

HARRIS & HARRIS GROUP INC /NY/  
Form 10-K  
March 15, 2016

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, DC 20549**

**Form 10-K**

**xAnnual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the fiscal year ended December 31, 2015

or

**..TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 0-11576

HARRIS & HARRIS GROUP, INC.<sup>®</sup>  
(Exact Name of Registrant as Specified in Its Charter)

New York 13-3119827  
(State or Other Jurisdiction (I.R.S. Employer  
of Incorporation or Organization) Identification No.)

1450 Broadway, 24th Floor, New York, New York 10018  
(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code (212) 582-0900

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
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Common Stock, \$.01 par value	Nasdaq Global Market
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Securities registered pursuant to Section 12(g) of the Act:

None  
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.  Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.  Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data file required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).  Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).  Yes  No

The aggregate market value of the common stock held by non-affiliates of Registrant as of June 30, 2015 was \$84,276,533 based on the last sale price as quoted by the Nasdaq Global Market on such date (only officers and directors are considered affiliates for this calculation).

As of March 14, 2016, the registrant had 30,845,754 shares of common stock, par value \$.01 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE INCORPORATED AT

Harris & Harris Group, Inc. Proxy Statement for the 2016 Annual Meeting of Shareholders	Part III, Items 10, 11, 12, 13 and 14
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## **PART I**

### **Item 1. Business.**

Harris & Harris Group, Inc.<sup>®</sup> (the "Company," "us," "our," and "we"), is an internally managed investment company. We have elected to be regulated as a business development company ("BDC") under the Investment Company Act of 1940, (the "1940 Act"). For tax purposes, we have elected to be treated as a regulated investment company ("RIC") under Subchapter M of the Internal Revenue Code of 1986 (the "Code"). We were incorporated under the laws of the state of New York in August 1981. We are overseen by our Board of Directors and managed by our officers and have no external investment advisor.

Harris & Harris Group builds transformative companies enabled by disruptive science by identifying and investing in such companies and then providing strategic, operational and management resources, and creative financial solutions.

We believe we provide four core benefits to our shareholders. First, we provide shareholders with access to what we believe are disruptive science-enabled companies, particularly ones that are targeting opportunities in the precision health and precision medicine markets that would otherwise be difficult to access or inaccessible for most current and potential shareholders. Second, we have an existing portfolio of companies in emerging industries at varying stages of maturity that provide for a potential pipeline of investment returns over time. Third, we provide access for accredited investors to co-invest with us in our portfolio companies through our pre-emptive rights. Fourth, we are able to invest opportunistically in a range of types of securities to take advantage of market inefficiencies.

Historically, our investment objective has been to achieve long-term capital appreciation investing in venture capital investments. We defined venture capital investments as the money and resources made available to privately held and publicly traded small businesses that we believe have exceptional growth potential. Since 2008, the focus of our initial investments has narrowed to primarily BIOLOGY+ companies. We define BIOLOGY+ as investments in interdisciplinary life sciences companies where biology innovation is intersecting with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics. Since 2008, more than 80 percent of our initial investments have been in BIOLOGY+ companies.

We believe our future growth will be driven by building BIOLOGY+ companies that are targeting the growing market of precision health and precision medicine. We believe that by operating these precision health and precision medicine companies as majority-owned subsidiaries or controlled partner companies rather than as traditional venture capital investments we can provide more meaningful growth for our shareholders. Our team is already actively engaged in this market and in operating these companies.



## Precision Health and Precision Medicine

We define precision health as a focus on preventative care and well-being at the individual level. It includes medical technologies, digital technologies, genetic and biochemical technologies, and machine learning technologies that permit individuals to take control of their health and well-being at all stages of their lives, especially ahead of the period in their lives when chronic disease becomes more prevalent and even potentially dominant. Our specific expertise is in areas where phenotypic or environmental information is intersecting with genotypic information.

We believe there are four trends that will drive the opportunity in precision health:

- 1) As investment banks, Macquarie and Barclays, indicated in recent reports, there is a general shift towards consumerism in health and health care decisions;  
The movement of digital technologies into the life sciences market is putting far more information at the fingertips
- 2) of the individual and placing a high value on business models that can translate the power of aggregated data to the individual decision maker;
- 3) The merging of new genomic data with phenotypic or environmental data will finally provide medically actionable information; and
- 4) Baby boomers are now entering a period in their lives where disease becomes prevalent, and millennials are digitally savvy and taking control of their health care decisions; both represent large segments of the population.

We believe the best way to generate value for our shareholders is to operate these companies as majority-owned subsidiaries or controlled portfolio companies where we are actively involved, influencing development through board representation and management support, in addition to the influence we exert through our equity ownership. This level of control and influence was difficult for us to maintain and exert while making traditional venture capital investments owing to our relatively small asset base as compared with other venture capital investors. Our structure as a permanent entity also created conflicts with the interests of investors with finite-life funds that we believe influenced business decisions of our investee companies. We believe our ability to be a long-term, patient partner that can generate returns on invested capital through dividends, consulting income, fee income and other sources of cash flows in addition to the sale of our securities of our investee companies is a competitive advantage for us and provides flexibility in how we build and invest in companies.

As of December 31, 2015, we had eight portfolio companies focused on the precision health and precision medicine market. We had controlling positions in three of these eight companies. These eight companies include:

*Champions Oncology, Inc. (NASDAQ:CSBR)* - Champions Oncology is engaged in the development of advanced technology solutions and services to personalize the development and use of oncology drugs.

*EchoPixel, Inc.* - EchoPixel provides virtual reality 3-D visualization software that offers physicians the opportunity to view and interact with patient tissues and organs as if they were real objects.



*Metabolon, Inc.* - We believe Metabolon is among the pioneers and leaders in metabolomics, an integrative, powerful phenotyping technology for assessing health. Its proprietary platforms and informatics systems are delivering biomarker discoveries, innovative diagnostic tests, breakthroughs in precision medicine, and robust partnerships in genomics-based health initiatives.

*NGX Bio, Inc.* (Controlled Investment) - NGX Bio's expertise is in next-generation sequencing, logistics, and genomic data analysis. It is focused on making next-generation sequencing easy and affordable for researchers.

*ORIG3N, Inc.* - ORIG3N has established the world's largest uniformly consented induced pluripotent stem cell repository to better understand the cellular and molecular foundations of disease.

*Phylagen, Inc.* - Phylagen harnesses the vast, unseen world of microbes that we believe will improve business performance and make our lives better.

*ProMuc, Inc.* (Controlled Investment) - ProMuc develops synthetic mucins for the nutritional, food and health care markets.

*TARA Biosystems, Inc.* (Controlled Investment) - TARA Biosystems is focused on revolutionizing “human-on-a-chip” technology by providing predictive cardiac physiology.

We believe there are very few people and very few investment firms remaining that have the expertise to find, incubate and build these types of companies. The foundational disruptive science comes from leading laboratories at premier research institutions. It takes time, experience and often partnerships with leading, global scientific companies to get access to such foundational technology and to bring the technology to market. Our team and our network of advisors and consultants, with scientific backgrounds in chemistry, biochemical engineering, physics, genetics and material science, are uniquely qualified to identify, diligence and invest in these opportunities.

We spend a tremendous amount of time with these companies, often playing managerial roles in the earliest stages of their development. Our technical knowledge and company-building experience are important at this stage. As these companies develop, we continue to invest in them. In many of these companies, there is a round of capital that has an asymmetric or outsized return potential compared with other rounds. By being in the companies early and by

recognizing this opportunity, we believe we have the potential to deliver outsized returns even though the investment time period may be long.

### **Other BIOLOGY+ and Active Legacy Portfolio**

We have a legacy portfolio of investments outside of the precision health and precision medicine sector that we believe has the potential to generate meaningful returns for shareholders over the coming years. Over the last five years, we have demonstrated that we have the ability to discover, diligence, invest, build and realize gains from our investments.

Our other BIOLOGY+ investments include:

*ABS Materials, Inc.* - ABS Materials provides innovative solutions for water treatment and a wide variety of other applications.

*Accelerator IV New York Corporation* - Accelerator is a biotechnology investment and management company with offices in New York City and Seattle. Through its consortium of top-tier investors, team of scientific thought leaders and executive managers, it identifies, finances and manages the development of emerging biotechnology opportunities.

*AgBiome, LLC* - AgBiome is a biotechnology company using new knowledge of the plant-associated microbiome to create innovative products for agriculture.

*Ensemble Therapeutics Corporation* - Ensemble Therapeutics is focused on the discovery and development of breakthrough small molecule therapies for patients with cancer and other serious diseases.

*Enumeral Biomedical Holdings, Inc. (OTC:ENUM)* - Enumeral Biomedical discovers and develops novel therapeutics known as immunomodulators or immunotherapies that help the immune system fight cancer and other diseases.

*Lodo Therapeutics Corporation* - Lodo Therapeutics develops novel therapeutics derived from the company's metagenomics-based small molecule discovery platform.

*Mersana Therapeutics, Inc.* - Mersana Therapeutics develops immunoconjugate therapies by leveraging its Fleximer platform to create precisely targeted and highly tailored drugs.

*OpGen, Inc. (NASDAQ:OPGN)* - OpGen uses molecular testing and bioinformatics to assist health care providers to combat multi-drug resistant bacterial infections.

*Petra Pharma Corporation* - Petra Pharma develops small molecule inhibitors for the treatment of cancer and metabolic diseases.

*Senova Systems, Inc.* - Senova Systems developed the industry's first revolutionary pH sensor platform aimed at replacing current glass electrodes with solid state smart sensors that contain no glass and require no user calibration.

