. *See Banque Worms*, 570 N.E.2d 189.

73. *See id.* at 190–191.

74. At around the same time as the litigation, Security Pacific was acquired by Bank of America. Maya Blackmun, *Merger Will Cut 100 Jobs at Banks*, OREGONIAN (Portland, Ore.), May 27, 1992, at D06.

75. *See Banque Worms*, 570 N.E.2d at 190.

76. Banque Worms v. BankAmerica Int'l, 928 F.2d 538, 539 (2d Cir. 1991).

77. *Id.*

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LOC when the then-current term expired in early April, and it demanded repayment of the outstanding principal balance.[78] On the date of LOC's expiry, Spedley appeared to flip-flop about whether it would release the money. At first, it sent the requisite funds to Security Pacific along with instructions to pay off the balance; but hours later, it sent a countermanding instruction, directing Security Pacific instead to send the payment to a different creditor.[79] Key Security Pacific employees failed to read the countermand, and the full principal balance was transferred to Banque Worms, thereby—at least from its perspective—zeroing out the balance on the expiring LOC.[80] At about the same time, a different group of key Security Pacific employees—who *did* see the countermand—directed the same payment to the substitute creditor per Spedley's revised instruction, even though Spedley had not provided sufficient capital to make both transfers.[81]

A familiar-sounding dispute ensued, with Banque Worms refusing (after some back-and-forth) to relinquish the payment. And when Security Pacific thereafter sought satisfaction from Spedley itself, it was met with the unpleasant news that Spedley had filed for bankruptcy.[82] With no other options, Security Pacific sought restitution from Banque Worms in the Southern District of New York (under diversity jurisdiction). The district court held for Banque Worms, noting that although the mistaken transfer of benefits is ordinarily recoverable in restitution, Banque Worms had successfully asserted the DFV defense.[83] The trial court predicated its analysis on the language from the First Restatement of Restitution, which states (in relevant part):

> **§ 14 Discharge for Value:** (1) A creditor of another or one having a lien on another's property who has received from a third person any benefit in discharge of the debt or lien, is under no duty to make restitution therefor, although the discharge was given by mistake of the transferor as to his interests or duties,

78. *Id.*
79. *Id.*
80. *Id.*
81. *Id.* at 539–40.
82. *Id.* at 540
83. *Id.*

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> if the transferee made no misrepresentation and did not have notice of the transferor's mistake.[84]

Because Banque Worms (a) had not misrepresented its position, and (b) had demanded (and received) full payment of the expiring LOC in good faith, the district court held the creditor's receipt of funds from Security Pacific did not put them on notice of a mistake, and the payment was theirs to keep in satisfaction of the debt.[85] The holding was promptly appealed to the Second Circuit, which found itself somewhat at sea, doctrinally, given the dearth of prior case law in New York related to the DFV defense. Rather than spit-balling a way out of the conundrum, the Second Circuit instead took the unusual step of certifying the case to the New York Court of Appeals, asking whether the Discharge-for-Value defense was valid under state law based on the adjudicated facts.[86] In a separate opinion, the Court of Appeals came back with an affirmative answer, holding "that the 'discharge for value' rule as set forth at section 14 of the Restatement of Restitution, should be applied in the circumstances in this case."[87] The court moreover held that the recipient's detrimental reliance (or lack thereof) was not an explicit factor in applying the doctrine.[88] Banque Worms' victory at the trial court was thereby sealed, and a lodestar in New York law took its place in the jurisprudential universe. The *Banque Worms* precedent, in turn, sat ready for another spotlight, which it received in Judge Furman's decision.

B. *District Court Opinion*

Over 105 sweeping pages, and after citing to the *Banque Worms* precedent nearly 100 times, the court explicitly shot down each key assertion that Citibank proffered in opposition to the DFV defense.[89] First, Judge Furman reaffirmed that the

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84. *Id.* (quoting RESTATEMENT (FIRST) OF RESTITUTION § 14(1) (AM. L. INST. 1937)).

85. *Id.* at 541.

86. Banque Worms v. BankAmerica Int'l, 928 F.2d 538, 541 (2d Cir. 1991)

87. Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189, 198 (N.Y. 1991)

88. *Id.* at 191.

89. *See In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390 (S.D.N.Y. 2021).

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defense (according to his reading of *Banque Worms*) does not require the recipients to have changed their position in reliance on the mistaken payment.[90] Next, he rejected Citibank's categorical argument that the debt in question must be "due and payable" at the time of the mistake (which it was not here). It is sufficient, he opined, for the recipient to be "bona fide creditor."[91] Third, the court held that the "magic moment" from which to assess the defendant's knowledge in a DFV defense is the moment that the payment is received by the payee, not at some later moment when the recipient treats the debt as discharged (as Citibank had argued).[92]

The court thereupon turned its attention at length to a critical issue: formulating the appropriate test for whether a recipient of a mistaken benefit "knows" that an error has occurred, which would bar the DFV defense. Here, Judge Furman sided (at least nominally) with Citibank, holding that the "actual notice" requirement advocated by the lenders was too narrow, and that the doctrine should permit a more lenient "constructive notice" standard, whereby one imputes to the recipient whatever inferences a reasonable person would make upon receipt of a mistaken payment in similar circumstances.[93] The court observed that a constructive notice requirement was not only consistent with the Restatement, but also gleaned support from a long trail of New York law predating and postdating *Banque Worms*. Furman further observed that under New York law, constructive notice is often governed by an *inquiry notice* standard: that is, was the recipient aware of facts that would cause a reasonably prudent person to inquire whether a mistake was made?[94]

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90. *Id.* at 454 n.26.

91. *Id.* at 421.

92. *Id.*

93. *Id.* at 430–31.

94. *Id. See also* Marshall v. Milberg LLP, No. 07 Civ. 6950, 2009 WL 5177975, at *3 (S.D.N.Y. Dec. 23, 2009) ("Whether a [party] has such 'inquiry notice' or 'constructive notice' is judged under an objective standard . . . ."); Hicksville Props., LLC v. Wollenhaupt, 711 N.Y.S.2d 729, 729 (App. Div. 2000) (question of notice must examine "whether [defendant] 'had knowledge of facts that would lead a reasonably prudent person to make an inquiry' "). The Restatement also bears this point out:

> While imputed knowledge is described in practice under such various headings as "statutory notice," "record notice," "constructive notice," and "inquiry notice," or by reference to a person's "duty of

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Having ratified Citibank's proffered knowledge standard, however, the court proceeded to hold that the facts and circumstances surrounding the mistaken payment were insufficient to put the lenders even on constructive notice of the error. To the contrary, Judge Furman observed, not only had the mistaken sums matched the total principal amount due each lender "to the penny," but the lenders had testified (persuasively, in his view) that they were utterly unsuspicious that the payment might be a mistake until Citibank sent formal recall notices several hours after the transfer closed (i.e., well after the "magic moment" of receipt).[95] In an effort to underscore this point, the court held that sophisticated banks like Citibank can be reasonably expected to have procedures in place to prevent the incidence of clerical mistakes like the one here.[96] Consequently, Judge Furman concluded, no reasonable person in the lenders' shoes would deduce that an unscheduled, unannounced full payment of nearly $1 billion could be a mistake.[97] Inferring a clerical error in this context would be, as Furman wrote (plausibly channeling the *Princess Bride* character Vizzini), nothing short of "inconceivable."[98]

Citibank fared no better with several additional policy arguments it advanced. Judge Furman, in fact, categorically cast aside these arguments, reasoning that although one might—on first principles—be sympathetic to several of Citibank's policy arguments in the absence of a controlling precedent, here "the Court does not write on a blank slate."[99] Finding the core facts of the case to be functionally indistinguishable from *Banque Worms*, the court held that the prior precedent was controlling, and no amount of legal policy wonkery could alter that conclusion.

> inquiry," the different labels attach to what is essentially a common idea. In particular circumstances, and for a variety of reasons, the law will treat a person as knowing a fact without requiring that such knowledge be proven directly.

RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 69 cmt. a (AM. L. INST. 2011).

95. *In re Citibank*, 520 F. Supp. 3d at 431–32.

96. *Id.* at 444.

97. *See id.* at 451.

98. *Id.* at 444; *see also* aqulia2sax, *The Princess Bride Inconceivable Clips*, YOUTUBE (July 12, 2012), https://www.youtube.com/watch?v=QHXjcZdk5QQ.

99. *In re Citibank*, 520 F. Supp. 3d at 451.

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C. *Appeal and Reception*

Shortly after the opinion issued in February 2021, Citibank filed its appeal,[100] and the Second Circuit now has the ball (almost literally) in its court to determine whether *Banque Worms* controls as to the outcome of the case, or, instead, whether the restitution worm has turned. Given the fundamental aspects of New York contract law that are at stake, we may be in for a lengthy process: it would not be surprising if—like in *Banque Worms*—the panel were once again to certify the question to the New York Court of Appeal for refinement of and elaboration on when/how the DFV defense under New York law applies in the factual context present here.

In the meantime, there is by now no shortage of discussion among academics and practitioners about the Citibank holding—much of it critical and virtually all concentrating on a mixture of doctrinal and policy arguments.[101] As noted above, I have participated several times myself in that chorus of critics. The aim of this Article, however, is not to rehash those arguments, but rather to relocate the debate to the realm of empirical inquiry. Nevertheless, it is still necessary to understand the core conceptual criticisms of the case, since they in turn deliver empirically testable implications.

1. *Internal Critiques*

A key area of concern in the case relates to the internal reasoning in the opinion itself, and in particular its treatment of constructive notice. A few preliminary observations may help bear this point out. First consider the role of "inquiry" notice in cases like this one. As Judge Furman (correctly) noted, constructive notice is an important doctrinal cornerstone of the DFV defense. To assert it, a recipient typically must establish its "good faith" by proving that it had neither actual notice nor constructive notice of the transferor's mistake.[102] In turn, in most jurisdictions (including New York),

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100. At the time of this writing, oral argument has been scheduled for later in the fall. Jon Hill, *2nd Circ. Expedites Citi Appeal in $500M Revlon Transfer Fight*, LAW360 (Mar. 18, 2021, 9:21 PM), https://www.law360.com/articles/1366328/2nd-circ-expedites-citi-appeal-in-500m-revlon-transfer-fight.

101. *See supra* notes 12–13.

102. *See* Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189, 192 (N.Y. 1991) (quoting RESTATEMENT (FIRST) OF RESTITUTION § 14(1) (AM. L. INST.

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the concept of constructive notice typically manifests as an *inquiry notice* litmus test: that is, was the asserting party aware of facts and/or circumstances that would cause a reasonably prudent person to inquire whether a mistake was made?[103] Because constructive/inquiry notice is a thoroughgoing objective standard, the asserting party's subjective beliefs, inferences, assumptions or deductions are not pertinent. Rather, the test turns on whether a *reasonable person,* in the position of the recipient and faced with the same facts, would have inquired whether the transfer was a mistake. If so, the recipient is charged with the knowledge it would have gained through the exercise of good faith and ordinary diligence, regardless of what it subjectively believed and irrespective of the steps it actually took.[104]

A second preliminary observation is about the role of *good faith.* Although already baked into the DFV defense, the con-

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1937); RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 67 cmt. g (AM. L. INST. 2011) ("A payee's lack of notice is the essence of 'innocence' or 'good faith' in this context . . . ."); United States v. Orozco-Prada, 636 F. Supp. 1537, 1542 (S.D.N.Y. 1986) (the "burden of proof rests" with defendants asserting a bona fide purchaser defense "to establish that," inter alia, they "had neither actual nor constructive knowledge" of the rights of others in the transferred property); *accord In re* Calumet Farm, Inc., 398 F.3d 555, 560 (6th Cir. 2005); Qatar Nat'l Bank v. Winmar, Inc., 650 F. Supp. 2d 1, 10 (D.D.C. 2009).

103. *See, e.g.*, Marshall v. Milberg LLP, No. 07 Civ. 6950, 2009 WL 5177975, at *3 (S.D.N.Y. Dec. 23, 2009) ("Whether a [party] has such 'inquiry notice' or 'constructive notice' is judged under an objective standard . . . ."); Hicksville Props., LLC v. Wollenhaupt, 711 N.Y.S.2d 729, 729 (App. Div. 2000) (question of notice must examine "whether [defendant] had 'knowledge of facts that would lead a reasonably prudent person to make an inquiry'"); RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 69 cmt. a (AM. L. INST. 2011) ("While imputed knowledge is described in practice under such various headings as 'statutory notice,' 'record notice,' 'constructive notice,' and 'inquiry notice,' or by reference to a person's 'duty of inquiry,' the different labels attach to what is essentially a common idea. In particular circumstances, and for a variety of reasons, the law will treat a person as knowing a fact without requiring that such knowledge be proven directly.").

104. *See* Booth v. Ameriquest Mortg. Co., 881 N.Y.S.2d 152, 153 (App. Div. 2009) ("[I]f a purchaser or encumbrancer knows facts that would 'excite the suspicion of an ordinarily prudent person' and fails to investigate, the purchaser or encumbrancer will be chargeable with that knowledge which a reasonable inquiry, as suggested by the facts, would have revealed." (quoting Miner v. Edwards, 634 N.Y.S.2d 306, 307 (App. Div. 1995)).

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cept of good faith perhaps looms *especially* large in this case. Recall that in *Banque Worms*, Security Pacific was acting solely as an agent for the borrower (Spedley); the creditors who received the mistaken payments had no contractual relationship to Security Pacific whatsoever, other than indirectly in its capacity an agent of the original debtor.[105] For the Revlon loans, in contrast, all of the relevant parties—the lenders, Revlon and Citibank—were parties to (and signatories of) the credit agreement.[106] As such, they are not only bound to the express terms of the contract, but they also are bound by affirmative duties of good faith and fair dealing to one another—which adhere to all parties to a contract.[107] Consequently, even though the good faith of a mistaken payment recipient already animates the DFV defense in a limited way (when asserted), its importance is magnified here by dint of the pre-existing good faith duty of the lenders and Citibank in all their interactions.

