

**WILSON
SONSINI**



**2024 TECHNOLOGY AND LIFE SCIENCES
PIPE AND RDO REPORT**

Table of Contents

Introduction.....	Page	1
2024 PIPE and RDO Activity.....	Page	3
Types of Investors	Page	7
2024 PIPE and RDO Terms.....	Page	9
Registration Rights (PIPEs Only).....	Page	9
Stockholder Approval.....	Page	11
Lock-Ups	Page	12
Standstill and Voting Agreements	Page	13
Governance	Page	15
Debt Terms	Page	17
Convertible Debt Securities and Preferred Stock	Page	18
Warrant Coverage.....	Page	22
Beneficial Ownership Limitation	Page	25
Other Dilution Protections	Page	26
PIPEs and RDOs: A Primer.....	Page	28
PIPEs: Advantages and Disadvantages	Page	33
RDOs: Advantages and Disadvantages	Page	33
Special Considerations and Issues.....	Page	34
“Baby Shelf” Rule.....	Page	34
Fiduciary Duties	Page	34
Antitrust Considerations.....	Page	34
CFIUS Considerations	Page	35
Covenants in Other Agreements.....	Page	36
Appendix A: Technology and Life Sciences PIPE Issuers	Page	37
Appendix B: Technology and Life Sciences RDO Issuers	Page	39
About Wilson Sonsini.....	Page	40

Introduction

Wilson Sonsini Goodrich & Rosati's *2024 Technology and Life Sciences PIPE and RDO Report* presents analysis related to 205 private investments in public equity (PIPEs) and registered direct offerings (RDOs) by U.S.-based technology and life sciences companies between January 1 and December 31, 2024.

This report examines PIPEs and RDOs by operating companies and sets forth quantitative and qualitative results concerning proceeds and security types; registration rights; transfer restrictions; governance terms; protective covenants; conversion and redemption rights; anti-dilution protections; and other material transaction terms. The report is limited to transactions in which the company raised at least \$10 million and had at least one closing in 2024.

After several years of low capital markets activity in the United States, 2024 saw a significant increase in activity compared to 2022 and 2023. Furthermore, during the last quarter of 2024 the Federal Reserve instituted a series of interest rate cuts totaling 1.0% in its first decrease since 2020, signaling increased confidence in the strength of the economy. We are hopeful that the capital markets will continue to thaw; nevertheless, given the market volatility and uncertainty that remain, we expect that companies may continue to explore alternatives to traditional underwritten offerings as a way to meet their financing needs.

2024 was marked by the following notable trends compared to our 2023 review:

- ***The mix of transactions shifted towards PIPEs.*** Compared to the prior year, 2024 saw a 38.1% increase in the number of PIPE transactions reviewed, while the number of RDOs remained unchanged. This shift may be driven by the SEC's "baby shelf" rule, which limits the ability of smaller market cap companies (i.e., those with a public float of less than \$75 million) to raise over one-third of their market cap using a registration statement on Form S-3 (which provides the flexibility to finance without necessarily undergoing SEC review) over the course of the previous 12 months. When a company wishes to sell securities in excess of this limitation, it will typically do so through a PIPE. In 2024, 42.8% of PIPEs and 56.9% of RDOs were completed by companies with a public float under \$75 million; however, of these small cap companies, 87.9% of PIPEs were for over one-third of the company's public float (which would otherwise trigger the baby shelf rules even if no other securities were sold by the company over the prior 12 months), while only 55.2% of RDOs by small cap companies were for over a third of the company's public float. See the sections on "[2024 PIPE and RDO Activity](#)" and "['Baby Shelf' Rule](#)" for additional information.
- ***RDOs priced their securities at a premium to market price.*** 2024 saw a continuation of a trend of securities sold in RDOs

pricing higher relative to prior periods. In 2024, the average premium for RDOs surveyed was 2.0%, compared to an average discount of 1.8% and 3.9% for 2023 and 2022, respectively. The average discount for PIPE transactions was relatively flat between 2024 and 2023. This trend may reflect marginally stronger investor sentiment for companies that are not subject to the “baby shelf” rules or transactions that do not require delayed liquidity through registration rights. See the section on “[Security Price](#)” for more information.

- ***Insiders participated in fewer transactions.*** In another signal that markets may be warming up again, in 2024 company insiders (e.g., directors, officers, and affiliates) participated in 18.5% of the deals reviewed, compared to 27.6% in 2023. The decrease was more pronounced among technology transactions, which saw a 50% decrease in the percentage of deals with insider participation compared to the prior year. In challenged markets, insiders typically participate in more financings to help attract outside investors or simply to preserve the viability of a company. Conversely, a decrease in insider participation suggests an increase in the investment appetite of outside investors who generally present fewer reporting and approval requirements than when insiders are involved. See the section on “[Types of Investors](#)” for additional information.

PIPEs and RDOs can be good alternatives to traditional underwritten offerings, particularly during periods of market volatility, because they can be negotiated discreetly and publicly announced after the parties agree to terms. However, given the lack of company leverage (usually) and near-term illiquidity of the securities sold, the cost of capital is typically higher for PIPEs than underwritten offerings. Because an investor receives freely tradable securities in an RDO, the securities are typically sold at a smaller discount to the current market price of the company’s common stock in an RDO than in a PIPE; in 2024, the average discount for PIPEs surveyed was 6.2% while RDOs surveyed priced the securities at an average premium of 2.0% above market price.

This report does not address PIPEs by special purpose acquisition companies (SPACs). SPACs are publicly traded companies whose activities are limited to identifying an operating company with which to combine. Combining with a SPAC is an alternative to a traditional initial public offering (IPO) for an operating company. This report also does not address equity lines of credit in which a company has the right to sell shares of common stock to an investor at a fixed discount to the market price. Both of these transaction types present special issues and considerations that are outside the scope of this report.

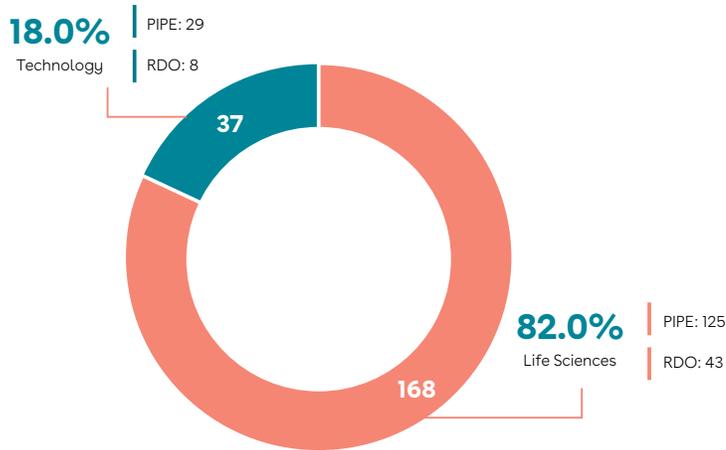
The data included in this report was obtained from public company disclosures and documents filed with the U.S. Securities and Exchange Commission (SEC), as well as third-party data obtained from research provided by PrivateRaise, a service of *The Deal*.

We would like to thank the team that conducted the research and provided editorial input for this report. The partners on the team included Michael Nordtvedt, Victor Nilsson, Michael Rosati, Austin March, and Erik Franks, with additional contributions from Heath DeJean.

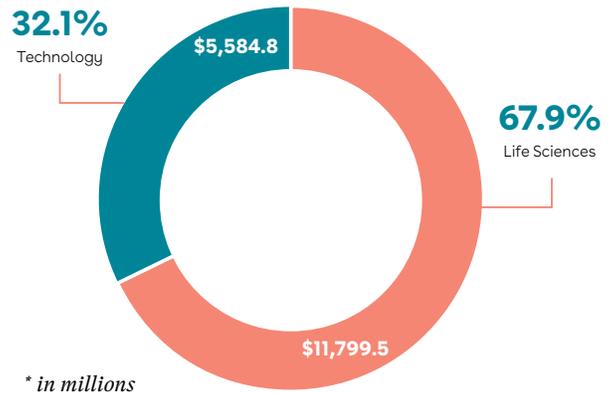
Please feel free to share your comments or questions by contacting Michael Nordtvedt (mnordtvedt@wsgr.com) or any other Wilson Sonsini [capital markets](#) partner.

2024 PIPE and RDO Activity

Number of Transactions



Aggregate Amounts Raised*

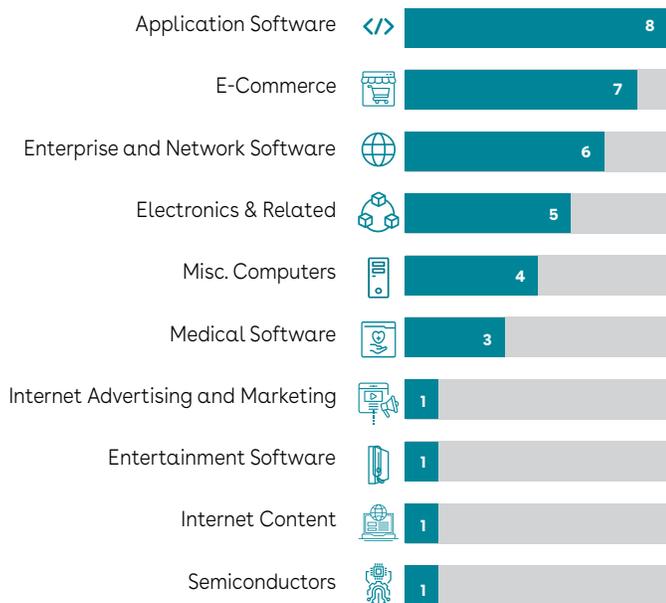


U.S.-based technology companies completed 29 PIPEs and eight RDOs over \$10 million in 2024, representing a 38.1% increase in PIPEs compared to 2023. Technology transactions raised an aggregate of \$5,584.8 million in 2024, more than double the prior year. Although total amounts raised by tech issuers increased sharply in 2024, a large portion of these proceeds were attributable to a single PIPE valued at \$3.5 billion; not counting this outlier, total amounts raised would be \$2,084.8 million, a 20.7% decrease compared to 2023.

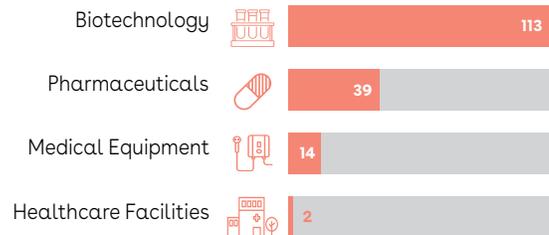
U.S.-based life sciences companies completed 125 PIPEs and 43 RDOs over \$10 million in 2024, representing a 19% increase in PIPE deals compared to 2023. Life sciences transactions raised an aggregate of \$11,799.5 million in 2024, a 37.6% increase over the prior year.

Interestingly, although the tech and life sciences sectors both saw significant increases in both PIPE deals and total proceeds, the number of RDOs in each sector was exactly the same as in 2023.

Technology Sector Breakdown



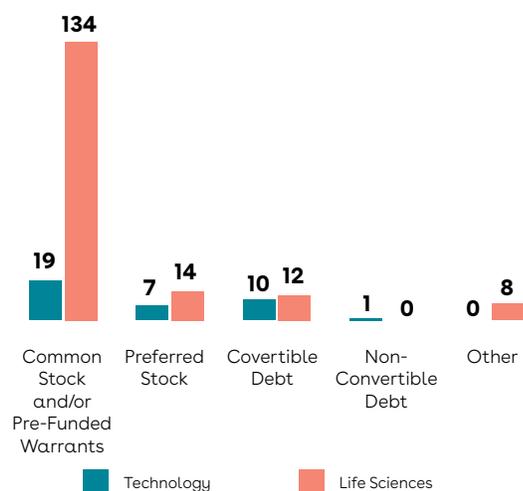
Life Sciences Sector Breakdown



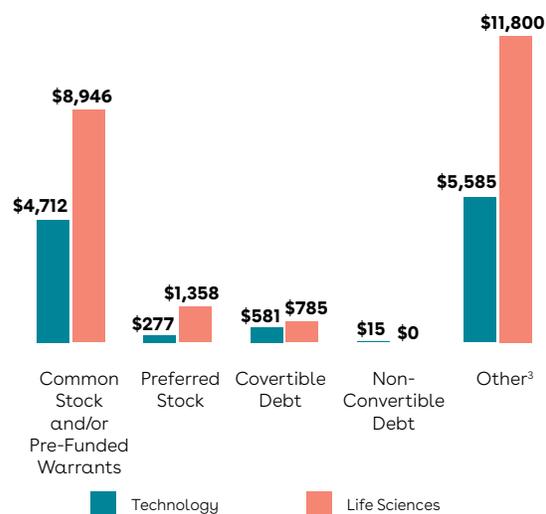
Security Types

Security Type	Technology			Life Sciences		
	Total Transactions	Transactions with Warrant Coverage ¹	Total Deal Value (in millions)	Total Transactions	Transactions with Warrant Coverage ¹	Total Deal Value (in millions)
Common Stock ²	19	6	\$ 4,711.6	134	47	\$ 8,945.7
Preferred Stock	7	1	\$ 277.1	14	3	\$ 1,358.4
Convertible Debt	10	3	\$ 581.4	12	2	\$ 784.7
Non-Convertible Debt	1	1	\$ 14.7	-	-	-
Other ³	-	-	-	8	-	\$ 710.8
Total	37	11	\$ 5,584.8	168	52	\$ 11,799.5

Transaction Count by Security Type



Amount Raised (in Millions) by Security Type



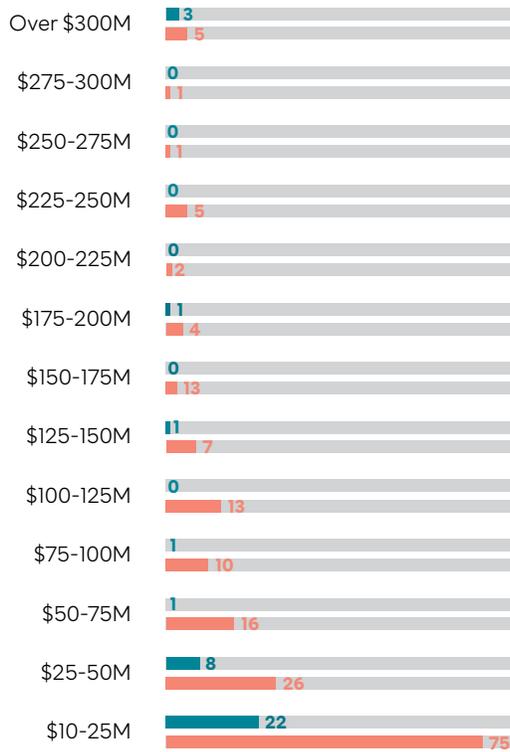
¹ Includes transactions that issued warrants (other than pre-funded warrants) in addition to the specified security type.

² Includes eight transactions that issued only pre-funded warrants, 85 transactions that issued only common stock, and 60 transactions that issued a combination of common stock and pre-funded warrants.

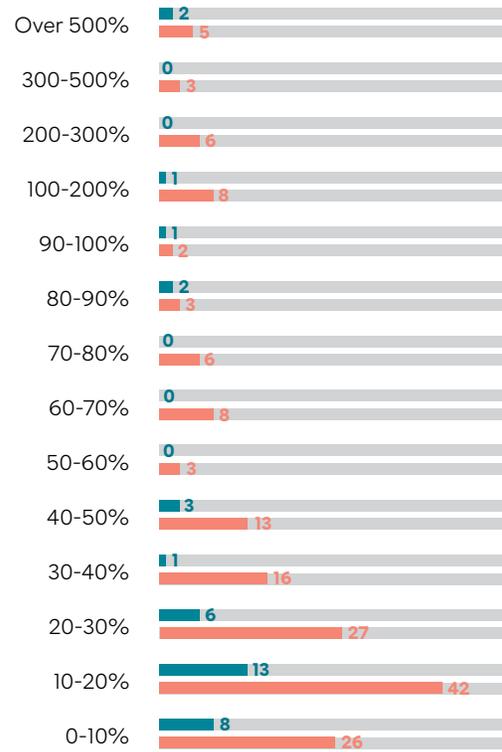
³ Includes transactions for multiple security types other than warrants. Of the eight transactions listed, seven transactions were PIPEs issuing a combination of common stock and convertible preferred stock (one of which also included pre-funded warrants), and one PIPE issued both common stock and convertible debt.

