T. Rowe Price®
INVEST WITH CONFIDENCE

PRICE PERSPECTIVE®
May 2017

In-depth analysis and insights to inform your decision-making.

Private Equity
DESPITE THE RISKS, INVESTING IN PRIVATE COMPANIES OFFERS POTENTIAL BENEFITS

EXECUTIVE SUMMARY

- T. Rowe Price's private investments approach is intended to identify innovators that can compound wealth as they scale and transition from early-stage to durable growth companies.
- Returns vary significantly among early-stage growth companies, requiring strong fundamental research to uncover innovative companies that are more likely to outperform.
- Investing in private-equity growth companies provides our investment teams the broader benefit of insights into potential industry disrupters, fresh perspectives on business innovation, and the occasional opportunity to assess companies before they go public.
- A surge of venture capital investing has created valuation distortions in the private-equity market and made adherence to a disciplined evaluation approach critical.

Investing in private companies that have moved beyond the venture capital stage but may still be years from going public has always been challenging. Such securities are more illiquid and usually far more risky than investments in more established public companies with longer track records.

Moreover, a surge of venture capital investment in recent years has undercut the overall quality of the field and led to sharply higher valuations among the more promising firms.

Nevertheless, an allocation to early-stage growth companies offers the potential to earn above-average returns and other benefits to public company investors.

T. Rowe Price has participated in private-equity investments on a limited basis for 30 years but has gradually been increasing and broadening its stake over the past decade to take advantage of a wider array of opportunities. The firm has committed more capital than virtually all other mutual fund managers, according to Morningstar, Inc.[1]

Altogether, various T. Rowe Price portfolios had about USD $2.5 billion invested in 41 private companies as of March 31, 2017.

The firm's investments in early-stage growers encompass a variety of sectors and industries, including technology, biotechnology, media, communications, retailing, banking, hospital supplies and management, e-commerce, utilities,

[1] Unicorn Hunting: Mutual Fund Ownership of Private Companies is a Relevant, but Minor, Concern for Most Investors, Morningstar, December 2016.

"...an allocation to early-stage growth companies offers the potential to earn above-average returns and other benefits to public company investors."

VALUING PRIVATE COMPANIES

Among the many challenges posed by investing in private companies, one of the more significant is determining their appropriate valuations—a task complicated by a lack of readily available market prices, confidentiality obligations that limit disclosures, and occasional irregular information flows from private companies, often due to their resource constraints.

At T. Rowe Price, a rigorous process is based on the guiding principles of fairness and independence, says Christopher Casserly, a member of the firm's Valuation Committee, which is composed of senior members of the Enterprise Risk, Pricing, Legal and Compliance, Investment Treasury, Equity, Fixed Income, and Global Trading Departments.

"We want to be fair to both buyers and sellers of our funds that own private equity while making an independent analysis that considers both the currently available information and the long-term potential of these investments," Mr. Casserly says. Dedicated and independent private company valuation analysts in the Enterprise Risk Department focus on the valuation of these investments.

The Private Company Valuation Advisory Group was formed in 2016 to provide an additional investor perspective. The group is composed of professionals who work in or with the Investment Division but who do not currently manage or cover private company investments, which helps reduce potential conflicts of interest. Although these investment professionals are consulted, the final valuation determination of a company rests solely with the Valuation Committee.

For further oversight, members of the firm's Equity Steering Committee receive a monthly update of any notable activity or valuation changes, and each T. Rowe Price fund Board must annually review and approve the firm's formal valuation policies and procedures.

building and real estate, chemicals, lodging, and airlines.

In recent years, private companies have tended to delay going public for various reasons, including a surge in venture capital investment driven by the prospect of higher returns in the sluggish growth environment. This has enabled start-ups to expand and attain attractive valuations and more liquidity, as well as avoid the scrutiny and transparency of the public market. An increased regulatory burden and additional costs stemming from the Sarbanes-Oxley Act of 2002 have also dampened the desire to go public.

Reflecting these developments, the median age of companies executing an initial public offering (IPO) increased from 7.8 years during the 1976–1996 period to 10.7 years in the 1997–2016 period, a 37% increase, according to Credit Suisse. And companies are going public with much larger market capitalizations than in the past. As of January 2017, there were 112 U.S.-based so-called unicorns—venture-backed start-ups valued at more than USD $1 billion, according to PitchBook, a company that tracks global venture capital, private-equity, and merger and acquisition activity.

