

ENVISIONING A SUCCESSFUL EXIT

Lessons From Early-Stage US Biopharma M&As

Maxim Sheinin PhD, Elektra Alivisatos,
Elisabeth McKibben, and Leslie Sandberg Orne



Introduction

The pressure is on for C-level executives at small, innovative biopharma companies to find funding and to “exit well.” Venture funding has increased over the last few years, but the number of IPOs has fallen substantially since 2014, further increasing the pressure to move toward a quick, high-value exit. So, how do you ensure that you’re positioning your company for the maximum valuation when exit opportunities present themselves?

Despite a few headline-grabbing mergers or IPOs each year, many companies will exit through private M&A activity. These deals represent the most likely and often the most successful route to bring innovative products to patients and capitalize on new technologies. Until now, the characterization of this private M&A market has been limited, making it difficult to understand the factors which allowed companies to maximize their success.

The three most common exits for a small company are:

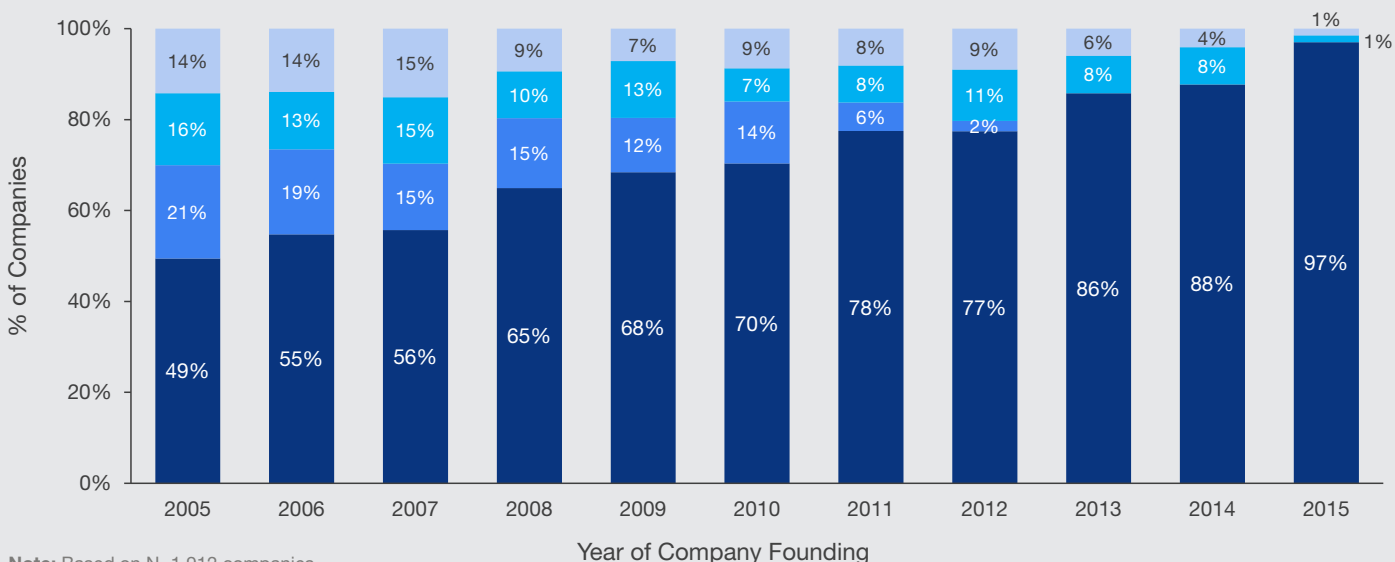
- (1) Merger and Acquisition (M&A),
- (2) Initial Public Offering (IPO),
- (3) Bankruptcy

These three outcomes account for 51% of all companies founded in 2005, with the rest remaining privately held entities (Figure 1). Since 21% of these companies went bankrupt, this signifies that only ~30% of all companies founded in 2005 have undergone IPO or M&A despite 10+ years in business (this fraction declines progressively for companies founded more recently). Additionally, the exit terms for these companies were not uniformly favorable. This margin of success elicits the question: what are the hallmarks of those few small private biopharma firms that are able to execute a successful exit?