Size and Timing Distribution

Transaction Value (in millions)

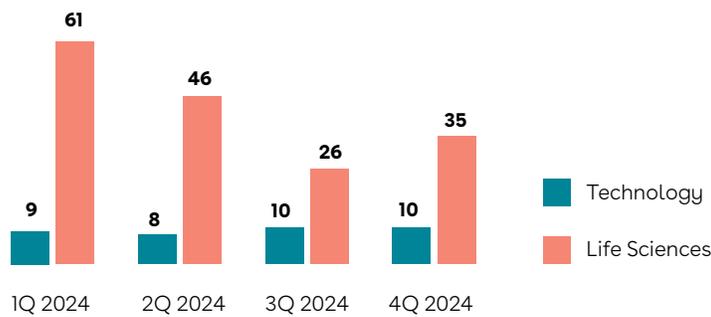


Transaction Value (as % of market value)

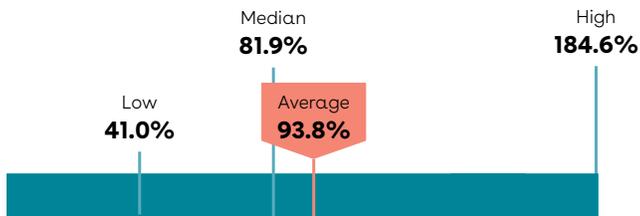


Technology Life Sciences

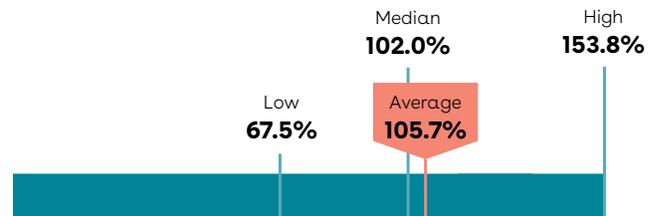
Closing Distribution by Quarter



Security Price*



Among PIPEs for common stock and/or pre-funded warrants, prices ranged from 41.0% to 184.6% of the company's common stock price on the trading day immediately preceding closing, with an average of 93.8% and median of 81.9%, generally consistent with the prior year.



Among RDOs for common stock and/or pre-funded warrants, prices ranged from 67.5% to 153.8% of the company's common stock price on the trading day immediately preceding closing, with an average of 102.0% and median of 105.7%, with the average price representing an increase of almost 4% over the prior year.

* Excludes five RDOs and 13 PIPEs that were priced at a premium to the company's common stock of over 200%. The omitted transactions were either resulting from strategic partnerships with the investor or were investments by company management, both of which can result in higher security prices than transactions with unrelated or purely financial investors.

Types of Investors

Nature of Investors

Investors vary in their approach to financing opportunities. Some investors, typically hedge funds, are less interested in the fundamentals of a company and its prospects, will conduct extremely limited (or no) due diligence beyond the company's public disclosures and focus almost exclusively on the financial terms of the investment and the ability to realize a return while limiting risk. As a result, transactions led by these pure financial investors often have a high cost of capital to the company. Others are institutional investors that spend time understanding a company's investment thesis and are similar to those that companies interact with in a traditional underwritten offering. Private equity firms, which tend to be most interested in revenue-generating companies, are a source of capital that will typically seek to influence management through governance rights and securities terms. Transactions with private equity firms therefore tend to involve more structuring than with other types of investors. Finally, strategic investors often have interests beyond the economics associated with the securities. For example, a large pharmaceutical company may invest in a biotechnology company in connection with a collaboration agreement for drug development, or a cloud platform may invest in a national home security company in connection with a commitment to purchase cloud services from the platform.

Insider Participation

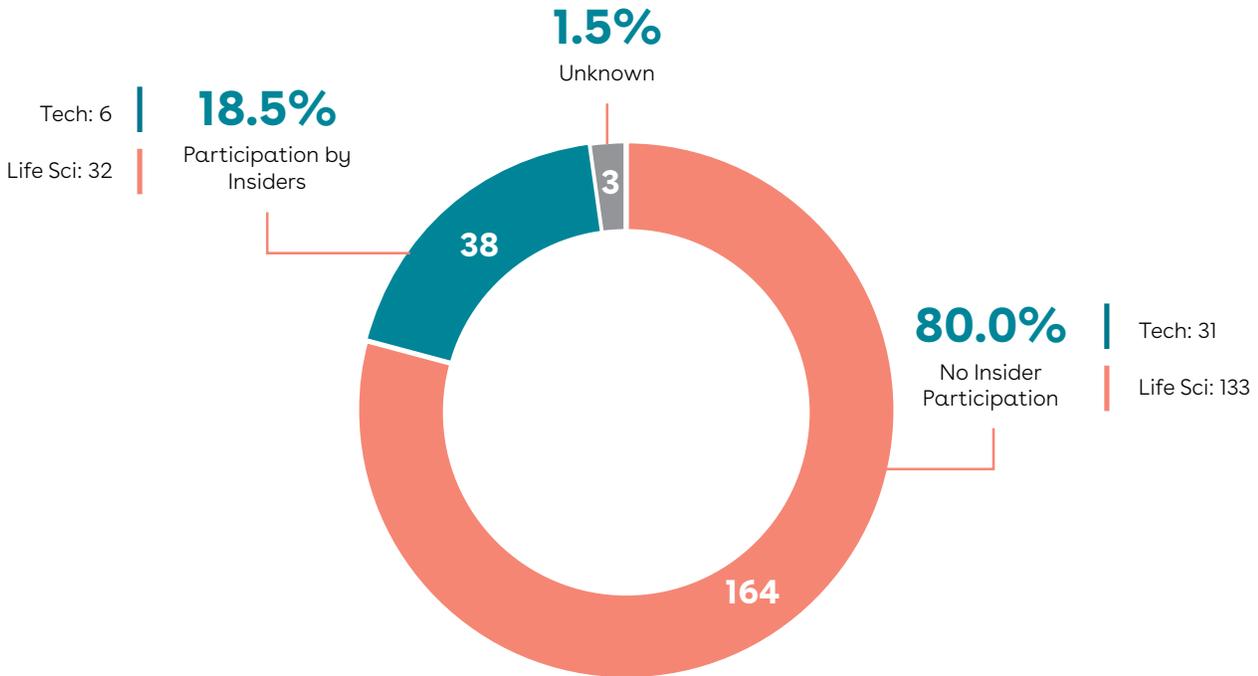
In challenged markets, it may be necessary for insiders to increase the amount of "skin in the game" to attract outside investors or simply to preserve the viability of a company. Insider participation in a financing can raise special issues, including navigating fiduciary duty issues, special stock exchange requirements, and perceived information asymmetry between the insiders and the market generally.

The New York Stock Exchange (NYSE) requires stockholder approval for the sale, issuance, or potential issuance of a company's common stock (or securities convertible into or exercisable for its common stock) to directors, officers, or substantial security holders where the number of common shares to be purchased exceeds either 1% of the number of common shares outstanding before the issuance or 1% of the voting power of the company. Other than in connection with sales of securities where the proceeds will be used to fund an acquisition of another company in which the related party has a direct or indirect interest, the NYSE's related-party rule does not apply if the sales price is greater than a minimum price based on the company's market price.

Nasdaq treats a discounted issuance to directors, officers, employees, and consultants as an "equity compensation arrangement" requiring stockholder approval. To avoid stockholder approval, such insiders purchasing securities in a financing must therefore purchase the securities at a price above the Nasdaq minimum price, calculated in the same way as the NYSE's minimum price (including any accompanying warrant coverage).

In addition, if the sale to insiders results in the issuance of more than 20% of the company's outstanding common stock or voting power, the company must navigate the stock exchanges' stockholder approval requirements. See the section on "Stockholder Approval" for additional information.

2024 PIPE and RDO Participation by Insiders



2024 PIPE and RDO Terms

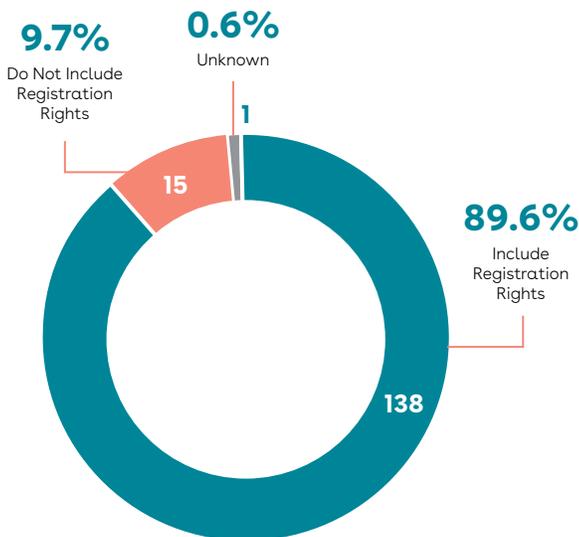
Registration Rights (PIPEs Only)

PIPE investors typically require the company to file a registration statement with the SEC to register the resale of the PIPE securities (or, in the case of all equity-linked securities, the resale of the shares of common stock underlying such securities). Usually, companies are required to file a resale registration and cause the SEC to declare it effective within a specified period after closing. Some PIPE investors also require “piggyback” rights to include their securities in future SEC-registered offerings by the company.

If a company fails to file or have the resale registration statement declared effective in a timely manner, or if it suspends the use of the registration statement for longer than is allowed under the registration rights agreement, it may be required to pay monetary penalties to the investors. A company typically retains the right to delay filing or suspend use of a resale registration statement if the company concludes that there are material misstatements or omissions in the registration statement (including the company’s SEC filings that are incorporated by reference in the registration statement).

PIPE securities may also be resold pursuant to exemptions from SEC registration requirements. The most typical exemption that PIPE investors rely on is Rule 144, and registration rights often (though not always) terminate with respect to each PIPE investor when such investor may resell securities held by it without restriction under Rule 144. Non-affiliates of a public company may resell restricted securities under Rule 144 after they have held them for at least six months, subject to the company being current in its SEC reporting obligations at the time of sale until the securities have been held for at least a year. Affiliates are subject to additional Rule 144 requirements and are typically entitled to registration rights for a specified period, often three to five years or more. Similarly, investors in securities with terms that require an additional investment decision, such a warrant exercisable for cash, will also typically retain registration rights while the warrants remain outstanding.

Of the 154 PIPEs surveyed, 138 (89.6%) included some sort of registration rights, representing 75.9% of technology PIPEs and 92.8% of life sciences PIPEs.



Filing Deadline

Of the 138 PIPEs surveyed with registration rights, 128 (92.8%) included an affirmative obligation for the company to register the resale of the securities on a specified timeframe. Of these 128 PIPEs, the deadline for the company to file a registration statement was an average of 42.6 days following the relevant trigger event, while the median was 30 days.

In relatively rare circumstances, the resale registration statement filing deadline may be triggered by an event other than closing, including:

-  stockholder approval of the PIPE,
-  lock-up expiration,
-  completion of subsequent closings (for convertible debt securities issued in multiple tranches),
-  the date on which the PIPE securities become convertible for the company’s common stock, and
-  filing of the company’s Annual Report with the SEC or release of company earnings (cleansing any MNPI received by investors).

Effectiveness of Resale Registration Statement

Effectiveness Deadline

Of the 128 PIPEs surveyed with mandatory registration rights, five PIPEs (3.9%) required the resale registration statement to be declared effective as soon as practicable following filing, while 123 PIPEs (96.1%) required that the resale registration statement be declared effective within a specified time period, of which:

-  60 PIPEs measured the period from the filing date, where such period was 10 to 135 days after filing, with an average of 51.2 days and a median of 45 days;
-  62 PIPEs measured the period from the closing date, where such period was 15 to 105 days after closing, with an average of 68.5 days and a median of 60 days; and
-  one PIPE measured the period from the date of stockholder approval of the common stock issuable upon conversion of the PIPE securities.

Effectiveness Period

Of the 128 PIPEs surveyed with mandatory registration rights, 127 PIPEs (99.2%) required the resale registration statement to be kept effective until the earliest of one or more specified events, including:

-  sale or disposition of the securities—124 PIPEs (96.9%)
-  securities becoming eligible for sale under Rule 144 without restriction—122 PIPEs (95.3%)
-  a specified time following effectiveness—12 PIPEs (9.4%)
-  holder's beneficial ownership is reduced below a threshold percentage—8 PIPEs (6.3%)
-  expiration of warrant term—2 PIPEs (1.6%)

Suspension/Delay of Effectiveness

Of the 128 PIPEs surveyed with mandatory registration rights, 115 PIPEs (89.8%) allowed the company to delay filing or suspend use of a resale registration statement if the company concludes that there are material misstatements or omissions in the registration statement.

-  Of the 115 PIPEs that provided for suspension or delay rights, 67 PIPEs limited the right to a maximum number of suspension or delay events in any 12-month period, allowing an average of 2.1 and a median of 2.0 such events.
-  Where the suspension period was limited in length, the maximum length of any one such period ranged from 10 to 90 consecutive days, with an average of 41.2 days and median of 45 days.
-  Allowed suspension periods were limited to between 15 and 180 cumulative days during any 12-month period, with an average of 72.7 days and a median of 60 days.

Underwritten Offering Demand Rights

Of the 138 PIPEs surveyed with registration rights, 15 PIPEs (10.9%) allow investors to compel the company to undertake and cooperate in an underwritten offering for the PIPE securities. Of the 15 PIPEs containing underwritten demand rights, 12 PIPEs (80.0%) limited the number of allowed demands and nine PIPEs (60.0%) required demand offerings to be for a minimum offering size.

Piggyback Rights

Of the 138 PIPEs surveyed with registration rights, 29 PIPEs (21.0%) included “piggyback” registration rights allowing investors to include their securities in future SEC-registered transactions by the company.

Stockholder Approval

Both Nasdaq and the NYSE require a listed company to obtain stockholder approval prior to completing certain issuances of common stock or securities convertible or exercisable into common stock where the issuance represents more than 20% of the outstanding common stock or voting power of the company (known as the “20% rule”). Both stock exchanges also provide an exception to the 20% rule for nonpublic offerings at an “above market” purchase price.

An RDO is generally not a “public offering” for purposes of the securities exchange rules due to the limited marketing involved and the lack of price discovery.

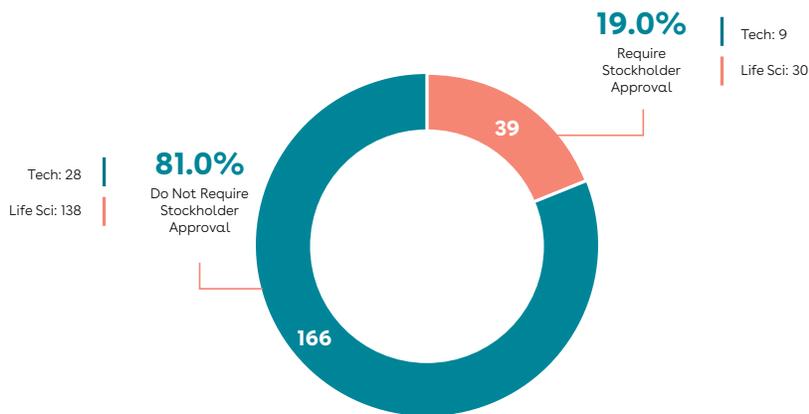
Larger offerings are often structured to avoid the stockholder approval requirement, for example by imposing a 19.99% beneficial ownership limitation through a cap on the convertibility or exercisability of equity-linked securities, issuing a combination of voting and nonvoting securities, or allowing conversion or exercise only upon stockholder approval.