Our remaining active legacy investments include:

*Adesto Technologies Corporation (NASDAQ:IOTS)* - Adesto Technologies is a provider of application-specific, feature-rich, ultra-low power non-volatile memory products.

*D-Wave Systems, Inc.* - We believe D-Wave Systems is the recognized leader in the development, fabrication, and integration of superconducting quantum computers.

*HZO, Inc.* - HZO's technology solutions make electronics waterproof and resistant to corrosion.

*Magic Leap, Inc.* - Magic Leap is developing the next computing platform that will enable users to seamlessly combine and experience digital and physical lives.

*Nanosys, Inc.* - We believe Nanosys is leading the development of quantum dot technology for displays.

*Produced Water Absorbents, Inc. (also does business as ProSep, Inc.)* - We believe ProSep is the industry-leading technology and services provider of choice for integrated process solutions to the global oil and gas industry.

There are three main drivers of our potential growth in value from these companies over the coming years. First, we have a larger portfolio of more mature companies than we have had historically. Second, we believe the quality of our existing portfolio is stronger than it has been historically. Third, we own larger percentages of the companies in the existing portfolio than we have owned historically.

In previous communications with shareholders, we have discussed how we are managing our portfolio, feeding the "fat hogs" and starving the "lean hogs" to maximize our value at exit. We currently believe our non-precision health and precision medicine companies like D-Wave Systems, Inc., Adesto Technologies Corporation, HZO, Inc., and AgBiome, LLC, may have the potential to be real drivers of realized returns from our portfolio in the coming years.

We plan to return to shareholders a much greater portion of future realized gains from these maturing investments in the form of dividends and share repurchases than we have historically. During the third quarter of 2015, our Board of Directors authorized a repurchase of up to \$2.5 million of the Company's common stock in the open market within a six-month period. To date, we have repurchased 509,082 shares. During the first quarter of 2016, our Board of Directors re-authorized the repurchase of up to an additional \$2.5 million of the Company's common stock in the open market within a six-month period of such reauthorization.

As of December 31, 2015, our investments comprise 80 percent of our total assets. Within this percentage, our precision health and precision medicine portfolio comprised 22.3 percent and our active legacy portfolio comprised 50.3 of our total assets. We note that the segmentation of our precision health and precision medicine portfolio and our other BIOLOGY+ and legacy portfolio in this section is for informational purposes only. We currently manage and plan to continue to manage our portfolio, allocate capital and budget our investments on a wholistic basis and not in separate segments. Our cash comprised 18.6 percent of our total assets and other assets comprised the remaining 1.4

percent of our total assets. As of December 31, 2015, we had \$5,000,000 in debt outstanding.

### **Co-Investment Opportunities**

Beginning in 2016, we may also seek from time to time to provide accredited investors in Harris & Harris Group with the opportunity to co-invest in certain of our portfolio companies through one or more series issued by H&H Co-Investment Partners, LLC, upon the exercise of pre-emptive rights. Harris & Harris Group will serve as the managing member and investment adviser to H&H Co-Investment Partners. We anticipate earning management and incentive fees in connection with our management of each series issued by H&H Co-Investment Partners.

### **Investments that Generate Current Income**

Historically, generation of current income was a secondary objective. In our letter to shareholders for the third quarter of 2015, we announced that we are increasing the priority of generation of current income, particularly related to our initial investments made after January 1, 2016. As a BDC, we invest in and offer managerial assistance to our investee companies. In certain cases, particularly in ones where we control the company, we may receive consulting fees for our time and services. We expect such sources of income to increase as we increase the number of controlled and partner companies. During 2015, we generated short-term income through payment of such consulting fees from five of the 31 companies in our portfolio (16 percent).

Historically, we demonstrated the ability to identify, diligence, underwrite and realize gains in mid- to late-stage companies and securities that produce current income to us. We may refer to our activities in this area as specialty finance, and it is a part of our ability to invest opportunistically in a range of types of securities to take advantage of market inefficiencies. We identified such an opportunity in providing debt capital to mid- to late-stage companies that have capital needs that are in excess of most online lending platforms and marketplaces or are below the thresholds to interest traditional lenders. We continue to believe there is a lack of capital available to companies that fit this profile and an opportunity for us to generate favorable risk-adjusted returns on invested capital through investments in these companies.

We believe we have two primary competitive advantages for investments in such companies and securities: 1) Our long history of investing in companies throughout their lifecycles provides us with extensive knowledge and experience in understanding the needs and risks of investing in such companies; 2) We are able to design creative investment options and solutions for investee companies that may be difficult to secure from alternative sources of capital.

### **Involvement in Our Investee Companies**

As a BDC, we invest in and offer managerial assistance to our portfolio companies. We have always been involved with founding, incubating and building what we believe are transformative companies from disruptive science. In fact, we have been the first institutional investor or a member of the first syndicate of institutional investors in two-thirds of the companies we have invested in since our founding. We may own 100 percent of the securities of a small business for a period of time. We may control the company for a substantial period. We may control 25 percent or more of the board seats in those companies in which we have significant ownership. We expect to maintain or increase our control in our controlled and partner investee companies over time. These businesses tend to lack management depth, to have limited or no history of operations and to have not attained profitability. Because of the speculative nature of these investments, these securities have a significantly greater risk of loss than traditional investment securities. Some of our investments will never realize their potential, and some will be unprofitable or result in complete loss of our

investment. Some of our investments will build successful companies but will not provide a return to us. Small businesses are more vulnerable to adverse business or economic developments than better-capitalized companies. Small businesses generally have limited product lines, markets and/or financial resources. Publicly traded small businesses and those with small market capitalizations are not well known to the investing public and are generally subject to high volatility, to general movements in markets, to perceptions of potential growth and/or the potential for bankruptcy.



In connection with our investments, we expect to provide a variety of services, including the following:

- serving in management roles;
- recruiting management;
- formulating operating strategies;
- formulating intellectual property strategies;
- assisting in financial planning;
- providing management in the initial start-up stages;
- introducing corporate and development partners; and
- establishing corporate goals.

We may assist in raising additional capital for these companies from other potential investors. We are more likely to invest our own capital rather than seek capital from other investors in our controlled and partner companies. This reliance on our capital to fund the operations of these companies increases the risks associated with such investments. We typically find it necessary or appropriate to provide additional capital of our own in rounds of financing subsequent to our initial investment. We may introduce these companies to potential joint venture partners, suppliers and customers. In addition, we may assist in establishing relationships with investment bankers and other professionals. We may also assist management of our investee companies with strategy and execution of merger and acquisition ("M&A") transactions. We generate income from certain of our controlled and partner companies for these services and plan to increase this source of short-term income in the future.

We may control, be represented on, or have observer rights on the board of directors of a portfolio company through one or more of our officers or directors who may also serve as officers of the portfolio company. We indemnify our officers and directors for serving on the boards of directors or as officers of portfolio companies, which exposes us to additional risks. Particularly during the early stages of an investment, we may conduct the operations of the portfolio company. As an early-stage company emerges from the developmental stage with greater management depth and experience, we expect that our role in the portfolio company's day-to-day operations will diminish.



## Industry Sectors of Investment

We generally classify our existing investments in one of three industry sectors: Life Sciences, Energy and Electronics. Historically, the interdisciplinary nature of science-based inventions enables our portfolio companies to address needs in multiple sectors rather than being confined to addressing needs in one sector.

We classify companies in our life sciences portfolio as those that address problems in life sciences-related industries, including biotechnology, agriculture, advanced materials and chemicals, diagnostics, health care, bioprocessing, water, industrial biotechnology, food, and nutrition. Our investments in precision health and precision medicine companies fall into this category.

We classify companies in our energy portfolio as those that seek to improve performance, productivity or efficiency, and to reduce environmental impact, waste, cost, energy consumption or raw materials. Energy is a term used commonly to describe products and processes that solve global problems related to resource constraints. The term "cleantech" is also used commonly in a similar manner.

We classify companies in our electronics portfolio as those that address problems in electronics-related industries, including semiconductors, computing, telecommunications and data communications, metrology and test and measurement.

## Investment Securities and Strategies

Neither our investments, nor an investment in us, is intended to constitute a balanced investment program. We expect to be risk seeking rather than risk averse in our investment approach. To such end, we reserve the fullest possible freedom of action, subject to our certificate of incorporation, applicable law and regulations, and policy statements contained herein. There is no assurance that our investment objectives will be achieved.

We have discretion in the investment of our capital to achieve our objectives. Historically, we invested a substantial portion of our assets in securities that we consider to be private equity investments. These private equity investments usually do not pay interest or dividends and typically are subject to legal or contractual restrictions on resale that may adversely affect the liquidity and marketability of such securities. Some of our convertible bridge notes may result in payment-in-kind ("PIK") interest, which typically accrues over the life of the bridge note and often converts into equity of the portfolio company upon a financing event. While we plan to continue to make investments in securities

of existing portfolio companies that do not provide short-term cash flows to us, we plan to focus a large portion of our future initial investments in securities of companies that provide short-term income to us through consulting agreements, fees, dividends or interest income. These businesses can range in stage from pre-revenue to generating positive cash flow. Substantially all of our long-term investments are in thinly capitalized, unproven, small companies focused on commercializing risky technologies. We do not limit our investments to any categories of investments. Our securities investments may consist of private, public or governmental issuers of any type, subject to the restrictions imposed on us as a BDC under the 1940 Act. Subject to the diversification requirements applicable to a RIC, we may commit all of our assets to only a few investments.