FIGURE 1

Current State of US Biopharma Companies by Year of Founding

■ Active ■ Bankrupt ■ IPO ■ M&A



Note: Based on N=1,912 companies

Source: EvaluatePharma Data 2016

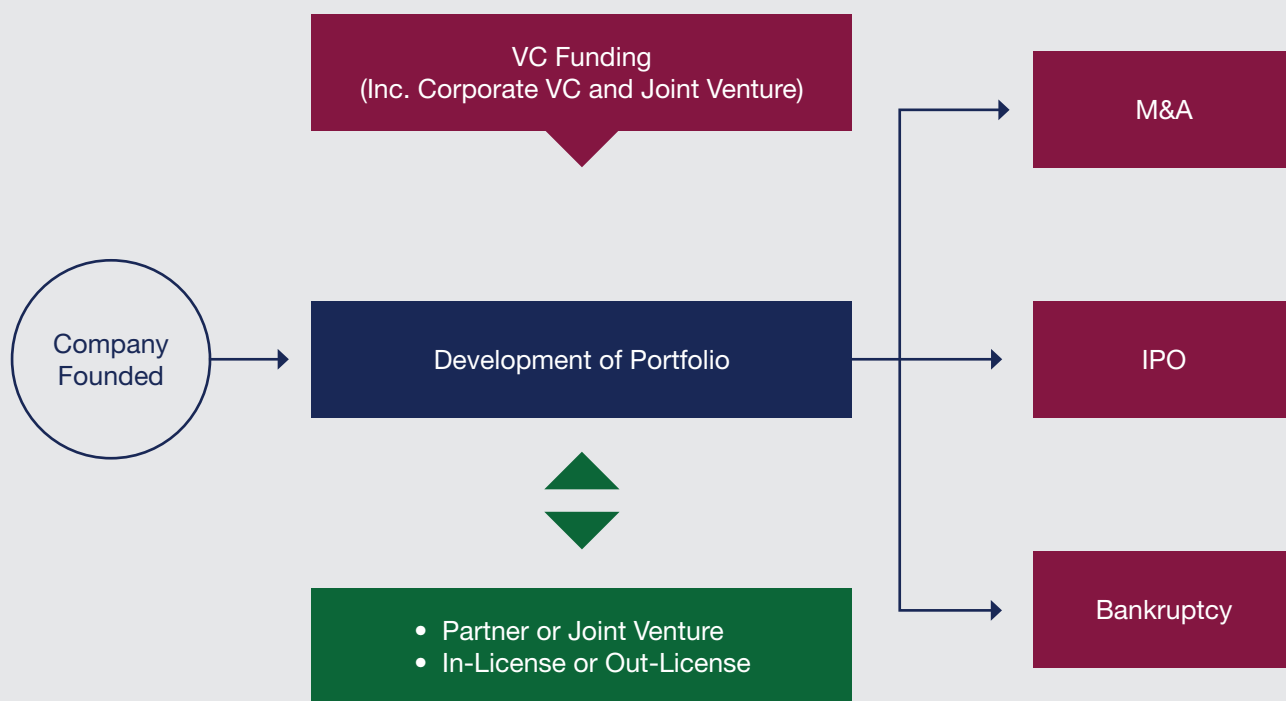
The goal of this white paper is to elucidate the strategic decisions that successfully position a company for a maximized exit (besides a technology/drug that works). In fact, the initial impetus for this work was provided by one such company: a C-level executive at a small, private early-stage company seeking to develop a plan that would increase their valuation for a successful exit. By examining trends from the past 10 years of biopharma M&A activity, Trinity has developed a start-up development framework that summarizes a biopharma's path from founding to eventual exit. There are three major factors shaping the framework, informing a company's eventual valuation and path (Figure 2):

- (1) **Financial** (e.g., includes corporate and VC funding)
- (2) **R&D portfolio** (e.g., single assets vs. multiple assets/platform technologies),
- (3) **Other factors** (e.g., licensing opportunities, partnerships)

FIGURE 2

Biopharma Start-Up Development Framework

■ Financial ■ R&D ■ Other Factors



In this article, we outline a strategic roadmap for a successful exit, specifically:

- (1) Key trends of the private early-stage biopharma market, and
- (2) Defining features and strategies that are associated with success in this market

We will specifically focus on the M&A exit strategy because this topic has not been given as much attention as the developments around IPOs. Furthermore, the Nasdaq Biotech Index has lost ~35% since its peak in mid-2015, which has already slowed M&A and IPO activity and will likely limit future IPO opportunities. Thus, the M&A exit strategy may be a viable and probable option for start-ups.