Under Nasdaq rules, warrants are typically separated from the issuance of common stock if the warrants are not exercisable for at least six months following the closing; the exercise price for the warrants is set at a premium to the Nasdaq minimum price; and the exercise price is subject to adjustment only for stock splits, stock combinations, and similar events affecting all stockholders generally (i.e., no price-based anti-dilution adjustments). Similar strategies are also implemented to separate convertible securities from common stock.

A company must consider several factors when determining whether a stockholder vote will be required, including the timing of warrant exercise or conversion in relation to the transaction closing, the inclusion of price-based anti-dilution provisions that may reduce conversion or exercise prices, and possible integration of the offering with other issuances.

When stockholder approval is required, the company will sometimes provide comfort to investors that the required approvals will be obtained by executing voting agreements with insiders and significant stockholders prior to closing.

Of the 205 transactions surveyed, 39 (19.0%) contemplated stockholder approval, representing 24.3% of technology transactions and 17.9% of life sciences transactions.



Among the 39 transactions reviewed with stockholder approval requirements, the matters to be approved included:

-  issuance of more than 20% of outstanding common stock or voting power in the company, including issuance of underlying common stock in the case of convertible securities or warrants,
-  increases in the authorized stock of the company to accommodate future conversion or exercise of the securities,
-  stock splits or reverse stock splits, and
-  approval of director participation in the transaction.

Although not directly related to the offering itself, when the proceeds of an offering are intended to finance a proposed merger or acquisition the purchase agreement will typically also require stockholder approval of the merger or acquisition.

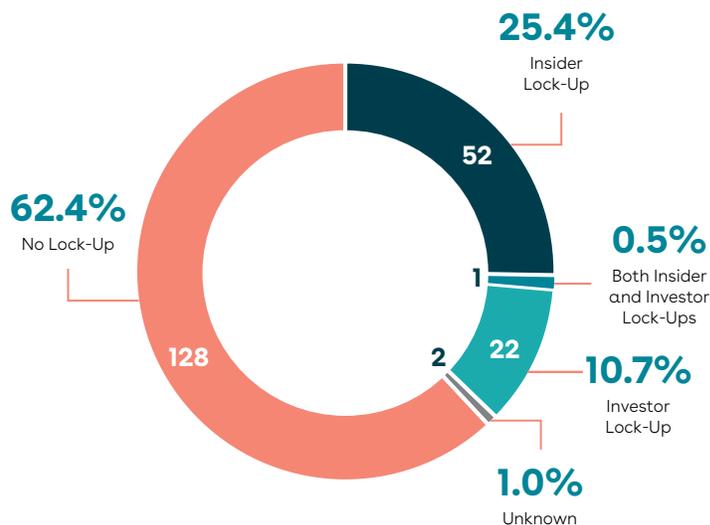
Lock-Ups

Some investors agree to restrictions on their ability to resell securities in addition to those imposed by securities laws. Such “lock-up” agreements can signal that a strategic or other fundamental investor is committed to the company for the long term. Lock-ups may also be employed in situations in which an investor receives a significant amount of sensitive, confidential information in connection with its due diligence.

Investors in a PIPE or RDO may also require that company insiders (e.g., directors, officers, or other significant stockholders) agree not to sell company securities for a specified time period so that the investors have the ability to gain liquidity for their investment without interference from sales by insiders.

Of the 205 transactions surveyed, 76 (37.1%) included lock-up restrictions, representing 34.4% of PIPEs surveyed and 45.1% of RDOs surveyed.

Of the 76 transactions that included lock-ups, 22 (28.9%) included restrictions on the investors, 52 (68.4%) included restrictions on insiders, and one (0.5%) included restrictions on both investors and insiders.



Of the 76 transactions surveyed that included lock-up restrictions:*

-  33 had a lock-up period of three months or less,
-  12 had a lock-up period between three and six months,
-  seven had a lock-up period between six months and one year,
-  four had a lock-up period of more than one year, and
-  three had a lock-up ending on the occurrence of a future event.

* Does not include 13 PIPEs and four RDOs that included a lock-up but did not file the lock-up agreement or otherwise publicly disclose the relevant period as of the publication of this report.

Standstill and Voting Agreements

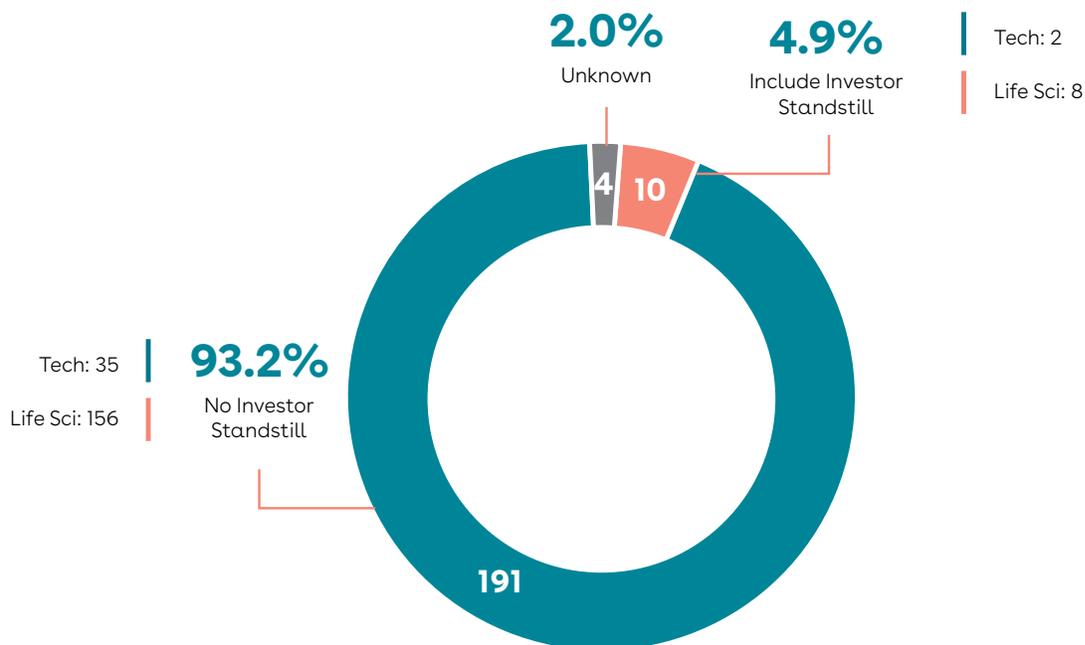
A company will sometimes require investors to agree to “standstill” agreements, particularly when investors are private equity funds or strategic investors with an incentive to leverage their investment into a takeover of the company. Standstills restrict investors from acquiring additional company securities, entering into voting agreements with other stockholders or participating in a “group” within the meaning of the U.S. securities laws for the purpose of exercising control over the company, pursuing proxy fights, or taking other actions that may result in a change of control or distract management and the board of directors from their strategic plans.

A company may also require investors to agree to vote their shares in favor of director nominees and other proposals recommended by the board of directors (other than in connection with certain fundamental or transformative actions), or in the case of preferred stock, in a manner consistent with the vote of the common stock.

Typically, such agreements remain in effect for a specified period or for so long as the investors’ beneficial ownership exceeds a certain threshold percentage.

Investor Standstills

Of the 205 transactions surveyed, 10 (4.9%) included an investor standstill, with the percentage of transactions containing such restrictions generally consistent between technology and life sciences companies.

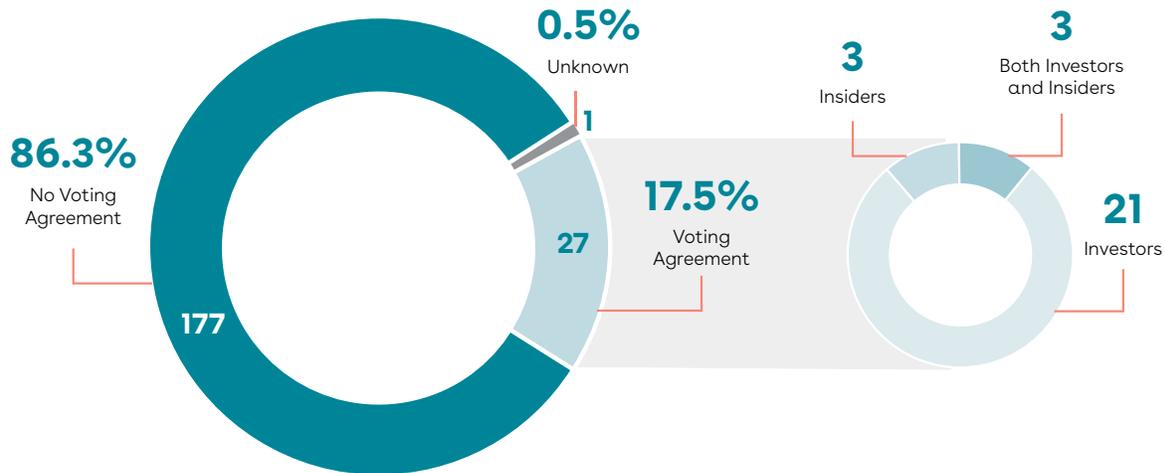


Of the 10 transactions with an investor standstill:

- ⊗ five terminate at a specified time,
- ⊗ three terminate on the earlier of a specified time or future event, and
- ⊗ two terminate on the occurrence of a future event.

Voting Agreements

Of the 205 transactions surveyed, 27 PIPEs (representing 17.5% of PIPEs surveyed) included voting agreements, including 21 agreements with investors, three agreements with insiders, and three agreements with both insiders and investors.



Where a PIPE includes a voting agreement, matters subject to the agreement typically include:

-  approval of matters related to the transaction, including issuance of shares on conversion or exercise, increases in authorized shares, or stock splits;
-  agreements to vote in favor of proposals approved by the board (other in connection with fundamental transactions), including for the election of directors; and
-  agreements to vote their shares in a way that mirrors the vote of unaffiliated common stock.

Governance

Governance rights tend to be among the most highly negotiated transaction terms as they can dilute the influence of existing directors and management or significantly constrain a company’s ability to operate without first obtaining the investor’s consent to certain actions.

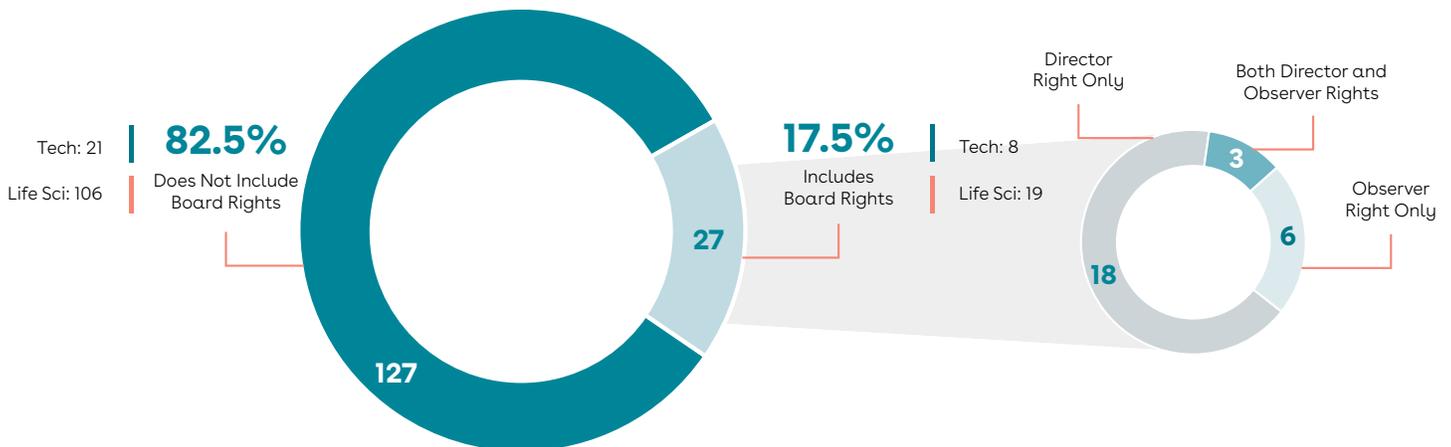
Board Representation

Some investors require director nomination rights as a condition to their investment. Investors may also require the right to appoint a board observer who, while not a member of the board with all of the authority and attendant fiduciary duties of a director, is nonetheless given the same (or similar) information as directors and is allowed to attend board meetings. Participation in the boardroom gives investors insight into—and influence over—management, the company’s prospects, and the value of their investment. Most investors are less actively involved and prefer to avoid the complications, such as fiduciary duties, SEC reporting, and trading restrictions, that such rights can entail.

When an investor is granted director nomination or observer rights, representation is usually proportional to the percentage of equity ownership and conditioned on maintaining ownership above a certain threshold.

Director nomination and board observer rights are more commonly found in PIPEs than RDOs, and in 2024, only one RDO surveyed contained such rights.

Of the 154 PIPEs surveyed, 27 PIPEs (17.5%) included board designation or observer rights, representing 27.6% of surveyed technology PIPEs and 15.2% of surveyed life sciences PIPEs.



Protective Covenants

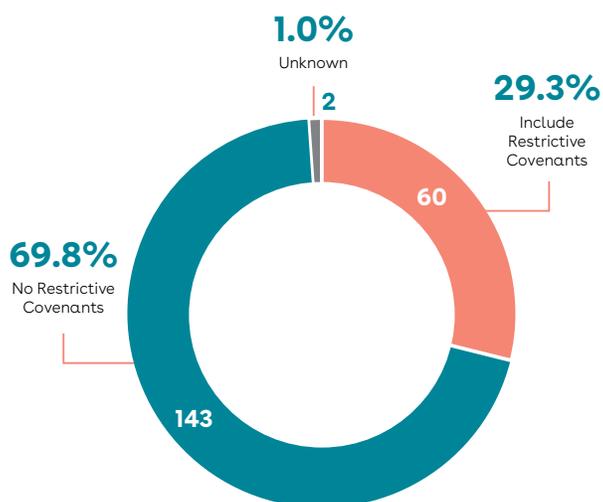
Due to the highly customized and direct nature of PIPE and RDO transactions, investors have more room to negotiate terms compared to a traditional underwritten offering. Particularly with PIPEs, investors will sometimes negotiate for affirmative, restrictive, or financial covenants that give them control over aspects of a company’s business to protect their investment. Such covenants are particularly prevalent in debt security offerings and are similar to covenants in other debt transactions, but they can also be found in preferred stock and other offerings.

Restrictive Covenants

Typical restrictive covenants may include restrictions related to:

- Mergers, consolidations, or asset sales
- Transactions with competitors or affiliates
- Stock splits, consolidations, increases in the company’s authorized stock, or payment of dividends
- Issuance of more senior or parity securities
- Incurrence of indebtedness, creation of liens, or voluntary prepayment of existing indebtedness
- Capital expenditures

Of the 205 transactions surveyed, 60 (29.3%) included restrictive covenants,* of which 24 were convertible security transactions, representing 47.1% of all convertible security transactions.

