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2023 MID-YEAR TECHNOLOGY AND LIFE SCIENCES PIPE AND RDO REPORT

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Introduction

Wilson Sonsini Goodrich & Rosati's *2023 Mid-Year Technology and Life Sciences PIPE and RDO Report* presents analysis related to 87 private investments in public equity (PIPEs) and registered direct offerings (RDOs) by U.S.-based technology and life sciences companies between January 1 and June 30, 2023.

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 the first half of 2023.

The significant reduction in U.S. public capital markets activity experienced in 2022 has continued to affect companies' access to the markets in 2023. We expect that these market challenges, along with the additional financing difficulties resulting from high-profile bank failures during the first quarter of 2023, will continue to complicate capital raises for the immediate future and companies may increasingly explore alternatives to traditional underwritten offerings as a way to meet their financing needs.

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 often sold at less of a discount than in a PIPE; in the first half of 2023, the security price for PIPEs surveyed was an average of 91.1% of the company's common stock price, while the security price of RDOs surveyed was an average of 97.1%.

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. The PIPE market for SPACs saw heightened levels of activity in 2020 and 2021 but has since cooled significantly along with the rest of the new issue equity market. 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 S&P Global Market Intelligence and 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, and Michael Rosati, with additional contributions from Heath DeJean, Kristijonas Rastauskas, Olivia Richey, Ashley Slack, and June Wang.

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

Overview

What Is a PIPE?

Every offer and sale of securities in the United States must either be registered with the U.S. Securities and Exchange Commission (SEC) or made pursuant to an exemption from the 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.

A popular security type issued by technology companies involves convertible notes, which are debt securities convertible into common stock. 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 and spend significant amounts on clinical development and are not valued on an EPS basis. As a result, convertible note and 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 shareholder 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.

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 loathe 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 the first half of 2023, the security price for PIPEs surveyed was an average of 91.1% of the company's common stock price, while the security price of RDOs surveyed was an average of 97.1%.

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 has been publicly announced or it is abandoned.

"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 has been 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 affects 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 pretransaction 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 less time than a PIPE. RDOs are made pursuant to an effective registration statement, allowing the company to pursue a 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."

Rule 10b-5 Liability

"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."

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.

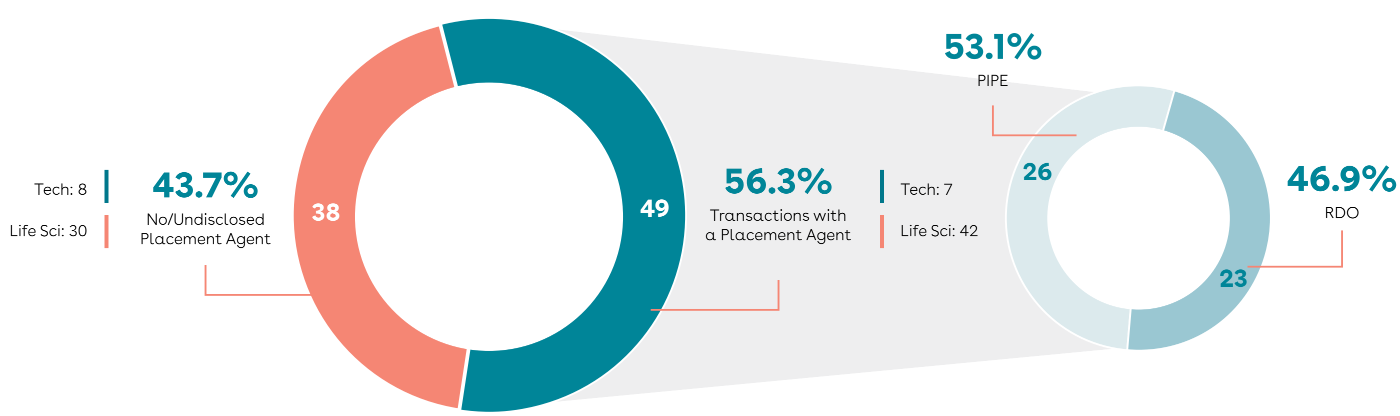
In contrast to an RDO, PIPE transactions are not subject to Section 11 or 12 liability, because a PIPE is an offering exempt from registration and does not involve a registration statement.

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.

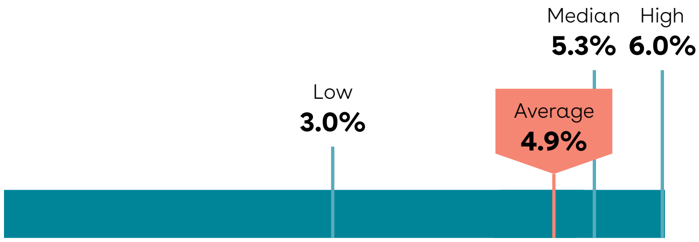
Placement Agent

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.

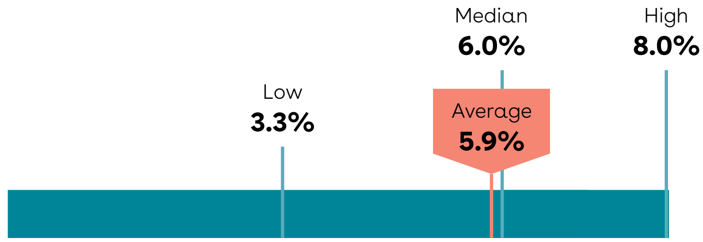
Of the 87 transactions surveyed, 49 (56.3%) disclosed the use of one or more placement agents, representing 53.1% of PIPEs reviewed and 46.9% of RDOs reviewed. Of those 49 transactions, seven were by technology companies and 42 were by life sciences companies.



Of the 49 transactions surveyed that disclosed the use of placement agents, 29 (59.2%) disclosed the agent's compensation.



Among six PIPEs that disclosed the agent's compensation, average compensation was 4.9% of the PIPE value, while the median was 5.3%.



Among 23 RDOs that disclosed the agent's compensation, average compensation was 5.9% of the RDO value, while the median was 6.0%.

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 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 assurances 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 $111.4 million (the "size-of-transaction" threshold) where one side of the transaction has more than $22.3 million in total assets or annual net sales and the other side has more than $222.7 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.*

"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.

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

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.

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 to increase the number of authorized shares.

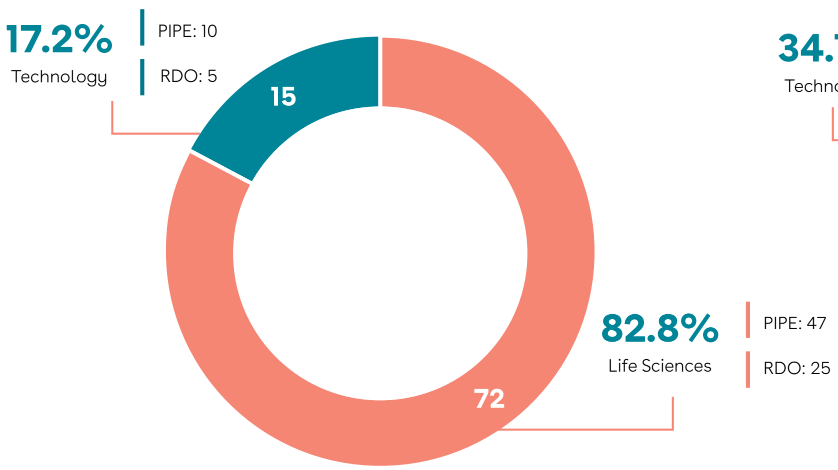
"Even when the company is not required to get stockholder approval for the offering itself under stock exchange rules, stockholder approval would nevertheless typically be required if the company's organizational documents need to be amended to increase the number of authorized shares."

Change of Control Issues

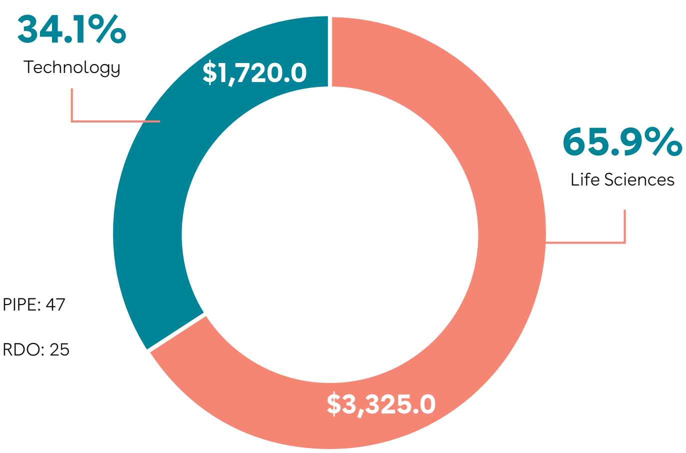
Depending on the amount and type of equity being issued, the number of investors, or changes to the board of directors resulting from the terms of the offering, a company should evaluate whether the transaction may trigger a change of control-related provision in any of its existing agreements. Triggering 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.

