Footloose with Green Shoes: Can Underwriters Profit from IPO Underpricing?

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Why are green shoe options used in initial public offerings (IPOs)? And why do underwriters usually short sell an issuer's stock in connection with its IPO? Are underwriters permitted to profit from these trading positions?

Scholars have long argued that underwriters use green shoe options together with short sales to facilitate price stabilizing activities, and that U.S. securities laws prohibit underwriters from using green shoe options to profit from IPO underpricing. This Article finds the conventional wisdom lacking. I find that underwriters may permissibly profit from IPO underpricing by pairing purchases under a green shoe option with offshore short sales. I also find that underwriters may permissibly profit from IPO overpricing by short selling the issuer's stock in the initial distribution.

The possession of a green shoe option and the ability to short sell IPOs effectively makes underwriters long a straddle at the IPO price. This position creates troubling incentivizes for underwriters to underprice or overprice IPOs, but not to price them accurately.

This new principal trading theory for green shoe options and underwriter short sales provides novel explanations for systematic IPO mispricing, the explosive initial return variability during the internet bubble, and the observation of "laddering" in severely underpriced IPOs.

This Article concludes by charting a new path for the regulatory scheme that applies to principal trading by underwriters in connection with securities offerings. Consistent with the purpose of preserving the integrity of securities markets, regulators should address the incentives of underwriters directly by prohibiting underwriters of an offering from enriching themselves through trading in the issuer's securities.

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Introduction

In connection with initial public offerings (IPOs), underwriters routinely short sell the issuer's stock.[1] Underwriters also typically receive a very large call option on the issuer's stock, called a green shoe option.[2]

The conventional wisdom holds that these trading positions facilitate price-stabilization activities by underwriters.[3] Underwriter price-stabilization activities are at least as old as the Securities Exchange Act of 1934, and their perceived social value justifies an extraordinary exception to the general prohibition against manipulating securities prices.[4]

As securities offerings have matured into the present, together with the ubiquitous use of these green shoe options and short sales by underwriters, the foundational justifications for the privileges afforded to underwriter price-stabilization activities have unraveled. Indeed, there are good reasons to doubt whether underwriter price-stabilization activities are effective—or even seriously attempted—in modern IPOs.

In this Article, I update thinking on green shoe options, underwriter short sales, and other features of securities distributions by asking a set of neglected questions: Are the investment bank underwriters of initial public offerings permitted to profiteer from IPO mispricing by trading in the issuer's securities for their principal accounts? If so, does this affect

1. *See infra* Section I.B.
2. *See infra* Section I.A.
3. *See infra* Section I.C.2.
4. *See infra* notes 50 and 127 and accompanying text.

underwriter incentives when building a book of demand and negotiating the initial offering price with the issuer?

The primary contributions of this Article are threefold. First, the Article sets forth a new principal trading theory explanation for green shoe options.[5] Second, the Article reconsiders the conventional wisdom in the academic literature that U.S. securities laws prohibit underwriters from using green shoe options to profit from IPO underpricing. Third, the Article charts a better path for the regulation of aftermarket trading activities by underwriters.

To frame the analysis, consider two examples: Facebook's 2012 IPO and Airbnb's 2020 IPO. Facebook's underwriting syndicate, led by Morgan Stanley, reportedly sold Facebook's stock short—even as it was simultaneously selling Facebook's stock to investors in the initial offering.[6] This common practice is sometimes called "overallotting" the IPO. According to the price stabilization theory, these short sales gave underwriters the risk-free power to repurchase shares of Facebook stock in the aftermarket at the initial offering price, thereby soaking up demand that would otherwise push Facebook's stock price down.

However, many of the short-covering purchases by Facebook's underwriters reportedly occurred in a declining market at prices *below* the initial offering price.[7] Facebook's stock price declined 18% below the initial offering price by the third day of trading.[8] Rather than making "stabilizing" purchases for no profit or loss, Facebook's underwriters reportedly covered their short position at prices that produced $100 million in trading profits.[9]

Next, consider Airbnb's IPO. Airbnb sold $3.5 billion worth of firm commitment shares to initial investors in its 2020 IPO at a unit price of $68

5. In prior work, I have analyzed the incentive effects that arise when underwriters are able to profitably short sell IPOs through overallotments and covering purchases. *See* Patrick M. Corrigan, *The Seller's Curse and the Underwriter's Pricing Pivot: A Behavioral Theory of IPO Pricing*, 13 U. VA. L. & BUS. REV. 335 (2019). Unlike in this Article, however, that article assumed that underwriters could not use green shoe options to profit from IPO underpricing. This Article builds on that prior work by analyzing the incentive effects created by green shoe options used in connection with overallotments and other short sales by underwriters for their principal account.

6. Gina Chon, Aaron Lucchetti & Ryan Dezember, *Morgan Stanley, Others Make Profit of $100 Million Stabilizing Facebook*, WALL ST. J. (May 24, 2012 9:21 AM ET), https://www.wsj.com/articles/SB10001424052702304840904577422940058583600 [https://perma.cc/6Z97-62SK].

7. *Id.*

8. The underwriters sold Facebook stock in the initial distribution of the IPO at $38 per share. Facebook, Inc., Prospectus, (Form 424(b)(4)) (May 17, 2012), https://www.sec.gov/Archives/edgar/data/1326801/000119312512240111/d287954d424b4.htm [https://perma.cc/ZZ6K-K99L]. Facebook's stock price closed the third day of secondary trading at $31 per share. Stock-price data was obtained from the Center for Research in Security Prices's Daily Stock File. CTR. FOR RES. SECURITY PRICES, http://www.crsp.com [https://perma.cc/YMF2-WRAF].

9. Facebook Prospectus, *supra* note 8.

per share.[10] Unlike Facebook's stock price, Airbnb's stock price soared 113% higher to $144.71 per share by the end of the first day of trading.[11] Airbnb's stock did not need any stabilization, but its underwriters nevertheless exercised their right to purchase an additional 5 million shares of Airbnb stock at $66.56 per share.[12] In reference to the first day trading price of $144.17 per share, the purchase of shares under the green shoe option at $66.56 diluted pre-IPO stockholders by about $391 million.[13]

These two polar cases are examples of a deeper pattern in IPO markets. In theory, underwriter price-stabilization activities are supposed to prevent price declines after IPOs and make IPO pricing more accurate. However, I present new data showing that price-stabilizing activities fail to prevent aftermarket price declines in a surprisingly high number of IPOs. The stock prices of IPO issuers fall below the initial offering price *in the very first trade* on exchange in 16% of U.S. commercial IPOs from 2010-2017, with average declines of negative 6.2%. By the end of the first (tenth) day of trading, 23% (28%) of IPOs trade below the initial offering price, with average declines of negative 8.1% (-10.7%).[14]

Nor does a supposed commitment by underwriters to price stabilization prevent many IPO underpricing blowouts. Only a mere 30% of issuers in the sample experience relatively modest first day returns between 0 and 10% (inclusive). However, more than 47% of IPO issuers in the sample have first day returns that exceed 10%, with a whopping mean first-day return of 36.5% in this group.[15]

Green shoe options and overallotments do not even make sense as a price stabilizing mechanism from a theoretical perspective.[16] Perhaps most puzzlingly, the purported "stabilizing" mechanism—short sales followed by repurchases—takes the structure of a wash trade which does not add any permanent demand to the aftermarket.

Given the shortcomings of the price stabilization theory, Part III sets forth a new explanation for green shoe options and overallotments. Rather than use them to stabilize prices, underwriters primarily use green shoe options and overallotments to maximize their principal trading gains. I

10. Airbnb, Inc., Prospectus, (Form 424(b)(4)) (Dec. 9, 2020), https://www.sec.gov/Archives/edgar/data/1559720/000119312520315318/d81668d424b4.htm [https://perma.cc/X9WU-6PKZ].

11. Richard Walters, Dave Lee & Miles Kruppa, *Airbnb Soars on Debut in Latest IPO Bounce*, FIN. TIMES (Dec. 10, 2020), https://www.ft.com/content/a1c5cc26-b224-470a-84fe-8a6575fd33dc [https://perma.cc/HPT3-EHPJ].

12. This price is equal to the initial offering price minus underwriting discounts and commissions. Airbnb Prospectus, *supra* note 10.

13. Calculated as five million shares available under the option times a spread of $78.15 for each share.

14. *See infra* Figure 1 for a plot of tenth-day returns for all IPOs in the sample.

15. Measured as the average return received by initial investors at the close of the first day of trading. *See infra* note 72 (describing the dataset).

16. *See infra* Section II.A.

reach this conclusion by simply positing that underwriters act consistently with their incentives to maximize their financial payoffs.

Green shoe options break the incentive alignment of underwriters and issuers to price IPOs as high as possible, since underwriters maximize the value of green shoe options by pricing the IPO as *low* as possible. This Article, therefore, provides the first incentive-based explanation for IPO underpricing in the academic literature that does not rely solely on the presence of unobservable, indirect side payments by investors to underwriters (such as excess trading commissions) as a quid pro quo for allocations of underpriced stock.[17]

In prior work, I have shown how overallotments provide underwriters with the opposite incentive effect: underwriters maximize the value of their overallotments by overpricing the IPO as much as possible.[18] Here, I work out the interactions of overallotments with green shoe options. Underwriters can transform the green shoe option, a call option, into a put option equivalent by short selling the issuer's stock in the initial offering at the initial offering price.[19] This capability effectively gives underwriters a straddle position around the IPO price, incentivizing underwriters to maximize gamma across IPOs.

Of course, underwriters engage in constrained maximization. First, constraints are imposed by bargaining—what price will the IPO company agree to? What price will garner enough commitments by investors to complete the deal? Second, constraints are imposed by reputational costs. Too many so-called "disasters" like the Facebook IPO that trade down and investors will not participate in Morgan Stanley IPOs. Too many IPOs with first day pricing pops like Airbnb, and companies will choose a different underwriter—or companies will choose IPO alternatives like direct listings or mergers with public companies.

You may be thinking surely underwriters are unlike ordinary traders, and the securities laws prohibit underwriters from using green shoe options to profit when the issuer's stock price is rising in the aftermarket. Indeed, scholars—but not Wall Street—have long taken this legal conclusion as a given.[20] The conventional belief in the academic literature is that the lucky

17. *See, e.g.*, Corrigan, *supra* note 5, at 388 (modeling side payments from investors to underwriters); Michael A. Goldstein, Paul Irvine & Andy Puckett, *Purchasing IPOs with Commissions*, 46 J. FIN & QUANTITATIVE ANALYSIS 1193 (2011) (finding a relationship between the commissions that investors pay to lead underwriters through stock trades and allocations of underpriced IPOs); Jonathan Reuter, *Are IPO Allocations for Sale? Evidence from Mutual Funds*, 61 J. FIN. 2289 (2006) (finding a positive correlation between commissions that a mutual-fund family pays to an investment bank and the fund's holdings of IPOs underwritten by the same bank).

18. *See* Corrigan, *supra* note 5, at 396 (describing the underwriter's pricing pivot). Under the model, investors are willing to purchase stock in overpriced IPOs if they believe that failing to do so will cost them allocations of stock in future underpriced IPOs.

19. *See infra* Section III.C.

20. *See infra* Section IV.A.

investors who bought in at the initial offering price are the direct beneficiaries of IPO underpricing, not underwriters.[21]

Part IV puts this conventional wisdom to the test and finds it lacking. The securities laws do not prohibit underwriters from *short selling* the issuer's common stock at prices that exceed the initial offering price in an IPO and using subsequent purchases under the green shoe option to cover their pre-established short position.[22] This conclusion is particularly strong if the short sales are made offshores after the U.S. distribution has ended, consistent with the limited extraterritorial reach of the securities laws and no-action relief from the SEC.[23]

What about contractual restrictions? I present new data showing that, from 2010 to 2017, 46% of all IPO issuers place no contractual restrictions on the underwriter's use of the green shoe option. The remaining 54% of IPO issuers restricted use of green shoe options for the purpose of covering "overallotments."[24] As predicted by the principal trading theory, IPOs using this latter category of restricted green shoe options are associated with statistically significantly less mean IPO underpricing than are IPOs with unrestricted green shoe options.[25]

IPO markets are frequently derided by academics and courts alike as "inefficient."[26] This new principal trading theory sheds light on at least some of the causes of these inefficiencies. The principal trading theory predicts that green shoe options and overallotments *exacerbate* pricing volatility following IPOs, rather than stabilize it. The theory explains the observation of both underpriced and overpriced IPOs and the extraordinary variability of initial returns across IPOs. The theory also provides novel explanations for other features of IPOs, such as lock-up agreements and laddering in underpriced IPOs.[27] By identifying the 1997 implementation of Regulation M as a deregulatory event, the theory also provides a new explanation for an enduring puzzle: the sudden and explosive increase in IPO underpricing during the internet bubble.[28]

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21. *See id.*

22. *See infra* note 163 and accompanying text.

23. *Id.*

24. *See infra* Section IV.G.1. Because the term "overallotment" is not defined in the securities laws, and it is typically not defined in underwriting agreements or registration statements, the scope of this contractual restriction is subject to interpretation by market participants. *See infra* note 176 for an example of a prospectus that defines the term "overallotment" broadly as a syndicate short sale.

25. *See infra* Section V.A.2.

26. For example, Professor Pritchard has taken the view that "[n]o one believes that IPOs reflect an efficient capital market." A.C. Pritchard, *Revisiting "Truth in Securities" Revisited: Abolishing IPOs and Harnessing Private Markets in the Public Good*, 36 SEATTLE U. L. REV. 999, 1013 (2013). In refusing to afford plaintiffs the presumption of reliance in class-action litigation, the Second Circuit Court of Appeals flatly stated that "the market for IPO shares is not efficient." *In re* Initial Pub. Offerings Sec. Litig., 471 F.3d 24, 25 (2d Cir. 2006).

27. *See infra* Sections V.B.2 and V.C.

28. *See infra* Section V.D.

How could the conventional wisdom about green shoe options have lasted for so long? I argue that Regulation M was a deregulatory event that went largely unnoticed, except by the participants with the most skin in the game: underwriters and their counsel. Green shoe options may thus represent "contracts of inattention," and the failure of many issuers to recognize the incentive effects created by green shoe options may provide a structural explanation for the existence of "naïve issuers" that I have posited in other work.[29]

The analysis has important implications for U.S. law and regulation. The existing regulatory scheme imposes whack-a-mole prohibitions on enumerated activities by underwriters thought to be objectionable, but it fails to address the comprehensive set of incentive problems that arise in complex negotiated capital markets transactions.

Put simply, underwriters have an information advantage over issuers and investors, and they should not be permitted to make principal bets on aftermarket stock price movements following IPOs. The SEC should require disgorgement of trading gains made by underwriters in connection with securities offerings in excess of negotiated underwriting fees and discounts. The Financial Industry Regulatory Authority (FINRA) should also update its corporate financing rule to count the option value associated with green shoe options and any trading profits received in connection with syndicate short sales as "underwriting compensation."[30]

Some will undoubtedly object to these proposed reforms, emphasizing the importance of allowing sophisticated market participants to adapt to changes in markets, and arguing that the existing disclosure requirements are sufficient. But the legal doctrines at the heart of this Article implicate core principles of market integrity in U.S. capital markets, and are not subject to the rough and tumble of negotiation among sophisticated actors. Section 9 of the Securities Exchange Act flatly prohibits manipulation of securities prices, regardless of the private contractual terms struck by any parties.[31] Section 16(b) categorically prohibits short-term trading by certain insiders. The express exceptions to these sections that would permit underwriters to engage in otherwise prohibited conduct are extraordinary.[32] Regulators ought to ensure that these exceptions and the broader regulatory scheme are constructed and interpreted to ensure the public

29. Marcel Kahan & G. Mitu Gulati, *Contracts of Inattention*, CLS BLUE SKY BLOG (Jan. 23, 2020), https://clsbluesky.law.columbia.edu/2020/01/23/contracts-of-inattention [https://perma.cc/R3UY-YTNK]. Regarding naïve issuers, see Corrigan, *supra* note 5, at 372-86.

30. *See infra* Section IV.B.2.

31. Securities Exchange Act of 1934 § 9, 15 U.S.C. § 78i (2018).

32. Rule 104 of the SEC's Regulation M provides conditions under which underwriters may lawfully manipulate an issuer's stock price. 17 C.F.R. § 242.104 (2019). Rule 240.16a-7 exempts from the requirements set forth in section 16(a), and by operation of law from section 16(b), "any purchase and sale, or sale and purchase, of a security that is made in connection with the distribution of a substantial block of securities." 17 C.F.R. § 240.16a-7 (2019).

benefits that justify the exceptions in the first instance. More robust regulation is consistent with FINRA's long-held position that "disclosure alone is not sufficient to prohibit unfair underwriting terms and arrangements that disadvantage issuers and investors."[33]

Even if no new action related to these issues is taken, the SEC staff should clarify key sources of ambiguity in the existing rules, including by defining terms like "overallotment" for purposes of Regulation M and the antifraud rules. Underwriters are likely relying on interpretations provided by law firms to guide their principal trading activities. These interpretations may vary across underwriters, issuers, and investors, making optimal contracting difficult. In particular, the SEC staff should clarify whether its interpretation of section 929P of the Dodd-Frank Act diverges from no-action relief granted in 1996 related to the use of green shoe options in connection with offshore transactions.[34]

I. Green Shoe Options and Overallotments: Transactional Background, Theory, and Accepted Wisdom

A. The Purchase by Underwriters and the Green Shoe Option

An underwriting agreement is the stock sale and purchase agreement executed by an issuing company and selling stockholders, if any, (as sellers) and an underwriter or syndicate of underwriters (as purchasers) in a firm commitment securities offering. The underwriting agreement sets the purchase price for the firm commitment shares as the initial public offering price less negotiated underwriting discounts.[35] Upon execution of the agreement, the underwriters become obligated to purchase, and the sellers become obligated to sell, a specified number of shares (the Firm Shares), subject to certain conditions specified in the agreement. Assuming the closing conditions are met, issuers deliver the shares and underwriters make payment to the issuer at the closing, which is usually specified as two to four days following the execution of the underwriting agreement.[36]

Underwriting agreements in firm commitment offerings also give underwriters the right, but not the obligation, to purchase an additional amount of shares at the same price as the underwriter is obligated to

33. Letter from Jeanette Wingler, Assoc. Gen. Counsel, to Vanessa Countryman, Sec'y, U.S. Sec. & Exch. Comm'n 2 (July 11, 2019), https://www.finra.org/sites/default/files/rule_filing_file/sr-finra-2019-012-response-to-comments.pdf [https://perma.cc/JR9X-QRC8].

34. *See infra* Sections IV.F and VI.E.

35. These discounts serve as fee compensation for underwriters and take the structure of a fixed-percentage amount of the total proceeds raised in the IPO.

36. The date of the closing typically tracks the settlement cycle. Settlement on a four-day cycle is permitted if the underwriting is priced after 4:30 PM Eastern Time. Issuers and underwriters may agree to a longer settlement cycle if a shorter cycle is not feasible. 17 C.F.R. § 240.15c6-1(d) (2019).

purchase the Firm Shares (the Option Shares).[37] Throughout this Article, I use the term "green shoe option" to refer to the underwriter's right to purchase these Option Shares.[38] Underwriters typically have 30 days following the execution of the underwriting agreement to exercise their option. The closing for the Option Shares may occur on the same closing date as for the Firm Shares, or on a later date.[39]

In modern IPOs, the size of the green shoe option is virtually always 15% of the Firm Shares, an amount that constitutes the maximum permissible under FINRA rules.[40] Green shoe options often represent economically significant commitments by issuers. For example, the green shoe option in Uber's $8.1 billion IPO gave the underwriting syndicate the option to purchase, at the underwriters' sole discretion, 27 million shares of Uber's common stock for a total of more than $1.1 billion.[41]

Green shoe options are sometimes, imprecisely, called "overallotment options." I use the term "overallotment option" to refer to a subset of green shoe option with the contractual restriction that the use of the option solely for the purpose of covering "overallotments."[42]

B. The Long and Short Sales by Underwriters

In a firm commitment securities offering, the purchases under the underwriting agreement constitute the first step in a back-to-back trade for the underwriters. The second step involves sales to public investors. The purchase of the Firm Shares from the issuer and the associated sales to public investors are economically related, but legally distinct.