Our investment approach is comprised of a patient examination of available opportunities thorough due diligence and close involvement with management of our portfolio companies. We currently invest our capital directly into portfolio companies. We may in the future seek to invest our capital alongside capital from other investors through investment funds that we control. Such funds could provide benefits to us including 1) the generation of income from management fees; 2) the potential to participate economically in the returns on the funds invested above and beyond the returns generated from investment of our capital; 3) the ability for us to increase the amount of capital under our control invested per portfolio company and 4) in cases where we may partner with one or more corporations, we gain access to market intelligence and distribution and manufacturing expertise that complements our expertise in identifying disruptive innovations and building companies.

Subject to continuing to meet the compliance tests applicable to BDCs under the 1940 Act, there are no limitations on the types of securities or other assets in which we may invest. Investments may include the following:

· Equity, equity-related securities (including warrants and options) and debt with equity features from either private or public issuers;

· Debt obligations of all types having varying terms with respect to security or credit support, subordination, purchase price, interest payments and maturity;

· Foreign securities;

· Intellectual property or patents or research and development in technology or product development that may lead to patents or other marketable technology; and

· Miscellaneous investments.

The following is a summary description of the types of assets in which we may invest, the investment strategies we may use, and the attendant risks associated with our investments and strategies.

#### *Equity, Equity-Related Securities and Debt with Equity Features*

We may invest in equity, equity-related securities and debt with equity features. These securities include common stock or units, preferred stock or units, debt instruments convertible into common or preferred stock or units, limited partnership interests, other beneficial ownership interests and warrants, options or other rights to acquire or

agreements to sell any of the foregoing.

We primarily make such investments in companies with operating histories that are unprofitable or marginally profitable, that have negative net worth, or that are involved in bankruptcy or reorganization proceedings. These investments would involve businesses that management believes have potential for rapid growth through the infusion of additional capital and management assistance. In addition, we may make investments in connection with the acquisition or divestiture of companies or divisions of companies. There is a significantly greater risk of loss with these types of securities than is the case with traditional investment securities.

Warrants, options and convertible or exchangeable securities generally give the investor the right to acquire specified equity securities of an issuer at a specified price during a specified period or on a specified date. Warrants and options fluctuate in value in relation to the value of the underlying security and the remaining life of the warrant or option, while convertible or exchangeable securities fluctuate in value both in relation to the intrinsic value of the security without the conversion or exchange feature and in relation to the value of the conversion or exchange feature, which is like a warrant or option. When we invest in these securities, we incur the risk that the option feature will expire worthless, thereby either eliminating or diminishing the value of our investment.

Most of our current portfolio company investments are in the equity securities of private companies. Investments in equity securities of private companies often involve securities that are restricted as to sale and cannot be sold in the open market without registration under the Securities Act of 1933 or pursuant to a specific exemption from these registrations. Opportunities for sale are more limited than in the case of marketable securities, although these private investments may be purchased at more advantageous prices and may offer attractive investment opportunities. Even if one of our portfolio companies completes an initial public offering ("IPO"), we are typically subject to a lock-up agreement for 180 days or longer, and the stock price may decline substantially before we are free to sell or enter into contracts to sell these shares. These lock-up restrictions apply to us and our shares of the portfolio company owned prior to the IPO and may include shares purchased by us in an IPO. These restrictions generally include provisions that stipulate that we are not permitted to offer, pledge or sell our shares, including selling covered call options on our shares, prior to the expiration of the lock-up period. We are also prohibited from entering into new securities lending arrangements for these securities during the lock-up period. We may also own securities of privately held companies that complete public listings through reverse mergers into publicly traded shell companies. Our shares of the privately held company prior to the reverse merger may be subject to additional restrictions on their sale under Rule 144.

We may employ an option strategy of writing (selling) covered call options or purchasing put options on one or more of our public portfolio companies once any restrictions and/or lock-up periods expire. Call options are contracts representing the right to purchase a common stock at a specified price (the "strike price") at a specified future date (the "expiration date"). Selling a covered call option represents an obligation to sell a specified number of shares of common stock at a strike price by an expiration date if the stock achieves the strike price and if it is called. A call option whose strike price is above the current price of the underlying stock is called "out-of-the-money." A call option whose strike price is below the current price of the underlying stock is called "in-the-money." When stocks in the portfolio rise, call options that were out-of-the-money when written may become in-the-money, thereby increasing the likelihood that they could be exercised, and we would be forced to sell the stock. While this may be desirable in some instances, we may minimize undesirable option assignments by repurchasing the call options prior to expiration, generating a gain or loss in the options. If the options were not to be repurchased, the option holder could exercise its rights and buy the stock from us at the strike price if the stock traded at a higher price than the strike price. We will only "sell" or "write" options on common stocks held in our portfolio. We will not sell "naked" call options, *i.e.*, options representing more shares of the stock than are held in the portfolio. For conventional listed call options, the options' expiration dates are commonly up to nine months from the date the call options are first listed for trading. Longer-term call options can have expiration dates up to three years from the date of listing. We currently expect the majority of written call options to have expirations of equal to or less than one year from the date the call option is first listed for trading.





We may also purchase put options as a method of limiting the downside risk that the price per share of these companies may decrease substantially from current levels. A put option gives its holder the right to sell a specified number of shares of a specific security at a specific price (known as the exercise strike price) by a certain date. The buyer of a put option is betting that the price of the security will decrease before the option expires. The risk for us as the option holder is that the option expires unexercised, and we would have lost the money spent on buying the option.

We believe this strategy of selling covered call options on our publicly traded portfolio companies provides at least three benefits:

1) We receive payment of a premium in cash at the time of the sale of the call option. The amount of the premium received is negotiated between the buyer and us and is influenced generally by the market price of the underlying stock, the volatility of the stock and the length of time between the date of sale of the call option and the expiration date. If the option expires out-of-the-money, we retain the premium as a gain on our investment.

2) If the option is exercised, it enables the monetization of the stock held by us in an orderly transaction that yields known returns. Our publicly traded portfolio companies currently trade at small average daily volumes of shares compared with our positions in these companies. As such, a decision by us to sell a portion or all of our shares in these companies in the public markets through brokers could negatively affect the price at which we would be able to sell these shares and, therefore, our ultimate returns. The sale of a call option sets a price at which our shares would sell if the option is exercised, which negates the potential impact of illiquidity or other market dynamics on our returns from the sale of these shares. That said, it also sets an upper limit for the proceeds we would receive in such sale. We plan to enter into such contracts at a price per share and in a timeframe that we would be willing to sell those shares. While we may repurchase call options when advantageous to us, we commonly do not sell call options with the expectation that we will repurchase them at a future date.

3) The sale of options may help generate interest and liquidity in the stock of our publicly traded portfolio companies. Current market dynamics make it difficult for small capitalization stocks to attract interest from institutional and retail investors. This difficulty leads to low average trading volumes and low liquidity options for existing shareholders. We believe the sale of call options may aid in increasing the interest and liquidity in the stock of these companies and may be beneficial to our future potential returns on these investments.

We may utilize instruments such as forward contracts, currency options and interest rate swaps, caps, collars and floors to seek to hedge against fluctuations in the relative values of our portfolio positions from changes in market conditions, currency exchange rates and market interest rates. Hedging against a decline in the values of our portfolio positions does not eliminate the possibility of fluctuations in the values of such positions or prevent losses if the values of such positions decline. However, such hedging can establish other positions designed to gain from those same developments, thereby offsetting the decline in the value of such portfolio positions.



We may also invest in publicly traded securities of whatever nature, including relatively small, emerging growth companies that management believes have long-term growth potential. These investments may be through open-market transactions or through private placements in publicly traded companies ("PIPEs"). Securities purchased in PIPE transactions are typically subject to a lock-up agreement for 180 days or longer, or are issued as unregistered securities that are not freely tradable for at least six months.

Even if we have registration rights to make our investments in privately held and publicly traded companies more marketable, a considerable amount of time may elapse between a decision to sell or register the securities for sale and the time when we are able to sell the securities. The prices obtainable upon sale may be adversely affected by market conditions, by the level of average trading volume of the underlying stock as compared with the position offered for sale or negative conditions affecting the issuer during the intervening time. We may elect to hold formerly restricted securities after they have become freely marketable, either because they remain relatively illiquid or because we believe that they may appreciate in value. During this holding period, the value of these securities may decline and be especially volatile. If we need funds for investment or working capital purposes, we might need to sell marketable securities at disadvantageous times or prices.

### ***Debt Investments***

We may hold debt securities, including in privately held and thinly traded public companies, for income and as a reserve pending more speculative investments. Debt obligations may include U.S. government and agency securities, commercial paper, bankers' acceptances, receivables or other asset-based financing, notes, bonds, debentures, or other debt obligations of any nature and repurchase agreements related to these securities. These obligations may have varying terms with respect to security or credit support, subordination, purchase price, interest payment and length of time to maturity from private, public or governmental issuers of any type located anywhere in the world. We may invest in debt obligations of companies with operating histories that are unprofitable or marginally profitable, that have negative net worth or are involved in bankruptcy or reorganization proceedings, or that are start-up or development-stage small businesses. In addition, we may participate in the acquisition or divestiture of companies or divisions of companies through issuance or receipt of debt obligations. As of December 31, 2015, the debt obligations held in our portfolio consisted of convertible bridge notes and subordinated secured debt. Our convertible bridge notes generally do not generate cash payments to us, nor are they held for that purpose. Our convertible bridge notes and the interest accrued thereon are generally held for the purpose of potential conversion into equity at a future date.