1H 2023 PIPE and RDO Activity

Number of Transactions

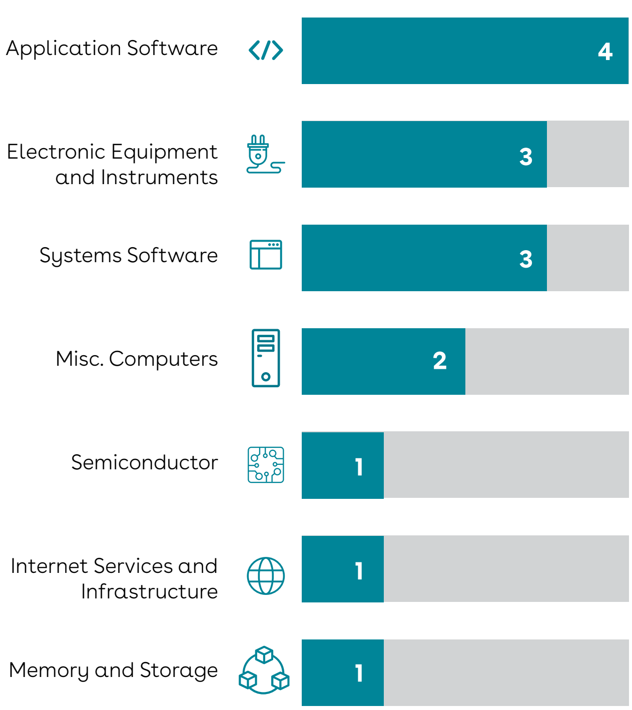


Aggregate Amounts Raised*

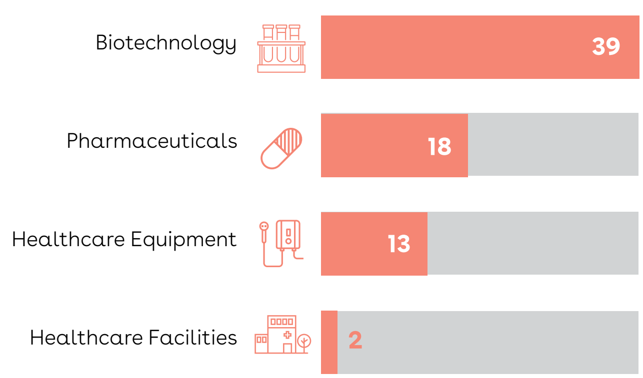


* *in millions*

Technology Sector Breakdown



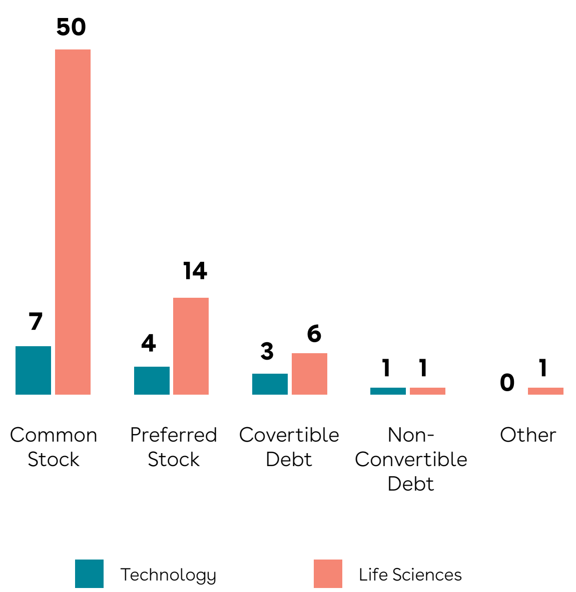
Life Sciences Sector Breakdown



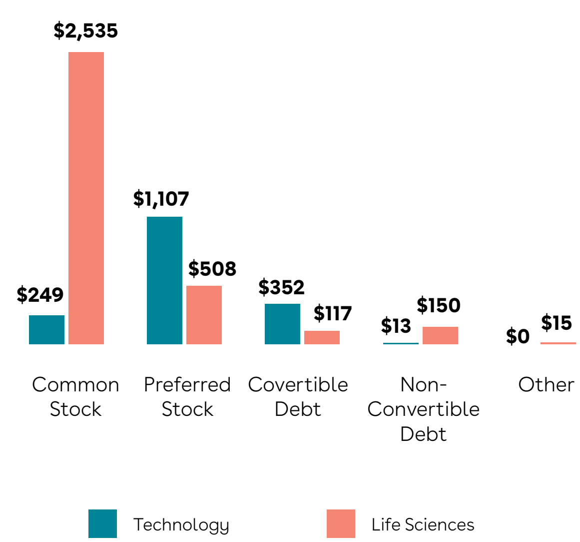
Security Types

	Technology			Life Sciences		
Security Type	**Total Placements**	**Transactions with Warrant Coverage**[1]	**Total Deal Value (in millions)**	**Total Placements**	**Transactions with Warrant Coverage**[1]	**Total Deal Value (in millions)**
Common Stock[2]	7	4	$ 248.5	50	14	$ 2,534.8
Preferred Stock[3]	4	0	$ 1,107.3	14	9	$ 507.9
Convertible Debt	3	0	$ 351.7	6	0	$ 117.3
Non-Convertible Debt	1	1	$ 12.5	1	1	$ 150.0
Other[4]	0	0	$ 0.0	1	0	$ 15.0
Total	15	5	$ 1,720.0	72	24	$ 3,325.0

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.*

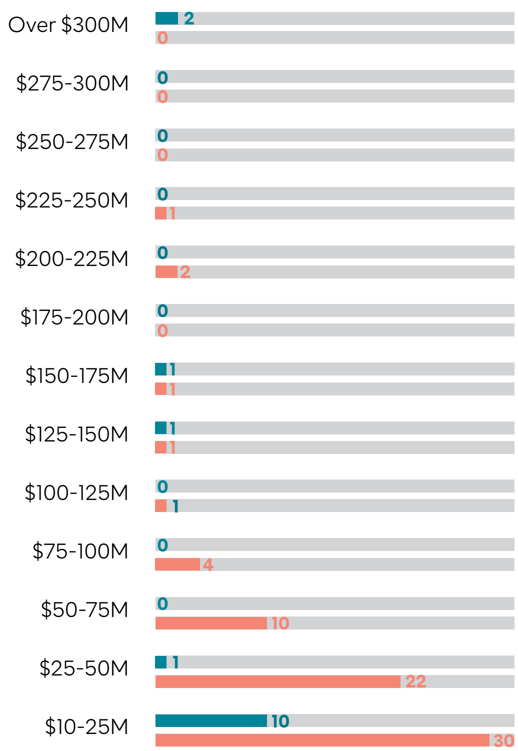
[2] *Includes two transactions that issued only pre-funded warrants, and 20 transactions that issued a combination of common stock and pre-funded warrants.*

[3] *Other than one nonconvertible preferred stock PIPE by a life sciences company, all other transactions listed here were for preferred stock convertible into the company's common stock.*

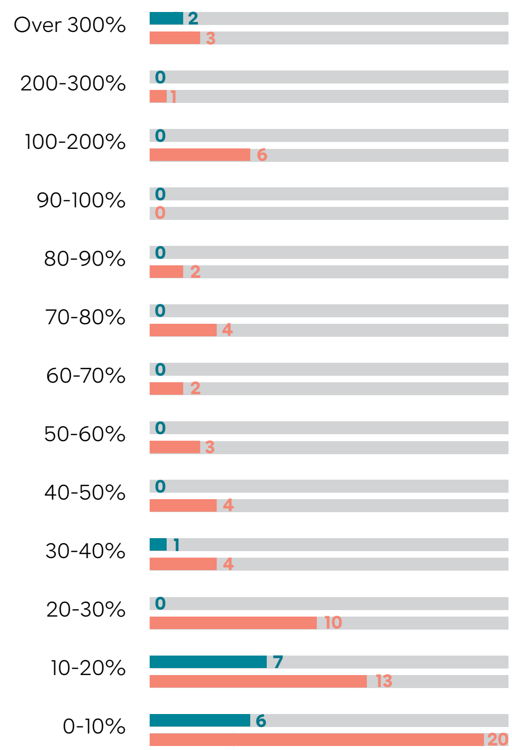
[4] *Includes one PIPE for common stock and convertible preferred stock.*

Size and Timing Distribution

Transaction Value (in millions)

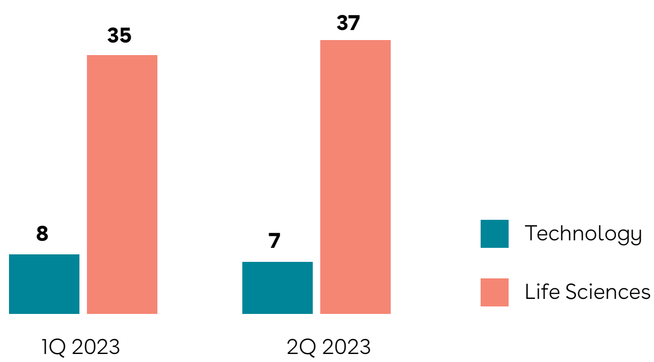


Transaction Value (as % of market value)

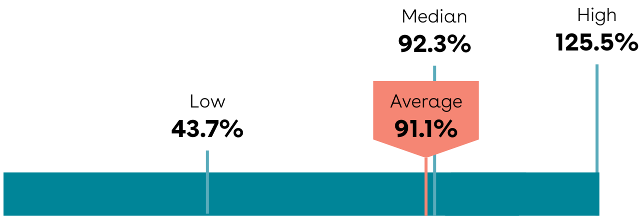


Technology Life Sciences

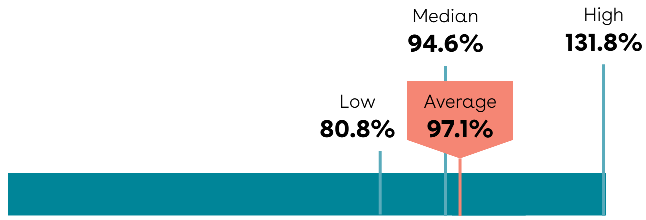
Closing Distribution by Quarter



Security Price*



Among PIPEs for common stock and/or pre-funded warrants, prices ranged from 43.7% to 125.5% of the company's common stock price on the trading day immediately preceding closing, with an average of 91.1% and median of 92.3%.



Among RDOs for common stock and/or pre-funded warrants, prices ranged from 80.8% to 131.8% of the company's common stock price on the trading day immediately preceding closing, with an average of 97.1% and median of 94.6%.