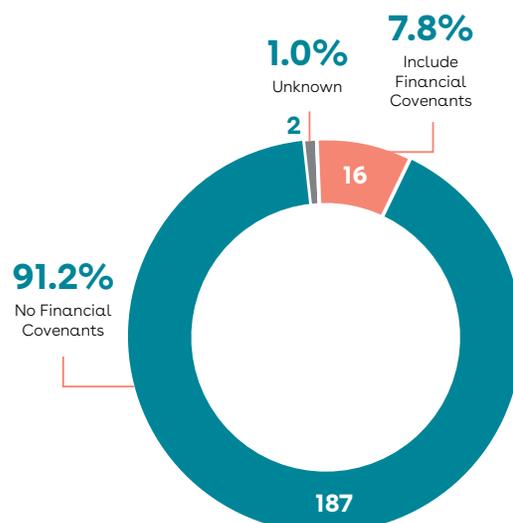


Financial Covenants

Financial covenants relate to calculations and metrics tied to a company’s financial statements and may include:

- Minimum debt service, asset, interest, or fixed charge coverage ratio requirements
- Maintenance of annual recurring revenue (ARR) levels
- Minimum EBITDA requirements
- Maximum leverage ratio requirements
- Maintenance of minimum cash balances
- Changes in the company’s business

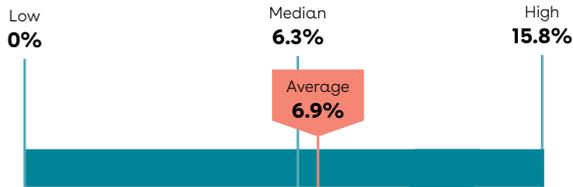
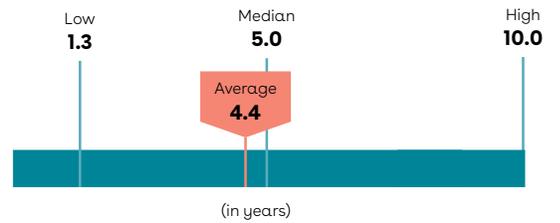
Of the 205 transactions surveyed, 16 (7.8%) included financial covenants, 14 of which were debt placements, representing 58.3% of all surveyed debt transactions.



Debt Terms

Maturity Date

Of the 24 debt transactions surveyed, the maturity date was an average of 4.4 years following issuance, and the median maturity date was 5 years after issuance.



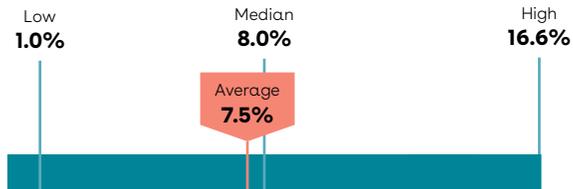
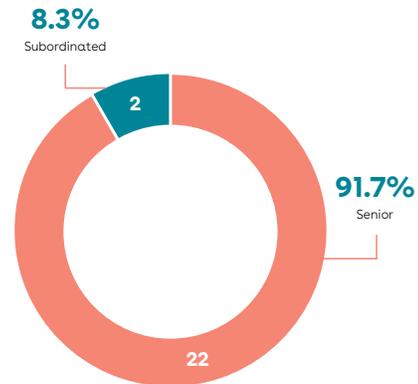
Interest

Of the 24 debt transactions surveyed, the average interest rate was 6.9%, and the median interest rate was 6.3%.*

* Three debt PIPEs provided for no interest payments.

Ranking

Of the 24 debt transactions surveyed, 22 (91.7%) were senior to other indebtedness of the company, and two (8.3%) were subordinated.

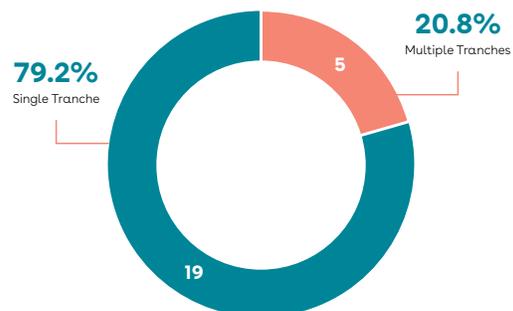


Original Issue Discount

Of the 24 debt transactions surveyed, nine (37.5%) disclosed an original issue discount, and 15 (33.3%) were issued at par or did not disclose a discount. Of the nine debt offerings issued at a discount, the average issue discount was 7.5% of principal, and the median discount was 8.0% of principal.

Tranched Lending

Of the 24 debt transactions surveyed, five (20.8%) contemplated issuance in multiple tranches, and 19 (79.2%) were issued in a single tranche.

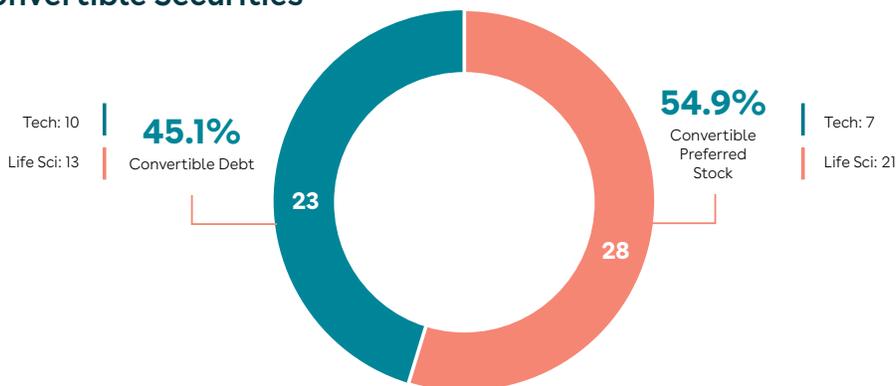


Convertible Debt Securities and Preferred Stock

Certain PIPEs (and less commonly, RDOs) involve the sale of convertible debt or preferred stock convertible into common stock. Although companies sometimes issue convertible securities in a registered transaction, PIPEs are a much more common avenue for these types of issuances. Out of 51 transactions surveyed that included the issuance of convertible securities, all but one were PIPEs.

Although there is great variance among the terms of convertible securities, this section covers several common provisions, including conversion rate adjustments; cash/payment-in-kind interest; voluntary redemption and/or repurchase rights; and mandatory redemption and/or repurchase rights. Throughout this section, “convertible securities” refers to both convertible debt and convertible preferred stock. When discussing terms that are similar in concept but have different terminology under convertible debt and preferred stock (e.g., interest and dividend), we use the applicable convertible debt term.

Breakdown of Convertible Securities

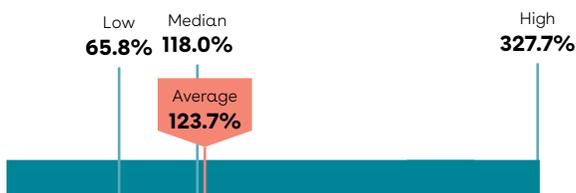
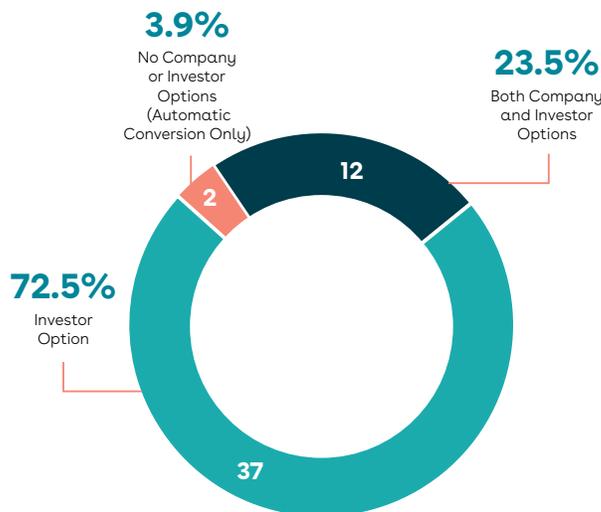


Nature of Conversion Right

Convertible security holders typically have the right to convert the securities at their option prior to maturity. Of the 51 transactions surveyed that included convertible securities, 49 (96.1%) included a form of voluntary conversion right at the option of the investor, including upon the occurrence of change of control events.

Of the 51 transactions surveyed that included convertible securities, 12 (23.5%) included a form of conversion right at the option of the company if the trading price of the company’s common stock exceeds a specified threshold or other specified events occur, which effectively allows the company to force the investor to convert the securities.

Of the 51 transactions surveyed that included convertible securities, 15 (29.4%) also provided for automatic conversion upon the occurrence of a specified event, including the satisfaction of specified equity conditions, the receipt of stockholder approval for the issuance of underlying stock, or upon a specified date.



Conversion Premium*

Of the 51 transactions surveyed that included convertible securities, conversion prices ranged from 65.8% to 327.7% of the company’s common stock price on the trading day immediately preceding closing, with an average of 123.7% and median of 118.0%.

* Excludes three PIPEs with a variable conversion rate.

Conversion Rate Adjustments

Convertible securities customarily include conversion rate adjustments for specified corporate events, such as stock splits, reverse stock-splits, stock dividends, and other similar events that generally affect all holders of common stock, allowing the investor to preserve the economic benefit of a corporate event without converting their security into common stock prior to the applicable event.

A more “toxic” variety of convertible security transaction includes price-based conversion rate adjustments that lower the conversion price if the company issues common stock (or securities convertible or exercisable into common stock) in a future transaction at a price lower than the then-current conversion price of the convertible securities. Price-based conversion rate adjustments are typically calculated on either a full-ratchet or weighted-average basis. Full-ratchet adjustments can result in a so-called “death spiral,” where future equity offerings trigger a cycle of conversion rate increases, resulting in more dilutive subsequent equity offerings and significant downward pressure on the market price of the company’s common stock. Because of these risks, a company will typically only accept full-ratchet price-based anti-dilution adjustments in a financing of last resort.

Full Ratchet

The goal of a full-ratchet adjustment is to ensure that investors maintain the same ownership percentage underlying their convertible securities or warrants if a company completes a down-round financing.

This is achieved by reducing the conversion or exercise price to match the price of shares issued in the subsequent down round, irrespective of the size of the new issuance.

Investors benefit from a full ratchet since they maintain the same ownership percentage, but other investors may be less likely to participate in a subsequent financing since their interest is subject to dilution.

Full-ratchet adjustments are considered an aggressive form of investor protection and are rare.

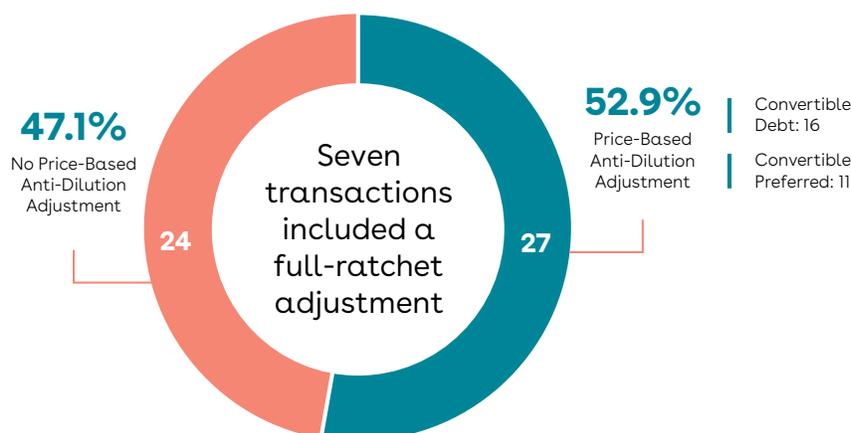
Weighted-Average

A weighted-average adjustment considers both the lower share price and the actual number of shares issued in a subsequent financing. The greater the number of shares issued, the bigger the conversion ratio adjustment will be.

A broad-based, weighted-average formula considers the fully diluted capital stock of the company assuming full conversion of all convertible securities, while a narrow-based, weighted-average formula only considers outstanding securities.

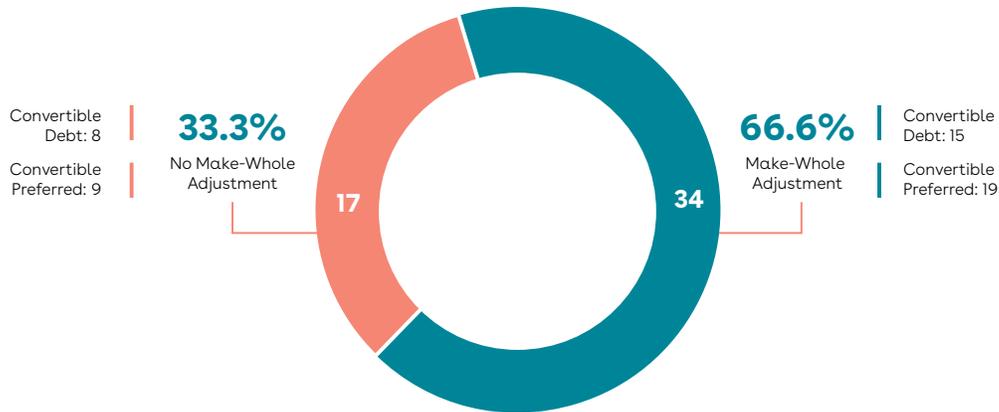
For adjustments that are tied to a company’s stock prices in the public market instead of a specific future issuance, the formula used will typically use the volume-weighted average price (VWAP) of the company’s stock during a look-back period preceding the adjustment.

Of the 51 transactions surveyed that included convertible securities, 27 (52.9%) included price-based anti-dilution adjustments, representing 69.6% of convertible debt transactions and 39.3% of convertible preferred stock transactions. Of the 27 transactions surveyed that included these adjustments, seven included a full-ratchet adjustment.



Convertible securities also often include conversion rate adjustments upon the occurrence of certain change of control events (for example, if the company is acquired in an all-cash acquisition) to compensate investors for the negative impact such an event might have on the value of their imbedded conversion option. The number of so-called “make-whole” shares (or cash paid in lieu of delivering such shares under the terms of the instrument) is often determined based on both the takeover price per share in the change of control transaction and the proximity of the event to the maturity date of the convertible security.

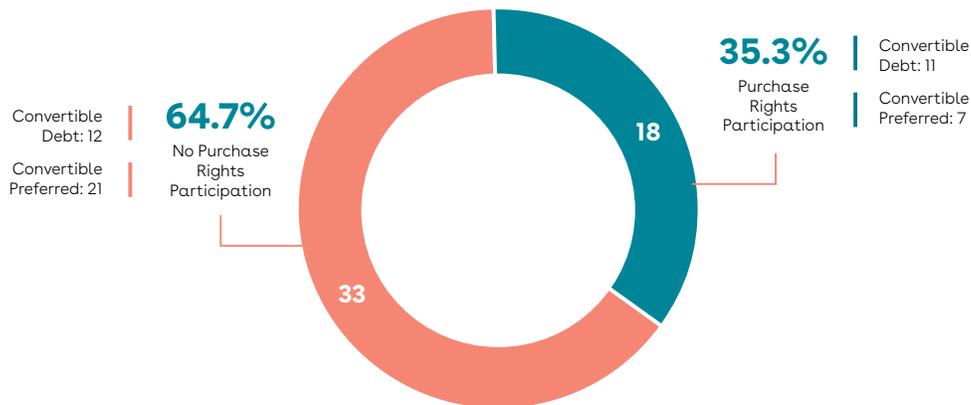
Of the 51 transactions that included convertible securities, 34 (66.6%) included a “make-whole” adjustment upon the occurrence of specified takeover events.



Purchase Rights

In addition to conversion rate adjustments, a company may also protect investors against dilution by allowing them to access the benefits of any purchase rights granted pro rata to all holders of the company’s common stock as if all of the securities had been converted immediately prior to the granting of the purchase rights by the company.