Our investments in debt obligations may be of varying quality, including non-rated, unsecured and highly speculative debt investments with limited marketability. Investments in lower-rated and non-rated securities, commonly referred to as "junk bonds," including our non-convertible debt investments, are subject to special risks, including a greater risk of loss of principal and non-payment of interest. Generally, lower-rated and non-rated securities offer a higher return potential than higher-rated securities, but involve greater volatility of price and greater risk of loss of income and

principal, including the possibility of default or bankruptcy of the issuers of these securities. Lower-rated securities and comparable non-rated securities will likely have large uncertainties or major risk exposure to adverse economic conditions and are predominantly speculative with respect to the issuer's capacity to pay interest and repay principal in accordance with the terms of the obligation. In addition, issuers of lower-rated securities and comparable non-rated securities are often highly leveraged and may not have more traditional methods of financing available to them; therefore, their ability to service their debt obligations during an economic downturn or during sustained periods of rising interest rates may be impaired. The risk of loss owing to default by these issuers is significantly greater because lower-rated securities and comparable non-rated securities generally are unsecured and frequently are subordinated to the prior payment of senior indebtedness. We may incur additional expenses to the extent that we are required to seek recovery upon a default in the payment of principal or interest on our portfolio holdings. In addition, many of the companies in which we invest have limited cash flows and no income, which may limit our ability to recover in the event of a default.

The markets in which lower-rated securities or comparable non-rated securities are traded generally are more limited than those in which higher-rated securities are traded. The existence of limited markets for these securities may restrict our ability to obtain accurate market quotations for the purposes of valuing lower-rated or non-rated securities and calculating net asset value or to sell securities at their fair value. The market values of lower-rated and non-rated securities also tend to be more sensitive to individual corporate developments and changes in economic conditions than higher-rated securities. The occurrence of adverse conditions and uncertainties to issuers of lower-rated securities would likely reduce the value of lower-rated or non-rated securities held by us, with a commensurate effect on the value of our shares, when applicable.

The market values of investments in debt securities that carry no equity conversion rights usually reflect yields generally available on securities of similar quality and type at the time purchased. When interest rates decline, the market value of a debt portfolio already invested at higher yields can be expected to rise if the securities are protected against early call. Similarly, when interest rates increase, the market value of a debt portfolio already invested at lower yields can be expected to decline. Deterioration in credit quality also generally causes a decline in market value of the security, while an improvement in credit quality generally leads to increased value.

### *Foreign Securities*

We may make investments in securities of issuers whose principal operations are conducted outside the United States, and whose earnings and securities are stated in foreign currency. In order to comply with restrictions owing to our status as a BDC, our investments in non-qualifying assets, including the securities of companies organized outside the United States, would be limited to 30 percent of our assets, because under the 1940 Act, we must generally invest at least 70 percent of our assets in "qualifying assets," which exclude securities of foreign companies.

In comparison with otherwise comparable investments in securities of U.S. issuers, currency exchange risk of securities of foreign issuers is a significant variable. The value of these investments to us will vary with the relation of the currency in which they are denominated to the U.S. dollar, as well as with intrinsic elements of value such as credit risk, interest rates and performance of the issuer. Investments in foreign securities also involve risks relating to economic and political developments, including nationalization, expropriation of assets, currency exchange freezes and local recession. Securities of many foreign issuers are less liquid and more volatile than those of comparable U.S. issuers. Interest and dividend income and capital gains on our foreign securities may be subject to withholding and other taxes that may not be recoverable by us. We may seek to hedge all or part of the currency risk of our investments in foreign securities through the use of futures, options and forward currency purchases or sales.

### *Intellectual Property*

We believe there is a role for organizations that can assist in technology transfer. Scientists and institutions that develop and patent intellectual property perceive the need for and rewards of entrepreneurial commercialization of their inventions.

Our form of investment may be:

- funding research and development in the development of a technology;
- obtaining licensing rights to intellectual property or patents;
- acquiring intellectual property or patents; or
- forming and funding companies or joint ventures to commercialize further intellectual property.

Income from our investments in intellectual property or its development may take the form of participation in licensing or royalty income, fee income, or some other form of remuneration. In order to satisfy RIC requirements, these investments may be held in an entity taxable as a corporation. Investment in developmental intellectual property rights involves a high degree of risk that can result in the loss of our entire investment as well as additional risks, including uncertainties as to the valuation of an investment and potential difficulty in liquidating an investment. Further, investments in intellectual property generally require investor patience, as investment return may be realized only after or over a long period. At some point during the commercialization of a technology, our investment may be transformed into ownership of securities of a small business, as discussed above.

### **Importance of Availability of Liquid Capital**

Private venture capital and private equity funds are structured commonly as limited partnerships with a committed level of capital and finite lifetime. Capital is "called" from limited partners to make investments and pay for expenses of running the firm at various points within the lifetime of the fund. For each initial investment, the fund must reserve additional capital for follow-on investments at later stages of the life of the portfolio companies. These follow-on investments are required because often portfolio companies in areas in which we invest, whether privately held or publicly traded, operate with negative cash flow for lengthy periods of time. In general, the cumulative total of initial invested capital and reserves cannot exceed the committed level of capital of the fund.

Our strategy for investing capital is similar to this approach in some respects. We make initial investments in privately held and publicly traded companies and project the amount of capital that may be required should the company mature successfully. These projections, equivalent to the reserves of private venture capital and private equity funds, are reviewed weekly by management, are updated frequently and are a component of the data that guide our decisions on whether to make new and follow-on investments. As a publicly traded, internally managed investment company, our cash used to make investments and pay expenses is held by us and not called from external sources when needed. Accordingly, it is crucial that we operate the company with a substantial balance of liquid capital for this reason and for four additional reasons.

We manage the company and our investment criteria and pace such that our projected needs for capital to make new and follow-on investments do not exceed the total of our liquid investments. Although we use best efforts to predict 1) when this capital will be required for use in new and follow-on investments, we cannot predict with certainty the timing for these investments. We would be unable to make new or follow-on investments in our portfolio companies without having substantial liquid resources of capital available to us.

We rarely commit the total amount of cumulative capital intended for investment in any portfolio company at one point in time. Instead, our investments consist of multiple rounds of financing of a given portfolio company, in which we typically participate if we believe that the merits of such an investment outweigh the risks. We also commonly have preemptive rights to invest additional capital in our privately held portfolio companies. These rights 2) are useful to protect and potentially increase the value of our positions in our portfolio companies as they mature. Sometimes, the terms of such financings in privately held companies also include penalties for those investors that do not invest in these subsequent rounds of financing. Without available capital at the time of investment, our ownership in the company would be subject to these penalties that can lead to a partial or complete loss of the capital invested prior to that round of financing.

As we focus on maintaining and increasing ownership positions in our best portfolio companies, we will need to 3) make sure to reserve enough capital to fund these companies as we will become less reliant on outside investment in order to maintain these control ownership positions.

We may have the opportunity to increase ownership in late rounds of financing in some of our most mature companies. We may also have the opportunity to purchase controlling ownership in these companies. Having 4) permanent, liquid capital available for investment and access to the capital markets allows us to take advantage of these opportunities as they arise.



## **Borrowing and Margin Transactions**

We may from time to time borrow money or obtain credit by any lawful means from banks, lending institutions, other entities or individuals, in negotiated transactions. We may issue, publicly or privately, bonds, debentures or notes, in series or otherwise, with interest rates and other terms and provisions, including conversion rights, on a secured or unsecured basis, for any purpose, up to the maximum amounts and percentages permitted for BDCs under the 1940 Act. The 1940 Act currently prohibits us from borrowing any money or issuing any other senior securities (including preferred stock but excluding temporary borrowings of up to five percent of our assets), if after giving effect to the borrowing or issuance, the value of our total assets less liabilities not constituting senior securities would be less than 200 percent of our senior securities. We may pledge assets to secure any borrowings. As of December 31, 2015, we had \$5,000,000 in outstanding debt.

On September 30, 2013, the Company entered into a \$20,000,000 Multi-Draw Term Loan Facility Credit Agreement, by and among the Company, as borrower, Orix Corporate Capital, Inc., as administrative agent and the other lenders party thereto from time to time, which provides for a multi-draw credit facility (the "Loan Facility") that may be used by the Company to fund investments in portfolio companies. We have pledged our assets to secure any borrowings. As of December 31, 2015, we had \$5,000,000 in outstanding debt.

We believe the Loan Facility is beneficial for three primary reasons. First, we currently believe our existing portfolio of mid- and late-stage companies will generate meaningful returns in the next two-to-three years. That said, the exact timing of these realizations is uncertain. We currently believe our strong balance sheet of liquid assets (that is, cash and publicly traded securities) combined with this facility will allow us time and capital resources to realize these meaningful returns without materially compromising the rate of deployment of capital into investment opportunities that have the potential to build value for us.

Second, as we have said historically, there are a substantial number of investment opportunities in existing and new portfolio companies that we believe have the potential to build value through increasing our future returns on investment. The Loan Facility expands our financial resources for making such investments without resulting in dilution to our shareholders through the issuance of additional shares of our common stock.

Third, the Loan Facility establishes a relationship between us and Orix Corporate Capital that could be beneficial to our portfolio companies, and thus us, in the future. Many of our portfolio companies secure lines of credit and other forms of access to capital. Orix Corporate Capital has the resources and capability to address many of these needs. We believe the combination of the financial and other resources of each of our firms will be a powerful collaboration that helps to build value in our portfolio companies, and thus value for us.