After executing the underwriting agreement, the underwriters commence the public offering contemplated in the underwriting agreement

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37. A typical description of a green shoe option in an offering prospectus states: "[The issuing company] and certain selling stockholders have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to 30,000,000 additional shares of Class A common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions." Snap Inc., Prospectus, (Form 424B4), (Mar. 1, 2017), https://www.sec.gov/Archives/edgar/data/1564408/000119312517068848/d270216d424b4.htm [https://perma.cc/3E2S-HUB3].

38. The Option Shares must be registered under the Securities Act of 1933, and the initial registration for the offering typically includes the full amount of shares covered by the green shoe option. If the green shoe option is not exercised in full, the remaining securities can be deregistered through a post-effective amendment.

39. If the green shoe option is exercised in increments, there may be multiple closing dates for the Option Shares.

40. FINRA RULE § 5110(g)(9), FIN. INDUSTRY REG. AUTHORITY (2019), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110 [https://perma.cc/S3XB-SY7N].

41. Uber Tech., Inc., Prospectus, (Form 424B4) (Mar. 1, 2017), https://www.sec.gov/Archives/edgar/data/1543151/000119312519144716/d647752d424b4.htm [https://perma.cc/E6FC-RDLU]. Calculated as the number of additional shares subject to the green shoe option (27 million) times the price to the public less underwriting discounts and commissions ($44.41).

42. For a further discussion of the definition of "overallotment" and the significance of an "overallotment option," *see infra* note 176 and accompanying text.

and in the issuer's registration statement.[43] The underwriting agreement specifies that the price of the sales to investors in the *initial* offering will be the public offering price negotiated in the underwriting agreement and listed in the registration statement. Typically, underwriters send forms asking investors to confirm orders for a quantity of shares equal to the number of Firm Shares virtually the same moment that they execute the underwriting agreement. Initial sales in the IPO are made through the books of the several underwriters, not on an exchange.

Confirmations by investors trigger two obligations. First, the underwriters have an obligation to deliver shares of the offered security to the investor at settlement, which is typically two to four days after the confirmation is received.[44] Second, the investors have an obligation to deliver payment to the underwriters at the settlement.

After confirming sales up to the amount of the Firm Shares, underwriters face a choice. They may stop there, or they may sell *more* shares than the number of Firm Shares. Such additional sales at the initial offering price in the initial offering are called "overallotments." Overallotments are not identified to investors as such, and they trigger the same mutual obligations as the other sales in the initial offering.[45]

Overallotments are short sales. A short sale is a sale of a security that is not owned by the seller.[46] Recall, however, that the transaction is not settled for at least two days until after the sale is made. During this two-day period, the underwriter will have to borrow or purchase a share of the issuer's stock to meet its delivery obligations.

Underwriters frequently take economically large trading positions in securities offerings through overallotments and over-sales. SEC staff noted in 2000 that "[i]n recent years, the 'naked' short position has customarily been up to either 15 percent or 20% of the amount of the firm commitment underwriting."[47] Naked short sales are short sales made in excess of the green shoe option. Including the 15% covered by the green shoe option, this statement suggests that it is not unusual for underwriters to take short positions in IPOs up to 35% of the value of the IPO.

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43. A typical underwriting agreement provides that "[t]he Sellers are advised by you that the Underwriters propose to make a public offering of their respective portions of the Shares as soon after the Registration Statement and this Agreement have become effective as in your judgment is advisable." Snap, Inc., Registration Statement ex. 1.1., § 4, https://www.sec.gov/Archives/edgar/data/1564408/000119312517045870/d270216dex11.htm [https://perma.cc/B67F-QQY3].

44. *See supra* note 36.

45. All investors in the initial offering receive identical Rule 10b-10 confirmations. Only the quantity of shares purchased should be different. 17 C.F.R. § 240.10b-10 (2019).

46. *Fast Answers: Short Sales*, U.S. SEC. & EXCH. COMM'N, https://www.sec.gov/answers/shortsale.htm [https://perma.cc/R364-PHWX].

47. *Excerpt from Current Issues and Rulemaking Projects Outline*, U.S. SEC. & EXCHANGE COMMISSION (Nov. 14, 2000), https://www.sec.gov/divisions/corpfin/guidance/ci111400ex_regs-k_sss.htm [https://perma.cc/8QJR-GSDW].

The underwriting agreement between the issuer and the underwriters is silent about the price of any sales of the offered securities or of securities of the same type made after the initial offering. The offering prospectus will usually fill in the gap: "After the initial offering of the shares of . . . common stock, the offering price and other selling terms may from time to time be varied by the [lead underwriter]."[48]

C. The Leading Explanation for Overallotments and Green Shoe Options: Underwriter Price-stabilization Activities

There is widespread agreement among academics, practitioners, and regulators that the purpose of green shoe options and overallotments is to facilitate the ability of underwriters to stabilize prices in secondary markets following a securities distribution. I call the dominant view the "price stabilization theory" or the "price stabilization explanation" for green shoe options and overallotments.

1. Early Justifications

Underwriter stabilization activities have been a pillar of securities offerings for more than a century, and it has a history of controversy. The provisions of section 9(a), termed the "heart" of the Exchange Act, were designed to "purge the securities exchanges of those practices which have prevented them from fulfilling their primary function of furnishing open markets for securities where supply and demand may freely meet at prices uninfluenced by manipulation or control."[49]

However, underwriter price-stabilization activities proved controversial and difficult to resolve. Stabilizing has been defined by the SEC as "the buying of a security for the limited purpose of preventing or retarding a decline in its open market price in order to facilitate its distribution to the public."[50]

Rather than outright prohibition, Congress authorized the SEC to regulate stabilizing activities and to protect the public from its "vicious and unsocial aspects."[51] The SEC's 1940 Statement on pegging, fixing and stabilizing security prices remains the definitive SEC policy statement on the matter.[52] The 1940 Statement called the use of stabilization by underwriters in the course of securities distributions "undesirable," recognized stabilization as a type of price manipulation, and acknowledged the "potential

48. Snap Prospectus, *supra* note 37.

49. Sec. & Exch. Comm'n, Proposals for Amendments to the Securities Act of 1933 and the Securities Exchange Act of 1934 (1941); *see* S. REP. NO. 73-1455, at 30 (1934).

50. Exchange Act Release No. 2446, 1940 WL 968, at *2 (Mar. 18, 1940).

51. *Id.* at 12.

52. *Id.*

dangers involved in stabilizing."[53] Commissioner Healy wrote a stinging dissent, in which he claimed that "[t]he differences between 'manipulation' and 'stabilizing' are often difficult of perception."[54]

Nevertheless, the 1940 Statement took the view that "the public interest, as well as the interest of investors, will be better served by regulating stabilizing activities than by leaving them unregulated."[55] The 1940 statement took a practical approach, calling the question of price stabilization "an intensely practical problem which, for the present, must be solved in terms of the existing financial machinery."[56]

The 1940 Statement suggested that permitting underwriters to stabilize offerings was a "necessity" for U.S. underwriters to complete the distribution of a large block of securities in many firm commitment securities offerings.[57] Unlike modern IPOs, securities offerings of that time could take place over days or even weeks. If, during the distribution, the market price of the offered security declined below the price at which the underwriters had committed to underwrite the securities, the underwriters might be forced to sell the unsold Firm Shares at a loss. The concern was that underwriters would refuse to underwrite many firm commitment offerings entirely if they had to bear this risk. Stabilization authority was believed to reduce this risk for underwriters, as they could make stabilizing bids at the offering price and thereby encourage other investors to purchase at the same price.

The 1940 Statement contemplated that private ordering and technology might one day eliminate the need for stabilization entirely, but that the "growth of American industry cannot wait upon such a development."[58] Eight decades later, the SEC has kept its basic regulatory structure intact: regulate, but permit, underwriter price-stabilization activities.

2. The Modern Price Stabilizing Mechanism with Green Shoe Options

As a matter of modern practice, however, underwriters never make "pure" stabilizing purchases. At some point, the practice of pure stabilizing purchases shifted to the purported substitute of "aftermarket short covering" purchases—purchases made to reduce a net syndicate short position previously created in the offered security.[59] According to Professor

53. *Id.* at 1, 12.
54. *Id.* at 15.
55. *Id.* at 11.
56. *Id.* at 1.
57. *Id.* at 4.
58. *Id.* at 2.
59. Reena Aggarwal, *Stabilization Activities by Underwriters After IPOs*, 55 J. FIN. 1075, 1077 (2000).

Aggarwal, "[A]ftermarket short covering leads to the same results as 'pure' stabilization . . . ."[60]

The components of the modern price stabilization mechanism are three. First, the issuer grants the underwriting syndicate the green shoe option—the right to purchase Option Shares in addition to, and at the same price as, the Firm Shares. Second, the syndicate overallots the offered securities at the offering price listed in the registration statement in the initial distribution alongside sales of Firm Shares, creating a net short position. Finally, if the issuer's stock price threatens to fall in the aftermarket, underwriters cover the syndicate short position by purchasing shares in secondary markets.[61] It is these covering purchases that purportedly support the issuer's stock price.

The SEC, noting the conventional wisdom about the shift in underwriter stabilizing practices, has articulated its price-stabilizing logic:

> The creation of a syndicate short position and the subsequent purchasing activity to cover the position can impact the offering and the aftermarket price. The potential "buying power" of the short position can allow the syndicate to price the offering more aggressively because its syndicate short covering can support the aftermarket at prices around or above the offering price, thereby validating the offering price.[62]

The theorized price stabilization "contract" between underwriters and investors is informal. Underwriters are not legally or contractually obligated to stabilize or support an issuer's stock price after an offering.[63] Nevertheless, in the modern gloss promoted in the finance academic literature, price support has sometimes been characterized as a "responsibility" of underwriters.[64]

The modern mechanism fits awkwardly under the SEC's policy under the 1940 Statement. The original purpose of the price stabilization authority was to help underwriters sell an entire block of Firm Shares before the

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60. *Id.* at 1100.

61. *See, e.g.*, JOHN C. BURCH & BRUCE S. FOERSTER, CAPITAL MARKETS HANDBOOK 5-7 (Supp. 2012) (stating that a syndicate short position gives underwriters purchasing power to bid for the issuer's stock in secondary trading in order to facilitate an orderly commencement of trading).

62. Securities and Exchange Commission Release No. 33-8511, 69 Fed. Reg. 75,774, 75,780 (Dec. 17, 2004); *see also* Aggarwal, *supra* note 59, at 1081 (explaining that "aftermarket short covering allows [underwriters] to absorb shares flipped in the first few days of trading; otherwise, flipping would put downward pressure on the stock price").

63. *See, e.g.*, Uber Prospectus, *supra* note 41 ("The underwriters are not required to engage in these [stabilizing] activities and may end any of these activities at any time.").

64. Katrina Ellis, Roni Michaely & Maureen O'Hara, *When the Underwriter Is the Market Maker: An Examination of Trading in the IPO Aftermarket*, 55 J. FIN. 1039, 1045 (2000). Moreover, it is sometimes argued that reputational forces compel such stabilization activities because IPO markets punish underwriters that fail to provide them. Katharina Lewellen, *Risk, Reputation, and IPO Price Support*, 61 J. FIN. 613, 615 (2006) (arguing that large underwriters with better reputations are more willing to support overpriced IPOs).

market price declined below the underwritten public offering price. Under the modern mechanism, however, underwriters purportedly sell all the Firm Shares and then some additional amount. Once the Firm Shares are distributed and overallotments made, what purpose does price stabilization serve under the original rationale set forth in the 1940 Statement?

To explain the evolution in the price-stabilization mechanism, the finance academic literature described a new purpose for underwriter price-stabilization activities. Under this modern view, underwriter price-stabilization activities act like a limited warranty for investors worried about losing money by making initial purchases in the IPO.[65] Underwriters operationalize the warranty mechanism by standing ready to buy back a substantial amount of the issuer's stock from the market at the initial offering price if the issuer's stock price threatens to fall below that level.[66] In the words of Benveniste, Busaba, and Wilhelm, "[I]nvestors purchase a bundle consisting of shares in the offering and the put options implicit in the underwriter's commitment to price stabilization."[67]

Conventional understanding of why such a warranty mechanism facilitates IPOs is that the warranty makes it easier for issuers, underwriters, and investors to come to an agreement on the initial offering price in the context of a complicated IPO involving many parties. Like other warranty mechanisms, the seller (the issuer) is the ultimate beneficiary, even if investors are the direct beneficiaries. The reason is investors that lack information about the quality of an issuer may be willing to submit higher bids ex ante due to the promise of ex post underwriter price stabilization—like customers who are willing to pay more up front for a toaster because the manufacturer promises to reimburse them for defects in quality discovered after use. Leading proponents of the price stabilization theory therefore

65. There is one notable alternative theory. Hanley, Kumar, and Seguin suggest that price-stabilization activities allow underwriters to disguise and distribute overpriced offerings. Kathleen Weiss Hanley, A. Arun Kumar & Paul J. Seguin, *Price Stabilization in the Market for New Issues*, 34 J. FIN. ECON. 177 (1993). Schultz and Zaman make a similar argument, but they emphasize that stabilization permanently reduces the supply of shares and thereby permanently increases the issuer's stock price. Paul H. Schultz & Mir A. Zaman, *Aftermarket Support and Underpricing of Initial Public Offerings*, 35 J. FIN. ECON. 199 (1994).

66. *See, e.g.*, Bhagwan Chowdhry & Vikram Nanda, *Stabilization, Syndication, and Pricing of IPOs*, 31 J. FIN. & QUANTITATIVE ANALYSIS 25, 34 (1996) (stating that price-stabilization activities provide investors with a put option to sell their IPO allocations back to the underwriter); *see also* Matt Levine, *Money Stuff: Beyond Meat Comes Back for Seconds*, BLOOMBERG (July 30, 2019, 12:07 PM), https://www.bloomberg.com/opinion/articles/2019-07-30/beyond-meat-comes-back-for-seconds [https://perma.cc/5WJV-S9SR] (characterizing underwriter price support using green shoe options and overallotments as "a form of soft guarantee of the IPO price: 'You can rely on this IPO price,' the underwriters can say to prospective investors, 'because if the stock falls below this price we'll buy it back'").

67. Lawrence M. Benveniste, Walid Y. Busaba & William J. Wilhelm, Jr., *Price Stabilization as a Bonding Mechanism in New Equity Issues*, 42 J. FIN. ECON. 223, 225 (1996) (arguing that underwriters target stabilization at investors that provide the most useful information during the bookbuilding process); Chowdhry & Nanda, *supra* note 66, at 25 (arguing that stabilization is targeted at uninformed investors that are most likely to shave their bids to avoid the winner's curse problem); Lewellen, *supra* note 64, at 613-14 (stating that price stabilization helps mitigate adverse-selection problems in the IPO market).

predict that underwriter price-stabilization activities mitigate the well-known winner's curse and reduce IPO underpricing.[68]

II. Why the Price Stabilization Explanation of Green Shoe Options and Overallotments Is Unsatisfactory

A. Theoretical Deficiencies

Traditional price-stabilizing activities occurred *before* the completion of a securities distribution. They were traditionally justified as necessary to help underwriters complete large distributions of securities over an extended period at a fixed price. Modern price-stabilizing activities using green shoe options and overallotments, in contrast, purportedly occur *after* the completion of a securities distribution, and are justified as a warranty to investors. However, the modern price-stabilization warranty mechanism has features that raise doubts about its use and effectiveness.

First, the theorized warranty mechanism takes the form of a wash trade and does not inject any new demand into the aftermarket. By overallotting the IPO, underwriters crowd out demand that would otherwise exist in the aftermarket. If robust price support is the goal, underwriters should accumulate inventory of the issuer's stock at the initial offering price, as permitted under Rule 104 of Regulation M.

Second, green shoe options *introduce* new sources of information asymmetries into the aftermarket. In IPOs with green shoe options, investors will not know whether the issuer's total outstanding shares will increase by the number of primary shares offered or an additional amount including the primary shares under the green shoe options. Uncertainty about the exact amount of dilution following the IPO may lead investors to discount the price they are willing to pay in the IPO.

Third, the price-stabilization theory fails to explain key features of the modern price-stabilizing mechanism, or why it is superior to alternative mechanisms. Why structure the price-stabilizing mechanism to give underwriters an item of substantial value when the issuer can accomplish the same price-stabilizing goals without giving away so much value?[69] For example, issuers could simply commit to reimburse underwriters for losses made in connection with Rule 104 pure stabilizing purchases up to a certain

68. *See, e.g.*, Benveniste et al., *supra* note 67, at 225 (arguing that observed underpricing is less than it would be in the absence of a commitment to price stabilization).

69. Indeed, ex post contingent-payment mechanisms used in other major financial transactions—such as earn-outs in mergers and credit enhancements in securitization structures—are usually structured very differently. *See, e.g.*, Albert Choi, *Facilitating Mergers and Acquisitions with Earnouts and Purchase Price Adjustments*, 2 J.L. FIN. & ACCT. 1 (2017). In those mechanisms, the bidders (purchasers) that bear the risk of ex post price declines are given a right to an ex post payment. In traditional IPOs, an intermediary (underwriters) and not the ultimate purchasers (investors) are given the right to an ex post payment.

level. Under this mechanism, an issuer could specify the precise amount of stabilization desired, and the issuer would bear no risk of excessive dilution if the IPO is underpriced.

Indeed, the modern warranty mechanism with green shoe options is based on redistribution of risk among issuers rather than on efficiency principles. Green shoe options introduce costly dilution to pre-IPO stockholders when it is exercised in an underpriced IPO.[70] But underwriters exercise green shoe options precisely and only in the underpriced IPOs that do *not* need price support. In comparison, issuers in overpriced IPOs that supposedly need price support do not suffer dilution from the green shoe option and they pay underwriters no fees for underwriter price-stabilization activities.

Finally, the idea that underwriters intend to use green shoe options and overallotments to engage in price-stabilization activities is undermined by the fact that underwriters do not make disclosures that would be compulsory under Regulation M if they in fact made purchases with the intention of stabilizing an issuer's stock price. Regulation M provides, "Any person displaying or transmitting a bid that such person knows is for the purpose of stabilizing shall provide prior notice to the market on which such stabilizing will be effected, and shall disclose its purpose to the person with whom the bid is entered."[71] However, in modern U.S. IPOs, underwriters never provide such disclosures. So, if underwriters are not covering their overallotments for a stabilizing purpose, what is their objective in making overallotments?

B. Empirical Deficiencies

The price-stabilization theory is also unsatisfactory because the best available empirical evidence is inconsistent with the theory.

1. Many IPOs Break Issue on the Very First Trade or by the End of the First Day

To the extent that underwriters attempt to support prices at the initial offering price following IPOs, they fail by to do so in a surprisingly high number of IPOs.

In a sample of all 911 U.S. commercial IPOs between 2010 and 2017, more than 16% of IPOs break issue *in the very first trade on exchange*, opening trading at an average price that is negative 6.2% below the initial

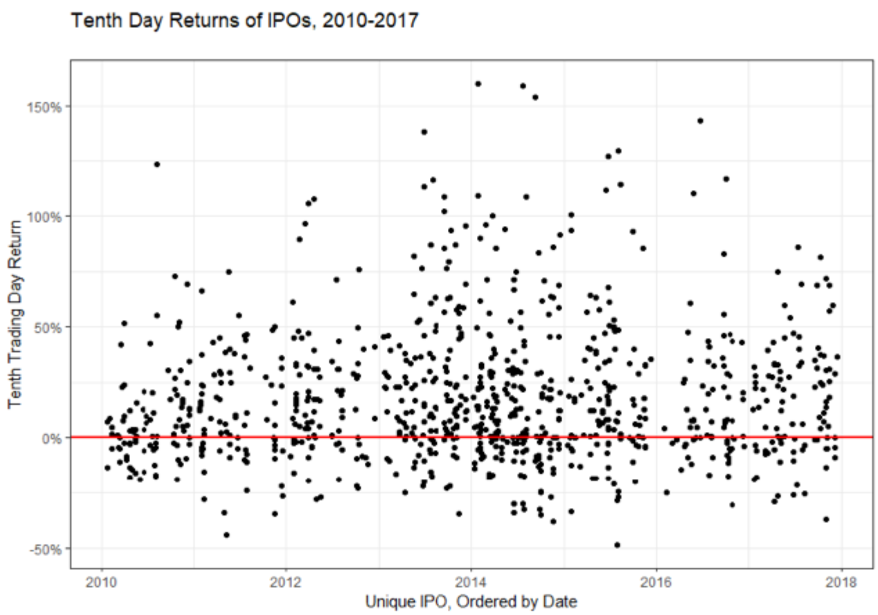
70. Recall the Airbnb example in which the underwriters exercise of the green shoe option diluted Airbnb's pre-IPO stockholders by $391 million. *See supra* note 13 and accompanying text.

