

Pay-to-Play

Law Working Paper N° 850/2025

July 2025

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ECGI Working Paper Series in Law

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Abstract

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51 BYU L. REV. _ (forthcoming 2026)

ABSTRACT

Pay-to-play clauses are a surprisingly understudied feature of venture capital financing deals. These provisions are designed to act as enforcement agents, securing investors' long-term commitment by penalizing those who decline to provide additional funding when their portfolio startups come calling. Through an analysis of a novel dataset of pay-to-play clauses, this paper uncovers surprising patterns in how US startups design and deploy them – most notably, their tendency to discriminate among investors despite legal guidance suggesting otherwise. The paper illustrates how pay-to-play clauses can increase enterprise value by addressing flaws in startups' governance and capital structures, preventing destructive “chicken” games among investor syndicates and fine-tuning investors' use of staged financing to minimize agency costs. The paper also offers a discussion of Delaware's treatment of these clauses, observing how lingering enforceability concerns might hamstring efficient clause design and nudge drafters to use low-visibility contractual alternatives rather than transparent, charter-based pay-to-play arrangements.

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INTRODUCTION

The startup ecosystem fuels America’s economy in ways few other sectors match – driving financial growth, pushing technological boundaries, and expanding job creation at rates that outpace any other sector.¹ It has also been known, however, to ride cyclical waves of boom and bust, with periods of explosive growth followed by inevitable cool-downs.² During these market downturns, capital becomes scarce and investors must make difficult decisions about which startups in their portfolios deserve continued support.³ This paper examines a critical mechanism that can help startups survive these periods of contraction – *pay-to-play* clauses, which have so far remained among the more obscure and least explored corners of venture capital (VC) deal design.⁴ These provisions are structured to induce startup investors to keep providing the

* Wagner Fellow, NYU Pollack Center for Law & Business. *Work in progress; comments welcome at GadWeiss@nyu.edu. Version Date: 5.29.2025.*

¹ See, e.g., Will Gornall & Ilya A. Strebulaev, *The Economic Impact of Venture Capital: Evidence from Public Companies*, SSRN (Jul. 8, 2021) (manuscript at 17) <https://bit.ly/4fdsMHu> (finding, e.g., that among all US public firms founded after 1968 and which have gone public between 1978 and 2020, VC-backed firms represented 72% of the total enterprise value, 92% of the total research and development, and 81% of total patents); Gregory W. Brown et al, *An Analysis of Employment Dynamics at Venture-Backed Companies Between 1990 and 2020*, NVCA (Feb. 2022) <https://bit.ly/3YIMJVE>, at 2; *Sc&P Companies by Weight*, SLICKCHARTS <https://bit.ly/3BkkADY> (last visited Oct. 24, 2024) (finding, e.g., that between 1990 and 2020, the growth rate of startup employment increased eight times faster than the overall private sector employment growth rate).

² See, e.g., Paul Gompers & Josh Lerner, *Short-Term America Revisited? Boom and Bust in the Venture Capital Industry and the Impact on Innovation*, 3 INNOVATION POL’Y & ECON. 1 (2003).

³ *Id.*

⁴ See Robert P. Bartlett, III, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 UCLA L. REV. 37, 57 (2006) and discussion *infra* part II.A.

startup with fresh capital over time as necessary.⁵ Their operating mechanism is simple but painful: decline to participate in future financing when called to, and sanctions will follow. A pay-to-play clause would typically force the conversion of the non-committed investors' shares into a more junior class, stripping them of economic privileges, decreasing their voting power or ownership stake, or causing the loss of their control-related privileges, such as secured board seats.⁶

The prevalence of pay-to-play clauses in venture finance serve as something of a barometer for the VC market's health. They tend to fade into the background during bull markets and resurge during downturns⁷ – with the current VC winter being no exception.⁸ According to the Q4 2024 Venture Financing report issued by Silicon Valley-based law firm Cooley, the percentage of VC deals with pay-to-play provisions increased in late 2024 to the highest level recorded since their reporting began in 2014.⁹ A recent report by another California based law firm – Fenwick & West (“Fenwick”) – identified a similar trend.¹⁰ Pay-to-play provisions are etched into Silicon Valley's collective memory as relics of the dot-com crash in particular, when they became synonymous with the bitter financing deals that kept startups alive through the ice-cold VC markets of that era.¹¹ While typically associated with startups in dire straits, pay-to-play clauses

⁵ See, e.g., Jeffrey M. Leavitt, *Burned Angels: The Coming Wave of Minority Shareholder Oppression Claims in Venture Capital Start-Up Companies*, 6 N.C. J. L. & TECH. 223, 261 (2005) (observing that pay-to-play clauses are used to “force insider support of a company”); Joseph L. Lemon Jr., *Venture Capitalism after the Burst of the Internet Bubble: Selecting Financing Terms with Care*, 2 MINN. J. BUS. LAW & ENTREP. 11, 15 (2003) (noting that the motivation behind pay-to-play closes is “to require continued contribution and participation by all investors, particularly when the company faces financial difficulties or challenges”); and discussion *infra* part I.B.

⁶ Bartlett, *Venture Capital*, *supra* note 4, at 57; Peter M. Susko, *Restructuring Private Equity Investments*, 6 J. PRIV. EQUITY 58, 64 (2003); and discussion *infra* part I.B.

⁷ See BRAD FELD & JASON MENDELSON, *VENTURE DEALS* 63–64 (4th ed., 2019) (describing the use of pay-to-play after the dot-com bubble burst); NEIL J. BEATON, *VALUING EARLY STAGE AND VENTURE-BACKED COMPANIES* 31–32 (2010); Mark Baudler, *From the WSGR Database: Financing Trends*, in *THE ENTREPRENEURS REPORT: PRIVATE COMPANY FINANCING TRENDS 2* (2009) (both describing the use of pay-to-play following the 2007–2008 global financial crisis); and discussion *infra* part I.C.

⁸ See, Mohamed Fakihi, *Venture Capital's New Reality: The Rise of “Pay to Play” Provisions*, MEDIUM (Aug. 15, 2024) <https://bit.ly/3V01Pzd>; Andy Ray et al, *Down Rounds, Recaps and Pay to Play Provisions: Embracing Venture Capital Financing Strategies for Emerging Companies in a Challenging Fundraising Climate* 10–11, MORGAN LEWIS (May 17, 2024) <https://bit.ly/3CwADSm>; about the downward market trend in venture capital financing since early 2022 see generally PITCHBOOK & NVCA, *VENTURE MONITOR: Q3 2024* 7–10 (2024); Alex Wilhelm, *The Global Venture Capital Market is Not Done Retreating Yet*, TECHCRUNCH (Jan. 5, 2024) <https://tcrn.ch/3Z9pqju>.

⁹ *Q4 2024 Venture Financing Report*, COOLEY <https://bit.ly/3Xv9y9K>.

¹⁰ AUMNI & FENWICK, *VENTURE BEACON – 2024 REPORT* 10 (2025) (noting that “increased considerably in Series B+ deals each year since 2021”).

¹¹ See, e.g., FELD & MENDELSON, *supra* note 7, at 63–64 (“At the turn of the millennium, a pay-to-play provision was rarely seen. After the dot-com bubble burst in 2001, it became ubiquitous”); Connie Loizos, *Pay To Play: How Investors Get Burned Fast in a Downturn*, TECHCRUNCH (Oct. 19, 2015) <https://bit.ly/3PSLHww> (noting that pay-to-play provisions “became routine during the dot com bust of 15 years ago and could well become commonplace”).

have proven their worth in success stories too – a Californian internet startup named Google, for example, was assisted by one during its rise to greatness.¹²

This paper offers a discussion of pay-to-play clauses, examining their construction, their role in shaping efficient governance and capital structures in VC-backed startups, and their standing under Delaware law. It opens with a descriptive study of a novel dataset of 150 pay-to-play provisions, hand-collected from U.S. startup charters.¹³ Prior research touching on pay-to-play variations has mostly focused on a single feature: whether non-participating investors saw their preferred stock converted to common stock or to a new class of “shadow” preferred stock with diminished rights.¹⁴ This study goes further by analyzing these clauses across three additional dimensions: their reach across different investor groups,¹⁵ the types of financing events that can trigger them,¹⁶ and the presence of sunset mechanisms that might eventually free investors from their participation obligations.¹⁷ It also takes a closer look at clauses’ penalty aspect – examining not just the security defaulting investors receive, but also whether the conversion applies to their entire holdings or just a portion, and whether they face a punitive conversion leaving them with fewer shares.¹⁸

The data reveals several interesting patterns. First, pay-to-play clauses in the dataset appear with striking frequency in life sciences startups compared to any other sector.¹⁹ Second, while conventional wisdom suggests that pay-to-play clauses primarily target “down round” financings – where new shares are priced below previous rounds and trigger antidilution protections²⁰ – only slightly more

again if things head south”); and see discussion *infra* part I.B.

¹² See SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF GOOGLE, INC., § 7 (2004) (available at <https://bit.ly/3ZLozEM>) [hereinafter: GOOGLE CHARTER].

¹³ See discussion *infra* part II.

¹⁴ See Ola Bengtsson & Berk A. Sensoy, *Investor Abilities*, and Financial Contracting: Evidence from Venture Capital, 20 J. FINAN. INTERMEDIATION 477, 487 (2011); Ola Bengtsson, *Financial Contracting in U.S. Venture Capital: Overview & Empirical Evidence*, in THE OXFORD HANDBOOK OF VENTURE CAPITAL 478, 489 (2012); Ola Bengtsson & Dan Bernhardt, *Lawyers in Venture Capital Contracting: Theory and Evidence*, 52 ECON. INQUIRY 1080, 1092 (2014); Ola Bengtsson & Berk A. Sensoy, *Changing the Nexus: The Evolution and Renegotiation of Venture Capital Contracts*, 50 J. FIN. QUANT. ANAL. 349, 372–73 (2015); Spencer Williams, *Venture Capital Contract Design: An Empirical Analysis of the Connection Between Bargaining Power and Venture Financing Contract Terms*, 23 FORDHAM J. CORP. & FIN. L. 105, 165 (2017); and discussion *infra* part II.A.

¹⁵ See *infra* part II.C.1.i.

¹⁶ See *infra* part II.C.1.i.

¹⁷ See *infra* part II.C.1.i.

¹⁸ See *infra* part II.C.1.i.

¹⁹ See *infra* part II.A.

²⁰ Colin Blaydon & Michael Horvath, *Bury the Ratchets*, VENTURE CAPITAL J., Jan. 2002 (noting that pay-to-play provisions “are a way to attempt to justify the issuance of ratchet shares”); RUPERT PEARCE & SIMON BARNES, RAISING VENTURE CAPITAL 196 (2006) (“pay-to-play provisions are based on the assertion that a shareholder with the benefit of anti-dilution protection should not gain access to this benefit [...] unless he or she is also prepared to support the company ‘in its time of need’ by participating in the down round”). About antidilution protections see generally Robert P. Bartlett, III, *Understanding Price-Based Antidilution Protection: Five*

than half of the dataset clauses were actually limited to these scenarios.²¹ Third, although Delaware courts have suggested that pay-to-play clauses are more likely to be upheld when they apply equally to all investors,²² the data shows that many clauses actually discriminate among investors based on ownership thresholds or other characteristics.²³ Fourth, startup managers – and not just shareholders – often wield discretionary power to trigger or disarm these clauses on a case-by-case basis.²⁴ Fifth, sunset mechanisms are exceedingly rare in the dataset.²⁵ Finally, “closed-ended” clauses – those targeting specific financing rounds – typically impose harsher penalties than “open-ended” clauses that apply to unspecified future rounds, suggesting their different strategic objectives.²⁶

The second part of the paper develops a novel theoretical framework that challenges conventional wisdom about the role of pay-to-play provisions in startup governance. Moving beyond the view of pay-to-play provisions as distributive in nature – transferring wealth from participating investors with high bargaining power to non-participating investors with low bargaining power²⁷ – the discussion below reveals how they can create enterprise value by addressing two fundamental governance challenges.

First, pay-to-play clauses deter harmful free-riding across investor syndicates in different scenarios. In down rounds, they ensure that all investors support the distressed startup – whether through fresh capital or by forfeiting their rights preferences, thus improving deal terms for participating investors and entrepreneurs.²⁸ However, contrary to the widespread perception that pay-to-play provisions matter only (or primarily) in down rounds,²⁹ this paper also illustrates their up-round use case. Where investors attempt to maximize portfolio returns rather than returns from particular portfolio assets,³⁰ some might rationally withhold funding from second-in-class startups while hoping

Principles to Apply When Negotiating a Down-Round Financing, 59 BUS. LAW. 23, 23–24 (2003); Joseph L. Lemon, Jr., *Don’t Let Me Down (Round): Avoiding Illusory Terms in Venture Capital Financing in the Post-Internet Bubble Era*, 39 TEX. J. BUS. L. 1, 23–24 (2003); and discussion *infra* notes 58–63 and accompanying text.

²¹ See *infra* part II.C.1.i.

²² *Watchmark Corp. v. ArgoGlobal Capital, LLC*, 2004 WL 2694894, *5–7 (Del. Ch. 2004); and see discussion *infra* part IV.B.

²³ See *infra* part II.C.1.i.

²⁴ See *infra* part II.C.1.i.

²⁵ See *infra* part II.C.1.i.

²⁶ See *infra* parts II.C.1.i. and II.C.2.; about the distinction between open-ended and closed-ended clauses see discussion *infra* notes 77–82.

²⁷ See discussion *infra* notes 173–176 and accompanying text.

²⁸ See Blaydon & Horvath, *supra* note 20; Lemon, *Venture Capitalism*, *supra* note 5, at 29 (noting that when investors participate in a down round under the threat of pay-to-play penalties “the company receives additional capital in exchange for the lower conversion price”); and discussion *infra* part IIIA.2.i.

²⁹ Blaydon & Horvath, *supra* note 20; PEARCE & BARNES, *supra* note 20, at 196.

³⁰ About VC funds’ portfolio management considerations see generally Abraham J.B. Cable, *Opportunity-Cost Conflicts in Corporate Law*, 66 CASE W. RES. L. REV. 51, 53–54, 73–77 (2015).

other investors will step in.³¹ Pay-to-play sanctions can prevent these destructive “chicken” dynamics that might otherwise lead to the underfinancing of viable startups, even when acting to all investors’ detriment.³²

The paper also challenges conventional thinking about how pay-to-play provisions affect the efficiency of investor oversight on startup managers. The traditional view holds that these provisions inherently weaken VCs’ ability to police entrepreneur-side mismanagement through staged financing – that is, by threatening to withhold further funding if expectations are not met.³³ This paper makes the case that a well-designed pay-to-play clause can help calibrate staged financing structures – not necessarily weaken them.³⁴ When entrepreneurs and investors clash over investment structure – with entrepreneurs seeking larger upfront investments to maintain control, while investors prefer smaller, staged investments to enhance monitoring – pay-to-play provisions can help bridge the gap.³⁵ By making future non-participation possible but costly for the investor, these clauses allow parties to proceed with smaller initial investments that satisfy investors’ monitoring needs, while at the same time assuring entrepreneurs that investors have stronger incentives to maintain their support in future rounds.³⁶

Lastly, the paper examines how Delaware law shapes and potentially constrains the use of pay-to-play. Pay-to-play provisions face two main legal challenges: questions about their validity due to their disparate treatment of investors in the same stock class,³⁷ and heightened judicial scrutiny of board decisions to approve financings that trigger them due to directors’ potential self-interest.³⁸ The Court of Chancery’s *WatchMark* decision offered some comfort by validating a pay-to-play provision under the business judgment rule.³⁹ However, it left many questions unanswered as it dealt with a relatively simple case – one where the pay-to-play clause treated all investors equally and affected investors who had similar financial capacity to participate.⁴⁰ The *WatchMark* court’s reasoning, as well as subsequent Delaware cases, suggest that pay-to-play

³¹ See discussion *infra* part IIIA.2.i.

³² *Id.*

³³ About the use of staged financing by VCs *see generally* Ronald J. Gilson, *Engineering A Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1078–81 (2003); Elizabeth Pollman, *Startup Governance*, 168 U. PA. L. REV. 155, 186–88 (2019); William A. Sahlman, *The Structure and Governance of Venture Capital Organizations*, 27 J. FIN. ECON. 473, 506–08 (1990); D. Gordon Smith, *The Exit Structure of Venture Capital*, 53 UCLA L. REV. 315, 323–24 (2005).

³⁴ See discussion *infra* part III2.

³⁵ *Id.*

³⁶ *Id.*

³⁷ See DEL. CODE ANN. tit. 8, § 151(a); *Colon v. Bumble, Inc.*, 305 A.3d 352, 370 (Del. Ch. 2023); *see also* Robert C. Micheletto, *Poison Pill: A Panacea for the Hostile Corporate Takeover*, 21 MARSHALL L. REV. 107, 125 (1987); and discussion *infra* part IVA.1.

³⁸ See discussion *infra* part IVA.1.

³⁹ *Watchmark*, 2004 WL 2694894; and see discussion *infra* part IVA.

⁴⁰ See discussion *infra* part IVA.

provisions might face greater scrutiny in more complex scenarios – notably, where investors are treated equally at the charter level but have grossly uneven financial ability to participate in future rounds.⁴¹ This legal uncertainty imposes real costs by making pay-to-play provisions less reliable and more expensive to implement and adjust.⁴² However, perhaps surprisingly, this paper shows that the industry’s response has not been for drafters to adopt the court-validated *WatchMark* template.⁴³ Practitioners frequently deviate from it – using more aggressive terms and selective application⁴⁴ – while also, apparently, resorting to mechanisms outside the corporate charter when legal risks seem too high.⁴⁵ This trend toward “stealth governance” may reduce transparency and make it harder for startup stakeholders to assess these mechanisms’ role and effect.⁴⁶

This paper advances the literature in three main ways. First, it presents the most detailed empirical examination to date of pay-to-play provisions’ structure in practice, analyzing dimensions of these clauses that previous studies have not explored. Second, it develops a novel theoretical framework that reconceptualizes these provisions’ role in startup governance. In particular, it demonstrates their utility beyond down-round scenarios and reveals how they can help optimize the balance between agency and principal costs in staged financing structures. Third, it provides a systematic analysis of Delaware’s legal framework governing pay-to-play – an area that remains largely uncharted even two decades after *WatchMark*.

The paper proceeds as follows. Part I provides a basic overview of pay-to-play provisions and their operating mechanism. Part II presents and discusses the results of the empirical study described above. Part III offers a theoretical analysis of the roles pay-to-play clauses fulfill in startups’ governance and capital structure. Part IV discusses the *WatchMark* case and the legal status of pay-to-play provisions under Delaware law. A brief conclusion follows.

⁴¹ See *Perry v. Sheth*, No. 2020-0024-JTL (Del. Ch. Jan. 16, 2020) (TRANSCRIPT); *Strategic Value Opportunities Fund, LP v. Permian Tank & Manufacturing, Inc., C.A.*, No. 2018-0932-AGB (Del. Ch. Nov. 22, 2019) (TRANSCRIPT); and discussion *infra* part IVA1.

⁴² See discussion *infra* part IVA1.

⁴³ See discussion *infra* notes 338–346 and accompanying text.

⁴⁴ *Id.*

⁴⁵ See Amy Simmerman et al, *Navigating Down Round Financing*, HARV. L. SCH. FORUM ON CORP. GOVERNANCE (May 12, 2020) <https://bit.ly/4jsj6fl> and discussion *infra* notes 346–347 and accompanying text.

⁴⁶ About the use of shareholder-based governance agreements see generally Jill E. Fisch, *Stealth Governance: Shareholder Agreements and Private Ordering*, 99 WASH. U. L. REV. 913, 945–953 (2021); Gabriel V. Rauterberg, *The Separation of Voting and Control: The Role of Contract in Corporate Governance*, 38 YALE J. REG. 1124 (2021) and see discussion *infra* note 346–347 and text.

I. PAY-TO-PLAY BASICS

A. Preferred Stock and its Conversion Mechanics

The typical capital structure of VC-backed tech startups consists of two main components: common stock, held primarily by entrepreneurs and employees, and preferred stock, held predominantly by investors.⁴⁷ When startups secure funding through multiple financing rounds they often end up with several classes of preferred stock, with each class corresponding to investors from a respective investment round.⁴⁸ These preferred shares come with special privileges that are not necessarily extended to common shareholders. Such privileges may include control rights, like the ability to appoint board members or observers⁴⁹ or the power to veto strategic decisions (known as *protective provisions*).⁵⁰ Preferred shareholders often also secure the right to participate in the startup’s future investment rounds (*right of first offer*),⁵¹ and – perhaps most importantly – they almost always receive preferential treatment in exit scenarios, known as *liquidation preference*. When the startup undergoes an acquisition, merger, or dissolution, preferred shareholders are entitled to receive a certain amount of proceeds before any remaining funds flow to common stockholders or lower-ranking preferred shareholders.⁵²

Startups’ preferred shares are *convertible* – each share of preferred stock can be exchanged for a number of shares of common stock, with the conversion eliminating the special rights and preferences attached to them.⁵³ Conversion can occur in two ways. First, preferred shareholders may choose to convert their shares voluntarily (*optional conversion*).⁵⁴ voluntary conversion can make economic

⁴⁷ See generally Pollman, *Startup Governance*, *supra* note 33, at 170–73; Smith, *supra* note 33, at 319.

⁴⁸ *Id.* at 174.

⁴⁹ *Id.* at 179–80; Smith, *supra* note 33, at 324–30; Nizan Geslevich Packin & Anat Alon-Beck, *Board Observers*, SSRN (Mar. 27, 2024) <https://bit.ly/3M7O399> (manuscript at 18–20). For a sample board seats allocation clause see *Certificate of Incorporation*, NVCA (Oct. 2024) <https://bit.ly/3Lf7gET>, at § 3.2(a) [hereinafter: NVCA Model Charter].

⁵⁰ FELD & MENDELSON, *supra* note 7, at 81–85; Smith, *supra* note 33, at 346–47; For sample protective provisions see NVCA Model Charter, *supra* note 49, at § 3.3.