** Excludes two RDOs and six PIPEs that were priced at a premium to the company's common stock of between 130% and 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 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 big 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

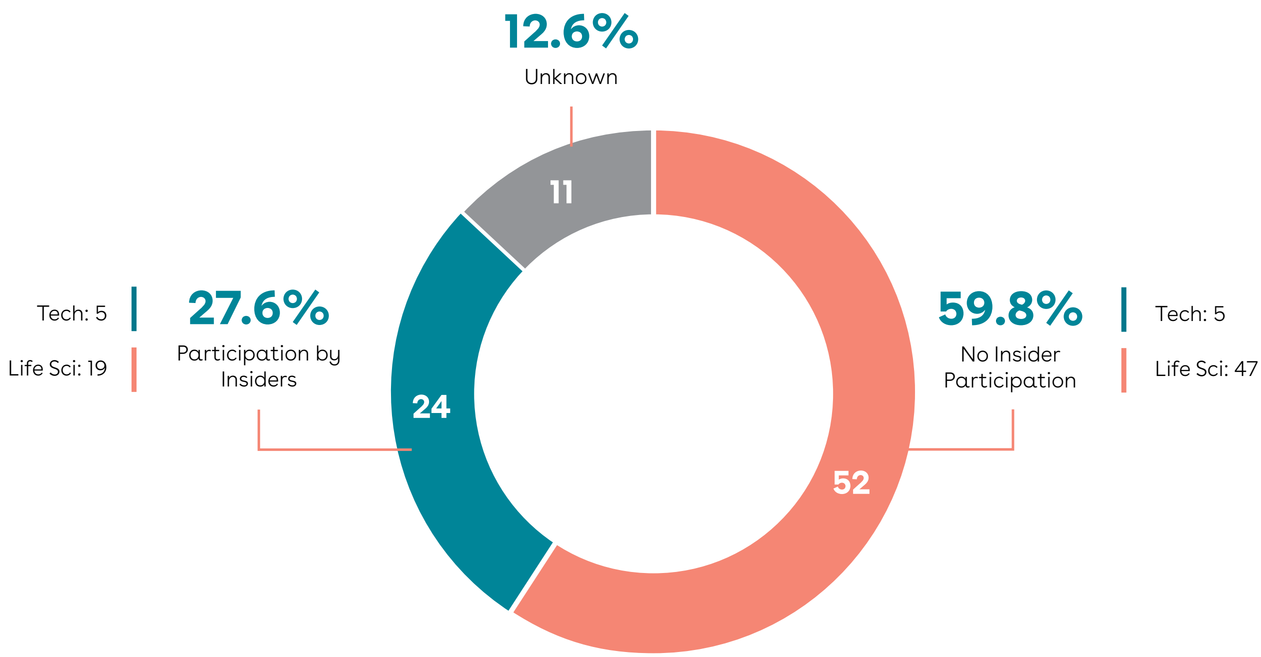
In challenged markets, it may be necessary for insiders to increase the amount of "skin in the game" to attract outside investors or simply to preserve the viability of a company. Insider participation in a financing can raise special issues, including navigating fiduciary duty issues, special stock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

1H 2023 PIPE and RDO Participation by Insiders



1H 2023 PIPE and RDO Terms

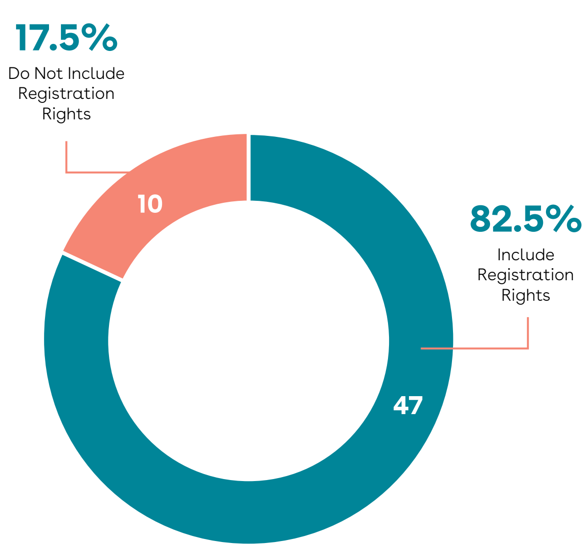
Registration Rights (PIPEs Only)

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 57 PIPEs surveyed, 47 (82.5%) included some sort of registration rights, representing 50.0% of technology PIPEs and 89.4% of life sciences PIPEs.



Filing Deadline

Of the 47 PIPEs surveyed with registration rights, 42 (89.4%) included an affirmative obligation for the company to register the resale of the securities on a specified timeframe. Of these 42 PIPEs, the deadline for the company to file a registration statement was an average of 45.3 days following the relevant trigger event, while the median was 30 days.

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

- Stockholder approval of the PIPE
- Lock-up expiration
- Completion of subsequent closings (for debt securities issued in multiple tranches)
- The date on which the PIPE securities become convertible for the company's common stock
- Filing of the company's Annual Report with the SEC (cleansing any MNPI received by investors)

Effectiveness of Resale Registration Statement

Effectiveness Deadline

Of the 42 PIPEs surveyed with mandatory registration rights, four PIPEs (9.5%) required the resale registration statement to be declared effective as soon as practicable following filing, while 38 PIPEs (90.5%) required that the resale registration statement be declared effective within a specified time period, of which:*

- 21 PIPEs measured the period from the filing date, where such period was 15 to 120 days after filing, with an average of 55.3 days and a median of 60 days
- 16 PIPEs measured the period from the closing date, where such period was 20 to 270 days after closing, with an average of 76.3 days and a median of 60 days
- One PIPE for convertible securities required the resale registration statement to be declared effective within 30 days following the filing date of the company's Form 10-K

** Excludes one PIPE with registration rights for which the registration statement has not been filed as of the date of this report, and the related effectiveness periods could not be determined.*

Effectiveness Period

Of the 42 PIPEs surveyed with mandatory registration rights, 38 PIPEs (90.5%) 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—38 PIPEs (90.5%)
- Securities becoming eligible for sale under Rule 144 without restriction—37 PIPEs (88.1%)
- A specified time following effectiveness—7 PIPEs (16.7%)
- Holder's beneficial ownership is reduced below a threshold percentage—1 PIPE (2.4%)
- Expiration of warrant term—1 PIPE (2.4%)

Suspension/Delay of Effectiveness

Of the 42 PIPEs surveyed with mandatory registration rights, 38 PIPEs (90.5%) 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 38 PIPEs that provided for suspension or delay rights, 12 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 120 consecutive days, with an average of 40.4 days and median of 30 days.
- Allowed suspension periods were limited to between 15 and 240 cumulative days during any 12-month period, with an average of 73.7 days and a median of 60 days.**

*** Excludes four PIPEs that provide a suspension right not subject to length limitations, and one PIPE for which suspension rights could not be confirmed.*

Underwritten Offering Demand Rights

Of the 47 PIPEs surveyed with registration rights, eight PIPEs (17.0%) allow investors to compel the company to undertake and cooperate in an underwritten offering for the PIPE securities. Of the eight PIPEs containing underwritten demand rights, two PIPEs (25.0%) limited the number of allowed demands and four PIPEs (50.0%) required demand offerings to be for a minimum offering size.*

Piggyback Rights

Of the 47 PIPEs surveyed with registration rights, 14 PIPEs (29.8%) included "piggyback" registration rights allowing investors to include their securities in future SEC-registered transactions by the company.*

** Excludes one PIPE with registration rights for which the registration statement has not been filed as of the date of this report, and the related effectiveness periods could not be determined.*

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 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 non-public offerings at a purchase price above a minimum price based on the company's market price.

Although an RDO is broadly considered a public offering, it is generally not a "public offering" for purposes of the stock exchange rules, due to the limited marketing involved and because the securities are typically not issued to retail investors.

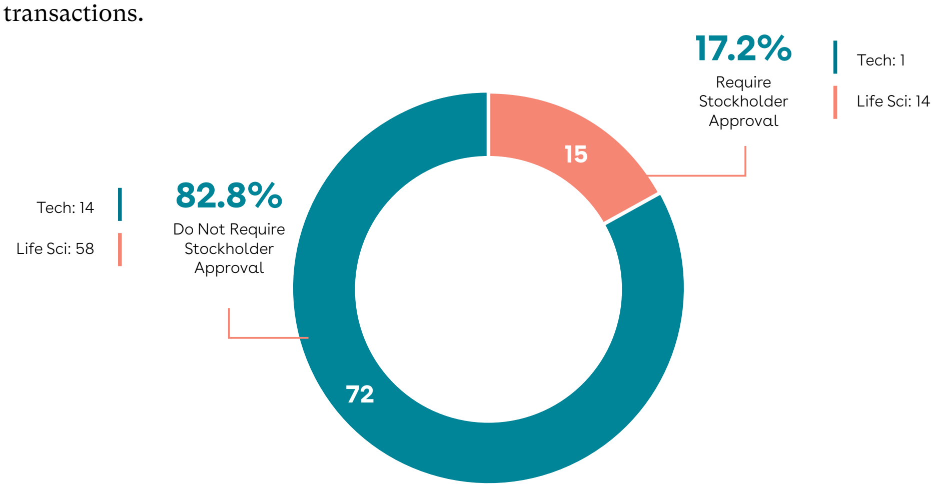
Larger offerings are often structured to avoid the stockholder approval requirement, for example by imposing a 19.99% beneficial ownership limitation through a cap on the convertibility or exercisability of equity-linked securities, issuing a combination of voting and nonvoting securities, or allowing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

Of the 87 transactions surveyed, 15 (17.2%) contemplated stockholder approval, representing 6.7% of technology transactions and 19.4% of life sciences transactions.



Among the 15 PIPES 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

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.