Against this backdrop, this subpart highlights three aspects of the district court opinion that seem especially suspicious: (i) its treatment of the burden of proof; (ii) the logic behind its application of the constructive notice standard in the light of that burden; and (iii) the important role played by the fact that the debt here was not only far short of maturity, but also deeply discounted. I consider them in turn.

a. Burden Allocation

The first oddity about the court's reasoning is its treatment of how to allocate the burden of proof under the DFV doctrine. Under well-settled law (and as was stipulated in trial itself),[108] DFV is an "affirmative defense."[109] Consequently, the burden rests on the party asserting the defense (here the lend-

105. *See Banque Worms*, 570 N.E.2d at 190–91.

106. *See In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 397 (S.D.N.Y. 2021).

107. *See, e.g.*, RESTATEMENT (SECOND) OF CONTRACTS, § 205 (AM. L. INST. 1997) ("Every contract imposes upon each party a duty of good faith and fair dealing in its performance and its enforcement.").

108. *See In re Citibank*, 520 F. Supp. 3d at 428.

109. *See, e.g.*, Awal Bank, BSC v. HSBC Bank USA (*In re* Awal Bank, BSC), 455 B.R. 73, 93 (Bankr. S.D.N.Y. 2011) ("[T]he discharge for value rule is an affirmative defense to be asserted by answer, and a plaintiff 'does not bear the burden of raising and refuting this defense . . . .'") (quoting T.D. Bank, N.A. v. JP Morgan Chase, N.A., No. 10-CV-2843, 2010 U.S. Dist. LEXIS 109471 at *40 (E.D.N.Y Oct. 14, 2010)).

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ers) to establish its elements; the plaintiff bears no duty to disprove them.[110] Yet, the district court's opinion is decidedly indecisive about how it allocated the burden. In fact, the court mused (somewhat oddly) that there was a "strong argument" to be made that Citibank (and not the lenders) should carry the burden of proving *bad* faith "if only because it would not involve proving a negative."[111] This declaration is both analytically dubious and doctrinally curious. As a matter of pure analytic logic, there is simply nothing especially vexing about "proving a negative" versus an affirmative proposition.[112] Nor is the concept terribly meaningful in probabilistic settings.[113]

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110. *See, e.g.*, Krueger v. United States, 246 U.S. 69, 78 (1918) ("The defense of bona fide purchaser is an affirmative one, and the burden was upon [defendant] to establish it . . . ."); Leopold v. Baccarat, Inc., 239 F.3d 243, 245 (2d Cir. 2001) ("It is well-established that a defendant . . . bears the burden of proving its affirmative defense.").

111. *In re Citibank*, 520 F. Supp. 3d at 454 n.32.

112. As a matter of logic, the aphorism "you can't prove a negative" falls prey to several well-known parlor tricks of semantic deconstruction. Most whimsically, the aphorism itself is a negative, and thus if one were to ever to assert it provably correct, that assertion alone would be self-refuting. More seriously, the statement makes little sense as a proposition of deductive reasoning, since virtually any analytic proposition can be restated as a negative. Suppose, for example, that there were only two states of the world, "A" and "B", which are mutually exclusive and exhaustive. The set {"A is true", "B is true"} is thus a collection of affirmative propositions that fully partition the state space. Now suppose further (for the sake of argument and consistent with the aphorism) that both affirmative propositions are provable. An equivalent—indeed identical—partition of the state space is {"¬B is true", "¬A is true"}, which clearly consists solely of negative propositions. By hypothesis, each must also be provable as well. More generally, several accepted theoretical insights (such as Arrow's impossibility theorem) are typically articulated and proven as negative propositions. *See* Kenneth J. Arrow, *A Difficulty in the Concept of Social Welfare,* 58 J. POL. ECON. 328 (1950). In any event, to the extent that the court was befuddled by the prospect of asking the lenders to prove their lack of bad faith (a negative), it could have simply recast the inquiry as asking them to prove the presence of good faith (an affirmative). Problem solved.

113. Concerns over "proving a negative" are arguably on stronger ground when it comes to assessing *absolute empirical claims* that can be tested only through induction/observation. Consider the statement "green rubies don't exist." This absolute proposition can be disproven empirically by finding a single green ruby; but it can never be proven definitively by observing a consecutive, homogenous sequence of red rubies, no matter how many. Beyond absolutist statements, however, the aphorism once again tends to break down. Consider, for instance, the probabilistic statement that "no more than 1% of rubies in existence are green." This is an empirical claim about fre-

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As a matter of practice, courts regularly assign the burden of proof to the proponent of a claim or defense that has lack of notice as an element.[114] In a seeming overture to preempt these difficulties, Judge Furman's opinion declares that "the Court need not and does not decide the question of burden because even if the burden is on Defendants to prove lack of notice by a preponderance of the evidence, the Court finds that they have met that burden."[115] This reasoning is acceptable as far as it goes (even if facially a little sketchy); but it *should* follow that the opinion would then proceed to err consistently on the side of stating (at least for consistency's sake) that the burden was the lenders' to carry. And yet, the opinion frequently strays from that perspective, both implicitly and explicitly placing the burden of proof as to notice on Citibank.[116] Such lapses create suspicions that the court was at the very least inconsistent in its application of the burden of proof. Such jurisprudential flip-flopping could well sow the seeds of a reversal if the Second Circuit (or New York's Court of Appeals) proclaims more clearly that the burden is on the party asserting the DFV defense.

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quencies that lends itself to the tools of statistical inference. "Proving" it to be absolutely true or false may well be impossible, but one can generate statistical tests of this hypothesis, which trade off the likelihoods of false positives and false negatives (at arbitrarily high confidence levels with sufficient data). Burdens of proof generally share this probabilistic characteristic. *See, e.g.*, Antonio Bernardo, Eric Talley & Ivo Welch, *A Theory of Legal Presumptions*, 16 J.L. ECON. & ORG. 1 (2000); Eric L. Talley, *Law, Economics, and the Burden(s) of Proof*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF TORTS (Jennifer Arlen ed., 2013).

114. *See, e.g.*, Brooks v. Am. Centennial Ins., 327 F.3d 260, 268 (3d Cir. 2003) ("[L]ack of notice is an affirmative defense to be plead and proved by the insurer."); Bartlett v. Dep't of the Treasury (I.R.S.), 749 F.3d 1, 11 (1st Cir. 2014) ("[Plaintiff] has not carried her burden of showing a lack of constructive knowledge of the filing requirements.").

115. *In re Citibank*, 520 F. Supp. 3d at 454 n.32.

116. For instance, the court (1) held that that Citibank's arguments were "not enough to *establish* . . . that Defendants were on notice of the mistake," *id.* at 446 (emphasis added); (2) "challenged counsel for Citibank *to identify any evidence* of Defendants describing the August 11th wire transfers as mistakes prior to receiving the Recall Notices," *id.* at 438 (emphasis added); and (3) devoted a substantial portion of its decision to whether Citibank's "red flag" arguments were sufficient to "*persuade*," *id.* at 440–51 (emphasis added).

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b. Logical Coherence

Going beyond questions of burden (at least for the moment), a second quandary stems from the opinion's application of logical/probabilistic reasoning as to the lenders' reasonable beliefs upon receiving a sudden paydown. Recall that the court concluded that "it would be virtually inconceivable" for a reasonable lender to believe that Citibank had wired a full paydown by mistake.[117] Here, a key observation that Judge Furman makes several times to substantiate this conclusion is that a mistake of this type and magnitude was historically unprecedented. Judge Furman writes, "not one witness, on either side of this case, could recall a single example in which a bank accidentally paid the exact amounts owing on outstanding loans."[118] Consequently, the court deduces, a reasonable lender receiving a surprise paydown would functionally place zero weight on the prospect that the payment was made in error.[119]

This reasoning seems curious on several fronts. Foremost, it is hard to ignore the internal inconsistency in the opinion's analysis: earlier in the opinion (as discussed above), Judge Furman lamented the impossibility of "proving a negative" when it comes to assigning the burden. Yet here, he proceeds to do just that: in essence, the court advances the absolute negative proposition that *accidental early paydowns never occur*—one that it evidently deems to be "proven" by a sequence of witnesses testifying they had not observed one before. But in any event, one need not venture far into recent financial history to uncover a veritable data set of other mistaken transfers, involving sums that dwarfed even Citibank's gaffe.[120] Add to that

117. *Id.* at 444

118. *Id.*

119. *See id.* at 433.

120. In 2018, for example, Deutsche Bank mistakenly transferred $35 billion to derivatives counterparties through human error, notwithstanding a purportedly "fail-safe" error detection system it had installed after the bank experienced a similar blunder just four years earlier. *See* BLOOMBERG, *'This Was an Operational Error.' Deutsche Bank Accidentally Transferred $35 Billion It Didn't Owe*, YAHOO! FIN. (Apr. 20, 2018), https://yhoo.it/3aWTrtn; Staff, *Deutsche Bank Mistakenly Transferred $24 Billion in 2014*, REUTERS (May 24, 2018, 11:53 AM), https://reut.rs/3aSzbJy.) Additional instances abound regarding analogous gaffes that were *publicly disclosed* (holding aside those never made public).

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data set the fact that an accidental payment *actually did occur in this case*, and the proposition that a reasonable person should place *zero* weight on a mistake seems all the more questionable. Consistent with this reasoning, in fact, several of the lenders appear to have internally discussed explicitly the very possibility of a mistake when the funds first appeared without notice.[121] Plus, a large fraction of lenders *were* evidently convinced that there had been a mistake, and they returned the principal payments to Citibank when requested. Thus, while it seems plausible that a reasonable lender in these circumstances might assess the ex ante probability of mistake to be low (maybe even *very* low), the reasoning in the opinion does not convincingly posit that a mistake was functionally impossible.

Of course, even if the reasonable likelihood of a mistake was merely "low" (but not zero), might that still be enough to justify the court's conclusion that the lenders were not on constructive notice of a mistake? Perhaps. But to engage this issue persuasively, Judge Furman would have had to consult a different set of laws—the laws of probability—in the form of the infamous Bayes rule.[122] From a Bayesian perspective, the constructive notice part of the opinion boils down to formal proposition about the probability that Citibank might have committed an error (or a "Mistake") that caused the full paydown of the lenders' claims. For clarity, let us denote this as Pr{*Mistake*}. Although it seems almost certain that this probability is not identically zero (see discussion above), it is still plausible to presume that this probability is small—and indeed well south of 50 percent.

This *unconditional* probability alone would not be sufficient, however, for a reasonable Bayesian to conclude Citibank's surprise payment was more likely than not a mistake under the facts and circumstances prevailing. To do that, one still must condition on those other facts and circumstances. Among such facts, for example, was that the payment was not

121. *See In re Citibank*, 520 F. Supp. 3d at 404–09.

122. *See generally*, *Bayes' Theorem*, WIKIPEDIA, https://en.wikipedia.org/wiki/Bayes%27_theorem [https://perma.cc/F3GA-F874] (last visited Sept. 27, 2021) ("Bayes' theorem . . . describes the probability of an event, based on prior knowledge of conditions that might be related to the event."). *See also* Pandya & Talley, *supra* note 15, for an analysis of the court's Bayesian reasoning similar to this one.

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preceded by the contractually required notice by Citibank to lenders that a full paydown was about to arrive.[123] That is, the facts on the ground were that the lenders had received an "Unannounced Full Paydown" (or UFP). Viewed in this sense, the key probabilistic measure that would relate to a recipient's inferences in the circumstances would be the conditional probability Pr{*Mistake* | *UFP*}. And here, Bayes rule implies the following relationship:

$$\Pr\{Mistake|UFP\} = \frac{\Pr\{Mistake\} \times \Pr\{UFP|Mistake\}}{\Pr\{UFP\}} \qquad (1)$$

Note the three right-hand-side terms comprising this probability: (a) Pr{*Mistake*}, the unconditional probability of a mistake (discussed above); (b) Pr{*UFP* | *Mistake*}, the probability of a full paydown conditional on type of clerical error; and (c) Pr{*UFP*}, the unconditional probability that a borrower such as Revlon would, in the circumstances then-prevailing, decide to spring an unannounced full payment on unsuspecting lenders. Let's consider ingredients (b) and (c) in turn:

- Start with Pr{*UFP* | *Mistake*}—the probability that an unannounced payment would occur conditional on making the type of clerical error that occurred here. Given the nature of the error as described in the opinion, it would seem that this probability is close (if not equal) to 100 percent.[124]
- Now consider the denominator, Pr{*UFP*}—the unconditional probability of an unannounced full paydown on the loans. As noted multiple times in the opinion, a notification from the agent to the recipients generally precedes full payments such as this; and, the 2016 term loans contractually required just such an "an-

123. Beyond Citibank's failure to notify lenders of an early paydown, there are several other observable facts that also constitute valid conditioning events, including the litigious backstory described above, the deep discount on the debt, and the prior refusals of Revlon to accede to the lender's demands for repayment. *See supra* Part I. Each provides additional relevant framing to the factors highlighted in the text.

124. While different types of clerical errors might result in actions other than a full paydown, it was this specific type of error that the opinion fixates on. *See In re Citibank*, 520 F. Supp. 3d at 396.