¹ Monthly 1/5/2010-11/7/2016 from Yahoo! Finance

² P.10, "Pharma & Biotech 2015 in Review" EvaluatePharma 2016

Overall M&A Trends (2010-2015)

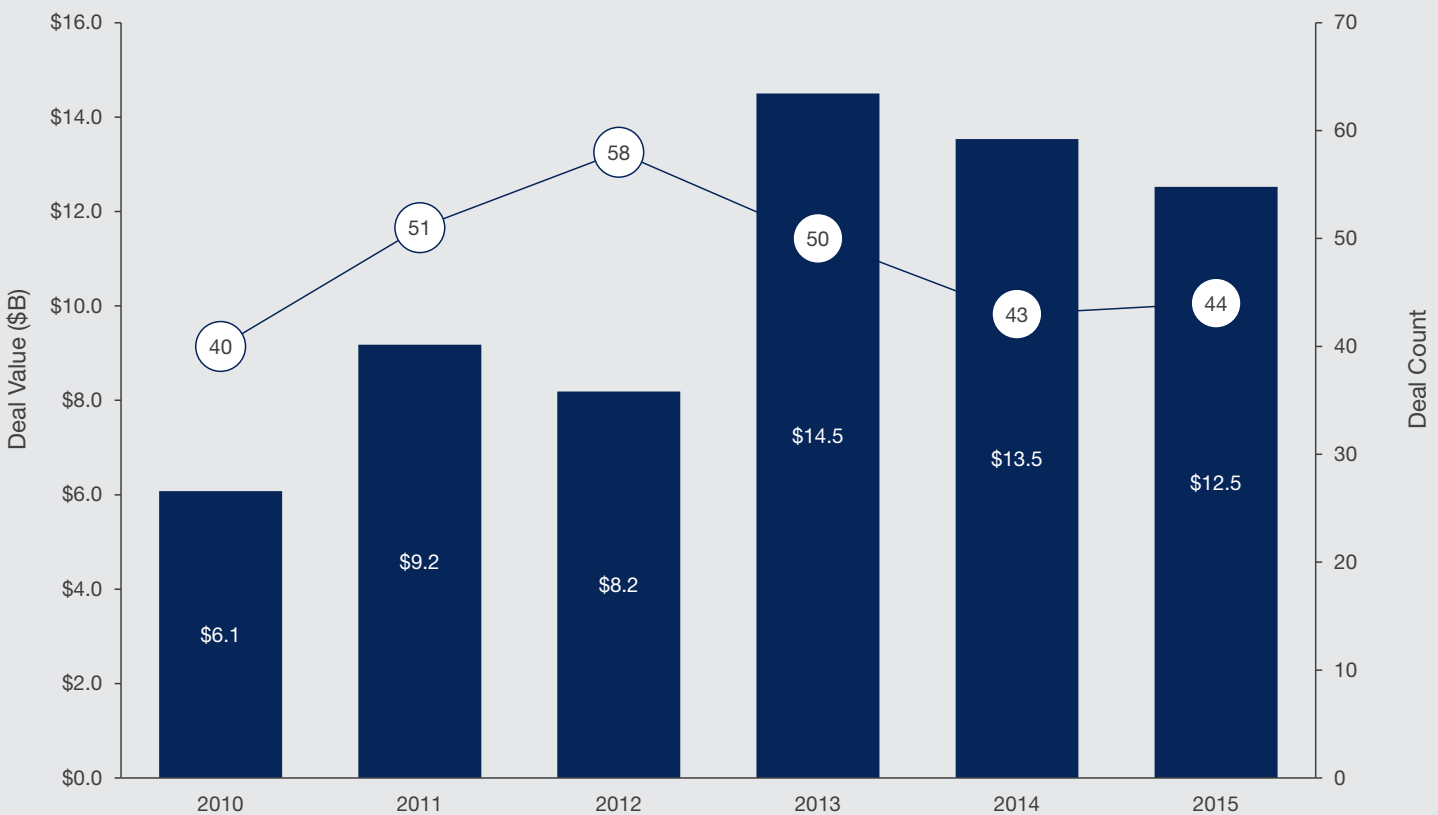
The past few years have been extremely active in terms of M&A activity in the biopharma industry. Based on our analysis of EvaluatePharma data, in 2013-15 the total disclosed M&A deal value in the industry (involving acquisitions of US-based companies) was ~\$300B, as compared to just ~\$115B in 2010-12. The M&A landscape is dominated by large deals involving acquisitions of public companies (e.g., ~\$70B Allergan acquisition by Actavis in 2014). Deals involving acquisition of private companies, while accounting for the majority of the volume (~70%), were responsible for only about 15% of the total deal value in 2010-15. This implies that M&As involving private companies are generally significantly lower in value, as compared to those of public companies. This is not surprising, since private companies tend to be smaller and often don't have any marketed drugs.

Similar to the public M&A trends, deals involving private biopharma companies had higher values in 2013-2015 than in prior years (Figure 3). The data also indicate less volatility in the private M&A market: deal volume has decreased only marginally between 2014 and 2015, while it fell by ~40% in the public markets (both M&A and IPO).