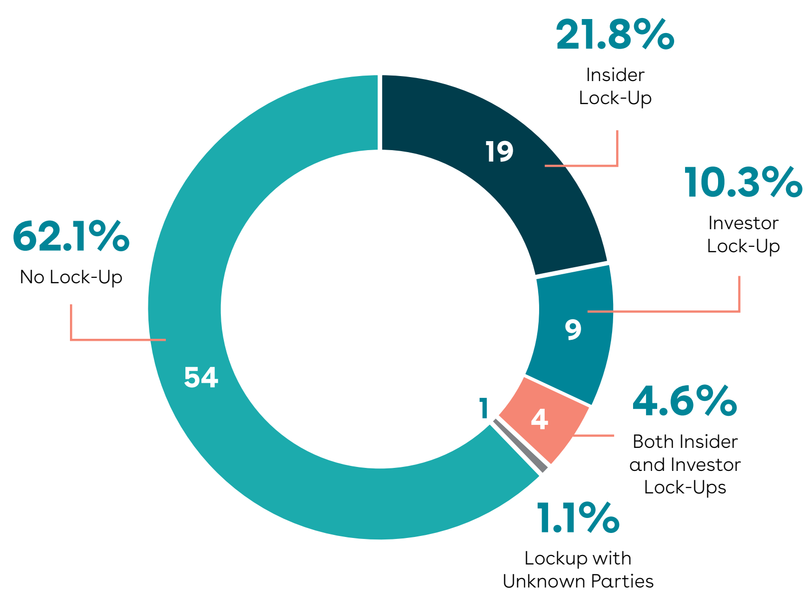
Lock-Ups

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 (its 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 87 transactions surveyed, 33 (37.9%) included lock-up restrictions, representing 29.3% of PIPEs surveyed and 53.3% of RDOs surveyed, with the percentage of transactions containing such restrictions generally consistent between technology and life sciences companies.

Of the 33 transactions that included lock-ups, nine (27.3%) included restrictions on the investors, 19 (57.6%) included restrictions on insiders, and four (12.1%) included restrictions on both investors and insiders.



Of the 33 transactions surveyed that included lock-up restrictions*:

- 16 had a lock-up period of three months or less
- Four had a lock-up period between three and six months
- One had a lock-up period between six months and one year
- Three had a lock-up period of more than one year
- Four had a lock-up ending on the occurrence of a future event

** Does not include five PIPEs 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

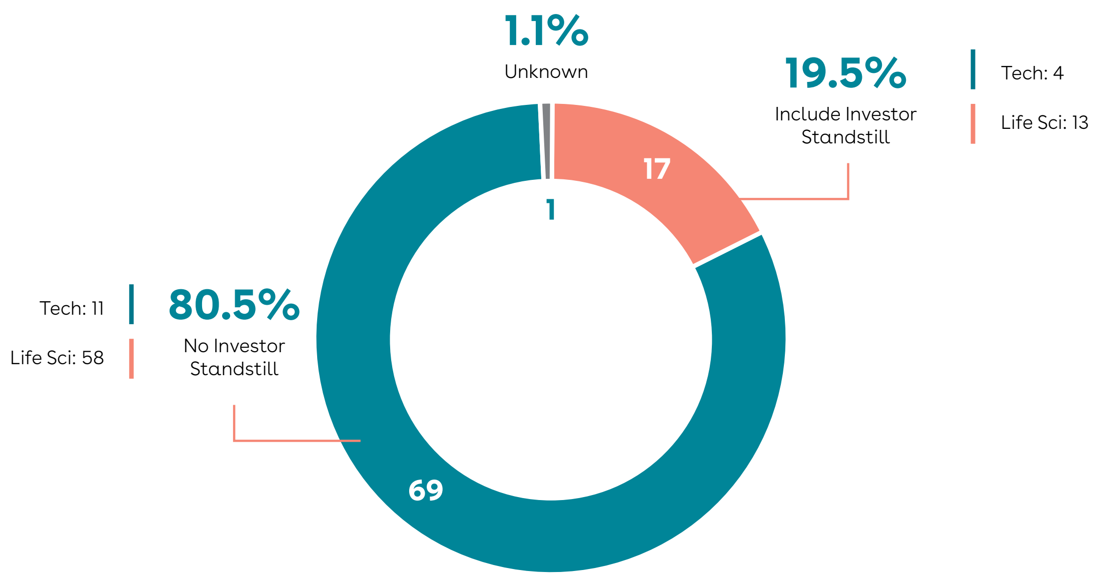
A company will sometimes require investors to agree to "standstill" agreements, particularly when investors are private equity funds or strategic investors with an incentive to leverage their investment into a takeover of the company. Standstills restrict investors from acquiring additional company securities, 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 87 transactions surveyed, 17 (19.5%) included an investor standstill, with the percentage of transactions containing such restrictions generally consistent between technology and life sciences companies.



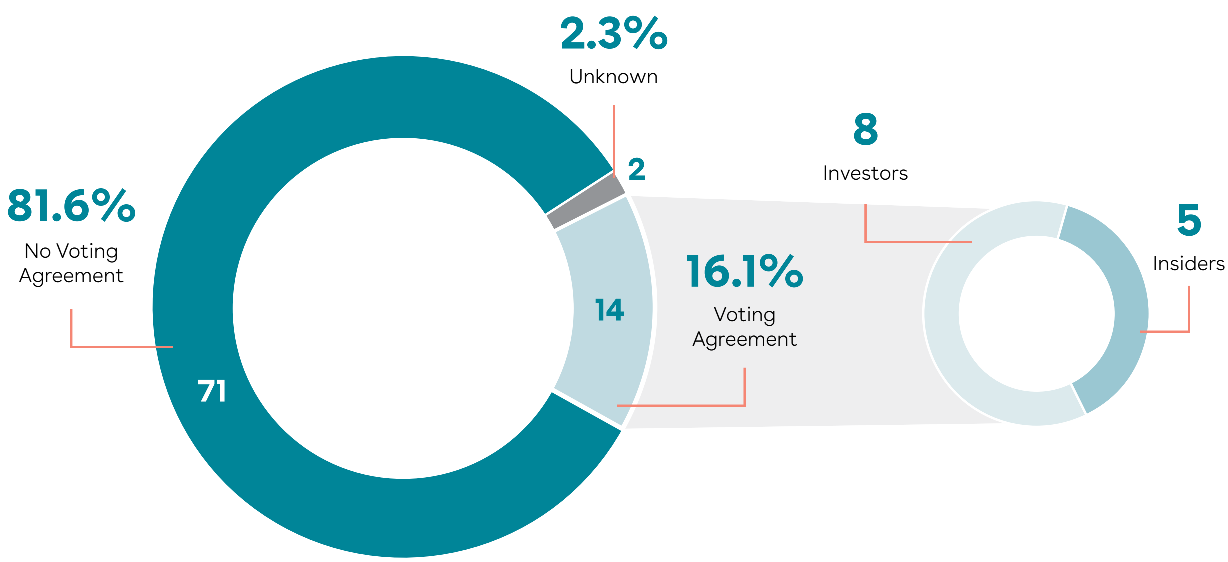
Of the 17 transactions with an investor standstill*:

- 13 terminate at a specified time
- Two terminate on the earlier of a specified time or future event
- One terminates on the occurrence of a future event

** Excludes one transaction with a standstill where the termination trigger could not be determined.*

Voting Agreements

Of the 87 transactions surveyed, 13 PIPEs (representing 22.8% of PIPEs surveyed) and one RDO (representing 3.3% of RDOs surveyed) included voting agreements, including eight agreements with investors and five agreements with insiders.



Of the voting agreements surveyed, matters subject to the agreement included:

- 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
- 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.

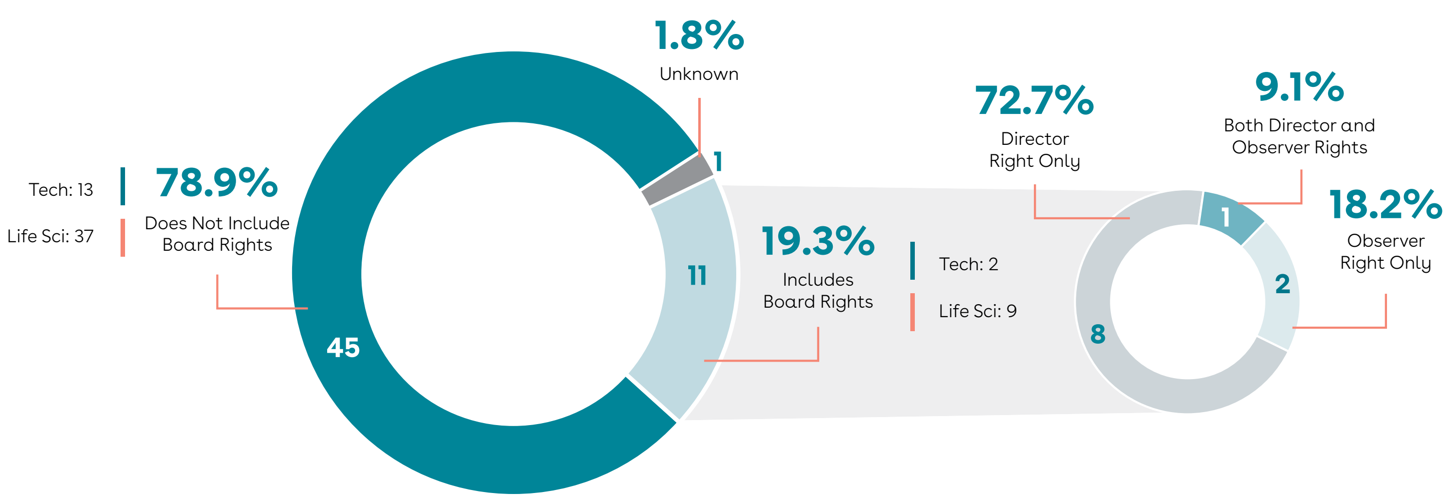
Board Representation

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 attendant fiduciary duties, 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 the first half of 2023, none of the RDOs we surveyed contained such rights.