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> nouncement."[125] Yet, Citibank did not issue and the lenders did not receive notice. To the contrary, throughout the contentious backstory described above, the only real notice that the hold-out lenders had received from Revlon was that it intended to fight their claims, and it had no intention whatsoever of caving.[126] Given the steep market discount on debt claims,[127] it seems even more implausible that Revlon would suddenly have a 180-degree change of heart, fully capitulating with neither notice nor settlement conditions. While it is certainly true that "early paydowns do happen,"[128] large accidental payments happen too—with a surprising frequency.[129] All told, the history and context of *these parties*' relationship made the prospect of unconditional surrender by Revlon exceedingly unlikely; if the probability is not exactly zero, it would seem to be quite close.

Aggregating the above observations, the Bayesian formulation stated in equation (1) can be simplified conceptually as follows:

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125. 2016 Agreement, *supra* note 25, § 2.11(a) ("Upon receipt of [written prepayment notice by Revlon] the Administrative Agent shall promptly notify each relevant Lender thereof. If any such notice is given, the amount specified in such notice shall be due and payable on the date specified therein . . . .").

126. *See, e.g.*, Katherine Doherty, *Revlon Lenders Allege Default with New Debt Deal Nearing Close*, BLOOMBERG (May 1, 2020), https://www.bnnbloomberg.ca/revlon-lenders-allege-default-with-new-debt-deal-nearing-close-1.1430217 (quoting a letter from Revlon's counsel asserting that the "objecting lenders [have] made one baseless accusation after another to try to block the company from securing financing" and "[t]heir disgraceful tactics are intended to hurt the company and its employees and their accusations are misleading and without basis"); Becky Yerak, *Revlon Overcomes Holdout Creditors, Securing $65 Million Rescue Loan*, WALL ST. J. (Apr. 30, 2020, 7:06 PM), https://www.wsj.com/articles/revlon-overcomes-holdout-creditors-securing-65-million-rescue-loan-11588287841 (quoting an anonymous Revlon lawyer who "warned that anyone opposing the borrowing would face 'potential liability'"). Revlon appears to have maintained this position up to and after the date of the mistaken payment. *See* Revlon Inc., Press Release: Revlon to Seek Dismissal of Flawed UMB Bank Litigation Claim (Form 8-K) (Aug. 14, 2020).

127. *See supra* Figure 1 and accompanying text.

128. *In re Citibank*, 520 F. Supp. 3d at 433.

129. *See, e.g.*, *supra* note 120.

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$$\Pr\{Mistake|UFP\} \approx \frac{\Pr\{Mistake\} \times 1}{\Pr\{UFP\}} \leftrightarrow \frac{Small\ \#}{Small\ \#} \quad (2)$$

To carry their burden of proof under a preponderance standard, the lenders would minimally have to prove that the likelihood (2) fell below 50 percent. Equivalently, they would have to demonstrate that the denominator—the probability of a deliberate, unannounced full paydown in these circumstances (Pr{*UFP*})—was at least twice the size as the remaining term in the numerator—the likelihood of a clerical error (Pr{*Mistake*}). Given the parties' history, the market discount on the debt, and contemporaneous statements by Revlon (among other facts), this seemed to many to be a difficult hill to climb. And it does not appear from Judge Furman's opinion that the lenders surmounted it (nor, it appears, that they were even required to try).

c. Significance of "Due and Payable" Claims

Finally, and related to the analysis above, consider the fact that the lenders' notes bore a maturity date three years *after* the mistaken payment was made. That is, Revlon was not obliged to repay the principal until the loans were due and payable in September 2023.[130] As noted above, the district court rejected Citibank's argument that the DFV doctrine should be categorically limited to situations where the debt is "due and payable" at the moment of the error, holding instead that any "bona fide creditor" has access to the defense, whatever the maturity of its claim.[131] This conclusion seems somewhat in tension with at least some of the key reasoning

130. *In re Citibank*, 520 F. Supp. 3d at 398.
131. *Id.* at 421.

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from the *Banque Worms* precedent,[132] as well as subsequent case law interpreting the DFV defense.[133]

But holding that doctrinal point aside, the lengthy remaining tenor of the Revlon debt still bears significantly on a reasonable Revlon lender's assessment of the likelihood of an unannounced early paydown (or Pr{*UFP*} in the formulations above). Recall that by March of 2020, the term loans were trading at around 40% of their face value.[134] In effect, the rate of interest the market imposed on Revlon borrowing now far exceeded the contract rate of the term loans. The *last* thing Revlon (or *any* rational borrower in its shoes) would want to do is to pay them off at face value. To be sure, Revlon possessed a contractual *option* to repay the loans early at face value, and at least according to the court, a reasonable lender receiving the unannounced transfer would have inferred the option was being exercised.[135] But Revlon's option was so far out of the

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132. Recall that in *Banque Worms*, the lender extended a short-term line of credit that expired every three months, and it had announced that it was not going to renew the LOC at expiration of the current contract. Banque Worms v. BankAmerica Int'l, 928 F.2d 538, 539 (2d Cir. 1991). On the due date, Security Pacific mistakenly delivered the full balance to Banque Worms, notwithstanding Spedley's pending instructions to stop payment to Banque Worms and to direct payment instead to a different bank. *Id.* There was no question that the debt was due and payable at the time of the disputed transfer and no party argued otherwise. And the Court of Appeals opinion in that case seems to acknowledge the importance of this point (at least implicitly). Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189, 196 (N.Y. 1991) (stating that the Discharge-for-Value defense is available where a person "*is* entitled" to the money) (emphasis added).

133. *See, e.g.*, Carlisle v. Norris, 109 N.E. 564, 569 (N.Y. 1915) (restitution unavailable where defendants credited payment in good faith, without notice, and "on an indebtedness due them"); A.I. Trade Fin., Inc. v. Petra Bank, No. 89 CIV. 7987, 1997 WL 291841, at *4 (S.D.N.Y. 1997) ("The discharge for value rule contemplates that at the time of the erroneous transfer the transferee/beneficiary have some present entitlement to the funds."); Credit Lyonnais N.Y. Branch v. Koval, 745 So. 2d 837, 841 (Miss. 1999) (for Discharge-for-Value defense to apply, recipient "must be entitled to receive money in payment of a debt").

134. *See supra* Figure 1.

135. *See In re Citibank*, 520 F. Supp. 3d at 433 ("Given that early paydowns do happen, and a mistaken total paydown had perhaps never happened before, it was natural and reasonable for Defendants and their clients to conclude that the August 11th wire transfers were an intentional early paydown by Revlon").

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money by mid-2020[136] that no rational party would even consider exercising it. Even if Revlon had wished to cash out existing term lenders in August 2020, it would have been far cheaper to buy their notes in the secondary market, enjoying an approximate 60% discount to face value.[137] Given that the lenders here had no immediate right to payment, and that their claims traded at a steep market discount, it is difficult to fathom why Revlon would suddenly decide to pull the liquidation trigger in a patently *cost-maximizing* way.[138]

d. Synthesis

One could easily criticize the arguments above as little more than speculative, academic, and armchair pondering. That criticism is probably correct in certain ways (I am an academic armchair ponderer, after all). However, that is also the point: because the DFV doctrine is an affirmative defense, the *lenders* must carry the burden to prove it. It should have been up to the lenders to show that the ratio above satisfies the evidentiary standard. Unclear facts, armchair speculation, or evidentiary "ties" should have been resolved in Citibank's favor. To be sure, carrying this burden would be heavy sledding for the lenders, and, in fairness, it might be prohibitively difficult for *anyone* in the lenders' shoes to adduce evidence satisfying equation (2) above, at least given the facts known at the time of the mistaken payment. Yet, that is how burdens are designed to work.

Beyond these points, it merits observing that the lenders still had a tool in their arsenal for injecting greater precision into their Bayesian calculus: they could simply have asked Revlon and/or Citibank about the nature of the unexpected payment. Such an inquiry would have immediately revealed the mistake, and lodging it seemingly costs very little. Moreover, such an action is consistent with the *inquiry notice* standard that typically chaperones constructive notice tests. That is, a *reason-*

136. *See supra* Figure 1.

137. *See supra* Figure 1.

138. Recall that the lenders were launching their lawsuit alleging that Revlon and Citibank had breached the agreement through the refinancing transaction, and if they succeeded in that claim they would be entitled to a return of principal. But even that outcome was far from certain, and the value of the bonds in the secondary market certainly did not betray much optimism about its prospects.

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able person in the position of the recipient and faced with the same facts, could (and by this reasoning should) have inquired whether there had been a mistake.

2. *External Critiques*

Building on the "internal" objections raised above, the outcome of the *Citibank* opinion also raises troubling "external" questions about whether the default it purports to enshrine is even desirable to most parties. There has been an explosion of academic research on the law and economics of contract design over the last two decades, and the *Citibank* opinion touches on several of those.[139] These include (i) the constructive use of "information forcing" rules; (ii) the importance of catalyzing and facilitating collaborative contracting; (iii) the efficient allocation of risks and costs; (iv) the relationship of factors (i)–(iii) to the concept of "commercial reasonableness," and (v) the minimization of transaction costs. I briefly consider each in turn.

a. Information Forcing

A key policy consideration for contract design involves the way that contracts govern how information is allocated and distributed between the parties. All else constant, it is neither fair nor efficient to give contract parties an incentive to withhold information about an imminent hazard, particularly when speaking up may help avoid or remediate it. Such principles are well established in legal doctrine too: as noted above, core concepts such as "inquiry notice" work specifically to help ensure that parties will communicate such valuable information to one another. More generally, concepts such as inquiry notice serve the dual purposes of (a) furnishing a practical

139. This literature has even analyzed contractual situations that involve mistaken payments. *See, e.g.*, Dhammika Dharmapala & Nuno Garoupa, *An Economic Analysis of Restitution for Mistaken Payments* (U. Chi. Coase-Sandor Inst. for L. & Econ, Rsrch. Paper No. 931, 2021), https://ssrn.com/abstract=3902607 (reviewing literature and positing a thought experiment that involves damages decoupling in the mistaken payment context); Saul Levmore, *Explaining Restitution*, 71 VA. L. REV. 65 (1985) (suggesting an economic framework for analyzing restitution); *see also* Maytal Gilboa & Yotam Kaplan, *The Mistake About Mistakes: Rethinking Partial and Full Restitution*, 26 GEO. MASON. L. REV. 427 (2018) (advocating full restitution for mistaken payors as a means to stem problems with excess precautions).

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"means of establishing a party's prior knowledge, where direct proof is difficult or impossible," and (b) incentivizing "reasonable means of self-protection before seeking the protection of legal rules."[140] So understood, the Discharge-for-Value defense "helps those . . . who help themselves,"[141] but it does not ride to the rescue of those who prefer to ignore/conceal information: "one who has notice . . . is not 'innocent' in the matter."[142]

These doctrinal principles underlie a fundamental precept of contract theory: default legal duties can (and often should) serve an "information forcing" function. All else constant, a well-designed contract would tend to reward parties who—in a critical moment—disclose relevant information about impending hazards (and penalize those who do not).[143] This point is particularly important in contexts where mistakes are difficult to detect. As discussed above, while Citibank's protocols succeeded in unearthing the mistaken payments the morning after the transfer, several lenders had become aware of an irregularity much sooner, even deliberating internally whether the payments were a mistake.[144] The facts and circumstances surrounding the payment quite plausibly raised suspicions that something was afoot, and the lenders were well-suited, at little if any cost, to flag their suspicions for Revlon and Citibank. Indeed, if the lenders knew that they faced an inquiry duty to confirm the bona fides of the payment, they would have no incentive to remain silent about it.

In contrast to this logic, the trial court in this case effectively absolved lenders of any such inquiry duty, placing the risk (and cost) of mistake solely on Citibank. This all but ensures that errors of this type are likely to persist uncorrected

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140. RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT § 69 cmt. f (AM. L. INST. 2011).

141. *Id.*

142. Nationwide Merch. Bank Ltd. v. Star Fire Int'l, 889 F. Supp. 124, 127 (S.D.N.Y. 1995).

143. *See, e.g.*, Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 91 (1989). In some ways, the concept of inquiry notice rules as applied here (along with affiliated settings) may provide a serviceable example of "penalty" default rules that some have argued do not generally exist. *See, e.g.*, Eric A. Posner, *There Are No Penalty Default Rules in Contract Law*, 33 FLA. ST. U. L. REV. 563 (2006).

144. *See In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 404-09 (S.D.N.Y. 2021).

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far longer than is necessary. Going forward, nothing about the opinion would change this outcome in future cases: the lenders would have no incentive to do anything other than stay quiet, cordoning away valuable information from other contract parties until it was too late to fix the error. This incentive is wholly inconsistent with the information allocation goals that animate efficient contract design.

b. Collaborative/Rational Contracting

A second policy concern from the district court's holding relates to the goal of encouraging collaborative contracting among parties in long-term relationships, well documented among contracts scholars. In many settings (this one included), contracts serve as critical governance institutions for long-term commercial relationships rather than one-off transactions. The design of such "relational contracts" necessarily must take into account the fact that the parties will develop a broad set of informal norms and understandings as their relationship plays out.[145]

These norms are critical in long-term, relational settings, since it is precisely such contexts where unexpected contingencies can (and invariably do) arise—including exigencies that cannot possibly be planned for ahead of time, or easily allocated ex ante. In value-creating contractual relationships, moreover, such exigencies require collaboration and cooperation by all sides to resolve. Concrete contract terms (and default rules for interpretation) provide an important (albeit incomplete) backdrop for such collaborative interactions.[146] Perhaps consequently, a robust contract theory literature posits that any sensible contract design in such contingencies must intertwine (or "braid") both the formal mechanisms of enforcement and more informal norms of collaborative dispute resolution to account for unexpected contingencies and uncertainty.[147] Arising from this literature is a consensus that,

145. *See, e.g.*, Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 55 (1963); Ian R. MacNeil, *The Many Futures of Contracts*, 47 S. CAL. L. REV. 691 (1974).