FIGURE 3

Private US Biopharma Company M&As: 2010-2015

■ Deal Value ○ Deal Count



Source: Deal Value-EvaluatePharma Data 2016, Deal Count-"Pharma & Biotech 2015 in Review" (EvaluatePharma)

While the focus of this white paper is private M&A, it is interesting to make a comparison with IPOs, which is another exit option for private companies. In addition to being more volatile, the overall size of the IPOs has been historically lower as compared to M&As (~\$12B vs ~\$40B in 2013-15) despite similar number of transactions (150 vs 137). It should be noted that IPOs do not necessarily represent 100% of a company's equity, so this comparison should be interpreted with caution.

VC Financing

The main source of funding for fledgling private biotech companies is typically venture capital investment. Biotech investors are willing to take on significant risks when deciding to support an early-stage company, given that the road to returns will be long (~10 years for clinical development) and failure-prone (just ~10% of drugs that enter Phase I get approved). Despite these daunting odds, the VC funding environment for US biopharma companies has been strong. After staying flat in 2010-13, funding picked up in 2014 and reached \$7.5B in 2015 (Figure 4). This trend is in line with the solid M&A activity in the private sector and signals that investors are bullish on R&D-stage biopharma.

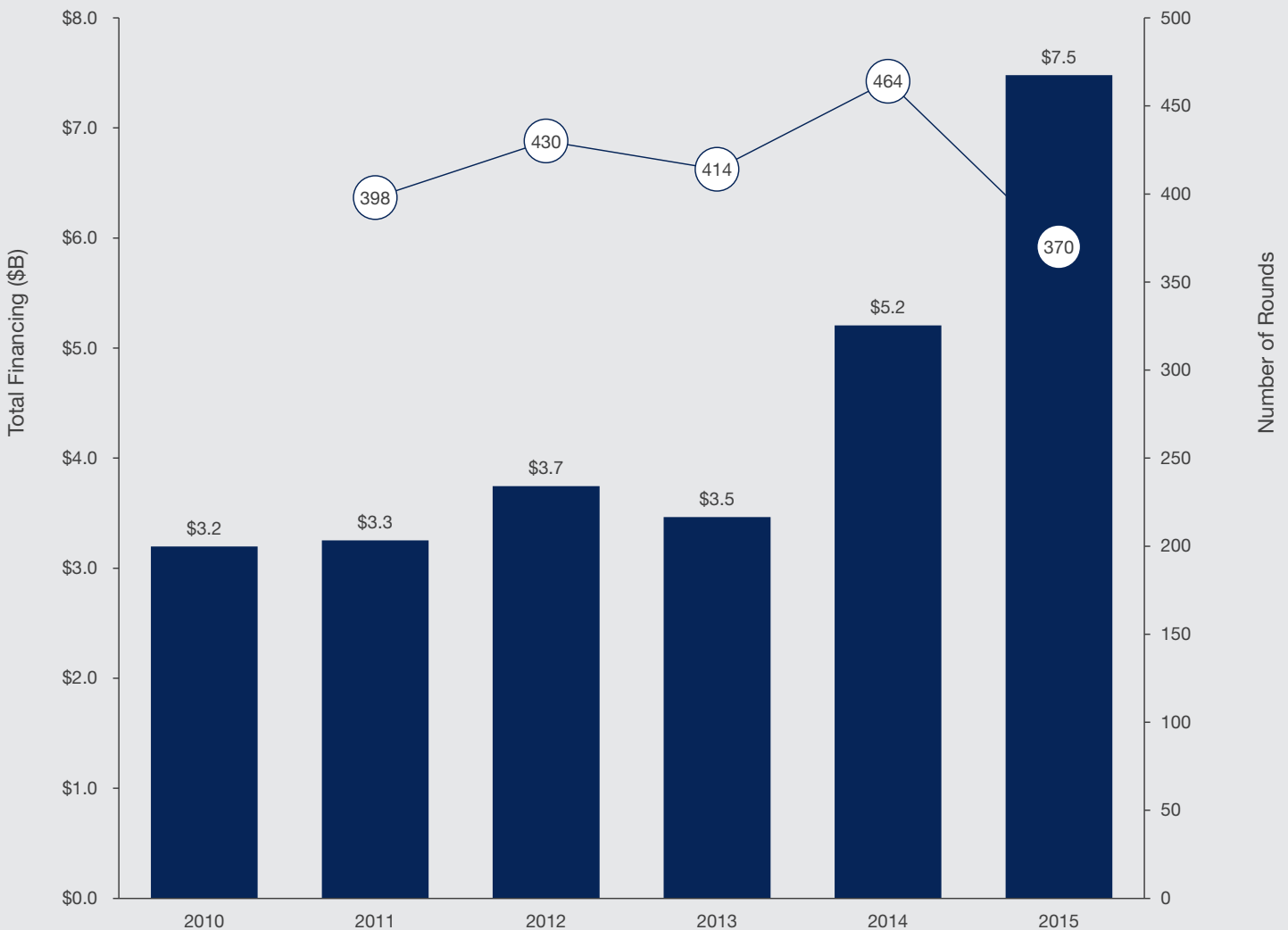
While the total dollars financed by VC have been on the upswing, the number of funding rounds did not change significantly (and actually decreased in 2015). This implies a greater average size of a funding round, and is additionally substantiated by the data showing a shift towards later stage rounds in the last two years. For example, in 2010-13 on average ~30% of the total VC investment was allocated to Series A or earlier, and ~25% to Series B. In contrast, in 2014-15 on average just 21% of investment went to Series A, while ~33% went to Series B. Series B financing now represents the largest amount of funding, followed by Series A and Series C.