Because of this trend, some early-stage companies have merited consideration in larger-cap strategies. Indeed, an increasing number of T. Rowe Price strategies that focus on large-cap stocks have been participating in the private-equity market.

T. ROWE PRICE APPROACH

T. Rowe Price portfolio managers adhere strictly to the firm's private investments oversight process, which requires that all such investments be approved by either a director of equity research or the appropriate regional head of equity (see sidebar above).

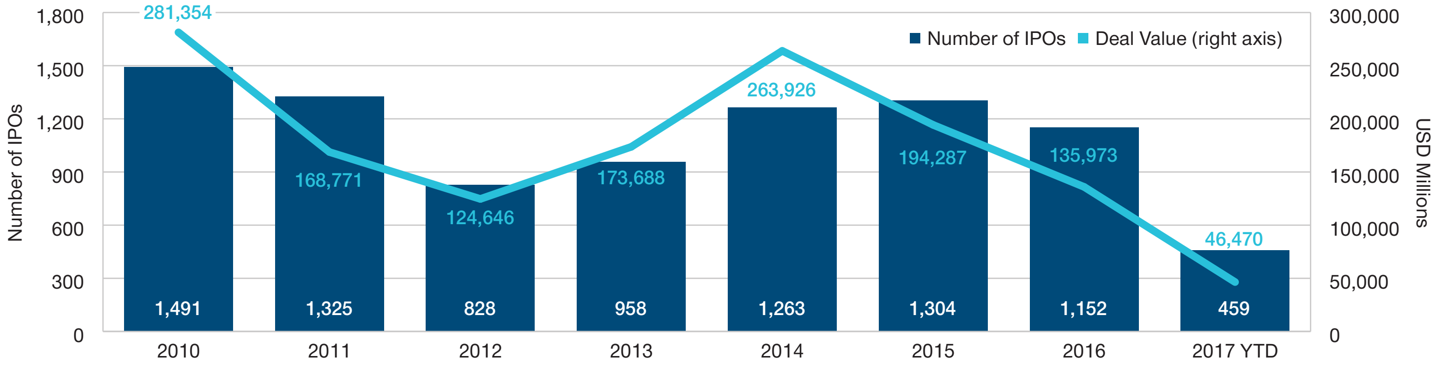
In addition, the strategies typically invest less than 5% of their assets in these higher-risk, less liquid securities—well below the 15% limitation imposed by the U.S. Securities and Exchange Commission. In fact, only five T. Rowe Price portfolios had more than 1% invested in nonpublic companies as of March 31, 2017.

Managers also take a long-term view when investing in private companies. They are not usually looking to reap a big gain when a highly touted company goes public. More likely, they will add to their position over time as the company develops a successful track record.

"If you invest in private companies, you have to do two things well," says Henry Ellenbogen, manager of the US Small-Cap Growth Equity Strategy, who has led the firm's private-equity effort since 2007. "You have to source new ideas and buy them. And then you just have

FIGURE 1: **Global IPOs**

As of April 2017



Source: Dealogic. Deal value represents the total value raised in the initial public offering.

to not sell them. With the failure rates and the number of rocks you have to turn over before you find that special company, you have to let the power of compounding work for you.

"So we do not invest in private companies merely to guide them to an initial public offering or benefit from private-public arbitrage," he adds. "We tell their chief executives that we want to deploy capital in companies that can become long-term holdings. Our goal is to compound wealth in these companies as they scale and transition from early-stage to durable growth companies."

While T. Rowe Price's research and investment in private equity has deepened, managers remain extremely selective in their execution. Because of the higher risk and illiquidity, managers seek a higher expected return than they would of public investments.

Paul Greene, manager of the Media & Telecommunications Equity Strategy, says "we require clearing a higher bar before participating. In essence, we factor in a higher discount rate when valuing the company. We also tend to shy away from making private investments at too early a stage in the company's growth, and we keep our investments in any single private company relatively small to manage the liquidity risk."