146. *See* Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Text* and *Context: Contract Interpretation as Contract Design*, 100 CORNELL L. REV. 23 (2014).

147. *See, e.g.*, Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice, and Doc-*

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as a general matter, one should take care to avoid default legal enforcement rules that unduly dampen, discourage, or otherwise "crowd out" the possibilities for collaborative cooperation among contractual parties.[148]

By corollary, it is anathema to the goal of collaborative contracting for contract provisions to give parties an incentive to kneecap one another through strategic and/or non-collaborative behavior. Many contracts, in fact, implicitly recognize this fact by having provisions that preclude the most egregious forms of such self-interested opportunism.[149] Similarly, the default rules that govern contractual parties (which apply in contingencies where written contractual terms are silent) should typically play a similar role, mirroring the collaborative provisions that the parties would have embraced had they expended efforts to anticipate and bargain over the relevant contingency.[150] Nevertheless, the district court's holding in this case—if taken to its logical ends—would seem to do the opposite, failing to penalize parties for non-cooperative, non-collaborative, and strategic behavior in the face of unexpected contingencies. In fact, the district court's holding goes a step fur-

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trine, 110 COLUM. L. REV. 1377 (2010); Albert Choi & George Triantis, *Strategic Vagueness in Contract Design: The Case of Corporate Acquisitions*, 119 YALE L.J. 848 (2010).

148. The value of collaboration in relational settings is far more than hypothetical; evidence of it can be found across markets with sophisticated parties. In high-stakes financial contracting markets (the syndicated loan market being one of them), evidence abounds that contracts critically augment collaboration and settle expectations in the face of unforeseen events. For example, there is a robust secondary trading market for syndicated loans, and this secondary trading occurs even in the context of distressed debt. This market is critical because it provides liquidity to lenders holding distressed debt. While the interests of par holders and distressed purchasers, for example, may differ to some degree, cooperation among lenders and the borrower is critical and should be encouraged. It is common to find provisions governing amendments to a credit agreement (here, § 10.1 of the 2016 Agreement, *supra* note 25) that flexibly permit changes to or waivers of covenants if supported by the sufficient collaborative consent of the various loan parties (i.e., the borrower and the administrative agent) and a simple majority of creditors.

149. For example, credit agreements typically have pro rata sharing provisions which provide that if a lender receives more than it is entitled to, it must turn over the excess. The Credit Agreement at issue in this dispute also had such a provision. *See* 2016 Agreement, *supra* note 25, § 2.18.

150. Ian Ayres & Robert Gertner, *Majoritarian vs. Minoritarian Defaults*, 51 STAN. L. REV. 1592, 1597 (1999).

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ther by *punishing* collaboration: the lenders who returned the mistaken transfers after Citibank's recall notice, in furtherance of the value enhancing practices of cooperation and collaboration, ended up playing the suckers. For it was the non-collaborators—those who held out defying Citibank to sue—who made serious bank.

c. Efficient Allocation of Costs and Risks

The reader likely will have noticed an important omission in the policy discussion thus far: it largely presumes the mistaken payment to be an "exogenous" event, and it concentrates instead on steps the parties (and particularly the lenders) might have taken to mitigate and/or dampen the consequences of the error. While instructive in some ways, the approach sidelines whatever underlying actions/omissions that sowed the seeds of the erroneous transfer to begin with. Such considerations are potentially critical: for as important as information forcing, collaboration, and relational contracting might be in the face of *exogenous* harms and risks, they might never have come into play at all had Citibank not made the error to begin with. Indeed, the trial court itself thought this a key factor in the case, positing (inter alia) that a sophisticated bank like Citibank would be expected to have extensive quality control measures in place, so that mistakes of this type would be "virtually inconceivable."[151] Indeed, Judge Furman categorically concluded that "there is *no doubt* that the party best positioned to avoid the error that occurred was Citibank."[152]

On its face, this reasoning has tremendous appeal, and it seems to align well with familiar tropes from law and economics about placing risks and duties on the shoulders of parties who, in the circumstances, can most easily avoid the calamity.[153] As the controller of its own internal protocols for booking payments, Citibank was no doubt in a unique position to design quality control processes that might prevent the mistake from occurring. The lenders, in contrast, had essentially

151. *In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 444 (S.D.N.Y. 2021).

152. *Id.* at 450 (emphasis added).

153. *See, e.g.*, GUIDO CALABRESI, THE COST OF ACCIDENTS 312 (1970) ("Such a system could begin by allocating accident costs to those categories that can avoid accidents most cheaply but are sufficiently broad to spread the costs adequately enough to meet our secondary cost avoidance goals.").

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no control over Citibank's processes, and did not even know about the particulars of the roll up until the errant transfers landed in their accounts. To the extent that such a claim holds water, sticking Citibank with the tab on this mistake might seem like little more than forcing the bank to eat its own (defective) cooking.

But as one thinks deeper about the issue, the reasoning above seems shortsighted for a variety of reasons. First, the expected social cost of a mistake (to the extent there is one[154]) need not turn wholly on whether a mistake is made to begin with. Rather, it is the *combined product* of the incidence of a mistake and its unavoidable consequences. Reducing either one of them—or giving parties the incentives to do so—would presumably be important to value maximizing contract design. Second, when different parties have comparative advantages in controlling the incidence versus the consequences of mistakes, it seems unlikely that an efficient set of incentives would fixate on a single factor while ignoring the other.

The *Citibank* facts exhibit many of the markers of that circumstance. It seems relatively evident that Citibank had the best (if not sole) control over how to design its protocols ex ante to reduce the likelihood of a mistake. However, as the discussion above suggests, the lenders were also in a particularly strong (if not sole) position to take steps ex post to detect and mitigate the consequences of a mistake immediately after it occurred. An efficient contract (or default rule) would attempt to strike a balance across both activities. The interaction of these two elements of control is critically important in efficiency calculus.

154. The discussion below presumes (for argument's sake) that there is a social loss from uncorrected mistaken payment even though the payment alone is a mere transfer payment (which generally is not considered a welfare loss). To the extent that there is no direct social loss from mistakes (or their correction), then the costs of ex ante precautions and ex post detection/remediation become the sole efficiency considerations; here, the arguments developed below not only still apply, but they grow even stronger.

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FIGURE 2: WHAC-A-MOLE[155] (Arcade Version)

To better illustrate the point, consider a riff on the popular arcade game "Whac-a-Mole™." (Figure 2 offers a highly technical visualization to refresh the memories of readers who—dubiously—protest their unfamiliarity.) The game features five "mole holes" cut from a flat melamine playing surface, each ensconcing a cuddly plastic garden mole that is pneumatically powered to ascend and descend intermittently. The game proceeds by iteration: in each iteration, a random process selects a hole, and its occupant emerges to taunt the player for a brief interval of time.[156] The player endeavors to pinpoint the surging creature and—before it can submerge again—to "whack" it with a cartoonish foam mallet, scoring points and dispatching the battered rodent back into its subterranean lair. Once the mole recedes (on its own, or by dint of a whacking), the next iteration begins, and a random pro-

155. For marketing purposes, the game's U.S. originators (who themselves lifted the concept from a Japanese inventor) omitted the "k" from the word *whack*. When used as part of the title of the game, I will retain this convention. *See generally* Brian VanHooker, *An Oral History of Whac-A-Mole: The Surprisingly Contentious Story of the Beloved Family Game About Bludgeoning Small Rodents,* MEL (July 2020), https://melmagazine.com/en-us/story/whac-a-mole-oral-history.

156. Adding to the tension, this interval progressively shrinks as the game proceeds.

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cess once again selects a hole. The iterations repeat until a countdown clock expires.

Each iteration of Whac-a-Mole™ represents a surprisingly serviceable framework for considering the interactions between ex ante precautions and ex post mitigation measures. The Citibank lenders can be thought of as akin to the game player, acting as a "sentry" who can sound the alarm ex post when a mole emerges (i.e., a suspicious payment occurs), thereby enabling a quick and definitive whacking (i.e., correcting the mistake). Suppose that whacking moles is socially valuable, so that whenever a rising mole is dispatched it saves society $10 worth of costs. Serving as sentry, of course, may be neither costless nor 100% effective. To reflect these possibilities, suppose that (a) the sentry's cost of time is worth $1 during each iteration;[157] and (b) her ability to detect moles declines in the number of holes she must monitor: if the sentry is watching "N" holes she will successfully spot the creature only 1/N of the time.[158]

Against this backdrop, assume the key policy objective is to maximize the total *net* expected benefits. Is it economically worthwhile to have a sentry serve the mitigating role as described above? Given these parameters, the answer is absolutely yes. Without the sentry, a $10 harm occurs with certainty in each iteration. But with the sentry, the parties avoid that loss 20% (=1/5) of the time, giving rise to an expected benefit of $2, justifying the $1 cost of the sentry's time. While far from perfect, utilizing the sentry to engage in ex post mitigation efforts is a discernible improvement.

Now, add another twist in the form of ex ante precautions. Suppose that the arcade owner could—by incurring some up-front costs—seal up selected holes to prevent the mole from emerging whenever the game's random process chooses that hole. (The owner's actions are akin to anticipating future problems ex ante and modifying the contract/protocols to circumvent them.) Note that plugging holes can benefit the sentry, too, since it reduces the number of remaining

157. This sum could, for example, represent the cost and delay associated with screening payments as they arrive to assess whether they may have been executed erroneously.

158. Thus, for 5 open holes she will successfully pinpoint the rising mole 1/5 = 20% of the time.

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holes that require monitoring. In the extreme, the owner could even decide to seal up *all* the holes (again at an incremental cost for each), thereby rendering the sentry wholly superfluous. Let's suppose that it costs $X to seal each hole during an iteration.

Against this new backdrop, continue to assume our key objective remains to maximize total expected *net* benefits, but now through the best possible combination of ex post mitigation (mole whacking) and ex ante precautions (hole sealing). We now have even more design questions: should the owner seal *any* holes, or continue to rely solely on the sentry? If the owner seals up holes, *how many*? And given *that* choice, does it still make any sense to retain a sentry at all?

The answers to these questions, as one might conjecture, turn critically on the value of X. Consider the extreme case where it costs $0 to seal up each hole. In that case, the owner could seal up all five holes at no cost, creating an immediate expected benefit of $10 (with certainty). With all holes sealed, the sentry becomes superfluous. This solution remains the most cost effective *so long as* the hole-sealing cost remains relatively cheap (less than $1/hole in this example).

Once the cost of sealing holes exceeds $1.00, however, relying solely on ex ante precautions is no longer commercially reasonable. The left panel of Figure 3 demonstrates this point with an assumed per-hole cost of X=$1.50. Here, the most efficient solution involves the owner sealing up 4 of the 5 holes, but then relying on a sentry to monitor the last.[159] Effectively, the best solution combines both ex ante precautions and ex post mitigation measures. This type of solution continues to be cost-effective so long as the hole-sealing cost stays south of $2.00. Once the cost exceeds $2.00, however, the efficient solution shifts again, this time towards depending wholly on the sentry. The right panel of Figure 3 demonstrates this last case with an assumed cost of X=$2.50. Here, even though ex ante precautions remain available, they are no longer cost-effective to pursue.

159. With a single hole left to monitor, the sentry will detect and dispatch the mole 1/1 = 100% of the time.

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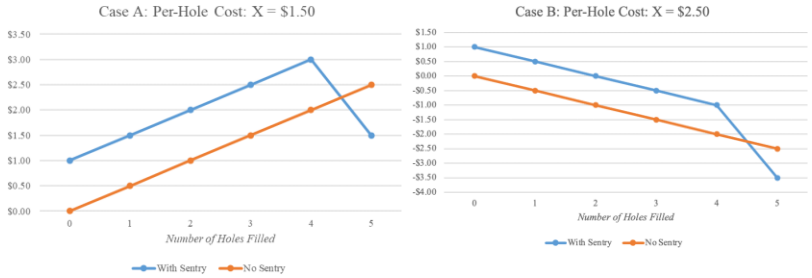


FIGURE 3: WHAC-A-MOLE EXPECTED NET BENEFITS; X=$1.50 (LEFT) & X=$2.50 (RIGHT)

While admittedly simplified, this example demonstrates some general insights for contract design. First, when mistakes can potentially be addressed through both ex ante precautions (hole sealing) and ex post mitigation (mole whacking), there typically is no one-size-fits-all prescription for how best to allocate harm-avoidance duties. Much turns on the structure of the problem, the *relative* cost effectiveness of the two types of activities, and the degree of complementarity between different types of risk-reduction measures. The district court opinion never attempted to conduct this holistic comparison.[160] Indeed, nowhere does it endeavor to assess how costly it would be for the lenders (our sentry in this example) to remain watchful for mistakes, or what the division of labor should be. By neglecting this type of comparison, Judge Furman misses much of the nuance that accompanies multi-sided precautions.

Second, it is frequently optimal to deploy a combination of efforts, and not to embrace a "corner solution" that imposes all the risks and costs on a single party. In Figure 3A, for example, the most efficient solution is for the owner to seal some but not all the holes at random, relying on the sentry to watch the remainder. Even with this optimal solution, and after considerable work by the owner (arbitrarily sealing up say, holes 1 through 4), there remains a chance that the mole will emerge from hole 5. Were that to happen, the owner will no doubt have made an *unlucky* set of precautions *ex ante*, but it would still have behaved reasonably given the sentry's complementary role. Accordingly, it would be disingenuous for the sen-

160. Sorry—hard to resist using that phrase.

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try—having fallen asleep on the job at hole 5—to argue that she is not to blame for an un-whacked mole, since the owner could always have decided to seal up that final hole, too (but didn't). Such retrospective reasoning misses the point: by hypothesis, it would not have been cost-effective to do so ex ante, and accordingly a commercially reasonable contract would not have called for it.