FIGURE 4

VC Financing Among Private US Biopharma Companies (2010-2015)

■ Total Financing

○ Number of Rounds



Source: Total financing-EvaluatePharma Data 2016; Number of VC Investment Rounds-from EvaluatePharma "Pharma & Biopharma 2015 in Review"

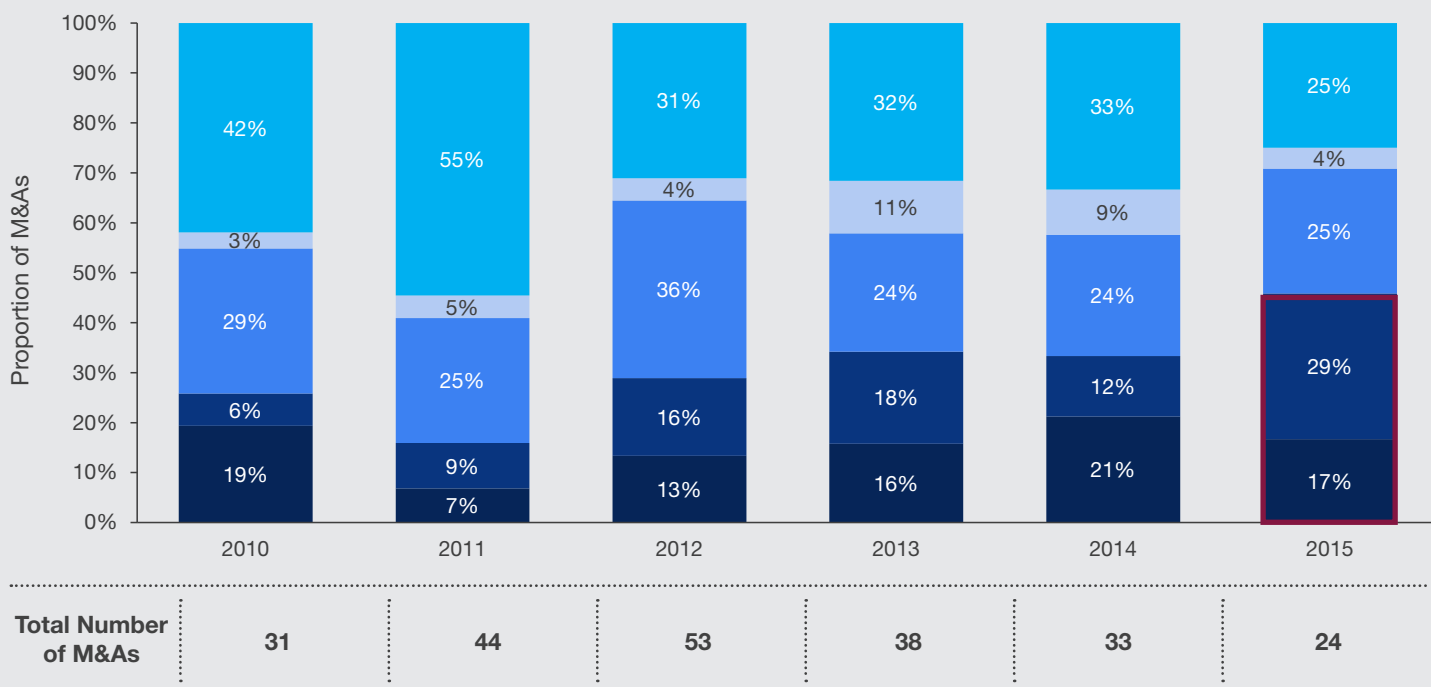
R&D & Value Inflection

Trends in the volume of private M&A deals and VC funding point to a healthy environment for private US biopharma in terms of capital availability. The data also show that early-stage companies are in a great position to capitalize on their know-how. Indeed, since 2011 the proportion of deals involving companies with preclinical or Phase I assets has been growing steadily, reaching 46% in 2015 (Figure 5). Interestingly, private M&As rarely involve companies with Phase III assets (~6% of all M&As in 2010-15). Thus a typical private M&A target is very different from a biopharma company going public: the latter tend to have assets in Phase II or Phase III (about $\frac{3}{4}$ of all US biopharma IPOs in 2013-2015).