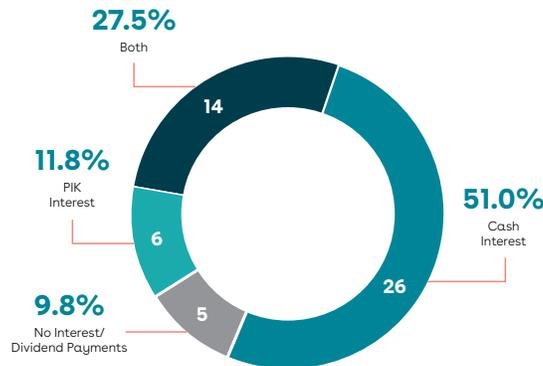
Of the 51 transactions that included convertible securities, 18 (35.3%) granted investors access to any purchase rights granted to all existing stockholders, representing 47.8% of convertible debt transactions and 25.0% of convertible preferred stock transactions.



Cash and Payment-in-Kind Interest

Convertible securities often accrue interest at a specified rate while the instrument is outstanding. This interest is typically paid by the company in cash or as payment-in-kind (PIK) interest which, in lieu of a cash interest payment, accrues as an increase to the outstanding principal amount of the convertible security.

Of the 51 convertible securities transactions surveyed, 46 (90.2%) provided for interest or dividend payments. Among transactions providing for interest or dividend payments, 26 (56.5%) provided for cash interest only (including, in the case of preferred stock, payment of dividends in the form of company common stock); six (13.0%) provided for PIK interest only; and 14 (30.4%) provided for either cash or PIK interest payments.

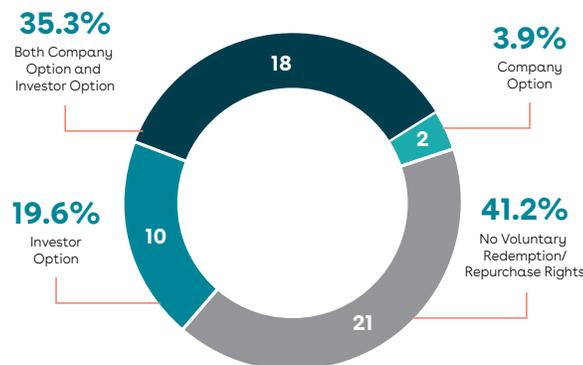


Redemption and Repurchase Rights

Convertible securities often include redemption or repurchase rights which give the investor and/or the company the obligation or the right, as applicable, to redeem or repurchase the securities from the investor at a specified price.

Of the 51 transactions surveyed that included convertible securities, 20 (39.2%) included a form of voluntary redemption right at the option of the company, which effectively allows the company to force the investor to redeem the securities if the trading price of the company’s common stock exceeds a specified threshold. Such a redemption right is typically exercised only when the convertible securities are “in-the-money,” and an investor would rather convert the instrument rather than have the instrument redeemed at par value, and results in the investor losing its conversion value.

Upon the occurrence of a change of control event, investors typically have the right to require the company to repurchase their convertible securities at par. Of the 51 transactions surveyed that included convertible securities, 28 (54.9%) included a form of voluntary redemption right at the option of the investor.



Of the 51 transactions surveyed that included convertible securities, eight (15.7%) also provided for automatic repurchase of the convertible securities by the company upon the occurrence of a specified event, including the passage of a specified period of time, failure to secure stockholder approval for the underlying share issuance, the company’s stock price reaching a specified threshold, or the completion of a future equity financing.

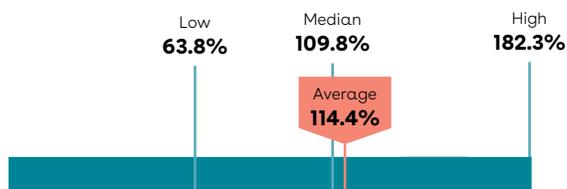
Warrant Coverage

Many PIPEs and RDOs include some form of warrant coverage alongside other securities as additional enticement to potential investors. A warrant gives the holder the right to purchase the company's stock at a set price during a specific period and may allow investors to avoid SEC reporting and other obligations associated with holding common stock or prevent the need for stockholder approval.

Pre-funded warrants are warrants for which investors pay (pre-fund) all but a trivial amount of the exercise price at closing of the transaction. Throughout this section, references to "warrants" do not include pre-funded warrants, which we discuss together with common stock because they are essentially economically the same.

Exercise Price

Warrants set a per-share exercise price which the investor must pay to receive common stock for the warrant. Like other securities, the parties to a PIPE or RDO may set the exercise price at a discount to the market price of the company's common stock at the time of issuance. Alternatively, the exercise price may be set equal to market price to comply with exchange rules and avoid stockholder approval, or in some cases the exercise price will be set at a premium to the market price as a signal to the public market regarding the inherent value of the company.



Of 63 transactions surveyed with accompanying warrant coverage, exercise prices ranged from 63.8% to 182.3% of the company's common stock price on the date the purchase agreement was signed, with an average of 114.4% and median of 109.8%.

Exercisability

A warrant may either be immediately exercisable upon issuance or may require the holder to wait for a specified time after issuance before the warrants may be exercised to separate the issuance of warrants from the issuance of common stock and avoid a stockholder vote under Nasdaq rules. See the section on "[Stockholder Approval](#)" for more information.

Of 63 transactions surveyed with accompanying warrant coverage:

-  42 transactions (66.7%) allowed the warrants to be exercised immediately;
-  11 transactions (17.5%) allowed exercise beginning six months following issuance; and
-  10 transactions (15.9%) included warrants that become exercisable upon the occurrence of a future event trigger, including shareholder approval or the achievement of certain regulatory milestones.

Term

A warrant must be exercised within a specified term, commonly ranging from three to 10 years after the date of issuance depending on the nature of the transaction. However, a longer exercise period may also lengthen the term of any registration rights granted for the underlying shares, particularly when the holding period for the shares will not begin until the warrants are exercised. See the section on "[Cash Exercise vs Net Share Settlement](#)" for more information.

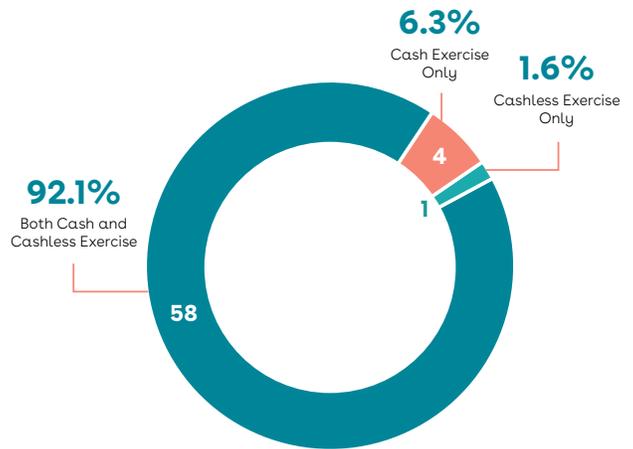
Of 63 transactions surveyed with accompanying warrant coverage, warrants were exercisable for a period ranging from six months to 10 years following issuance, with an average exercise period of 4.7 years and a median exercise period of 5.0 years following warrant issuance.

Cash Exercise Vs. Net Share Settlement

Warrants typically provide for either cash exercise or net share settlement (known as a “cashless exercise”). Pursuant to a cash exercise, the investor pays the exercise price for warrants in cash when the warrants are exercised. In a cashless exercise, on the other hand, instead of cash the investor will surrender a portion of shares issued upon exercise back to the company as payment for the exercise price.

A cash exercise constitutes a new investment decision and resets the holding period for the shares issued upon exercise; unless a resale registration statement is available to cover the resale of the shares, investors must hold the shares for at least six months. However, cashless exercises are exempt from registration and investors may tack their holding period for the warrants to the underlying shares for purposes of Rule 144.

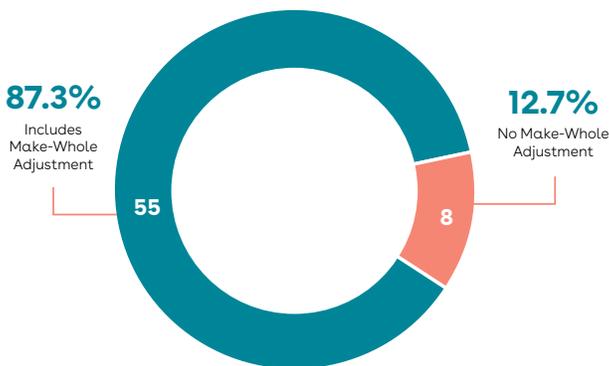
Of 63 transactions surveyed with accompanying warrant coverage, 58 (92.1%) provided for both cash and cashless exercise, four (6.3%) provided for cash exercise only, and one (1.6%) provided for cashless exercise only.



“Make-Whole” Adjustments

Warrants also often include exercise price adjustments upon the occurrence of certain fundamental changes (for example, change of control transactions) to compensate investors for the negative impact such an event might have on the value of their warrants. These “make-whole” adjustments are structured to give investors the benefit of any additional consideration or economic upside they would have been entitled to if the warrants had been exercised immediately prior to the fundamental change.

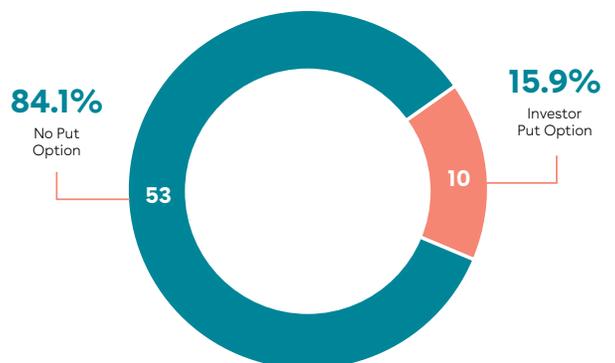
Of 63 transactions surveyed with accompanying warrant coverage, 55 (87.3%) included an adjustment to the warrant upon the occurrence of a fundamental change.



Investor Put Option

Some warrants also include a put option allowing the investor to sell the warrants back to the company upon occurrence of a specified event, such as a change of control or other fundamental change, at either a set price or a fair value price calculated at the time of the sale in accordance with a specified formula, typically a Black-Scholes model.

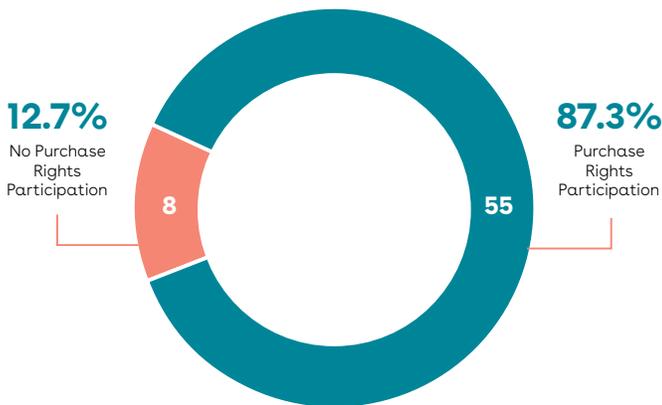
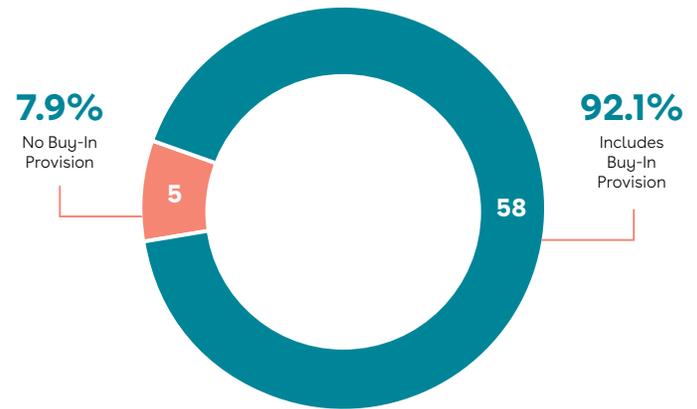
Of 63 transactions surveyed with accompanying warrant coverage, 10 (15.9%) granted the investor a put option upon the occurrence of a fundamental transaction or change in control, all of which were valued using the Black-Scholes model.



Buy-In Rights

Most warrants include a “buy-in” provision whereby the company is required to make a cash payment to the investor if, upon exercise of the warrant, the company fails to deliver the warrant shares on the date required under the warrant. The amount of such cash payment is typically tied to the actual costs the investor incurs to purchase shares at market prices to cover any short position arising from the company’s failure to timely deliver the warrant shares, for example, if the investor has sold shares in anticipation of the company’s delivery of the warrant shares.

Of 63 transactions surveyed with accompanying warrant coverage, 58 (92.1%) included buy-in provisions.



Purchase Rights

Like holders of convertible securities, warrant holders will often also receive the benefit of any purchase rights granted pro rata to all holders of the company’s common stock as if all of the warrants had been exercised immediately prior to the granting of the purchase rights. This right allows investors to pay additional consideration to prevent dilution of its equity ownership for any issuances that do not otherwise trigger anti-dilution protections that may be included in the warrants.

Of 63 transactions surveyed with accompanying warrant coverage, 55 (87.3%) granted investors pro rata access to purchase rights granted by the company to holders of common stock generally.

Beneficial Ownership Limitation

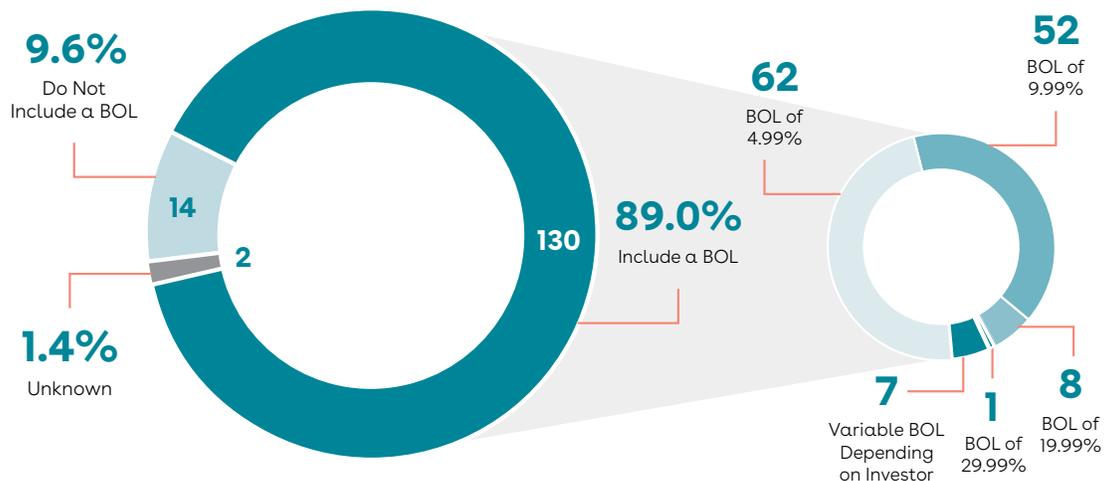
U.S. securities laws impose reporting and other substantive requirements on beneficial owners of publicly traded securities, including:

- An obligation on beneficial owners of more than 5% of a class of publicly traded equity securities or securities that are convertible, exercisable, or exchangeable into a publicly traded security within 60 days to report their holdings and changes in holdings. The reporting obligations are more onerous for beneficial owners of more than 10% of such securities, and even more so if they intend to influence management or reach 20% or more.
- An obligation on public company officers, directors, and greater than 10% beneficial owners (Section 16 insiders) to report within two business days of most of transactions involving the company’s publicly traded equity securities.
- Section 16 insiders are also subject to “short-swing” profit rules that require disgorgement to the company of any profit from a sale or purchase of the company’s securities made within six months of a matchable purchase or sale.

U.S. securities laws defines “beneficial ownership” as the power to directly or indirectly vote or dispose of a security, including any equity-linked security that is convertible, exercisable, or exchangeable within 60 days.