⁵¹ For a sample right of first offer clause see *Investor Rights Agreement*, NVCA (Oct. 2024) <https://bit.ly/3Lf7gET>, at § 4 [hereinafter: NVCA Model IRA]. These rights are sometimes also known as “preemptive rights” or “rights of first refusal”; see FELD & MENDELSON, *supra* note 7, at 100–01; Sahlman, *The Structure*, *supra* note 33, at 505. The term “rights of first refusal,” has a different meaning in the NVCA Model Documents; see *Right of First Refusal and Co-Sale Agreement*, NVCA (Oct. 2024) <https://bit.ly/3Lf7gET>, at § 2.1.

⁵² FELD & MENDELSON, *supra* note 7, at 54–63; Smith, *supra* note 33, at 347–48; for a sample liquidation preference clause see Series A Model Charter, *supra* note 49, at §§ 2.1–2.2.

⁵³ See generally FELD & MENDELSON, *supra* note 7, at 71–77, 88–90; ROBERT JOE HULL ET AL, REPRESENTING STARTUPS §7:18 (2024–2025 ed.); for sample conversion clauses see NVCA Model Charter, *supra* note 49, at §§ 4–5A.

⁵⁴ For a sample clause see NVCA Model Charter, *supra* note 49, at § 4.1.1 (“each share of

sense, for instance, immediately prior to an exit event, if the returns on common stock are expected to be higher than the fixed amount guaranteed to preferred shares under their liquidation preference.⁵⁵ A second scenario is a *mandatory conversion*, occurring automatically when predetermined trigger events take place, regardless of the preferred shareholder's consent.⁵⁶ A typical example would be the startup's going public – either through an initial public offering (IPO) or a direct listing – which would ordinarily require preferred shareholders to convert all their equity holdings into common stock.⁵⁷

The startup's charter dictates the formulas for converting preferred to common stock.⁵⁸ The conversion ratio typically starts at 1:1 when a new class of preferred stock is created,⁵⁹ but may shift throughout the startup's lifecycle in response to certain events.⁶⁰ One important trigger for conversion rate adjustment, known as *antidilution protections*, apply when the startup raises a *down round* – that is, issuing new shares at a price below what existing investors had paid for theirs.⁶¹ A down round prompts two kinds of concerns for existing investors. First, a down round signals that their holdings have lost value since their initial investment – a decline they might need to report to their own upstream investors.⁶² Second, at lower share prices, each new dollar invested dilutes existing investors' control and economic rights more severely (unless those existing investors are themselves providing that new dollar).⁶³ One particular concern in this respect is the risk of intentional shareholder dilution by way of “cheap issuance”. Startups shareholders who know that other shareholders cannot or will not participate in further investment rounds⁶⁴ may, through their board representatives,⁶⁵ intentionally initiate a new issuance of

Preferred Stock shall be convertible, at the option of the holder thereof, at any time, and without the payment of additional consideration by the holder thereof, into [...] fully paid and non-assessable shares of Common Stock [...]”.)

⁵⁵ See *supra* note 52. Preferred shareholders are not necessarily required to convert to common stock in fact; the charter may provide instead that preferred stockholders would be paid on an as-converted basis upon an exit event; for a sample clause see *id.* at § 2.1.

⁵⁶ For a sample clause see NVCA Model Charter, *supra* note 49, at § 5.1.

⁵⁷ *Id.* at § 5.1(a).

⁵⁸ For a sample clause see *id.* at §§ 4.4.1–4.4.4.

⁵⁹ *Id.* at § 4.4.1.

⁶⁰ Other than antidilution protections (see discussion *infra* notes 61–63 and accompanying text), the conversion price may also be adjusted to account for technical changes and reorganizations of the startup's capital structure (e.g., stock splits and combinations or distribution of dividends in kind); for sample clauses see *id.* at §§ 4.5–4.8.

⁶¹ Bartlett, *Understanding*, *supra* note 20, at 23–24; Lemon, *Don't Let Me Down*, *supra* note 20, at 13–14; for a sample clause see *id.* at § 4.4.4.

⁶² Bartlett, *Understanding*, *supra* note 20, at 25.

⁶³ *Id.*

⁶⁴ About investors' differing capacity and willingness to participate in follow-on financings see discussion *infra* notes 189–198 and accompanying text.

⁶⁵ About the typical structure of startup's boards see discussion *infra* notes 231–237 and accompanying text.

shares below their market value. Failure by their peers to participate will then allow the participating investors to purchase more shares at the down round's low price, increasing their stake of the startup's control and economic rights.⁶⁶

To help protect against these scenarios, preferred shareholders secure in advance antidilution protections, prescribing that their conversion ratios would be adjusted in their favor if a down round is raised.⁶⁷ Antidilution protections help cushion preferred shareholders against down rounds' adverse effects by ensuring they can receive more common shares in a future conversion, as each individual common share's value decreases. The improved conversion ratio helps moderate the relative decrease in the control rights, economic rights, and value attached to the investors' stake as the result of the down round.⁶⁸ This remains true even before the protected investors convert their preferred stock to common stock in fact, since certain investor rights – importantly, their voting power – are typically allocated on an *as-converted basis* (that is, as if the conversion to common stock had already occurred).⁶⁹ For the same reasons, the antidilution protection makes it costlier and more complex for shareholders to substantially dilute their counterparts' stake through an intentional cheap issuance.⁷⁰

The adjustment of entitled investors' conversion right, however, inevitably comes at other shareholders' expense – particularly entrepreneurs and employees holding common stock, or investors holding preferred stock without similar protections (or whose antidilution protections were not triggered). These shareholders face even steeper dilution of their positions in down rounds due to the entitled investors' conversion rate adjustments.⁷¹ Another downside of antidilution protections is that they inherently reduce protected shareholders' incentive to participate in bona fide down rounds and provide the startup with badly needed cash, as their stake is automatically protected, to some extent, from the new round's dilutive effects even without investing fresh capital.⁷²

⁶⁶ About cheap issuance expropriation *see generally* Jesse M. Fried, *Rights Offers and Delaware Law* (Eur. Corp. Gov. Inst. Working Paper No. 596/2021) <https://bit.ly/3C3O24E>.

⁶⁷ Bartlett, *Understanding*, *supra* note 20, at 23–24; Lemon, *Don't Let Me Down*, *supra* note 20, at 13–14.

⁶⁸ Bartlett, *Understanding*, *supra* note 20, at 23–24; Lemon, *Don't Let Me Down*, *supra* note 20, at 13–14.

⁶⁹ *See, e.g.*, NVCA Model Charter, *supra* note 49, at § 3.1 (“Except as provided by law or by the other provisions of this Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.”)

⁷⁰ *See* Lemon, *Venture Capitalism*, *supra* note 5, at 14; and *see* discussion *infra* part III.A.2.i.

⁷¹ Lemon, *Don't Let Me Down*, *supra* note 20, at 23–24.

⁷² *See* discussion *infra* part III.A.2.i.

B. Pay-to-Play: Mandatory Conversion of the Special Kind

Pay-to-play is a distinct type of mandatory conversion clause, often formally designated in the startup's charter as a *special mandatory conversion*.⁷³ Essentially, pay-to-play provisions serve as a penalty mechanism for existing preferred stockholders who do not participate in subsequent financing events, removing some or all of their preferential rights and, in some cases, substantially diluting their ownership stake. In technical terms, the penalty manifests as an automatic conversion of non-participating investors' preferred stock, potentially at a worse conversion ratio than otherwise prescribed, into either a more junior ("shadow") class of preferred stock with reduced rights (typically including the loss of future antidilution protections), or into common stock – thereby forfeiting all preferential rights attached to the converted shares.⁷⁴

Pay-to-play provisions are designed to ensure investors maintain their support during challenging fundraising periods – whether these challenges stem from the startup's mediocre performance, investors' liquidity problems, or unfavorable market conditions.⁷⁵ They achieve this effect through a combination of carrots and sticks. Preferred shareholders who do not participate in the startup's follow-on round(s) by purchasing their designated share allocation face the penalty of forced conversion of their preferred stock, which diminishes their holdings' value.⁷⁶ At the same time, since the distribution of startup control and cash flow rights operates as a zero-sum game, the forfeiture of rights by non-participating preferred shareholders rewards participating preferred shareholders (and sometimes the startup's common shareholders, too) by increasing their relative share of the same rights.

A classic pay-to-play clause is designed as a purely forward-looking mechanism, requiring investors to commit to participating in one or more future, unspecified financing events that may or may not occur before the startup reaches the end of its lifecycle (or at least, the end of its VC-backed stage).⁷⁷ This type of clauses are referred to in this paper as *open-ended*.

On other occasions, however, pay-to-play clauses are adopted to incentivize investors to participate in a specific proposed financing that is already on the table. Such provisions, referred to in this paper as *closed-ended clauses*, are typically negotiated as part of the new financing's transaction documents and enter into

⁷³ For a sample clause see NVCA Model Charter, *supra* note 49, at § 5A; and see Julian Kaboth, *Does It Pay to Play? A Multi-Perspective on Follow-On Funding, Funding Structure and Investment Profitability in a Venture Capital Context*, SSRN (Jan. 30, 2020) <https://bit.ly/4fDIwno> (manuscript at 24, 44–46 and n.41).

⁷⁴ Bartlett, *Venture Capital*, *supra* note 4, at 57; Susko, *supra* note 6, at 64. The convert-to-common alternative is sometimes referred to as a "strong-man" pay-to-play; see Kaboth, *supra* note 73, at 24.

⁷⁵ Leavitt, *supra* note 5, at 261; Lemon, *Venture Capitalism*, *supra* note 5, at 15.

⁷⁶ Leavitt, *supra* note 5, at 261.

⁷⁷ Susko, *supra* note 6, at 65.

effect immediately prior to its closing.⁷⁸ While open-ended clauses serve to secure investors' commitment over the long term and through changing circumstances, closed-ended clauses have two other common use cases.

First, a closed-ended clause may be used when a financing round requires investors to provide their investment amounts in a series of installments or tranches, contingent upon the passage of time or the startup meeting specific technological or business milestones.⁷⁹ In this context, a closed-ended clause provides the startup with an effective self-help mechanism against investors who do not fulfill their consecutive payment obligations when they become due.⁸⁰

Secondly, a closed-ended clause may be used as a means for restructuring the capital structure of a startup already in financial distress, when most of its investors are unwilling to provide further support. The startup may implement a pay-to-play clause, knowing it will eliminate most existing investors' rights and preferences (and potentially dilute their stakes), in order to entice new investors to inject fresh capital.⁸¹ These transaction structures are known in industry jargon as "recapitalizations," "restarts," "cramdowns," "washouts," "burnouts," and other similarly ominous names.⁸²

This paper uses the term "pay-to-play" specifically to describe special mandatory conversion clauses in startup charters, as detailed above. These must be distinguished from similar restructuring techniques known as "pull-ups" or "pull-throughs" – though these are sometimes, confusingly, also labeled as "pay-to-play."⁸³ Pull-up provisions incentivize investors to participate in new financing by offering to upgrade some or all of their existing shares into a more senior class of preferred stock.⁸⁴ These provisions often appear as part of a two-step recapitalization: first, converting all of the startup's preferred stock into common stock (often, through an optional conversion pursuant to contractual undertakings by the relevant investors to do so),⁸⁵ and then pulling up participating investors' newly-issued common stock into a new, senior class of preferred stock.⁸⁶ A variant sometimes called a "pull-through" follows the same

⁷⁸ BARNES-BROWN ET AL, *supra* note 81, at § 3:19; Ray et al, *supra* note 8, at 11.

⁷⁹ Susko, *supra* note 6, at 64.

⁸⁰ *Id.*

⁸¹ PETER N. BARNES-BROWN ET AL, INTERNET LAW & PRACTICE § 3:19 (2024); Andrew Andy Ray et al, *Down Rounds, Recaps and Pay to Play Provisions: Embracing Venture Capital Financing Strategies for Emerging Companies in a Challenging Fundraising Climate* 10–11, MORGAN LEWIS (May 17, 2024) <https://bit.ly/3CwADSm>; Susko, *supra* note 6, at 64.

⁸² Jose M. Padilla, *What's Wrong with a Washout?: Fiduciary Duties of the Venture Capitalist Investor in a Washout Financing*, 1 HOUS. BUS. & TAX. L.J. 269, 270 and n.6 (2001).

⁸³ See, e.g., Evan Bienstock, *What is a "Pay-to-Play" Financing?*, FENWICK (Jun. 12, 2020) <https://bit.ly/4ez8tU0>; Ray et al, *supra* note 8, at 11; Broc Romanek, *"Pull-Up vs. "Pay-to-Play"?*, DEALLAWYERS (Sep. 14, 2009) <https://bit.ly/3CUXQ0S>; Shangda Xu et al, *Funding When Capital Isn't Cheap*, ANDREESEN HOROWITZ (Sep. 2, 2022) <https://bit.ly/3ODRkhD>.

⁸⁴ Romanek, *supra* note 83.

⁸⁵ About optional conversion provisions see *supra* note 54 and accompanying text.

⁸⁶ Ray et al, *supra* note 8, at 11.

initial conversion but returns participating investors' shares to their original preferred stock classes.⁸⁷

One prominent feature of pull-up and pull-through arrangements is that they could be designed in a way that allows their placement outside the startup's charter, in a stock purchase agreement or a shareholder agreement.⁸⁸ Doing so could offer certain benefits. First, as further discussed below, it may allow the parties to sidestep questions relating to the legality of a charter provision treating same-class shareholders differently – which a pay-to-play provision may, arguably, do.⁸⁹ Second, unlike the corporate charter, a stock purchase agreement or shareholder agreement in which the pull up or pull through is anchored are private agreements that are not available for public inspection as charters are.⁹⁰ Third, embedding the mechanism outside the charter allows the parties to establish special procedures for updating the pull-up or pull-through mechanism that would be better accustomed to their needs compared to subject to the standard procedures required for charter amendments.⁹¹

While pull-up and pull-through arrangements may yield economic effects similar to pay-to-play provisions, they are different mechanisms that lie outside the concept of “pay-to-play”, as discussed here.

C. Frequency of Use

Given their utility in securing investors' commitment through difficult periods and incentivizing support for distressed startups, it is unsurprising that pay-to-play provisions reached their peak during one of Silicon Valley's most trying times: the aftermath of the late 90s dot-com bubble.⁹² Their prevalence, however, has gradually declined over the past two decades. This trend was nicely documented in the quarterly surveys of venture financing terms published since 2002 by Fenwick. Between the fourth quarter of 2002 and the fourth quarter of 2004, Fenwick's surveys reported that the rate of venture deals with a pay-to-play component peaked at twenty-five percent and only once fell below fifteen

⁸⁷ *Id.* Others seem to use the terms “pull up” and “pull-through” interchangeably; *see, e.g.*, Tammy Nguyen et al, *What Is a Pay-to-Play Provision?*, ANGELLIST <https://bit.ly/4jEI8r4>.

⁸⁸ Romanek, *supra* note 83; Dave Dalton et al, *A Trip to the Dark Side – Venture Capital Down Rounds and Recaps*, JONES DAY (Sep. 20, 2024) <https://bit.ly/40DrLEk> (“the traditional pay to play, it's mechanized through the charter and it converts and splits the stock of non-participating investors through the charter that gets filed in Delaware. The contractual pull-up is different. It's merely a contractual exchange, and it happens through the preferred stock purchase agreement, not the charter that gets filed in Delaware.”)

⁸⁹ See discussion *infra* parts IV.A.1 and IV.C.2.

⁹⁰ Dalton et al, *supra* note 88; and *see generally* Fisch, *supra* note 46, at 932–33;

⁹¹ *Id.* at 933.

⁹² See FELD & MENDELSON, *supra* note 7, at 63–64. The use of pay-to-play provisions, however, did not begin at the post dot-com bubble era and has been reported by practitioners to be included in venture deals earlier; *see, e.g.*, Stephen I. Glover, *Solving Dilution Problems*, 51 BUS. LAW. 1241, 1292 and n. 78 (1996).

percent. In contrast, between the fourth quarter of 2011 and the fourth quarter of 2023, the quarterly rate of pay-to-play deals exceeded ten percent only once.⁹³

Although notably less prevalent today than in the past, pay-to-play provisions have maintained their presence and remain a significant instrument in the venture dealmaker's toolbox. Their relevance is evidenced, among other indicators, by the continued inclusion of a sample pay-to-play clause in the National Venture Capital Association (NVCA) highly influential model financing documents, well beyond their peak years.⁹⁴ Pay-to-play clauses have also been reported to be particularly prevalent in life sciences startups,⁹⁵ a pattern often attributed to the milestone-based closing structure typical of their venture financing deals.⁹⁶ Moreover, pay-to-play clauses exhibit periodic resurgences (although not nearing their post dot-com heights), with some peaks notably correlating to macro events that affected the startup ecosystem.⁹⁷ For instance, a resurgence of pay-to-play during the late 2000s to early 2010s has been linked to the cold VC markets that followed the global financial crisis,⁹⁸ and a renaissance observed since early 2022 by practitioners and analysts⁹⁹ is frequently attributed to the post-ZIRP market downturn.¹⁰⁰

⁹³ Recent surveys are accessible in *Insights*, FENWICK <https://bit.ly/4fVq2hR> (last accessed Jan. 14, 2025). Earlier surveys are with the author. Some quarterly surveys noted that the results might include an unknown number of pull-ups; see, e.g., FENWICK & WEST LLP, TRENDS IN TERMS OF VENTURE FINANCINGS IN THE SAN FRANCISCO BAY AREA (FOURTH QUARTER 2009) 4 (2010) (noting that “the above information includes some, but likely not all, pull up provisions, and accordingly may understate the use of these provisions”). About pull-ups see discussion *supra* notes 83–87 and accompanying text.

⁹⁴ NVCA Model Charter, *supra* note 49, at § 5A. About the prominence of the NVCA Model Documents in startup financing see generally Robert P. Bartlett, *Standardization and Innovation in Venture Capital Contracting: Evidence from Startup Company Charters* (Rock Ctr. for Corp. Governance at Stan. U. Working Paper 253) <https://bit.ly/3TYd4XM> (manuscript at 5) (finding, e.g., that 85 percent of startup charters filed in 2022 were based on the NVCA model).

⁹⁵ For instance, a Fenwick survey that examined the use of pay-to-play provisions in life sciences venture deals between the first quarter of 2011 and the second quarter of 2013 identified quarterly prevalence rates ranging between 9 and 28 percent; MATTHEW ROSSITER ET AL., TRENDS IN U.S. LIFE SCIENCES VENTURE FINANCINGS: 2013, FIRST HALF 19 (2013). See also *id.* at 4 (“pay-to-play provisions are [...] a common feature of life science venture financings”).

⁹⁶ *Id.*; and see also Fakihi, *supra* note 8; Dan Primack, *Venture Capitalists Move Toward Pay-to-Play*, AXIOS (Aug. 13, 2024) <https://bit.ly/3OewULP>; About the utility of pay-to-play in enforcing milestone closing obligations see *supra* notes 79–80 and accompanying text).

⁹⁷ About the effect of macro conditions on venture capital financing terms see generally Williams, *supra* note 14.

⁹⁸ See, e.g., NEIL J. BEATON, VALUING EARLY STAGE AND VENTURE-BACKED STARTUPS 31–32 (2010); Baudler, *supra* note 7, at 2.

⁹⁹ See also Q2 2024 *Venture Financing Report – Deal Count and Invested Capital Up at Most Stages and Median Pre-Money Valuations Increase for Early- and Late-Stage Rounds; Percentage of Down Rounds Declines*, COOLEY (Aug. 12, 2024) <https://bit.ly/3AH4IhE>; WILSON SONSINI GOODRICH & ROSATI, THE ENTREPRENEURS REPORT: PRIVATE COMPANY FINANCING TRENDS 6 (2024).

¹⁰⁰ See, e.g., Fakihi, *supra* note 8; Ray et al, *supra* note 8. “ZIRP” stands for Zero Interest Rate Policy; see Wilhelm, *supra* note 8.

II. PAY-TO-PLAY VARIATIONS: EVIDENCE FROM STARTUP CHARTERS

A. Overview

In his 2006 paper “*Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*,” Robert Bartlett took notice of how “neither financial economists nor legal academics have analyzed” pay-to-play provisions.¹⁰¹ This observation remains for the most part accurate today, nearly two decades later. While several subsequent studies have touched on these provisions – offering some thoughts on their structure, their relationship with other VC financing terms, or the rationales behind their adoption – they mostly did so tangentially and while investigating other questions.¹⁰² This body of scholarly writing is complemented by practical guides¹⁰³ and law firm publications¹⁰⁴ that have explored these provisions from a more practice-oriented perspective. However, focused analysis of pay-to-play provisions remains surprisingly sparse, especially in academic writing.

Notably, available literature has so far provided limited empirical data on how contracting parties structure pay-to-play clauses.¹⁰⁵ Existing systematic analyses of real-world clauses have primarily focused on a single dimension: the rights and preferences that non-participating investors must forfeit. As notable examples, Spencer Williams, in a study examining the relationship between VC funding availability and various financing terms, analyzed 261 pay-to-play provisions and found that approximately ninety-three percent mandated conversion to common stock, while the remainder required conversion to shadow preferred stock or loss of liquidation preference.¹⁰⁶ A series of papers on venture capital deal design by Ola Bengtsson and co-authors examined comparable sample sizes and consistently found that the vast majority – between seventy-three and seventy-eight percent – prescribed conversion to common

¹⁰¹ Bartlett, *Venture Capital*, *supra* note 4, at 57.

¹⁰² See, e.g., sources discussed *infra* notes 106–107 and accompanying text; and see also, e.g., JIL CAROLINE ONIMUS, ASSESSING THE ECONOMIC VALUE OF VENTURE CAPITAL CONTRACTS: AN OPTION PRICING APPROACH 90–95 (2011); Kaboth, *supra* note 73, at 23–34; Ramana Nanda & Matthew Rhodes-Kropf, *Coordination Frictions in Venture Capital Syndicates* (NBER Working Paper No. 24517, 2018) <https://bit.ly/40RpzcE> (manuscript at § 3.3).