Citibank's protocols appear to bear a strong resemblance to this situation. As the opinion observes, Citibank's internal protocols were already highly detailed and had evidently tackled many (but not all) contingencies successfully.[161] Still, the fact that *this* hole remained unplugged does not imply that Citibank was derelict or defective in its efforts. *In particular*, another technology (a mole-whacking sentry in this example) could detect and remediate remaining hazards. Understanding these tradeoffs is a critical piece of assembling efficient default rules by courts (or at least it should be).[162]

On a somewhat related point, the sleeping sentry's spurious protest—not unlike the district court's opinion—runs perilously close to collapsing into *hindsight bias*, a cognitive bias whereby observing an objectively unlikely event causes someone to believe that the event was (or should have been) much more foreseeable ex ante and thus should have been given far more consideration in advance.[163] Such reasoning is akin to

161. *See In re* Citibank Aug. 11, 2020 Wire Transfers, 520 F. Supp. 3d 390, 450 (S.D.N.Y. 2021) ("The bank took that role seriously in adopting the six-eye approval process for wire transfers of the kind made here. And while that process obviously failed in this instance, the unprecedented nature of the mistake in this case suggests that it has generally been successful.").

162. The example could be made richer even still through a variety of extensions not covered here. For example, the arcade owner may not know the number or location of the holes, and would have to learn about them ex ante by making incremental expenditures on search. Each such expense would—at some cost—reveal information about the location of the next unsealed hole (if one exists). Because search is costly, an optimal contract may skew even further towards using a sentry for ex post mitigation, even if the cost of sealing a discovered hole is relatively small.

163. *See, e.g.*, Baruch Fischhoff & Ruth Beyth, *I Knew It Would Happen: Remembered Probabilities of Once—Future Things*, 13 ORGANIZATIONAL BEHAV. & HUM. PERFORMANCE 1 (1975) (documenting the phenomenon in subjects updated predictions about political events). Hindsight bias is also closely related to the (so-called) availability heuristic, which posits that people change their probabilistic assessment of possible events and give exceedingly high weights to events that are immediate in their memories. *See* Amos Tversky &

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insisting that the arcade owner possesses a crystal ball to predict the hole from which the mole will emerge. To be sure, if the owner possessed such a crystal ball, the most cost-efficient solution would usually be to rely solely on its prophetic powers alone and seal up the hole that is foreordained to be chosen.[164] Nonetheless, we don't live in a world of crystal balls (or at least most of us don't), and contract designers should not be held to such a standard either.

d. Policy Arguments and "Commercial Reasonableness"

As noted above, Judge Furman largely stiff-armed the policy arguments offered by Citibank, concluding that as compelling as such arguments might be in the abstract, the existing *Banque Worms* precedent rendered most/all of them inapposite.[165] While it is certainly true that categorical rules frequently trump policy arguments, the issue clouds considerably when the underlying doctrine is more "standard-like" than "rule-like." When such a case-by-case standard is in play—as it was here—policy concerns can (and should) most certainly guide its application.

First, much of the efficiency analysis above relates directly to maximizing the net value of the gains to trade in contracting. Such intuitions often square explicitly with doctrine, because several important contract doctrines (including the DFV defense) hinge on and are cabined by the standard of *commercial reasonableness*. Indeed, the *Banque Worms* holding itself was predicated on the view that the administrative agent had at its disposal commercially reasonable security protocols to minimize the chance of an error.[166] In contrast, if the mistake could only be prevented by having the administrative

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Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 COGNITIVE PSYCH. 207 (1973).

164. Relying on the mystical powers of the crystal ball continues to be best solution even when the cost of sealing a single hole grows extremely high (as high as $9.00).

165. *See In re Citibank*, 520 F. Supp. 3d at 451 ("Were the Court writing on a blank slate, it is far from clear that it would reconcile these principles in a way that allowed the [hold-out] Lenders to keep the money that Citibank indisputably transferred by mistake . . . . But the Court does not write on a blank slate.").

166. *See* Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189, 197 (N.Y. 1991).

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agent take on exorbitant, *commercially un*reasonable precautions ex ante, then such measures would place an unacceptable expectation on the administrative agent, and the agent should not bear the risk of omitting them.[167]

Similarly, commercial reasonableness necessarily requires a comparison of the alternative means of error avoidance and/or correction: if several low-cost types of ex ante precaution or ex post detection were available, it would imply by necessity that all such technologies should be considered in applying the doctrinal standard. The efficiency-oriented spirit of commercial reasonableness is particularly salient in *Citibank*, because there *was* a readily available form of ex post technology for mitigating mistakes: the recipient of a suspicious payment could simply make an inquiry about why it has just arrived, a gesture that imposes trivial (if any) costs. In contrast, the complexity of payment systems in the financial markets, including the payments at issue here, likely makes ex ante elimination of *all* mistakes prohibitively difficult if not impossible. Going forward, under the district court's holding, it would seemingly be insufficient simply for Citibank to prevent the kind of mistake that *did* happen in this case. Because the next mistake—even if highly unlikely ex ante—would also be part of the agent's responsibility, plausibly magnified through hindsight bias in its importance. The logical end of this reasoning suggests that administrative agents might have to anticipate and negate all *prospective* payment risks—including (by definition) novel types of mistakes that are exceedingly unlikely.

This point bears repeating. Under the District Court's interpretation, a party in Citibank's position evidently would not be required merely to anticipate and circumvent *known* or *reasonably likely* mistakes; it also would have to anticipate and ad-

167. *See* Payne v. Jones, 711 F.3d 85, 94 (2d Cir. 2013) ("The threat of excessive damages . . . encourages overspending on 'socially excessive precautions' that 'cost[ ] more than the reduction of harm produced by [them].'") (quoting Mitchell Polinksy & Steven Shavell, *Punitive Damages: An Economic Analysis*, 111 Harv. L. Rev. 869, 879 (1998)); Rockwell Graphic Sys., Inc. v. DEV Indus., Inc., 925 F.2d 174, 180 (7th Cir. 1991) ("Obviously [plaintiff] could have taken more precautions. But at a cost, and the question is whether the additional benefit in security would have exceeded that cost.").

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dress exceedingly rare hazards—true "Black Swan" events[168] that are highly unlikely ex ante. Taking that instruction to its logical end would seem to require one to aggregate the costs of providing for all unanticipated (and even unanticipat*able*) contingencies—a near absurdity in its own right. And if not absurd, most certainly exorbitant: for even if it were possible to anticipate every unanticipatable Black Swan event, and even if the cost of doing so were small for each individual event, there are (by definition) infinitely many of them. The judge's instruction would thus appear to impose an obligation on the agent to bear that cost (however modest) *infinitely* many times over. This is a major problem. Yet the opinion appears—insouciantly—to double down on it:

> In short, although the mistake that gave rise to this case may be the proverbial Black Swan event, and the risk of a reoccurrence may therefore be small, the banking industry could—and would be wise to—*eliminate the risk altogether* by taking these or similarly modest steps.[169]

To be sure, participants in the syndicated loan market could try to adapt—as best they could—to this new (seemingly absurd) legal standard. However, doing so would entail a substantial proliferation of quality control protocols and personnel. In the steady state, Citibank and its brethren would almost certainly pass on the added costs to borrowers/lenders in some proportion.[170] Any way one cuts it, however, this allocation of default duties (covering even the remotest of risks) seems highly inefficient from a policy perspective, particularly in the face of an alternative: one that deputizes the lenders as Whac-a-Mole sentries, imposing on them a good-faith obliga-

168. *See* TALEB, *supra* note 11.

169. *In re Citibank*, 520 F. Supp. 3d at 451 (emphasis added).

170. As a matter of theory, the precise proportion of cost pass through turns on the competitiveness of the industry. For perfectly competitive industries, industry-wide cost increases are passed through completely; but even for monopolies, cost pass through is still substantial. *See* Paul R. Zimmerman & Julie A. Carlson, *Competition and Cost Pass-Through in Differentiated Oligopolies* 3 (U.S. Fed. Trade Comm'n, MPRA Paper No. 25931, 2010). The syndicated loan market seems somewhere in the middle. *See Are Loan Syndications Anti-Competitive? Not as Simple as You Think*, LSTA (Feb. 21, 2017), https://www.lsta.org/news-resources/are-loan-syndications-anti-competitive-not-as-simple-as-you-think/.

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tion to *inquire* about possible mistakes before any party relies on the payment received. As discussed above, the cost of complying with such a duty would be minimal, and it need not be committed to ahead of time (in contrast to anticipating and plugging myriad contractual holes). In many (perhaps most) contexts, then, it would pale in comparison to the agent's responsibility under *Citibank* to untangle the evident Gordian Knot of anticipating unanticipatables.

e. Transaction Costs and the Importance of Default Rules

If the internal and external critiques articulated above have legs, they also deliver a crucial prediction—one that undergirds the empirical analysis in the next part. Rather than adapting to Judge Furman's proclamation that administrative agents must anticipate and "eliminate . . . altogether" every Black Swan event,[171] sophisticated parties could alternatively respond in a different way: by opting out of the *Citibank* holding altogether. Most observers agree that a key aspect of the DFV defense (and Judge Furman's interpretation of it) is that it constitutes a *default rule:* parties are free to contract around it if they so choose.[172] Consequently, if—as I have argued—the court's interpretation of the DFV doctrine was both (a) a surprise to market participants and (b) a commercially unreasonable allocation of costs and risks, then parties should be anxious to contract around it.

It warrants noting that even though default rules *can* be altered through contract, that fact alone does not render such rules uninteresting or trivial: indeed, how default rules are set is critically important.[173] It is not costless to contract around default rules. If a rule were set inefficiently, in a manner that most parties would disfavor ex ante, then at the very least the default rule imposes immediate and non-contingent costs on

171. *In re Citibank*, 520 F. Supp. 3d at 45.

172. *See, e.g.*, U.C.C. § 4A-501(a) (AM. L. INST. & UNIF. L. COMM'N 1989). ("Except as otherwise provided in this Article, the rights and obligations of a party to a funds transfer may be varied by agreement of the affected party."); Regatos v. N. Fork Bank, 257 F. Supp. 2d 632, 640 (S.D.N.Y. 2003).

173. This point is perhaps underappreciated by many commentators. *See, e.g.,* Levine, *supra* note 21 ("But the fact [the *Citibank* opinion] is a bad *rule* doesn't matter that much for *future* cases, because it is a default rule, and syndicated lenders are big and sophisticated and can just change their contracts to opt out of the rule").

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most (or all) parties to bear the costs of either (a) living with the undesirable rule, or (b) negotiating, drafting, performing, and then possibly testing in court a set of express provisions designed to sidestep the rule.[174] Failing to set a default rule in a majoritarian fashion thus tends to increase transaction costs on the whole.

The costs of "contracting around" unattractive default rules grows substantially when the sweep of such rules also includes surprise judicial interpretations that were themselves unexpected ex ante. Prospectively, such a scenario may well require parties to anticipate and draft around not only the shock in question, but also other unexpected future interpretations, which (as discussed above) is a near absurdity. Even retrospective adaptation to the new landscape can be challenging, particularly for existing "legacy" deals that were executed under the prior regime. With the jurisprudential ground having shifted beneath them, such legacy parties may be forced back to the bargaining table to crack open their deals, wrangle anew, and reprice and/or amend myriad existing credit agreements. In a market well in excess of $1 trillion of active loans,[175] this effect on legacy deals may be impracticable or unduly costly to pull off. (And in this sense, the "default" rule set by the district court's judgment may be the functional equivalent of an immutable rule.)

Adding to these costs is the specter (if not likelihood) that new express terms will themselves be *generically* uncertain, since one cannot know how courts of the future will react to language that purports to upend the default rule. Will it be judicially negated as insufficient? Interpreted too narrowly? Too broadly? Will it spawn other unforeseen legal battles? These are typically open questions at the time of a contractual innovation, and each adds uncertainty and cost to the prospect of contracting around a default rule. To the extent that parties still wish to take the transaction-cost plunge in the face

174. *See* Gabriel Rauterberg & Eric Talley, *Contracting Out of the Fiduciary Duty of Loyalty: An Empirical Analysis of Corporate Opportunity Waivers*, 117 COLUM. L. REV. 1075, 1114 (2017); Sarath Sanga, *Choice of Law: An Empirical Analysis*, 11 J. EMPIRICAL LEGAL STUD. 894, 923 (2014).

175. *See, e.g.*, Miguel Faria-e-Castro & Asha Bharadwaj, *Syndicated Loans in the U.S.*, FED. RSRV. BANK OF ST. LOUIS: ST. LOUIS FED ON THE ECONOMY BLOG (Oct. 8, 2019), https://www.stlouisfed.org/on-the-economy/2019/october/syndicated-loans-us.

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of an improvident default rule, their actions are far from a freebie (and clearly not a "wash" from a broader cost-benefit perspective).