To avoid the above obligations, or other obligations that are determined with reference to beneficial ownership of securities (such as [CFIUS filing requirements](#)), equity-linked securities issuances are often structured to restrict conversion, exercise, or exchange on less than 61 days’ notice to the company if it would cause the investor to beneficially own shares above a specified percentage, usually 4.99% or 9.99%.

Of the 146 transactions surveyed that included warrants (including pre-funded warrants) or convertible securities, 130 (89.0%) included a beneficial ownership limitation.



Other Dilution Protections

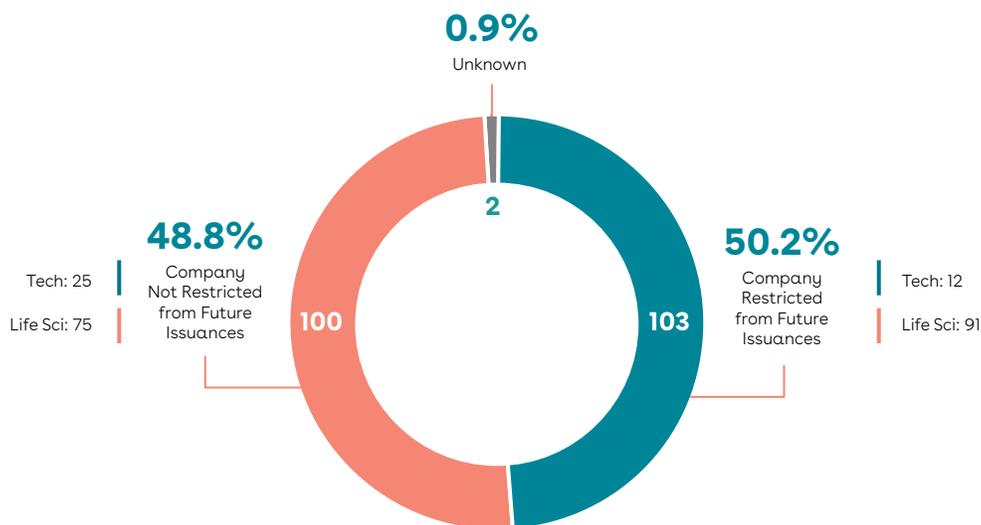
Investors can also be protected from dilution by restrictions on the company’s ability to issue securities post-closing. These restrictions may take the form of an outright prohibition on issuances for a specified period following closing, restrictions on issuances above a certain dollar threshold, or restrictions on future variable rate transactions, in each case without the consent of the investors.

Investors sometimes negotiate for preemptive rights, or an option to participate in future issuances of equity or equity-linked securities, with participation typically limited to an amount sufficient to maintain the investor’s pre-existing ownership percentage (with the ownership percentage of holders of equity-linked securities based on an assumption that such securities will be fully exercised or converted).

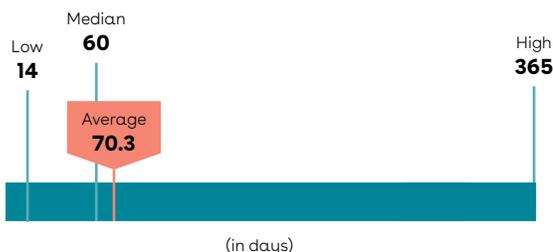
Typical carve-outs from such restrictions and preemptive rights can include issuances to employees under benefit and compensation plans or to certain commercial partners, securities issued upon conversion or exercise of outstanding securities, and securities issued in M&A and other strategic transactions. Furthermore, because a PIPE is a private placement, preemptive rights may exclude securities issued by the company pursuant to an effective registration statement to avoid integration issues.

Future Issuances*

Of the 205 transactions surveyed, 103 (50.2%) included restrictions on the ability of the company to pursue a subsequent issuance, including 32.4% of technology companies and 54.2% of life sciences surveyed. These restrictions were more common in RDOs than PIPEs in 2024, with the percentage of transactions containing issuer restrictions representing 39.0% of PIPEs surveyed and 84.3% of RDOs surveyed.



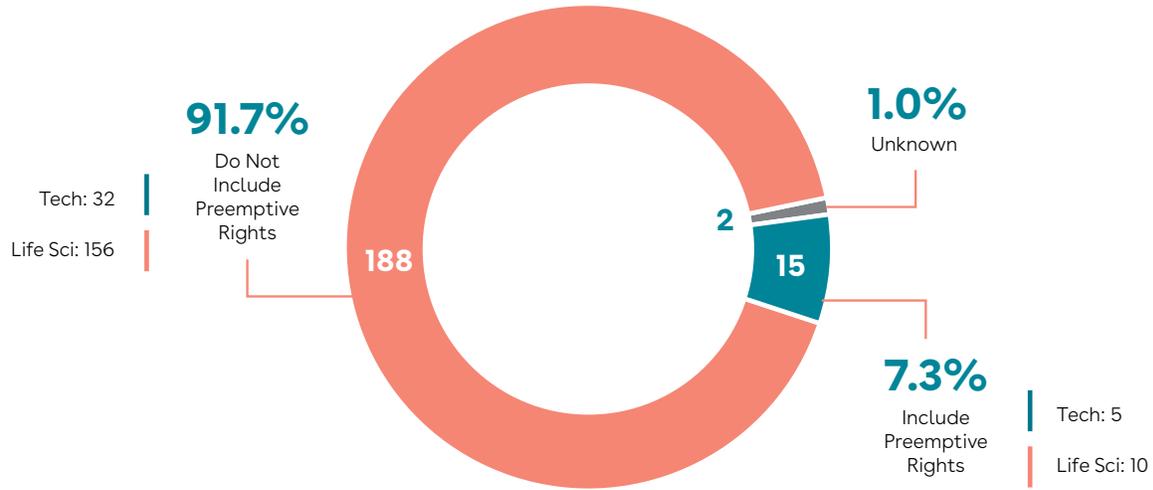
* Excludes PIPEs that are only subject to a restriction on future issuances by the company to the extent such issuance would be integrated with the PIPE under Securities Act Rule 152.



Of the 103 transactions surveyed with a restriction on future issuances by the company, 88 (85.4%) included a restriction on future issuances by the company for a specified period following closing, lasting an average of 70.3 days and median of 60 days following closing. Another 15 transactions (14.6%) terminated the restriction upon the occurrence of a future event, such as registration of the PIPE shares, instead of a specified time period following closing.

Preemptive Rights

Of the 205 transactions surveyed, 15 (7.3%) included preemptive rights, including 13.5% of technology transactions and 6.0% of life sciences transactions, and representing 7.8% of PIPEs surveyed and 5.9% of RDOs surveyed.



PIPEs and RDOs: A Primer

What Is a PIPE?

Every offer and sale of securities in the U.S. must either be registered with the SEC or made pursuant to an exemption from the SEC's registration requirements. A PIPE is a private placement (an exempt sale) of a public company's securities directly to a limited number of investors—hence the name, Private Investment in Public Equity.

In an SEC-registered offering, the securities sold are immediately freely tradable by the investors without the need to register the resale (subject to certain limitations for affiliates of the company). In contrast, securities sold in a PIPE are “restricted securities” that cannot be freely resold for at least six months unless the company registers the resale with the SEC. As a result, almost all PIPE investors negotiate for registration rights to require the company to file a resale registration statement with the SEC within a short window after closing. In rare circumstances, investors unconcerned about near-term liquidity, or which will otherwise be restricted from reselling in the first six months after closing, may be willing to invest in a PIPE without registration rights.

“A PIPE is a private placement (an exempt sale) of a public company's securities directly to a limited number of investors—hence the name, Private Investment in Public Equity.”

What Is an RDO?

An RDO is similar to a PIPE insofar as securities are sold to a limited number of investors, typically facilitated by a placement agent, and the transaction can be completed quickly and without publicly disclosing it until after the purchase agreement has been signed. Unlike PIPEs, however, RDOs involve the sale of securities pursuant to an existing shelf registration statement. Because an RDO is a registered transaction, the securities are freely tradeable and do not involve the negotiation of registration rights. As a result, the share price in an RDO is typically subject to a lower discount relative to a PIPE.

Because PIPEs and RDOs share many of the same features, this report combines them for purposes of summarizing material transaction terms, except where otherwise noted.

Types of Securities

A company can sell any type of security in a PIPE or an RDO that it could in an underwritten SEC-registered offering, such as common stock, preferred stock, convertible notes, and other equity-linked securities – including warrants, and debt securities.

Convertible notes, which are debt securities convertible into common stock, are a popular security type issued by technology companies. Because technology companies generate revenue, they are generally better able to satisfy debt repayment obligations than life sciences companies. In addition, convertible notes can be structured to mitigate the accounting impact on earnings per share (EPS), which can be an important consideration to companies that are valued on an EPS basis.

In contrast, life sciences companies often issue common stock and/or pre-funded warrants, or preferred stock. Unlike technology companies, life sciences companies typically generate limited (or no) revenue, spend significant amounts on clinical development, and are not valued on an EPS basis. As a result, convertible note and other debt transactions are less common with life sciences companies.

Pre-funded warrants are warrants for which investors pay (pre-fund) all but a trivial amount of the exercise price at closing of the transaction. Some investors, particularly life sciences investors, prefer pre-funded warrants to common stock to avoid certain SEC

reporting and other obligations associated with holding common stock. See the section on “[Beneficial Ownership Limitation](#)” for additional information. For purposes of this report, we group pre-funded warrants together with common stock because they are essentially the same economically.

Preferred stock transactions can be particularly attractive to investors because preferred equity retains the upside of equity while the liquidation preference gives investors downside protection by ranking senior to common stock in the event of a bankruptcy. Preferred stock transactions may be structured as plain vanilla preferred stock with no special rights, or may be highly structured with bespoke dividend, liquidation, conversion, or voting provisions, providing a company with greater flexibility than with a sale of common stock. Preferred stock may also be used to avoid a stockholder vote requirement or beneficial ownership limitations. See the sections on “[Stockholder Approval](#)” and “[Beneficial Ownership Limitation](#)” for more information.

Finally, to sweeten the economics for potential investors, many companies also offer warrants alongside another type of security. Warrant coverage can, however, raise the cost of capital associated with a financing and result in significant additional dilution to existing stockholders if the warrants are exercised.

“The fact that a company is pursuing a financing almost always constitutes MNPI, so potential investors must agree to maintain the confidentiality of such MNPI and not trade in company securities until the transaction is publicly announced or it is abandoned.”

Pricing

Traditional underwritten offerings typically involve public marketing efforts (or at least relatively widespread targeting of institutional investors). In challenged capital markets or situations where alternatives have been exhausted, a company may be loath to embark on such an effort if it lacks confidence that the offering will be successful—the company does not want to be perceived as “damaged goods” if it publicly announces an offering that it cannot complete.

PIPEs and RDOs can be good alternatives to traditional underwritten offerings, particularly during periods of market volatility, because they can be negotiated discreetly and publicly announced after the parties agree to terms. However, given the lack of company leverage (usually) and near-term illiquidity of the securities sold, the cost of capital is typically higher for PIPEs than underwritten offerings. There are exceptions to this general rule, such as private equity funds that may expect to have significant influence over management or strategic investors that are motivated by commercial considerations. On the other hand, because an investor receives freely tradable securities in an RDO, the securities are often sold at less of a discount than in a PIPE; in 2024, the security price for PIPEs surveyed was an average of 93.8% of the company’s common stock price, while the security price of RDOs surveyed was an average of 102.0%.

Regulation FD Compliance

An early step in a PIPE or RDO process is for potential investors to enter into a nondisclosure agreement (NDA) with the company. Publicly traded companies are subject to Regulation Fair Disclosure (Regulation FD), which is designed to give all market participants equal access to material nonpublic information (MNPI) so that select investors do not gain an unfair advantage. The fact that a company is pursuing a financing almost always constitutes MNPI, so potential investors must agree to maintain the confidentiality of such MNPI and not trade in company securities until the transaction is publicly announced or it is abandoned.

It is common, especially for life sciences companies, to execute NDAs as part of ongoing investor education efforts that are not immediately related to financing activities. Sometimes, those conversations evolve and lead to a financing. In organized financings, a company intermediary, typically a placement agent, contacts potential investors and gives them noncompany-specific information (such as industry sector, offering size, etc.) to determine whether they would be willing to receive MNPI. Interested investors are

then “wall crossed”—given the name of the company and other offering details, subject to the NDA. Because investors are prohibited from trading in the company’s securities for as long as they are in possession of MNPI, they will frequently insist that the company “cleanses” them by publicly disclosing any MNPI received during the financing process whether or not it closes. If, however, the financing is seen as opportunistic and the MNPI is limited solely to offering-specific information, cleansing disclosure is typically not required should the company ultimately decide not to proceed with the offering.

Due Diligence

Investors in a PIPE or RDO commonly make their investment decision based on information that is already publicly available. Indeed, many investors insist that a company not expose them to any MNPI beyond offering-specific information because it restricts their ability to trade in the company’s securities. However, some investors that view a particular offering as a long-term, fundamental investment opportunity may conduct due diligence beyond a review of a company’s SEC filings or other publicly available information.

In connection with an SEC-registered transaction, certain participants like underwriters and company directors can limit exposure to claims that a company’s public disclosures contained a material misstatement or omission if they conduct reasonable due diligence. Customarily, establishing this due diligence defense involves obtaining a “comfort letter” from the company’s auditors and “negative assurance letters” from company and underwriters’ counsel that speak to the accuracy and completeness of the company’s SEC filings, but the necessary effort to provide such letters is time-consuming and expensive. Such letters are typically required in RDOs involving placement agents because the agents are deemed underwriters for securities law purposes; however, they are rarely requested in connection with PIPEs. This dynamic, coupled with the typical limited scope of investor investigation, means that the due diligence costs in a PIPE are typically less than in an SEC-registered offering.

Timing

Depending on the complexity of the security being sold and other terms sought by investors, a PIPE usually can be structured and negotiated in under two weeks. As discussed above, PIPEs allow a company to avoid public marketing efforts and pre-transaction SEC review, which often result in a longer overall transaction process. PIPEs involving structured securities, or special governance or other terms, typically take longer to negotiate than common stock PIPEs. In such cases, negotiation costs can approach or even exceed the savings associated with relatively limited due diligence.

RDOs can also be completed quickly, often in even less time than a PIPE. Because RDOs are made pursuant to an already effective registration statement, the company can complete the transaction quickly once market conditions are favorable.



“Depending on the complexity of the security being sold and other terms sought by investors, a PIPE usually can be structured and negotiated in under two weeks.”

“The company remains subject to liability under Rule 10b-5 of the Exchange Act for material misstatements or omissions in connection with the sale of the securities and in connection with any public disclosures made to existing stockholders regarding the status of any financing efforts, including a PIPE or RDO.”