¹⁰³ See, e.g., FELD & MENDELSON, *supra* note 7, at 63–66; PEARCE & BARNES, *supra* note 20, at 196–98.

¹⁰⁴ See, e.g., sources discussion of Fenwick’s quarterly reports *supra* note 93 and accompanying text; Baudler, *supra* note 7; and sources cited *supra* note 99.

¹⁰⁵ Analyses of that sort – not typically accompanied by supporting empirical evidence – are offered by some practice-oriented publications; see, e.g., DANIEL H. ARONSON, VENTURE CAPITAL: A PRACTICAL GUIDEBOOK FOR CAPITAL-SEEKING BUSINESS OWNERS, MANAGERS, AND ADVISORS A-16 (2006); NVCA Model Charter, *supra* note 49, § 5A and n. 68–74; PEARCE & BARNES, *supra* note 20, at 196–98.

¹⁰⁶ Williams, *supra* note 14, at 165.

stock.¹⁰⁷ This same categorization of pay-to-play clauses into convert-to-common and convert-to-preferred types has also appeared in several of Fenwick’s quarterly surveys over the years.¹⁰⁸

This section aims to provide a significantly more detailed analysis of pay-to-play clause design. It examines a dataset of pay-to-play clauses by mapping contractual variations across four dimensions: which investors fall under these provisions, which financing rounds trigger them, what penalties are imposed on non-participating holders, and how their sunset mechanisms (if any) operate.

B. Data

Empirical research of pre-IPO startups is challenging due to their limited public disclosures and the practical difficulties in accessing what few disclosures they must make.¹⁰⁹ Legal and finance scholars typically address this challenge through three main approaches: analyzing disclosures from startups that later went public,¹¹⁰ accessing proprietary databases maintained by business analytics firms,¹¹¹ and obtaining deal data directly from repeat players in the industry such as VCs or law firms.¹¹² Each method brings potential selection biases that may affect how well it represents the broader VC-funded universe. IPO-stage disclosures naturally favor later-stage and relatively successful startups that

¹⁰⁷ See Bengtsson & Sensoy, *Investor Abilities*, *supra* note 14, at 487 (271 clauses examined, of which roughly seventy-five percent provided for conversion to common stock); Bengtsson, *Financial Contracting*, *supra* note 14, at 489 (302 clauses examined, of which roughly seventy-eight percent provided for conversion to common stock); Bengtsson & Bernhardt, *supra* note 14, at 1092 (162 clauses examined, of which roughly seventy-eight percent provided for conversion to common stock); Bengtsson & Bernhardt, *supra* note 14, at 1092 (299 clauses examined, of which roughly seventy-three percent provided for conversion to common stock).

¹⁰⁸ See, e.g., FENWICK & WEST LLP, TRENDS IN TERMS OF VENTURE FINANCINGS IN THE SAN FRANCISCO BAY AREA (FOURTH QUARTER 2006) 3–4 (2007); FENWICK & WEST LLP, TRENDS IN TERMS OF VENTURE FINANCINGS IN THE SAN FRANCISCO BAY AREA (FOURTH QUARTER 2007) 4 (2008).

¹⁰⁹ See Bartlett, *Standardization*, *supra* note 94, at 20 (“given the well-known opacity of the venture capital financing market, it is difficult to know the universe of VC financings [...]”); Jens Frankenreiter, Talia B. Gillis & Eric L. Talley, *Sex & Startups*, WASH. U. L. REV. (forthcoming) (manuscript at 7, 17) (“early-stage startups are often difficult to study empirically because they make few if any publicly available disclosures, and what few public disclosures they make are often difficult to access from government repositories”).

¹¹⁰ See, e.g., Brian Broughman & Jesse M. Fried, *Do Founders Control Start-Up Firms That Go Public?*, 10 HARV. BUS. L. REV. 49, 57 (2020); Smith, *supra* note 33, at 324–25.

¹¹¹ A notable example is the Genesis database maintained by Lagnippe Labs (a.k.a. VC Experts); see, e.g., Bartlett, *Standardization*, *supra* note 94, at 18–19 (referring to Genesis as “the primary source for analyzing the charters of venture-backed firms among financial economists for the past several years”); Frankenreiter, Gillis & Talley, *supra* note 109, at 17–19.

¹¹² See, e.g., Steven M. Kaplan & Per Strömberg, *Financial Contracting Theory Meets the Real World: An Empirical Analysis of Venture Capital Contracts*, 70 REV. ECON. STUD. 281, 281–82 (2003); Williams, *supra* note 14, at 149–50.

could pursue an IPO.¹¹³ Private company databases may lack clarity about their startup selection criteria.¹¹⁴ And data from individual VCs and law firms may not be representative of deals beyond their direct involvement.¹¹⁵

This section draws on a dataset of pay-to-play clauses manually collected from startup charters filed with the US Securities and Exchange Commission (SEC), available through its Electronic Data Gathering, Analysis, and Retrieval system (EDGAR).¹¹⁶ These charters typically appear as exhibits to IPO registration statements, where startups document their pre-IPO charter structure.¹¹⁷ This data collection method addresses the concerns about institutional bias or opaque selection criteria discussed above while acknowledging a potential bias towards later-stage and relatively successful startups. This method offers an additional advantage: all charter documents in the dataset are freely and easily accessible to readers for further research.

Using EDGAR's full-text search function, I conducted a search for the phrase "special mandatory conversion"¹¹⁸ across all filings between January 1, 2001 (the searchable range's start date) and November 27, 2024. The initial results went through several filtering steps. First, I manually screened out non-charter filings (such as registration statements or financial disclosures that merely referenced a pay-to-play provision). To neutralize potential implications of varying applicable laws, I also removed from the remaining results all charters of entities that were not Delaware corporations.¹¹⁹ I then removed charters that either lacked an actual pay-to-play provision as defined in this paper¹²⁰ or contained a pay-to-play provision that relied too heavily on references to external documents – e.g., a stock purchase agreement or a shareholder agreement – to allow an effective analysis based on the charter text alone.¹²¹ Lastly, where several subsequent charter versions containing pay-to-play provisions were recorded under the same startup name, the latest version was

¹¹³ Successfully pursuing an IPO exit is often described as the "holy grail" or "gold standard" for VC-backed startups; see, Darian M. Ibrahim, *The New Exit in Venture Capital*, 65 VAND. L. REV. 1, 11 (2012); Andrew A. Schwartz, *Corporate Legacy*, 5 HARV. BUS. L. REV. 237, 266 (2015).

¹¹⁴ See, e.g., Bartlett, *Standardization*, *supra* note 94, at 19, 22 and *cp.* Bengtsson & Sensoy, *Changing the Nexus*, *supra* note 14, at 354.

¹¹⁵ See Williams, *supra* note 14, at 149.

¹¹⁶ *Search Filings*, SEC, <https://bit.ly/4f01La3> (last visited Dec. 2, 2024).

¹¹⁷ Smith, *supra* note 33, at 324–25.

¹¹⁸ "Special mandatory conversion" is a common charter title for pay-to-play provisions; see discussion *supra* note 73 and accompanying text.

¹¹⁹ Delaware is widely considered the leading incorporation state for tech startups; see, e.g., Susan C. Morse, *Startup Ltd.: Tax Planning and Initial Incorporation Location*, 14 FLA. TAX REV. 319, 329–31 (2013); Elizabeth Pollman, *Startup Failures*, 73 DUKE L.J. 327, 377 and n. 267 (2023). The NVCA model charter assumes a Delaware incorporation; NVCA Model Charter, *supra* note 49, at ii (also noting that "Delaware is generally the preferred jurisdiction for incorporation of venture-backed companies").

¹²⁰ See *supra* part I.B.

¹²¹ See also discussion *infra* part II.C.2.

included in the dataset and all earlier versions were discarded. This last step was taken to avoid overrepresentation in the results of startups that have updated their charters more frequently than others, not necessarily in the context of a new financing round where the pay-to-play provision was renegotiated or applied to new investors.

The collection and sorting process described above yielded a total of 150 pay-to-play clauses included in 145 unique startup charters, with five charters containing both an open-ended and a closed-ended clause fit for analysis. The most famous startup represented in the dataset is, unquestionably, pre-IPO Google.¹²² The complete list of dataset charters is included in the Appendix.

Fig. 1 below presents a breakdown of the dataset based on the clauses' classification (open or closed-ended),¹²³ the year in which the relevant charter or charter amendment was adopted, and the adopting startups' industry and headquartering state. The latter two data points were sourced from the business analytics platforms CB Insights¹²⁴ and Pitchbook.¹²⁵

Fig. 1

Dataset Breakdown: Clause Type, Industry, Charter Year, and Headquartering State

Clause Type		
<i>Type</i>	<i>Observations</i>	<i>Percentage</i>
Closed-ended	93	62.00%
Open-ended	57	38.00%
Total	150	100%

Adopting Startup Industry		
<i>Industry Sector</i>	<i>Observations</i>	<i>Percentage</i>
Life Sciences ¹	124	85.52%
Internet	8	5.52%
Mobile & Telecommunications	6	4.14%
Computer Hardware & Services	3	2.07%
Electronics	2	1.38%
Software (non-internet/mobile)	1	0.69%
Automotive & Transportation	1	0.69%
Total	145	100%

¹ "Life Sciences" startups, as defined here, were those having any of the following CB Insights classification tags: Biotechnology; Disease Diagnosis; Drug Development; Drug Discovery; Drugs;

¹²² See GOOGLE CHARTER, *supra* note 12, at § 7.

¹²³ See discussion *supra* notes 77–78 and accompanying text. All pay-to-play clauses not expressly limited by the charter's language to a particular financing event were classified as open ended clauses (including clauses that appear to apply both to a current financing event and future ones).

¹²⁴ CB INSIGHTS, <https://bit.ly/4fTlpFI> (last visited Dec. 2, 2024).

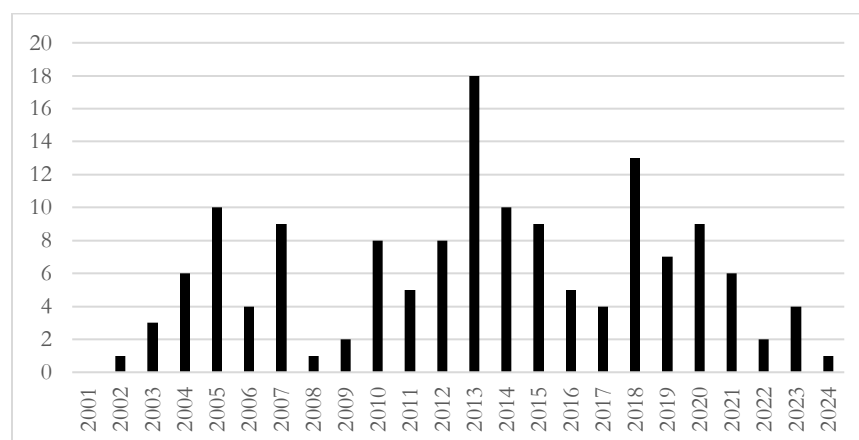
¹²⁵ PITCHBOOK, <https://bit.ly/3ZcD4kR> (last visited Dec. 2, 2024). Pitchbook was used for a single charter – Cerulean Pharma Inc. – for which I could not locate a CB Insights entry.

Food Safety and Preservation; Healthcare; Life Sciences; Medical Devices & Equipment; or Pharmaceuticals.

Adopting Startup's Headquartering State

<i>State</i>	<i>Observations</i>	<i>Percentage</i>
California	57	39.31%
Massachusetts	44	30.34%
Pennsylvania	6	4.14%
Georgia	4	2.76%
Maryland	4	2.76%
North Carolina	4	2.76%
New Jersey	4	2.76%
Minnesota	3	2.07%
New York	3	2.07%
Texas	3	2.07%
Colorado	2	1.38%
Florida	2	1.38%
New Hampshire	2	1.38%
Washington	2	1.38%
Connecticut	1	0.69%
Indiana	1	0.69%
Michigan	1	0.69%
Virginia	1	0.69%
Non-US	1	0.69%
Total	145	100%

Charter Adoption Year



Life sciences startups dominate the dataset to a striking degree. While they represent over 85 percent of the dataset companies, this proportion far exceeds their presence in both the broader VC landscape and the subset of venture-backed companies that reach IPO. NVCA data shows that between 2011 and 2023, life sciences investments comprised only 12 to 17 percent of US VC deals

by number and 7 to 15 percent of total VC capital deployed.¹²⁶ Similarly, Huang et al. found that between 1999 and 2022 – a period roughly overlapping the EDGAR searchable period examined here – life sciences companies accounted for just 579 IPOs of VC-backed firms compared to 1,030 IPOs of other tech VC-backed firms.¹²⁷ This skew in the dataset aligns with previous observations that the use of pay-to-play was prevalent in life sciences venture deals while remaining relatively uncommon in the broader startup ecosystem throughout most of the EDGAR-searchable period.¹²⁸

Startups in the dataset are almost exclusively US-based, with California – home to Silicon Valley and the San Francisco Bay area’s renowned startup ecosystem – emerging as the most common headquarters location.¹²⁹ Massachusetts appears as a strong second, which aligns with Greater Boston’s position as a major hub for life sciences startups.¹³⁰ Given the dataset’s heavy representation of the life sciences sector, this geographic distribution makes intuitive sense.

C. Results

1. Open-ended Clauses

Open-ended clauses govern investment rounds that may or may not occur in the future and whose participants and terms are not yet defined. As a result, these clauses must address several elements beyond just the penalties for non-participation: they need to specify which investors fall under the clause, what types of future financing events might trigger it, and how long investors remain subject to potential forced conversion. The analysis below explores how clauses in the dataset approach each of these aspects.

i. *Qualified Holder*

The NVCA model pay-to-play clause straightforwardly provides that *any* holder of the startup’s preferred stock would be subject to forced conversion of its preferred stock if failing to participate in a financing round that triggers the

¹²⁶ See NATIONAL VENTURE CAPITAL ASSOCIATION, 2024 YEARBOOK 29 (2024).

¹²⁷ See Rongbing Huang et al, *Going Public with IPOs and SPAC Mergers*, SSRN (Nov. 17, 2023) <https://bit.ly/40ntRbc> (manuscript at 41–42).

¹²⁸ See discussion *supra* note 93–96 and accompanying text.

¹²⁹ See generally Gilson, *supra* note 33, at 1087; Timothy J. Sturgeon, *How Silicon Valley Came to Be*, in UNDERSTANDING SILICON VALLEY 15 (Martin Kenney ed., 2000).

¹³⁰ See generally Heidi Ledford, *Start-ups Fight for a Place in Boston’s Biotech Hub*, 522 NATURE 138 (2015); Kelley Porter et al, *The Institutional Embeddedness of High-Tech Regions: Relational Foundations of the Boston Biotechnology Community*, in CLUSTERS, NETWORKS AND INNOVATION 261 (Stefano Breschi & Franco Malerba eds., 2005).

pay-to-play mechanism.¹³¹ As illustrated by **Fig. 2** below, however, the clauses included in the dataset offer a broader variety of options.

Fig. 2

Qualified Holder Requirements

<i>Holders Bound by the Pay-to-Play Clause</i>	<i>Observations</i>	<i>Percentage</i>
All preferred shareholders / all holders of certain class(es)	30	52.63%
Major holders or rights of first offer holders	26	45.61%
Specific investors named	1	1.75%
Total	57	100%

Of the 57 open-ended clauses in the dataset, 30 apply broadly to all preferred stockholders (or all holders of specific preferred stock classes).¹³² The remaining clauses take more targeted approaches: 11 bind only investors whose holdings exceed certain thresholds, while 17 clauses limit their scope to investors holding rights of first offer for the triggering financing round¹³³ – a condition that often de facto serves as an indirect way to target major investors since these rights are typically themselves subject to minimum holdings thresholds.¹³⁴ In one unique case, the clause applied only to specifically named investors.¹³⁵

Beyond setting the general rules for identifying shareholders bound by the pay-to-play clause, at least five charters in the dataset expressly released certain shareholders or shareholder types from complying with it.¹³⁶ Notable examples observed are natural persons,¹³⁷ nonprofits,¹³⁸ and corporate shareholders¹³⁹ – possibly, corporate venture capital (CVC) investors¹⁴⁰ or strategic partners and

¹³¹ NVCA Model Charter, *supra* note 49, at § 5A.1.

¹³² It is often impossible to reliably determine from the charter language alone whether excluding some classes of preferred stock from the pay-to-play clause releases any investors from complying with it. The excluded classes of stock may have no shares outstanding (e.g., since they were never issued, or had been redeemed or converted), may be held by non-investor shareholders, or may be held by investors who all also hold shares of non-excluded classes.

¹³³ About rights of first offer see discussion *supra* note 51 and accompanying text.

¹³⁴ For instance, the NVCA Model IRA, *supra* note 51, awards a right of first offer to the startup's "Major Investors", defined as investors holding at least a certain number of shares; *id.* at §§ 1.26 and 4.1.

¹³⁵ See RESTATED CERTIFICATE OF INCORPORATION OF DERMIRA, INC., § 6.3(b) (2014) (available at <https://bit.ly/41sgmbb>) [hereinafter: DERMIRA CHARTER].

¹³⁶ While it cannot be confirmed from the charter text alone, excluding specific investors or investor types may have also been done in some charters by excluding the classes of shares held only by them; see discussion *supra* note 132.

¹³⁷ See, e.g., AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF CASTLIGHT HEALTH, INC. § C.5.g.(iv) (2012) (available at <https://bit.ly/3OCvxqz>).

¹³⁸ See FOURTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF GENOECE BIOSCIENCES, INC. § 2(e)(vii)(1)(D) (2012) (available at <https://bit.ly/3OCxbIT>).

¹³⁹ For a sample clause see, e.g., MAVENIR SYSTEMS INC., AMENDED AND RESTATED CERTIFICATE OF INCORPORATION § 4.3(K)(3) (2011) (available at <https://bit.ly/3B5FKbX>).

¹⁴⁰ CVCs are the startup investment arms of firms whose main business is not VC

important suppliers of the startup that received equity grants.¹⁴¹

ii. *Qualified Financing*

Since open-ended clauses are designed to apply to future financing rounds, they must define what qualities make a future financing trigger them (here, a “Qualified Financing”). I analyze two aspects of how dataset clauses define Qualified Financing: the baseline requirements for a round to qualify, and special powers given to stakeholders to designate or exclude rounds from this status.

The NVCA model pay-to-play clause offers two main optional criteria that may be included in the definition of qualifying rounds. A new financing may be defined to require a minimum amount of gross proceeds raised,¹⁴² or to be a down round.¹⁴³ As **Fig. 3** shows, while down round¹⁴⁴ and minimal proceeds raised requirements were indeed the most common in the dataset, several additional approaches exist.

Fig. 3

Qualified Financing: Essential Requirements

<i>Type</i>	<i>Observations</i>	<i>Percentage¹</i>
Down round (for at least one class of preferred stock)	31	54.39%
Minimum proceeds raised	11	19.30%
Minimum existing shareholder subscription	3	5.26%
Outsider solicitation or subscription requirements	2	3.51%
None of the above	19	33.33%

¹ Total percentage exceeds 100% as some clauses include multiple essential requirements.

One non-NVCA type of requirement observed was participation by at least some of the startup’s existing preferred shareholders in the new financing.¹⁴⁵

investments (e.g., Big Tech firms). About CVCs and their investment theses see *generally* Anat Alon-Beck, *Alternative Venture Capital: The New Unicorn Investors*, 87 TENN. L. REV. 983, 1017–22 (2020); Henry Chesbrough, *Making Sense of Corporate Venture Capital*, HARV. BUS. REV. (Mar. 2002) <https://bit.ly/4dh5wYH>.

¹⁴¹ Such grants are ordinarily offered, for instance, to banks providing venture debt to the startup; see Darian M. Ibrahim, *Debt as Venture Capital*, 2010 U. ILL. L. REV. 169, 1179–80.

¹⁴² See NVCA Model Charter, *supra* note 49, at § 5A.3.5.

¹⁴³ *Id.*

¹⁴⁴ Two dataset clauses provided that the new financing’s price per share must not exceed a certain dollar amount, rather than explicitly providing that it must be a down round for any particular class; see SEVENTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF INHIBITEX, INC., § 7.a. (2003) (available at <https://bit.ly/41r9Dhv>) [hereinafter: INHIBITEX CHARTER]; CERTIFICATE OF DESIGNATION OF SERIES A REDEEMABLE PREFERRED STOCK AND SERIES A-1 CONVERTIBLE PREFERRED STOCK OF INNOVATIVE MICRO TECHNOLOGY, INC. § II.F.2.(d) (2005) (available at <https://bit.ly/4gnhilc>).

¹⁴⁵ See, e.g., AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF AMBIT BIOSCIENCES CORPORATION § 4(n)(C) (2012) (available at <https://bit.ly/3D7mI5E>).

Finally, the solicitation or subscription of outside investors in the new financing round might affect the new round's classification as Qualified Financing. For instance, in one dataset clause, solicitation of at least five new VCs was a prerequisite for classifying the round as a Qualified Financing.¹⁴⁶

The startup's board and shareholders may exercise various types of general powers and authorities that can affect whether a pay-to-play clause is triggered. For instance, when a startup's board determines that an expected triggering of a pay-to-play clause is undesirable, they have several options under the startup's governing documents or applicable law. They may reject proceeding with the financing on the proposed terms,¹⁴⁷ choose not to offer certain clause-bound shareholders the opportunity to participate in the proposed financing (assuming that they do not have a right of first offer),¹⁴⁸ or recommend that shareholders modify the pay-to-play clause through a charter amendment so that the proposed financing no longer triggers it.¹⁴⁹

Beyond these general powers, some pay-to-play clauses grant the startup's board or shareholders special rights to control the mechanism more directly, without needing to alter the round's terms, investor list, or charter language. Two main kinds of variations appear in the dataset in this respect. First, a mechanism referred to here as an *opt-in right* may require that even when a round meets all criteria for a Qualified Financing, it may only trigger the clause if designated as such by the board or shareholders. Second, and conversely, a mechanism referred to here as *opt-out right* allows the shareholders or the board to prevent the clause from triggering even when a financing otherwise qualifies. The NVCA model charter, for instance, offers an optional provision that gives a majority of shareholders the power to opt-out otherwise qualifying rounds,¹⁵⁰

[hereinafter: AMBIT CHARTER].