"While T. Rowe Price's research and investment in private equity has deepened, managers remain extremely selective in their execution. Because of the higher risk and illiquidity, managers seek a higher expected return than they would of public investments."

The managers' research process mirrors that in the public markets. "We do the same level of due diligence, build models and projections, do valuation analysis, and routinely meet with management," Mr. Greene says. "We also require the same level of information and access that we get in public investments at a minimum."

Mr. Ellenbogen says that from the start, the US Small-Cap Growth Equity Strategy has always placed a premium on the chief executive and management team of private enterprises. "In early-stage companies, leadership has an exponential impact on business success," he says.

RESULTS

Over time, even small investments in businesses that can sustain their success after going public can make a meaningful contribution to a strategy's performance.

As of March 31, 2017, T. Rowe Price portfolios collectively owned 31 public companies with a total market capitalization of more than USD $14.7 billion that were private companies when the funds initially invested in them.

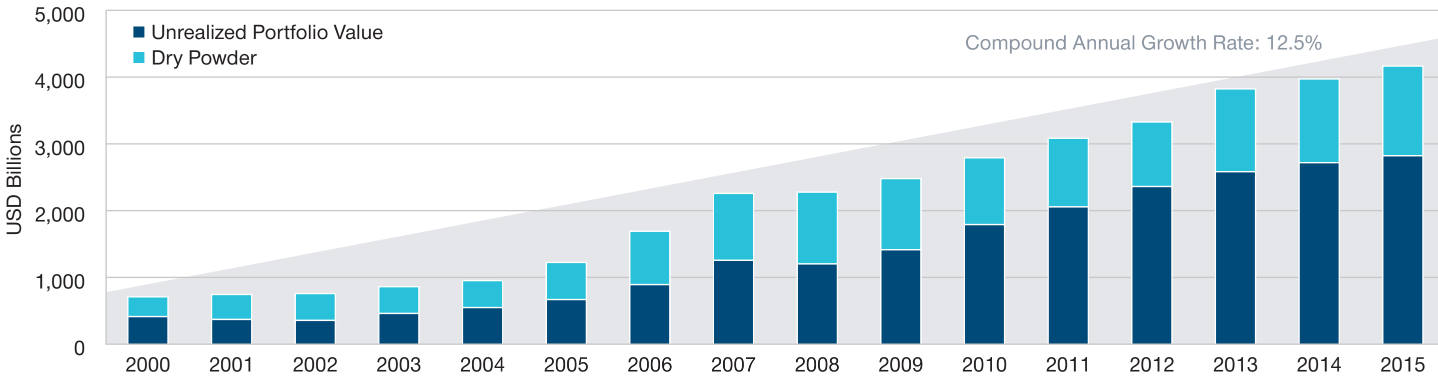
A recent study by Mr. Ellenbogen illustrates the potential benefits and risks of participating in private equity.

The US Small-Cap Growth Equity Strategy owns 15 public companies that it invested in when the firms were private and owns another 28 private holdings. One successful investment involved a restaurant referral service in which the strategy invested in 2013. At the time, the company generated USD $54 million in revenue, was largely dependent on a couple of markets, and did not offer deliveries. That was before it acquired another company that helped consolidate its target markets and achieve early market leadership.

The restaurant company went public in 2014, has now grown from 5,000 to more than 50,000 restaurant partners, expanded nationwide, and offers delivery for its restaurant partners. It is

FIGURE 2: Private-Equity Assets Under Management

As of December 2015



Sources: Preqin and Strategas Research Partners.
Dry powder represents the capital that managers have secured in investor commitments, but have not yet deployed into deal opportunities. The compound annual growth rate includes both the unrealized portfolio value and the dry powder combined.

still considered an early-stage growth company and faces stiff competition, but it is a market share leader and "has shown an ability to continuously improve its offering, optimize its operations and management team, and generate solid financial returns at a reasonable scale," Mr. Ellenbogen says.

Similarly, when the US Small-Cap Growth Equity Strategy invested in a software company in 2014, it had less than half the 60,000 customers it services today. The firm went public the following year and is now the market leader in solutions that support the software development process for some of the largest businesses in the world.