Of the 57 PIPEs surveyed, 11 PIPEs (19.3%) included board designation or observer rights, with the percentage of PIPEs containing such rights generally consistent between technology and life sciences companies.



Protective Covenants

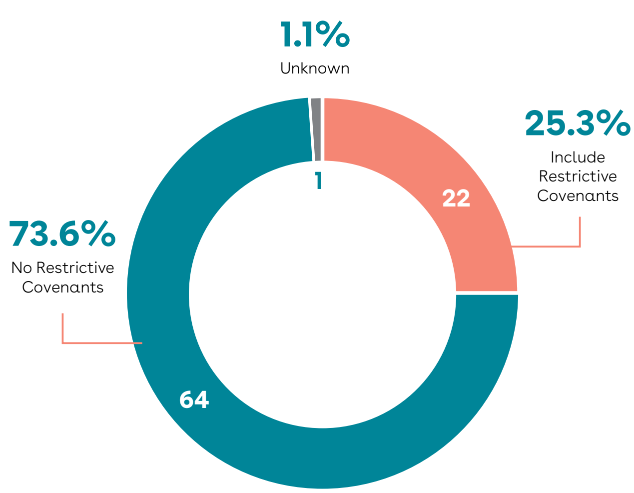
Due to the highly customized and direct nature of PIPE and RDO transactions, investors have more room to negotiate terms compared to a traditional underwritten offering. Particularly with PIPEs, investors will sometimes negotiate for affirmative, restrictive, or financial covenants that give them control 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 87 transactions surveyed, 22 (25.3%) included restrictive covenants,* of which 11 were convertible security transactions, representing 40.7% of all convertible security transactions.

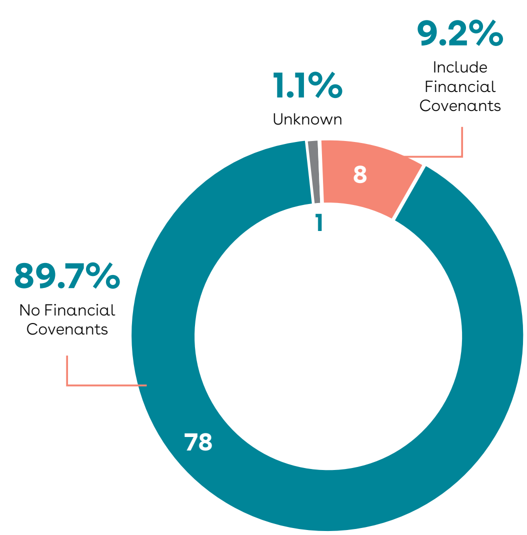


Financial Covenants

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 87 transactions surveyed, eight (9.2%) included financial covenants,* five of which were debt placements, representing 44.4% of all surveyed debt transactions.

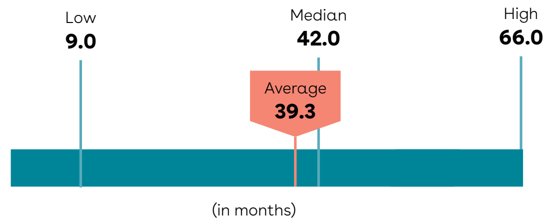


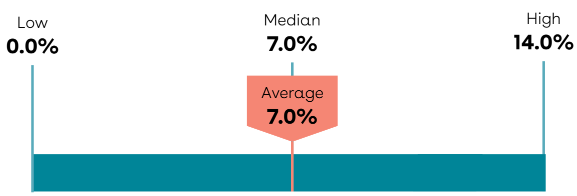
** Excludes one transaction for which covenant coverage could not be determined.*

Debt Terms

Maturity Date

Of the 11 debt transactions surveyed, the maturity date was an average of 39.3 months following issuance, and the median maturity date was 42 months after issuance.





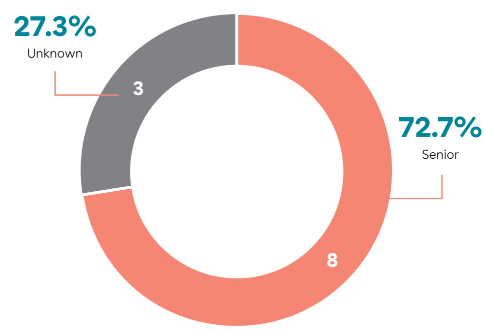
Interest

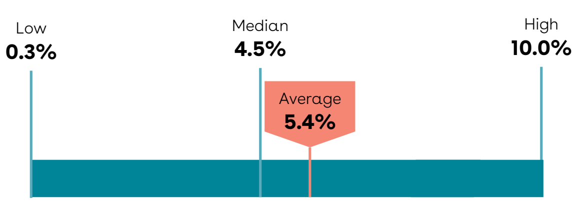
Of the 11 debt transactions surveyed, the average interest rate was 7.0%, and the median interest rate was 7.0%.*

* *One debt PIPE provided for no interest payment absent an event of default.*

Ranking

Of the 11 debt transactions surveyed, eight (72.7%) were senior to other indebtedness of the company, and none were subordinated.



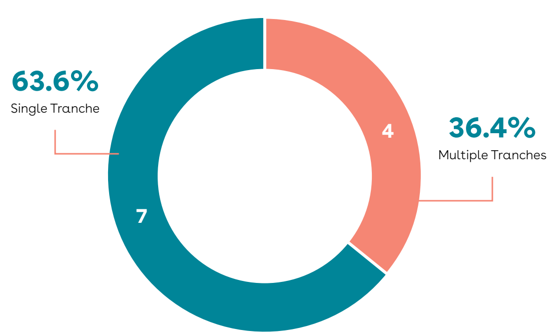


Original Issue Discount

Of the 11 debt transactions surveyed, six (54.5%) disclosed an original issue discount, and five (45.5%) were issued at par. Of the six debt offerings issued at a discount, the average issue discount was 5.4% of principal, and the median discount was 4.5% of principal.

Tranched Lending

Of the 11 debt transactions surveyed, four (36.4%) contemplated issuance in multiple tranches, and seven (63.6%) were issued in a single tranche.

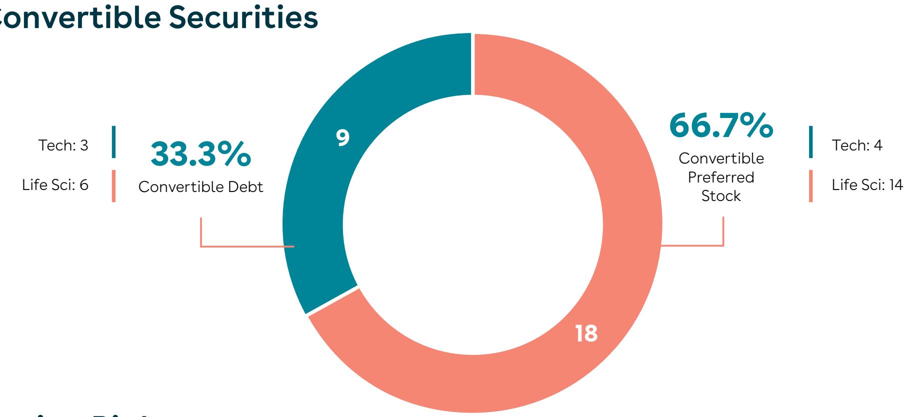


Convertible Debt Securities and Preferred Stock

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 27 transactions surveyed that included the issuance of convertible securities, all but two 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

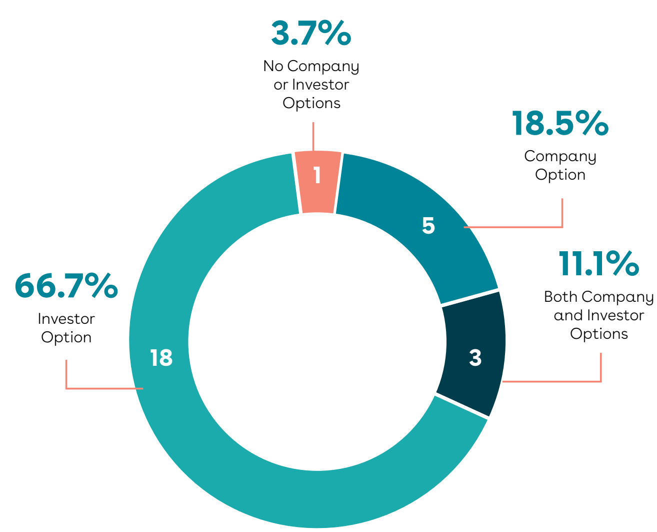


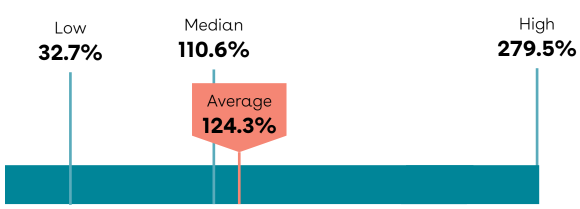
Nature of Conversion Right

Convertible security holders typically have the right to convert the securities at their option prior to maturity. Of the 27 transactions surveyed that included convertible securities, 21 (77.8%) included a form of voluntary conversion right at the option of the investor, including the occurrence of change of control events.

Of the 27 transactions surveyed that included convertible securities, eight (29.6%) 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, which effectively allows the company to force the investor to convert the securities.

Of the 27 transactions surveyed that included convertible securities, 10 (37.0%) 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 27 transactions surveyed that included convertible securities, conversion prices ranged from 32.7% to 279.5% of the company's common stock price on the trading day immediately preceding closing, with an average of 124.3% and median of 110.6%.