71. 17 C.F.R. § 242.104(h)(1) (2019).

offering price.[72] By the end of the first (tenth) day of trading more than 23% (28%) of IPOs break issue with negative initial returns of negative 8.1% (-10.3%).

Figure 1 plots initial returns at the close of trading on the tenth trading day after. The figure visually illustrates that many IPOs have negative initial returns, and that IPO initial returns are characterized by extraordinary variability, not stability.

Figure 1: Variability of IPO Initial Returns



The results in my sample are consistent with research on IPOs from prior periods. One study found that nearly a third of all U.S. IPOs between 1965 and 2005 had negative initial returns by the tenth trading day following an IPO.[73]

2. Bid Rigidity by Market Makers Following IPOs

Not only do we fail to observe IPO initial returns clustering around the initial offering price, but it also appears that underwriters do not make

72. The sample includes all U.S. IPOs in the Thomson Reuters SDC Platinum New Issues database, excluding offerings of real estate investment trusts, units, American depositary receipts, closed-end funds, offers with the stock price below five dollars. Stock price data is taken from the Center for Research in Security Prices. *See* CTR. FOR RES. SECURITY PRICES, *supra* note 8.

73. Michelle Lowry, Micah S. Officer & G. William Schwert, *The Variability of IPO Initial Returns*, 65 J. FIN. 425, 426, 455 (2010).

substantial stabilizing purchases in the aftermarket. The best empirical study on bid rigidity by market makers following IPOs finds only de minimis bid rigidity, suggesting that limited stabilizing transactions occur.[74] When the issuer's stock price was at the initial offering price on the first day of trading following an IPO in her dataset, market makers accumulated, on average, only 3.3% of the shares offered in the IPO through repurchasing transactions before allowing their bid to drop. This amount is well below the 15% of shares available under a green shoe option.[75]

Underwriters appear to stop supporting the issuer's stock in an economically meaningful way after allowing the bid to drop from the initial offering price. When the price was below the initial offering price, underwriters on average accumulated no more than 0.18% of the offering before allowing their bid to drop. This data suggests that underwriters stop defending the initial offering price well before their powder runs dry and instead make purchases in the aftermarket at market prices. This conclusion is reinforced by the observation that underwriters do not make disclosures that would be necessary if they had an intent to stabilize aftermarket prices.

The finding that underwriters fail to defend the initial offering price is supported by well-known examples. For example, the financial media reported that the underwriters in Uber's IPO took a naked short position—indicating that Uber's short position *exceeded* the 15% of Option Shares available under the green shoe option.[76] This report implies that, if the underwriters overallotted Uber's stock at the initial offering price, Uber's underwriters sold short more than 27 million shares of Uber's stock (the amount of shares covered by the green shoe option) at $45 per share, in exchange for more than $1.2 billion from investors. The total size of Uber's naked short position was undisclosed. If the master agreement among underwriters in connection with the Uber IPO contained market-standard provisions, the underwriting syndicate could have sold short up to $2.8 billion of Uber's stock.[77]

74. Lewellen, *supra* note 64, at 627.

75. *Id.* at 627 tbl.III. The Lewellen Study reported averages. It is possible that not all underwriters behave like the "average" underwriter. For example, another possible interpretation of the data is that for every one underwriter that uses the full amount of the green shoe option to make stabilizing purchases, approximately four underwriters engage in no stabilizing purchases at all. The largest amount of short-covering purchases appears to occur in IPOs that open trading precisely at the initial offering price. In these IPOs, underwriters accumulate 6.5% of the shares offered before allowing their bids to drop. This amount is still far short of the full 15% of the shares purportedly overallotted in connection with a green shoe option. *Id.* at 632.

76. *See, e.g.*, Leslie Picker, *Uber Underwriters Worried About the IPO Deployed Unusual 'Naked Short' Tactic to Support the Stock*, CNBC (May 14, 2019, 5:01 PM) (describing the naked-short position taken by Uber's underwriters in connection with its IPO), https://www.cnbc.com/2019/05/14/uber-underwriters-worried-about-the-ipo-deployed-unusual-naked-short.html [https://perma.cc/2NEF-M34W].

77. The agreement among underwriters typically caps the amount of overallotments to 35% of the Firm Shares. *SIFMA Model Form of MAA U*, Securities Industry and Financial

Notwithstanding syndicate short sales exceeding $1 billion in value, Uber's underwriters did not attempt to defend the initial offering price of Uber's IPO when exchange trading began—or else they failed to do so, miserably. The *very first trade* in secondary markets occurred at $42 per share—almost 7% below the initial offering price of $45 per share.[78] Using the same assumptions as above, and assuming that the syndicate had completely covered their initial short position at the opening price, the syndicate would have made a trading profit of at least $81 million, and as much as $189 million, by short selling Uber's stock.[79]

Virtually all IPO companies fund a green shoe option worth 15% of the offered shares but, according to bid rigidity data in the Lewellen study, issuers get, on average, 3.3% of repurchases at the initial offering price. In many IPOs, like Uber's IPO, issuers get no price support at the initial offering price. Uber is not alone. In my dataset, more than 16% of IPOs traded below the initial offering price in the IPO in the very first trade on exchange, with an average decline of negative 6.2%.

III. The Principal Trading Explanation for Green Shoe Options and Overallotments

This Part sets forth the theory that underwriters use green shoe options and overallotments for principal trading purposes. The theory works out the profit-maximizing incentives of underwriters holding such trading positions and follows the basic law and economics premise that underwriters, as economic agents, follow their incentives. I show that green shoe options incentivize underwriters to bargain for underpriced IPOs and that overallotments incentivize underwriters to bargain for overpriced IPOs. Underwriters minimize their principal trading gains by pricing IPOs accurately.

You may be thinking—perhaps the underwriters are permitted to monetize overallotments, but, surely, it is illegal for underwriters to trade on the green shoe option and overallotments for their own principal accounts? In Part IV, I show that this widely believed claim is an incorrect characterization of U.S. law. The securities laws do not prohibit underwriters from pairing purchases under green shoe options with offshore short sales made at prices above the initial offering price. The reader may want

Markets Association (Nov. 21, 2019), https://www.sifma.org/wp-content/uploads/2018/12/MAAU-blackline-against-November-21-2019-version.pdf [https://perma.cc/QFC2-2LDN].

78. Lauren Feiner, *Uber Ends Its First Day of Trading Down More Than 7%*, CNBC (May 10, 2019, 11:50 AM) https://www.cnbc.com/2019/05/10/uber-ipo-stock-starts-trading-on-the-new-york-stock-exchange.html

79. The $81 million figure is calculated assuming that the syndicate sold short 15% of the firm commitment shares (27 million shares) at $45 per share and purchased 27 million shares at $42 per share. The $189 million figure is calculated assuming that the syndicate sold short 35% of the firm commitment shares (63 million shares) at $45 per share and purchased 63 million shares at $42 per share.

to skip ahead to read the legal analysis if reading the legal argument first is preferred.

A. A Simple Model of Underwriter Payoffs with Aftermarket Principal Trading Payoff

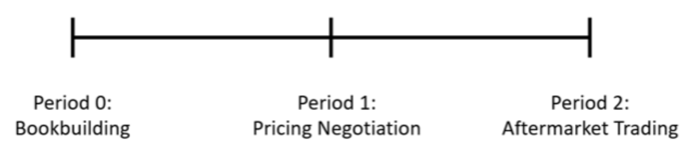
A common model of underwriter payoffs in the academic literature assumes that an underwriter's sole payoff in an IPO is the discounts and commissions that it earns on the sale of offered shares. This payoff takes the structure of a fixed percentage of the total offering proceeds, assuming the underwriter successfully resells all the Firm Shares at the initial offering price in the IPO.[80] Importantly, the underwriter's payoff schedule in this simple model aligns the incentives of underwriters with the objective of maximizing proceeds to the issuer because the discounts and commissions increase proportionately with proceeds to the issuer.

I model the payoffs of underwriters in IPOs as the sum of the discounts and commissions received on sales of the Firm Shares and Option Shares *and* the payoffs associated with trading in the underlying security following the IPO.[81]

The model, therefore, generates an agency problem for issuers: how does the possibility of trading payoffs in the aftermarket period affect underwriter decisions when collecting pricing information and negotiating the IPO price?

Figure 2 visualizes the three periods that may affect underwriter payoffs.

Figure 2



B. Green Shoe Options Incentivize Underwriters to Underprice IPOs

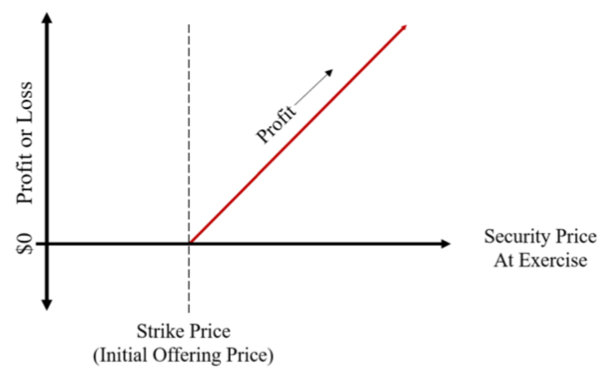
Green shoe options constitute a call option on the issuer's stock held by the underwriter. Figure 3 visually illustrates the value of a call option.

80. In many IPOs, the payoffs associated with discounts and commissions constitute approximately 7% of the total sales to investors. *See* Hsuan-Chi Chen & Jay R. Ritter, *The Seven Percent Solution*, 55 J. FIN. 1105 (2000).

81. Ellis et al. take this approach as well, though they do not consider the possibility that underwriters may obtain trading profits by trading green shoe option shares in underpriced IPOs. Ellis et al., *supra* note 64. They find that aftermarket profits earned by covering overallotments and through trading commissions earned as market makers constitute, on average, 23% of the total revenues earned by underwriters in connection with IPOs, while the remaining 77% percent represent fee revenue from the gross spread.

The value of a call option is the difference between the strike price and the price of the underlying security at the time of exercise. The strike price of the option is the price at which underwriters may *purchase* the shares. In an IPO, the strike price of the green shoe option is always keyed to the initial offering price to public investors. The security price at exercise represents the price at which the underwriters can *sell* the securities in aftermarket trading.

Figure 3



The value of the option increases if (1) the strike price (the initial offering price in the IPO) decreases or (2) the security price at exercise increases. Do underwriters have any levers to control either of these two prices, or are they passive price takers?

Underwriters have relatively little ability to influence the security price at exercise. Absent price manipulation, the security price at exercise is generally set by independent forces of supply and demand, primarily through trading on exchanges.[82]

However, underwriters may have some capacity to influence the initial offering price in an IPO, which sets the strike price for the green shoe option. First, underwriters may bargain hard for a low initial offering price, or even hold up the issuer by threatening to not underwrite the IPO.[83] The underwriter's bargaining advantage is strengthened if the underwriter obtains private information about investor demand for the issuer's stock during the bookbuilding period.[84]

82. This has not stopped some employees of underwriters from attempting to manipulate the aftermarket security price through laddering schemes in at least some instances. *See infra* Section V.C.

83. Corrigan, *supra* note 5, at 355-58.

84. *Id.* at 358-62. An information advantage by underwriters may originate from two primary sources. First, underwriters may acquire privileged information from individual investors in

From the perspective of issuers, therefore, green shoe options provide underwriters with troubling incentives. The issuer maximizes proceeds by pricing the IPO as high as possible. However, green shoe options incentivize underwriters to bargain hard to keep the IPO price as low as possible.

As an example, recall Airbnb's IPO, discussed in the introduction. If the underwriters had bargained for an "accurate" initial offering price of around $144 per share (at least in reference to the first day trading price), the trading value of the underwriter's call option would have been worth nothing. However, Airbnb and its underwriters instead bargained to price the IPO at $68 per share. At this price, the green shoe option had an outside value of around $391 million to the underwriters at the end of the first day of trading.[85] Since the payoff of $391 million is greater than $0, underwriters would generally prefer to price the IPO at the lower price, absent countervailing costs from doing so.

C. Put-Call Parity: Overallotments Incentivize Underwriters to Overprice

The underpricing incentives of the green shoe option, however, are not the entire story related to underwriter aftermarket trading incentives. In other work, I have shown how the ability of underwriters to short sell the IPO by making overallotments incentivizes underwriters to *overprice* IPOs.[86] That work described the general incentives of IPO underwriters to pivot between underpricing and overpricing strategies across IPOs but did not analyze how green shoe options interact with overallotments. In this Section, I emphasize a new result: underwriters can transform their long call position into a long put position merely by overallotting the IPO.

Recall that overallotments are sales made by an underwriting syndicate in a firm commitment offering in excess of the number of shares that the underwriters are required to purchase from the issuer. By creating an obligation to deliver a share that the underwriters do not own, overallotments have the economic structure of a short sale. Underwriters make trading gains if they cover overallotments with purchases below the initial offering price.

Figure 4 represents the two possible trading positions by underwriters who hold green shoe options and who have the capacity to make overallotments. To be clear, the underwriter does not simultaneously hold both trading positions represented by the blue solid line and the red dashed line. The underwriters must take one position or another, with the actual position in any given IPO depending on the extent to which underwriters make overallotments in the initial offering and at the initial offering price.

their role as bookrunners, and this information may not be available to the issuer. Second, given that issuers hire expert investment bankers precisely because they lack the type of expertise needed to value their company and to run an IPO process, underwriters may be able to understand and synthesize demand information more efficiently and accurately than the issuer's managers.

85. *See supra* notes 10-13 and accompanying text.

86. Corrigan, *supra* note 5, at 396-399.

Figure 4

Focusing on the trading position with overallotments, represented by the solid blue payoff line in Figure 4, the combination of overallotments and a call option makes the underwriter long a put option at the initial offering price.[87] The value of this put option increases if (1) the strike price increases or (2) the security price at exercise decreases.

As in the prior case, underwriters do not have much ability to affect the security price at exercise. This price is revealed in the aftermarket primarily by forces of supply and demand. However, it has been theorized that underwriters may have the capacity to persuade investors to purchase stock in IPOs, even if the stock is overpriced.[88] The underwriter's leverage comes from the fact that underwriters might threaten to deprive investors of allocations in future underpriced IPOs if they do not participate in the overpriced IPOs. The Facebook story in the Introduction provides an example of the overallotment and short covering mechanics necessary to execute this trade.[89]

87. Put-call parity mathematically defines the relationship between European put options and European call options at the same strike price. The formula is c + PV(K) = p + S where c = call; PV(K) = Present value of the strike; p = put; S = Value of the underlying asset.

88. *See, e.g.*, Lawrence M. Benveniste & Paul A. Spindt, *How Investment Bankers Determine the Offer Price and Allocation of New Issues*, 24 J. FIN. ECON. 343, 344-45 (1989) (arguing that underwriters can induce investors to take "bad" IPOs off their hands by drawing against some of the surplus generated by underpricing in the "good" IPOs); Corrigan, *supra* note 5, at 399 (arguing that "[r]epeat investors will also accept allocations of stock in the overpriced IPOs, even if they are able to identify which IPOs are lemons, as long as these investors expect to receive future allocations of underpriced stock of at least equal value in exchange for their participation in the overpriced IPOs"); Céline Gondat-Larralde & Kevin R. James, *IPO Pricing and Share Allocation: The Importance of Being Ignorant*, 63 J. FIN. 449 (2008) (arguing that investment banks enter into coalitions with investors in IPOs whereby investors participate in certain overpriced IPOs as long as the IPOs in which they participate over time are underpriced on average).

89. *See supra* note 9 and accompanying text.

Rational investors are likely to respond to the overpricing incentives of overallotments by discounting the price they are willing to pay in the IPO.

Underwriters can make overallotments easily in most IPOs for two reasons. First, underwriters spend weeks on roadshows for the purpose of collecting a book of orders from investors for the issuer's stock, so they know investor demand before they agree to an IPO price with issuers.

Second, making overallotments is as simple as confirming more orders for the security than they are required to purchase (assuming the offering is oversubscribed). Unlike every other market participant, underwriters in IPOs are permitted to engage in naked short selling, so they do not have to borrow a security and pay the associated interest.[90] Regulations that are otherwise costly to other market participants expressly exempt underwriters.[91]

Whether they overallot or not, underwriters bear no market risk—it is all upside. When overallotments are made up to the number of shares available under the green shoe option, the option hedges the market risk that the issuer's stock price might increase above the initial offering price. When overallotments are not made, underwriters hold the option, but not the obligation, to purchase additional shares. Underwriters only take on market risk if they take a naked short position by overallotting in excess of the Option Shares, but only on the naked short shares.

D. The Three Possible Principal Trading Strategies by Underwriters in the Aftermarket Using Green Shoe Options and Overallotments

1. Overpriced IPOs: Overallot the Issuer's Stock at the Initial Offering Price up to the Amount of Option Shares

The first trading strategy (Trade One) is used if underwriters anticipate that the offered security will trade lower than the initial offering price

90. The SEC's Regulation SHO provides locate, close-out, and pre-borrow requirements in connection with any short sale. Regulation SHO, 17 C.F.R. § 242 pt. 200 (2019). However, the SEC staff has indicated in no-action letters that these requirements do not apply to any sale by an underwriter, or any member of a syndicate or group participating in the distribution of a security, in connection with an overallotment, and, if closed out not later than thirty days after the commencement of sales, net syndicate short positions. Div. of Mkt. Regulation, *Responses to Frequently Asked Questions Concerning Regulation SHO*, SEC. & EXCH. COMM'N, www.sec.gov/divisions/marketreg/mrfaqregsho1204.htm [https://perma.cc/ZKD7-FQZC] (Question 1.5).

91. For example, the circuit-breaker rules under the SEC's Regulation SHO require national securities exchanges to maintain policies and procedures designed to prevent the execution of a short sale in a covered security if the price of that security declines by 10% in a single day. 17 C.F.R. § 242.201 (2019). However, the SEC expressly exempts from this circuit breaker rule "any sale by an underwriter or other member of a syndicate or group participating in the distribution of a security in connection with an overallotment of securities." *Id.* § 242.201(d)(5)(j). Overallotments are also not subject to the hard-delivery requirements of Rule 204 of Regulation SHO since the sales are not cleared through the Continuous Net Settlement system.

in the aftermarket. Trade One embodies the classic purpose of a short sale: to obtain a trading gain due to an expectation that the price of the security will subsequently fall.[92]

To execute Trade One, the underwriters sell all the Firm Shares and overallot some amount of the issuer's securities before trading starts. Overallotments up to 15% of the Firm Shares are covered short sales because they are hedged by the green shoe option. Overallotments for any excess amounts are naked short sales that must be covered by making purchases in the market.

The profit to the syndicate is the sum of all the differences between the strike price of the green shoe option and the purchase price of each repurchasing transaction. This is the trade that, as discussed in the Introduction, reportedly led Facebook's underwriters to make a $100 million profit in connection with Facebook's IPO.[93]

2. Underpriced IPOs: Short Sell at Market Prices and Cover with Option Shares

The second trading strategy (Trade Two) is used if underwriters anticipate that the offered security will trade above the initial offering price in the aftermarket. Trade Two embodies the classic case of using a call option to make a trading gain when the security underlying the option increases in price.

To execute this trade, the underwriting syndicate sells all the Firm Shares at the initial offering price listed in the registration statement. After trading begins, the syndicate short sells the issuer's stock at market prices in excess of the initial offering price. The syndicate then exercises the green shoe option and uses Option Shares to meet the delivery requirements created by the short sales.[94]

The profit to the underwriting syndicate is the sum of all the differences between the prices at which each short sale is made and the strike price of the green shoe option.