Borrowings for leverage accentuate any increase or decrease in the market value of our investments and thus our net asset value. Because any decline in the net asset value of our investments will be borne first by holders of common stock, the effect of leverage in a declining market would be a greater decrease in net asset value applicable to the common stock than if we were not leveraged. Any decrease would likely be reflected in a decline in the market price of our common stock. To the extent the income derived from assets acquired with borrowed funds exceeds the interest and other expenses associated with borrowing, our total income will be greater than if borrowings were not used. Conversely, if the income from assets is not sufficient to cover the borrowing costs, our total income will be less than if borrowings were not used. If our current income is not sufficient to meet our borrowing costs (repayment of principal and interest), we might have to liquidate some or all of our investments when it may be disadvantageous to do so. Our borrowings for the purpose of buying most liquid equity securities will be subject to the margin rules, which require excess liquid collateral marked to market daily. If we are unable to post sufficient collateral, we will be required to sell securities to remain in compliance with the margin rules. These sales might be at disadvantageous times or prices.

## **Portfolio Company Turnover**

Changes with respect to portfolio companies will be made as our management considers necessary in seeking to achieve our investment objectives. The rate of portfolio turnover will not be treated as a limiting or relevant factor considered by management when making portfolio changes.

Although we expect that many of our investments will be relatively long term in nature, we may make changes in our particular portfolio holdings whenever it is considered that an investment no longer has substantial growth potential or has reached its anticipated level of performance, or (especially when cash is not otherwise available) that another investment appears to have a relatively greater opportunity for capital appreciation. We may also make general portfolio changes to increase our cash to position us in a defensive posture. We may make portfolio changes without regard to the length of time we have held an investment, or whether a sale results in profit or loss, or whether a purchase results in the reacquisition of an investment that we may have only recently sold. Our investments in privately held small businesses are illiquid, which limits portfolio turnover. The portfolio turnover rate may vary greatly during a year as well as from year to year and may also be affected by cash requirements.

We expect turnover of our investments to be especially low for our our investments in controlled and partner companies as our focus with respect to these investments is to grow the companies and generate value and returns through mechanisms other than solely through the sale of our securities of those companies. We expect that our portfolio company turnover will increase from historical rates as we make more investments in securities that produce near-term cash flows through payments of interest and yield-enhancing fees and that have fixed periods of time for repayment of the original invested capital.

## **Management**

Achievement of our investment objective is primarily dependent upon the judgment of Douglas W. Jamison and Daniel B. Wolfe, full-time members of management who are designated as Managing Directors and members of our deal team. Blake Stevens, Senior Associate, and Alexei Andreev, a part-time employee who is a Venture Partner, are also members of our deal team. The Managing Directors have expertise in investing, company building, finance, credit underwriting, intellectual property and science and technology. There can be no assurance that a suitable replacement could be found for any of our officers upon their retirement, resignation, inability to act on our behalf, or death.



Misti Ushio was a Managing Director as of December 31, 2015, but resigned her position with the Company on February 29, 2016, to pursue her role as Chief Executive Officer of TARA Biosystems, Inc., one of our controlled precision health and precision medicine portfolio companies.

## **Competition**

Numerous companies and individuals are engaged in investing in privately held or small publicly traded businesses and company-building businesses, and such businesses are intensely competitive. We believe our corporate structure permits public market investors to participate in investing in privately held or small publicly traded businesses, company building, specialty finance and in the commercialization of precision health and wellness-related breakthroughs while many of the leading companies are still private. We also believe our corporate structure permits greater liquidity and better transparency than private investment funds and private equity businesses. We believe we are a unique company with our focus on being actively involved investors in the formation and building of companies founded on disruptive science as a liquid, U.S. exchange-listed, publicly traded company.

We believe that we have invested in more science-enabled small businesses than any U.S.-based publicly traded investment firm. We believe we have assembled a team of investment professionals that, in addition to a proven track record of successful investing in such companies and securities, have scientific and intellectual property expertise that is relevant to investing in science-related breakthroughs. Nevertheless, many of our competitors have significantly greater financial and other resources than we do and are, therefore, in certain respects, in a better position than we are to obtain access to attractive investment opportunities. There can be no assurance that we will be able to compete against these businesses for attractive investments, particularly in capital-intensive companies.

## Regulation

The Small Business Investment Incentive Act of 1980 added the provisions of the 1940 Act applicable only to BDCs. BDCs are a special type of investment company. After a company files its election to be treated as a BDC, it may not withdraw its election without first obtaining the approval of holders of a majority of its outstanding voting securities. The following is a brief description of the 1940 Act provisions applicable to BDCs, qualified in its entirety by reference to the full text of the 1940 Act and the rules issued thereunder by the Securities and Exchange Commission ("SEC").

Generally, to be eligible to elect BDC status, a company must primarily engage in the business of furnishing capital and making significant managerial assistance available to companies that do not have ready access to capital through conventional financial channels such as private companies and small public companies. Such companies that satisfy certain additional criteria described below are termed "eligible portfolio companies." In general, in order to qualify as a BDC, a company must: (i) be a domestic company; (ii) have registered a class of its securities pursuant to Section 12 of the Securities Exchange Act of 1934 (the "Exchange Act"); (iii) operate for the purpose of investing in the securities of certain types of portfolio companies, including early-stage or emerging companies and businesses suffering or just recovering from financial distress (see following paragraph); (iv) make available significant managerial assistance to such portfolio companies; and (v) file a proper notice of election with the SEC.

An eligible portfolio company generally is a domestic company that is not an investment company or a company excluded from investment company status pursuant to exclusions for certain types of financial companies (such as brokerage firms, banks, insurance companies and investment banking firms) and that: (i) has a fully diluted market capitalization of less than \$250 million and has a class of equity securities listed on a national securities exchange, (ii) does not have a class of securities listed on a national securities exchange, or (iii) is controlled by the BDC by itself or together with others (control under the 1940 Act is presumed to exist where a person owns at least 25 percent of the outstanding voting securities of the portfolio company) and has a representative on the Board of Directors of such company.

As with other companies regulated by the 1940 Act, a BDC must adhere to certain substantive regulatory requirements. A majority of the directors must be persons who are not interested persons, as that term is defined in the 1940 Act. Additionally, we are required to provide and maintain a bond issued by a reputable fidelity insurance company to protect the BDC. Furthermore, as a BDC, we are prohibited from protecting any director or officer against any liability to us or our shareholders arising from willful malfeasance, bad faith, gross negligence or reckless disregard of the duties involved in the conduct of such person's office. We may be periodically examined by the SEC for compliance with the 1940 Act and Federal securities laws.

The 1940 Act provides that we may not make an investment in non-qualifying assets unless at the time at least 70 percent of the value of our total assets (measured as of the date of our most recently filed financial statements) consists of qualifying assets. Qualifying assets include: (i) securities of eligible portfolio companies; (ii) securities of certain companies that were eligible portfolio companies at the time we initially acquired their securities and in which we retain a substantial interest; (iii) securities of certain controlled companies; (iv) securities of certain bankrupt, insolvent or distressed companies; (v) securities received in exchange for or distributed in or with respect to any of the foregoing; and (vi) cash items, U.S. government and agency securities and high quality short-term debt. The SEC has adopted a rule permitting a BDC to invest its cash in certain money market funds. The 1940 Act also places restrictions on the nature of the transactions in which securities can be purchased in some instances in order for the securities to be considered qualifying assets.

We are permitted by the 1940 Act, under specified conditions, to issue multiple classes of debt and a single class of preferred stock if our asset coverage, as defined in the 1940 Act, is at least 200 percent after the issuance of the debt or the preferred stock (i.e., such senior securities may not be in excess of our net assets). Under specific conditions, we are also permitted by the 1940 Act to issue warrants.

Except under certain conditions, we may sell our securities at a price that is below the prevailing net asset value per share only during the 12-month period after (i) a majority of our directors and our disinterested directors have determined that such sale would be in the best interest of us and our shareholders and (ii) the holders of a majority of our outstanding voting securities and the holders of a majority of our voting securities held by persons who are not affiliated persons of ours approve our ability to make such issuances. A majority of the disinterested directors must determine in good faith that the price of the securities being sold is not less than a price which closely approximates the market value of the securities, less any distribution discount or commission.

Certain transactions involving certain closely related persons of the Company, including its directors, officers and employees, may require the prior approval of the SEC. However, the 1940 Act ordinarily does not restrict transactions between us and our portfolio companies.

We have adopted a code of ethics pursuant to Rule 17j-1 under the 1940 Act that establishes procedures for personal investments and restricts certain personal securities transactions. Personnel subject to the code may invest in securities for their personal investment accounts, including securities that may be purchased or held by us, so long as such investments are made in accordance with the code's requirements.