¹⁴⁶ See FIFTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF LOGMEIN INC., § 5A(d)(iv) (2007) (available at <https://bit.ly/3OPafG8>); and see also NINTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF VAPOTHERM, INC., § 5A.3.5. (2018) (available at <https://bit.ly/49tRUYJ>).

¹⁴⁷ In Delaware corporations, the power to issue new shares, up to the limit of the authorized share capital specified in the charter, is generally held by the board; see DEL. CODE ANN. tit. 8, § 161. In VC-backed startups, some investors would often hold a veto right over the creation of new, senior classes of stock; for a model clause see NVCA Model Charter, *supra* note 49, at § 3.3.

¹⁴⁸ Where the Qualified Holders are those who hold a right of first offer with respect to the Qualified Financing (see discussion *supra* notes 133–134 and accompanying text), some pay-to-play clauses provide that if shareholders would waive their rights with respect to the Qualified Financing pursuant to the board's request, their holdings would not be subject to forced conversion; see, e.g., INHIBITEX CHARTER, *supra* note 144, at § 7(a).

¹⁴⁹ For the process for amending the charter under Delaware law see DEL. CODE ANN. tit. 8, § 242. In VC-backed startups, some investors may hold a veto right over any charter amendments; for a model clause see NVCA Model Charter, *supra* note 49, at § 3.3.

¹⁵⁰ NVCA Model Charter, *supra* note 49, at § 5A.3.5, excludes from the definition of Qualified Financing any financing round where “the [Requisite Holders] elect [...] that such transaction not be treated as a Qualified Financing”; see also *id.* at § 2.3.1 (defining “Requisite

but no opt-in rights.

Fig. 4

Qualified Financing: Opt-in and Opt-out Rights

Combination of Special Rights Offered		
<i>Combination</i>	<i>Observations</i>	<i>Percentage</i>
Neither opt-in nor opt-out rights	23	40.35%
Only opt-out right	19	33.33%
Only opt-in right	14	24.56%
Opt-in and opt-out rights	1	1.75%
Total	57	100%

Opt-in Right Holders (Where Offered)		
<i>Holder(s)</i>	<i>Observations</i>	<i>Percentage</i>
The board	13	86.67%
The board and the shareholders, jointly	2	13.33%
Total	15	100%

Opt-out Right Holders (Where Offered)		
<i>Holder(s)</i>	<i>Observations</i>	<i>Percentage</i>
The shareholders	18	90.00%
The shareholders and the board, independently	1	5.00%
The shareholders and the board, jointly	1	5.00%
Total	20	100%

As shown in **Fig. 4**, opt-out rights appear in about a third of the dataset clauses and, as in the NVCA model clause, are typically exercisable at the sole discretion of the required majority of *shareholders*. Opt-in rights appear in about twenty-five percent of the dataset clauses and in the great majority of cases, are exercisable at the sole discretion of a specified *board* majority.

iii. *Penalty*

The NVCA model pay-to-play clause provides that non-participating investors' shares would be automatically converted into common stock, rather than a different class of preferred stock.¹⁵¹ It also provides that the conversion would be based on the then-applicable conversion price¹⁵² – meaning, the

Holders”).

¹⁵¹ NVCA Model Charter, *supra* note 49, at § 5A.1, provides that where the pay-to-play clause is triggered, “[then each share] [then the Applicable Portion (as defined below) of the shares] of Preferred Stock held by such holder shall automatically [...] be converted into shares of Common Stock at the applicable Conversion Price in effect immediately prior to the consummation of such Qualified Financing [...]”; and see discussion *supra* notes 73–74 and accompanying text.

¹⁵² *Id.*

number of shares of common stock issued per each converted share of preferred stock would be the same as it would have been in non-punitive conversion scenarios (e.g., a voluntary conversion or a pre-IPO mandatory conversion.)¹⁵³ Lastly, the NVCA model clause offers two alternatives for treating investors who participated in the Qualified Financing but failed to purchase the full amount of shares that the pay-to-play clause requires. Drafters can choose whether such investors would nevertheless be subject to a complete conversion of their relevant classes of stock, or rather to a conversion of a relative portion that accounts for their partial participation in the new round.¹⁵⁴ **Fig. 5** presents an analysis of the dataset clauses across those same three parameters.

Fig. 5

Penalty (Open-ended Clauses)

Class of Conversion Shares		
<i>Provision Type</i>	<i>Observations</i>	<i>Percentage</i>
Conversion to common stock	44	77.19%
Conversion to preferred stock	13	22.81%
Total	57	100%

Complete / Relative Portion Conversion		
<i>Provision Type</i>	<i>Observations</i>	<i>Percentage</i>
Complete conversion ¹	33	57.89%
Relative portion conversion	24	42.11%
Total	57	100%

Punitive Conversion Ratio		
<i>Provision Type</i>	<i>Observations</i>	<i>Percentage</i>
No punitive conversion ratio	45	78.95%
Punitive conversion ratio ¹	12	21.05%
Total	57	100%

¹ a conversion of all shares of one or more classes of stock held by the non-participating investor.

¹ including conversion at the original issue price (disregarding past price-based antidilution adjustments).

Conversion to common stock, complete conversion, and non-punitive conversion ratios were the most often observed clause types in the dataset. In all cases of conversion to preferred (“shadow”) stock, the new class issued lost at least some aspects of their antidilution rights for further adjustments of their conversion price.¹⁵⁵

¹⁵³ *Id.*; and see discussion *supra* notes 54–57 and accompanying text.

¹⁵⁴ See *supra* note 151.

¹⁵⁵ The loss of antidilution protections may apply to the financing round effecting the conversion only or to future rounds as well; see PEARCE & BARNES, *supra* note 20, at 197.

iv. *Sunset and Release Mechanisms*

The NVCA model pay-to-play clause does not include any automatic termination (sunset) mechanisms; it will, essentially, remain in force and bind all of the startup’s preferred shareholders until finally removed from the charter or becomes irrelevant. As **Fig. 6** shows, the same is true with respect to the vast majority of dataset clauses. They were designed to remain in force until actively removed from the charter or until the occurrence of an exit event (e.g., an IPO or an M&A)¹⁵⁶ of the kind that would typically anyway wipe out most special rights and preferences adopted during the startup’s VC-backed era.¹⁵⁷

Fig. 6

Sunset and Release Mechanisms

<i>Event Causing Termination or Release</i>	<i>Observations</i>	<i>Percentage</i>
The next Qualified Financing	2	3.51%
Exhausting aggregate funds raised cap	2	3.51%
Exhausting investor-specific funds raised cap	1	1.75%
No such mechanism/clause terminates only at exit	52	91.23%
Total	57	100%

The dataset does include, however, a few interesting outliers in this respect. Two clauses were designed to only apply to a single future Qualified Financing if ever closed following their adoption (but without limiting its application to a named, particular financing closed concurrently with its adoption, as a closed-ended clause would do).¹⁵⁸ Two more clauses were set to expire once the startup had raised a certain aggregate amount of funds.¹⁵⁹ Finally, one clause released

¹⁵⁶ For a sample clause providing for automatic termination of the pay-to-play clause upon an IPO *see* CERTIFICATE OF AMENDMENT OF SIXTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF MEVION MEDICAL SYSTEMS, INC., § 5O.4. (2013) (available at <https://bit.ly/4gwxosG>) [hereinafter: MEVION CHARTER].

¹⁵⁷ Notably, an IPO would often trigger an automatic conversion of all preferred stock (see discussion *supra* notes 56–57 and accompanying text) thus making the pay-to-play provision moot. An IPO or M&A would typically also terminate contractual investor rights that could affect the practical significance of pay-to-play provisions – most importantly here, rights of first offer (for a model clause *see* NVCA Model IRA, *supra* note 51, at § 4.2; about the significance of investors’ rights of first offer in pay-to-play arrangements see discussion *supra* notes 133–134).

¹⁵⁸ For a sample clause *see* AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF VERSARTIS, INC., § 8A(b)(iv) (2013) (available at <https://bit.ly/41xmHSC>); *see also* CERTIFICATE OF AMENDMENT TO THE THIRD AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF AERIE PHARMACEUTICALS, INC., § 5.16 (2012) (available at <https://bit.ly/3Zqm3DC>). About the distinction between open and closed-ended pay-to-play clauses see discussion *supra* notes 77–78 and accompanying text.

¹⁵⁹ *See* MEVION CHARTER, *supra* note 156, at 4O.5 (providing that the pay-to-play provision will expire “at such time as the Corporation has raised, in a Qualified Financing, gross proceeds of \$25 million [...]”); FOURTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF TETRALOGIC PHARMACEUTICALS CORPORATION, § 3.l.(iv) (2011) (available at

particular investors from complying with it further once they had invested a certain amount of funds in the startup.¹⁶⁰

2. Closed-ended Clauses

Closed-ended clauses require a different analytical approach from their open-ended counterparts. Since they target a specific financing event,¹⁶¹ these clauses eliminate certain complexities: they need not define criteria for qualifying financings,¹⁶² and it would not typically make sense to subject them to opt-in rights.¹⁶³ In addition, in a closed-ended clause, some aspects of the pay-to-play mechanism are often included in the stock purchase agreement – which is not necessarily publicly available – rather than in the charter itself. Notably, the investors subject to forced conversion are often defined as the “defaulting” or “breaching” investors while referring to the stock purchase agreements’ definitions of these terms.¹⁶⁴ This distribution of terms across documents makes reliable analysis impossible for several parameters if based on the charter text alone – notably, the definition of “Qualified Holder” and the presence of opt-out rights or sunset mechanisms. I find the conversion penalty to be the only parameter consistently detailed enough in the charter text to permit meaningful analysis across the entire dataset.¹⁶⁵ This more focused examination still advances beyond existing literature, which, as described above, has primarily concentrated on the binary choice between conversion to common versus preferred stock when observing variations in the penalty aspect.¹⁶⁶

<https://bit.ly/49y5TwS>).

¹⁶⁰ See DERMIRA CHARTER, *supra* note 135, at § 6.3(b).

¹⁶¹ See discussion *supra* notes 78–82 and accompanying text.

¹⁶² *Cp.* discussion *supra* part II.C.1.ii.

¹⁶³ *Id.*

¹⁶⁴ As a representative example *see, e.g.*, AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF ACUMEN PHARMACEUTICALS, INC., § 6.1 (2020) (available at <https://bit.ly/3Bu6Auv>) (providing that where the pay-to-play clause is triggered “each share of Series B Preferred Stock held by a Defaulting Purchaser (as defined in the SPA) shall be automatically, and without any further action on the part of such Defaulting Purchaser, converted [...]”).

¹⁶⁵ In fact, even with respect to the penalty, in some clauses the existence of prevailing provisions to the contrary in the share purchase agreement cannot be definitively ruled out; *see, e.g.*, AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF ACELYRIN, INC., § 5.3.1 (2022) (available at <https://bit.ly/49E7hy6>) (providing that the pay-to-play clause in its entirety only applies “except as otherwise provided in the Series C Purchase Agreement”).

¹⁶⁶ See discussion *supra* notes 106–108 and accompanying text.

Fig. 7

Penalty (Closed-ended Clauses)

Class of Conversion Shares

<i>Provision Type</i>	<i>Observations</i>	<i>Percentage</i>
Conversion to common stock	90	96.77%
Conversion to preferred stock	2	2.15%
Other ¹	1	1.07%
Total	93	100%

¹ Conversion to common or preferred, depending on the converted class of stock.**Complete / Relative Portion Conversion**

<i>Provision Type</i>	<i>Observations</i>	<i>Percentage</i>
Complete conversion ²	84	90.32%
Relative portion conversion	9	9.68%
Total	93	100%

² a conversion of all shares of one or more classes of stock held by the non-participating investor.**Punitive Conversion Ratio**

<i>Provision Type</i>	<i>Observations</i>	<i>Percentage</i>
Punitive conversion ratio	66	70.97%
No punitive conversion ratio	27	29.03%
Total	93	100%

Closed-ended clauses consistently impose stricter penalties on non-participating investors compared to open-ended ones. The contrast is particularly striking in two areas: closed-ended clauses are roughly 1.5 times more likely to mandate complete conversion and over 3 times more likely to apply punitive conversion ratios.¹⁶⁷ Here, too, in all cases of conversion to shadow stock, the new class of stock had lost at least some aspects of their antidilution rights for further adjustments of their conversion price.¹⁶⁸

These harsher terms align with the typical use cases of closed-ended clauses. In distressed startup recapitalizations, punitive ratios and complete conversion requirements make these provisions more effective at clearing out existing investors' rights and diluting their holdings to attract fresh capital.¹⁶⁹ Similar severity makes sense for enforcing milestone investment obligations. Startups are more likely to rely on the short-term financing commitments covered by closed-ended clauses¹⁷⁰ to meet urgent operational needs, such as payroll or time-sensitive R&D expenses.¹⁷¹ The severe penalties serve as a powerful

¹⁶⁷ *Cp.* discussion *supra* part II.C.1.iii.¹⁶⁸ See *supra* note 155 and accompanying text.¹⁶⁹ See discussion *supra* notes 81–82 and accompanying text.¹⁷⁰ See discussion *supra* notes 79–80 and accompanying text.¹⁷¹ About startups' typical dependence on investor funds for financing their ongoing operations, particularly at their earlier stages, see Ibrahim, *Debt*, *supra* note 141, at 1175 ("startups can burn through millions of dollars a month before having any sort of revenue-generating

deterrent against default on these immediate financing obligations. From the investors' perspective, such harsh terms become more acceptable for short-term commitments, as they can better assess their near-term liquidity position and price these obligations accordingly.

III. PAY-TO-PLAY AND STARTUP GOVERNANCE

While the previous section analyzed how pay-to-play provisions are structured and adapted, this section examines why they exist and what strategic purposes they serve. As discussed earlier, effective pay-to-play provisions incentivize investors to maintain their support of a startup even when conditions deteriorate – whether due to the startup's performance, the investor's circumstances, or broader market conditions.¹⁷² This section turns to discuss *why* startup stakeholders might deem it necessary to incorporate such incentive mechanisms into their governance arrangements and the strategic considerations that shape their specific design features.

Bargaining dynamics among entrepreneurs, existing investors, and incoming investors can be expected to affect both the adoption and design of pay-to-play clauses.¹⁷³ Investors who suspect they might not support the startup for the long term naturally prefer freedom from pay-to-play obligations, as these make it more costly to abandon a startup and redirect capital toward better opportunities. For the same reasons, entrepreneurs and committed investors favor binding other investors with such clauses, thereby securing better access to capital even when the startup underperforms.¹⁷⁴ Therefore, all other things being equal, when entrepreneurs and committed existing investors hold less bargaining power relative to incoming investors, pay-to-play clauses can be expected to appear less frequently and with milder terms. A prestigious VC with abundant investment opportunities, for instance, might demand significant concessions – such as lower valuations or enhanced liquidation preferences – in exchange for accepting pay-to-play restrictions that would constrain its future capital allocation choices. If the startup or its existing investors cannot meet such demands, they might abandon or soften the pay-to-play provision.

product or service to market”); John L. Orcutt, *Valuing Young Startups Is Unavoidably Difficult: Using (And Misusing) Deferred-Equity Instruments for Seed Investing*, 55 TULSA L. REV. 469, 474 (2020) (“Because startups are built for growth, they generally must sacrifice near-term profitability and endure years of losses”).

¹⁷² See discussion *supra* Part IB.

¹⁷³ While there is a broad consensus on the influence of bargaining power on prices in financial transactions, scholars have been engaged in a long-standing debate about its impact on non-price terms; see generally Albert Choi & George Triantis, *The Effect of Bargaining Power on Contract Design*, 98 VA. L. REV. 1665 (2012) and in the specific context of venture capital financing see generally Williams, *supra* note 14.

¹⁷⁴ Louis P. Berneman & Christopher F. Wright, *Venture Capital 101: Financing Mentality, Jargon, Term Sheets, and Documents*, 49 LES NOUVELLES 25, 34 (2014) (noting that pay-to-play provisions “may cause excessive funding in poorly performing companies”).

Similarly, as seen in the dataset, incoming investors who offer valuable non-financial contributions (and therefore, presumably, have some bargaining power over the entrepreneurs and other investors) but have limited follow-on funding capacity¹⁷⁵ may convince the startup's managers and investors to carve out specific exclusions for them from the pay-to-play clause.¹⁷⁶

Empirical studies of pay-to-play clauses, however, suggest that bargaining power dynamics cannot fully explain the inclusion of pay-to-play clauses in venture deals or their structuring. Several studies have found the relationship between high bargaining power of existing shareholders and the inclusion or design of pay-to-play to be weak or even inverse. For instance, Bengtsson & Sensoy have found that pay-to-play clauses were more common in down rounds – where, presumably, incoming investors' bargaining power is presumably higher,¹⁷⁷ and Williams found no statistically significant relationship between venture capital inflows (reflecting incoming investors' presumed bargaining power) and the inclusion of pay-to-play clauses or the harshness of their penalties.¹⁷⁸ These findings – this paper will argue – are unsurprising, as the use of pay-to-play provisions can have more than just distributive effects.

The analysis below reveals two functions of properly structured pay-to-play provisions that can enhance enterprise value for all shareholders by addressing weaknesses in startup governance and capital structures. First, these provisions foster the multilateral trust needed for successful investor syndication; and second, they serve as an important counterweight to investors' control over management through staged financing.

A. Disincentivizing Investor Free Riding

1. Investment Syndication and Free Riding

Startups typically raise capital through syndicated rounds involving multiple investors rather than a single investor providing the entire amount.¹⁷⁹ Where rounds are syndicated, there would usually be one or two VC firms acting as lead investors, managing the due diligence process and negotiating the deal terms on behalf of the entire syndicate.¹⁸⁰ Syndicates may form in different ways. For instance, a VC firm might spot a promising opportunity and invite other VCs to co-invest,¹⁸¹ or entrepreneurs, especially in earlier rounds, might bring in

¹⁷⁵ See discussion *infra* notes 192–193 and accompanying text.

¹⁷⁶ See discussion *supra* notes 136–141.

¹⁷⁷ Bengtsson & Sensoy, *Changing the Nexus*, *supra* note 14, at 371.

¹⁷⁸ Williams, *supra* note 14, at 152–53.

¹⁷⁹ FELD & MENDELSON, *supra* note 7, at 12.

¹⁸⁰ See FELD & MENDELSON, *supra* note 7, at 10–11.

¹⁸¹ See, e.g., Bartlett, *Venture Capital*, *supra* note 4, at 55; PAUL GOMPERS & JOSH LERNER, *THE VENTURE CAPITAL CYCLE* 257 (2006).

angel investors or additional VCs to invest alongside the lead VC.¹⁸²

Syndication offers numerous advantages to both investors and startups. Most evidently, it simplifies the investment process for investors by facilitating portfolio diversification and enhancing its effectiveness. Due to syndication of investments, co-investors can invest smaller amounts in each portfolio startup, even when the startup requires substantial capital, thereby managing their exposure to firm-specific risks at their desired level.¹⁸³

Syndication can also assist investors bridge information asymmetries between themselves and their investment candidates.¹⁸⁴ The willingness or reluctance of existing investors to support a startup through new investment can signal the startup's quality to potential new investors, who typically have much more limited knowledge of the startup's past performance and future prospects.¹⁸⁵ Syndication may enable investors to benefit from the knowledge of their peers even regardless of intimate knowledge of the startup. When a VC invites other VCs, whose judgment it trusts, to join as co-investors in a new contemplated investment, their endorsement can help instill in the VC the confidence they need to finally make an investment.¹⁸⁶

Lastly, startup investors, beyond contributing financial capital, are often expected to have “value-add” – that is, be actively involved with the startup and its managers and possess valuable experience, business shrewdness, a reputation, or connections within the ecosystem that can help the startup reach potential investors, customers, strategic partners, or talent.¹⁸⁷ Syndication can help startups assemble a broader and more diverse pool of outside expertise,

¹⁸² See, e.g., FELD & MENDELSON, *supra* note 7, at 10–11; Joseph M. Green & John F. Coyle, *Crowdfunding and the Not-So-Safe SAFE*, 102 VA. L. REV. ONLINE 168, 173 (2016) (describing a typical investment structure for startups graduating from the well-known accelerator Y Combinator); Mark Suster, *How Many Investors Is Too Many?* TECHCRUNCH (Feb. 2, 2011) <https://bit.ly/41K2Pvz> (“Always Make Room for Value-Added Angels”).

¹⁸³ See Bartlett, *Venture Capital*, *supra* note 4, at 56; GOMPERS & LERNER, *THE VENTURE CAPITAL CYCLE*, *supra* note 180, at 257; Olav Sorenson & Toby E. Stuart, *Syndication Networks and the Spatial Distribution of Venture Capital Investments*, 106 AM. J. SOC. 1546, 1559 (2001).

¹⁸⁴ Startup investments are traditionally viewed as having extreme information asymmetries between the startup and incoming investors; see generally Gilson, *supra* note 33, at 1077.

¹⁸⁵ See Anat R. Admati & Paul Pfleiderer, *Robust Financial Contracting and the Role of Venture Capitalists*, 49 J. FIN. 371, 387 (1994); GOMPERS & LERNER, *THE VENTURE CAPITAL CYCLE*, *supra* note 180, at 258.

¹⁸⁶ Bartlett, *Venture Capital*, *supra* note 4, at 56; GOMPERS & LERNER, *THE VENTURE CAPITAL CYCLE*, *supra* note 180, at 257.