3. Refreshing the Shoe

The final trading strategy (Trade Three) is most profitable to the underwriting syndicate if there is an initial decline in the price below the initial offering price followed by an increase in price above the offer price during the exercise period of the green shoe option.

92. *Fast Answers: Short Sales*, *supra* note 46.

93. *See supra* notes 6-9 and accompanying text.

94. The reason that the short sales are made before exercising the green shoe option is for technical compliance with FINRA Rule 5130 and the SEC's Regulation M. Making purchases under the option before sales risks violations of these rules. *See infra* Sections IV.B.1 and V.C.3.

The first step in Trade Three is identical to Trade One. The syndicate sells all the Firm Shares and overallots some amount of the issuer's securities at the initial offering price listed in the registration statement. When the market price declines, the syndicate covers its short position by purchasing shares back from the market.

After executing Trade One, the syndicate account is flat in the underlying security but long the green shoe option—precisely the conditions described in Trade Two. The next step in Trade Three is to execute Trade Two. If the market price subsequently rises above the strike price of the option before the option expires, the syndicate reestablishes a net short position by short selling the issuer's security at market prices. The syndicate exercises its green shoe option and covers the net syndicate short position.

The profit to the syndicate is the profit obtained by covering the initial overallotments together with the profit obtained by short selling the issuer's securities and covering with the green shoe option.

E. What Restricts the Ability of Underwriters to Maximize Value from Green Shoe Options?

What constrains the amount of profits underwriters may make through green shoe options or overallotments? Underwriters price IPOs and make overallotments—and thus set their trading positions—subject to outside bargaining dynamics and their reputations.

The first constraint is that the underwriters must complete the IPO deal. That requires the issuer to agree to offer their securities at the IPO price, and it requires investors to subscribe for the full amount of Firm Shares and desired overallotments at that price. These bargaining dynamics limit the range of negotiable outcomes that may prevail in any given IPO.

A second constraining force is the underwriter's reputation. Too many IPOs that break the IPO price and trade down, like the Facebook IPO, and investors will stop participating in that underwriter's future IPOs. On the other hand, too many IPOs with first day pricing pops like the Airbnb IPO, and companies will begin choosing underwriters associated with less IPO underpricing. Alternatively, companies will increasingly choose IPO alternatives like direct listings or mergers with public companies or special purpose acquisition companies.

F. Welfare Effects of Underwriter Principal Trading

A full quantification of the welfare effects created by underwriter principal trading is outside the scope of this Article. Here, I only sketch a preliminary framework for thinking about possible welfare effects.

First, the mispricing attributable to the incentives created by green shoe options and overallotments generates allocation inefficiencies. Too much money goes to some less promising companies, while too little money goes to some more promising ones. Figure 1 above shows an extraordinary amount of price dispersion across IPOs, suggesting that capital is not allocated efficiently across IPOs.[95] It can be said in some sense that all members of an economy are beneficiaries of its capital markets system, and all members benefit from efficient allocation of capital, so allocation inefficiency is concerning even if there is no social deadweight loss.[96]

Second, green shoe options may create deadweight losses if underwriters and repeat investors compete to capture the rich excess payments and other rents generated by IPO mispricing. For example, underwriters may engage in costly lobbying to keep favorable regulatory rules and costly theatrics and other posturing designed to get issuers to agree to underpriced IPOs.

Finally, the incentives created by green shoe options and overallotments may have distributional consequences.[97] In overpriced offerings, investors transfer value to underwriters and issuers. In underpriced offerings, issuers transfer value to underwriters and investors.

IV. A De Novo Review: Does Anything in U.S. Law or Contract Prohibit Underwriters from Using Green Shoe Options to Profit from IPO Underpricing?

But can the principal trading theory described above be a correct explanation for green shoe options if underwriters are not even permitted to use green shoe options for their own benefit? It is generally accepted that the law permits underwriters to monetize overallotments. However, the conventional wisdom is that the securities laws *prohibit* underwriters from using green shoe options to monetize IPO underpricing, contrary to the claims of the principal trading theory.

I conduct a de novo review of this claim. Surprisingly, I find that a strategy of short selling offshores at market prices and covering with Option Shares can fully monetize the trading value of green shoe options without violating any U.S. law or regulation. The analysis places pressure on two particularly important interpretive questions: How does the SEC view use of the option to cover offshore short sales made at a profit under its antifraud rules when underwriters do not make any express misstatements about its intended use? And why does FINRA not have a rule directly

95. John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717, 735 (1984) (stating that price dispersion is one indication of allocation inefficiency).

96. *See id.*

97. In prior work I have shown how bargaining dynamics over the initial offering price may also generate inefficient deadweight loss resulting from the costly efforts of parties to avoid hold-up at the pricing meeting the night before the IPO. Corrigan, *supra* note 5, at 395 n.195.

addressing whether underwriters can profit from IPO underpricing using green shoe options?

A. The Conventional Wisdom: The Securities Laws Prohibit Underwriters from Using Green Shoe Options to Profit from IPO Underpricing

It is widely believed that the securities laws prohibit underwriters from using green shoe options for principal trading purposes. It is accordingly taken as axiomatic that initial investors, not underwriters, are the beneficiaries of any increase in the price of the issuer's stock following the IPO.[98]

The legal conclusion that the securities laws prohibit underwriters from using green shoe options to profit from IPO underpricing variously takes two forms, which I call the Pricing Regulation Assumption and the Overallotment Assumption.

First, it is widely believed that FINRA Rule 5130—the free riding and withholding rule—prohibits underwriters from selling Option Shares under a green shoe option at prices that exceed the initial offering price listed in the registration statement. A common claim is that: "FINRA rules prohibit the underwriter from siphoning off any of the shares from the offering for itself for subsequent resale at a higher price in the secondary market."[99] A variant of this claim is that all the offered shares *must* be sold at the listed price in the registration statement.[100] I group claims that underwriters face

98. For example, one securities-regulation casebook claims that "the difference between the offering price and the secondary market price on the first day of trading goes to those investors lucky enough to purchase at the [initial] offering price." STEPHEN J. CHOI & A.C. PRITCHARD, SECURITIES REGULATION: CASES AND ANALYSIS 400 (4th ed. 2015); *see also* JOHN C. COFFEE & HILLARY A. SALE, SECURITIES REGULATION: CASES AND MATERIALS (11th ed. 2009) ("[T]his built-in profit [due to secondary market price increases during the distribution] must go to the subscribing investor.").

99. CHOI & PRITCHARD, *supra* note 98, at 452; *see also* COFFEE & SALE, *supra* note 98, at 246 ("FINRA insists that the underwriter not siphon off securities intended for the public to itself, its affiliates, or other allies, based on its knowledge that the offering is oversubscribed. . . . FINRA also does not permit the underwriter to raise the primary offering price if during the course of the distribution the secondary market price rises above that price.").

100. *See, e.g.*, JAMES D. COX, ROBERT W. HILLMAN, & DONALD C. LANGEVOORT, SECURITIES REGULATION: CASES AND MATERIALS 125 (8th ed. 2017) ("The cornerstone of the underwriting syndicate is that all members must sell the offered security to the public at a fixed price that is stated in the registration statement and accompanying prospectus."). The casebook goes on to clarify that the relevant rule actually prohibits sales *below* the listed offering price but fails to discuss whether sales *above* the listed offering price are permissible. *Id.* at 126 ("The real prohibition here is FINRA Rule 5141, forbidding discounts in public offerings."); *see also* CHOI & PRITCHARD, *supra* note 98, at 452 ("[A]ll the offered shares must be sold at the offering price."); Richard Booth, *Going Public, Selling Stock, and Buying Liquidity*, 2 ENTREPRENEURIAL BUS. L.J. (2008) (manuscript at 3-4), https://ssrn.com/abstract=1029966 [https://perma.cc/Z5DT-L8ZL] ("It is important to note that the underwriter cannot sell shares for more (or less) than the specified offering price in a fixed price offering. Because the offering price is stated in the registration statement and the prospectus, it is illegal to sell shares that are part of the offering at any other price.").

substantive pricing regulation on sales of Option Shares or other sales of the offered security under the heading of the "Pricing Regulation Assumption."

Second, it is widely believed that Regulation M requires underwriters to use green shoe options *solely for the purpose of covering overallotments*. For example, one article stated that the green shoe option "can be exercised solely to cover overallotted shares at the offering."[101] Recall that an overallotment means a sale at the listed initial offering price made simultaneously with sales of Firm Shares. I group claims that underwriters must use the option solely to cover overallotments under the heading of the "Overallotment Assumption."

The connection between these two legal assumptions and the price stabilization theory of green shoe options is clear. Both assumptions have the effect of prohibiting underwriters from using green shoe options to profit from IPO underpricing. For example, the authors of one handbook state:

> Many market observers mistakenly think that the over-allotment option grants the underwriters a "windfall" profit opportunity if the underwritten issue appreciates significantly in immediate aftermarket trading. Not so! All shares distributed in an offering must be distributed at the stated fixed price, under the terms of the prospectus, and prior to termination of price and trading restrictions. . . . In addition, the NASD Free Riding and Withholding Interpretation prohibits any underwriter and/or selected dealer from capturing any such "windfall" profit.[102]

But do these assumptions accurately characterize the law that applies to the modern practices related to the aftermarket trading activities of underwriters?

Given the history of underwriter attempts to monetize IPO underpricing, it is important to periodically review such an analysis. The SEC and FINRA, together with its predecessor organization, the National Association of Securities Dealers (NASD) have long policed conduct by underwriters that involved profiteering from the mispricing of a securities

101. Ellis et al., *supra* note 64, at 1043 n.6; *see also* Aggarwal, *supra* note 59, at 1075 ("The [underwriter's] short position must be taken ex ante, before trading starts . . . .").

102. BURCH & FOERSTER, *supra* note 61, at 5-8.1; *see also* Booth, *supra* note 100, at 649 ("Obviously, if it were possible for the underwriter to follow the market up and sell shares at higher prices as the market price rises, it would be tempting to do so."); *A Comprehensive Guide: Derivatives and Hedging (Before the Adoption of ASU 2017-12)*, EY 69 (Jan. 2019) ("[W]e understand that securities law prevents the exercise of the option unless it is to cover the short position, so the underwriter is not able to economically exercise the overallotment to its benefit (i.e., the underwriter cannot exercise the option to purchase the underlying securities to benefit its proprietary trading activities).").

offering.[103] The SEC published releases in 1946,[104] 1959,[105] 1984,[106] and 2003[107] identifying and condemning various trading schemes and related practices that sought to monetize IPO underpricing. During the internet bubble, such alleged practices generated 309 class action suits on behalf of IPO investors and a $1.4 billion multi-agency settlement including ten investment banks.[108] With regard to underwriter aftermarket trading activities, the SEC staff has noted that: "[s]ecurity offerings are particularly susceptible to manipulative abuse because persons, such as underwriters, who stand to profit from such offerings have special incentives to manipulate in order to facilitate the offerings."[109]

The rest of this Part attempts to bring an analysis of the rules that apply to the aftermarket trading activities of underwriters up to date, particularly considering the growth of multinational securities offerings.

B. FINRA Rules

1. The Free Riding and Withholding Rule

The Pricing Regulation Assumption, which states that underwriters must sell all Option Shares at the listed price in the registration statement, is plausibly based on FINRA Rule 5130, the freeriding and withholding rule.

FINRA's freeriding and withholding rule prohibits underwriters from, among other things, "continu[ing] to hold new issues acquired by the

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103. Other misconduct in the context of aftermarket trading by underwriters and other broker-dealers that has been identified by the SEC over the years includes "excessive" underwriter compensation, tie-in arrangements, fraudulent sales practices with high-pressure pitches, misconduct by affiliated securities analysts, failure to deliver stock certificates to customers, premature use of investor funds that should have been escrowed until the offering was completed, use of investor proceeds, and conflicted sales to affiliates, related persons, or discretionary accounts. *See generally* U.S. SEC. & EXCH. COMM'N, REPORT OF THE SECURITIES AND EXCHANGE COMMISSION CONCERNING THE HOT ISSUES MARKETS (Aug. 1984) (describing manipulative and other trading abuses by underwriters or other market makers in hot IPOs).

104. Exchange Act Release No. 3807, 1946 WL 24586 (Apr. 16, 1946).

105. Exchange Act Release No. 4150, 1959 WL 6760 (Oct. 23, 1959).

106. U.S. SEC. & EXCH. COMM'N, *supra* note 103.

107. NYSE/NASD IPO ADVISORY COMM. REPORT AND RECOMMENDATIONS OF A COMMITTEE CONVENED BY THE NEW YORK STOCK EXCHANGE AND NASDAQ BY THE NEW YORK STOCK EXCHANGE, INC. AND NASD AT THE REQUEST OF THE U.S. SECURITIES AND EXCHANGE COMMISSION (2003). The report highlighted the role of "abusive allocation practices" in IPOs, and spinning was the primary culprit. In a spinning scheme, an investment bank allocates or "spins" underpriced securities to directors or executives of investment banking clients as a quid pro quo for channeling investment banking business back to the investment bank that spun the shares. For an analysis of spinning, see Sean J. Griffith, *A Legal and Economic Analysis of the Preferential Allocation of Shares in Initial Public Offerings*, 69 BROOK. L. REV. 583 (2004).

108. *In re* Initial Pub. Offering Sec. Litig., 241 F. Supp. 2d 281 (S.D.N.Y. 2003); Press Release, U.S. Sec. & Exch. Comm'n, SEC, NY Attorney General, NASD, NASAA, NYSE and State Regulators Announce Historic Agreement to Reform Investment Practices (Dec. 20, 2002).

109. Exchange Act Release No. 33-8511, 2004 WL 2848384 (Dec. 9, 2004).

member as an underwriter, selling group member or otherwise . . . ."[110] The free riding and withholding rule was written directly in response to parking schemes and other principal trading schemes by underwriters, especially in "hot" IPOs with severe underpricing, that enabled underwriters to profit from IPO underpricing.[111]

Importantly, FINRA Rule 5130, in relevant part, prohibits a very specific activity: "continuing to hold" the offered security. The rule does not directly prohibit the broad outcome of underwriters profiting from IPO underpricing through principal trading.

The rule, therefore, prohibits a classic parking scheme.112 Assume that the underwriter (1) executes the underwriting agreement; (2) sells only a fraction of the Firm Shares in the initial offering; (3) parks the remaining Firm Shares in a principal investment account; and (4) sells the parked shares at the end of the first day of trading a price that exceeds the initial offering price. Steps (3) and (4) clearly violate the withholding prohibition under the rule, because the underwriter continues to hold the securities even when there is demand from investors to purchase the shares at the initial offering price.[113]

However, the FINRA freeriding and withholding rule does not address underwriter short selling or delayed purchases under an option. The rule, therefore, does not prohibit using Option Shares to cover pre-existing short sales made in the market at prices above the initial offering price.

Suppose that, (1) simultaneously with the execution of the underwriting agreement, the underwriters sell all the Firm Shares to investors. After secondary trading begins and the issuer's stock price increases, (2) the underwriters short sell securities of the same class as the underwritten securities at market prices (which exceed the initial offering price). Finally, (3)

110. *Rule 5130*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5130 [https://perma.cc/KXL9-NGHE]. The rule also prohibits certain sales by distribution participants to affiliates or other "restricted persons." *Rule 5130(i)(10)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5130 [https://perma.cc/V892-6CSL].

111. According to a release by the SEC staff, the freeriding and withholding rule is "designed to protect the integrity of the public-offering process by ensuring that: (1) NASD members make bona fide public offerings of securities at the offering price; (2) members do not withhold securities in a public offering for their own benefit or use such securities to reward persons who are in a position to direct future business to members; and (3) industry insiders, including NASD members and their associated persons, do not take advantage of the 'insider' position to purchase new issues for their own benefit at the expense of public customers." Exchange Act Release No. 34-48701, 2003 WL 22438827 (Oct. 24, 2003). FINRA Rule 5130 is the successor rule to a NASD interpretation of its just and equitable provision, now codified in FINRA Rule 2010, which requires FINRA members to observe high standards of commercial honor and just and equitable principles of trade in the conduct of business. *Rule 2010*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/2010 [https://perma.cc/7T7P-F5J9].

112. *See, e.g.*, Exchange Act Release No. 3807, 1946 WL 24586 (Apr. 16, 1946) (describing parking schemes).

113. An exception applies in a "sticky" deal. If the underwriters cannot find enough purchasers to fully subscribe the offering at the listed offering price, they may place undistributed Firm Shares in an "investment account" pursuant to FINRA Rule 5130(g). *See Rule 2010*, *supra* note 111.

the underwriters exercise the green shoe option and immediately apply the Option Shares to cover the syndicate short position.

No violation of the freeriding and withholding rule should occur under these facts. At time (1), the underwriter does not own or "hold" the Option Shares, which may not have even been issued by the company yet. The same applies to time (2). Neither can it be said that the syndicate is impermissibly withholding the Option Shares at time (3) since the underwriting syndicate immediately applies the Option Shares to pre-existing sell orders. The underwriters cannot be said to "continue to hold" the Option Shares for any moment in time in the above trading strategy.

This differential legal treatment applies even though the two trading strategies may produce economically equivalent outcomes.

To see this, consider the application of the rule to a contemplated offering in which an underwriter agrees to purchase 100 Firm Shares at a negotiated discount of 7% from the initial offering price. Assume that the underwriter expects the security to trade in secondary markets at $20 per share after the initial offering (and it in fact does).

The first row of Table 1 displays the baseline result if underwriters agree to sell all 100 Firm Shares in the IPO at the aftermarket trading price of $20 per share. The underwriter's payoff is equal to the discounts and commissions of $1.40 per share on all 100 shares, or $140.[114]

The second row displays the underwriter's payoffs if it engages in a hypothetical parking scheme.[115] A parking scheme has three steps. Say the issuer and underwriter agree to sell the Firm Shares to the public at $10 per share. The underwriter only sells 85 of the Firm Shares in the initial offering, parking the remaining 15 Firm Shares in a principal investment account. The underwriter gets discounts and commissions of 70 cents per share on the 85 shares sold, equal to $59.5.[116] After the issuer's stock pops in secondary trading, the underwriter "unparks" the 15 withheld Firm Shares and sells them at the secondary market price of $20 per share. The underwriter's payoff from the sales of the last 15 Firm Shares is $160.5—the $20 sale price minus the $9.30 purchase price for all 15 shares—yielding a total payoff of $220, which is greater than the baseline profits of $140.

The third row of Table 1 displays the underwriter's payoffs if it maximizes the trading value of the green shoe option, assuming the same initial offering price of $10 per share as in the parking example. In this case, the underwriter only firmly commits to purchase and resell 85 Firm Shares and obtains an option to purchase an additional 15 Option Shares, all at $9.30 per share. The underwriter sells the 85 Firm Shares in the initial offering at $10 per share, earning discounts and commissions of $59.5. After trading

114. Equal to the underwriting discounts and commissions ($10 - $9.30) times the number of shares sold in the initial offering (100).

115. *See supra* notes 104-106 for SEC materials that discuss parking schemes.

116. Equal to the underwriting discounts and commissions ($10 - $9.30) times the number of shares sold in the initial offering (85).

begins, the underwriter exercises the green shoe option and sells the remaining 15 shares at $20 per share for a profit of $160.5. The underwriter's combined payoff using the option in this manner is $220, which is equivalent to the underwriter's payoff in the parking scheme.

Table 1 summarizes the payoffs from the different strategies.

Table 1: Payoffs from Various Offering Strategies

	Discounts and Commissions	Aftermarket Trading	Total
Baseline (No Principal Trading)	$140	$0	$140
Parking Scheme	$59.5	$160.5	$220
Green Shoe Option	$59.5	$160.5	$220

A green shoe option, therefore, is an economic substitute for withholding shares in underpriced IPOs if the issuer's stock price rises after an IPO. Indeed, the green shoe option trading strategy is superior to the parking scheme because the underwriter holds market risk on parked shares but not on shares under a call option.