** Excludes two PIPEs with a variable conversion rate, and one PIPE with a conversion premium over 300% .*

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 adjustments, 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.

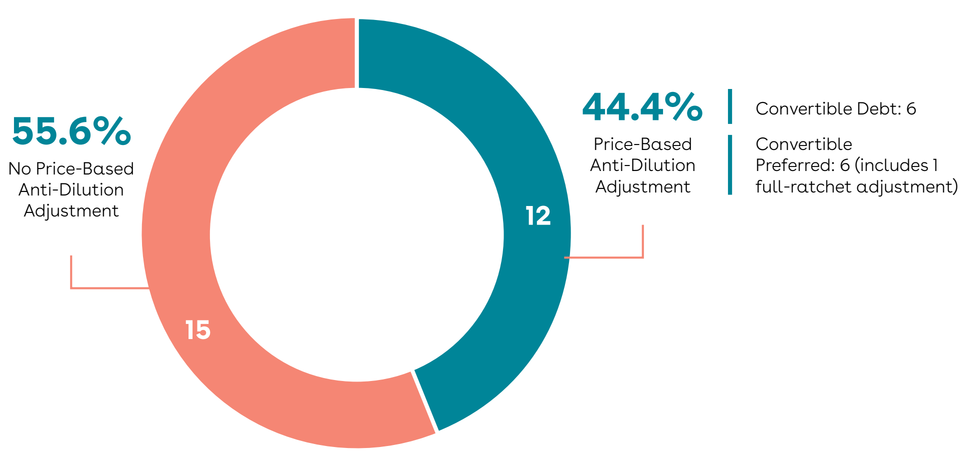
Weighted-Average

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.

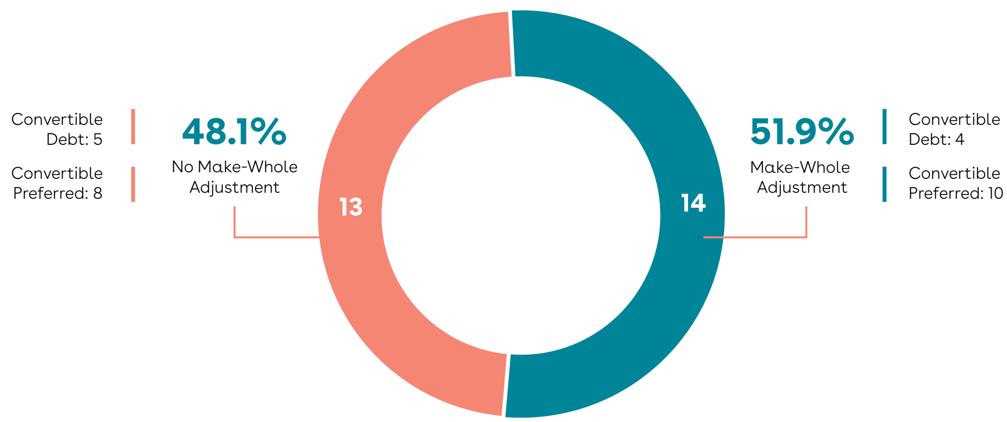
For adjustments that are tied to a company's stock prices in the public market instead of a specific future issuance, the formula used will typically use the volume-weighted average price (VWAP) of the company's stock during a look-back period preceding the adjustment.

Of the 27 transactions surveyed that included convertible securities, 12 (44.4%) included price-based anti-dilution adjustments, representing 66.7% of convertible debt transactions and 33.3% of convertible preferred stock transactions. Of the 12 transactions surveyed that included these adjustments, one convertible preferred stock PIPE 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.

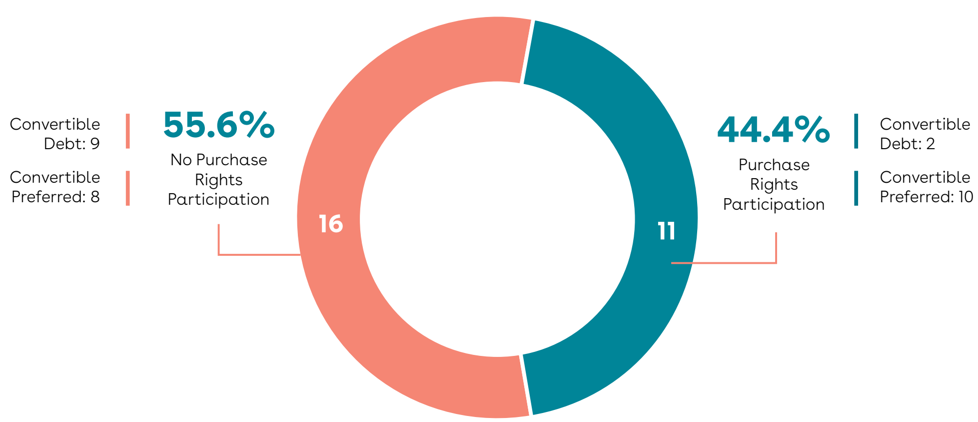
Of the 27 transactions that included convertible securities, 14 (51.9%) included a "make-whole" adjustment upon the occurrence of specified takeover events.



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.

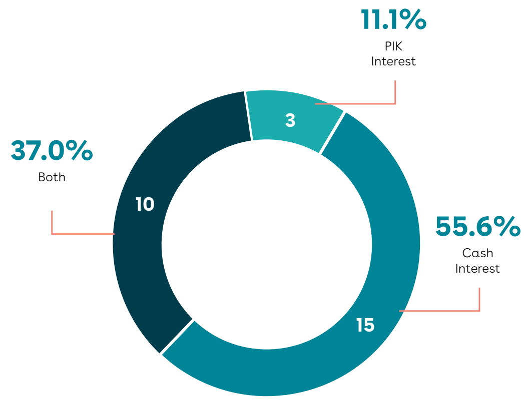
Of the 27 transactions that included convertible securities, 12 (44.4%) granted investors access to any purchase rights granted to all existing stockholders, representing 22.2% of convertible debt transactions and 55.6% of convertible preferred stock transactions.



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 27 convertible securities transactions surveyed, 15 (55.6%) provided for cash interest only (including, in the case of preferred stock, payment of dividends in the form of company common stock); three (11.1%) provided for PIK interest only; and 10 (37.0%) provided for either cash or PIK interest payments.



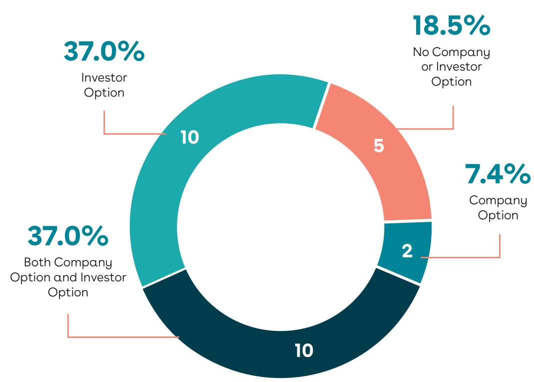
Redemption and Repurchase Rights

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 27 transactions surveyed that included convertible securities, 12 (44.4%) 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 27 transactions surveyed that included convertible securities, 20 (74.1%) included a form of voluntary redemption right at the option of the investor.

Of the 27 transactions surveyed that included convertible securities, six (22.2%) 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, or the completion of a future equity financing.



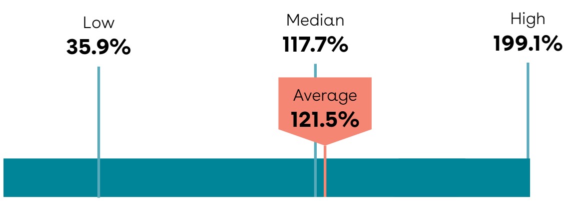
Warrant Coverage

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 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 29 transactions surveyed with accompanying warrant coverage, exercise prices ranged from 35.9% to 199.1% of the company's common stock price on the date the purchase agreement was signed, with an average of 121.5% and median of 117.7%.

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 29 transactions surveyed with accompanying warrant coverage:

- 22 transactions (75.9%) allowed the warrants to be exercised immediately
- Six transactions (20.7%) allowed exercise beginning six months to one year following issuance
- One transaction (3.4%) included warrants that become exercisable upon the occurrence of a future event trigger

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.

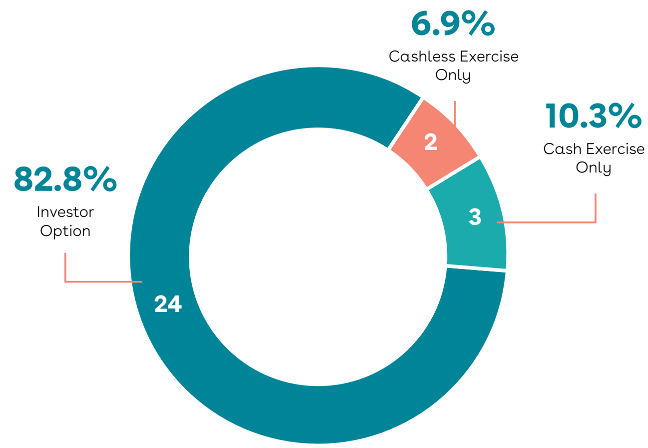
Of 29 PIPEs surveyed with accompanying warrant coverage, warrants were exercisable for a period ranging from two to eight years following issuance, with an average exercise period of 4.9 years and a median exercise period of 5.0 years following warrant issuance.