¹⁸⁷ See, e.g., Bernard S. Black & Ronald J. Gilson, *Venture Capital and the Structure of Capital Markets: Banks Versus Stock Markets*, 47 J. FIN. ECON. 243, 259 (1998); Michael Gorman & William A. Sahlman, *What Do Venture Capitalists Do?* 4 J. BUS. VENTURING 231, 236–37 (1989) (referring to VC value-adding); Abraham J.B. Cable, *Fending for Themselves: Why Securities Regulations Should Encourage Angel Groups*, 13 U. PA. J. BUS. L. 107, 130 (2010); Darian M. Ibrahim, *The (Not So) Puzzling Behavior of Angel Investors*, 61 VAND. L. REV. 1405, 1419 (2008) (referring to angel value-adding).

goodwill, and connections than any single potential investor can offer.¹⁸⁸

Syndicating investors, however, may vary greatly in their capacity to participate in future financings.¹⁸⁹ For instance, VCs typically set aside portions of their committed capital for follow-on investments in their portfolio assets.¹⁹⁰ However, when new rounds are raised, some VCs in the syndicate may be approaching the end of their fund life with insufficient capital remaining, while other VCs would have more available capital to deploy.¹⁹¹ CVCs may face different constraints: unlike traditional VCs, they may lack dedicated capital commitments or pre-approved budgets for follow-on investments, making each new investment decision subject to corporate headquarters' second-guessing.¹⁹² Angel investors, drawing from their personal wealth, frequently lack the resources to participate in later rounds as capital requirements escalate.¹⁹³

Even among investors with similar financial capacity for follow-on rounds, their willingness to participate may diverge. A VC firm nearing the end of its fund life might push for a quick exit as VCs with longer lifelines are still willing to support the startup through another financing round.¹⁹⁴ Some syndicate investors may see better opportunities elsewhere in their portfolio or network and prefer to deploy capital there.¹⁹⁵ Investors may also reach different conclusions about a new round's necessity or terms, influenced by varying levels of access to the startup's information,¹⁹⁶ different levels of competence in

¹⁸⁸ GOMPERS & LERNER, *THE VENTURE CAPITAL CYCLE*, *supra* note 180, at 257.

¹⁸⁹ FELD & MENDELSON, *supra* note 7, at 66.

¹⁹⁰ VCs will typically only invest in new startups during the first five years of the fund's life, and in the rest of the time use their funds to support their portfolio assets; *see generally* Omri Marian, *The Other Eighty Percent: Private Investment Funds, International Tax Avoidance, and Tax-Exempt Investors*, 2016 B.Y.U.L. REV. 1715, 1723; FELD & MENDELSON, *supra* note 7, at 175–76.

¹⁹¹ FELD & MENDELSON, *supra* note 7, at 66. Most VCs are organized as limited partnerships that liquidate within about ten years of formation, subject to discretionary extensions; *see generally* Elizabeth Pollman, *Information Issues on Wall Street 2.0* 161 U. PA. L. REV. 179, 186 (2012); Smith, *supra* note 33, at 345.

¹⁹² FELD & MENDELSON, *supra* note 7, at 66; Ilya A. Strebulaev & Amanda Ying Wang, *Organizational Structure and Decision-Making in Corporate Venture Capital* (Stan. Bus. Sch. Working Paper No. 4008, 2021) <https://bit.ly/3IeCivu> (manuscript at 26).

¹⁹³ FELD & MENDELSON, *supra* note 7, at 66; Leavitt, *supra* note 5, at 260.

¹⁹⁴ *See, e.g.*, Bo Bian, Yingxiang Li & Casimiro A. Nigro, *Conflicting Fiduciary Duties and Fire Sales of VC-Backed Startups* 2–3 (Foundations of L. & Fin., Working Paper No. 35); FELD & MENDELSON, *supra* note 7, at 175–77; Smith, *supra* note 33, at 345.

¹⁹⁵ About VCs making investment and exit decisions to maximize portfolio returns *see generally* Cable, *Opportunity-Cost*, *supra* note 30, at 53–54, 73–77 (2015); and *see discussion infra* part III.2.ii.

¹⁹⁶ As private firms, startups are subject to minimal statutory disclosure requirements and investors' information rights are mostly secured by contract; for a sample clause *see* NVCA Model IRA, *supra* note 51, at § 3 (granting special information rights to Major Investors, holding above a certain threshold). *See also generally* Zohar Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560, 580–82 (2016) (describing how information asymmetries affect financial contracting between entrepreneurs and investors).

appreciating the startup's performance and future potential,¹⁹⁷ or differences of opinion that can naturally occur even given the same information and skills.¹⁹⁸

Regardless of the underlying reasons, disparities in investors' capacity or willingness to participate in follow-on financing can create coordination challenges and friction within the syndicate or between syndicate investors and entrepreneurs. When some investors opt out of future rounds they essentially "free ride" on the continued financial and human capital provided by the other stakeholders, who may retain their special rights and benefits as preferred shareholders years after their initial investment without contributing any fresh capital. As the discussion below will illustrate, this asymmetry can come at the other syndicate members or at the entrepreneurs' expense, undermining the feasibility, stability, and efficiency of syndication arrangements. By creating economic incentives that counter free riding, pay-to-play helps create the multilateral trust necessary to maintain the syndicate in a stable state.

2. Pay-to-Play as a Free Riding Deterrent

i. *Scenario 1: Down Round Financing*

One typical scenario where investor free-riding can become an obstacle for syndication is where the startup expects that down-round financing might be a likely possibility. To see how, consider the following simplified hypo.

Acme, a hypothetical startup, is formed by a single entrepreneur holding their entire share capital of 1 million common shares. At some later point, Acme raises a Series A round of \$10 million for twenty-five percent of its post-money capitalization. Two fictional VCs – Old Faithful Ventures and Free Rider Ventures – each invest \$5 million. This sets Acme's pre-money valuation at \$30 million, with shares priced at \$30.00. The investors receive Preferred A shares, convertible to common stock at an initial price of \$30.00 (a 1:1 conversion ratio).¹⁹⁹ These shares carry antidilution protection:²⁰⁰ if Acme raises a down round, the Preferred A conversion price adjusts to match the new, lower share price.²⁰¹ **Fig. 8** shows Acme's capitalization table before and after its Series A.

¹⁹⁷ See discussion *infra* part IIIB.

¹⁹⁸ See *generally* Goshen & Hamdani, *supra* note 196, at 580–82 (discussing the potential effect of differences of opinion in financial contracting between entrepreneurs and investors).

¹⁹⁹ Meaning, if a Preferred A shareholder would choose to convert its shares to common stock, its initial investment amount will be divided by \$30.00. Since \$30.00 was also the Series A price-per-share, the resulting number of shares of common stock will be equal to the number of converted Preferred A shares (i.e., a 1:1 conversion ratio).

²⁰⁰ About antidilution protections see discussion *supra* notes 67–72 and accompanying text.

²⁰¹ The antidilution protection formula used in this hypo was chosen due to its conceptual simplicity. In practice, a more balanced (i.e., less investor-friendly) antidilution protection formula – known as *broad-based weighted average* – is considered the prominent industry standard. Simply put, a broad-based weighted average formula adjusts the conversion ratio to reflect a weighted average of the respective prices set in the original and new round, while also factoring

Fig. 8

Acme's Capitalization Table: Incorporation to Series A

	Incorporation			Series A			
	Common	Total Shares	Holdings	Common	Pref. A	Total Shares	Holdings
Entrepreneur	1,000,000	1,000,000	100.00%	1,000,000	-	1,000,000	75.00%
Old Faithful	-	-	-	-	166,666	166,666	12.50%
Free Rider	-	-	-	-	166,666	166,666	12.50%
TOTAL	1,000,000	1,000,000	100.00%	1,000,000	333,332	1,333,332	100.00%

Acme's fortunes declined in the year following Series A. Burning through cash rapidly and facing a dwindling runway, Acme approached its existing investors to lead a new, \$10 million Series B round. Both declined – Free Rider claimed to have no available funds for further support, while Old Faithful would participate for their pro rata share but refused to lead the new round.

Acme eventually secured a term sheet from a new investor – the hypothetical Savior Ventures – to lead its Series B. The round offered 1,000,000 Preferred B shares at \$10.00 per share, convertible to common stock at a 1:1 ratio. Old Faithful subscribed for its pro rata share of 12.50 percent as promised,²⁰² while Savior took the remainder. As a down round – with the share price dropping \$20 below Series A – this financing triggered Old Faithful and Free Rider's antidilution protections. **Fig. 9** shows Acme's post-Series B capitalization on an as-converted basis.

Fig. 9

Acme's Capitalization Table: Series B

	Series B (As-Converted Basis)				
	Common	Pref. A Conversion	Pref. B Conversion	Total Shares	Holdings
Entrepreneur	1,000,000	-	-	1,000,000	33.33%
Old Faithful	-	500,000	125,000	625,000	20.83%
Free Rider	-	500,000	-	500,000	16.67%
Savior	-	-	875,000	875,000	29.17%
TOTAL	1,000,000	1,000,000	1,000,000	3,000,000	100%

The antidilution rights triggered by the Series B adjusted Preferred A shares' conversion price from \$30 to \$10, creating a 1-to-3 conversion ratio. This meant 666,668 additional shares of common stock would be issued upon future conversion, without any new investment. Both Old Faithful and Free Rider enjoyed this benefit equally, despite only Old Faithful participating in Series B. The entrepreneur bore the cost: their holdings, on an as-converted basis, plunged from 75 to 33.33 percent.

in the amounts raised in each round; *see generally* FELD & MENDELSON, *supra* note 7, at 71–75. For a sample clause *see* NVCA Model Charter, *supra* note 49, at § 4.4.4.

²⁰² There are different ways to calculate a shareholder's pro rata share for pay-to-play purposes; for possible alternatives *see, e.g.*, NVCA Model Charter, *supra* note 49, at § 5A.3.4 and n. 74.

Next consider an alternative scenario where Preferred A shares were bound by a pay-to-play clause: investors who failed to purchase at least their pro rata share in the Series B would forfeit their antidilution protections. **Fig. 10** shows Acme's capitalization under these terms.

Fig. 10

Acme's Capitalization Table: Series B (With Pay-to-Play, Penalty Applied)

	Series B (As-Converted Basis)				
	<i>Common</i>	<i>Pref. A Conversion</i>	<i>Pref. B Conversion</i>	<i>Total Shares</i>	<i>Holdings</i>
Entrepreneur	1,000,000	-	-	1,000,000	37.50%
Old Faithful	-	500,000	125,000	625,000	23.44%
Free Rider	-	166,666	-	166,666	6.25%
Savior	-	-	875,000	875,000	32.81%
TOTAL	1,000,000	666,666	1,000,000	2,666,666	100%

Free Rider's loss of antidilution protection meant the Series B triggered the conversion of less antidilution shares (those that would have been issued to Free Rider). This benefited all other shareholders: Old Faithful and Savior both secured larger as-converted equity stakes for the same investment amount. As for the entrepreneur, they still faced substantial dilution, but their stake remained about 12.50 percent larger than in the scenario without pay-to-play.

Concerns about similar scenarios involving down-round-related excessive dilution are among the primary motivations for the use of pay-to-play. This is evident from the fact that, as discussed, numerous pay-to-play clauses – including optional language in the NVCA model clause – expressly stipulate that the pay-to-play clause only applies in down rounds.²⁰³ It is similarly evident from the fact that when the pay-to-play clause mandates conversion to shadow preferred stock, the conversion typically causes the loss of all further antidilution protections.²⁰⁴ A down-round focus also helps explain why pay-to-play provisions tend to be more common in slow markets where down rounds – a sign of distress for the issuing startup – become more likely.²⁰⁵

Pay-to-play provisions ensure that all investors support the distressed startup through the down round in some fashion. They can either participate in the new round – helping the startup raise desperately needed capital and effectively “paying” for their antidilution shares rather than receiving them gratis,²⁰⁶ or relinquish their antidilution protections and, as illustrated above, help improve deal terms for entrepreneurs and committed investors. It is thus easy to see how bargaining power influences the inclusion of pay-to-play clauses where down rounds become a plausible possibility. Entrepreneurs and

²⁰³ See *supra* notes 142–144 and accompanying text.

²⁰⁴ See *supra* note 74 and accompanying text.

²⁰⁵ See *supra* notes 92–100 and accompanying text.

²⁰⁶ See Blaydon & Horvath, *supra* note 20; Lemon, *Venture Capitalism*, *supra* note 5, at 29.

committed investors may leverage their bargaining power to subject incoming investors to such clauses when possible.²⁰⁷ Conversely, investors who anticipate limited capacity or desire for follow-on support would rationally employ whatever bargaining power they have to avoid these clauses or secure personal carve-outs from their effects.²⁰⁸ However, pay-to-play clauses can achieve more than mere redistribution of economic value among shareholders through a down round; when deployed in appropriate circumstances, they can create enterprise value-increasing dynamics.

Consider, for instance, that Acme's entrepreneur and Old Faithful could not have agreed on the Series B terms outlined in Fig. 9 due to high opportunity costs. Old Faithful might reject any deal offering less than a 21 percent stake as they could achieve higher expected returns by letting Acme fail and redirecting capital to another portfolio startup, or the entrepreneur might refuse any deal yielding less than a 35 percent stake, preferring to let Acme fail and launch a new venture that would better compensate their human capital investment. Assume further that a deal structured on Fig. 10's terms, with Free Rider having waived their antidilution protections, would optimize returns for all of Acme's shareholders, net of opportunity costs.

Without a pay-to-play clause, shareholders could only resolve such situations by negotiating with Free Rider to secure their voluntary waivers of antidilution protections and prevent Acme's wasteful failure. Such waivers are reportedly common practice²⁰⁹ and often make business sense. Non-participants can recognize that clinging to their rights could block new financing and lead to the startup's failure, resulting in the loss of their sunk investments along with everyone else's. Where saving the startup represents the overall better alternative, a voluntary waiver could very well be within reach (possibly, with other stakeholders offering the waiving shareholder something in return).²¹⁰ However, relying on ex-post waivers becomes a risky strategy when emergency funding – as typically is the case with a down round – is concerned. Waiver negotiations are susceptible to devolving into a game of “chicken.”²¹¹ Rational

²⁰⁷ See Dan M. Mahoney, *Down Round Financing: How to Cope with Lower Valuations for your Client Company*, 11 BUS. L. TODAY 20, 22–23 (2002) (“if a company has any leverage, it can reduce the impact of an anti-dilution provision by negotiating a “pay-to-play” provision [...]”).

²⁰⁸ Leavitt, *supra* note 5, at 280–81; for specific examples of such exclusion see discussion *supra* notes 132–141 and accompanying text.

²⁰⁹ See, e.g., Derek Colla, *What You Need to Know About Down Round Financings*, COOLEY GO (Jan. 24, 2022) <https://bit.ly/47qhoVI> (“founders regularly negotiate with investors to waive or partially reduce anti-dilution adjustments”); Michael A. Woronoff & Jonathan A. Rosen, *Understanding Anti-Dilution Provisions in Convertible Securities*, 74 FORDHAM L. REV. 129, 147 and n.91 (2005) (“even if an investor requires full-ratchet anti-dilution protection, it often at least partially waive this protection in connection with subsequent dilutive financings”).

²¹⁰ Such negotiations are known in the law and economics discourse as “Coasian Bargaining”; see generally William W. Bratton, *Venture Capital on the Downside: Preferred Stock and Corporate Control*, 100 MICH. L. REV. 891, 908–910 (2002)

²¹¹ See Lemon, *Don't Let Me Down*, *supra* note 20, at 30–32.

non-participating investors may attempt to extract maximum concessions from the startup and other shareholders for their waivers. Meanwhile, other shareholders might rationally leverage the threat of total capital loss to pressure non-participants into lowering their demands. These dynamics might breed costly, high-friction negotiations that could complicate, hinder, and – where investors miscalculate their counterparts’ risk tolerance or opportunity costs – unintentionally collapse viable deals.²¹²

Pay-to-play clauses present an alternative to high-pressure waiver negotiations. Rather than depending on last-minute discussions when capital needs are extremely urgent, shareholders can establish clear criteria in advance for how non-participating investors’ rights may be eliminated in a future down round scenario. This approach, when applied in the appropriate circumstances, can create value in three main ways.

First, assuming the pay-to-play clause itself is not negotiated under immediate financial distress,²¹³ it reduces the risk of investor negotiations failing to obtain the desired waiver before the startup’s runway is exhausted.²¹⁴

Second, negotiating a pay-to-play clause can also help address information asymmetries between incoming and current investors regarding the risk of future holdup behavior. When new investors claim they would willingly waive antidilution protections if unable to participate in future rounds, current shareholders might struggle to verify these assurances, recognizing that prospective investors may simply be eager to close the deal.²¹⁵ Pay-to-play clauses enable startups and their current shareholders to engage with incoming investors on a zero-trust basis, having them commit in advance to relinquish their antidilution protections or other rights in case of future abandonment.²¹⁶ They thus make it easier for startups to bring in new investors who may offer significant value add but have questionable follow-on financing capacity.²¹⁷

Lastly, scholars have noted how an investor’s willingness to submit itself to a pay-to-play clauses may function as a mechanism for investors to signal their

²¹² *Id.*

²¹³ This may not be the typical case. Bengtsson & Sensoy, for instance, have observed that pay-to-play clauses are more common in down rounds and flat rounds; Bengtsson & Sensoy, *Changing the Nexus*, *supra* note 14, at 371.

²¹⁴ Where the round in which the clause is adopted is itself negotiated under pressure, negotiating a pay-to-play clause may not always be a better alternative; *see, e.g.*, ARONSON, *supra* note 105, at A-16 (commenting that “pay-to-play provisions [...] are often the subject of intense negotiation”).

²¹⁵ Reputational constraints can also help overcome these information asymmetries; about the effect of investor reputation on pay-to-play see discussion *infra* notes 262–264 and accompanying text.

²¹⁶ *See* Bengtsson & Sensoy, *Changing the Nexus*, *supra* note 14, at 371 (noting that when a pay-to-play provision is used, “in exchange for the other preferences they receive in down/flat rounds, VCs promise to give up some of those preferences should they choose to abandon the company”).

²¹⁷ *See* discussion *supra* notes 187–188 and accompanying text.

intention to participate in follow-on rounds.²¹⁸ The quality of such signals, however, can vary greatly. A pay-to-play clause would not send reliable signals about investors' true commitment where the thresholds for its triggering are high.²¹⁹ The signal quality would also be negatively impacted where investors can still derive significant benefits from their investment where the penalty is applied. This may happen, for instance, where the penalty applied is on the moderate side of the scale,²²⁰ where the startup is a strong candidate for a high-valuation exit (where investors are expected to convert their preferred stock to common stock anyway²²¹ and future price-adjustments of the conversion price are unlikely),²²² where investors' investment motives are more strategic than financial (as is often the case with CVCs), making the potential loss of future financial gains less of a concern,²²³ or where the investor simply does not have better-looking investment opportunities in their pipeline – even assuming that a pay-to-play penalty would likely be applied in the future.

ii. *Scenario 2: Maximizing Portfolio Returns*

Perhaps due to the dramatic effect that free riders' antidilution protections can have on down rounds' pricing, some commentators have described pay-to-play as a mechanism designed exclusively, or at least primarily, to handle down-round related free riding.²²⁴ However, the triggering of antidilution protections during a down round is not the only instance where investor free-riding can harm the startup or its shareholders. Sometimes, supporting the startup through a rough period could be advantageous for all shareholders, but the investor who volunteers to provide such funding would end up worse off compared to investors who are free riding on their investment. A pay-to-play provision can be used to establish an incentive structure that encourages investors to share the burden. To illustrate this point, consider the following simplified hypo.

VCA and VCB are two VCs that each allocate \$2 million for initial investments in new portfolio startups and an additional \$2 million for follow-on investments. In January 2024, both VCs deployed their initial investments, into the Series A financing of two startups: Alpha and Bravo, \$1 million each. At the time of initial investment, these startups appeared equally promising.

In January 2025, each startup needed to raise a Series B of at least \$2 million or face financial ruin. However, it became evident that the two startups had

²¹⁸ See Bartlett, *Venture Capital*, *supra* note 4, at 79 (“the willingness of an existing VC investor to agree to [a pay-to-play] provision provides a positive signal regarding its commitment to finance the company in the future”).

²¹⁹ See discussion *supra* part IIC1ii.

²²⁰ See discussion *supra* part IIC1ii.

²²¹ See discussion *supra* notes 54–55 and accompanying text.

²²² See discussion *supra* notes 58–63 and accompanying text.

²²³ See sources cited *supra* note 140.

²²⁴ Blaydon & Horvath, *supra* note 20; PEARCE & BARNES, *supra* note 20, at 196.

different potential. If Alpha successfully raises its Series B, it is expected to exit within two years and generate a 6x return on the invested capital. Conversely, Bravo was projected to exit within two years and yield an 8x return on the invested capital if it successfully raises its Series B. Assume further that both startups had failed to secure funding from outsiders; that the maximum amount open for subscription in each Series B is \$4 million; and that a failure of Alpha or Bravo would lead to a total loss of all invested capital.

Fig. 11 below presents the expected returns for the VCs in three alternative scenarios. In the first scenario, both VCs abandon Alpha and invest their entire \$2 million in the better-performing Bravo. In the second scenario, one VC chooses to invest in Alpha, the underperforming startup, while the other VC free rides and invests all capital in Bravo. In the third scenario, each VC invests \$1 million in both Alpha and Bravo, eliminating free riding.