## **Tax Status**

The following discussion is a general summary of certain material U.S. federal income tax considerations relating to our qualification and taxation as a RIC and the acquisition, ownership and disposition of our preferred stock or common stock, but does not purport to be a complete description of the income tax considerations relating thereto. For example, we have not described tax consequences that we assume to be generally known by investors or certain considerations that may be relevant to certain types of investors subject to special treatment under U.S. federal income tax laws, including tax-exempt organizations, insurance companies, dealers in securities, pension plans and trusts, financial institutions, traders in securities that elect to use the mark-to-market method of accounting for securities holdings, persons subject to the alternative minimum tax, U.S. expatriates, U.S. persons with a functional currency other than the U.S. dollar, persons that hold our preferred stock or common stock as part of an integrated investment (including a "straddle"), "controlled foreign corporations," "passive foreign investment companies," or corporations that accumulate earnings to avoid U.S. federal income tax. This summary is limited to beneficial owners of our



preferred stock or common stock that will hold our preferred stock or common stock as capital assets (within the meaning of the Code). The discussion is based upon the Code, temporary and final U.S. Treasury regulations, and administrative and judicial interpretations, each as of the date hereof and all of which are subject to change, possibly retroactively, which could affect the continuing validity of this discussion. We have not sought and will not seek any ruling from the Internal Revenue Service (the "IRS") regarding our preferred stock or common stock. This summary does not discuss any aspects of U.S. estate or gift tax or foreign, state or local tax. It does not discuss the special treatment under U.S. federal income tax laws that could result if we invested in tax-exempt securities or certain other investment assets.

This summary does not discuss the consequences of an investment in our subscription rights, debt securities or warrants representing rights to purchase shares of our preferred stock, common stock or debt securities or as units comprised of combinations of securities. The U.S. federal income tax consequences of such an investment will be discussed in the relevant prospectus supplement. In addition, we may issue preferred stock with terms resulting in U.S. federal income taxation of beneficial owners with respect to such preferred stock in a manner different from as set forth in this summary. In such instances, such differences will be discussed in a relevant prospectus supplement.

If a partnership (including an entity treated as a partnership for U.S. federal income tax purposes) holds shares of our preferred stock or common stock, the tax treatment of a partner in the partnership will generally depend upon the status of the partner, the activities of the partnership and certain determinations made at the partner level. Investors treated as partnerships for U.S. federal income tax purposes (or investors that are partners in such a partnership) are encouraged to consult with their own tax advisers with respect to the tax consequences relating to the purchase, ownership and disposition of our preferred stock or common stock.

Tax matters are very complicated and the tax consequences to an investor of an investment in our securities will depend on the facts of their particular situation. We encourage investors to consult their own tax advisers regarding the specific consequences of such an investment, including tax reporting requirements, the applicability of federal, state, local and foreign tax laws, eligibility for the benefits of any applicable tax treaty and the effect of any possible changes in tax laws.

#### ***Election to be Taxed as a RIC***

Effective beginning on January 1, 1997, we met the criteria specified below to qualify as a RIC and elected to be treated as a RIC under Subchapter M of the Code with the filing of our federal income tax return for 1997. As a RIC, we generally will not have to pay corporate taxes on any income we distribute to our shareholders as dividends, which allows us to reduce or eliminate our corporate-level U.S. federal income tax.

*Taxation as a RIC*

For any taxable year in which we:

· qualify as a RIC; and

· distribute at least 90 percent of our net ordinary income and realized net short-term gains in excess of realized net long-term capital losses, if any (the "Annual Distribution Requirement").

We generally will not be subject to federal income tax on the portion of our investment company taxable income and net capital gain ( i.e. , net realized long-term capital gains in excess of net realized short-term capital losses) that we distribute (or are deemed to distribute) to shareholders with respect to that year. We made an election to recognize built-in gains as of the effective date of our election to be treated as a RIC and, therefore, will not be subject to built-in gains tax when we sell those assets. However, if we subsequently acquire built-in gain assets from a C corporation in a carryover basis transaction, then we may be subject to tax on the gains recognized by us on dispositions of such assets unless we make a special election to pay corporate-level tax on such built-in gain at the time the assets are acquired. We will be subject to U.S. federal income tax at the regular corporate rates on any income or capital gains not distributed (or deemed distributed) to our shareholders.

In order to qualify as a RIC for federal income tax purposes and obtain the tax benefits of RIC status, in addition to satisfying the Annual Distribution Requirement, we must, among other things:

· have in effect at all times during each taxable year an election to be regulated as a BDC under the 1940 Act;

· derive in each taxable year at least 90 percent of our gross income from (a) dividends, interest, payments with respect to certain securities loans, gains from the sale of stock or other securities, or other income derived with respect to our business of investing in such stock or securities and (b) net income derived from an interest in a "qualified publicly traded partnership" (the "90 Percent Income Test"); and

· diversify our holdings so that at the end of each quarter of the taxable year:

· at least 50 percent of the value of our assets consists of cash, cash equivalents, U.S. government securities, securities of other RICs, and other securities if such other securities of any one issuer do not represent more than 5 percent of

the value of our assets or more than 10 percent of the outstanding voting securities of such issuer; and

no more than 25 percent of the value of our assets is invested in (i) securities (other than U.S. government securities or securities of other RICs) of one issuer, (ii) securities of two or more issuers that are controlled, as determined under applicable tax rules, by us and that are engaged in the same or similar or related trades or businesses or (iii) securities of one or more "qualified publicly traded partnerships" (the "Diversification Tests").

As noted above, in order to qualify as a RIC, we must satisfy the Diversification Tests each quarter. Because of the specialized nature of our investment portfolio, in some years we have been able to satisfy the diversification requirements under Subchapter M of the Code primarily as a result of receiving certification from the SEC under the Code with respect to each taxable year beginning after 1998 that we were "principally engaged in the furnishing of capital to other corporations which are principally engaged in the development or exploitation of inventions, technological improvements, new processes, or products not previously generally available" for such year.

Although we received SEC certifications for 1999 to 2014, there can be no assurance that we will receive such certification for subsequent years (to the extent we need additional certifications as a result of changes in our portfolio). We intend to apply for certification for 2015. If we require, but fail to obtain, the SEC certification for a taxable year, we may fail to qualify as a RIC for such year. We also will fail to qualify for favorable RIC tax treatment for a taxable year if we do not satisfy the 90 Percent Income Test or Annual Distribution Requirement for such year. In the event we do not satisfy the 90 Percent Income Test, the Diversification Tests and the Annual Distribution Requirement for any taxable year, we will be subject to federal tax with respect to all of our taxable income, whether or not distributed. In addition, all our distributions to shareholders in that situation generally will be taxable as ordinary dividends.

Although we currently intend to qualify as a RIC for each taxable year, under certain circumstances we may choose to take action with respect to one or more taxable years to ensure that we would be taxed under Subchapter C of the Code (rather than Subchapter M) for such year or years. Additionally, income from fees and consulting payments generally does not qualify as good RIC income under the 90 Percent Income Test. As we generate more income from such payments, it is possible that we may fail to qualify as a RIC for a taxable year owing to an inability to satisfy the 90 Percent Income Test. While we believe this income will be greater in 2016 than in past years, we expect that we will satisfy the 90 Percent Income Test in 2016, allowing us to qualify as a RIC for such year. Furthermore, our ownership percentages in our portfolio have grown over the last several years, which make it more difficult to pass certain RIC diversification tests when companies in our portfolio are successful and we want to invest more capital in those companies to increase our investment returns. As long as the aggregate values of our non-qualifying assets remain below 50 percent of total assets, we will continue to qualify as a RIC. Rather than selling portfolio companies that are performing well in order to pass our RIC diversification tests, we may opt instead not to qualify as a RIC. We will choose to take such action only if we believe that the result of the action will benefit us and our shareholders.

Under applicable Treasury regulations and certain private rulings issued by the Internal Revenue Service, RICs are permitted to treat certain distributions payable in up to 80 percent in their stock, as taxable dividends that will satisfy their annual distribution obligations for federal income tax and excise tax purposes provided that shareholders have the opportunity to elect to receive the distribution in cash. Taxable shareholders receiving such dividends will be required to include the full amount of the dividend as ordinary income (or as long-term capital gain to the extent such distribution is properly designated as a capital gain dividend) to the extent of our current and accumulated earnings and profits for U.S. federal income tax purposes. As a result, a U.S. shareholder may be required to pay tax with respect to such dividends in excess of any cash received. If a U.S. shareholder sells the stock it receives as a dividend in order to pay this tax, the sales proceeds may be less than the amount included in income with respect to the dividend, depending on the market price of our stock at the time of the sale. Furthermore, with respect to non-U.S.

shareholders, we may be required to withhold U.S. tax with respect to such dividends, including in respect of all or a portion of such dividend that is payable in stock. In addition, if a significant number of our shareholders determine to sell shares of our stock in order to pay taxes owed on dividends, then such sales may put downward pressure on the trading price of our stock. We may in the future determine to distribute taxable dividends that are payable in part in our common stock.

As a RIC, we will be subject to a 4 percent non-deductible federal excise tax on certain undistributed income unless we distribute in a timely manner an amount at least equal to the sum of (1) 98 percent of our ordinary income for each calendar year, (2) 98.2 percent of our capital gain net income for the one-year period ending October 31 in that calendar year and (3) any income recognized, but not distributed, in preceding years and on which we paid no federal income tax (the "Excise Tax Avoidance Requirement"). We will not be subject to excise taxes on amounts on which we are required to pay corporate income tax (such as retained net capital gains). Depending on the level of taxable income earned in a tax year, we may choose to carry over taxable income in excess of current year distributions from such taxable income into the next tax year and pay a 4 percent excise tax on such income, as required. The maximum amount of excess taxable income that may be carried over for distribution in the next year under the Code is the total amount of dividends paid in the following year, subject to certain declaration and payment guidelines. To the extent we choose to carry over taxable income into the next tax year, dividends declared and paid by us in a year may differ from taxable income for that year as such dividends may include the distribution of current year taxable income, the distribution of prior year taxable income carried over into and distributed in the current year, or returns of capital.