FIGURE 5

Proportion of Private US Biopharma M&A Target Companies by Lead Product Stage (2010-2015)

■ Pre-Clinical ■ Phase I ■ Phase II ■ Phase III ■ Filed/Marketed



Note: Excluded companies with lead products in stages earlier than pre-clinical or unknown phases (N=32)

Source: EvaluatePharma Data 2016

As acquisitions have been happening earlier in the product lifecycle, median time from company founding to exit via M&A has decreased as well, from a high of 7.4 years in 2012 to just 4.4 years in 2015 (median time over the whole 2010-15 period was 6.2 years).

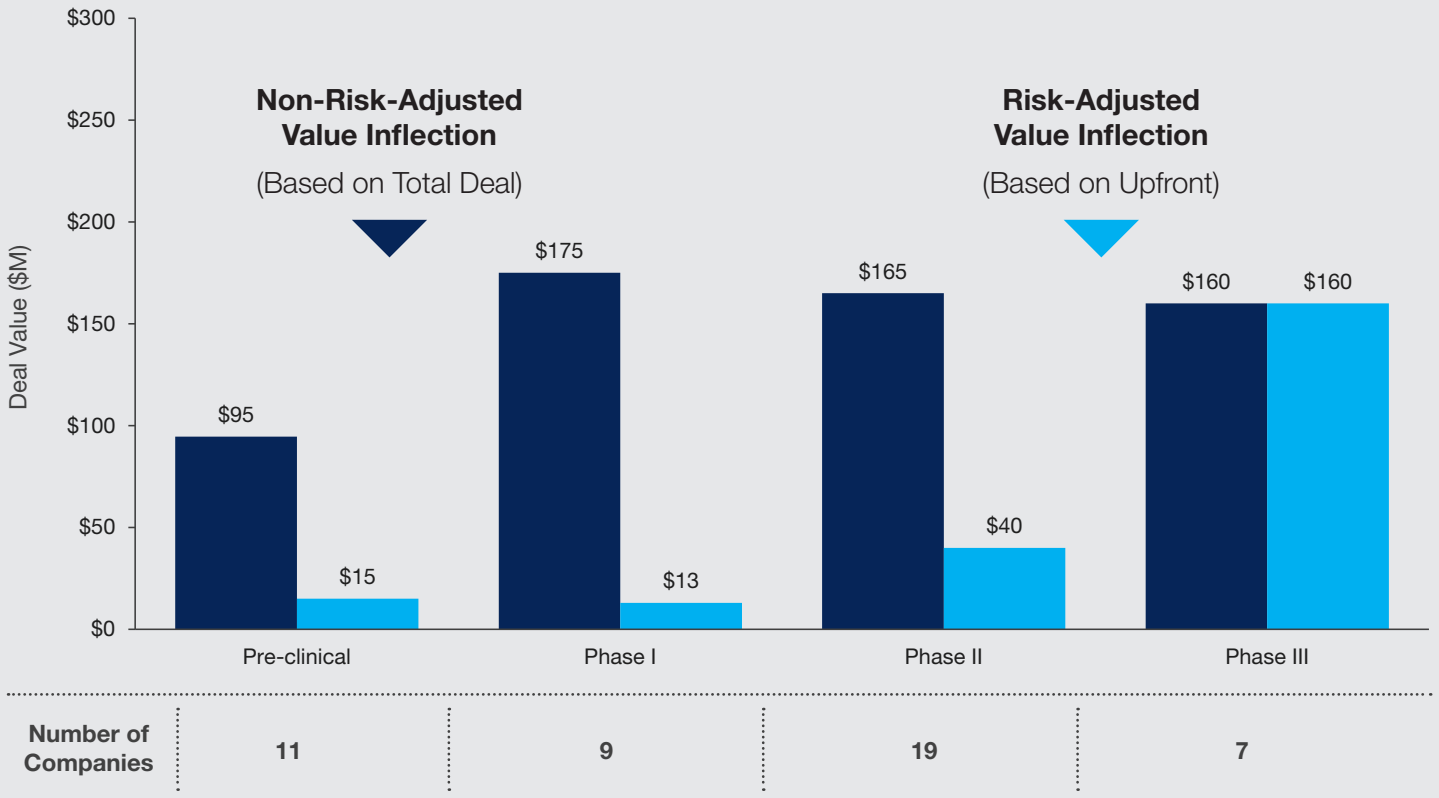
Due to the stepwise nature of the regulatory process of drug development, estimated value of an asset changes significantly as clinical trial data become available. Recent trends in earlier-stage acquisitions thus beg the question as to whether the companies being acquired are potentially losing money by stepping out of the game too early. In order to address this question we examined the evolution of deal values depending on the stage of the lead asset.