Since 2007, the US Small-Cap Growth Equity Strategy overall has invested USD $1.2 billion of initial capital in 63 private companies. Of those, 33 have had a "liquidity event"—an IPO, an acquisition by another company, or liquidation. In each of these cases, capital has been returned to the strategy in the form of a fully liquid asset—either cash or a freely traded public stock.

Overall, including private companies still held in the portfolio, the strategy has earned a total weighted annual return of 34.8% on these investments compared with a return of 7.7% for the Russell 2000 Growth Index of public small-cap companies.[2]

Moreover, 12 of the 30 IPOs from the strategy's private portfolio—40%—have achieved at least USD $500 million in revenue, and several more are expected to hit that mark in 2017. Of this group, seven have earned USD $1 billion in revenue—a hurdle that only a small percentage of companies going public over the past 20 years has achieved. By comparison, a T. Rowe Price study shows that less than 25% of venture capital-backed IPOs achieve USD $500 million in annualized revenue.

At the same time, Mr. Ellenbogen says the strategy has made its share of mistakes, reflecting the high-risk nature of private-equity investing. Three of its private investments have been marked to zero. The strategy had initially invested almost USD $59 million in these three holdings.

Why do early-stage companies fail? Sometimes the business model just doesn't play out. At other times, a business may face increasing competition or the company's market shows less potential growth than expected.

That was the case with one innovative software company in which the US Small-Cap Growth Equity Strategy invested in 2012. The company built a transparency tool allowing employees to compare the cost of procedures at a wide array of health care providers.

"While that firm had a strong management team and the potential to become an established player in its target market," Mr. Ellenbogen says, "we underestimated the difficulty in getting end customers to use its products, as well as the ability of competitors to replicate certain product features and eventually erode the economics of its industry." The strategy sold the stock shortly after its IPO—a move it usually tries to avoid.

A LENS ON DISRUPTION

In addition to the potential for earning above-average returns, private-equity

[2]Total weighted annual return represents the annualized returns of the strategy's private security holdings by evaluating the cash flows of the securities, taking into account any drawdowns, distributions, income, or dividends; the timing of the investments; and each investment's final value (if any). This is equivalent to a money-weighted daily internal rate of return (IRR). The total weighted Russell 2000 growth return represents the results of the Russell 2000 Growth Index adjusted to mirror the capital inflows and outflows of the strategy's private investments (money-weighted daily IRR). All returns are calculated from the time of initial investment for each investment round from September 2009 through December 2016. This return does not represent the return of the strategy and if fees and expenses were included the return would be lower. **Past performance cannot guarantee future results.**

investing affords other indirect but tangible benefits. These include providing a window on potential disruption that new companies could pose for certain industries or existing holdings, gaining insights on business innovation and industry trends, and the opportunity to assess a company's prospects and management well before it enters the public arena.

Mr. Ellenbogen, for example, says that researching private companies "has given us valuable insights into business innovation within several industries. We believe innovation to be a valuable lens for evaluating all of our companies."

For example, learning about the mobile technology platforms and use of data analytics to improve and expand customer relationships among private technology companies has helped evaluate how that technology is being adapted by less dynamic public companies in other industries.

Brian Berghuis, manager of the US Mid-Cap Growth Equity Strategy, says investing in private companies "enables us to analyze markets from a different perspective. We're able to more deeply understand the insurgents entering an industry and have a better idea of how they might threaten public companies—or not threaten them.

"Mr. Ellenbogen...says that researching private companies 'has given us valuable insights into business innovation within several industries. We believe innovation to be a valuable lens for evaluating all of our companies.'"

"The insights we glean are very important in terms of how we view industry structures and the futures of various industry participants," he adds. "Even if the returns in the private market were only comparable to those in the public market, I would argue that insights we gain warrant our involvement. They inform our public investing."

For example, several T. Rowe Price strategies invested in an upstart software company before it went public in 2012. "We saw this enormous addressable market and a company with a disruptive technology and an extremely strong team, solving problems that conventional wisdom would have had us believe were unsolvable," says Ken Allen, manager of the Science & Technology Equity Strategy.