We may be required to recognize taxable income in circumstances in which we do not receive a corresponding payment in cash. For example, if we hold debt obligations that are treated under applicable tax rules as having original issue discount (such as debt instruments with payment-in-kind interest or, in certain cases, increasing interest rates or debt instruments that were issued with warrants), we must include in income each year a portion of the original issue discount that accrues over the life of the obligation, regardless of whether cash representing such income is received by us in the same taxable year. Because any original issue discount accrued will be included in our investment company taxable income for the year of accrual, we may be required to make a distribution to our shareholders in order to satisfy the Annual Distribution Requirement and the Excise Tax Avoidance Requirement, even though we will not have received any corresponding cash amount.

Gain or loss realized by us from the sale or exchange of warrants acquired by us as well as any loss attributable to the lapse of such warrants generally will be treated as a capital gain or loss. Such gain or loss generally will be long-term or short-term, depending on how long we held a particular warrant.

We are authorized to borrow funds and to sell assets in order to satisfy the Annual Distribution Requirement and the Excise Tax Avoidance Requirement (collectively, the "Distribution Requirements"). However, under the 1940 Act, we are not permitted to make distributions to our shareholders while our debt obligations and other senior securities are outstanding unless certain "asset coverage" tests are met. We may be restricted from making distributions under the terms of our debt obligations themselves unless certain conditions are satisfied. Moreover, our ability to dispose of assets to meet the Distribution Requirements may be limited by (1) the illiquid nature of our portfolio, or (2) other requirements relating to our status as a RIC, including the Diversification Tests. If we dispose of assets in order to meet the Distribution Requirements, we may make such dispositions at times that, from an investment standpoint, are not advantageous. If we are prohibited from making distributions or are unable to obtain cash from other sources to make the distributions, we may fail to qualify as a RIC, which would result in us becoming subject to corporate-level federal income tax.





Any transactions in options, futures contracts, constructive sales, hedging, straddle, conversion or similar transactions, and forward contracts will be subject to special tax rules, the effect of which may be to accelerate income to us, defer losses, cause adjustments to the holding periods of our investments, convert long-term capital gains into short-term capital gains, convert short-term capital losses into long-term capital losses or have other tax consequences. These rules could affect the amount, timing and character of distributions to shareholders. We do not currently intend to engage in these types of transactions.

Although we have not done so historically, if we invest in certain real estate investment trusts or residual interests of real estate mortgage investment conduits, a portion of our income may be classified as "excess inclusion income." Investors that are not otherwise subject to tax may be taxable on their share of any such excess inclusion income as unrelated business taxable income ("UBTI"). In addition, tax may be imposed on us on the portion of any excess inclusion income allocable to any investors that are classified as disqualified organizations.

A RIC is limited in its ability to deduct expenses in excess of its "investment company taxable income" (which is, generally, ordinary income plus net realized short-term capital gains in excess of net realized long-term capital losses). If our expenses in a given year exceed gross taxable income (e.g., as the result of large amounts of equity-based compensation), we would experience a net operating loss for that year. However, a RIC is not permitted to carry forward net operating losses to subsequent years and such net operating losses do not pass through to the RIC's shareholders. In addition, expenses can be used only to offset investment company taxable income, not net capital gain. A RIC may not use any net capital losses (that is, realized capital losses in excess of realized capital gains) to offset the RIC's investment company taxable income, but may carry forward such losses, and can use certain of them to offset capital gains indefinitely. Losses incurred prior to the Regulated Investment Company Modernization Act of 2010 carry an expiration date and must be used prior to post-enactment losses. As a result of this ordering rule, pre-enactment loss carryforwards may be more likely to expire unused. Owing to these limits on the deductibility of expenses and net capital losses, we may for tax purposes have aggregate taxable income for several years that we are required to distribute and that is taxable to our shareholders even if such income is greater than the aggregate net income we actually earned during those years. Such required distributions may be made from our cash assets or by liquidation of investments, if necessary. We may realize gains or losses from such liquidations. In the event we realize net capital gains from such transactions, you may receive a larger capital gain distribution than you would have received in the absence of such transactions.

Investment income received from sources within foreign countries, or capital gains earned by investing in securities of foreign issuers, may be subject to foreign income taxes withheld at the source. In this regard, withholding tax rates in countries with which the United States does not have a tax treaty are often as high as 35 percent or more. The United States has entered into tax treaties with many foreign countries that may entitle us to a reduced rate of tax or exemption from tax on this related income and gains. The effective rate of foreign tax cannot be determined at this time since the amount of our assets to be invested within various countries is not presently known. We do not anticipate being eligible for the special election that allows a RIC to treat foreign income taxes paid by such RIC as paid by its shareholders.



If we acquire stock in certain foreign corporations that receive at least 75 percent of their annual gross income from passive sources (such as interest, dividends, rents, royalties or capital gain) or hold at least 50 percent of their total assets in investments producing such passive income ("passive foreign investment companies"). We could be subject to federal income tax and additional interest charges on "excess distributions" received from such companies or gain from the sale of stock in such companies, even if all income or gain actually received by us is timely distributed to our shareholders. We would not be able to pass through to our shareholders any credit or deduction for such a tax. Certain elections may, if available, ameliorate these adverse tax consequences, but any such election requires us to recognize taxable income or gain without the concurrent receipt of cash. We intend to limit and/or manage our holdings in passive foreign investment companies to minimize our tax liability. Foreign exchange gains and losses realized by us in connection with certain transactions involving non-dollar debt securities, certain foreign currency futures contracts, foreign currency option contracts, foreign currency forward contracts, foreign currencies, or payables or receivables denominated in a foreign currency are subject to Code provisions that generally treat such gains and losses as ordinary income and losses and may affect the amount, timing and character of distributions to our shareholders. Any such transactions that are not directly related to our investment in securities (possibly including speculative currency positions or currency derivatives not used for hedging purposes) could, under future Treasury regulations, produce income not among the types of "qualifying income" from which a RIC must derive at least 90 percent of its annual gross income.

### *Taxation of U.S. Shareholders*

A "U.S. shareholder" generally is a beneficial owner of shares of our preferred stock or common stock who is for U.S. federal income tax purposes:

a citizen or individual resident of the United States including an alien individual who is a lawful permanent resident of the United States or meets the "substantial presence" test under Section 7701(b) of the Code;

a corporation or other entity taxable as a corporation, for U.S. federal income tax purposes, created or organized in or under the laws of the United States or any political subdivision thereof;

a trust if (1) a court in the United States has primary supervision over its administration and one or more U.S. persons has the authority to control all substantial decisions of such trust or (2) if such trust validly elects to be treated as a U.S. person for federal income tax purposes; or

an estate, the income of which is subject to U.S. federal income taxation regardless of its source.



For federal income tax purposes, distributions by us generally are taxable to U.S. shareholders as ordinary income or capital gains. Distributions of our "investment company taxable income" (which is, generally, our ordinary income plus net realized short-term capital gains in excess of net realized long-term capital losses) will be taxable as ordinary income to U.S. shareholders to the extent of our current or accumulated earnings and profits, whether paid in cash or reinvested in additional preferred stock or common stock. To the extent such distributions paid to non-corporate U.S. shareholders (including individuals) are attributable to dividends from U.S. corporations and certain qualified foreign corporations, such distributions may be reported by us as "qualified dividend income" eligible to be taxed in the hands of non-corporate shareholders at the rates applicable to long-term capital gains, provided certain holding period and other requirements are met at both the shareholder and company levels. In this regard, it is anticipated that distributions paid by us generally will not be attributable to dividends and, therefore, generally will not be qualified dividend income. Distributions of our net capital gains (which is generally our realized net long-term capital gains in excess of realized net short-term capital losses) properly reported by us as "capital gain dividends" will be taxable to a U.S. shareholder as long-term capital gains (currently at a maximum rate of 20 percent, in the case of individuals, trusts or estates), regardless of the U.S. shareholder's holding period for his, her or its preferred stock or common stock and regardless of whether paid in cash or reinvested in additional preferred stock or common stock. Distributions in excess of our current and accumulated earnings and profits first will reduce a U.S. shareholder's adjusted tax basis in such shareholder's preferred stock or common stock and, after the adjusted basis is reduced to zero, will constitute capital gains to such U.S. shareholder.

We currently intend to retain some or all of our realized net long-term capital gains in excess of realized net short-term capital losses, but to designate the retained net capital gain as a "deemed distribution." In that case, among other consequences, we will pay tax on the retained amount, each U.S. shareholder will be required to include his, her or its share of the deemed distribution in income as if it had been actually distributed to the U.S. shareholder, and the U.S. shareholder will be entitled to claim a tax credit equal to his, her or its allocable share of the tax paid thereon by us. Since we expect to pay tax on any retained net capital gains at our regular corporate tax rate, and since that rate is in excess of the maximum rate currently payable by non-corporate shareholders on long-term capital gains, the amount of tax that non-corporate shareholders will be treated as having paid and for which they will receive a credit will exceed the tax they owe on the retained net capital gain. Such excess generally may be claimed as a credit against the U.S. shareholder's other federal income tax obligations or may be refunded to the extent it exceeds a shareholder's liability for federal income tax. A shareholder that is not subject to federal income tax or otherwise required to file a federal income tax return would be required to file a federal income tax return on the appropriate form in order to claim a refund for the taxes we paid. For federal income tax purposes, the tax basis of shares owned by a U.S. shareholder will be increased by an amount equal under current law to the difference between the amount of undistributed capital gains included in the U.S. shareholder's gross income and the tax deemed paid by the U.S. shareholder as described in this paragraph. In order to utilize the deemed distribution approach, we must provide written notice to our shareholders prior to the expiration of 60 days after the close of the relevant taxable year. We cannot treat any of our investment company taxable income as a "deemed distribution."