Interestingly, we found (Figure 6) that the median total deal value is rather similar across companies with clinical-stage assets, from Phase I to Phase III (though early-stage deal values vary widely). Despite the total value being similar, there is a wide range in upfront deal values with a significant inflection in upfront dollars between Phase II and Phase III. The lower upfront associated with early-stage acquisitions helps the acquiring companies offset the risk associated with earlier-stage products. Thus the expected returns (reflected in the total deal value) become contingent on future development as they will only be realized if the product is successful.

FIGURE 6

Median Deal Value of M&A Deals

■ Total Deal ■ Upfront



All 2013-2016 deals involving US private biopharma companies as targets
 Excluded Seragon Pharmaceuticals—large Phase I outlier
 Source: EvaluatePharma Data 2016

A company's decision regarding the clinical stage of exit is significantly impacted by its appetite for risk. If companies are willing to take the risk of trusting that their product will prove efficacious and safe in later stages, an early exit may be worth it. Indeed, this option has become more popular over the last 5 years, as the proportion of companies exiting with products in Phase I or pre-clinical has increased dramatically.

Investment & Return

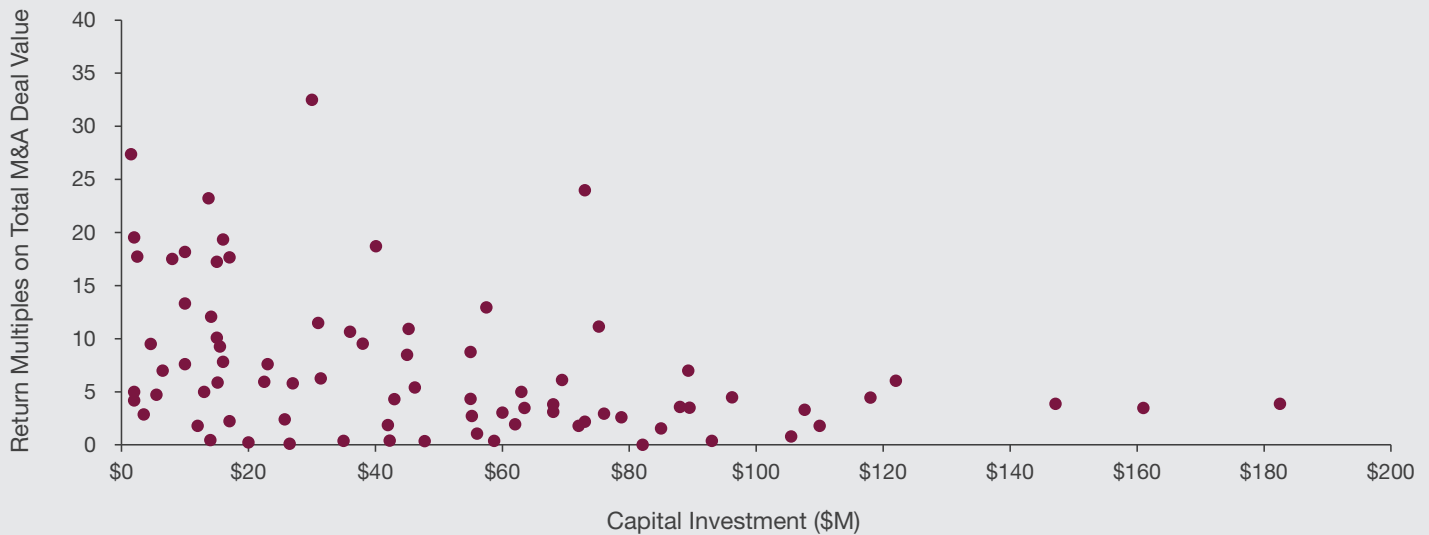
One of the traditional measures of a successful venture is return on investment (ROI), as calculated by dividing the return by the total investment. Absolute deal value is an important indicator of success, but for the purpose of this analysis we focused on the ROI. We analyzed ROI for private M&As using a previously reported approach³ of calculating return as upfront + 25% of contingencies (thus accounting for the risks of clinical development). Broadly speaking, there is an inverse relationship between capital invested and the return multiples (Figure 7), as has been reported previously³. Rates of return achieved through M&A are significant. In the past 5 years (2010-2015) private M&As delivered $\geq 10x$ return about 25% of the time (based on the sample of 82 companies); in 2014-2015 about 40% of the companies exceeded this threshold.