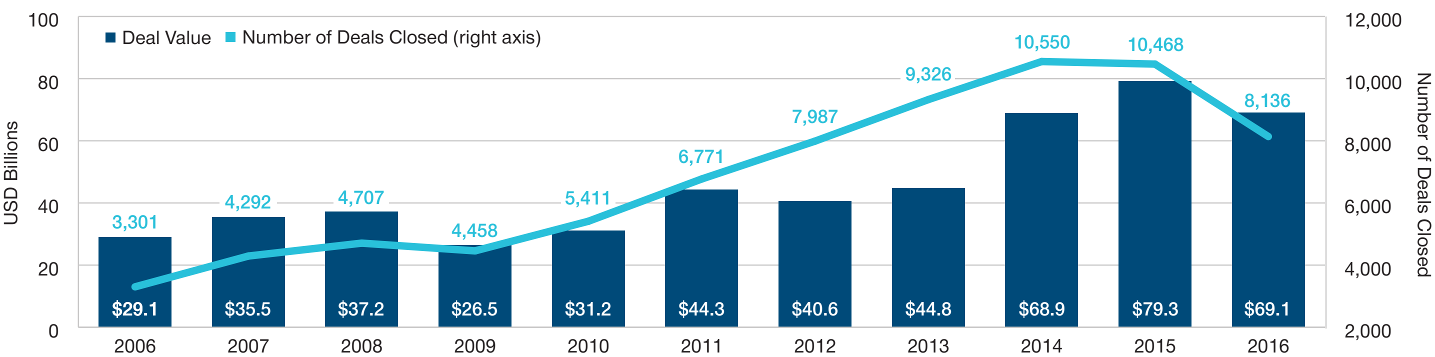
"We were bullish on the cloud software trend before, but this firm gave us valuable additional insight into its merits and how rapidly companies were adopting cloud-based software," he adds. "They were solving a harder problem than some of the cloud companies that were public at the time because they were building a broader suite of software that was suitable for larger companies. The fact that they were successful winning and serving many of the most demanding customers highlighted how revolutionary the cloud trend is."

This insight also influenced the firm's view on other public software companies it held—both positively and negatively. "It made us more bullish on one because of the strength of the overall cloud trend and their ability to unlock market opportunity they had only just started to address," Mr. Allen says. "We learned very strong proof points that this public company would be able to sell a broader set of applications to larger companies."

At the same time, the team's experience heightened their longer-term concerns about two other incumbent software leaders. "A lot of their business is traditional software applications running at each customer's premises and they have been slow to develop cloud offerings," Mr. Allen says. "Both are very strong companies, but they're being challenged by the cloud software trend, and, in many cases, relatively smaller players had the upper hand."

FIGURE 3: **While U.S. Venture Capital Deal Activity Drops, Amount Invested Remains Strong**

As of December 2016



Source: PitchBook. Investment includes new start-ups and existing private companies raising additional financing.

Meanwhile, the market valuation of the upstart software company has risen from about USD $2 billion, when T. Rowe Price first invested in it, to about USD $17 billion recently.

Among smaller companies, Mr. Ellenbogen says “disruption and the pace of change is really occurring across multiple market sectors.”

Since taking over as manager of the Media & Telecommunications Equity Strategy in 2013, Mr. Greene has increased its private-equity holdings from just 0.30% of assets to almost 2.3% by December 2016.

“In order to understand the dynamics in a particular industry or market,” he explains, “we believe it is important to examine and meet with all participants—public and private alike.

“The primary goal of this research is to support and make better investment decisions regarding our large public stock holdings. The other key advantage is that getting to know a company and its management team gives us the opportunity to assess its prospects well in advance of the company’s IPO. Most investors only get to spend a short time learning about a company and meeting with its management (if they do at all) before having to make a decision whether to participate in the offering.”

> “Mr. Greene says...‘Just as in public markets, investors can become overzealous and push valuations to excessive levels. As more investors enter the private funding market, it makes it tougher to find attractive opportunities.’”

CHALLENGES

The private-equity investment boom in recent years has created opportunities but also challenges—such as lowering the overall quality of the field and boosting valuations among the most promising firms. “There are legitimate reasons for the higher levels of funding into private companies,” Mr. Greene says, “but this does not mean there are not excesses. Just as in public markets, investors can become overzealous and push valuations to excessive levels. As more investors enter the private funding market, it makes it tougher to find attractive opportunities.”