2. FINRA Underwriting Compensation Rules

FINRA conducts a pre-review of underwriting agreements in connection with public offerings.[117] Of relevance, the FINRA corporate-financing rule prohibits any member broker-dealer from receiving an aggregate amount of "underwriting compensation" in connection with its participation in a public offering that is "unfair or unreasonable."[118] Underwriting compensation is defined broadly to include "any payment, right, interest, or benefit received or to be received by a participating member from any source for underwriting, allocation, distribution, advisory and other investment banking services in connection with a public offering," as well as finder's fees, underwriter's counsel fees, and securities.[119]

Trading instruments received by underwriters and actual principal trading gains made by underwriters in connection with a securities offering seem to fall within the broad definition of "underwriting compensation." However, FINRA's corporate financing rule effectively excludes both the option value of green shoe options and profits made in connection with

117. No sales of securities in the contemplated offering can occur unless FINRA has provided a "No Objections Letter." *Rule 5110(a)(1)(C)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110 [https://perma.cc/HB7Y-R75F]. The information required to be filed is located at 5110(a)(4).

118. *Id.* at 5110(a)(1).

119. *Rule 5110(j)(22)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110 [https://perma.cc/HB7Y-R75F].

short covering transactions from FINRA's review of "underwriting compensation."

The corporate-financing rule deems that options acquired in connection with a distribution and entered into for a fair price—which generally include green shoe options—"shall not have a compensation value for purposes of determining underwriting compensation."[120] This is a surprising result since green shoe options do not have to be contractually restricted in any manner to receive such favorable treatment for underwriters. This legal fiction does double work. First, the option value associated with green shoe options is not counted towards the aggregate amount of underwriting compensation when FINRA considers whether such underwriting compensation is unfair or unreasonable. Second, this provision ensures that any securities acquired by underwriters under the green shoe option are not subject to Rule 5110's mandatory lock-up period of 180 days that would otherwise apply if the securities were deemed to be underwriting compensation.[121]

Might FINRA integrate post-offering short sales or short covering purchases with a pre-offering receipt of a green shoe option, or with syndicate short sales, to find that the actual profits realized from such paired transactions provide underwriters with unfair or unreasonable underwriting compensation? FINRA does not appear to apply any such integration doctrine to the corporate financing rule. In case there was any doubt on whether short covering purchases might constitute underwriting compensation, the supplementary materials to the rule expressly state that "listed securities purchased in public market transactions" do not constitute underwriting compensation.[122]

3. FINRA Integrity of Fixed Price Offerings

FINRA Rule 5141 was also written narrowly to address the perceived abuses of underwriters offering Firm Shares to their preferred clients at prices that were lower than the prices offered to the general public.

120. *Rule 5110(c)(5)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110. Since the strike price of the green shoe option is keyed to the initial offering price in the IPO, the fair price requirement only requires a finding that the IPO is entered into at a fair price. Fair price with respect to a "derivative instrument" is defined to mean that the participating members have priced the instrument "in good faith; on an arm's length, commercially reasonable basis, and in accordance with pricing methods and models and procedures used in the ordinary course of their business for pricing similar transactions." *Rule 5110, Supplementary Material .06(b)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110 [https://perma.cc/HB7Y-R75F].

121. *Rule 5110(c)(5)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110 [https://perma.cc/HB7Y-R75F].

122. *Rule 5110, Supplementary Material .01(b)(11)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5110 [https://perma.cc/HB7Y-R75F]. Relevant to the issues arising in global offerings discussed below, listed securities are defined to include certain offshores securities markets. *Id.* at .01(c)(1).

Accordingly, the rule forbids underwriters from selling the offered securities in fixed price offerings at prices *below* the stated offering price.[123] Accordingly, FINRA Rule 5141 should not be read to prohibit underwriters from selling the issuer's securities *above* the initial offering price stated in the registration statement.[124] Thus, the rule should not be read as prohibiting underwriter short sales at market prices in excess of the initial offering price, in connection with the exercise of a green shoe option or otherwise.

4. FINRA's Just and Equitable Provision

It is unlikely that FINRA would conclude that Trade Two violates its catchall just and equitable provision, codified in FINRA Rule 5010.[125] The predecessor rule to FINRA Rule 5130 was an interpretation of the NASD interpretation of its just and equitable provision. To provide market participants with more certainty over permissible conduct in this area, FINRA codified Rule 5130 which regulated IPO allocations to certain persons and the withholding of securities. At least without prior notice to market participants, it would be difficult for FINRA to take the position that conduct that complies with Rule 5130 would violate Rule 5010.

C. The SEC's Regulation M and the Overallotment Assumption

Like FINRA's freeriding and withholding rule, Regulation M is narrowly written to prohibit specific *activities*. The rule does not prohibit the *outcome* of underwriters using green shoe options to profit from IPO underpricing.

Section 9(a)(6) of the Exchange Act prohibits any person from effecting any series of transactions in a security for the purpose of "pegging, fixing, or stabilizing the price of such security," unless permitted by SEC rules.[126] Regulation M is the SEC's regulation which implements section 9(a)(6) while also exempting certain transactions by distribution participants from the general prohibition against stabilizing prices.[127]

Regulation M's broad purpose includes preventing underwriters from artificially conditioning the market through manipulative trading activities. Rule 101 makes it unlawful for underwriters and other "distribution participants" to bid for, purchase, or attempt to induce another person to bid

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123. *Rule 5141*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/5141 [https://perma.cc/ST98-J7VH]. FINRA Rule 5141 only applies in the "fixed price offering" setting.

124. After making a "bona fide public offering of the securities" and failing to find sufficient purchasers at the offering price, underwriters can sell at prices below the initial offering price. *Id.*

125. *Rule 2010*, *supra* note 111.

126. Securities Exchange Act of 1934 § 9(a)(6), 15 U.S.C. § 78i(a)(6) (2018).

127. 17 C.F.R. § 242.100 (2019).

for or purchase a security that is the subject of a distribution during a restricted period.[128] These terms are interpreted broadly to serve Regulation M's prophylactic purpose.[129] However, Rule 101 provides generous exceptions to the broad prohibition to enable underwriters to engage in certain activities believed to be necessary and beneficial to the securities offering.[130]

1. Can Syndicate Short Sales Be Made on the Principal Account of Underwriters?

Exception 9 to Rule 101 of Regulation M grants underwriters authority to purchase and sell the issuer's securities as long as underwriters make the transactions on a principal basis, rather than as the agent of another purchaser.[131] This exception permits short selling by underwriters for their principal accounts—the very same activity unregulated by FINRA's free riding and withholding rule.[132]

2. Can Syndicate Short Sales Be Made at Prices Above the Initial Offering Price?

Nothing in Regulation M restricts the prices at which syndicate short *sales* may be made. Indeed, the only substantive pricing regulations imposed by Regulation M apply to *purchases* by distribution participants, and only those purchases made with intent to peg, fix, or stabilize an issuer's stock price.[133]

As a more general matter, Regulation M's concern is price manipulation, not underwriter payoffs. Purchases or sales of the offered securities by underwriters made at prices set independently in the market, including market prices that exceed the initial offering price, are not a primary concern of Regulation M. Accordingly, Regulation M also permits underwriters to trade in options on the underlying security during a securities distribution.[134]

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128. Interpretive issues related to these definitions may arise, but they are not relevant for the analysis here. *See id.*

129. For example, the SEC interprets the term "bid" to include a market-maker's submission of price quotations. SEC Review of Antimanipulation Regulation of Securities Offerings, 59 Fed. Reg. 21681, 21687 (Apr. 19, 1994).

130. 17 C.F.R. § 242.101(b) (2019).

131. *Id.* § 242.101(b)(9).

132. CHARLES J. JOHNSON & JOSEPH MCLAUGHLIN, CORPORATE FINANCE AND THE SECURITIES LAWS, § 4.03[C][9] ("It is sometimes overlooked that exception 9 permits short sales.").

133. 17 C.F.R. § 242.104(f) (2019).

134. *Id.* § 242.101(b)(4) (permitting the exercise of any "option, warrant, right, or any conversion privilege set forth in the instrument governing a security"); *see also* Final Rule, Anti-Manipulation Rules Concerning Securities Offerings, 62 Fed. Reg. 520, 525 (Jan. 3, 1997)

3. Can Underwriters Make Purchases Under a Green Shoe Option to Cover Short Sales Made at Market Prices?

Since the purchases under the option occur *after* the distribution, those purchases occur outside the reach of Rule 101 of Regulation M. Moreover, Exception 4 to Rule 101 expressly exempts the exercise of any option.[135]

The definition of "Completion of participation in a distribution" for purposes of Regulation M raises an interpretive issue. This definition sets forth the period in which the distribution occurs and thus governs when Regulation M's restrictions apply. A proviso to that definition states that "an underwriter's participation will not be deemed to have been completed if a syndicate overallotment option is exercised in an amount that exceeds the net syndicate short position at the time of such exercise."[136] If the "overallotment option"—a term that is undefined in Regulation M—is so exercised, then any purchases or solicitations prior to the exercise of the overallotment option might be deemed to have occurred during the "distribution" and may constitute a violation of Rule 101's general prohibitions.

The significance of this proviso is that short sales must be made before purchases under the green shoe option. If this is done, then Regulation M should not prohibit Trade Two above, and thus should not prevent underwriters from profiting from IPO underpricing. I analyze Regulation M issues raised by this principal trading strategy in turn.

4. Does Regulation M Prohibit Syndicate Short Sales After Trading Begins?

The plain text of the proviso in the definition of "[c]ompletion of participation in a distribution" does not refer to the beginning of trading or the initial offering in any way. The proviso speaks to the size of the net syndicate short position *at the time of exercise of the option*, not at the time secondary trading begins. No other provision of Regulation M

("Transactions in derivative securities, including put options, are not subject to Rule 101 during an offering of the underlying security.").

135. *Id.*

136. 17 C.F.R. § 242.100 (2019); *see also* Div. of Trading & Mkts., *Frequently Asked Questions About Regulation M*, U.S. SEC. & EXCHANGE COMMISSION (Oct. 27, 1999), https://www.sec.gov/interps/legal/mrslb9.htm [https://perma.cc/Y347-AK29] ("A syndicate member's participation in the distribution is completed when all of the securities have been distributed and after any stabilization arrangements and trading restrictions in connection with the distribution have been terminated. A later exercise of an overallotment option does not affect the 'termination' of the distribution, unless it is exercised for an amount exceeding the syndicate short position at the time of exercise.").

regulates in any manner the timing of sales of Option Shares or other syndicate short selling activities.[137]

Given that green shoe options are generally exercisable for up to 30 days following the initial offering, underwriters can establish or increase their short position any time during the 30 days following the initial offering without a violation of Regulation M. This view is shared by leading practitioners. For example, a treatise authored by attorneys from Sidley Austin LLP states that "nothing in Regulation M prohibits the syndicate manager from increasing the short position by making additional sales."[138]

5. Does Regulation M Require Underwriters to Use Green Shoe Options Solely for the Purpose of Covering Overallotments?

After making short sales in the issuer's securities at market prices that exceed the initial offering price, can underwriters then exercise the green shoe option and deliver Option Shares to cover such short sales without violating Regulation M?

Nothing in the proviso to the definition of "Completion of participation in a distribution," nor in the broader text of Regulation M, requires underwriters to use green shoe options solely for the purpose of covering overallotments. Thus, the Overallotment Assumption is not justified by Regulation M, and underwriters should be permitted under Regulation M to use green shoe options for other purposes.

6. Refreshing the Shoe

A final question is the following: can an underwriting syndicate reestablish or extend a syndicate short position after previously reducing or closing out a syndicate short position with open market purchases? This activity is called "refreshing the shoe." The significance of this question is whether short selling activities by underwriters are a one-way ratchet that must end once open market purchases begin, or whether underwriters can trade in and out of their short position before exercising the green shoe option.

Prior to 1983, the SEC staff's interpretive position under Rule 10b-6 on this issue was clear: "An underwriter with an overallotment option is

137. Short *covering* activities must be disclosed to FINRA. However, short-selling activities do not need to be disclosed or reported to the market or to regulators. 17 C.F.R. § 242.104(h)(2) (2019).

138. JOHNSON & MCLAUGHLIN, *supra* note 132, § 4.03[D][1][a]; *see also* EDWARD F. GREENE, LESLIE N. SILVERMAN, DANIEL A. BRAVERMAN, SEBASTIAN R. SPERBER, NICOLAS GRABAR & ADAM E. FLEISHER, U.S. REGULATION OF THE INTERNATIONAL SECURITIES AND DERIVATIVES MARKETS 153 n.330 (12th ed. 2019) ("The lead manager's decision as to the size of the short position at any given time during the typical period during which the overallotment option can be exercised (30 days) primarily depends upon its perception of the aftermarket trading of the securities in question.").

required to cancel its option prior to purchasing in the open market. If open market purchases are made before the option is exercised, the staff's position is that the option, at that point, has been cancelled."[139] In the SEC's 1982 proposed amendments to Rule 10b-6, the SEC proposed to expressly codify this staff position directly in the text of the rule by adding a proviso to the definition of "completion of participation in a distribution" to the effect that "an underwriter will not be deemed to have completed his participation until any option obtained in connection with that distribution pursuant to which he may purchase from the issuer an additional amount of the securities has been exercised or cancelled."[140]

However, the final rule, promulgated in 1983, took a different approach, overturning rather than codifying prior staff positions. The final rule permitted an underwriter to exercise an overallotment option at any time after selling efforts ceased without a finding that the distribution continued until the option was exercised, provided that the overallotment option was not exercised in an amount that exceeded the syndicate short position that remained in connection with the distribution.[141]

Under the revised 10b-6, it was clear that underwriters could use green shoe options to cover any remaining syndicate short position after making at least some covering purchases in the aftermarket. However, it remained unclear whether, after reducing a syndicate short position with open market purchases, the syndicate could increase the syndicate short position and exercise the green shoe option to cover the new or "refreshed" syndicate short position. To be concrete, assume the case in which the syndicate members have assured the managing underwriter that they have sold all the firm commitment shares allocated to them, and the manager sends a Dealogic wire notifying the members of the termination of the agreement among underwriters and associated trading restrictions. If the managing underwriter then make additional sales for the syndicate's short account, does Regulation M deem that the manager's termination was not effective?

The contingent nature of Option Shares raises difficult interpretive issues. One commentator quipped that, before the green shoe option is exercised, the Option Shares exist "in a kind of quantum limbo, a bit like

139. Final Rule, Prohibitions Against Trading by Persons Interested in a Distribution, 48 Fed. Reg. 10628, 10640 (Mar. 14, 1983). More specifically the staff took the position that: "If the underwriter were to exercise the option after making some open market covering purchases (because the market price rises above the option exercise price before the syndicate short position is covered), these market purchases would violate the rule since they had been made before the completion of the distribution (i.e., prior to the cancellation of the option.)." Proposed Rule, Prohibitions Against Trading by Persons Interested in a Distribution, 47 Fed. Reg. 11482, 11491 n.51 (Mar. 16, 1982).

140. Prohibitions Against Trading by Persons Interested in a Distribution, 47 Fed. Reg. at 11494.

141. Final Rule, Prohibitions Against Trading by Persons Interested in a Distribution, 48 Fed. Reg. at 10640.

Schrödinger's cat."[142] One possible interpretation, using an ex post perspective, takes the position that the securities distribution includes Option Shares if and only if the green shoe option is ultimately exercised. If the option is never exercised, however, the Option Shares do not constitute part of the distribution. Another possible interpretation, using an ex ante perspective, takes the position that a distribution may be terminated before the green shoe option is exercised because it is not inevitable that the option will be exercised. However, if underwriters possess remaining inventory after the option is exercised, and the underwriters have shares remaining to distribute after the option is exercised, then the distribution will be deemed to continue.

Regulation M does not directly resolve this ambiguity, and the SEC has never publicly directly addressed the issue. However, key to the interpretation is the actual text of Regulation M, which replaced and superseded Rule 10b-6 and which modified the relevant provisions from Rule 10b-6 discussed above.[143] Regulation M appears to take the ex ante perspective identified above by clearly speaking to the size of the syndicate short position *at the time of the exercise of the option*.[144] The best interpretation of Regulation M, therefore, is that the rule provides no basis for the SEC to look back from the point in time that the green shoe option is exercised to restrict short covering activities and short selling activities during the period of time after the distribution has ended and before the green shoe option is exercised. Reaching an opposite conclusion would effectively read the words "at the time of such exercise" out of the regulatory text.

With a proper compliance system and appropriate interdealer and intersyndicate agreements, underwriters should be permitted under Regulation M to structure securities distributions in a manner that permits refreshing the shoe. Since Regulation M does not apply once the underwriter's participation in the distribution is completed, such trading activities by underwriters should not affect the ability of underwriters to

142. Felix Salmon, *Morgan Stanley's $2.4 Billion Facebook Short*, REUTERS (May 21, 2012).

143. *See infra* note 191.

144. Final Rule, Anti-Manipulation Rules Concerning Securities Offerings, 62 Fed. Reg. 520, 522 (Jan. 3, 1997); *see also supra* note 136 and accompanying text. The SEC staff has provided guidance confirming that the relevant moment for determining whether the exercise of a green shoe option results in a deemed continuance of an underwriter's participation in a distribution is the moment the green shoe option is exercised. In a FAQ publication, the Division of Trading and Markets took the position that a syndicate member's participation in the distribution is completed when all the securities have been distributed and after any stabilization arrangements and trading restrictions in connection with the distribution. The guidance expressly provided that "[a] later exercise of an overallotment option does not affect the 'termination' of the distribution, unless it is exercised for an amount exceeding the syndicate short position *at the time of exercise*." Div. of Trading & Mkts., *Frequently Asked Questions About Regulation M*, SEC. & EXCHANGE COMMISSION, https://www.sec.gov/interps/legal/mrslb9.htm [https://perma.cc/3M8S-DZC7] (Rule 100).

make markets in the issuer's stock or engage in other routine trading activities.

7. A Comparative Perspective: The European Union Market Abuse Regulation

The European Union (EU) Market Abuse Regulation provides a useful comparative perspective on Regulation M's treatment of green shoe option. The EU Market Abuse Regulation sets out certain requirements for syndicate short covering activities, which are called "ancillary stabilisation" under the rule. The EU Market Abuse Regulation provides that: "securities shall be overallotted only during the subscription period *and at the offer price*;" and that "the greenshoe option shall be exercised by the beneficiaries of such an option *only where the securities have been overallotted*."[145] This rule sets both substantive pricing restrictions on overallotments and restrictions on the use of the green shoe option. There are no comparable restrictions under U.S. law.

The preamble to the Market Abuse Rule also expressly sets forth the purpose of green shoe options to remove any residual ambiguity: "[t]o provide resources and hedging for the stabilisation activity, ancillary stabilisation in the form of exercising overallotment facilities or greenshoe options should be allowed."[146] No source of current U.S. authority contains a comparable statement of purpose for green shoe options.[147]

D. The Volcker Rule

Syndicate short sales above the offering price for the account of the underwriters might constitute prohibited proprietary trading under the Volcker Rule if made by a "banking entity" covered under the rule.[148] "Proprietary trading" means engaging as principal for the trading account of any purchase or sale of a financial instrument, so short sales by underwriters in connection with securities offerings should fall under the general prohibition.[149] Of all the rules analyzed so far, the Volcker Rule is most on

145. EU Regulation 2016/1052, Article 8(a), (c) (Mar. 8, 2016) (emphasis added). While the EU Market Abuse regulation provides more specific language, it still fails to define the terms "subscription period" and "overallotment" on the face of the rule, providing room for interpretive ambiguity.

146. EU Regulation 2016/1052, Preamble (Mar. 8, 2016).

147. The SEC's position on the purpose, if any, of green shoe options for purposes of Regulation M has evolved. *See infra* notes 188-192 and accompanying text.

148. Bank Holding Company Act of 1956 § 13(h)(1), (4), 12 U.S.C. § 1851(h)(1), (4) (2018); 12 C.F.R. § 248.2(c) (2019). "Banking entities" generally include insured depository institutions and their affiliates.

149. 12 U.S.C. § 1851(h)(4) (2018); 12 C.F.R. § 248.3(a). The term "trading account" narrows the application of the proprietary-trading definition to certain short-term trading activities. 12 C.F.R. § 248.3(b) (2019).

point with the concerns addressed in this Article: the rule directly prohibits the outcome of underwriters profiting from principal trading under certain circumstances.