Fig. 11

Alpha and Bravo Investment Returns

Scenario 1: Alpha Abandoned						
	Alpha Total Investment	Bravo Total Investment	Alpha Payout	Bravo Payout	Portfolio Payout	Fund ROI
Investor 1	\$1,000,000	\$3,000,000	-	\$24,000,000	\$24,000,000	6x
Investor 2	\$1,000,000	\$3,000,000	-	\$24,000,000	\$24,000,000	6x
TOTAL	\$2,000,000	\$6,000,000	-	\$48,000,000	\$48,000,000	

Scenario 2: Alpha Saved by a Single Investor (Free Riding)						
	Alpha Total Investment	Bravo Total Investment	Alpha Payout	Bravo Payout	Portfolio Payout	Fund ROI
Investor 1	\$3,000,000	\$1,000,000	\$18,000,000	\$8,000,000	\$26,000,000	6.5x
Investor 2	\$1,000,000	\$3,000,000	\$6,000,000	\$24,000,000	\$30,000,000	7.5x
TOTAL	\$4,000,000	\$4,000,000	\$24,000,000	\$32,000,000	\$56,000,000	

Scenario 3: Alpha Saved by Both Investors (No Free Riding)						
	Alpha Total Investment	Bravo Total Investment	Alpha Payout	Bravo Payout	Portfolio Payout	Fund ROI
Investor 1	\$2,000,000	\$2,000,000	\$12,000,000	\$16,000,000	\$28,000,000	7x
Investor 2	\$2,000,000	\$2,000,000	\$12,000,000	\$16,000,000	\$28,000,000	7x
TOTAL	\$4,000,000	\$4,000,000	\$24,000,000	\$32,000,000	\$56,000,000	

Similarly to the scenario discussed above in the context of antidilution waivers,²²⁵ even though it is in both VCs' interest to save Alpha, a suboptimal array of incentives may inefficiently lead to its mutual abandonment. The best possible outcome for each VC – yielding a portfolio return of 7.5x – would be to free-ride on the other VC's investment in Alpha while deploying all funds reserved for follow-on investments into the better-performing Bravo. At the same time, the worst possible outcome for each VC – yielding a 6x portfolio

²²⁵ See discussion *supra* notes 211–212.

return each – would be if both VCs abandoned Alpha. Each VC is thus incentivized not to participate in Alpha’s Series B; however, if Alpha is indeed abandoned by both, the outcome for both VCs would be worse compared to any scenario in which Alpha is saved.

While VCA and VCB could agree to jointly support Alpha and avoid the suboptimal abandonment scenario, the resulting chicken game is counterproductive to such an agreement. Each VC can be expected to rationally hold back funding from Alpha, hoping that their counterparts will be the first to give in and save it by themselves (thus increasing their expected returns from 6x to 6.5x). Similar to the previous discussion of antidilution protection waivers, negotiations between VCA and VCB about funding Alpha’s Series B can be expected to be difficult and costly, and may lead to a suboptimal result where the parties miscalculate their counterparts’ intentions or patience.²²⁶

Suppose, alternatively, that Alpha’s governing documents subjected both investors to a pay-to-play clause, under which an investor who failed to invest at least \$1 million in a future Series B while the other investor subscribes for its mandatory \$1 million would lose 90 percent of its expected exit proceeds, which would be redistributed to the participating investor.²²⁷ **Fig. 12** below illustrates the expected returns in case the pay-to-play penalty is triggered.

Fig. 12

Alpha and Bravo Investment Returns – with Pay-to-Play

Scenario 4: Alpha Saved by a Single Investor (Pay-to-Play Penalty Applied)

	Alpha Total Investment	Bravo Total Investment	Alpha Payout	Bravo Payout	Portfolio Payout	Fund ROI
Investor 1	\$3,000,000	\$1,000,000	\$23,400,000	\$8,000,000	\$31,400,000	7.85x
Investor 2	\$1,000,000	\$3,000,000	\$600,000	\$24,000,000	\$24,600,000	6.15x
TOTAL	\$4,000,000	\$4,000,000	\$24,000,000	\$32,000,000	\$56,000,000	

The pay-to-play clause modifies the incentive structure for the VCs, making mutual abandonment an improbable scenario. For any investor capable of doing so, supporting the startup becomes the dominant strategy. Given that their counterparty is investing, the rational choice for each VC would be to invest (resulting in a 7x portfolio return) instead of abandoning and incurring the

²²⁶ See discussion *supra* notes 211–212 and accompanying text.

²²⁷ This form of pay-to-play was designed to not require calculations based on Alpha’s capitalization table, which, for simplification reasons, was not simulated as part of this hypo. The penalty imposed does not precisely reflect common forms of pay-to-play (see discussion *supra* part II). A more realistic clause could provide, for instance, that non-participating investors convert to common stock at a punitive conversion ratio of 10-to-1. The result would have been similar – a dramatic decrease in the exit proceeds of the non-participating investor and an increase in the exit proceeds of the participating investor – but not necessarily in the same ratio described here (depending, e.g., in the investors’ liquidation preference, their holdings percentage, and the total exit payout).

penalty (yielding a 6.15x portfolio return). Similarly, when their counterparty is not investing, the rational choice for each VC would also be to invest (yielding a 7.85x return) rather than abandon (yielding a 6x return).

By imposing penalties on non-participating investors, pay-to-play provisions can effectively alter investors' incentive structure and prevent coordination failures that would lead to suboptimal outcomes for all parties – regardless of whether the financing at hand is a down-round or not. They make free-riding prohibitively expensive, ensuring that investors cannot rationally attempt to hold out hoping their counterpart will cave in and save the struggling portfolio startup alone.

Investors who are concerned about the startup underperforming compared to syndicate members' other portfolio assets, but not *so poorly* to not be worth saving, would thus be more likely to require a pay-to-play provision in the startup's governing documents. Incorporating such clause would help startups and their shareholders avoid inefficient negotiations over future funding under the gun²²⁸ and can help incoming investors bridge information asymmetries regarding how they might behave under such scenarios.²²⁹ Naturally, however, incoming investors would have to price *ex ante* the value of these positive effects compared to the costs they incur by subjecting themselves to the clause – i.e., making it more costly for them to abandon the startup and redirect their capital to more promising investment opportunities.²³⁰

B. Fine-Tuning Staged Financing Structures

Startup governance structures tend to evolve in predictable patterns, characterized by a gradual shift of control from entrepreneurs to investors. At inception, entrepreneurs exercise complete control – holding most (if not all) board seats²³¹ and C-level positions (particularly the CEO role).²³² As the startup begins raising capital, control progressively moves away from the entrepreneurs. VCs making substantial investments commonly demand contractually guaranteed board representation,²³³ and as more rounds are raised, the board's composition usually transitions from entrepreneur dominance to a balanced structure with equal entrepreneur and investor representation.²³⁴ By later stages,

²²⁸ Cp. discussion *supra* notes 213–214.

²²⁹ Cp. discussion *supra* notes 217–216.

²³⁰ See discussion *supra* notes 173–176 and accompanying text.

²³¹ Smith, *supra* note 33, at 326–27.

²³² See, e.g., Broughman & Fried, *supra* note 110, at 55–56; Jesse M. Fried & Mira Ganor, *Agency Costs of Venture Capitalist Control in Startups*, 81 N.Y.U. L. REV. 967, 989–90 (2006).

²³³ FELD & MENDELSON, *supra* note 7, at 77–81; Pollman, *Startup Governance*, *supra* note 33, at 181; Smith, *supra* note 33, at 326–27.

²³⁴ FELD & MENDELSON, *supra* note 7, at 77–81; Pollman, *Startup Governance*, *supra* note 33, at 181; Smith, *supra* note 33, at 326–27.

investors may gain a board majority,²³⁵ and entrepreneurs might lose their CEO chair or other management roles.²³⁶ When not in control, VCs would typically also secure a set of specific veto rights over strategic corporate decisions.²³⁷

VCs exercise control over their portfolio startups through more than just formal mechanisms like board seats or veto rights. Particularly relevant to this discussion is VCs' long-observed practice of *staged financing* – strategically deploying investments over time as a control mechanism. As previously discussed, VCs distribute their investments across multiple rounds throughout the startup's lifecycle.²³⁸ Startups, particularly at their early stage, are typically operating with limited cash reserves and depend heavily on investor capital to fuel their growth plans. This dependency gives VCs increasing leverage over portfolio startup management as cash reserves diminish.²³⁹ While startups might seek funding from other VCs or external investors when existing VCs withhold additional funding, hesitation from current investors signals negatively to the market, limiting the startup's ability to secure external funding on reasonable terms.²⁴⁰ For these reasons, staged financing is often described as one of the most effective control instruments in the VC's toolbox.²⁴¹

VCs can leverage control gained through staged financing to influence a portfolio startup's business strategy by making additional funding contingent on particular changes.²⁴² More specifically, VCs have been described to use staged financing to reduce agency costs in the relationship between the startup's investors and managers.²⁴³ When VCs retain the power to shut down underperforming startups by withholding further funding, managers are motivated to act diligently and avoid self-dealing.²⁴⁴ Used appropriately, staged financing can reduce manager-side agency costs and encourage managers to invest more time and effort in building enterprise value.²⁴⁵ The more VCs

²³⁵ Pollman, *Startup Governance*, *supra* note 33, at 181; Smith, *supra* note 33, at 326–27.

²³⁶ Broughman & Fried, *supra* note 110, at 55–56; Fried & Ganor, *supra* note 232, at 989–90.

²³⁷ Pollman, *Startup Governance*, *supra* note 33, at 181 and fn. 144; Smith, *supra* note 33, at 346–47.

²³⁸ See discussion *supra* part I.

²³⁹ About the use of staged financing by VCs see generally Gilson, *supra* note 33, at 1078–81; Pollman, *Startup Governance*, *supra* note 33, at 186–188; Sahlman, *The Structure*, *supra* note 33, at 506–508; Smith, *supra* note 33, at 323–24.

²⁴⁰ Gilson, *supra* note 33, at 1079–80; Sahlman, *The Structure*, *supra* note 33, at 507; and see discussion *supra* notes 184–185 and accompanying text.

²⁴¹ Sahlman, *The Structure*, *supra* note 33, at 507 (describing staged financing as “the key to the relationship between the entrepreneur and the venture capitalist.”); and see also Bartlett, *Venture Capital*, *supra* note 4, at 54; Gordon & Orozco, *supra* note 263, at 217.

²⁴² See Smith, *supra* note 33, at 324 (discussing VCs' use of staged financing to gain leverage in exit strategy negotiations).

²⁴³ See, e.g., Gilson, *supra* note 33, at 1078–81; Pollman, *Startup Governance*, *supra* note 33, at 186–188.

²⁴⁴ Gilson, *supra* note 33, at 1078–81; Pollman, *Startup Governance*, *supra* note 33, at 186–188.

²⁴⁵ Gilson, *supra* note 33, at 1078–81.

suspect managers of potential self-dealing or shirking, the more likely they are to maintain control through staged financing – reducing individual investment rounds or tying more funding to performance-based milestones.²⁴⁶

Pay-to-play provisions increase the cost for VCs to exercise their power to abandon underperforming startups, making the prospect of future abandonment more remote and less deterring from the entrepreneur-manager's perspective. Some scholars have thus rightly noted that these provisions may increase agency costs in the investor-entrepreneur relationship.²⁴⁷ However, this view of pay-to-play clauses presents only a partial picture.

Staging investments can, itself, be counterproductive to effective investor oversight by increasing the *principal costs* in the investor-manager relationship.²⁴⁸ Startup investments are traditionally characterized by entrepreneurs' significant information advantage over investors, given their role as the startup's technological visionaries.²⁴⁹ VCs lacking adequate understanding of the startup or its core technology may – hampered by information gaps or limited technical expertise – misinterpret entrepreneur-managers' legitimate and diligent actions as misconduct or underperformance, potentially leading to premature termination of high-quality startups.²⁵⁰ For instance, they may mistake an entrepreneurs' hiring of their college roommate for a senior managerial role as self-dealing, failing to appreciate that she possesses rare knowledge or expertise that are essential for the startup's success. On other occasions, VCs might deploy staged financing opportunistically, for reasons entirely unrelated to managing entrepreneur-side agency costs.²⁵¹ For instance, VCs seeking quick liquidity might withhold funding from a viable startup to pressure entrepreneur-managers into accepting an undervalued acquisition offer.²⁵²

The more thinly a VC spreads investments over time, and the less competent

²⁴⁶ About the use of performance-based milestones in VC financing see discussion *supra* notes 79, 96 and accompanying text.

²⁴⁷ Bartlett, *Venture Capital*, *supra* note 4, at 57 (noting that a pay-to-play provision “impairs a VC investor’s ability to control investor-manager agency risk through staged financing”); Williams, *supra* note 14, at 134 (commenting that pay-to-play clauses “have an effect on moral hazard because they restrict the ability of investors to withhold additional capital from an entrepreneur who is engaging in excessive risk-taking or misbehavior”).

²⁴⁸ The “principal costs” model developed by Zohar Goshen and Richard Squire emphasizes that the agency costs in agent-principal relationships is affected not only by the agent’s level of competence or loyalty, but also the principal’s levels competence and loyalty *see generally* Zohar Goshen & Richard Squire, *Principal Costs: A New Theory for Corporate Law & Governance*, 117 COLUM. L. REV. 767 (2017).

²⁴⁹ Gilson, *supra* note 33, at 1077; Ibrahim, *Debt*, *supra* note 141, at 1192; Pollman, *Team Production*, *supra* note 262, at 628.

²⁵⁰ In Goshen & Squire’s model, these costs are referred to as “principal competence costs”; *see generally* Goshen & Squire, *supra* note 248, at 786–88.

²⁵¹ See Gilson, *supra* note 33, at 1086–87; Bartlett, *Venture Capital*, *supra* note 4, at 56 and n.78. Goshen & Squire’s model refers to these costs as “principal conflict costs”; Goshen & Squire, *supra* note 250, at 791–93.

²⁵² See discussion *supra* note 194 and accompanying text.

or more opportunistic they are, the higher the likelihood they will use staged financing in ways that could diminish enterprise value by escalating principal costs. By making abandonment costly for VCs, pay-to-play clauses thus reduce both the risk of VCs misinterpreting entrepreneurs' performance and the likelihood of opportunistic use of staged financing that could compromise enterprise value. The mere presence or absence of a pay-to-play clause does not, itself, indicate the quality and efficiency of the VC's oversight over the startup's managers. The impact on enterprise value depends on the particular characteristics of the investors and managers involved. A pay-to-play clause can derogate from the quality of investor oversight in startups where the entrepreneur-managers exhibit opportunistic or negligent tendencies while the VCs are competent and not disposed to self-dealing. However, the same clause can improve investors oversight where investors are susceptible to misjudging entrepreneurial performance or leveraging abandonment threats to extract private benefits from the startup or other shareholders.

Pay-to-play provisions can, therefore, function as instruments for fine-tuning the balance between agent and principal costs in staged financing arrangements. While adjusting the investment amount serves as the primary mechanism for managing this balance, pay-to-play provisions allow finer adjustments to help entrepreneurs and VCs align on financing structure. Where entrepreneurs push for larger upfront investments to maintain control and investors insist on smaller, distributed investments to enhance monitoring, one potential compromise would be for the investor to provide less capital upfront, subject to a pay-to-play provision that makes future abandonment more painful for the investor and thus less likely to occur.²⁵³

The utility of pay-to-play clauses in fine-tuning staged financing structures helps explain their prevalence in the life sciences sector. Life sciences deals, as repeatedly reported by practitioners, often feature milestone-based financing – a strong indication that life sciences entrepreneurs and investors often struggle to agree on initial investment amounts. This difficulty makes sense given the realities of biotech and pharmaceutical development: clinical trials are very likely to fail and regulatory approvals are uncertain and life sciences startups often require substantial capital before releasing products and generating revenue.²⁵⁴ Entrepreneurs thus typically remain highly dependent on investor capital for years (facing greater risks when accepting smaller upfront investments), while investors, lacking marketing and sales data, have limited visibility into the startup's success potential (facing greater risks when committing to larger upfront investments). Pay-to-play provisions can help resolve this tension,

²⁵³ See Berneman & Wright, *supra* note 174, at 34 (referring to pay-to-play provisions as an instrument for resolving ex ante valuation-related disagreements with incoming investors); and see discussion *supra* notes 218–216.

²⁵⁴ See Ronald J. Gilson, *Locating Innovation: The Endogeneity of Technology, Organizational Structure, and Financial Contracting*, 110 COLUM. L. REV. 885, 910–11 (2010).

allowing entrepreneurs to accept smaller upfront investment amounts by making investor abandonment – either by defaulting on milestone investment obligations or not participating in future rounds – more costly.

C. *Limits and Risks*

Despite their value-enhancing potential, pay-to-play provisions are not always a beneficial addition to startup governing documents. Even at their height during the post-dot-com bubble era, these provisions never became a staple of VC transaction structuring like liquidation preferences, antidilution protections, or contractually secured board representation.²⁵⁵ Pay-to-play provisions have always been better understood as specialized tools for addressing specific challenges within startups' capital and governance structures. When implemented inappropriately or drafted poorly, these provisions can become functionally meaningless, counterproductive, excessively costly to implement, or inefficiently create new opportunities for self-dealing.

Investors and entrepreneurs considering a pay-to-play provision to deter investor free riding presumably weigh the costs against available alternatives. Like many financial contracts, VC investment agreements are inherently incomplete, leaving room for various potential contingencies.²⁵⁶ Rational transacting parties avoid negotiating express contractual solutions when transaction costs exceed the expected benefits of resolving matters through alternative means.²⁵⁷ While the discussion above highlighted the costs and risks of leaving antidilution protection waivers or syndicating follow-on investments to ex-post negotiations,²⁵⁸ ex-ante bargaining over the inclusion or scope of a pay-to-play clause can, too, be costly, intense, and risk the successful closing of viable deals.²⁵⁹ The relative advantages of ex-ante versus ex-post negotiations depend substantially on the specific characteristics of the startup, its investors, and their future performance expectations.

For instance, when a startup is less likely to raise follow-on financing from a financially distressed or time-sensitive position, investors may more effectively negotiate voluntary waivers or syndication structures without compromising the

²⁵⁵ See discussion *supra* part IC. (pay-to-play); note 52 and accompanying text (liquidation preference); notes 67–72 and accompanying text (antidilution protections); and note 233 and accompanying text (board representation).

²⁵⁶ About financial contracting as an example of incomplete contracting problem *see generally* Goshen & Hamdani, *supra* note 196, at 583 and n. 72; Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473, 473 (1992); Elisabeth de Fontenay, *Complete Contracts in Finance*, WIS. L. REV. 533, 540–542 (2020).

²⁵⁷ *See generally* Paul Gompers & Josh Lerner, *The Use of Covenants: An Empirical Analysis of Venture Partnership Agreements*, 39 J.L. & ECON. 463, 469–72 (1996); Ibrahim, *(Not So) Puzzling*, *supra* note 187, at 1433–34.

²⁵⁸ See discussion *supra* notes 217–216, 225–226 and accompanying text.

²⁵⁹ *See* ARONSON, *supra* note 105, at A-16.

round's success. In such scenarios, ex-ante negotiation of a pay-to-play clause becomes less essential.²⁶⁰ This may help explain why, for instance, the use of pay-to-play clauses have been observed to increase during market downturns.²⁶¹

Additionally, the presence of incoming investors with strong reputational constraints that encourage follow-on investments or voluntary waivers can significantly reduce the value of a pre-negotiated pay-to-play clause. VCs are often perceived as repeat players whose business decisions are significantly influenced by long-term reputational considerations, which can mitigate short-term opportunism in any particular investor dispute.²⁶² The more startup stakeholders can trust these reputational considerations to guide investors' decision-making, the more likely investors are to overcome the "chicken" dynamics in friendly ex post negotiations. A pay-to-play provision thus becomes particularly valuable where these reputation mechanisms *cannot* be relied on by startup stakeholders to a high degree. This might happen, for instance, where some syndicate investors have not yet built their market reputation (or where their reputation had been tarnished by opportunist behavior in the past),²⁶³ or when some investors lack incentives to maintain their positive reputation with the other investors involved in a particular syndicate (e.g., they do not expect to collaborate again, or otherwise do not expect to depend on each other's good graces in the future).²⁶⁴

Even where a pay-to-play clause could have otherwise made sense, some investors cannot be effectively bound by its provisions. Obviously, it would not constrain investors or investor syndicates holding the necessary board and shareholder-level majority to modify or remove the pay-to-play clause from the charter.²⁶⁵ Similarly, a pay-to-play clause would be ineffective against investors with the power to veto the startup's subsequent financing – a power often held in fact by investors who led the startup's preceding investment round.²⁶⁶ These

²⁶⁰ Cp. discussion *supra* notes 211–216, 225–226 and accompanying text.

²⁶¹ See discussion *supra* part IC.

²⁶² For discussion of reputational constraints in mitigating opportunistic behavior by VCs see, e.g., Bartlett, *Venture Capital*, *supra* note 4, at 97–98; Elizabeth Pollman, *Team Production Theory and Private Company Boards*, 38 SEATTLE U. L. REV. 619, 645–46 (2015); Terence Woolf, *The Venture Capitalist's Corporate Opportunity Problem*, 2001 COLUM. BUS. L. REV. 473, 491 (2001).

²⁶³ See, Jason M. Gordon & David Orozco, *Trust and Control: The Value Effect of Venture Capital Term Sheet Provisions as Risk Allocation Tools*, 4 MICH. BUS. & ENTREPRENEURIAL L. REV. 195, 227 (2015) (noting that using pay-to-play provisions "demonstrates an absence of trust in the other party's intentions").

²⁶⁴ See, e.g., John R. LeClaire et al, *WatchMark Ruling Clarifies Pay-To-Play*, VENTURE CAPITAL J., Mar 2005 (commenting that pay-to-play provisions had become more popular with VC investors adopting multi-stage investing strategies and becoming less dependent on their relationships with early stage investors for future deal flow).

²⁶⁵ See discussion *supra* notes 147–149 and accompanying text.

²⁶⁶ The NVCA's model protective provisions, for instance, include a veto right over corporate decisions that "create any capital stock unless the same ranks junior to [or pari passu with] the Preferred Stock with respect to its special rights, powers and preferences" or "increase [or decrease] the authorized number of shares of Common Stock, Preferred Stock, or any series

investors, if not participating in the new financing, may choose to block the new round entirely rather than let it close and incur the pay-to-play penalty.²⁶⁷ Alternatively, they could use their hold-up power to pressure the startup's managers or other shareholders into releasing them from the clause²⁶⁸ as a condition for their consent to proceed with the new round. Such negotiations closely resemble the scenarios previously described of attempting to secure voluntary antidilution rights waivers or follow-on investments in the absence of a pay-to-play clause.²⁶⁹ Meaning, where veto-holding investors are concerned, a pay-to-play clause cannot effectively shift negotiations from an ex-post to an ex-ante approach, falling short of its intended purpose.