III.
The Birth of the Revlon Blocker

The prior parts have described the backstory, content, and immediate reception of the *Citibank* opinion, ultimately delivering empirical predictions about contracting behavior in the shadow of the holding. In this part, I turn to that empirical question in earnest, asking whether/how parties to debt contracts have responded to *Citibank*. Recall that the written opinion itself speculated that lending communities and their trade associations would potentially alter their practices, for example by effectuating broad changes to compliance staffing, reforms to industry standards, and enhancements to quality control protocols, so as to further reduce (or in the words of the court, "eliminate") the possibility of unanticipated mistakes.[176]

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176. Explicitly, Judge Furman spit-balled a few possible reforms toward the end of his opinion:

> Moreover, banks could—and, perhaps after this case, will—take other relatively costless steps to both minimize the risk of errors and increase the probability of clawing back erroneous payments. For example, banks could, either on their own, or through an industry association like the LSTA, create clear standards governing the content and timing of payment notices. If a payment notice akin to the Calculation Statements here *always* preceded an actual payment by some specified interval (and banks adopted security procedures, akin to the six-eyes process, to ensure that they did), then the absence of such a notice would indeed raise a red flag that the payment was erroneous. So too, if such notices *always* unambiguously and explicitly described the size and nature of the payment, the recipient of a payment that deviated from the notice would plainly be on notice of the mistake. For example, one could imagine payment notices that stated something like: "You will shortly receive a wire payment of $X. This payment is for interest only; it does not include any payment of principal. If you receive more than $X, any excess would be the result of an error and you would not be entitled to keep it." Suffice it to say, had the Calculation Statements in this case included simple and clear language along these lines, this costly litigation would almost surely have been avoided. In short, although the mistake that gave rise to this case may be the proverbial Black Swan event, and the risk of a reoccurrence may therefore be small, the banking industry could—and

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Such wholesale reforms of protocol are not the only possible means by which parties might respond to *Citibank*. Another response might be simply to waive and/or nullify the DFV doctrine altogether (or at least Judge Furman's interpretation of it). Notably, shortly after the opinion issued, a variety of industry participants began to recommend just that, even offering contractual language intended to negate the opinion.[177] The most prominent of such efforts, undertaken by the Loan Syndications and Trading Association (LSTA), resulted in several draft model terms that the Association designed for the purposes of sweeping aside the opinion.[178] The LSTA's (so-called) "Revlon Blocker" provisions were merely the most visible of several organized efforts in which parties actively advocated contractual terms intended not to adopt—but to nullify—the *Citibank* opinion. Even before introduction of the LSTA model language, according to one commentator, at least four occurrences of Revlon blockers appeared in large syndicated loan agreements.[179]

These anecdotal observations raise the important question of how parties on the aggregate have responded to the opinion. Such responses are unlikely to be homogenous: in some cases, new contractual language diffuses quickly through a market, but in others it can tend to die out, languish, or settle into a steady state in which it is embraced by only certain

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would be wise to—eliminate the risk altogether by taking these or similarly modest steps.

In re Citibank, 520 F. Supp. 3d 390, 450–51 (S.D.N.Y. 2021).

177. *See* Warshafsky, *supra* note 20.

178. *See Erroneous Payment Provision*, *supra* note 19; *see also Blackline of Draft of Erroneous Payments*, *supra* note 19. The Loan Market Association (LMA) also released a template on June 30, 2021. *See* Amanda Montano, *What Happens if You Make a Payment in Error? – The LMA Responds to the Revlon Loan Dispute*, JD SUPRA (July 6, 2021), https://www.jdsupra.com/legalnews/what-happens-if-you-make-a-payment-in-1226386/. More information about the two versions of the LTSA model provision, as well as a subsequent model provision of the Loan Market Association (LMA) is available in Online Appendix A.

179. *See* Warshafsky, *supra* note 20; Lisa Lee & Katherine Doherty, *Citi's $900 Million Mistake Prompts Banks to Seek New Safeguards*, BLOOMBERG LAW (Mar. 3, 2021, 7:10 AM), https://www.bloomberg.com/news/articles/2021-03-03/citi-s-900-million-mistake-prompts-banks-to-seek-new-safeguards?sref=IGLJ0u0Y.

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segments of the market.[180] Which (if any) of these trends is at play here has at least four important implications for how we think about the Citibank opinion, and the direction that contract law is taking. First, it is suggestive of the extent to which Judge Furman's decision surprised the markets, extending the DFV doctrine to factual domains that participants had not anticipated. Second, it sheds light on whether syndicated lending communities were disposed to adapt to *Citibank* or mobilized instead to escape it with Revlon blockers. Third, for those who mobilized, it tells us something about their size, industry, profitability, and capital structures. Finally, we can learn something about whether markets rewarded—or at least did not heavily punish—efforts to contract around the opinion. Each of these inquiries lends itself to investigation with empirical data about contracting practices.

To address these questions, this part makes use of EDGAR, the vast database supported by the Securities and Exchange Commission.[181] EDGAR contains the lion's share of publicly filed documents made by SEC-reporting companies (a population that includes all companies whose securities trade in public US markets). Within EDGAR, Revlon blockers are typically found in unscheduled periodic findings detailing material changes or contracts (usually within Form 8-K filings). However, issuers may sometimes disclose the content of a blocker in other contexts as well, such as a quarterly filing (10-Q), an annual filing (10-K), or a proxy solicitation (14A). In order to avoid excluding any such filing, I accessed the "full text" search tool on EDGAR, which gives twenty years' worth of filings and permits users to input a Boolean search for phrases and words. As a first stage of the process, I constructed a deliberately broad search meant to capture any document (regardless of filing type) that conceivably contained language related to a Revlon blocker.[182] This search—covering January 1, 2020, through July 31, 2021—yielded nearly 1,200 candidate docu-

180. Matthew Jennejohn, Julian Nyarko & Eric Talley, *Contractual Evolution,* 89 U. CHI. L. REV. (forthcoming 2022).

181. *See* U.S. Sec. & Exch. Comm'n, EDGAR Company Filings Search Page, https://www.sec.gov/edgar/searchedgar/companysearch.html.

182. Specifically, the search (conducted in early August 2021) considered all filings from January 2020 through July 2021 with the following provisions: "erroneous payment" OR "erroneous payments" OR "mistaken payment" OR "mistaken payments" OR "discharge for value" OR "erroneous distribution"

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ments, from which I and a research assistant manually checked the text of the document to determine whether it was, in fact, a Revlon Blocker.

To constitute a Revlon blocker, the provision was required to have three features. First, it had to be part of a contractual provision (rather than, say, a general discussion of the Revlon case in an annual report or a description of a contract whose text is not provided). Second, it had to pertain to payment of a debt, loan, or some other type of credit obligation, either through an agent or on a first-party basis. (Payments made under a regulatory scheme such as ERISA were excluded to the extent I could definitively determine such.) Third, the provision had to make an express statement relating to whether the recipient of a mistaken or erroneous payment had the right to keep the payment or instead must return it to either the borrower or the administrative agent. After applying these criteria, I successfully identified 765 Revlon blockers from the original list of 1,193. I then manually extracted the pertinent language of the blocker from the larger document for analysis.

A. *Diffusion and Semantic Content of Blockers*

Consider first the raw incidence of disclosed Revlon blockers, pictured in Figure 4. This Figure is, in many ways, the key take-away from this study. Although blocker-like terms were not completely new to the industry prior to *Citibank*, the number of disclosed blockers remained miniscule for the first six months of 2020, and then hovered at around 5–10 per month through the end of the year and into 2021. This relatively modest uptake is pictured to the left-hand side of Figure 4. However, the February 2021 arrival of the district court's opinion (marked by the red dashed line) sent shockwaves through the industry. By March, the number of disclosed blockers had increased by an order of magnitude over the pre-opinion levels, and by June of 2021 the increase was nearly twenty-fold.

OR "erroneous distributions" OR "payment in error" OR "payments in error" OR "incorrect payment" OR "incorrect payments".

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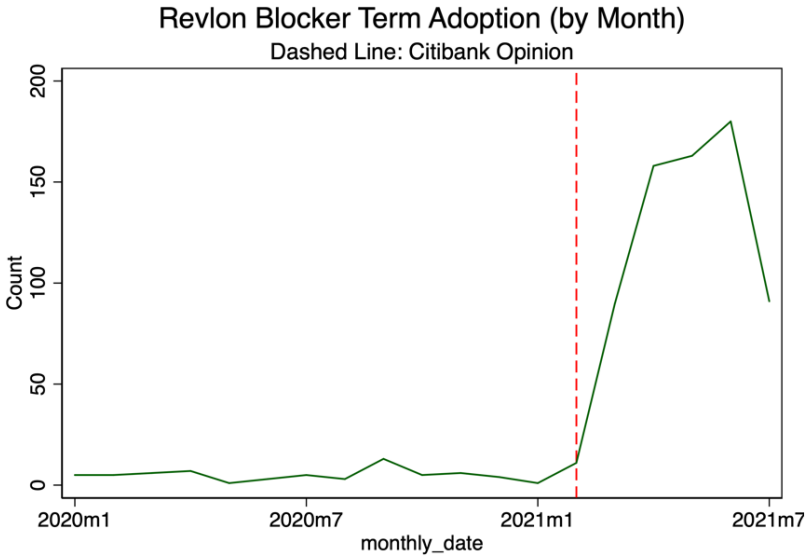


FIGURE 4: UPTAKE OF REVLON BLOCKER PROVISIONS (BY MONTH)
Red dashed line: Month of opinion (2/2021)

Interestingly, July 2021 saw a slight decline in disclosures, but that may be in part an "inventory effect" that reflects the vast stock of provisions that had already been disclosed in the first half of 2021 (and still an order of magnitude larger than the pre-*Citibank* era). In contrast, I was able to find *a single case* of a provision that explicitly imposed the risk of error on the borrower and/or agent—in a document filed six months before the Citibank error occurred.[183]

While the raw incidence of Revlon blockers is itself interesting, drilling into what such provisions contain is even more revealing. To investigate the semantic structure of blockers, I utilized standard machine learning/computational text analysis techniques to process the text of the extracted provisions.[184] After stemming all the words and eliminating com-

183. *See* Digirad Corp., Current Report (Form 8-K) (Jan. 31, 2020).

184. For a general review of these techniques, *see* Jens Frankenreiter, Cathy Hwang, Yaron Nili and Eric Talley, *Cleaning Corporate Governance*, 170 U. PENN. L. REV. (forthcoming 2021); Eric Talley, *Is the Future of Law a Driverless Car? Assessing How (or Whether) the Data Analytics Revolution Will Transform Practice,* 174 J. INST. & THEORETICAL ECON. 183 (2018).

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mon "stop" words, an algorithm distilled a global vocabulary from the resulting terms and, then, reduced each document into a "bag of words" (unigrams) representing raw frequency counts of each term. Those counts were then rescaled by their ratio of term frequencies to document frequencies (tf-idfs)—a measure commonly used to emphasize unique terms. This process thereby reduced each provision to a "vector" whose components corresponding rescaled counts of each unique (stemmed) term in the full corpus vocabulary. Such vectors are often informative, but extremely long and sparse. Therefore, it is common practice to reduce the dimensionality of the adjusted vocabulary counts through singular value decomposition (a generalized principal components analysis), extracting a sequence of artificial variables ("components") that embody the semantic content of the underlying term counts. Each successive component captures a decreasingly significant degree of variation in the text. Accordingly, it is often possible to summarize much of the linguistic heterogeneity in a corpus using only a modest set of principal components.

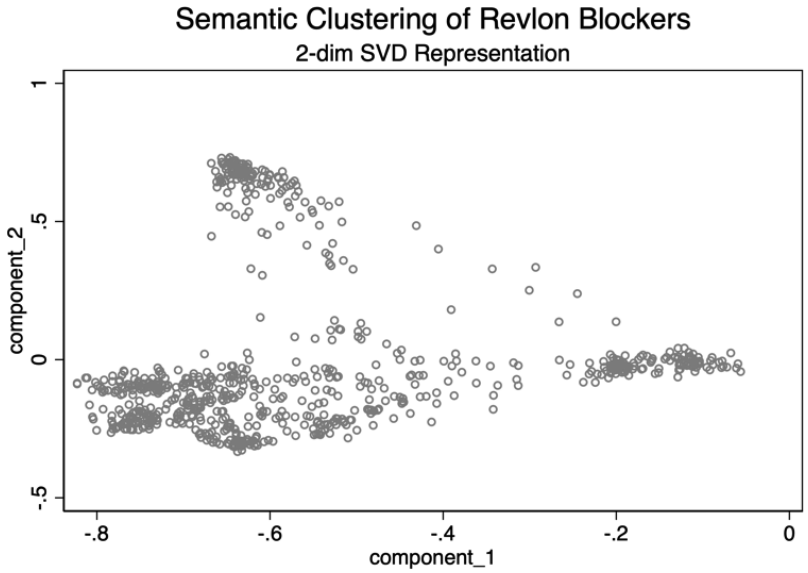


FIGURE 5: 2-DIMENSION LATENT SEMANTIC REPRESENTATION OF REVLON BLOCKERS

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Figure 5 illustrates graphically the first two such components for Revlon blocker provisions. Each gray dot in the figure represents a single disclosed Revlon blocker provision, embodied by its coordinates from the first two dimensions in principal component space. As noted above, the informational content of each sequential component is decreasing in its explanatory power, and, thus, the first component (on the horizontal access) corresponds to the first "rotation" of the data and distinguishes amongst texts on the most basic of levels, while the second component (on the vertical axis) endeavors to tackle the "errors" that the first component could not distinguish. The pattern continues down the line for all components (though the Figure displays only the first—and most informative—two for the ease of illustration). Even with just two dimensions, an important pattern is evident from Figure 5: there appear to be at least three discernible "clusters" of blockers, each with significant within-cluster similarities but evident divergence from members of other clusters.

To investigate this pattern more fully, the two panels of Figure 6 reproduce Figure 5 but color-code according to two alternative criteria. Panel A subdivides the blockers into three topical clusters (or "families") according to semantic similarity, superimposing the language of the three most prominent model provisions (two from the LSTA and one from the LMA). This figure more clearly reveals that there are three basic types of Revlon blocker provision that are semantically discernible from one another. Note that the two LSTA provisions (which are also reproduced in Online Appendix A) are extremely close to one another, and both lie within "Family 2," denoted with red markers. The LMA provision, in contrast, clearly falls within "Family 1." In Figure 6B, the color coding is by temporal era, distinguishing between blockers that predated the *Citibank* opinion (red) and after it (lavender). Note that the early blockers are uniformly located in a single cluster (Family 1)—and that cluster continues to persist after the opinion, even as two additional clusters emerge.[185] Indeed, the LMA model provision released at the end of June 2021 appears itself to be fashioned after the Family 1 blockers.