Rule 10b-5 Liability

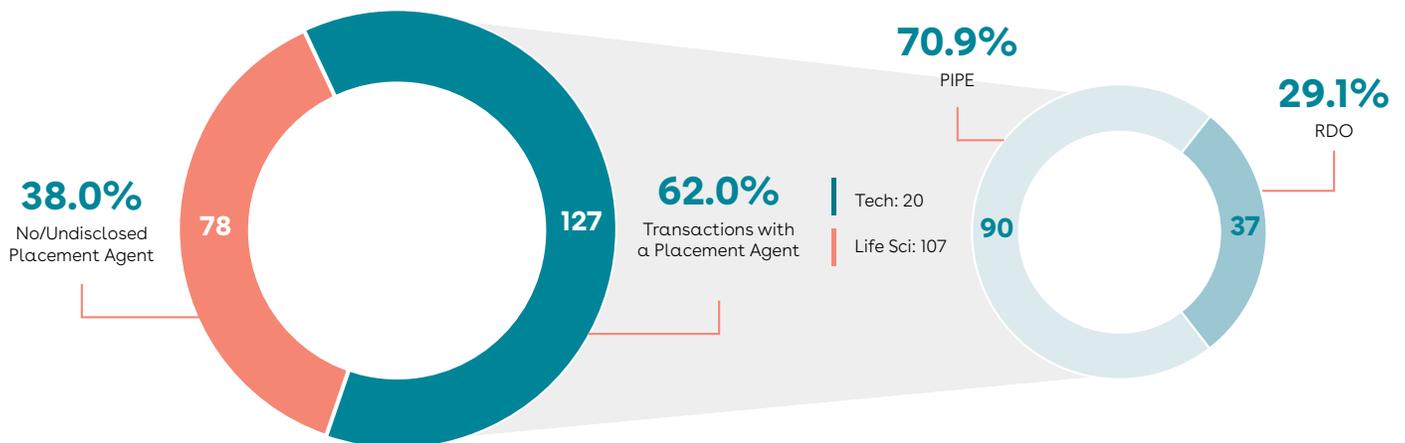
The Securities Act includes multiple provisions that may expose a company to liability in connection with a securities offering. Section 11 of the Securities Act imposes liability against parties responsible for preparing a registration statement for losses resulting from material misstatements or omissions in the registration statement, while Section 12 imposes liability on a person who offers or sells a security in violation of Securities Act registration requirements. RDOs are registered offerings, and therefore subject the company to potential liability under Sections 11 and 12.

In contrast to RDOs, PIPEs are not subject to Section 11 or 12 liability because they are offerings exempt from registration and the sale of securities to PIPE investors is not made pursuant to a registration statement. Even though the nature of a PIPE as a private placement and the absence of offering documentation allow the company to avoid liability to PIPE investors under Section 11 or 12 of the Securities Act, the company remains subject to liability under Rule 10b-5 of the Exchange Act for material misstatements or omissions in connection with the sale of the securities and in connection with any public disclosures made to existing stockholders regarding the status of any financing efforts, including a PIPE or RDO. Remedies for a 10b-5 violation can include payment of penalties as well as consequential damages of investors who participated in the financing in reliance on a misstatement or omission.

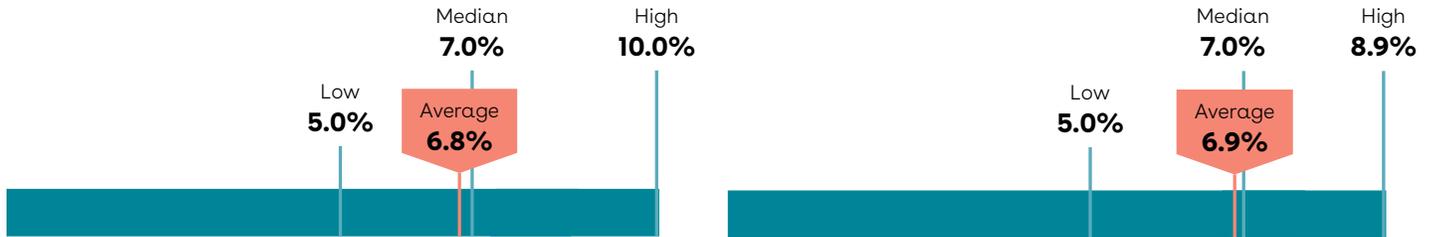
Placement Agent

Companies sometimes engage one or more placement agents to facilitate a PIPE or RDO by, among other things, wall-crossing potential investors, serving as a conduit of communication and synthesizer of information, and in some instances, conducting due diligence on the company.

Of the 205 transactions surveyed, 127 (62.0%) disclosed the use of one or more placement agents, of which 90 (70.9%) were PIPEs (representing 58.4% of all PIPEs reviewed) and 37 (29.1%) were RDOs (representing 72.5% of all RDOs reviewed). Of those 127 transactions, 20 were by technology companies and 107 were by life sciences companies.



Of the 127 transactions surveyed that disclosed the use of placement agents, 58 (45.7%) disclosed the agent’s cash compensation, including all 37 of the RDOs surveyed that disclosed the use of a placement agent.



Among 19 PIPEs that disclosed the agent’s compensation, cash amounts were an average of 6.8% and a median of 7.0% of the PIPE value.*

Among 37 RDOs that disclosed the agent’s compensation, cash amounts were an average of 6.9% and a median of 7.0% of the RDO value.

* For two PIPEs that calculated agent fees according to different percentages for the insider and non-insider portions of the financing, the number reflected in this figure is the percentage for non-insider proceeds.

In addition to the above, of the 127 transactions that disclosed a placement agent, 21 transactions (16.5%) compensated the agent with warrants for the company’s stock. Of these, two transactions included only warrants with no cash component, while 19 included both cash compensation and warrants to the agent.

Documentation

Deal documentation in a PIPE transaction is specific to the type of securities being purchased, but typically includes:

-  Purchase agreement
-  Registration rights agreement
-  Documents governing the terms of the securities (for example, note or indenture for convertible notes or other debt securities; certificate of designations for preferred stock; form of warrant or pre-funded warrant; etc.)
-  Investor rights / voting agreement (if investors are granted governance rights)
-  Placement agent engagement letter (if a placement agent is engaged by the company)
-  Resale registration statement, filed post-closing

Deal documentation for RDOs is similar to that for PIPEs, with the exception that a registration rights agreement and a post-closing resale registration statement are unnecessary.

PIPEs: Advantages and Disadvantages

+ Advantages

- Can be negotiated and executed relatively quickly because the private placement part of the transaction will not be subject to SEC or FINRA review, no offering disclosure document needs to be prepared, there will typically be limited-to-no diligence undertaken, and no negative assurance letter and no comfort letter will be delivered
- The structure and speed of a PIPE can lower overall transaction expenses compared to a registered public offering
- Offers significant flexibility for a company to determine which types of securities to sell

— Disadvantages

- In almost all cases, the common stock being sold or used to price a convertible security will be issued at a discount to the current market price
- The inclusion of warrants increases potential dilution to existing investors
- Investors may insist on price-based anti-dilution provisions in structured products and may negotiate specific restrictive covenants
- Preparation and maintenance of a resale registration statement increases transaction expenses compared to a pure private placement

RDOs: Advantages and Disadvantages

+ Advantages

- Can be negotiated and executed relatively quickly
- Because the registration statement covering the securities has already been declared effective by the SEC, an RDO can generally be completed in a shorter amount of time than a PIPE or a traditional underwritten offering, allowing the company to act quickly as market conditions become favorable
- Unlike a PIPE, an RDO eliminates the need to negotiate for registration rights or prepare a future registration statement

— Disadvantages

- In almost all cases, the securities will be issued at a discount to the current market price, but the discount is typically lower than in a PIPE
- Diligence costs are typically higher compared to a PIPE, since a comfort letter and negative assurance letter are usually required
- Placement agent compensation is typically higher for RDOs relative to PIPEs to compensate banks for increased litigation risk associated with registered transactions
- The inclusion of warrants increases potential dilution to existing investors

Special Considerations and Issues

“Baby Shelf” Rule

Seasoned issuers are eligible under SEC rules to offer securities on a delayed or continuous basis on a Registration Statement on Form S-3. That means that a company can file and have the SEC review and declare effective a registration statement in advance of when the company intends to finance (or in some cases have the registration statement automatically be effective at filing). This flexibility in turn allows a company to mitigate the market and execution risk associated with publicly declaring its intentions to finance and having to wait while the SEC reviews its registration statement, which is one of the main advantages of an RDO.

However, a company with a public float of less than \$75 million may only sell under a Form S-3 securities having an aggregate market value of not more than one-third of the company’s “public float” (market capitalization after backing out shares held by the company’s officers, directors, and other affiliates) during any 12-month period. This “baby shelf” rule can prevent a small-cap company from conducting an SEC-registered offering, including an RDO, as a practical matter.

A PIPE may therefore be the only realistic option to raise needed funds for a company with a small market capitalization. However, although the baby shelf rule only expressly applies to the primary sale of securities by a company and not an investor’s resale of securities, the SEC has sometimes nevertheless taken the position that a resale of PIPE securities is an indirect primary offering. A company in this position typically registers the resale of the maximum number of shares allowable under the baby shelf rule and/or register the resale on a long-form Registration Statement on Form S-1, which may require additional SEC review and increase administrative burden and cost.

Fiduciary Duties

Directors and officers owe fiduciary duties to a company’s stockholders, including the duty of care and duty of loyalty.

- The duty of care focuses on the decision-making process: acting on an informed basis after consideration of relevant materials and alternative courses of action and after proper deliberation.
- The duty of loyalty requires acting in the best interests of the company and its stockholders, and properly disclosing and addressing any conflicts of interest.

Given that these offerings, and particularly PIPEs, often involve onerous economic, governance, and operational terms and may involve selling securities to insiders as investors of last resort, directors and officers should be sensitive to their fiduciary duties, particularly when a financing is large enough to raise considerations related to whether or not it will result in a change in control of the company. If directors and officers exercise their duty of care and implement appropriate procedures when one or more insider stands on both sides of an offering, courts will generally respect the business judgment of the board of directors even if the offering does not result in a positive outcome for a company.

Antitrust Considerations

Generally, transactions involving the sale of voting securities valued at more than \$126.4 million (the “size-of-transaction” threshold) where one side of the transaction has more than \$25.3 million in total assets or annual net sales and the other side has more than \$252.9 million in total assets or annual net sales (the “size-of-person” threshold) require filings with the U.S. Federal Trade Commission (FTC) and the U.S. Department of Justice pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (the

** All dollar amounts referenced in this section are subject to annual adjustment by the FTC based on changes in the gross national product; these thresholds are effective through 2025 until early 2026.*

“If the company receives a second request, its options are to abandon the offering, litigate the issue, or negotiate a settlement with the government.”

HSR Act). If a filing is required, the offering cannot close until the expiration or early termination of a 30-day statutory waiting period or, in the case of a request by the U.S. government for additional information, significantly longer periods of time. If the company receives a second request, its options are to abandon the offering, litigate the issue, or negotiate a settlement with the government—usually requiring asset divestitures, technology licensing, or both—to remedy any competitive harm the government believes may result from the proposed transaction.

Even if the size-of-transaction and size-of-parties thresholds are triggered, certain exemptions may be available to enable the parties to expedite a closing. For example, the HSR Act provides that an investor may acquire up to 10% of a company’s voting securities (regardless of their value) without making an HSR filing if the acquisition is solely for investment purposes. The precise scope of the passive investor exemption is not well-defined and has been construed narrowly;

it is not available when an investor seeks to acquire control of the company or intends to obtain a board seat (including through a director nomination right) or otherwise influence the company’s basic management decisions (including by holding a management position). Moreover, the investor’s ownership of a competitor to the company prevents their ability to rely on the passive investor exemption.

In addition, offerings involving the sale of nonvoting securities, meaning securities that do not confer the right to vote for the company’s board of directors or similar body, do not require an HSR filing. Although an acquisition of securities that do not confer present voting rights is exempt from HSR filing requirements, the subsequent conversion of a convertible security or exercise of a warrant for voting securities would be reportable if it trips the size-of-transaction threshold. Convertible securities and warrants are therefore sometimes structured to restrict convertibility or exercise, for example until the statutory waiting period has run or HSR clearance has been obtained.

CFIUS Considerations

The U.S. Committee on Foreign Investment in the United States (CFIUS) has authority to review, among other transactions, foreign participation in financings conducted by certain U.S. businesses. If a foreign person (or U.S. person under the “control” of a foreign person) participates in a financing, and if that foreign investment qualifies as a “covered transaction,” the parties must decide whether a filing to CFIUS is mandatory or whether to voluntarily submit the transaction to CFIUS for advance review.

A filing to CFIUS may be made either via a short-form declaration containing basic information concerning the transaction or a longer, formal written notice. Depending on the value of the transaction, a formal notice for a transaction valued at over \$500,000 requires payment of a filing fee ranging from \$750 to \$300,000. Submission of the short-form declaration does not trigger a fee, but not all transactions are amenable to resolution using the short-form declaration. When a declaration is used, CFIUS may provide a decision 30 days after the filing is accepted as complete; when a formal notice is used, the timeframe for a CFIUS decision is significantly longer—at least 45 days, but often several months or more. The time and associated expense often will make a financing impractical if a CFIUS filing should be made.

“The time and associated expense often will make a financing impractical if a CFIUS filing should be made.”

To trigger a mandatory CFIUS filing, it is a necessary (but not sufficient) condition that the U.S. business be involved with “critical technologies,” “critical infrastructure,” or “sensitive personal data”—involvement in any of these categorizes the business as a “TID U.S. business” (“T” for technology, “I” for infrastructure, and “D” for data). However, even for transactions that do not involve TID U.S. businesses—and therefore do not trigger mandatory CFIUS filings—CFIUS often has the discretionary authority to review a transaction pre- or post-closing. This authority may exist if the foreign participant in the financing obtains even nominal equity in the business, and in some circumstances even convertible nonvoting securities may create CFIUS jurisdiction. If CFIUS determines that a covered transaction presents a threat to national security, it may effectively block the transaction, force divestment by the foreign person (if the transaction has closed), or order mitigation measures to resolve the concerns. There is no time limitation for CFIUS to act. For transactions that do not trigger mandatory filings but that may be subject to CFIUS discretionary review, parties may make a voluntary filing to obtain CFIUS clearance in advance of closing, which protects against adverse CFIUS action in the future and often is the only way to extinguish the risk of adverse CFIUS action when there is a foreign participant in a transaction.

CFIUS rules provide a safe harbor for transactions in which a foreign person makes a purely passive investment, meaning that the foreign person does not obtain more than 10% voting rights or significant veto rights; a board seat, observer seat, or nomination rights; access to “material non-public technical information”; or involvement in “substantive decision-making” of the business. See the section on “[Beneficial Ownership Limitation](#)” for additional information. Such passive participation often is advisable for foreign participants in financings to allow a company to take advantage of this safe harbor and avoid a mandatory CFIUS filing.

Covenants in Other Agreements

Credit Agreements/Indentures

A company’s existing debt documents may restrict the incurrence of additional debt and use of proceeds in an equity offering, and may include mandatory prepayments, redemptions, repurchase events, delivery of cash upon conversion, fundamental changes, and related party transaction restrictions that may be triggered by a financing. A company considering a financing should carefully review its existing debt agreements to understand the implications of the financing and ensure that it would not cause a default under those agreements and that the company obtains any required third-party consents.

Charter Documents and Stockholder Agreements

A company considering a PIPE or RDO should also carefully review their organizational documents and any stockholder agreements to ensure that they have sufficient authorized shares to complete the transaction and to determine any necessary consents or waivers from existing stockholders. Even when the company is not required to get stockholder approval for the offering itself under stock exchange rules, stockholder approval would nevertheless typically be required if the company’s organizational documents need to be amended, for example, to increase the number of authorized shares.

Change of Control Issues

Depending on the amount and type of equity being issued, the number of investors, or changes to the board of directors resulting from the terms of the offering, a company should evaluate whether the transaction may trigger a change of control-related provision in any of its existing agreements. Triggering such provisions in equity plans and employment agreements, for example, could require early payment of bonuses or severance or result in the acceleration of equity award vesting.

“Even when the company is not required to get stockholder approval for the offering itself under stock exchange rules, stockholder approval would nevertheless typically be required if the company’s organizational documents need to be amended, for example, to increase the number of authorized shares.”