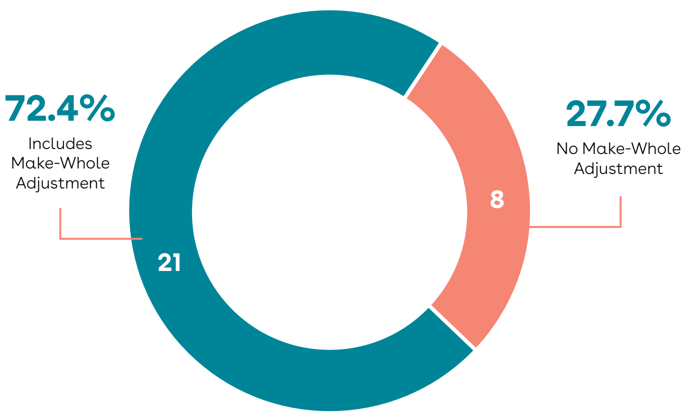
Cash Exercise Vs. Net Share Settlement

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 29 transactions surveyed with accompanying warrant coverage, 24 (82.8%) allowed either cash or cashless exercise at the option of the investor, three (10.3%) required cash exercise, and two (6.9%) required cashless exercise.





"Make-Whole" Adjustments

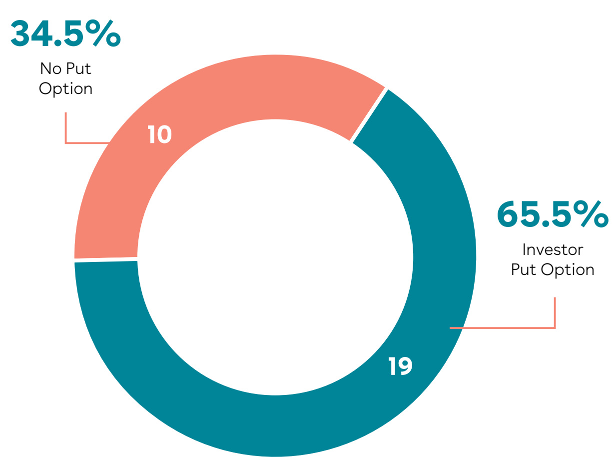
Warrants also often include exercise price adjustments upon the occurrence of certain fundamental changes (for example, change of control transactions) to compensate investors for the negative impact such an event might have on the value of their warrants. These "make-whole" adjustments are structured 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 29 transactions surveyed with accompanying warrant coverage, 21 (72.4%) 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.

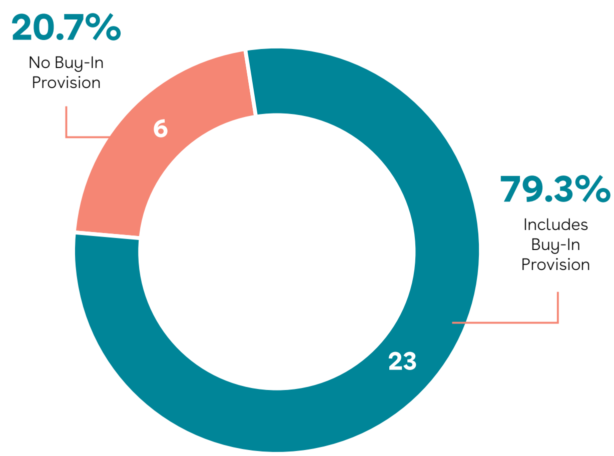
Of 29 transactions surveyed with accompanying warrant coverage, 19 (65.5%) granted the investor a put option upon the occurrence of a fundamental transaction or change in control, all of which were valued using the Black-Scholes model.

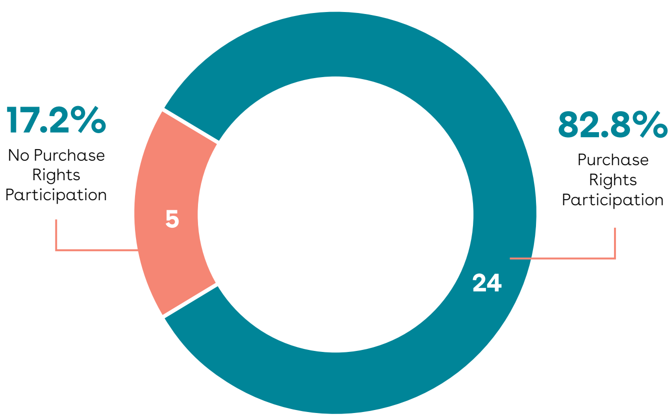


Buy-In Rights

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 29 transactions surveyed with accompanying warrant coverage, 23 (79.3%) 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 29 transactions surveyed with accompanying warrant coverage, 24 (82.8%) granted investors pro rata access to purchase rights granted by the company to holders of common stock generally.

Beneficial Ownership Limitation

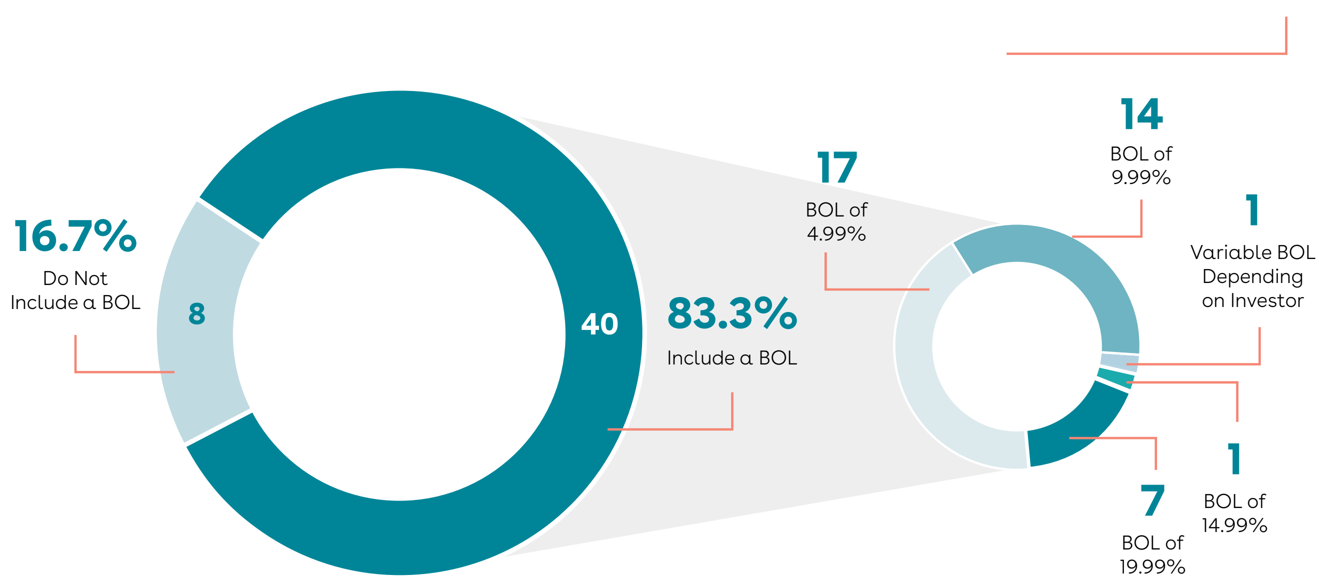
U.S. securities laws impose reporting and other substantive requirements on beneficial owners of publicly traded securities, including:

- 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, 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 48 transactions surveyed that included warrants (including pre-funded warrants) or convertible securities, 40 (83.3%) included a beneficial ownership limitation.



Other Dilution Protections

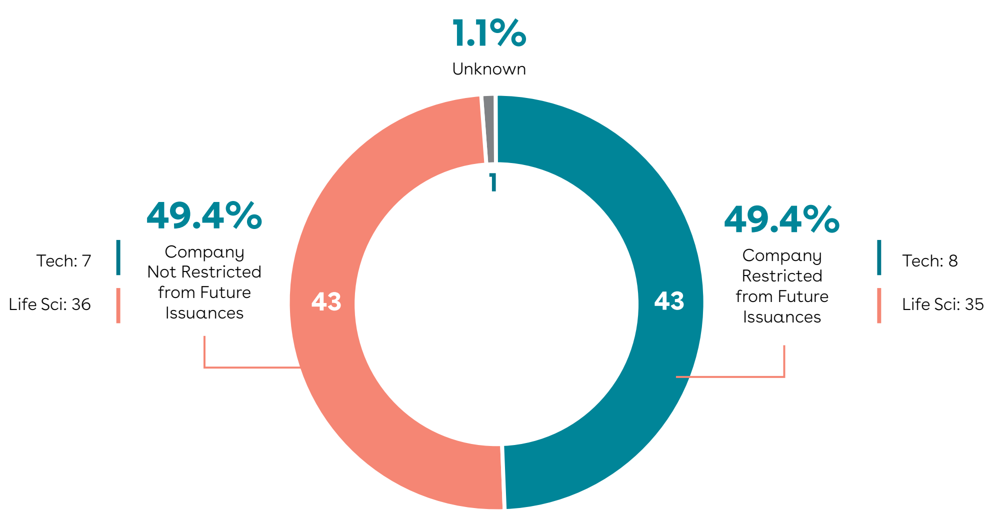
Investors can also be protected from dilution by restrictions on the company's ability to issue securities post-closing. These restrictions may take the form of an outright prohibition on issuances for a specified period following closing, restrictions on issuances above a certain dollar threshold, or 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).

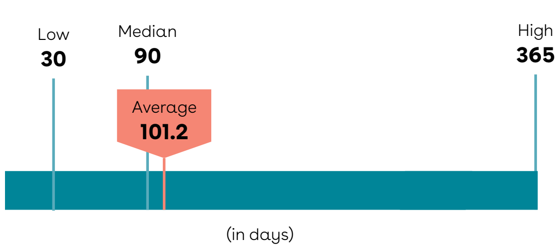
Typical carve-outs from such restrictions and preemptive rights can include issuances to employees under benefit and compensation plans or to certain commercial partners, securities issued upon conversion or exercise of outstanding securities, and securities issued in M&A and other strategic transactions. 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 87 transactions surveyed, 43 (49.4%) included restrictions on the ability of the company to pursue a subsequent issuance, with the percentage of transactions containing such restrictions generally consistent between technology and life sciences companies and representing 43.9% of PIPEs surveyed and 60.6% of RDOs surveyed.