185. Note that the lavender markers in Figure 6B are set in the background and thus slightly obscured by the red markers in the foreground.

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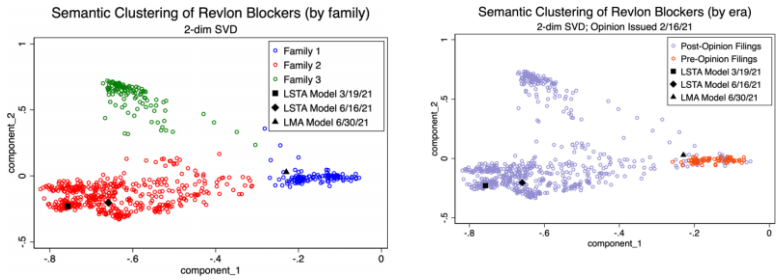


FIGURE 6: COLOR-CODED REPRESENTATIONS, BY FAMILY (6A: LEFT) AND ERA (6B: RIGHT)

It is also evident from Figure 6B that a strong majority of blockers since *Citibank* have gravitated to the LSTA model language, particularly the March version (which has had longer to diffuse). But not all of them. In addition to the Family 1 blockers that continue to persist, there is also another discernible cluster ("Family 3") that emerged wholly in the post-opinion era—one that is distinguishable from both the preexisting cluster and the LSTA-inspired family. Family 3 provisions are relatively similar to one another, and they typically contain what appears to be distilled/condensed principles present in the LSTA provision compressed into a single paragraph and shorn of lengthy procedural instructions. (On this score, note, that along the first principal component represented by the horizontal axis, Family 2 and Family 3 provisions are virtually indistinguishable from one another, reflecting a rough degree of similarity between them.) Table 1 provides a summary of each family type, offering representative examples (which are reproduced in Online Appendix B).

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TABLE 1: REPRESENTATIVE REVLON BLOCKER PROFILES; THREE SEMANTIC FAMILIES

	Incidence	Word Ct.	Description	Example
Family 1	Prior and subsequent to SDNY's *Citibank* opinion; 17.5% of disclosures	Mean: 307.1 Median: 244 St. Dev: 262.1	General limitation / exclusion of liability, typically protecting administrative agents for all actions / omissions taken in good faith. Close proximity to LMA model provision. May also include express provision requiring recipients of mistaken payment to return it. Typically does not explicitly waive the Discharge-for-Value defense by name.	Appendix B1: Aptevo Therapeutics Inc. (APVO) 10-Q EX-10.6 (Credit and Security Agreement, filed 10 Nov. 2020)
Family 2	Subsequent to SDNY's *Citibank* opinion; 65.0% of disclosures	Mean: 769.1 Median: 746.5 St. Dev: 551.4	Highly detailed; close proximity to the LSTA's model provisions; explicitly obligates lenders to return any mistaken payments to the administrative agent; requires lenders to presume a mistake when an unexpected payment occurs without notification; may also require the recipient of a presumptively mistaken payment to expend efforts to confirm whether the payment was mistakenly made. Lays out a detailed process for notice of a mistaken payment as well as subrogation rights. Typically explicitly waives the Discharge-for-Value defense by the lender to the extent permissible by law.	Appendix B2: Netflix Inc. (NFLX) 8-K EX-10.1 (Second Amended Credit Agreement, filed 17 June 2021)
Family 3	Subsequent to SDNY's *Citibank* opinion; 17.5% of disclosures	Mean: 257.2 Median: 234 St. Dev: 79.2	Concise provision that distills central substantive rights and obligations from the LSTA template(s); generally thin on procedural protocols. May also explicitly waive the Discharge-for-Value defense.	Appendix B3: Asbury Automotive Group Inc (ABG) 8-K EX-10.1 (Credit Agreement, filed 20 May 2021)

B. *Who Adopts Blockers?*

Given the discernibly rapid diffusion of Revlon Blockers, a logical next question is what types of companies are executing them. Are geographic concentrations, industry concentra-

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tions, or capital-structure tendencies related to uptake? What about profitability or market valuation? To tackle this question, I merged the hand-collected Revlon Blocker data with Compustat—an EDGAR-derived dataset that tabulates a variety of industry and financial data.[186] The Compustat database is also vast, and it contains data covering tens of thousands of distinct issuers (most traded in the United States, or cross-listing foreign issuers), taken from their most recent annual filings. (Compustat does not directly track Revlon Blockers, which is what necessitates the hand collection.) A sizable majority (around 80%) of the Revlon blockers in the hand-collected data were successfully matched with at least one issuer in the Compustat database. The results below compare those matched firms to the overall Compustat universe.

Consider first the extent to which Delaware-incorporated firms are more likely to adopt Revlon blockers. Within the overall Compustat universe of issuers (with U.S. and foreign-incorporated entities), Delaware incorporated firms comprise just over 41% of the population. Among blocker adopters, Delaware firms represent a larger 47.83% of the sample. In contrast, the relative proportion of U.S.-incorporated firms among adopters is roughly consistent to the overall average (72.53% of blocker-adopting firms versus 71.8% overall).

186. Specifically I merged my contractual database with Compustat using the Central Indexing Key (CIK) identifier that the SEC assigns issuers. (When a Revlon Blocker was associated with multiple CIKs, I treated each company as a distinct observation.)

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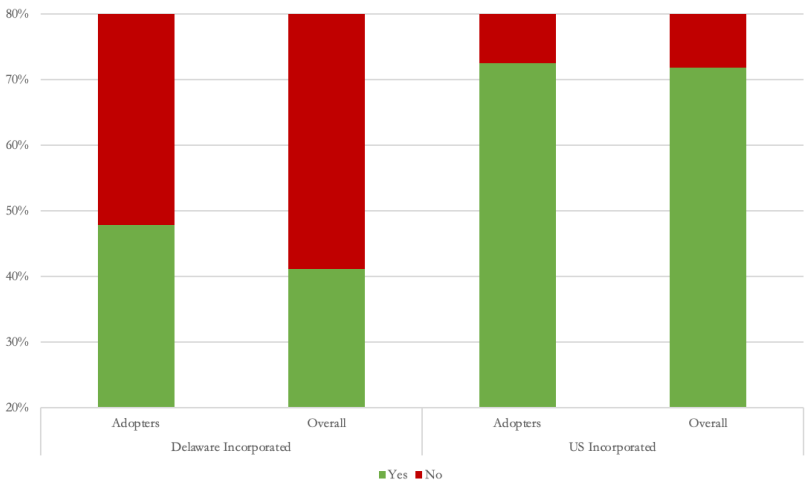


FIGURE 7: INCORPORATION JURISDICTION AND REVLON BLOCKER ADOPTION

A variety of other firm-level attributes are significantly more predictive of blocker adoption, as Figure 8 demonstrates. For each of five standard financial measures (discussed below), I split the Compustat universe up into population terciles corresponding to low, medium and high bins along each measure. The Figure describes the distribution of blocker adopters, according to which population tercile they belong to. As a benchmark, if issuers adopted blockers at random, then the frequency bars should all rise to around 33.33%. As the Figure shows, however, firm-level financial characteristics are highly predictive of adoption. Revlon Blockers are nearly twice as likely to be adopted by the largest Compustat terciles (as measured by both assets and liabilities, corresponding to 60.43 and 60.81 percent respectively); they are more than five times *less* likely to come from the lowest tercile (5.76 and 4.47, respectively). Higher leverage companies (by D-E ratio) are also over-represented by the top two terciles (37.61 and 46.54 for the middle and high terciles, respectively), as are companies at the upper range of ROA measures (37.79 and 50.39). The upper tercile of Tobin's Q firms, in contrast, are discernibly *under*-represented among adopters (23.04).

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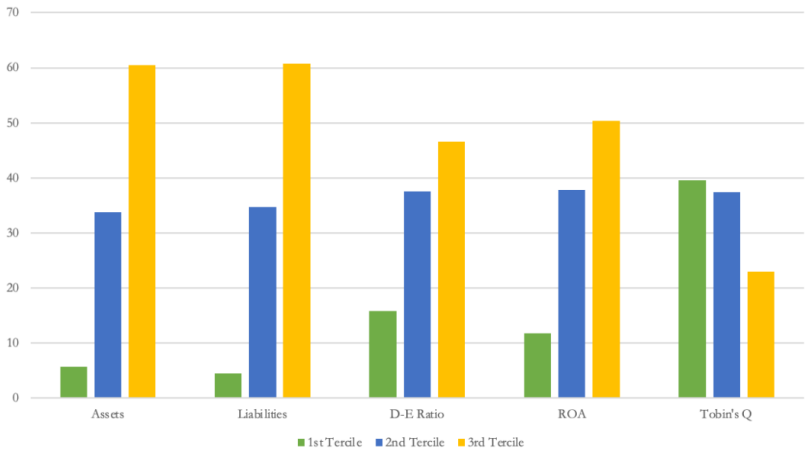


FIGURE 8: FINANCIAL METRICS & ADOPTION
(IN %, BY COMPUSTAT TERCILE)

Using regression analysis, it is possible to distill a slightly more nuanced picture of the adoption proclivities. Table 2 reports on a representative set of logistic regressions where the adoption of a Revlon blocker is the dependent variable.[187] Several of the measures underlying the figures above are included as controls, as well as a variety of industry-related characteristics. Each successive column in the table represents a different regression specification controlling for a mix of different variables; the overall message, however, is remarkably consistent across specifications.

While firm size continues to be highly predictive of adoption (as in Figure 8), total liabilities bear a much stronger relationship to adoption than do total assets. Indeed, controlling for (logged) assets, the more highly leveraged issuers are more likely to report Revlon blockers. This of course makes intuitive sense, since blockers are principally pertinent for debt contracts, which highly leveraged firms have more exposure to by definition.[188] U.S.-incorporated firms (and of those Delaware

187. Because the dependent variable is binary, it is typically appropriate to employ qualitative models (such as logit or probit) that are specifically adapted to such settings (even though linear probability can often be instructive as well). While Table 2 reports solely on a logit specification, the results are qualitatively identical using these alternative models.

188. Debt-equity ratio is not included as a control variable, in view of its close relationship to the liabilities-to-assets ratio, as well as the fact that the

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firms) are also statistically more likely to disclose blockers, which is not wholly surprising but still interesting given the frequency of New York choice of law provisions even for foreign corporate borrowing. Highly profitable firms (reflected in ROA) are also systematically more likely to report blockers. But as in Figure 8, predicted reporting proclivity declines in Tobin's Q (a popular measure of market-to-book value). This last result is also not entirely surprising given that most large and established firms tend to have more modest market-to-book ratios.

TABLE 2: PREDICTORS OF REVLON BLOCKER ADOPTION

Logistic regressions with robust standard errors. Dependent variable is the Adoption of a Revlon Blocker provision in a contractual document filed with the SEC. Data reflect all EDGAR-reporting issuers that are linkable to Compustat. Data observed at the issuer-provision level. T-statistics in parentheses. Significance: + = 0.10 level; * = 0.05 level; ** 0.01 level; *** = 0.001 level.

	[1]	[2]	[3]	[4]	[5]
Ln(Assets)	0.058	-0.019	0.02	-0.03	-0.035
	(0.83)	(-0.21)	(0.20)	(-0.30)	(-0.34)
Ln(Liabilities)	0.240***	0.342***	0.325***	0.393***	0.397***
	(3.63)	(4.03)	(3.51)	(4.05)	(4.01)
DE Incorp.	0.433***	0.400***	0.527***	0.343**	0.350**
	(3.55)	(2.96)	(3.83)	(2.43)	(2.45)
US Incorp.	1.549***	1.555***	0.615*	0.811***	0.832***
	(6.10)	(5.91)	(2.26)	(3.03)	(2.89)
ROA		0.150**	0.155***	0.192***	0.190***
		(2.37)	(2.89)	(3.75)	(3.73)
Tobin Q			-0.002+	-0.002***	-0.002***
			(-1.88)	(-2.84)	(-2.62)
Finance				-1.149***	
				(-5.24)	
Constant	-5.756***	-5.798***	-5.209***	-5.229***	-4.658***
	(-20.11)	(-19.33)	(-18.18)	(-18.83)	(-7.24)
Industry FEs	N	N	N	N	Y
chi-2	337.36	345.662	315.814	349.249	373.356
p	0.00	0.00	0.00	0.00	0.00
N	6714	6053	5038	5038	5025

natural log of liabilities/assets ratio is a linear combination of ln(Assets) and ln(Liabilities), each of which is already included across all specifications from Table 2.

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One seeming anomaly in Table 2 is in column [4], which includes a control variable designating whether the issuer is a finance-related entity (according to its 2-digit SIC code). Interestingly, firms in finance-related industries appear *less* likely to disclose Revlon blockers than virtually all other industries—indeed, finance firms are far and away the least likely to make such disclosures. This result seems peculiar in first blush, since banks and financial institutions overwhelmingly serve as administrative agents in syndicated loans. Some resolution of this quandary may come in understanding that blockers are usually culled from disclosures in issuers' Form 8-K filing. The filing of an 8-K, in turn, is triggered upon the occurrence of a material event (including a contract) for the reporting firm. When a bank or financial institution enters into a contract solely as administrative agent for a third-party loan facility, that limited role is likely insufficient to meet the materiality threshold to force a disclosure by the bank. In contrast, the financial firm would be far more likely to disclose the terms of a debt contract for its own corporate debt, and it is these disclosures that are being picked up in Table 2. Thus, it appears that even as banks and financial institutions seem perfectly willing to embrace Revlon blockers for third-party contracts designating them as agents (thereby working to their own advantage), they seem less interested in the provisions for their own corporate borrowing.