However, the underwriting-activities exemption to the Volcker Rule permits "proprietary trading" if, among other requirements, the banking entity is acting as an underwriter for a distribution of securities and the trading desk's underwriting position is related to such distribution.[150]

Is a syndicate short position of the type described in Trade Two "related to a securities distribution" for purposes of the Volcker Rule? The Volcker Rule expressly defines an "underwriting position" as "the long *or short* positions in one or more securities held by a banking entity or its affiliate, and managed by a particular trading desk, in connection with a particular distribution of securities for which such banking entity or affiliate is acting as an underwriter."[151] As long as the short position can at least be said to have the potential to provide price support following the offering, the syndicate should be able to justify its position as related to a distribution of securities. Therefore, the Volcker Rule permits underwriting syndicates to short sell offered securities, and to use Option Shares to cover a syndicate short position.

E. Liability Risk Under the Antifraud Provisions

To complete the legal analysis, a final question is whether use of the green shoe option in the manner I have described violates the antifraud provisions of the Exchange Act. Specifically, does Trade Two subject underwriters to liability under section 10(b) of the Exchange Act?152 The SEC has never taken a public position on this question, and guidance, particularly in the context of multinational offerings, would help reduce uncertainty for issuers, underwriters, and investors.

The starting point of the analysis is the actual representations of the underwriters. If underwriters describe the option as an "overallotment option," it may very well be misleading to use the option for purposes other than covering oversales made at the initial offering price alongside sales of the Firm Shares.

However, many prospectuses merely describe the green shoe option as an "option to purchase additional shares." It is unlikely that using such an option to cover sales made in excess of the initial offering price would constitute a fraudulent or deceptive device. Importantly, the IPO prospectus discloses the intention of underwriters to create a short position and to

150. 12 U.S.C. § 1851(d)(1)(B) (2018); 12 C.F.R. § 248.4(a) (2019). There are certain other requirements under the underwriting activities exception, including that the underwriter's inventory of securities in connection with a securities distribution will not exceed the reasonably expected near-term demand for those securities. 12 C.F.R. § 248.4(a)(ii) (2019).

151. 12 C.F.R. § 248.4(a)(6) (2019) (emphasis added).

152. COFFEE & SALE, *supra* note 98, at 246; Exchange Act Release No. 4150, 1959 WL 6760 (Oct. 23, 1959).

engage in short covering transactions. For example, the plan of distribution section in the prospectus for the Snap IPO stated:

> [T]he underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. . . . The underwriters can close out a covered short sale by exercising the option to purchase additional shares or purchasing shares in the open market. . . . The underwriters may also sell shares in excess of the option to purchase additional shares, creating a naked short position.[153]

This boilerplate language from the Snap IPO closely tracks SEC staff guidance on the issue of disclosures related to aftermarket trading activities by underwriters.[154] Note that the disclosure is silent about the prices at which the contemplated short sales may be made, but typical IPOs prospectuses also state that the underwriters may vary the public offering price following the initial offering of shares.[155]

The specific disclosures described above put the market on notice that underwriters might make short sales in excess of the initial offering price. Could the SEC take the position that underwriters make a material omission by failing to emphasize this possibility? Such a position would be difficult to sustain, since the alleged omission is clearly encompassed by the disclosures, and underwriters are under no duty to make an affirmative disclosure.

Could the SEC take the position that using green shoe options to profit from IPO underpricing violates insider-trading doctrines under section 10(b)?

One possible theory is that underwriters in a firm commitment offering are temporary insiders who violate a fiduciary duty when they trade the green shoe option for a profit, and that doing so without disclosure is a violation of a fiduciary duty and actionable under Rule 10b-5.[156] However, the SEC may have trouble characterizing underwriters as temporary insiders who owe a fiduciary duty to issuers. Through the underwriting agreement that issuers execute, issuers disclaim a fiduciary relationship and acknowledge that they stand in an arms-length, commercial relationship with underwriters in a firm commitment IPO.

A second possible theory is that underwriters owe a duty to not use the confidential information obtained from the issuer for trading purposes, and that doing so without disclosure may violate Rule 10b-5 under

153. Snap Registration Statement, *supra* note 43, at exhibit 1.1., § 3.

154. *Excerpt from Current Issues and Rulemaking Projects Outline*, U.S. SEC. & EXCHANGE COMMISSION (Nov. 14, 2000), https://www.sec.gov/divisions/corpfin/guidance/ci111400ex_regs-k_sss.htm [https://perma.cc/W9WF-QUCM].

155. *See supra* note 37 and accompanying text.

156. *See, e.g.*, Dirks v. SEC, 463 U.S. 646, 655 n.14 (1983) (describing temporary insiders).

misappropriation principles.[157] However, the SEC may have trouble establishing that the underwriters were under a duty to refrain from trading in the issuer's stock.[158] On the contrary, the underwriting agreement expressly contemplates that the underwriters will purchase the shares from the issuer and resell them on their own principal account. Unless they bargain for contractual restrictions on the use of the green shoe option or specific disclosures to that effect, issuers have no reasonable expectation to believe that underwriters have committed to not trade the Option Shares for a profit, making misappropriation theories difficult to sustain under current doctrine.

Moreover, underwriters might overcome any section 10(b) insider-trading theory to the extent that they are brazen in their trading activities. The fact that underwriters clearly disclose their intention to trade the issuer's securities in the aftermarket for their principal account may shield them from claims that their trading activities satisfy the deception element of section 10(b).

Moreover, the fact that underwriters do not make ex post disclosures about trading gains is not deceptive. Underwriters are under no duty to disclose such positions or ex post trading profits. On the contrary, the SEC and FINRA have made accommodations to underwriters that *exempt* them from various reporting and disclosure requirements that would apply but for express exemptions and differential treatment.[159]

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157. *See, e.g.*, United States v. O'Hagan, 521 U.S. 642, 650-66 (1997) (describing the misappropriation theory).

158. This theory is likely to have the same challenges raised by the Mark Cuban case. SEC v. Cuban, 620 F.3d 551 (5th Cir. 2010) (noting that the defendant may not have agreed to refrain from trading in the issuer's securities and may therefore not be liable under a section 10b-5 misappropriation theory but remanding to the district court for further fact finding).

159. For example, section 16(a) of the Exchange Act generally requires certain persons to disclose purchases and sales made in equity securities, but the rule expressly exempts purchases and sales of securities made in connection with securities distributions, as long as certain conditions are met. 15 U.S.C. §78p(a) (2018); 17 C.F.R. § 240.16a-7(a) (2019). For a more detailed analysis of issues related to section 16, see the discussion about *Lowinger v. Morgan Stanley*, 841 F.3d 122 (2d Cir. 2016), *infra* Section V.E. Additionally, FINRA Rule 4560 exempts sales by an underwriter in connection with an overallotment of securities from an otherwise applicable requirement to maintain a record of total "short" positions in all customer and proprietary accounts in all equity securities, and to provide FINRA with regular reports containing information about such positions. *Rule 4560(c)(2)*, FINRA (2020), https://www.finra.org/rules-guidance/rulebooks/finra-rules/4560 [https://perma.cc/6PJD-LHXY]. Finally, Regulation M provides differential and favorable disclosure requirements for short covering purchases by underwriters. Rule 104 requires underwriters to disclose "stabilizing" bids—bids made for the purpose of pegging, fixing, or maintaining the price of a security—to the exchange on which the security is listed, which in turn notifies the market that the price of an issuer's security is subject to stabilizing bids. 17 C.F.R. § 242.104 (2019). However, underwriters need only provide prior notice of covering transactions to FINRA—and not full disclosure to the market—if they reduce a syndicate short position by purchasing shares from the open market. Lobbying efforts to keep aftermarket stabilizing transactions secret from the market has historical roots. In a dissenting statement to the 1940 Statement, Commissioner Healey wrote, "The Commission has been urged to keep [underwriter stabilizing transactions] secret." Statement of the Commission and Separate Statement by Commissioner Healy, Exchange Act Release No. 34-2446, 1940 WL 968 (Mar. 18, 1940).

In summary, it is unlikely that underwriters violate any of the antifraud provisions by pairing purchases under a green shoe option with short sales made at prices in excess of the initial offering price. More guidance from the SEC, however, is important.

F. The Use of Green Shoe Options Given the Limited Extraterritorial Reach of the U.S. Securities Law

Even if the SEC disagrees with the analysis above and takes the position that the use of a green shoe option as described in Trade Two is prohibited under U.S. securities laws for any reason, underwriters may still use green shoe options to profit from IPO underpricing by exploiting the limited extraterritorial reach of the U.S. securities laws.[160]

In 1996, the SEC set forth no-action relief in the context of multinational offerings that has significance for how underwriters may use green shoe options (the Williams Letter).[161] The Williams Letter interpreted the restrictions under Rule 10b-6, the predecessor rule to Regulation M, to apply only to that portion of the total offering that is distributed in the United States.[162] Extending this logic, the SEC staff stated in the Williams Letter:

> [I]n the context of a Multinational Distribution, when the distribution in the United States has terminated (i.e. when all selling efforts in the United States have ceased and any stabilization and trading restrictions with respect to such distribution have been terminated), Rule 10b-6 does not prohibit the underwriters' exercise of an Overallotment Option in an amount that exceeds the remaining net syndicate short position, as long as further offers or sales on behalf of the syndicate account do not occur in the United States and do not result in a resumption of the offering in the United States.[163]

Since there are no restrictions on the prices at which such offshore sales may be made, the Williams Letter should provide the legal basis for underwriters to execute Trade Two, and possibly Trade Three, if sales associated with the exercise of the green shoe option are made offshores. Once the U.S. distribution is effectively terminated, Rule 101 of Regulation M no longer applies, and underwriters can engage in market making activities and other trading activities, notwithstanding their offshore trading activities.

160. However, section 929(P) of the Dodd-Frank Act raises the possibility that the SEC may reach extraterritorial trades under an antifraud theory. *See infra* Section VI.E.

161. Letter to William J. Williams, Jr., SEC No-Action Letter, 1996 WL 683203 (Nov. 27, 1996).

162. *Id.* (citing SEC Release Nos. 33-7057, 34-33924, 59 Fed. Reg. 21681, 21692 (Apr. 26, 1994)).

163. *Id.*

The effect of this no-action letter, together with the implementation of Regulation M, is to permit underwriters to use the Option Shares however they may choose without risking a violation of Regulation M, if subsequent transactions are made completely outside the United States. At least two treatises—both authored by leading capital markets practitioners—appear to share this position.[164] One of these treatises notes, as a descriptive matter, that in modern practice, underwriting syndicates "permit[] the Green Shoe option to be exercised to cover syndicate short positions created by short sales subsequent to the initial distribution."[165]

The deregulation of underwriter trading activities in multinational distributions under the Exchange Act was not anomalous, but rather consistent with decades of interpretations related to the extraterritorial reach of the U.S. securities laws.[166] As early as 1964, SEC guidance declared that "the registration requirements of Section 5 of the Act are primarily intended to protect American investors."[167] In 1990, the SEC adopted Regulation S, providing an exclusion from the registration requirements of the Securities Act for offerings made totally outside the United States.[168]

The Supreme Court of the United States dealt squarely with the extraterritorial reach of the U.S. securities laws in *Morrison v. National Australia Bank, Ltd.*[169] The Court relied on the presumption that "[w]hen a statute gives no clear indication of an extraterritorial application, it has none."[170] The Court announced a new transactional test to replace the conduct-and-effects test that had been widely applied by the Courts of Appeals to determine when U.S. securities laws extended to international

164. *See* GREENE ET AL. *supra* note 138, at 152 n.328 ("Historically, the option granted to underwriters in U.S.-registered offerings to acquire additional securities at the offering price could be exercised solely to cover overallotments, if any. As a result of the 1997 implementation of Regulation M, however, the option granted to the underwriters need not be restricted to covering overallotments in transactions to which Regulation M does not apply (e.g., U.S.-registered offerings benefiting from the ADTV exemption or Rule 144A offerings). Thus, technically, underwriters may now receive 'free' options in connection with offerings in which the underwriters are not subject to Regulation M, allowing them to exercise the option at any time, whether or not to cover a short position."); *see also* JOHNSON & MCLAUGHLIN, *supra* note 132, § 2.03[K] ("The term 'overallotment option' implies that the option will be used to cover overallotments, and in the past it was common for both underwriting agreements and prospectuses to describe the option as being intended for that purpose. Apart from potential Regulation M concerns in IPOs if action is taken to 'refresh the shoe,' however, there is no apparent reason why the option should be so limited."). For a discussion of refreshing the shoe, see *supra* Section IV.C.6.

165. JOHNSON & MCLAUGHLIN, *supra* note 132, § 5.05[W].

166. For example, Regulation S sets forth the territorial approach to the registration provisions of the Securities Act. The adopting release noted, "The registration of securities is intended to protect the U.S. capital markets and all investors purchasing in the U.S. capital market, whether U.S. or foreign nationals. Principles of comity and reasonable expectations of participants in the global market justify reliance on laws applicable in jurisdictions outside the United States to define disclosure requirements for transactions effected offshore." SEC Release No. 33-4708, 53 Fed. Reg. 22661, 22665 (June 17, 1988).

167. Exchange Act Release No. 33-4708, 1964 WL 67885 (July 9, 1964).

168. 17 C.F.R. § 230.901-05 (2019).

169. 561 U.S. 247 (2010).

170. *Id.* at 255.

transactions.[171] While *Morrison* concerned a claim brought by private litigants under section 10(b), the Supreme Court spoke more broadly about the Exchange Act's territorial reach by identifying the "focus" of Congressional concern in enacting the Exchange Act as being "purchases and sales of securities in the United States."[172]

The passage of section 929P of the Dodd-Frank Act, however, potentially extends the reach of the securities laws to offshore transactions by reviving the conduct-and-effects test, but only for the antifraud provisions of the Exchange Act, putting pressure on the SEC's position on the antifraud provision analysis discussed in Section IV.E.[173] I return to a discussion of section 929P of the Dodd-Frank Act in Section VI.E.

* * *

I conclude that underwriters may, consistent with U.S. law and regulations, short sell the issuer's securities at market prices and cover the short position with shares available under a green shoe option.

G. Do Issuers Restrict the Use of Green Shoe Options Through Contract?

The surprising answer is that many issuers place no contractual restrictions on the use of the green shoe option by their underwriters.

1. Only Some, Not All, Issuers Bargain for "Overallotment Options"

In my sample of 911 IPOs, the only contractual restriction that is sometimes—but not always—placed on the use of green shoe options is that the underwriters may use these options solely for the purpose of covering "overallotments."[174] Only 54% of IPOs in the dataset used the term "overallotment option" in the underwriting section of the prospectus.[175]

The terms "overallotment" and "overallotment option" are undefined in the securities laws, IPO transaction documents, and prospectuses. Probably the best interpretation is that an "overallotment option" has restrictions consistent with the old 10b-6 interpretations of an overallotment option: that it may be used solely for the purpose of covering a short sale made at the initial offering price and in the initial offering simultaneously

171. For a description of the conducts and effects test, see *infra* note 238 and accompanying text.

172. *Morrison*, 561 U.S. at 266.

173. The suit must be brought by the Department of Justice or the SEC.

174. For a description of the sample, see *supra* note 72. *See, e.g.*, Uber Prospectus, *supra* note 41 ("The underwriters have the option to purchase up to an additional 27,000,000 shares of common stock from the selling stockholders solely to cover over-allotments, if any.").

175. I analyzed a sample of 100 underwriting agreements for these 911 IPOs and confirmed that there are generally no contractual restrictions on the use of the green shoe option that are not disclosed in the prospectus.

with sales of Firm Shares. However, even this is subject to interpretive issues since, in at least a few instances, underwriters take care to define an overallotment more generically as involving "sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position."[176] This latter definition would include short sales made at market prices under the umbrella of "overallotments."

In the remaining IPOs, however, issuers grant their underwriter a plain vanilla "option to purchase additional shares" with no additional restrictions. In these IPOs, the term "overallotment" is not found anywhere in the underwriting agreement or prospectus.[177] Underwriters face no contractual restrictions on the use of green shoe options in these IPOs, and the options may be used for any lawful purpose.

2. The Underwriting and Syndicate Transaction Documents Permit Principal Trading Activities

Market standard underwriting syndicate transaction documents do not restrict the ability of underwriters to use green shoe options to profit from IPO underpricing.

The several underwriters in a syndicate typically define their relationships to each other in an agreement among underwriters (AAU).[178] The underwriters, in turn, may sell either or both of Firm Shares and Option Shares to a broader group of broker-dealers pursuant to a selected dealer agreement (SDA).[179]

The AAU does not restrict the prices at which short sales or other sales of the offered securities may be made. The agreement instead expressly authorizes the manager to sell the offered shares at various prices, including at market-based prices.[180]

Nor does the AAU restrict the timing or nature of sales of the issuer's securities. On the contrary, the AAU also grants the managing underwriter

176. *See, e.g.*, FXCM, Inc., Prospectus, (Form 424B4) 159 (Dec. 1, 2010), https://www.sec.gov/Archives/edgar/data/1499912/000095012310110764/y87330b4e424b4.htm [https://perma.cc/K9JE-XFZW].

177. *See, e.g.*, Snap Prospectus, *supra* note 37.

178. For all references, I cite to the Securities Industry and Financial Markets Association (SIFMA) standard form Master Agreement Among Underwriters (MAAU) and the SIFMA standard form Master Selected Dealers Agreement (MSDA). *Model Master Agreement Among Underwriters*, SIFMA (Nov. 21, 2019) [hereinafter MAAU], https://www.sifma.org/wp-content/uploads/2018/12/MAAU-blackline-against-December-10-2018-version.pdf [https://perma.cc/AF2U-PE94]; *Master Selected Dealers Agreement*, SIFMA (Nov. 21, 2019) [hereinafter MSDA], https://www.sifma.org/wp-content/uploads/2018/12/MSDA-blackline-against-January-4-version.pdf [https://perma.cc/3JV2-RZT2].

179. The selected dealers together with the underwriters compose the selling group.

180. MAAU, *supra* note 178, § 3.1; MSDA, *supra* note 178, § 4.

sweeping authority to make initial allocation decisions,[181] to sell the Firm Shares or Option Shares to selected dealers and to international syndicates,[182] and to "over-allot in arranging sales."[183] The SDA, in turn, affirms the manager's authority to engage in over-sales, short covering transactions, and other transactions on behalf of the several underwriters.[184]

3. Issuers Disclaim a Fiduciary Relationship with Underwriters

Given the incomplete terms related to green shoe options and syndicate short selling in the underwriting agreement, you might think that issuers would bargain for the protections of a fiduciary relationship with their underwriters. However, issuers expressly *disclaim* an agency and fiduciary relationship with their underwriters and acknowledge that underwriters are acting for their own best interests in an arms-length relationship with the issuer.[185]

The kicker is that the managing underwriter—to whom the members of the underwriting syndicate delegate authority to negotiate the initial offering price, to make overallotments, and to make decisions regarding the green shoe option—is an agent of the members of the underwriting syndicate. Thus, the managing underwriter has a fiduciary duty to negotiate the initial offering price and to use the green shoe option in the manner that is most beneficial to the underwriters in the syndicate, even when the interests of the syndicate are adversarial to the issuer's interest.

The agency and fiduciary duty waiver between issuers and underwriters in the underwriting agreement is not dispositive as to whether an agency relationship exists between issuer and underwriter, and the same may apply to a fiduciary relationship.[186] Given advisory relationships between the issuer and the underwriter that might arise outside of the

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181. The MAAU grants the managing underwriter authority over sales in the syndicate account or "pot." The several underwriters are prohibited from selling shares from the pot, even if they are obligated to purchase those shares, until the manager, at its discretion, releases those shares from the pot. *See* MAAU, *supra* note 178, § 3.6

182. *Id.* §§ 2.3, 3.5.

183. *Id.* §§ 5.1, 10.12

184. MSDA, *supra* note 178, § 6.

185. Boilerplate language in underwriting agreements states that: "The Company acknowledges that in connection with the offering of the Shares: (i) the Underwriters have acted at arm's length, are not agents of, and owe no fiduciary duties to, the Company or any other person, (ii) the Underwriters owe the Company only those duties and obligations set forth in this Agreement and prior written agreements (to the extent not superseded by this Agreement), if any, and (iii) the Underwriters may have interests that differ from those of the Company." Snap Registration Statement, *supra* note 43.