Large ROI is accompanied by large variations with respect to rate of returns. This variation is evident when focusing on the top, middle, and bottom third of companies with M&As in 2010-15. Of these companies, the median return multiples range from $\sim 2x$ for the bottom third to $\sim 13x$ for the top third, with an overall median of $\sim 4.5x$. Furthermore, within just the top third, return multiples range from $\sim 8x$ to $\sim 32x$.

³ Booth, B.L. "When Less is More" Nature Biotechnology 2007

FIGURE 7

Distribution of Returns on Investment for US Private Biopharma Company M&As (2010-2015)



Note: M&A multiples calculated for N=80 US private companies that were acquired in 2010-15 and for which VC funding and deal value data were available. Return calculated as (upfront + 25% X contingencies)

Source: EvaluatePharma Data 2016

Within the private companies that achieved >10x return, the majority exited at Series A or Series B. This is in line with VC financing trends that favor these Series A and B financing, despite some indication of a decrease in Series A. Examples of such private M&As include Seragon Pharmaceuticals, which exited at Series A with a total return multiple of 32.5 and Alios BioPharma, which exited at Series B with a total return multiple of 24.0.

What Distinguishes Successful Start-Ups?

Focusing on the companies with non-commercialized assets and measurable VC investment (\geq \$10M) from Figure 7 (N=51), those with a higher return on investment at the time of exit are distinguished by a relatively low VC investment to-date and a shorter time to exit as compared to less successful companies (Box 1; based on 2010-15 M&A data).

In addition to these characteristics, companies with successful exits are distinguished by the composition and development of their portfolio. These companies tend to have a small and focused portfolio (1-2 assets) with a lead candidate with Proof-of-Concept (POC) from Phase II or Phase I, indicating not only safety but also efficacy from early trials. Furthermore, lead assets are usually in therapeutic areas with large commercial potential (e.g., diabetes, oncology, autoimmune). These assets are often further established and developed through a significant amount of academic and industry partnerships. Success is thus a combination of decisions involving research, clinical, and commercial considerations.

BOX 1

The **top third of companies** that have been acquired with a non-commercialized lead asset are distinguished by:

High ROI (Median ~12x)

Low VC Investment (Median ~\$23M)

Short Time to Exit
(Median ~5 Years, Range 1-14 Years, ~50% Exit After Series A)

Lead Asset with POC from Phase II or Phase I

Small Number of Assets (1-2)

Significant Amount of Academic and Industry Partnerships

Active in Therapeutic Areas with Large Commercial Potential
(e.g., diabetes, oncology, autoimmune)

Key Takeaways

While the companies covered in this analysis only represent a sample of the market, there are key takeaways that can be extrapolated for other emerging biotech companies that are striving to emulate the successful stories of the past:

- Acquisition continues to be an attractive exit option for private companies as evidenced by the consistently positive trends in the market (as opposed to the IPO volatility) and high return multiples associated with these deals.
- The optimal timing of the exit in respect to ROI is either upon conclusion of Phase II, where a significant value inflection occurs, or following Phase I in the case of early efficacy findings. Proof of concept is the key to maximizing the possibility of an exit.
- Successful exits are associated with a more focused portfolio of 1-2 assets targeting lucrative markets (e.g., autoimmune, oncology); though exceptions exist, especially for platform technology companies.
- Building relationships and collaborations with a variety of stakeholders, including academia, corporate VCs, and other biotech and pharma companies, may help develop a company's program, connect the company with possible partners and increase the chances for a successful exit.

Trinity Partners Background and Company Information

Formed in 1996, Trinity Partners provides state-of-the-art approaches and solutions to the health care and biotech industries. Trinity works with leading pharmaceutical, biotech and medical device providers across the globe. At Trinity, we believe that accurate market assessments result from intensive data analysis and fact gathering. We believe that precise, targeted information gives our clients a vital competitive edge.

At Trinity, we have created an environment in which our clients and their success is our top priority. We strive to develop something more than a business relationship—a collaboration. Trinity is focused on breaking new ground for our clients, and on maximizing their performance. We cultivate extraordinary relationships with extraordinary people, relationships that we feel honored to nurture and grow. At Trinity Partners, our success is measured by the accomplishments of our clients.

Trinity works with over 90 clients annually, including 17 of the top 25 global biopharmaceutical companies and dozens of leading medical device and diagnostic companies. Trinity has over 130 professionals on staff that focus solely on the life sciences industry.



2016 BEST PLACES TO WORK
BOSTON BUSINESS JOURNAL