Lastly, a pay-to-play clause could itself generate misaligned personal interests among managers and shareholders, causing them to support subsequent rounds in ways that diverge from the broader shareholder interest of raising funds when necessary and at the most favorable terms. Committed investors and shareholders not bound by a pay-to-play clause – most notably, entrepreneurs – may initiate or support a follow-on round not for genuine financing purposes, but to strategically reshape the startup's governance or capital structures in their favor. They might, for instance, attempt to raise new financing with the main purpose being forcing the conversion of holdings of investors with known limited capacity to support the startup further, such as angel investors or certain CVCs.²⁷⁰ This scenario is essentially similar to the cheap issuance scenario described above – only that the pay-to-play clause, particularly when applying harsh penalties, makes it easier for committed shareholders to cause excessive dilution of their counterparts' stakes.²⁷¹ Such self-serving financings might be raised when the startup has no authentic need for additional capital, or at less-than-favorable terms. The dataset clauses reflect a variety of drafting solutions that appear to have been used to minimize such risks. These include limiting the applicability of the pay-to-play clause to rounds exceeding a significant size or rounds led by unaffiliated incoming investors,²⁷² both of which are, supposedly, less likely to be raised without a bona fide need for new financing.

IV. THE LAW OF PAY-TO-PLAY

The previous sections of this paper discussed the foundational aspects of pay-to-play provisions, examining how startup stakeholders adjust and tailor

thereof"; see NVCA Model Charter, *supra* note 49, at §§ 3.3.4–3.3.5, and see also FELD & MENDELSON, *supra* note 7, at 81 (describing such protective provisions as “typical”).

²⁶⁷ See also Kaboth, *supra* note 73, at 31–33; and see also discussion of the *WatchMark* case *infra* part IV.B.

²⁶⁸ Kaboth, *supra* note 73, at 31–33.

²⁶⁹ See discussion *supra* notes 211–216, 225–226 and accompanying text.

²⁷⁰ See discussion *supra* notes 189–193 and accompanying text.

²⁷¹ Cp. discussion *supra* notes 58–66 and accompanying text.

²⁷² See discussion *supra* notes 144–146 and accompanying text.

these mechanisms to deter investor free-riding and optimize staged financing structures. However, even a well-designed clause can lose its utility if applicable legal systems impede its implementation or restrict its permissible use cases and firm-specific adaptations. This section, therefore, turns to discuss the Delaware legal framework governing pay-to-play clauses, evaluating whether the existing legal landscape supports or undermines their intended uses.

A. Challenging Pay-to-Play Clauses

Pay-to-play provisions are potentially vulnerable to challenges from two main fronts when adopted by startups incorporated in Delaware. The first relates to the legality of play-to-play clauses under the Delaware General Corporation Law (DGCL), and the second relates to the duties owed by directors when deciding to move forward with a financing that triggers them.

1. Legality

Section 151(a) of the DGCL allows Delaware corporations to create “1 or more classes of stock” which “may have such voting powers [...] and such designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof [...].”²⁷³ Delaware courts have interpreted Section 151(a) to require that charter provisions “provide for rights, powers, preferences, limitations, and qualifications that are identical across a class of stock”.²⁷⁴ From that perspective, pay-to-play provisions could, at first glance, raise enforceability concerns for two reasons. First, they may result in unequal treatment of same-class shareholders during a Qualified Financing, converting some investors’ shares into a junior class based on non-participation, while leaving others’ shares untouched.²⁷⁵ Second, as noted above, these provisions are often structured to apply unevenly within a class – by, for example, conditioning their application on minimum ownership thresholds or granting exemptions to specifically identified shareholders.²⁷⁶

However, Section 151(a) also expressly allows rights associated with a class of stock to be determined not only by provisions in the charter itself, but also by reference to “facts ascertainable” outside the charter – so long as the charter “clearly and expressly” describes how such facts influence the rights.²⁷⁷ Courts have interpreted this language to permit charter provisions that allocate rights

²⁷³ DEL. CODE ANN. tit. 8, § 151(a). The rights applicable to a class of shares may also be defined “in the resolution or resolutions providing for the issue of such stock adopted by the board of directors pursuant to authority expressly vested in it by the provisions of its certificate of incorporation”; *id.*

²⁷⁴ *Bumble*, 305 A.3d 370

²⁷⁵ See discussion *supra* part IB.

²⁷⁶ See discussion *supra* part II.C.1.i.

²⁷⁷ DEL. CODE ANN. tit. 8, § 151(a).

across a class based on a consistent formula, even if the outcome varies between shareholders.²⁷⁸ Notably, Delaware courts have upheld mechanisms that assign per-share voting power differentially within the same class based on the number of shares held by a shareholder²⁷⁹ or the duration of a shareholder's ownership.²⁸⁰ The Delaware Supreme Court, when considering the validity of a differential voting power allocation formula, has articulated a principle in this respect: charter provisions differentiating between same-class *shareholders*, rather than *shares* per se, could be permissible.²⁸¹

This principle – distinguishing potentially-permissible shareholder-based differentiation from impermissible share-based differentiation – could extend to other types of unequal treatment within a share class, beyond differential voting rights.²⁸² In this respect, pay-to-play clauses seem to generally belong in the earlier group; when the clause is applied, the same share would be subject to conversion if held by a non-participating shareholder, but not if held by a participating one.²⁸³ Additionally, a shareholder's decision to participate in a Qualified Financing or avoid doing so seems to plausibly qualify as a “fact ascertainable” that can be incorporated into a formula governing the conversion rights of preferred shares.²⁸⁴ Still, as Delaware courts have provided very little direct guidance on the enforceability of pay-to-play provisions, and no express guidance regarding their standing under Section 151(a),²⁸⁵ the legal boundaries of pay-to-play clause design remain somewhat uncertain. What *is* certain, however, is that the consequences of inadvertently crossing those boundaries could be severe: in Delaware, shares issued without proper authority are deemed null and void.²⁸⁶

²⁷⁸ *Bumble*, 305 A.3d 362–63.

²⁷⁹ *Providence & Worcester Co. v. Baker*, 378 A.2d 121, 122–24 (Del. 1977).

²⁸⁰ *Williams v. Geier*, 13 Del. J. Corp. L. 815, 825, 1987 WL 11285 (Del. Ch. 1987).

²⁸¹ *Providence*, 378 A.2d 123; but see VC Laster in *Bumble*, 305 A.3d 372, expressing doubts about the usefulness and practical significance of that principle.

²⁸² See, e.g., *In re Sea-Land Corp. Shareholders Litigation*, 642 A.2d 792, 799 and n.10 (Del. Ch. 1993) (noting that “in some circumstances Delaware law permits shareholders (as distinguished from shares) to be treated unequally”, while referencing, alongside *Providence*, other cases that did not involve differential voting rights); J. Robert Brown, Jr., *Discrimination, Managerial Discretion and the Corporate Contract*, 26 WAKE FOREST L. REV. 541, 565 (1991) (referring to dividend rights); Micheletto, *supra* note 37, at 125 (referring to poison pills).

²⁸³ *Cp. Providence*, 378 A.2d 123 (“In the hands of smaller stockholders, unrestrained in the exercise of their voting rights, the same stock would have voting power equal to all others in the class.”).

²⁸⁴ See DEL. CODE ANN. tit. 8, § 151(a) (“The term “facts,” as used in this subsection, includes, but is not limited to, the occurrence of any event, including a determination or action by any person or body”)(emphasis added).

²⁸⁵ See discussion *infra* part IVB.

²⁸⁶ See, e.g., *Waggoner v. Laster*, 581 A.2d 1127, 1133 (Del. 1990); *STAAR Surgical Co. v. Waggoner*, 588 A.2d 1130, 1136 (Del. 1991) (“Stock issued without authority of law is void and a nullity”); *Boris v. Schaheen*, 2013 WL 6331287, at *14 (Del. Ch. 2013).

2. Standard of Review

In Delaware, directors' actions are "twice-tested," first for legal authorization, and second [for] equity."²⁸⁷ Even where a pay-to-play is not invalid, directors' power to approve transactions triggering the clause must be exercised subject to the fiduciary duties they owe to the startup's shareholders.

As the sanction imposed by the pay-to-play provision is a forced conversion, the shareholders bound pay-to-play provisions are, almost by definition, preferred shareholders.²⁸⁸ Delaware courts consistently maintain that preferred shareholders are protected by directors' fiduciary duties, but only to the extent their interests align with those of common shareholders.²⁸⁹ The contractual nature of preferred shareholders' special rights means they can enforce these rights through legal claims, based on the provisions of the charter or the shareholder agreement in which they were set, but not through equitable claims rooted in fiduciary duties.²⁹⁰ Consequently, preferred shareholders can only challenge a pay-to-play financing using a fiduciary claim that extends beyond the mere (un)fairness of losing their special rights. For instance, they might question whether the board thoroughly evaluated the share price of the Qualified Financing or adequately explored alternative financing options.

Under Delaware's business judgment rule, corporate directors are famously presumed to act "on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company"; the plaintiff challenging such action bears the initial burden to rebut the presumption.²⁹¹ One way to do so would be to show that the directors voting on the Qualified Financing "expect to derive any personal financial benefit from it in the sense of self-dealing as opposed to a benefit which devolves upon the corporation or all stockholders generally."²⁹² If the plaintiff can do so successfully, the decision may be subject to a much more plaintiff-friendly standard of review – "entire fairness" – where the directors bear the burden of demonstrating that the

²⁸⁷ See *In re Invs. Bancorp., Inc. S'holder Litig.*, 177 A.3d 1208, 1222 (Del. 2017) (quoting *Sample v. Morgan*, 914 A.2d 647, 672 (Del. Ch. 2007); *Bäcker v. Palisades Growth Capital II, L.P.*, 246 A.3d 81, 96 (Del. Supr. 2021).

²⁸⁸ See discussion *supra* part I.B., although variations that can effect common shareholders as well could be imagined (for instance, forcing a reverse stock split or loss of contractual rights and preferences).

²⁸⁹ *Jedwab v. MGM Grand Hotels, Inc.*, 509 A.2d 584, 593–94 (Del. Ch. 1986); *LC Capital Master Fund, Ltd. v. James*, 990 A.2d 435, 448–49 (Del. Ch. 2010); *In re Trados Inc. Shareholder Litigation*, 73 A.3d 17, 40–41 (Del. Ch. 2013).

²⁹⁰ *Jedwab*, 509 A.2d 593–94; *LC Cap.*, 990 A.2d 448–49; *In re Trados*, 73 A.3d 40–41.

²⁹¹ *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. Supr. 1984); *Unitrin, Inc. v. American General Corp.*, 651 A.2d 1361, 1373 (Del. 1995).

²⁹² *Aronson*, 473 A.2d 812; *In re Budget Rent A Car Corp. Shareholders Litigation*, 17 Del. J. Corp. L. 220, 225, 1991 WL 36472, at *3 (Del. Ch. 1991); and *see also* *Fried*, *supra* note 66, at 3.

Qualified Financing reflected both fair dealing and fair price.²⁹³

Startup boards, as discussed above, are mostly comprised of representatives of the startup's entrepreneurs or major investors, appointed pursuant to special, contractually secured rights.²⁹⁴ All of these directors' appointors would be affected by the pay-to-play clause being triggered; they would either have their economic or control rights diluted as a penalty or enjoy a respective increase in their own economic or control rights due to other shareholders being so penalized.²⁹⁵ Therefore, if a Delaware court accepts a plaintiff's assertion that these effects made the startup's entrepreneur or investor-appointed directors "expect to derive any personal financial benefit" rather than "a benefit which devolves upon the corporation or all stockholders generally", the business judgment rule presumption would be successfully rebutted.²⁹⁶

B. *The WatchMark Analysis*

Pay-to-play provisions have very seldom been considered by Delaware's Court of Chancery, with the most notable example being Chancellor Chandler's concise 2004 opinion in *WatchMark v. ARGO*.²⁹⁷ WatchMark, a VC-backed startup, sought to raise its Series F financing round to help finance its merger with Metrica.²⁹⁸ The Series F would have triggered a pay-to-play clause.²⁹⁹ WatchMark's pay-to-play clause applied to all of its preferred shareholders³⁰⁰ and provided for a relative portion conversion of non-participating investors' preferred stock into common stock "at the designated conversion ratio" (meaning, probably, not a punitive one).³⁰¹

Several of WatchMark's existing investors indicated that they will not participate in the Series F.³⁰² One of these investors – ARGO – inconveniently also held a veto right that could be used to block the deal.³⁰³ To overcome

²⁹³ *Weinberger v. UOP, Inc.*, 457 A.2d 701, 710–14 (Del. 1983). A required combination of "cleansing" mechanisms – an approval of an independent special committee or the disinterested shareholders – may be used ex ante to have the transaction nevertheless reviewed under the business judgment rule; see Fried, *supra* note 66, at 3 and n.11.

²⁹⁴ See discussion *supra* notes 231–241 and accompanying text.

²⁹⁵ See discussion *supra* notes 75–77 and accompanying text.

²⁹⁶ About the likelihood of pay-to-play clauses to survive entire fairness scrutiny see discussion *infra* notes 327–328 and accompanying text.

²⁹⁷ *Watchmark*, 2004 WL 2694894; as another example of a Delaware case involving a pay-to-play deal see *Benchmark Cap. Partners IV, L.P. v. Vague*, No. CIV.A. 19719, 2002 WL 1732423 (Del. Ch. July 15, 2002), *aff'd sub nom.* *Benchmark Cap. Partners IV, L.P. v. Juniper Fin. Corp.*, 822 A.2d 396 (Del. 2003).

²⁹⁸ *Watchmark*, 2004 WL 2694894 at 1.

²⁹⁹ *Id.* at 1 and n. 7.

³⁰⁰ *Id.*

³⁰¹ *Id.*; for discussion of the different variations of pay-to-play clauses see *supra* part II.

³⁰² *Id.* at 1.

³⁰³ *Id.* at 1 and n. 8.

ARGO's veto right WatchMark decided to merge with WAC, its wholly-owned subsidiary, and adopt thereby a new charter, nearly identical to its present one but effectively neutralizing ARGO's veto right.³⁰⁴ WatchMark brought an action seeking a declaratory judgment that would essentially validate its ability to consummate the WAC merger and the Series F.³⁰⁵ ARGO counterclaimed that the WAC merger and Series F violate WatchMark's charter and that WatchMark's directors breached their fiduciary duties by approving them.³⁰⁶

Importantly for the discussion here, the Court of Chancery concluded that WatchMark's directors did not breach any of their fiduciary duties by approving the Series F.³⁰⁷ WatchMark's board comprised six members, five of which were appointed by its VC investors.³⁰⁸ Refusing to examine the directors' actions under entire fairness, the court determined that –

“For this Court to accept ARGO's position, ARGO must show that the other investors, through the acts of their director-representatives, obtain a benefit from the WAC merger and the Series F financing to the exclusion or to the detriment of ARGO [...] all preferred stockholders have an equal opportunity to participate [in the Series F issuance]. Only if a preferred stockholder chooses, of its own volition, not to participate in the new Series F issuance will its shares be converted to common. Any disparate treatment between the preferred stockholders is therefore a self-imposed consequence and not the result of any self-dealing.”³⁰⁹

Therefore, based on the undisputed facts,³¹⁰ the court concluded that “the WAC merger and Series F financing are rational business decisions, approved by an informed board and on a good faith basis.”³¹¹

In what appears to have contributed to the opinion's bottom line, the court took notice that ARGO, seemingly, *could have* participated in the Series F – not only in the technical sense of being allowed to do so but also substantively:

“WatchMark has alleged that ARGO's principal motivation behind their threatened block was that

³⁰⁴ *Id.* at 1.

³⁰⁵ *Id.*

³⁰⁶ *Id.*

³⁰⁷ *Id.*

³⁰⁸ *Id.* at 5.

³⁰⁹ *Id.*

³¹⁰ *Id.*

³¹¹ *Id.*

ARGO was willing to participate in the Series F financing if WatchMark was willing to sweeten the deal. Such claims weaken ARGO's position that the proposed Series F and the accompanying pay-to-play provisions are discriminatory [...]"³¹²

WatchMark's bottom line in the context of pay-to-play provisions, therefore, seems to be this – a pay-to-play clause that applies equally across the same class, in circumstances where all shareholders bound by the clause had the opportunity and the ability to participate in the Qualified Financing, does not provide for disparate treatment and will not trigger entire fairness review solely for the fact that a the Qualified Financing was approved by a critical mass of investor-appointed directors who could benefit from the forced conversion.

C. Beyond *WatchMark*

1. Open Questions

WatchMark has been widely recognized by practitioners for clarifying uncertainties surrounding pay-to-play clauses and their standing in Delaware courts.³¹³ Beyond the pay-to-play context, *WatchMark* arguably suggests that Delaware courts would view rights offers – equity issuances where existing investors can participate pro rata – as non-discriminatory and subject to the business judgment rule, even if initiated by a controlling shareholder.³¹⁴ However, *WatchMark's* value as precedent for drafters is limited by the fact that its pay-to-play clause presented a straightforward and simple test case. *WatchMark's* pay-to-play clause treated investors equally in both technical and practical terms: it applied uniformly to all preferred shareholders, and ARGO seems to have had the financial means to participate in the Series F and avoid penalties if desired.³¹⁵ There was also no apparent information asymmetry between the opposing parties – ARGO, too, was represented on *WatchMark's* board.³¹⁶ The clause was also on the investor-friendly side of the spectrum in other respects – providing for a relative portion conversion rather than a

³¹² *Id.* at n.7.

³¹³ See, e.g., Dimitry Herman, *Delaware Decision Endorses "Pay-to-Play" Technique and Offers "Down-Round" Protection to Insider Investors*, FURTHÜR ASSURANCES (Apr. 10, 2006) <https://bit.ly/4gQWaV1> ("WatchMark endorses the use of pay-to-play provisions [...]"); LeClaire et al, *supra* note 264 (noting that the *WatchMark* court "has provided a roadmap on how to execute pay-to-play successfully").

³¹⁴ See Fried, *supra* note 66, at 4–6; Leeor Ofer, *Control Expropriation Via Rights Offers*, 60 AM. BUS. L.J. 651, 664–65 (2023).

³¹⁵ See discussion *supra* note 312 and accompanying text.

³¹⁶ See also Fried, *supra* note 66, at 5–6.

complete conversion and, apparently, also for a non-punitive conversion ratio.³¹⁷ Given the court's fact-specific analysis, uncertainty remains about how courts might evaluate pay-to-play provisions in future, more complex cases.

It is particularly uncertain how Delaware courts would respond to a pay-to-play clause where syndicating investors have markedly different financial capabilities to participate in follow-on rounds – for instance, angel investors in VC-led syndicates.³¹⁸ Several post-*WatchMark* Delaware cases – though none specifically addressing pay-to-play provisions – suggest that Delaware courts might view non-controlling shareholders' financial inability to participate in follow-on financing as an objective rather than “self-imposed” impediment to participation, thus challenging the equality of the offering.³¹⁹ In an oral argument in *Perry v. Sheth*,³²⁰ Vice Chancellor Laster noted that “a fiduciary doesn't get to exploit its beneficiaries simply because its beneficiaries are [...] less well capitalized [...]”,³²¹ and highlighted how a pro-rata rights offering priced at a dilutive value while “knowing that the dynamics are such that the minority will not participate or will not fully participate”³²² could enable a large stakeholder “to appropriate value in the form of what is otherwise seemingly equal treatment”.³²³ Similarly, in a telephonic ruling in *Strategic Value Opportunities v. Permian*, Chancellor Bouchard rejected a defendant's assertion that a pro-rata note offering was not a related party transaction.³²⁴ The Chancellor observed that the offering “presented potential barriers to participation such that the benefits were not necessarily available to all stockholders as a practical matter”³²⁵ where it was “reasonably inferable that some stockholders may not have had sufficient capital available to purchase the note, particularly given the tight time frame under which the note offering was structured”.³²⁶

Additionally, as *WatchMark*'s clause was evaluated under the deferential business judgment rule, the case offers no clear guidance on how drafters can structure pay-to-play clauses to withstand entire fairness review if applied. While practitioners and scholars often recommend that startups emphasize good “fair dealing” practices when negotiating a pay-to-play round,³²⁷ assessing the

³¹⁷ See discussion *supra* notes 300–301 and accompanying text.

³¹⁸ See discussion *supra* note 193 and accompanying text.

³¹⁹ See also Nate Emeritz et al, *Recent Delaware Cases on Managing Conflicts: Stockholder-Level Measures*, THE CLS BLUE SKY BLOG (Sep. 8, 2020) <https://bit.ly/4fUoVPE>.

³²⁰ *Perry*, 2020-0024-JTL.

³²¹ *Id.* at 53.

³²² *Id.* at 53–54.

³²³ *Id.*

³²⁴ *Strategic Value*, 2018-0932-AGB at 11.

³²⁵ *Id.* at 12.

³²⁶ *Id.*

³²⁷ See, e.g., Jennifer S. Fan, *The Landscape of Startup Corporate Governance in the Founder-Friendly Era*, 18 N.Y.U. J.L. & BUS. 317, 378–79 (2022) (recommending that startups “ensure that they are following corporate governance practices, such as giving adequate notice for board meetings”); LeClaire et al, *supra* note 264 (recommending that startups have “all the preferred

potential of certain aspects of the pay-to-play clause to serve as an indication of fair dealing or fair price can be difficult. For instance, if angel investors' inability to participate in a follow-on round renders VC-appointed directors self-interested, to what extent would the clause's uniform application to all preferred shareholders factor into determining whether the triggering financing round was entirely fair?³²⁸ Or, how significant would the impact of typical pay-to-play variations be – e.g., punitive conversion ratios or complete conversion – when courts assess the clause's overall fairness?