In sum, not only have Revlon blockers been embraced widely since the Citibank opinion, but the firms embracing them have been some of the largest, most profitable companies in the world with large debt portfolios. This response is consistent with the proposition that the new turn the district court took in the DFV defense is viewed with disapprobation, particularly among the firms with the most at stake.

C. *Market Response to Blocker Adopters*

Although the adoption of Revlon blockers (discussed above) captures a critical and direct market reaction to the *Citibank* opinion, there are other, less direct responses that perhaps warrant some attention. In particular, it is possible to gain some limited traction of market reception by analyzing securities market reactions. This final subpart offers a few preliminary insights along these lines, in the form of tentative

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event study analysis on market reception to Revlon blockers and the firms that adopted them.

Before proceeding, it is important to note that in addition to their well-known vulnerabilities, stock-based event studies may not be an especially clean way to measure economic gains from the adoption of a specific contractual term in a debt contract—even one that is publicly disclosed in an SEC filing. Contracts and amendments thereto frequently have many moving parts and may inject multiple types of conflating news into the market. In addition, such contracts bind many parties, only some of whom are likely to have observable securities prices for an event study. Revlon's term loans, for example, involved a contract between Revlon, hundreds of members of a lending syndicate, and Citibank acting as administrative agent. Citibank, moreover, was not a principal to the contract and thus was not under a materiality obligation to disclose the contract. If a blocker creates *joint* value for the parties, that value would presumably be divided among them, and not just concentrated with the observable security. Finally, for a variety of reasons, event studies are typically best positioned to study shocks in thickly traded *equity* markets, and not debt. Equity values may present a reasonable proxy for shareholder value, but they do not capture other attributes of overall firm value for the borrower (such as employees, customers, suppliers, and the like). Thus, it is important not to read too much into stock market reactions related to the *Citibank* case.

With these caveats in mind, there are two potentially interesting events that would lend themselves to an event study here. The first is the first date at which an issuer announces the inclusion of a Revlon blocker in its debt contracts. (Additional such disclosures after that date are less likely to be newsworthy.) The second is the effect of the *Citibank* opinion on returns of blocker-adopting firms (or those likely to become one). I discuss each briefly in turn.

1. *Revlon Blocker Adoption*

Consider first an event study that hinges on the adoption of a Revlon blocker, based on the first disclosure made by an adopting firm. Figure 9 plots mean cumulative abnormal returns for adopting firms where the date is normalized so that "Date 0" corresponds to the calendar date on which the issuer made its first disclosure. Abnormal returns represent the

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deviation of a security's percentage return from its predicted return on the same date. In all the results below, I utilize the well-known Fama-French 3-factor model[189] as a benchmark to generate predicted returns, and, from there, generate abnormal returns. The solid line represents the mean cumulative abnormal return for disclosers, cumulated over the ten trading days after disclosure. The dotted lines represent the 95-percent confidence interval around that mean. As can be seen from the Figure, the initial disclosure of a Revlon blocker is associated with mild positive abnormal return for disclosing issuers over the first few days after disclosure. The magnitude of the abnormal return, however, is mild relative to estimation noise and not statistically significant at over any window. The mean abnormal return also tends to erode on average after about a week, converging to zero at the end of two weeks.

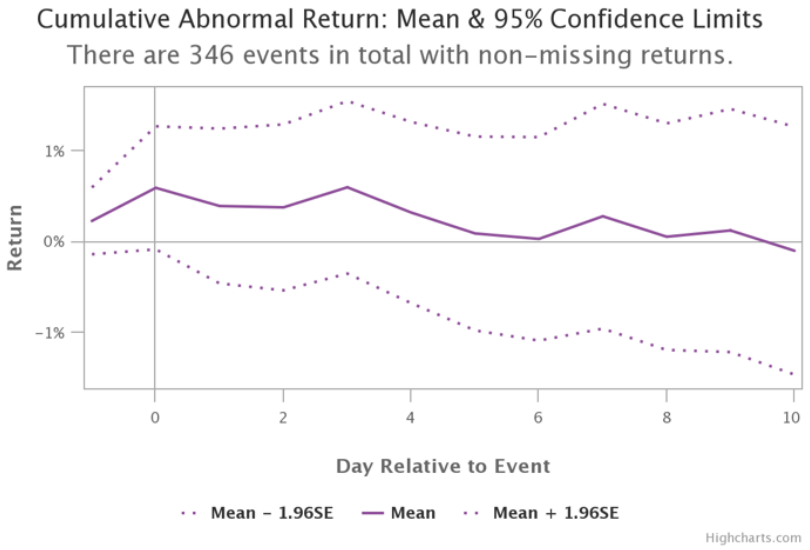


FIGURE 9: MEAN CAR AFTER BLOCKER DISCLOSURE
Predicted Returns Generated from Fama-French 3-Factor Model

Under conventional social science interpretations, the results of Figure 9 suggest not much of a story to be told in either direction: while there may be a modest market uptick as-

189. *See* Eugene F. Fama & Kenneth R. French, *Common Risk Factors in the Returns on Stocks and Bonds*, 33 J. FIN. ECON. 3 (1993).

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sociated with an announced Revlon blocker, there also does not appear to be a significant market penalty for the adoption of such a provision.

A complicating factor in this interpretation, however, is the fact that an issuer's initial disclosure of a contractual blocker may not be the first time that market participants learn of its adoption. Such provisions have to be negotiated after all, and in many cases must first be approved by incumbent creditors (who are themselves market participants). Moreover, as noted above, shortly after the *Citibank* opinion issued, several commentators, scholars, professional associations, and (significantly) a host of borrowers voiced criticism, announcing that they would likely attempt to nullify the outcome contractually. By the time their contractual provisions finally saw the light of day (and were thus captured in my data set), the news might have already grown stale. Viewed in this sense, the first disclosure of a blocker may have been a non-story because its news had leaked far ahead of the disclosure itself.

2. *Release of Citibank Opinion*

The information "leakage" shortcoming of disclosure-based event studies suggests that it would be more profitable to concentrate on something that was a "true" surprise. On this topic, one candidate stands above all: the *Citibank* opinion itself, which (as the arguments above demonstrate) struck most observers as a newsworthy shock. At the time of the opinion's release, there were only a handful of firms that had adopted blockers. However, one potentially informative inquiry would be to run the event study with a retrospective twist, assessing the abnormal returns of firms that had or were destined to adopt a Revlon blocker upon the announcement of the opinion. (Such an approach effectively embraces the possibility of information leakage—presuming that the adopting firms began to discuss and reveal intentions shortly after the opinion came out—as many did.[190])

Figure 10 presents this analysis, normalizing "Date 0" to be the release of Judge Furman's opinion, and plotting mean abnormal returns for issuers that either had adopted or would adopt a Revlon blocker of any form by the end of July 2021. As

190. *See* Warshafsky, *supra* note 20.

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can be seen from the Figure, mean abnormal returns among adopters appear non-trivially positive after the opinion's release, and move progressively upwards over the ten-business-day span that followed. To the extent that eventual blockers were "outed" in the days following the opinion, this suggests that the market approved of their intentions.

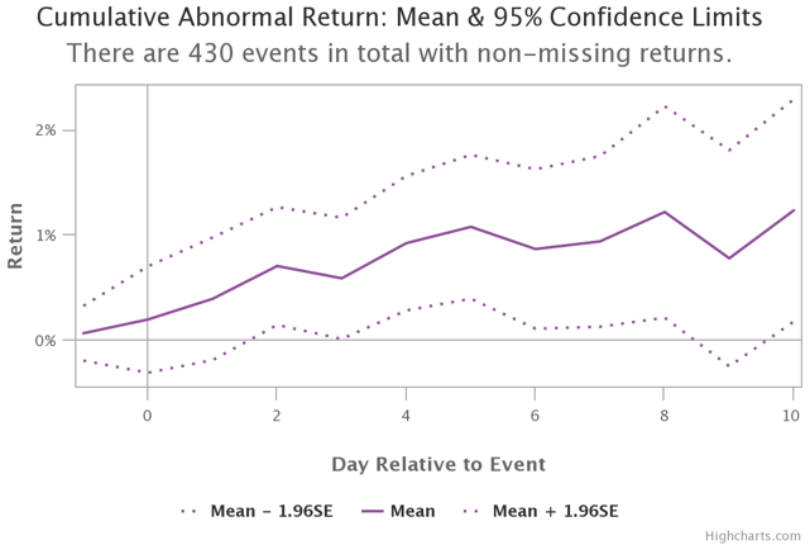


FIGURE 10: MEAN CAR AFTER *CITIBANK* OPINION RELEASE
Treatment Group: Revlon Blocker Adopters by 7/31/21
Predicted Returns Generated from Fama-French 3-Factor Model

Event studies are often overinterpreted, and in this case great care is especially warranted not to overinterpret these findings. Indeed, it simply may not be easy to tell *when* market participants became aware of an issuer's undertaking to adopt a blocker. Without such information, event studies lose much of their punch. However, it is worth noting that similar (albeit slightly more attenuated) results as Figure 10's emerge if one conducts an event study on *expected* adopters (i.e., firms whose various attributes would predict statistically that they would embrace an adopter—a group that includes most of the adopting firms and many others who ended up not adopting[191]). On balance, then, this evidence seems confirmatory of the asser-

191. Results on file with author.

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tion that adopting firms do not appear to have been penalized by market participants, and they plausibly were rewarded.

Conclusion

The 2021 *Citibank* mistaken-payment opinion has all the right ingredients to launch lively discourse in lecture halls, faculty lounges, and lawyerly conference rooms. Accordingly, the dispute seems well poised to become a modern chestnut of contract law (perhaps regardless of its disposition on appeal). To be sure, pundits and commentators of all stripes have taken their shots at the opinion along doctrinal, logical, and policy lines. But these criticisms are in many ways cheap talk: give thoughtful people enough time and space, and they can capably criticize anything.

That said, the dramatic and surprising nature of the opinion also represents an invitation to use empirical tools that go beyond cheap talk. Indeed, the holding provides a unique occasion to witness—and to measure—how private parties respond to surprise doctrinal shocks in real time, not just through rhetorical remonstration, but through the content of their commercial relationships. Using a novel data set of publicly disclosed contracts, this Article has documented a rapid, precipitous trend to negate the *Citibank* opinion through contractual Revlon blocker provisions, manifested through several distinct families of provision and promulgated overwhelmingly by the largest and most sophisticated companies in the public markets. Their rapid rejection of *Citibank*, moreover, appears to have been mildly endorsed (and certainly not penalized) by market participants. As such, this exercise injects a needed form of concrete evidence allowing us better to assess and evaluate the holding.

As of this writing, of course, *Citibank*'s ultimate fate rests with the Second Circuit. Given the extensive factual findings that undergird Judge Furman's opinion, the appellants are likely to face an uphill battle.[192] That said, should the Second Circuit choose to reverse, there are multiple alternative roads available (all flowing from the analysis above). It might, for example, challenge the district court's reasoning that a reason-

192. *See* Pandya & Talley, *supra* note 15 ("Citi's road to a successful appeal will therefore have to overcome the deference that is traditionally accorded to the judge's interpretation of the facts . . . .").

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able, Bayesian, lender acting in good faith—and under the distressed and litigious conditions then prevailing—would fail to suspect an error had occurred. It might hold that the district court waffled impermissibly in allocating the burden of proof for the DFV defense—a burden that should have remained squarely with the lenders throughout. Alternatively, it might find that the district court failed to consider the commercial reasonableness of imposing all burdens on Citibank for ex ante *error prevention*, ignoring whether that allocation is reasonable when compared to the costs of ex post *error detection* by the lenders. Instead, the Second Circuit might categorically cabin the DFV defense to cases where the debt in question is due and payable at the time of the transfer (as was the case in *Banque Worms*). Most dramatically, the appellate panel might simply conclude on broader policy grounds that the *Banque Worms* precedent drove us into an unproductive dead end and warrants rethinking.[193] Given this broad menu of choices and the important state law issues at play, it would be surprising if the New York Court of Appeals were not called upon once again (as it was three decades ago[194]) to issue further guidance. Under each of these scenarios, however, the market's response to the *Citibank* holding—as documented empirically in the analysis above—would be highly relevant inputs.

Beyond the specifics of this case, however, the analysis presented above helps demonstrate how legal doctrine, legal theory and empirical evidence can (and should) helpfully interact. Courts and policy makers would do well to assess how the legal shocks that they create affect market behavior.[195] Such empirical field-testing can be enormously helpful as a means to assess prudent course corrections in contract law, including doctrinal experiments that prove unsuccessful: for the task of establishing fair and efficient default rules in short order is tricky, and judicial actors frequently lack enough information to make the judgment confidently—often because

193. Some commentators, for example, have advocated adopting a good-faith reliance requirement for DFV claimants. *See, e.g.*, Gilboa & Kaplan, *supra* note 139.

194. Banque Worms v. BankAmerica Int'l, 570 N.E.2d 189 (N.Y. 1991).

195. An Appendix providing more detailed information about various model Revlon blocker provisions, as well as typical examples of real-world Revlon blockers, is available at the following link: https://drive.google.com/file/d/1VC3iRdUQcKQVX7TXmU2TNCMVkwOiQq3C/view?usp=sharing.

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such information simply does not exist at the time they must render decisions. Field testing new innovations to legal doctrine may be the best (and sometimes the only) way to assess their relative virtues, providing a lodestar for either plunging forward or reversing course. Ignoring such feedback, in contrast, would constitute much more than a $1 billion mistake.

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