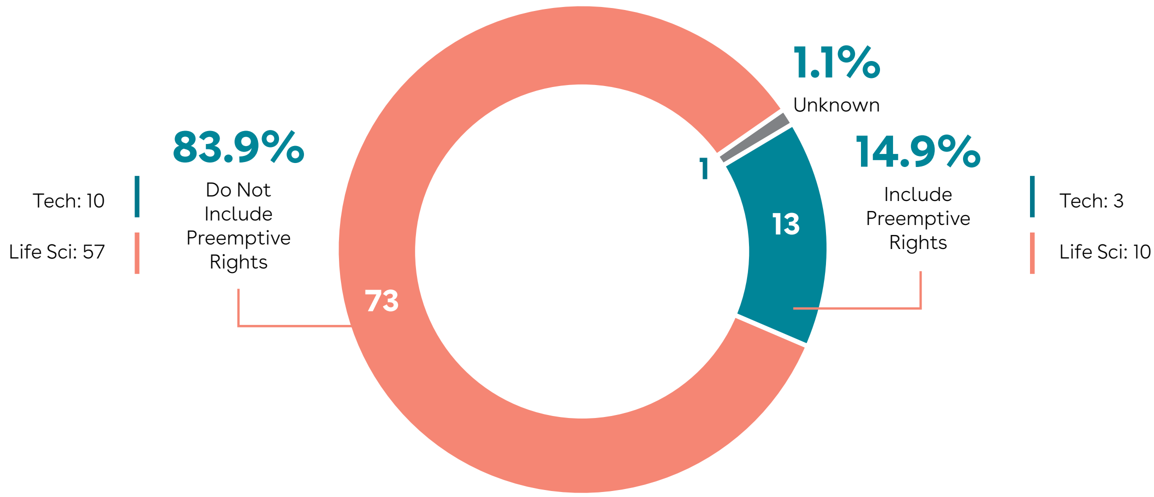
* *Excludes PIPEs that are only subject to a restriction on future issuances by the company to the extent such issuance would be integrated with the PIPE.*



Of the 43 transactions surveyed that included a restriction on future issuances by the company for a specified period following closing, the average length of the period was 101.2 days, and the median was 90 days. Another 10 transactions (23.3%) terminated the restriction upon the occurrence of a future event instead of the closing.

Preemptive Rights

Of the 87 transactions surveyed, 13 (14.9%) included preemptive rights, with the percentage of transactions containing such rights generally consistent between technology and life sciences companies and representing 17.5% of PIPEs surveyed and 10.0% of RDOs surveyed.



Of the 13 transactions surveyed with preemptive rights:

- 12 (92.3%) granted participation rights equal to an investor's pro rata ownership percentage (assuming full exercise or conversion, in the case of warrants or convertible securities)
- One (7.7%) granted participation rights up to a fixed percentage of the subsequent issuance, regardless of pro rata ownership

Appendix A: Technology and Life Sciences PIPE Issuers*

Technology

- BigBear.ai Holdings, Inc. (NYSE) 1/19/2023
- Daktronics, Inc. (NasdaqGS) 5/11/2023
- Enovix Corporation (NasdaqGS) 4/20/2023
- Evolent Health, Inc. (NYSE) 1/20/2023
- Marathon Digital Holdings, Inc. (NasdaqCM) 6/9/2023
- Porch Group, Inc. (NasdaqCM) 4/20/2023
- Rekor Systems, Inc. (NasdaqCM) 1/18/2023
- SoundHound AI, Inc. (NasdaqGM) 1/20/2023
- Stronghold Digital Mining, Inc. (NasdaqGM) 4/21/2023
- Western Digital Corporation (NasdaqGS) 1/31/2023

Life Sciences

- 2seventy Bio, Inc. (NasdaqGS) 1/6/2023
- Accelerate Diagnostics, Inc. (NasdaqCM) 6/9/2023
- Aeglea BioTherapeutics, Inc. (NasdaqGM) 6/23/2023
- Alimera Sciences, Inc. (NasdaqGM) 3/24/2023
- Applied Therapeutics, Inc. (NasdaqGM) 4/26/2023
- Arcellx, Inc. (NasdaqGS) 1/26/2023
- Armata Pharmaceuticals, Inc. (NYSE American) 1/10/2023
- Cano Health, Inc. (NYSE) 2/24/2023
- Cardio Diagnostics Holdings, Inc. (NasdaqCM) 3/8/2023
- Caribou Biosciences, Inc. (NasdaqGS) 6/30/2023
- DarioHealth Corp. (NasdaqCM) 5/4/2023
- Delcath Systems Inc. (NasdaqCM) 3/29/2023
- DiaMedica Therapeutics Inc. (NasdaqCM) 6/23/2023
- Eledon Pharmaceuticals, Inc. (NasdaqCM) 5/5/2023
- Genelux Corporation (NasdaqCM) 5/31/2023
- Generation Bio Co. (NasdaqGS) 3/23/2023
- Harpoon Therapeutics, Inc. (NasdaqGS) 3/23/2023
- IGM Biosciences, Inc. (NasdaqGS) 6/26/2023
- Invitae Corporation (NYSE) 3/7/2023
- Krystal Biotech, Inc. (NasdaqGM) 5/22/2023
- Landos Biopharma Inc. (NasdaqCM) 1/10/2023
- Legend Biotech Corporation (NasdaqGS) 5/19/2023
- LENSAR, Inc. (NasdaqCM) 5/18/2023
- Lexicon Pharmaceuticals, Inc. (NasdaqGS) 6/5/2023
- Lucid Diagnostics Inc. (NasdaqGM) 3/7/2023; 3/21/2023
- Lyra Therapeutics, Inc. (NasdaqGM) 5/31/2023
- MeiraGTx Holdings plc (NasdaqGS) 5/5/2023
- Minerva Neurosciences, Inc. (NasdaqCM) 6/30/2023
- Minerva Surgical, Inc. (NasdaqGM) 2/9/2023
- Morphic Holding, Inc. (NasdaqGM) 2/15/2023
- ORIC Pharmaceuticals, Inc. (NasdaqGS) 6/24/2023
- Owlet, Inc. (NYSE) 2/17/2023
- P3 Health Partners Inc. (NasdaqCM) 4/6/2023
- PharmaCyte Biotech, Inc. (NasdaqCM) 5/10/2023
- Provention Bio, Inc. (NasdaqGS) 2/10/2023
- Regulus Therapeutics Inc. (NasdaqCM) 4/13/2023
- Scilex Holding Company (NasdaqCM) 3/21/2023
- Senseonics Holdings, Inc. (NYSE American) 3/13/2023
- Spruce Biosciences, Inc. (NasdaqGS) 2/16/2023
- Telesis Bio Inc. (NasdaqGS) 6/5/2023
- Unicycive Therapeutics, Inc. (NasdaqCM) 3/8/2023
- Vapotherm, Inc. (NYSE) 2/10/2023
- Verastem, Inc. (NasdaqGM) 1/27/2023
- Voyager Therapeutics, Inc. (NasdaqGS) 2/23/2023
- X4 Pharmaceuticals, Inc. (NasdaqCM) 5/18/2023
- Zura Bio Limited (NasdaqCM) 6/5/2023

** 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

- Arena Group Holdings, Inc. (NYSE American) 4/3/2023
- BigBear.ai Holdings, Inc. (NYSE) 6/13/2023
- EMCORE Corporation (NasdaqGM) 2/17/2023
- Mirion Technologies, Inc. (NYSE) 2/23/2023
- Rekor Systems, Inc. (NasdaqCM) 3/28/2023

Life Sciences

- Akero Therapeutics, Inc. (NasdaqGS) 5/19/2023
- Alphatec Holdings, Inc. (NasdaqGS) 4/21/2023
- Ambrx Biopharma Inc. (NasdaqGS) 6/27/2023
- Checkpoint Therapeutics, Inc. (NasdaqCM) 5/11/2023
- Citius Pharmaceuticals, Inc. (NasdaqCM) 5/8/2023
- Disc Medicine, Inc. (NasdaqGM) 2/15/2023
- DURECT Corporation (NasdaqCM) 2/8/2023
- Esperion Therapeutics, Inc. (NasdaqGM) 3/22/2023
- Fortress Biotech, Inc. (NasdaqCM) 2/10/2023
- Galera Therapeutics, Inc. (NasdaqGM) 2/17/2023
- GeneDx Holdings Corp. (NasdaqGS) 1/31/2023
- Hookipa Pharma Inc. (NasdaqGS) 6/5/2023
- Icosavax, Inc. (NasdaqGS) 5/25/2023
- Ikena Oncology, Inc. (NasdaqGM) 5/17/2023
- Immuneering Corporation (NasdaqGM) 4/20/2023
- ImmunityBio, Inc. (NasdaqGS) 2/17/2023
- MyMD Pharmaceuticals, Inc. (NasdaqCM) 2/23/2023
- Omega Therapeutics, Inc. (NasdaqGS) 2/27/2023
- OncoCyte Corporation (NasdaqCM) 4/5/2023
- Revelation Biosciences, Inc. (NasdaqCM) 2/13/2023
- Tenax Therapeutics, Inc. (NasdaqCM) 2/7/2023
- Verrica Pharmaceuticals Inc. (NasdaqGM) 2/23/2023
- Zentalis Pharmaceuticals, Inc. (NasdaqGM) 6/20/2023
- ZyVersa Therapeutics, Inc. (NasdaqGM) 4/28/2023

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

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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.

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