186. As to the agency relationship waiver, see, for example, Jenson Farms Co. v. Cargill, Inc., 309 N.W.2d 285 (Minn. 1981), which found a principal-agent relationship even though the parties never expressly agreed to one. As to the fiduciary relationship waiver, see Andrew Tuch, *Fiduciary Principles in Banking*, *in* THE OXFORD HANDBOOK OF FIDUCIARY LAW 125, 139-40 (Evan J. Criddle, Paul B. Miller & Robert H. Sitkoff eds., 2019), which finds that some recent opinions regard disclaimers as nondispositive on the fiduciary relationship question.

underwriting agreement, a court might find that a fiduciary relationship exists, or that its existence is a question of fact suitable for a jury trial.[187] My analysis exposes a tension at the heart of firm commitment securities offerings: are there circumstances in which a managing underwriter might be a dual fiduciary with simultaneous duties to both the issuer as seller and to the several underwriters as purchasers?

H. Why Has the Conventional Wisdom About Green Shoe Options Lasted So Long?

What explains why the conventional wisdom about green shoe options could last so long? The most likely explanation is that the Williams Letter and Regulation M were deregulatory events that no one noticed, except perhaps the parties with the most interest in these regulations: underwriters and their counsel.

Indeed, the Overallotment Assumption *did* have a basis in U.S. securities laws—at one point in time. In 1943, the Director of the SEC Trading and Exchange Division stated: "[A] syndicate overallotment is customarily made for the purpose of facilitating an orderly distribution of the offered securities by creating buying power which can be used for the purpose of supporting market price."[188] Later, the accompanying releases to the 1981 proposed amendments to Rule 10b-6—the predecessor rule to Regulation M—and the 1983 final rule set stated that the "primary" purpose of green shoe options was to anticipate customer cancellations, while an ancillary purpose was to hedge over-sales for the purpose of creating buying power to support the issuer's market price in furtherance of a distribution of securities.[189] Both of these purposes contemplated that the option would be used to cover overallotments. Consistent with these twin purposes, it appears that the SEC staff at the time informally took the position that the recognized purposes of overallotment options imposed an implicit requirement that overallotment options must be used *solely* for the purposes of covering overallotments.

However, the SEC staff reversed its informal position in the context of multinational offerings in 1996.[190] The Williams Letter permits an

187. *See, e.g.*, EBC I, Inc. v. Goldman Sachs Co., 936 N.Y.S.2d 92 (App. Div. 2011) (refusing to dismiss for failure to state a claim for breach of fiduciary duty when an investment bank underwriter of an IPO had pre-existing relationships with the company).

188. Exchange Act Release No. 34-3505, 11 Fed. Reg. 10987, 10987 (Nov. 16, 1943).

189. Proposed Rule, Prohibitions Against Trading by Persons Interested in a Distribution, 47 Fed. Reg. 11482, 11490 n.49 (Mar. 16, 1982) (citing Exchange Act Release No. 3506 (Nov. 15, 1943)); *see* Final Rule, Prohibitions Against Trading by Persons Interested in a Distribution, 48 Fed. Reg. 10628, 10640 (2018); Exchange Act Release No. 657, 1994 WL 138672 (Apr. 19, 1994).

190. Letter to William J. Williams, Jr., SEC No-Action Letter, 1996 WL 683203 (Nov. 27, 1996).

underwriter to exercise a green shoe option in an amount that exceeds the number of remaining overallotments at the time of the exercise.

Moreover, the SEC extinguished its old interpretations of green shoe options under Rule 10b-6 and ratified the more permissive uses of green shoe options through the adoption of Regulation M, which superseded and replaced Rule 10b-6 and interpretations thereunder.[191] Unlike in the 1983 proposed amendments to Rule 10b-6 and the final rules in 1985, the releases accompanying the proposed and final rules for Regulation M in 1996 and 1997 respectively were silent as to the purposes or uses of green shoe options. Instead, the overallotment option was described more generally as a mere option to purchase additional shares from the issuer.[192] Significantly, the brief discussion of overallotment options in the Regulation M adopting release approvingly cites to the 1996 Williams Letter, suggesting that Regulation M contemplates the use of green shoe options for purposes other than covering overallotments.

I. Green Shoe Options and the Behavioral Theory of IPO Pricing

Given the inattention to the deregulatory shift created by the Williams Letter and Regulation M,[193] green shoe options that do not impose contractual restrictions on their use may be an example of what Professors Kahan and Gulati call a contract of inattention—one in which a term that is disadvantageous to one party survives because of inattention or misunderstanding of the term by the disadvantaged party.[194] As in some contracts of adhesion, issuers that grant their underwriting syndicate an "option to purchase additional shares" fail to understand that U.S. securities laws fail to prohibit underwriters from using these additional shares for their own principal trading activities. Unlike contracts of adhesion, however, issuers may have the ability to contract for an "overallotment option" that protects them against opportunistic use of the green shoe option.

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191. Final Rule, Anti-Manipulation Rules Concerning Securities Offerings, 62 Fed. Reg. 520, 522 (Jan. 3, 1997) (stating that "Regulation M replaces Rules 10b-6, 10b-6A, 10b-7, 10b-8, and 10b–21 . . . which are being rescinded"). Interpretations not expressly incorporated into Regulation M, including most pre-10b-6 guidance on green shoe options and overallotments, need no longer be considered. *See* JOHNSON & MCLAUGHLIN, *supra* note 132, at 54 n.72.

192. *See* Proposed Rule, Trading Practices Rules Concerning Securities Offerings, 61 Fed. Reg. 17,108, 17,124 n.86 (Apr. 18, 1996) (describing an overallotment option as the "right, but not the obligation, to purchase securities from the issuer in addition to those initially underwritten by the syndicate, which may constitute up to 15 percent of the initial underwritten amount"); *see also* Review of Antimanipulation Regulation of Securities Offerings, 59 Fed. Reg. 21,681, 21,689 (Apr. 19, 1994) ("Issuers sometimes grant an overallotment option (so-called 'Green Shoe' option) to underwriters to purchase securities in addition to the amount that the syndicate is committed to purchase from the issuer.").

193. *See supra* Section IV.F.

194. Kahan & Gulati, *supra* note 29.

Such a possibility is consistent with the behavioral theory of IPO pricing that I have developed in prior work.[195] That work showed how an IPO contract that enabled underwriters to hold up issuers and underprice their IPOs might emerge in equilibrium in IPO markets if a sufficient fraction of issuers were naïve in the sense that they failed to anticipate their underwriter's incentives or capacity to underprice the offering.[196] The optimal strategy of underwriters in equilibrium would be to underprice or overprice each individual IPO as much as possible.[197] One advantage of the behavioral theory of IPO pricing over competing explanations of IPO underpricing is that the behavioral theory explains why private ordering does not solve persistent IPO mispricing. Indeed, according to the model, competition among underwriters *entrenches* the inefficient IPO contract in equilibrium.[198]

The use of a mechanism like a green shoe option is a direct prediction of the behavioral theory of IPO pricing. Ex ante, the costs associated with green shoe options are non-salient to naïve issuers because those issuers fail to anticipate their vulnerability to IPO underpricing—precisely the outcome when the green shoe option is costly. Ex post, the green shoe option is the contractual feature that monetizes the predictable mistakes of naïve issuers for underwriters by loading additional and unexpected underpricing costs on them to the benefit of underwriters.

To the extent that some IPO issuers are naïve as defined in the behavioral theory of IPO pricing, asymmetric interpretations of the U.S. securities laws as they apply to green shoe options may play a role in preventing naïve issuers from using contract to protect themselves against underpricing costs. Issuers and their counsel may interpret the law to protect them against certain conflicts of interest and opportunistic actions by their underwriters, when in fact the law does not so protect them. This provides one explanation for why only some, and not all, issuers bargain for the contractual protection that a green shoe option be used solely for the purpose of covering overallotments.

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195. Corrigan, *supra* note 5.

196. An additional condition is that underwriters have the capacity to monetize IPO underpricing, a condition is met if underwriters can use their green shoe options to profit from IPO underpricing.

197. The pivot between underpricing and overpricing strategies, as well as the magnitude of the mispricing, depends on outside bargaining dynamics in each IPO and the amount of expected rents from underpriced IPOs in future rounds of the IPO game. Corrigan, *supra* note 5, at 396-405 (describing the underwriter's pricing pivot).

198. The reason is that no issuer has an incentive to deviate from the IPO contract with hold-up. The underwriters who use the inefficient IPO contract are able to extract rents and subsidize the direct fees that they charge. Naïve issuers are not aware of their exploitation until it is too late, so they choose the underwriters with the subsidized direct fees. The more sophisticated issuers also choose the inefficient contract because they receive a cross-subsidy by doing so: underwriters use the excess rents generated by underpricing the IPOs of naïve issuers to *overprice* the IPOs of sophisticated issuers. Corrigan, *supra* note 5, at 390 (describing the debiasing curse). Moreover, learning may be more difficult in the IPO context than in other markets because issuers only complete one IPO, but they transact with repeat player underwriters and investors. *Id.* at 383 (describing the first period problem).

V. Predictions and Explanatory Power of the Principal Trading Theory

A. IPO Pricing Outcomes

1. Aggregate IPO Mispricing

Unlike the price stabilization theory, the observance of IPOs with negative initial returns is a direct prediction of the principal trading theory's claim that underwriters price at least some IPOs to maximize their short selling payoffs. In my dataset, 28% of IPOs are overpriced with average initial returns of negative 10.3% by the tenth day of trading. Initial returns in overpriced IPOs systematically trend downwards, consistent with the expiration of large short covering transactions by underwriters.

Second, the principal trading theory's claim that underwriters effectively hold a straddle at the initial offering price, and therefore have incentives to price IPOs to maximize variability, predicts that underwriters overprice or underprice IPOs *by as much as possible*. The price stabilization theory, on the other hand, predicts that underwriters attempt to price an IPO so that it obtains a modest return above and close to 0%.

While the baseline of initial returns without green shoe options and overallotments cannot be known with certainty, the extraordinary variability of initial returns exhibited in Figure 1 is more consistent with the principal trading theory's predictions. Based on my data, the best a founder can say about the expected tenth-day return of her company following its IPO with 95% confidence is that the return will lie between -27% and 96%. You might have more confidence that a car dealership will price used cars closer to market value than investment bankers will price companies in IPOs.

2. Correlation of Option Type with IPO Pricing Outcomes

I categorize an IPO as using an "overallotment option" if the green shoe option uses the phrase "overallotment option" in the "Underwriting" or "Plan of Distribution" section of the final prospectus, or if the prospectus states that the option may be used "solely for the purpose of covering overallotments." All other IPOs are coded as using an "option to purchase additional shares."

To the extent that an "overallotment option" restricts the ability of underwriters to profitably trade the green shoe option in underpriced IPOs, then IPOs with these options should be associated with less IPO underpricing.

Consistent with the predictions of the principal trading theory, the mean first-day return for IPOs with "overallotment options" is 13.1%, compared to a mean first-day return of 19.7% for IPOs with "options to purchase additional shares" in my sample of 911 U.S. commercial IPOs between 2010 and 2017.[199] In a Welch two-sample t-test, the difference in means between the two groups is significant at below the 0.1% level.

On average, IPOs with "options to purchase additional shares" also experience higher variability of initial returns. The standard deviation of first day returns in IPOs with "overallotment options" is 23.2%, compared to the standard deviation of first day returns of 31.9% in IPOs with "options to purchase additional shares." These results are also consistent with the predictions of principal trading theory but have no explanation under the price stabilization theory.

B. Contractual Features of IPOs

1. Why Do Issuers Give Underwriters a Call Option?

The principal trading theory has a more parsimonious explanation for the structure of green shoe options than the price stabilization theory. The principal trading theory posits that parties assign the ordinary trading use to a call option.

Given that price-stabilization activities could be funded in ways that do *not* lead to instances of dilution when price stabilization is not even necessary, the price stabilization theory does not have a satisfactory explanation for why underwriters demand a call option from issuers.[200]

2. Why Do Certain Pre-IPO Stockholders Sign Lock-Up Agreements?

The dominant explanation for lock-up agreements is effectively the same as the one for green shoe options: price stabilization.

Lock-up agreements generally prohibit the issuer, certain insiders of the issuer, selling stockholders, and certain other affiliates from trading or disposing of the distributed securities for a six-month period without the underwriter's consent. It is argued that allowing these insiders to trade their securities in the aftermarket will interfere with the price discovery process.[201] This position is somewhat puzzling given the usual assumption that restricting the ability of informed parties to trade *impedes* rather than assists price discovery in securities markets.

The principal trading theory of green shoe options provides a better explanation for lock-up agreements: they solve a coordination problem under Rule 102 of Regulation M when underwriters want to preserve their

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199. *See supra* note 72 and accompanying text.

200. *See supra* note 69 and accompanying text.

201. *See* Alon Brav & Paul A. Gompers, *The Role of Lockups in Initial Public Offerings*, 16 REV. FIN. STUD. 1 (2003) (finding support for the hypothesis that lockups are used as a commitment device to alleviate moral hazard problems).

ability to extend a syndicate short position throughout the entire 30-day exercise period of the green shoe option.

Rule 102 of Regulation M imposes on certain insiders and pre-IPO stockholders many of the same transactional restrictions that apply to underwriters under Rule 101 of Regulation M during the prescribed restricted period.[202] The restricted period ends for the issuer and selling stockholders, generally, upon the completion of the distribution of the offered securities by the underwriters.[203] Since the green shoe option has a 30-day exercise period, it is possible that Option Shares, to the extent they are purchased by underwriters from the issuer, may not be distributed for 30 days after signing the underwriting agreement.

If covered insiders and stockholders, believing that the distribution was complete, began trading before the underwriters had completed the distribution, those persons might unknowingly violate Rule 102. The SEC staff has historically taken the position that lack of knowledge that a distribution is still ongoing is no defense to violations of the SEC's rules under section 9(a)(6) of the Exchange Act.[204] Underwriting syndicates solve their information problem under Rule 101 by contracting for information rights and trading restrictions.

According to the principal trading theory, therefore, lock-up agreements are an extension of syndicate trading restrictions that ensure compliance with Rule 102 of Regulation M.

This functional Regulation M explanation for lock-up agreements illuminates why the direct listings of Spotify and Slack did not utilize lock-up agreements. Since the direct listing did not constitute a "distribution" for purposes of Regulation M, there was no need to lock people up to avoid inadvertent violations of Rule 102.[205]

The principal trading theory, however, cannot explain why lock-up agreements typically apply for a duration of six months, rather than the one-month green shoe option exercise period. Perhaps the explanation for this extended period is that lock-up agreements provide underwriters with a source of leverage in obtaining the mandate from the issuer for any follow-on offerings, because the lock-up agreements specify that issuers cannot sell any of its stock during the lock-up period without the underwriters' consent. Thus, lock-up agreements give underwriters a veto right over any

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202. 17 C.F.R. § 242.102(a) (2019). Covered persons under Rule 102 include the issuer, selling security holders, and "affiliated purchasers." *Id.* Affiliated purchaser is defined broadly to include, among others, "[a] person acting, directly or indirectly, in concert with a distribution participant, issuer, or selling security holder in connection with the acquisition or distribution of any covered security." 17 C.F.R § 242.100 (2019).

203. 17 C.F.R § 242.100 (2019).

204. *See* Exchange Act Release No. 34-3506, 11 Fed. Reg. 10987, 10987-88 (Nov. 16, 1943).

205. Letter to Dana G. Fleischman, SEC No-Action Letter, 2018 WL 1531993 (Mar. 23, 2018).

proposed follow-on offering, forcing issuers to use the same underwriter for a follow-on offering or asking that underwriters permission to use a competing underwriter.

While the underwriter's institutional clients who are pre-IPO investors may not like the six-month lock-up period, underwriters are permitted to release these clients from their lock-up obligations, which they may do as soon as the Regulation M restricted period ends.[206]

One payoff of the principal trading theory, therefore, is to expand the range of negotiated terms in IPOs. Issuers and Rule 102 covered persons should be able to bargain for information rights regarding the duration of the distribution period as a substitute for lock-up agreements.

C. Laddering

In the early 2000s, the SEC brought actions against various underwriters for allegedly engaging in "laddering." In a laddering scheme, underwriters attempt to line up artificial investor demand for the issuer's security in secondary markets. Underwriters condition allocations to investors made before the IPO on an informal commitment by the investors to purchase the issuer's security in secondary markets after the IPO.[207] The artificial demand pumps the issuer's security price higher in trading markets, thus the moniker "laddering."

To date, no satisfactory explanation for laddering or identification of its beneficiaries exists in the academic literature. A puzzling feature about laddering is that SEC enforcement actions against laddering schemes occurred in hot IPOs, where the price of the issuer's stock skyrockets on the first day. Why would underwriters attempt to line up aftermarket demand when there was no question that they could sell all the Firm Shares in the IPO at the listed price?

For example, Avanex initially offered its stock to the public in its IPO at $36 per share. According to an SEC complaint, a sales representative from Morgan Stanley, Avanex's underwriter, emailed a customer prior to the IPO asking for a commitment to buy in the aftermarket at $150 per share in exchange for a larger initial allocation:

206. Generally, underwriters do not have to disclose to the public instances of early lock-up releases. However, FINRA Rule 5131(d)(2) requires underwriters to publicly disclose any early release of a lock-up agreement or other restriction on the transfer of the issuer's shares entered into in connection with a new issue only if the release applies to *officers and directors* of the issuer. *FINRA Rule 5131*, FINRA, https://www.finra.org/rules-guidance/rulebooks/finra-rules/5131 [https://perma.cc/H6QP-QP4M]. Thus, underwriters can release non-insider venture capital backers of an issuer and other non-insiders without public disclosure.

207. Press Release, U.S. Sec. & Exch. Comm'n, SEC Sues Morgan Stanley and Goldman Sachs for Unlawful IPO Allocation Practices (Jan. 25, 2005), https://www.sec.gov/news/press/2005-10.htm [https://perma.cc/6568-25LY].

> Aftermkt on [the Avanex IPO] goes into the 100's from lots of customers . . . . How is this for a strategy: put in aftermkt for $150, the stock runs to about $110, you buy it there - even if it pulls back and you lose some on the shares short term, you [] got more stock on the deal since your aftermkt was so freakin big.[208]

This conduct clearly violates Regulation M. But why were underwriters and their affiliated sales teams attempting to break the law to engage in laddering in the first place? Since the underwriters know that price support will not be needed in IPOs like Avanex's, the price stabilization theory cannot explain this conduct.

On the other hand, laddering has a straightforward explanation under the principal trading theory of green shoe options. To monetize the green shoe option in compliance with the freeriding and withholding rule and Regulation M, the syndicate needs to short sell an enormous slug of shares at *market prices after the initial offering*.[209] By lining up artificially high demand for the issuer's stock in the aftermarket, underwriters can short sell at an artificially high price.[210] The point of laddering, then, is precisely to help underwriters complete short sales at elevated market prices to maximize principal trading gains.

The principal trading theory also explains similar unexplained misconduct, including violations of best execution responsibility by underwriters in the aftermarket following IPOs. For example, the NASD announced in 2004 that it had fined Credit Suisse First Boston (CSFB) for failing to give best execution to customer orders after MP3.com's IPO.[211] Among the findings reported by the NASD was that CSFB made 330,000 short sales at the opening of trading on the NASDAQ following MP3.com's IPO.[212] CSFB made these short sales for its principal account even though it had unfilled sell orders from customers. The short sales by CSFB were made at a price of $100.50, while the initial offering price in the IPO was only $28 per share.

The NASD focused on violations of CSFB's best execution obligations, but the bigger puzzle is why was CSFB *short selling* at all at the

208. U.S. Securities and Exchange Commission, Litigation Release No. 19050, (Jan. 25, 2005), https://www.sec.gov/litigation/litreleases/lr19050.htm [https://perma.cc/GS8A-FF8M].

209. Such sales may be made indirectly through the intermediation of selected dealers or international underwriting syndicates.

210. "The impact of any such 'tie-in' arrangement is to create an artificial demand for the shares, which should increase the first day price spike seen in many 'hot' offerings." COFFEE & SALE, *supra* note 98, at 655.

211. News Release, NASD, NASD Fines CSFB $170,000; Orders $600,000 in Restitution for Failure to Give Best Execution to Customer Orders After IPO (Feb. 2, 2004) (on file with author).