Appendix A: Technology and Life Sciences PIPE Issuers*

Technology

- Connexa Sports Technologies Inc. (NasdaqCM) 1/19/2024
- Comtech Telecommunications Corp. (NasdaqGS) 1/22/2024
- Arena Group Holdings, Inc. (The) (NYSE American) 2/14/2024
- DarioHealth Corp. (NasdaqCM) 2/21/2024; 12/18/2024
- GameSquare Holdings, Inc. (NasdaqCM) 3/7/2024
- PAR Technology Corporation (NYSE) 3/8/2024
- Movano Inc. (NasdaqCM) 4/5/2024
- Blend Labs, Inc. (NYSE) 4/29/2024
- PSQ Holdings, Inc. (NYSE) 5/3/2024; 8/29/2024
- Rubicon Technologies, Inc. (NYSE) 5/7/2024
- Genasys Inc. (NasdaqCM) 5/14/2024
- LivePerson, Inc. (NasdaqGS) 6/3/2024
- Golden Matrix Group, Inc. (NasdaqCM) 7/3/2024
- QXO, Inc. (NasdaqCM) 7/19/2024; 7/25/2024
- Serve Robotics Inc. (NasdaqCM) 7/24/2024
- Vacasa, Inc. (NasdaqGS) 8/7/2024
- Inspirato Incorporated (NasdaqGM) 9/13/2024
- Vuzix Corporation (NasdaqCM) 9/13/2024
- Grove Collaborative Holdings, Inc. (NYSE) 9/20/2024
- Faraday Future Intelligent Electric Inc. (NasdaqCM) 9/30/2024
- SKYX Platforms Corp. (NasdaqCM) 10/4/2024
- MicroVision, Inc. (NasdaqGM) 10/23/2024
- Groupon, Inc. (NasdaqGS) 11/19/2024
- Alignment Healthcare, Inc. (NasdaqGS) 11/22/2024
- Quantum Computing Inc. (NasdaqCM) 12/12/2024
- MACOM Technology Solutions Holdings, Inc. (NasdaqGS) 12/19/2024

Life Sciences

- Voyager Therapeutics, Inc. (NasdaqGS) 1/3/2024
- C4 Therapeutics, Inc. (NasdaqGS) 1/4/2024
- XBiotech Inc. (NasdaqGS) 1/4/2024
- Immunic, Inc. (NasdaqGS) 1/8/2024
- Liquidia Corporation (NasdaqCM) 1/8/2024; 9/12/2024
- Relay Therapeutics, Inc. (NasdaqGM) 1/10/2024
- Solid Biosciences Inc. (NasdaqGS) 1/11/2024
- Perspective Therapeutics, Inc. (NYSE American) 1/22/2024; 3/6/2024
- ORIC Pharmaceuticals, Inc. (NasdaqGS) 1/23/2024
- Dianthus Therapeutics, Inc. (NasdaqCM) 1/24/2024
- Kura Oncology, Inc. (NasdaqGS) 1/26/2024
- Arcus Biosciences, Inc. (NYSE) 1/29/2024
- CalciMedica, Inc. (NasdaqCM) 2/5/2024
- Kiora Pharmaceuticals, Inc. (NasdaqCM) 2/5/2024
- Tyra Biosciences, Inc. (NasdaqGS) 2/6/2024
- Adverum Biotechnologies, Inc. (NasdaqCM) 2/7/2024
- Mineralys Therapeutics, Inc. (NasdaqGS) 2/12/2024
- Cogent Biosciences, Inc. (NasdaqGS) 2/16/2024
- Ocular Therapeutix, Inc. (NasdaqGM) 2/26/2024
- vTv Therapeutics Inc. (NasdaqCM) 2/27/2024
- Denali Therapeutics Inc. (NasdaqGS) 2/29/2024
- Pyxis Oncology, Inc. (NasdaqGS) 2/29/2024
- Crinetics Pharmaceuticals, Inc. (NasdaqGS) 3/1/2024
- Applied Therapeutics, Inc. (NasdaqGM) 3/1/2024
- Avidity Biosciences, Inc. (NasdaqGM) 3/4/2024
- Nektar Therapeutics (NasdaqCM) 3/6/2024
- Mind Medicine (MindMed) Inc. (NasdaqGS) 3/11/2024
- Ventyx Biosciences, Inc. (NasdaqGS) 3/11/2024; 9/23/2024
- Avid Bioservices, Inc. (NasdaqCM) 3/12/2024
- Intelligent Bio Solutions Inc. (NasdaqCM) 3/12/2024
- Lexeo Therapeutics, Inc. (NasdaqGM) 3/13/2024
- Aprea Therapeutics, Inc. (NasdaqCM) 3/13/2024
- Lexicon Pharmaceuticals, Inc. (NasdaqGS) 3/13/2024
- Regulus Therapeutics Inc. (NasdaqCM) 3/14/2024
- Lucid Diagnostics Inc. (NasdaqGM) 3/14/2024; 5/6/2024; 11/22/2024
- Outlook Therapeutics, Inc. (NasdaqCM) 3/18/2024
- Unicycive Therapeutics, Inc. (NasdaqCM) 3/18/2024
- Spyre Therapeutics, Inc. (NasdaqGS) 3/20/2024
- Fate Therapeutics, Inc. (NasdaqGM) 3/21/2024
- LENZ Therapeutics, Inc. (NasdaqGS) 3/21/2024; 7/17/2024
- Enliven Therapeutics, Inc. (NasdaqGS) 3/21/2024
- AEON Biopharma, Inc. (NYSE American) 3/24/2024
- Longboard Pharmaceuticals, Inc. (NasdaqGM) 3/26/2024
- Xilio Therapeutics, Inc. (NasdaqGS) 3/28/2024
- Avalo Therapeutics Inc. (NasdaqCM) 3/28/2024
- iBio, Inc. (NYSE American) 4/1/2024
- Surrozen, Inc. (NasdaqCM) 4/1/2024
- CervoMed Inc. (NasdaqGM) 4/1/2024
- Sutro Biopharma, Inc. (NasdaqGM) 4/1/2024
- Traws Pharma, Inc. (NasdaqCM) 4/2/2024; 12/31/2024
- Erasca, Inc. (NasdaqGS) 4/2/2024
- Biodesix, Inc. (NasdaqGM) 4/9/2024
- Protara Therapeutic, Inc. (NasdaqGM) 4/10/2024
- Acrivon Therapeutics, Inc. (NasdaqGM) 4/11/2024
- OncoCyte Corporation (NasdaqCM) 4/15/2024; 10/4/2024
- Century Therapeutics, Inc. (NasdaqGS) 4/15/2024
- Leap Therapeutics, Inc. (NasdaqCM) 4/15/2024
- Marpai, Inc. (NasdaqCM) 4/15/2024

* PIPE transactions valued below \$10 million, equity lines of credit, and de-SPAC PIPES were excluded from this report. Listed dates represent the PIPE closing date.

Appendix A: Technology and Life Sciences PIPE Issuers*

Life Sciences (cont.)

- Rhythm Pharmaceuticals, Inc. (NasdaqGM) 4/15/2024
- Allurion Technologies, Inc. (NYSE) 4/16/2024
- Exact Sciences Corporation (NasdaqCM) 4/17/2024
- Cullinan Therapeutics, Inc. (NasdaqGS) 4/18/2024
- Benitec Biopharma Inc. (NasdaqCM) 4/22/2024
- Korro Bio, Inc. (NasdaqCM) 4/22/2024
- Zura Bio Limited (NasdaqCM) 4/22/2024
- Cidara Therapeutics, Inc. (NasdaqCM) 4/24/2024; 11/26/2024
- Context Therapeutics Inc. (NasdaqCM) 5/6/2024
- Eledon Pharmaceuticals, Inc. (NasdaqCM) 5/9/2024
- Novavax, Inc. (NasdaqGS) 5/10/2024
- P3 Health Partners Inc. (NasdaqCM) 5/24/2024
- Bionano Genomics, Inc. (NasdaqCM) 5/24/2024
- CARGO Therapeutics, Inc. (NasdaqGS) 5/30/2024
- Summit Therapeutics Inc. (NasdaqGM) 6/3/2024; 9/13/2024
- Rapport Therapeutics, Inc. (NasdaqGM) 6/10/2024
- Replimune Group, Inc. (NasdaqGS) 6/14/2024
- NeuroBo Pharmaceuticals, Inc. (NasdaqCM) 6/25/2024
- Eliem Therapeutics, Inc. (NasdaqGM) 6/27/2024
- DiaMedica Therapeutics Inc. (NasdaqCM) 6/28/2024
- KALA BIO, Inc. (NasdaqCM) 6/28/2024; 12/31/2024
- Vigil Neuroscience, Inc. (NasdaqGS) 7/1/2024
- Cartesian Therapeutics, Inc. (NasdaqGM) 7/3/2024
- Alpha Teknova, Inc. (NasdaqCM) 7/12/2024
- Day One Biopharmaceuticals, Inc. (NasdaqGS) 8/1/2024
- Tenax Therapeutics, Inc. (NasdaqCM) 8/8/2024
- Elicio Therapeutics, Inc. (NasdaqGM) 8/12/2024
- OrthoPediatrics Corp. (NasdaqGM) 8/12/2024
- Personalis, Inc. (NasdaqGM) 8/16/2024; 12/19/2024
- Oruka Therapeutics, Inc. (NasdaqGM) 9/13/2024
- Capricor Therapeutics, Inc. (NasdaqCM) 9/16/2024
- Seres Therapeutics, Inc. (NasdaqGS) 9/30/2024
- Beyond Air, Inc. (NasdaqCM) 9/30/2024
- Prime Medicine, Inc. (NasdaqGM) 9/30/2024
- Brookdale Senior Living Inc. (NYSE) 10/3/2024
- OnKure Therapeutics, Inc. (NasdaqGM) 10/4/2024
- IN8bio, Inc. (NasdaqGM) 10/4/2024
- NRx Pharmaceuticals, Inc. (NasdaqCM) 10/10/2024
- Inhibikase Therapeutics, Inc. (NasdaqCM) 10/21/2024
- Coya Therapeutics, Inc. (NasdaqCM) 10/23/2024
- Bright Minds Biosciences Inc. (NasdaqCM) 11/4/2024
- Neurogene Inc. (NasdaqGM) 11/5/2024
- Organogenesis Holdings Inc. (NasdaqCM) 11/12/2024
- Aclaris Therapeutics, Inc. (NasdaqGS) 11/19/2024
- Forte Biosciences, Inc. (NasdaqCM) 11/21/2024
- Arrowhead Pharmaceuticals, Inc. (NasdaqGS) 11/27/2024
- Olema Pharmaceutical, Inc. (NasdaqGS) 12/4/2024
- Senti Biosciences, Inc. (NasdaqCM) 12/5/2024
- Palvella Therapeutics, Inc. (NasdaqCM) 12/13/2024
- Monopar Therapeutics Inc. (NasdaqCM) 12/23/2024
- Marker Therapeutics, Inc. (NasdaqCM) 12/23/2024
- RAPT Therapeutics, Inc. (NasdaqGM) 12/27/2024
- Vor Biopharma Inc. (NasdaqGS) 12/30/2024
- Precigen, Inc. (NasdaqGS) 12/30/2024

* PIPE transactions valued below \$10 million, equity lines of credit, and de-SPAC PIPES were excluded from this report. Listed dates represent the PIPE closing date.

Appendix B: Technology and Life Sciences RDO Issuers*

Technology

- Nutex Health, Inc. (NasdaqCM) 1/25/2024
- Phunware, Inc. (NasdaqCM) 2/9/2024
- Digimarc Corporation (NasdaqGS) 2/27/2024
- Velo3D, Inc. (NYSE) 4/12/2024
- authID Inc. (NasdaqCM) 6/27/2024
- Quantum Computing Inc. (NasdaqCM) 11/18/2024
- Rigetti Computing, Inc. (NasdaqCM) 11/27/2024
- PSQ Holdings, Inc. (NYSE) 12/5/2024

Life Sciences

- Fortress Biotech, Inc. (NasdaqCM) 1/3/2024
- Atara Biotherapeutics, Inc. (NasdaqGS) 1/10/2024; 9/5/2024
- Vaxart, Inc. (NasdaqCM) 1/18/2024
- eFFECTOR Therapeutics, Inc. (NasdaqCM) 1/29/2024
- Checkpoint Therapeutics, Inc. (NasdaqCM) 1/31/2024; 7/3/2024
- Palatin Technologies, Inc. (NYSE American) 2/1/2024
- Lineage Cell Therapeutics, Inc. (NYSE American) 2/8/2024; 11/21/2024
- Clearside Biomedical, Inc. (NasdaqGM) 2/9/2024
- Achieve Life Sciences, Inc. (NasdaqCM) 3/4/2024
- Vivani Medical, Inc. (NasdaqCM) 3/5/2024
- SELLAS Life Sciences Group, Inc. (NasdaqCM) 3/19/2024; 8/1/2024
- Beyond Air, Inc. (NasdaqCM) 3/22/2024
- Sangamo Therapeutics, Inc. (NasdaqGS) 3/26/2024
- BioXcel Therapeutics, Inc. (NasdaqCM) 3/27/2024
- Matinas BioPharma Holdings, Inc. (NYSE American) 4/5/2024
- Bionano Genomics, Inc. (NasdaqCM) 4/8/2024
- Scilex Holding Company (NasdaqCM) 4/25/2024; 10/8/2024; 12/13/2024
- Citius Pharmaceuticals, Inc. (NasdaqCM) 4/30/2024
- Corvus Pharmaceuticals, Inc. (NasdaqGM) 5/6/2024
- OptiNose, Inc. (NasdaqGS) 5/10/2024
- iTeos Therapeutics, Inc. (NasdaqGM) 5/14/2024
- Applied DNA Sciences, Inc. (NasdaqCM) 5/29/2024
- ProKidney Corp. (NasdaqCM) 6/17/2024
- Elutia Inc. (NasdaqCM) 6/18/2024
- Entrada Therapeutics, Inc. (NasdaqGM) 6/25/2024
- SeaStar Medical Holding Corporation (NasdaqCM) 7/11/2024
- Azitra, Inc. (NYSE American) 7/25/2024
- CEL-SCI Corporation (NYSE American) 7/29/2024
- Imunon Inc. (NasdaqCM) 8/1/2024
- Lipella Pharmaceuticals Inc. (NasdaqCM) 8/1/2024
- INmune Bio Inc. (NasdaqCM) 9/16/2024
- Humacyte, Inc. (NasdaqGS) 10/7/2024; 11/15/2024
- Senseonics Holdings, Inc. (NYSE American) 10/28/2024
- Monopar Therapeutics Inc. (NasdaqCM) 10/30/2024
- Curis, Inc. (NasdaqCM) 10/30/2024
- TScan Therapeutics, Inc. (NasdaqGM) 12/27/2024

* RDOs valued below \$10 million and equity lines of credit were excluded from this report. Listed dates represent the RDO closing date.

About Wilson Sonsini

Wilson Sonsini is the premier firm advising technology, life sciences, and other high-growth companies seeking to raise capital through the issuance of equity, equity-linked, and debt financial instruments. The firm also provides counsel to leading private equity and growth equity funds, as well as other financial sponsors, in buyout and investment transactions. Wilson Sonsini is consistently ranked by *Bloomberg*, *Thomson Reuters*, and *CapitalIQ* as a leading advisor to companies and underwriters based on the number of completed IPOs and equity and equity-linked offerings.

Visit Wilson Sonsini's website for more information about the firm's [capital markets practice](#).

For More Information

For more information on the preceding findings or any related matters, please contact your regular Wilson Sonsini attorney or any member of the firm's [capital markets practice](#).

Disclaimer

This communication is provided as a service to our clients and friends for general informational purposes. It should not be construed or relied on as legal advice or a legal opinion, and does not create an attorney-client relationship. This communication may be considered attorney advertising in some jurisdictions. Prior results do not guarantee a similar outcome.

WILSON SONSINI

650 Page Mill Road, Palo Alto, California 94304-1050 | Phone 650-493-9300 | Fax 650-493-6811 | www.wmgr.com

Wilson Sonsini has 17 offices in technology and business hubs worldwide. For more information, visit www.wmgr.com/offices.

© 2025 Wilson Sonsini Goodrich & Rosati, Professional Corporation. All rights reserved.