As a result, some managers have sharply curtailed their private-equity investments over the past couple of years. “Valuations are generally still elevated,” Mr. Berghuis says. “I’m still leery. That doesn’t mean I’m not open to good opportunities, but I’ve been much more selective.”

Although it may be more difficult to find compelling opportunities now compared with a few years ago, Mr. Berghuis says the firm’s commitment to private-equity investing “remains very strong. Like any other investment, when capital is readily available and valuations get frothy, we need to tread even more carefully. We have to be mindful of valuations. But there’s no question that we will be part of the private company ecosystem for many years to come. The benefits definitely outweigh the risks.”

INVEST WITH CONFIDENCE®

T. Rowe Price focuses on delivering investment management excellence that investors can rely on—now and over the long term.

To learn more, please visit troweprice.com.

Important Information

This material, including any statements, information, data and content contained within it and any materials, information, images, links, graphics or recording provided in conjunction with this material are being furnished by T. Rowe Price for general informational purposes only. The material is not intended for use by persons in jurisdictions which prohibit or restrict the distribution of the material and in certain countries the material is provided upon specific request. It is not intended for distribution to retail investors in any jurisdiction. Under no circumstances should the material, in whole or in part, be copied or redistributed without consent from T. Rowe Price. The material does not constitute a distribution, an offer, an invitation, recommendation or solicitation to sell or buy any securities in any jurisdiction. The material has not been reviewed by any regulatory authority in any jurisdiction. The material does not constitute advice of any nature and prospective investors are recommended to seek independent legal, financial and tax advice before making any investment decision. Past performance is not a reliable indicator of future performance. The value of an investment and any income from it can go down as well as up. Investors may get back less than the amount invested.

The views contained herein are as of May 2017 and may have changed since that time.

Russell Investment Group is the source and owner of the trademarks, service marks, and copyrights related to the Russell indexes. Russell® is a trademark of Russell Investment Group.

Australia—Issued in Australia by T. Rowe Price International Ltd. (ABN 84 104 852 191), Level 50, Governor Phillip Tower, 1 Farrer Place, Suite 50B, Sydney, NSW 2000, Australia. T. Rowe Price International Ltd. is exempt from the requirement to hold an Australian financial services licence in respect of the financial services it provides in Australia. T. Rowe Price International Ltd. is authorised and regulated by the UK Financial Conduct Authority under UK laws, which differ from Australian laws. For Wholesale Clients only.

Canada—Issued in Canada by T. Rowe Price (Canada), Inc. T. Rowe Price (Canada), Inc.'s investment management services are only available to Accredited Investors as defined under National Instrument 45-106. T. Rowe Price (Canada), Inc. enters into written delegation agreements with affiliates to provide investment management services.

DIFC—Issued in the Dubai International Financial Centre by T. Rowe Price International Ltd. This material is communicated on behalf of T. Rowe Price International Ltd. by its representative office which is regulated by the Dubai Financial Services Authority. For Professional Clients only.

EEA—Issued in the European Economic Area by T. Rowe Price International Ltd., 60 Queen Victoria Street, London EC4N 4TZ which is authorised and regulated by the UK Financial Conduct Authority. For Professional Clients only.

Hong Kong—Issued in Hong Kong by T. Rowe Price Hong Kong Limited, 21/F, Jardine House, 1 Connaught Place, Central, Hong Kong. T. Rowe Price Hong Kong Limited is licensed and regulated by the Securities & Futures Commission. For Professional Investors only.

Singapore—Issued in Singapore by T. Rowe Price Singapore Private Ltd., No. 501 Orchard Rd, #10-02 Wheelock Place, Singapore 238880. T. Rowe Price Singapore Private Ltd. is licensed and regulated by the Monetary Authority of Singapore. For Institutional and Accredited Investors only.

Switzerland—Issued in Switzerland by T. Rowe Price (Switzerland) GmbH, Talstrasse 65, 6th Floor, 8001 Zurich, Switzerland. For Qualified Investors only.

USA—Issued in the USA by T. Rowe Price Associates, Inc., 100 East Pratt Street, Baltimore, MD, 21202, which is regulated by the U.S. Securities and Exchange Commission. For Institutional Investors only.

201705-151814