212. *Id.*

opening of trading following an IPO that it was underwriting when the price had nearly quadrupled over the underwritten price?[213]

The NASD release did not provide information related to CSFB's purpose for making the short sales. It also did not state whether CSFB used shares acquired under its green shoe option to cover the short sales. Nevertheless, the short selling activities of CSFB as documented by the NASD release are consistent with Trade Two in which compliance with Regulation M and FINRA Rule 5130 requires that short sales be made at market prices before exercising the green shoe option. The price stabilization theory, on the other hand, has no explanation for CSFB's short sales and violations of its best execution obligations.

D. Extreme IPO Underpricing Following the Internet Bubble

An enduring puzzle in the literature on IPOs is why mean IPO underpricing spiked so significantly during the internet bubble years. On average, IPOs were underpriced by 71% and 56% in 1999 and 2000, respectively.[214] Mean IPO underpricing during these years was substantially higher than the longer-term average of around 18%. Why did the means shift so suddenly during the internet bubble?

The analysis in this Article provides a new explanation: the 1997 implementation of Regulation M, together with the 1996 William J. Williams Letter, was a deregulatory event that supercharged the incentives of underwriters to underprice IPOs by making it permissible for them to monetize the trading value of green shoe options. Under prior interpretations of Regulation M's predecessor, Rule 10b-6, underwriters had to use green shoe options solely for the purpose of covering overallotments.[215] Following the Williams Letter and Regulation M's implementation in 1997, underwriters had more comfort that they could use green shoe options for principal trading purposes.[216]

The increased underpricing during the internet bubble era, therefore, may have reflected the new incentives for underwriters to underprice IPOs provided under Regulation M. At the same time, asymmetric interpretation about these new uses, and about applicable securities laws, would have been highest right after Regulation M's implementation in 1997. The

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213. The founder of MP3.com, Michael Robertson, apparently unaware of the underwriters' intention to make the short sales or their purpose for doing so, wrote a blog post claiming that the short sales involved "corrupt dealings" in which "[t]he bankers artificially forced the price up, then dumped more shares on the market to take advantage of this high price by shorting the stock ahead of other orders." *Spinning, Laddering, and Shorting (or, What's Wrong with our IPO System)*, MICHAEL ROBERTSON http://www.michaelrobertson.com/archive.php?minute_id=104 [https://perma.cc/RWW5-PAS3].

214. Jay R. Ritter, Initial Public Offerings: Underpricing 2 tbl.1 (Dec. 29, 2020) (unpublished manuscript), https://site.warrington.ufl.edu/ritter/files/IPOs-Underpricing.pdf [https://perma.cc/4MC2-C5LX].

215. *See supra* Section IV.H.

216. *Id.*

reversion of underpricing back to lower levels in subsequent years may reflect reputational considerations as the high levels of IPO underpricing in the dot-com bubble attracted considerable scrutiny from regulators and the financial press. It may also reflect sequential learning by at least some market participants about the importance of bargaining for contractual protections against underwriter conflicts of interest in the form of "overallotment options."

E. Section 16(b) Doctrine and Why the Second Circuit Decided Lowinger v. Morgan Stanley *Incorrectly*

Section 16(b) of the Exchange Act requires disgorgement of short-swing profits by certain insiders trading in the issuer's securities realized within a six-month period.[217] The statute imposes strict liability "irrespective of any intention on the part of such beneficial owner, director, or officer in entering into such transaction."[218]

The statute sets forth the rule's purpose, stating that section 16(b) is provided "[f]or the purpose of preventing the unfair use of information which may have been obtained by [a] beneficial owner, director, or officer by reason of his relationship to the issuer."[219] Section 16(b) is a blunt instrument that provides a "crude rule of thumb" to prevent the "unscrupulous employment of [corporate] inside information."[220] As underwriters obtain information from directors or officers by reason of their underwriting relationship to the issuer, section 16(b) may apply to the principal trading activities made by underwriters in connection with IPOs to the extent that underwriters constitute "beneficial owners" under the rule.

Following the Facebook IPO, plaintiffs alleged violations of section 16(b) by Morgan Stanley and other underwriters.[221] Recall that the *Wall Street Journal* reported that Facebook's underwriters made $100 million by short selling Facebook's stock in connection with the IPO.[222] The plaintiffs demanded disgorgement of any gains made by Morgan Stanley and other underwriters by short selling Facebook's stock.

The threshold issue in *Lowinger* concerned whether the underwriters were "beneficial owners" of 10% or more of any class of Facebook stock, and thus whether section 16(b) applied at all to the underwriters.[223] The

217. 15 U.S.C. § 78p(a) (2018); 17 C.F.R. § 240.16a-7(a) (2019).

218. 15 U.S.C. § 78p(b) (2018); *see* Gwozdzinsky v. Zell/Chilmark Fund, L.P., 156 F.3d 305, 310 (2d Cir. 1998) ("The statute, as written, establishes strict liability for all transactions that meet its mechanical requirements.").

219. 15 U.S.C. § 78p(b) (2018).

220. *Hearings on S. Res. 84, S. Res. 56 & S. Res. 97 Before the S. Comm. on Banking & Currency*, 73d Cong., 1st Sess., pt. 15, at 6557 (1934).

221. Lowinger v. Morgan Stanley, 841 F.3d 122 (2d Cir. 2016).

222. Chon et al., *supra* note 6.

223. 17 C.F.R. § 240.16a-2 (2019).

definition of "beneficial owner" under section 16 points to the definition of that term under section 13(d) of the Exchange Act. The SEC's regulations under section 13(d), in turn, attribute the collective ownership of all members of certain groups acting together in concert to each member of the group.[224] The precise issue in *Lowinger* was whether the lock-up agreements between underwriters and pre-IPO stockholders created a 13(d) "group."

The Second Circuit held that underwriters and shareholders that signed market-standard lock-up agreements do not constitute a 13(d) "group."

The *Lowinger* decision was plainly wrong. A "group" is defined in Rule 13d-5 as "two or more persons [that] agree to act together for the purpose of acquiring, holding, voting or disposing of equity securities of an issuer."[225] Acting together for the purpose of holding the issuer's securities is precisely the point of a lock-up agreement. It is hard to torture out a textual interpretation to the contrary. Indeed, the Second Circuit's opinion remarks: "A plain language argument suggests application of Section 13(d)."[226]

Rather than basing its decision on the language of the statute, the Second Circuit created out of whole cloth a judicial shield for underwriters against section 16(b) claims. The court noted that policy considerations—based on the prevailing wisdom about price-stabilization activities in IPOs—drove their decision:

> [W]e cannot avoid a larger, legitimate concern . . . . Applying Section 16(b) to underwriters engaged in lock-up agreements as facilitators of a public offering would impair the market for public offerings by complicating the role of underwriters—adding tens of millions of dollars in legal exposure to the underwriters' costs. As parties to lock-up agreements, the underwriters are not acting as investors seeking to buy low and sell high. Rather, they are conduits for the distribution of securities in an offering to the public in which their participation begins and ends with the offering. A central role of the standard lock-up agreement is to limit the investment decisions of large shareholders in order to bring about an orderly, and successful, offering.[227]

The Second Circuit provided no citation or substantiation for its conclusory assertion that underwriters are not "acting as investors seeking to buy low and sell high."

This Article has demonstrated that underwriters in fact have the incentives and the capacity, in at least some instances, to buy low and sell high (or sell high and buy low)—precisely the evil that section 16(b) was

224. 17 C.F.R. § 240.13d-5(b)(1) (2019).
225. *Id.*
226. *Lowinger*, 841 F.3d at 130.
227. *Id.* at 131

designed to prevent. The Second Circuit's judicial activism in *Lowinger* is, therefore, deeply troubling.

Even if the plaintiffs had won the threshold issue related to whether underwriters were part of a 13(d) group, the plaintiffs would have faced another hurdle. SEC rules expressly exempt from the short-swing trading restrictions under section 16(a) "any purchase and sale, or sale and purchase, of a security that is made in connection with the distribution of a substantial block of securities."[228]

However, the exception is not a bulletproof shield. A requirement to this exception is that the person seeking the exception must "act in good faith" in participation in the distribution. This requirement has never been litigated in the context of an IPO. The district court in the *Lowinger* litigation declined to reach this issue, but noted that question of whether the exception would apply to Facebook's underwriters:

> presents certain complex and unprecedented issues, for instance, whether Defendants' creation of informational disparities accompanied by unusually high levels of short selling, though compliant with the letter of the law, may still be "indecent" or "dishonest" for purposes of determining "good faith."[229]

The *Lowinger* decision, therefore, acts as a judicial shield to underwriters to protect them against discovery related to the question of whether underwriter principal trading activities in connection with an IPO are made in "good faith." The *Lowinger*, decision, however, disregards the plain text of the law and rests on incorrect factual assumptions. This decision should not be followed by courts that are not bound by the Second Circuit's precedent and should be revisited if the Second Circuit ever hears this issue again.

VI. A Better Approach to Regulating the Aftermarket Trading Activities of Underwriters

Given the findings in this Article that it is legally permissible for underwriters to profit from IPO mispricing by trading in the issuer's securities, it is worth, at a minimum, beginning a discussion that has not had its day among securities law practitioners and academics—does the existing regulatory scheme adequately regulate the aftermarket trading activities of underwriters?

228. 17 C.F.R. § 240.16a-7 (2019). The text of Section 16(b), in turn, appears to reference beneficial owners as determined under Section 16(a).

229. *In re* Facebook, Inc., IPO Sec. & Derivative Litig., 986 F. Supp. 2d 544, 554 (S.D.N.Y. 2014).

This Part outlines an approach to regulating the principal trading activities of underwriters that would more effectively address conflicts of interest identified in this Article than the current regulatory scheme.[230] I discuss three levels of interventions: enhanced disclosures; ex ante contracting restrictions; and direct prohibitions on ex post enrichment by underwriters through principal trading activities.

A. Enhanced Disclosure Requirements

Given the conclusion that it is plausibly permissible from a legal and contractual perspective for underwriters to monetize overallotments and green shoe options, market participants should not be left guessing about whether—and which—underwriters are doing so. Even if underwriters do *not* actually use green shoe options and overallotments for their own principal trading purposes, because they are constrained by reputation or out of ethical precepts or otherwise, asymmetric information about the scope of underwriter principal trading activities are likely to distort behavior.

Underwriters should therefore be required to make a public report of the price and timing of all short sales and short covering transactions made for the account of the syndicate, several underwriters, or selling group members. Moreover, pending a better explanation for their social value, existing exceptions for underwriter principal trading activities to the disclosure and reporting requirements of general applicability should be eliminated.[231]

The marginal costs of such disclosures would be relatively small while the benefits would be large. The disclosures would help market participants impose reputational rewards and punishments. By mitigating information asymmetries, increased disclosures should *enhance* rather than *impede* price support activities and other warranty mechanisms used in IPOs.

B. Regulating the Contracting Environment: The FINRA Corporate Financing Rule

Why does FINRA not have a rule that directly addresses the use of green shoe options by underwriters?

FINRA should codify the widespread expectation that underwriters use green shoe options for price stabilizing purposes rather than for principal trading purposes by deeming the receipt of a green shoe option that is not required to be used solely for the purpose of covering overallotments as an "unfair or unreasonable" underwriting term. The effect of this designation would be to require underwriters to use green shoe options solely

230. I do not here address the normative criticism that it is illegitimate to spend public resources to protect competent adults from their own foolish decisions.

231. *See supra* note 159.

for the purpose of covering overallotments, effectively imposing the Overallotment Assumption.

FINRA Rule 5110 reaches an untenable result by deeming that green shoe options have no compensation value for purposes of evaluating "underwriting compensation," even when such options have no contractual restrictions on their use. It is even more unjustifiable to fail to include in "underwriting compensation" actual trading gains made by underwriters when they overallot an issuer's stock in the initial distribution at the initial offering price and subsequently cover in the open market at lower prices. These two items clearly fall under the broad definition of underwriting compensation, which includes any benefit received by a participating broker-dealer from "any source" for underwriting, allocation, distribution, or other services in connection with a public offering.[232]

FINRA should create clear guidelines for ex post review of any trading gains made by trading in the issuer's securities, and for integrating those gains into the evaluation of the fairness and reasonableness of underwriting compensation. If underwriters wanted to avoid such post-offering review, they could easily do so by contractually restricting their ability to earn principal trading gains in connection with green shoe options or overallotments.[233]

C. Directly Prohibiting Underwriter Principal Trading

The current approach of the regulatory scheme is to prohibit specific activities thought to be objectionable, but permit those activities believed to be desirable. Regulators are probably not competent to design an optimal activities-based scheme. The current whack-a-mole approach enables transactional planners and financial engineers to devise new and creative ways to profit from IPO mispricing while complying with activities-based restrictions.

Regulators should abandon the current activities-based approach of the existing regulatory scheme and instead directly prohibit the objectionable outcome—underwriter profiteering from IPO mispricing. Such an objective is consistent with the insider trading prohibitions under section 16(b) and section 10 of the Exchange Act, as well as the fairness and reasonable rules imposed by FINRA. This objective could be achieved solely

232. *See supra* note 120.

233. Underwriters could agree to pass any such gains back to issuers. Alternatively, the underwriting agreement and registration statement could state that the green shoe option must be used solely for the purpose of covering overallotments made at the initial offering price in the IPO, and that overallotments would only be covered by purchases made at the initial offering price. The fact that underwriters cannot perfectly predict whether the issuer's stock will trade above or below the initial offering price is not an impediment. Even if the trading price unexpectedly opens above the initial offering price, the underwriters could still arrange for an off-exchange block trade at the initial offering price.

by rolling back exceptions to existing laws for trading activities of underwriters.

Regulators should more narrowly target the section 16(b) exception to require disgorgement of insider trading in amounts above the total amounts of underwriting discounts and commissions for Firm Shares and any Option Shares. Additionally, regulators could prohibit principal trading by underwriters that are affiliated with depository institutions by narrowing the exception to the Volcker Rule for underwriting activities to prohibit proprietary trading if the gains from such trades would exceed the amount of underwriting discounts and commissions on the combined amounts of Firm Shares and Option Shares.

A less direct and less effective approach, but one that would still be better than nothing, would be to amend Regulation M to require—like the EU Market Abuse Regulation—that green shoe options may be used solely for the purpose of covering overallotments, and that all overallotments must be made in the subscription period before secondary trading begins.

D. The 2004 Proposed Amendments to Regulation M

There is one pending regulatory change on the table. In 2004, the SEC proposed amendments to Regulation M, a proposal that has neither been adopted nor rescinded. The proposal required disclosure of syndicate short covering bids to the market and to specific counterparties.[234] The proposal did not seek to mandate disclosure of short selling transactions to the public.

Of more interest, and even more controversy, was proposed Rule 106 which would expressly prohibit conditioning the award of allocations of offered securities on the receipt of consideration in addition to the stated offering consideration.[235] It is not clear what types of activities this rule would address that are not already prohibited under current law. For example, the SEC has long taken the position that tying allocations of underpriced shares to quid pro quo consideration is fraudulent and manipulative, and actionable under section 17(a) of the Securities Act and section 10(b) and Rule 10b-5 of the Exchange Act.[236] Moreover, the SEC considers laddering, another tie-in arrangement, to be actionable under Regulation M.[237]

234. Exchange Act Release No. 33-8511, 2004 WL 2848384 (Dec. 9, 2004).

235. In 1980, the SEC proposed a similar rule, Rule 10b-20, which would have prohibited broker-dealers and others from (explicitly or implicitly) demanding from their customers any payment or consideration, including a requirement to purchase other securities, in addition to the security's disclosed offering price. This proposed rule was withdrawn in 1988.

236. Securities Act of 1933 § 17(a), 15 U.S.C. § 77q (2018); Securities Exchange Act of 1934 § 10(b), 15 U.S.C. § 78j(b) (2018).

237. *See supra* Section V.C.

The capacious language of proposed Rule 106 may give the SEC a new hook to investigate and regulate underwriter principal trading activities. However, since it only regulates principal trading activities indirectly, proposed Rule 106 is likely to have the same flaws as the other activities-based approaches in the regulatory scheme.

E. Reviving the Conduct-and-Effects Test Under Section 929(P) of the Dodd-Frank Act

Given questions about the extraterritorial reach of U.S. securities laws and the Volcker Rule, it is not clear that the interventions discussed above that regulate ex post outcomes would reach offshore sales made in connection with the exercise of a green shoe option.

Under the old conduct-and-effects test, section 10(b) might apply to a transaction if the wrongful conduct occurred in the U.S. or if it had a substantial effect on the U.S.[238] Given that offshore sales made in connection with the exercise of a green shoe option might materially affect the U.S. market for the securities in question, the SEC might possibly have taken the position in Regulation M rulemakings or other guidance that using the green shoe option in order to profit from IPO underpricing was prohibited under the antifraud provisions of the securities laws.

As noted in Section IV.F, the SEC took a different approach. The Williams letter provides no-action relief suggesting that the SEC would not take enforcement action against underwriters as long as purchases and sales of the issuer's securities occur offshores after the termination of the U.S. distribution. In 2010, *Morrison v. National Australia Bank* reinforced this position by overturning the case law that applied the conduct-and-effects test, holding that Congress had not explicitly intended to apply the US securities laws to transactions outside the United States unless it was expressly stated that the laws applied extraterritorially.[239]

However, section 929(P) of the Dodd-Frank Act of 2010, drafted while *Morrison* was pending, provides that district courts have jurisdiction over claims under section 17 of the Securities Act and the antifraud provisions of the Exchange Act brought by the SEC or Department of Justice.[240] *SEC v. Scoville*, a recent decision in the Tenth Circuit Court of Appeals, upheld the authority of the SEC to bring fraud claims based on sales of

238. *See* Leasco Data Processing Equip. Corp. v. Maxwell, 468 F.2d 1326 (2d Cir. 1972) (establishing the conducts test); Schoenbaum v. Firstbrook, 405 F.2d 200 (2d Cir. 1968) (establishing the effects test).

239. Morrison v. Nat'l Austl. Bank, Ltd., 561 U.S. 247 (2010).

240. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 929P(b), 124 Stat. 1376, 1864 (2010) (codified at 15 U.S.C. § 77v (2018)) (providing that district courts have jurisdiction over claims brought by the SEC or DOJ under the antifraud provisions of the Securities Exchange Act of 1934 and section 17 of the Securities Act of 1933 as long as the conduct-and-effects test has been satisfied).

securities to foreign buyers where the defendants engaged in fraudulent conduct within the United States.[241]

Since Dodd-Frank was passed after *Morrison* and the Williams letter, it is conceivable that the SEC could take action under Dodd-Frank that it could not take previously. This possibility raises the question as to whether the SEC would take the position that the use of a green shoe option to profit from IPO underpricing, as described by Trade Two or otherwise, is a violation of the antifraud rules. If so, the next question is whether the SEC would take action now permitted by Dodd-Frank to block this trading strategy even if offshore. This ambiguity creates considerable uncertainty for market participants, which the SEC should resolve by issuing guidance on this matter.

Conclusion

To date, scholars have believed that initial investors, and not underwriters, are the lucky beneficiaries of IPO underpricing. Moreover, it has been widely believed that underwriters use green shoe options and overallotments solely for the purpose of stabilizing an issuer's stock price after a securities offering.

This Article challenges the conventional wisdom, finding that green shoe options may permissibly be used for a broader range of activities than has previously been appreciated in the academic literature. I show that it is reasonable for underwriters and their counsel to take the position that the law permits underwriters to monetize the full trading value of green shoe options as long as short sales are made before any purchases under the option. Current interpretations of U.S. securities laws do not prohibit offshore sales at market prices that are covered by Option Shares.

The Article also analyzes a set of incentives of underwriters in IPOs that has been neglected in the academic literature. I find that green shoe options incentivize underwriters to underprice IPOs, while overallotments incentive underwriters to overprice IPOs.

Finally, this Article argues that the activities-based approach of the regulatory scheme is insufficient to address the incentives problems that I identify. Regulators should instead regulate underwriter incentives directly by prohibiting the objectionable outcome: profits resulting from underwriter trading activities while in the possession of nonpublic information to the detriment of issuers or investors.

241. SEC v. Scoville, 913 F.3d 1204 (10th Cir. 2019) (upholding the ability of the SEC to bring fraud claims based on sales of securities to foreign buyers where defendants engage in fraudulent conduct within the United States).