Relatedly, *WatchMark* tells little about how Delaware courts might perceive the underlying rationales behind pay-to-play clauses. Being a business judgment rule case, *WatchMark* is only indicative that a board's decision to raise a round that triggers a pay-to-play clause is not *irrational* per se to Delaware courts.³²⁹ A business judgment rule review does not allow the court room to consider whether pay-to-play provisions can, as this paper argues, serve a legitimate, enterprise value-increasing business purpose – e.g., creating value by facilitating efficient investor syndication³³⁰ and bridging information asymmetries between entrepreneurs and investors.³³¹ Applying an entire fairness review, a court that acknowledges the enterprise-value-maximizing potential of pay-to-play clauses should – all other things being equal – be more receptive to claims that its triggering reflected a fair price, compared to a skeptic court that views them primarily as a distributive instrument, designed to transfer wealth from committed investors with high bargaining power to non-committed investors with less bargaining power.³³²

2. The Costs of Uncertainty

The lingering uncertainty surrounding pay-to-play clauses likely impacts their attractiveness and utility for startups. Notably, *WatchMark* did not explicitly address the legality of pay-to-play provisions under Section 151(a). In this respect, it should be noted that even when a startup's management, shareholders, and incoming investors are reasonably confident that the pay-to-play provision will withstand court scrutiny, or never be challenged,³³³ startups' financing rounds typically require the startup's legal counsel to provide a legal

stockholders participate in negotiating the terms of the pay-to-play financing").

³²⁸ For a similar discussion in the broader context of rights offerings see Fried, *supra* note 66, at 14–16; Ofer, *supra* note 314, at 665 and n.69.

³²⁹ See *supra* note 311 and accompanying text.

³³⁰ See *supra* part IIIA.

³³¹ See *supra* part IIIA.

³³² See discussion *supra* notes 173–176.

³³³ The startup ecosystem is typically perceived as having a prominent non-litigatory culture; see generally See Fried & Ganor, *supra* note 232, at 1001 (on entrepreneurs' low likelihood of suing VCs); Brian J. Broughman & Matthew Wansley, *Risk-Seeking Governance*, 76 VAND. L. REV. 1357 (2023) (on VCs' low likelihood of suing entrepreneurs).

opinion validating matters such as the proper issuance of common stock from preferred stock conversion.³³⁴ Given the uncertainty around pay-to-play, particularly with aggressive or non-traditional variations, startup attorneys may need to qualify their opinions (and likely negotiate these qualifications with investors' counsel) or possibly decline to provide them entirely – creating otherwise-avoidable friction and increased transaction costs.³³⁵

The prospect of challenging pay-to-play clauses in court, even where not questioning the clause's fundamental legality, can diminish their appeal. As discussed above, one of the main features making pay-to-play clauses efficient is their ability to prevent ex-post negotiation of voluntary antidilution waivers in situations where such negotiations would likely be ineffective.³³⁶ The more readily investors can circumvent these clauses – say, through fiduciary challenges – the less effective they become in shifting waiver negotiations to the ex-ante stage, and consequently, the less incentive drafters have to invest resources in negotiating the clauses upfront.

One likely practical consequence of the uncertainty surrounding pay-to-play clauses is that startup charter drafters would adopt a conservative approach, being more reluctant to deviate from established industry practices. A footnote to the NVCA model pay-to-play clause, for instance, explicitly cautions drafters that it “has been carefully drafted to help ensure enforceability” and that “extra caution should be taken where modifications are made”.³³⁷ Consequently, the threat of ex-post legal challenges may discourage drafters from adopting creative, tailor-made solutions that might otherwise prove efficient.

However, interestingly – and perhaps counterintuitively – pay-to-play clause drafters, as evidenced by the dataset,³³⁸ do not appear to prioritize strict adherence to the exact specifications of the clause upheld in *WatchMark* nor otherwise attempt to avoid disparate treatment among same-class shareholders that might, arguably, also make them more vulnerable to Section 151(a) challenges. Notably, although the *WatchMark* clause's equal application to all shareholders was key to the court's decision to apply the business judgment rule³³⁹ – nearly half of the open-ended dataset clauses applied only to major investors or right of first offer holders, with others excluding certain investors

³³⁴ For a sample form see *Model Legal Opinion*, NVCA, <https://bit.ly/3Lf7gET>.

³³⁵ For instance, the Opinions Committee of the State Bar of California has recommended its members to consider incorporating such qualifications when providing such legal opinions to startups incorporated in California; see The Opinions Committee, Business Law Section of the State Bar of California, *Report on Selected Legal Opinion Issues in Venture Capital Financing Transactions*, 64 BUS. LAW. 161, 185–87 (2009) [hereinafter: California Bar Report].

³³⁶ See discussion *supra* notes 210–216; 225–226 and accompanying text.

³³⁷ NVCA Model Charter, *supra* note 49, at § 5A and n.63.

³³⁸ While the dataset does not offer clear indications of the adoption year of the pay-to-play clauses themselves, over 93 percent of the dataset charters were adopted later than 2004; see *supra* part II.B.

³³⁹ See discussion *supra* notes 309–312 and accompanying text.

or investor types.³⁴⁰

Several plausible explanations can be given for this behavior. First, as far as the risk for fiduciary challenges is concerned, drafters may believe that their non-*WatchMark* modifications still align with *WatchMark*'s underlying rationale. For instance, “major investors” or rights of first offer-based exclusions from pay-to-play clauses exclude, effectively, the startup’s smaller investors.³⁴¹ As startup directors are typically appointed by its more significant investors,³⁴² such exclusions are unlikely to place board members on unequal footing when voting on a pay-to-play round. Pay-to-play exclusions often also apply to investors who are, possibly, more inclined to sue if harmed by a forced conversion – whether because they are natural persons investing their personal wealth³⁴³ or corporate shareholders who are not bound by the same reputational constraints that dictate Silicon Valley’s non-litigious culture.³⁴⁴

Second, as far as Section 151(a) issues are concerned, the variation in pay-to-play clause design might be the result of survival bias. It might be that drafters who use pay-to-play clauses are those who are relatively confident about their enforceability under Section 151(a) even when applying differently across the same class of shares.³⁴⁵ Drafters who are more worried about their enforceability, on the other hand, may opt for to minimize risk not by applying the clause equally across shareholders, but by using other mechanisms – namely, “pull-up” or “pull-through” arrangements anchored in a contract – rather than a classic, charter-based pay-to-play clause.³⁴⁶

Thus, another cost of the legal uncertainty surrounding pay-to-play mechanisms is pushing startups toward more significant reliance on “stealth governance,” making it more difficult and costly for the startup’s shareholders without access to such information to appreciate the arrays of incentives that operate on the startup’s shareholders and managers and calculate their moves accordingly.³⁴⁷ While charter-based pay-to-play provisions allow all stakeholders – insiders and outsiders alike – decent visibility into the pay-to-play clause’s role in the startup’s capital and governance structure, the startup’s shareholder agreement or stock purchase agreements are not necessarily accessible to startup

³⁴⁰ See discussion *supra* notes 136–141 and accompanying text.

³⁴¹ See discussion *supra* notes 132–134 and accompanying text.

³⁴² The NVCA model Voting Agreement, for instance, provides that the Preferred Shareholders right to appoint a director is subject to maintaining a minimal holdings threshold; see, *Voting Agreement* NVCA (Oct. 2024) <https://bit.ly/3Lf7gET>, at §1.2(a).

³⁴³ See discussion *supra* notes 137 and accompanying text.

³⁴⁴ See discussion *supra* notes 138–139 and accompanying text.

³⁴⁵ See discussion *supra* notes 282–286 and accompanying text.

³⁴⁶ See Simmerman et al, *supra* note 45 (“If the certificate is amended, conversations frequently arise over whether the disparate treatment of participating versus non-participating stockholders should be imposed directly in the charter or outside of the charter”); California Bar Report, *supra* note 335, at 185–187 (referring to a similar advantage of contractual over charter-based pay-to-play clauses under California law).

³⁴⁷ See Fisch, *supra* note 46, at 945–953.

stakeholders that are not direct party to them. The current legal uncertainty likely creates a penumbra of borderline cases where pay-to-play provisions could theoretically be included in the charter without violating Delaware law, but are instead relocated to shareholder agreements as a precaution. Greater legal clarity around the permissible scope of charter-based pay-to-play provisions could reduce an unnecessary reliance on contractual solutions.

V. CONCLUSION

Pay-to-play provisions can serve as tools for increasing enterprise value by optimizing startups' governance and capital structures. This paper offered an empirical examination of how these provisions are structured in practice, revealing non-trivial variations in their design across dimensions like investor coverage, triggering events, and penalty mechanisms. Building on this framework, the discussion challenged conventional assumptions about their role in startup governance, showing how they create enterprise value by supporting efficient investor syndication across various financing scenarios and helping startups optimize the tradeoff between agency and principal costs in staged financing structures. Finally, an examination of the legal framework governing pay-to-play under Delaware law highlighted the questions left open after *WatchMark* and how the remaining uncertainty validity and vulnerability to heightened judicial scrutiny affect drafting practices – notably, increased use of alternative mechanisms outside the charter when legal risks appear high.

Future work could build on this analysis in several directions and expand the academic study of pay-to-play provisions – which, as discussed above, remains surprisingly sparse. Doctrinal studies could focus on how Delaware courts should treat different variations of pay-to-play clauses, as explored in this paper's empirical study, in terms of both validity challenges and standard of review. Economic analysis could explore how the governance functions of these provisions explored above – from deterring free-riding to optimizing staged financing – might vary in importance and effectiveness across different stages of startup development, from early-stage to mature, pre-IPO ventures. On the empirical front, a deeper investigation of pull-up and pull-through arrangements could reveal to what extent these mechanisms truly complement or substitute for traditional pay-to-play provisions, as suggested here.

* * *

APPENDIX

Dataset Charters

Firm	Doc. Year	Doc. Title
89bio, Inc.	2019	Amended and Restated Certificate of Incorporation
Accelaron Pharma Inc.	2011	Amended and Restated Certificate of Incorporation
Acelyrin, Inc.	2022	Amended and Restated Certificate of Incorporation
Achaogen, Inc.	2014	Certificate of Incorporation
Acumen Pharmaceuticals, Inc.	2020	Amended and Restated Certificate of Incorporation
Aerie Pharmaceuticals, Inc.	2012	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation
Aerovate Therapeutics Inc.	2021	Amended and Restated Certificate of Incorporation
Aileron Therapeutics, Inc.	2016	Tenth Amended and Restated Certificate of Incorporation
AlgoRx Pharmaceuticals, Inc.	2004	Third Amended and Restated Certificate of Incorporation
Alimera Sciences, Inc.	2010	Restated Certificate of Incorporation
Allena Pharmaceuticals, Inc.	2014	Restated Certificate of Incorporation
Anylam Holding Co.	2003	Certificate of Amendment of Certificate of Incorporation
Alumis Inc.	2024	Amended and Restated Certificate of Incorporation
Ambit Biosciences Corporation	2012	Amended and Restated Certificate of Incorporation
Anebulo Pharmaceuticals, Inc.	2020	Amended and Restated Certificate of Incorporation
Annexon, Inc.	2018	Fifth Amended and Restated Certificate of Incorporation
Anterios, Inc.	2013	Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation
Apellis Pharmaceuticals, Inc.	2017	Seventh Amended and Restated Certificate of Incorporation
Applied Genetic Technologies Corporation	2012	Fourth Amended and Restated Certificate of Incorporation
Archemix Corp.	2007	Amended and Restated Certificate of Incorporation
Ardelyx, Inc.	2014	Amended and Restated Certificate of Incorporation
Asante Solutions, Inc.	2015	Amended and Restated Certificate of Incorporation
Atea Pharmaceuticals, Inc.	2020	Amended and Restated Certificate of Incorporation
Auspex Pharmaceuticals, Inc.	2013	Amended and Restated Certificate of Incorporation
Avalon Pharmaceuticals, Inc.	2005	Amended and Restated Certificate of Incorporation
BigBand Networks, Inc.	2007	Fifth Amended and Restated Certificate of Incorporation
BIND Biosciences, Inc.	2013	Amended and Restated Certificate of Incorporation
Biodesix, Inc.	2018	Fifteenth Amended and Restated Certificate of Incorporation
Blue Acquisition Corp.	2007	Amended and Restated Certificate of Incorporation
Bolt Biotherapeutics	2021	Amended and Restated Certificate of Incorporation
Cadence Pharmaceuticals, Inc.	2006	Restated Certificate of Incorporation
Carbylan Biosurgery, Inc.	2012	Amended and Restated Certificate of Incorporation
CardioDx, Inc.	2013	Amended and Restated Certificate of Incorporation
Cardlytics, Inc.	2018	Amended and Restated Certificate of Incorporation
Cargo Therapeutics, Inc.	2023	Second Amended and Restated Certificate of Incorporation
Castlight Health, Inc.	2012	Amended and Restated Certificate of Incorporation
Celladon Corporation	2013	Amended and Restated Certificate of Incorporation
Cerecor Inc.	2014	Amended and Restated Certificate of Incorporation
Cerulean Pharma Inc.	2014	Certificate of Amendment of Certificate of Incorporation
ChannelAdvisor Corporation	2012	Amended and Restated Certificate of Incorporation
Cirius Therapeutics, Inc.	2018	Amended and Restated Certificate of Incorporation
CoLucid Pharmaceuticals, Inc.	2015	Fourth Amended and Restated Certificate of Incorporation
Compellent Technologies, Inc.	2007	Amended and Restated Certificate of Incorporation
Complete Genomics, Inc.	2010	Sixth Restated Certificate of Incorporation
CryoCor, Inc.	2003	Amended and Restated Certificate of Incorporation
Cyteir Therapeutics, Inc.	2021	Fifth Amended and Restated Certificate of Incorporation
Data Domain, Inc.	2005	Restated Certificate of Incorporation
Decibel Therapeutics, Inc.	2020	Fourth Amended and Restated Certificate of Incorporation
Decipher Biosciences, Inc.	2019	Amended and Restated Certificate of Incorporation
Denali Therapeutics Inc.	2017	Amended and Restated Certificate of Incorporation
Dermira, Inc.	2014	Restated Certificate of Incorporation
Dimension Therapeutics, Inc.	2015	Third Amended and Restated Certificate of Incorporation
Durata Therapeutics, Inc.	2010	Third Amended and Restated Certificate of Incorporation

Dyne Therapeutics, Inc.	2018	Amended and Restated Certificate of Incorporation
E2open, Inc.	2010	Seventh Amended and Restated Certificate of Incorporation
Eidos Therapeutics, Inc.	2018	Amended and Restated Certificate of Incorporation
Enanta Pharmaceuticals, Inc.	2013	Sixth Amended and Restated Certificate of Incorporation
Eyenovia, Inc.	2017	Second Amended and Restated Certificate of Incorporation
Fate Therapeutics, Inc.	2013	Amended and Restated Certificate of Incorporation
Flex Pharma, Inc.	2014	Amended and Restated Certificate of Incorporation
G1 Therapeutics, Inc.	2015	Fourth Amended and Restated Certificate of Incorporation
Gengine, Inc.	2013	Restated Certificate of Incorporation
Genocea Biosciences, Inc.	2012	Fourth Amended and Restated Certificate of Incorporation
Glu Mobile Inc.	2007	Second Restated Certificate of Incorporation
Google Inc.	2004	Second Amended and Restated Certificate of Incorporation
Harpoon Therapeutics, Inc.	2017	Amended and Restated Certificate of Incorporation
HDL Therapeutics, Inc.	2008	Amended and Restated Certificate of Incorporation
Helicos Biosciences Corporation	2007	Third Amended and Restated Certificate of Incorporation
Homology Medicines, Inc.	2015	Amended and Restated Certificate of Incorporation
Horizon Pharma, Inc.	2010	Amended and Restated Certificate of Incorporation
Hyperion Therapeutics, Inc.	2012	Amended and Restated Certificate of Incorporation
Immuneering Corporation	2020	Fourth Amended and Restated Certificate of Incorporation
Infinera Corporation	2006	Amended and Restated Certificate of Incorporation
Inhibitex, Inc.	2003	Seventh Amended and Restated Certificate of Incorporation
Innovative Micro Technology, Inc.	2005	Certificate of Designation of Series A Redeemable Preferred Stock and Series A-1 Convertible Preferred Stock
Inotek Pharmaceuticals Corporation	2013	Fifth Amended and Restated Certificate of Incorporation
Inozyme Pharma, Inc.	2018	Second Amended and Restated Certificate of Incorporation
Intarcia Therapeutics, Inc.	2005	Amended and Restated Certificate of Incorporation
Kala Pharmaceuticals, Inc.	2016	Amended and Restated Certificate of Incorporation
Karyopharm Therapeutics Inc.	2013	Fifth Amended and Restated Certificate of Incorporation
Layer3 TV, Inc.	2014	Restated Certificate of Incorporation
LogicBio Therapeutics, Inc.	2018	Amended and Restated Certificate of Incorporation
LogMeIn, Inc.	2007	Fifth Amended and Restated Certificate of Incorporation
Mascoma Corporation	2010	Seventh Amended and Restated Certificate of Incorporation
Mavenir Systems, Inc.	2011	Amended and Restated Certificate of Incorporation
MBX Biosciences, Inc.	2022	Second Amended and Restated Certificate of Incorporation
Mersana Therapeutics, Inc.	2016	Fourth Amended and Restated Certificate of Incorporation
Mevion Medical Systems, Inc.	2013	Certificate of Amendment of Sixth Amended and Restated Certificate of Incorporation
Minerva Surgical, Inc.	2018	Certificate of Amendment to Amended and Restated Certificate of Incorporation
Mirum Pharmaceuticals, Inc.	2018	Amended and Restated Certificate of Incorporation
Momenta Pharmaceuticals, Inc.	2004	Second Amended and Restated Certificate of Incorporation
Mtone Wireless Corporation	2004	Amended and Restated Certificate of Incorporation
Neophotonics Corporation	2010	Amended and Restated Certificate of Incorporation
NeuroPace, Inc.	2021	Amended and Restated Certificate of Incorporation
Newisys, Inc.	2002	Sixth Amended and Restated Certificate of Incorporation
NGM Biopharmaceuticals, Inc.	2015	Amended and Restated Certificate of Incorporation
Nkarta, Inc.	2019	Amended and Restated Certificate of Incorporation
NxStage Medical, Inc.	2005	Seventh Amended and Restated Certificate of Incorporation
Oncorus, Inc.	2019	Fifth Amended and Restated Certificate of Incorporation
Ophthotech Corporation	2013	Fourth Amended and Restated Certificate of Incorporation
Optium Corporation	2006	Sixth Amended and Restated Certificate of Incorporation
PhaseBio Pharmaceuticals, Inc.	2015	Fifth Amended and Restated Certificate of Incorporation
Prometheus Biosciences, Inc.	2020	Amended and Restated Certificate of Incorporation
Protagonist Therapeutics, Inc.	2015	Third Amended and Restated Certificate of Incorporation
Proteon Therapeutics, Inc.	2014	Fifth Amended and Restated Certificate of Incorporation
Ra Pharmaceuticals, Inc.	2015	Second Amended and Restated Certificate of Incorporation
Rapport Therapeutics, Inc.	2023	Second Amended and Restated Certificate of Incorporation
Reneo Pharmaceuticals, Inc.	2021	Amended and Restated Certificate of Incorporation
Responsys, Inc.	2011	Restated Certificate of Incorporation
Restore Medical, Inc.	2005	Amended and Restated Certificate of Incorporation
Roka Bioscience, Inc.	2013	Sixth Amended and Restated Certificate of Incorporation

Sana Biotechnology, Inc.	2019	Amended and Restated Certificate of Incorporation
Senti Biosciences, Inc.	2020	Certificate of Incorporation
Septerna, Inc.	2023	Amended and Restated Certificate of Incorporation
Sirtris Pharmaceuticals, Inc.	2007	Amended and Restated Certificate of Incorporation
Somaxon Pharmaceuticals, Inc.	2005	Restated Certificate of Incorporation
Spruce Biosciences, Inc.	2020	Amended and Restated Certificate of Incorporation
Starent Networks, Corp.	2005	Certificate of Amendment of Certificate of Incorporation
Structural GenomiX, Inc.	2005	Amended and Restated Certificate of Incorporation
Sunesis Pharmaceuticals, Inc.	2009	Certificate of Designation of the Series A Preferred Stock
Surface Oncology, Inc.	2016	Third Amended and Restated Certificate of Incorporation
Syndax Pharmaceuticals, Inc.	2016	Fourteenth Amended and Restated Certificate of Incorporation
Synthorx, Inc.	2018	Amended and Restated Certificate of Incorporation
Tectonic Therapeutic, Inc.	2021	Amended and Restated Certificate of Incorporation
Tengion, Inc.	2004	Amended and Restated Certificate of Incorporation
Tetralogic Pharmaceuticals Corporation	2011	Fourth Amended and Restated Certificate of Incorporation
Tetraphase Pharmaceuticals, Inc.	2010	Amended and Restated Certificate of Incorporation
Tokai Pharmaceuticals, Inc.	2013	Seventh Amended and Restated Certificate of Incorporation
Traffic.com, Inc.	2005	Fourth Amended and Restated Certificate of Incorporation
Transoma Medical, Inc.	2007	Second Amended and Restated Certificate of Incorporation
Trevena, Inc.	2013	Third Amended and Restated Certificate of Incorporation
Trevi Therapeutics, Inc.	2018	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation
Upstream Bio, Inc.	2023	Second Amended and Restated Certificate of Incorporation
Valeritas, Inc.	2014	Fifth Amended and Restated Certificate of Incorporation
Vanda Pharmaceuticals Inc.	2004	Second Amended and Restated Certificate of Incorporation
Vapotherm, Inc.	2018	Ninth Amended and Restated Certificate of Incorporation
Verastem, Inc.	2011	Amended and Restated Certificate of Incorporation
Veraz Networks, Inc.	2006	Amended and Restated Certificate of Incorporation
Versartis, Inc.	2013	Amended and Restated Certificate of Incorporation
Viola Bio, Inc.	2019	Second Amended and Restated Certificate of Incorporation
Vir Biotechnology, Inc.	2019	Amended and Restated Certificate of Incorporation
Vor Biopharma, Inc.	2020	Amended and Restated Certificate of Incorporation
Xencor, Inc.	2013	Sixth Amended and Restated Certificate of Incorporation
Zafgen, Inc.	2013	Seventh Amended and Restated Certificate of Incorporation
Zogenix, Inc.	2009	Fourth Amended and Restated Certificate of Incorporation

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