For purposes of determining (1) whether the Annual Distribution Requirement is satisfied for any year and (2) the amount of the deduction for ordinary income and capital gain dividends paid for that year, we may, under certain circumstances, elect to treat a dividend that is paid during the following taxable year as if it had been paid during the taxable year in question. If we make such an election, the U.S. shareholder will still be treated as receiving the dividend in the taxable year in which the distribution is made. However, any dividend declared by us in October, November or December of any calendar year, payable to shareholders of record on a specified date in such a month and actually paid during January of the following year, will be treated as if it had been received by our U.S. shareholders on December 31 of the year in which the dividend was declared.

If an investor purchases shares of our preferred stock or common stock shortly before the record date of a distribution, the price of the shares will include the value of the distribution and the investor will be subject to tax on the distribution even though economically it may represent a return of his, her or its investment.

A U.S. shareholder generally will recognize a taxable gain or loss if the U.S. shareholder sells or otherwise disposes of his, her or its shares of our preferred stock or common stock. Any gain arising from such sale or disposition generally will be treated as a long-term capital gain or loss if the U.S. shareholder has held his, her or its shares for more than one year. Otherwise, it will be classified as a short-term capital gain or loss. However, any capital loss arising from the sale or disposition of shares of our preferred stock or common stock held for six months or less will be treated as a long-term capital loss to the extent of the amount of capital gain dividends received, or undistributed capital gain deemed received, with respect to such shares. In addition, all or a portion of any loss recognized upon a disposition of shares of our preferred stock or common stock may be disallowed if other shares of our common stock are purchased (whether through reinvestment of distributions or otherwise) within 30 days before or after the disposition. In such a case, the basis of the newly purchased shares will be adjusted to reflect the disallowed loss.

In general, individual U.S. shareholders currently are subject to a reduced maximum federal income tax rate of 20 percent on their net capital gain (i.e., the excess of realized net long-term capital gain over realized net short-term capital loss for a taxable year) including any long-term capital gain derived from an investment in our shares. Such rate is lower than the maximum rate on ordinary income currently payable by individuals. In addition, individuals with income in excess of \$200,000 (\$250,000 in the case of married individuals filing jointly) and certain estates and trusts are subject to an additional 3.8 percent tax on their "net investment income," which generally includes net income from interest, dividends, annuities, royalties, and rents, and net capital gains (other than certain amounts earned from trades or businesses). Corporate U.S. shareholders currently are subject to federal income tax on net capital gain at the maximum 35 percent rate also applied to ordinary income. Non-corporate U.S. shareholders with net capital losses for a year (i.e., capital losses in excess of capital gains) generally may deduct up to \$3,000 of such losses against their ordinary income each year; any net capital losses of a non-corporate shareholder in excess of \$3,000 generally may be carried forward and used in subsequent years as provided in the Code. Corporate U.S. shareholders generally may not deduct any net capital losses for a year, but may carry back such losses for three years or carry forward such losses for five years.



We (or the applicable withholding agent) will send to each of our U.S. shareholders, as promptly as possible after the end of each calendar year, a notice reporting the amounts includible in such U.S. shareholder's taxable income for such year as ordinary income and as long-term capital gain. In addition, the federal tax status of each year's distributions generally will be reported to the Internal Revenue Service (including the amount of dividends, if any, eligible for the 20 percent "qualified dividend income" rate). Distributions may also be subject to additional state, local, and foreign taxes depending on a U.S. shareholder's particular situation. Dividends distributed by us generally will not be eligible for the corporate dividends received deduction or the preferential rate applicable to "qualified dividend income."

In some taxable years, we may be subject to the alternative minimum tax ("AMT"). If we have tax items that are treated differently for AMT purposes than for regular tax purposes, we may apportion those items between us and our shareholders, and this may affect our shareholder's AMT liabilities. Although regulations explaining the precise method of apportionment have not yet been issued by the IRS, we may apportion these items in the same proportion that dividends paid to each shareholder bear to our taxable income (determined without regard to the dividends paid deduction), unless we determine that a different method for a particular item is warranted under the circumstances. You should consult your own tax adviser to determine how an investment in our stock could affect your AMT liability.

We may be required to withhold federal income tax ("backup withholding") from all distributions to any non-corporate U.S. shareholder (1) who fails to furnish us with a correct taxpayer identification number or a certificate that such shareholder is exempt from backup withholding, or (2) with respect to whom the IRS notifies us that such shareholder has failed to properly report certain interest and dividend income to the IRS and to respond to notices to that effect. An individual's taxpayer identification number is his or her social security number. Any amount withheld under backup withholding is allowed as a credit against the U.S. shareholder's federal income tax liability, provided that proper information is timely provided to the IRS.

Generally, an exempt organization is exempt from U.S. federal income tax on its passive investment income, such as dividends, interest and capital gains. This general exemption from tax does not apply to the UBTI of an exempt organization. Generally, income and gain derived by an exempt organization from the ownership and sale of debt-financed property is UBTI and, thus, taxable in the proportion to which such property is financed by "acquisition indebtedness" during the relevant period of time. Tax-exempt U.S. investors will not incur UBTI as a result of our leveraged investment activities, although a tax-exempt investor may incur UBTI on dividend income paid by us and generally on any gain realized on the sale of shares of our common stock, if it borrows to acquire such shares. Tax-exempt U.S. investors may be subject to UBTI on excess inclusion income allocated to such investors as a result of an investment by us (if any) in certain certain real estate investment trusts or residual interests of real estate mortgage investment conduits. Tax-exempt U.S. persons are urged to consult their own tax advisors concerning the U.S. federal tax consequences of an investment in our shares.



### *Taxation of Non-U.S. Shareholders*

A "Non-U.S. shareholder" is a beneficial owner of shares of our preferred stock or common stock that is not a U.S. shareholder or a partnership (including an entity treated as a partnership) for U.S. federal income tax purposes.

Whether an investment in our shares is appropriate for a Non-U.S. shareholder will depend upon that person's particular circumstances. An investment in the shares by a Non-U.S. shareholder may have adverse tax consequences. Non-U.S. shareholders should consult their tax advisers before investing in our preferred stock or common stock.

In general, dividend distributions (other than certain distributions derived from net long-term capital gains) paid by us to a Non-U.S. shareholder are subject to withholding of U.S. federal income tax at a rate of 30 percent (or lower applicable treaty rate) even if they are funded by income or gains (such as portfolio interest, short-term capital gains, or foreign-source dividend and interest income) that, if paid to a Non-U.S. shareholder directly, would not be subject to withholding. If the distributions are effectively connected with a U.S. trade or business of the Non-U.S. shareholder (and, if an income tax treaty applies, attributable to a permanent establishment maintained by the Non-U.S. shareholder in the United States), we will not be required to withhold federal income tax if the Non-U.S. shareholder complies with applicable certification and disclosure requirements, although the distributions will be subject to federal income tax at the rates applicable to U.S. shareholders. (Special certification requirements apply to a Non-U.S. shareholder that is a foreign partnership or a foreign trust, and such entities are urged to consult their own tax advisers.)

However, no withholding is required with respect to certain distributions if (i) the distributions are properly reported as "interest-related dividends" or "short-term capital gain dividends" in written statements to our shareholders, (ii) the distributions are derived from sources specified in the Code for such dividends and (iii) certain other requirements are satisfied. Currently, we do not anticipate that any significant amount of our distributions would be reported as eligible for this exemption from withholding.

Actual or deemed distributions of our net capital gains to a Non-U.S. shareholder, and gains realized by a Non-U.S. shareholder upon the sale of our preferred stock or common stock, will not be subject to federal withholding tax and generally will not be subject to federal income tax unless the distributions or gains, as the case may be, are effectively connected with a U.S. trade or business of the Non-U.S. shareholder (and, if an income tax treaty applies, are attributable to a permanent establishment maintained by the Non-U.S. shareholder in the United States), or in the case of an individual shareholder, the shareholder is present in the United States for a period or periods aggregating 183 days or more during the year of the sale or capital gain dividend and certain other conditions are met.

If we distribute our net capital gains in the form of deemed rather than actual distributions, a Non-U.S. shareholder will be entitled to a federal income tax credit or tax refund equal to the shareholder's allocable share of the tax we pay on the capital gains deemed to have been distributed. In order to obtain the refund, the Non-U.S. shareholder must obtain a U.S. taxpayer identification number and file a federal income tax return even if the Non-U.S. shareholder would not otherwise be required to obtain a U.S. taxpayer identification number or file a federal income tax return. For a corporate Non-U.S. shareholder, distributions (both actual and deemed), and gains realized upon the sale of our preferred stock or common stock that are effectively connected to a U.S. trade or business may, under certain circumstances, be subject to an additional "branch profits tax" at a 30 percent rate (or at a lower rate if provided for by an applicable treaty). Accordingly, investment in the shares may not be appropriate for a Non-U.S. shareholder.

A Non-U.S. shareholder who is a non-resident alien individual, and who is otherwise subject to withholding of federal income tax, may be subject to information reporting and backup withholding of federal income tax on dividends unless the Non-U.S. shareholder provides us or the dividend paying agent with an IRS Form W-8BEN or IRS Form W-8BEN-E (or an acceptable substitute or successor form) or otherwise meets documentary evidence requirements for establishing that it is a Non-U.S. shareholder or otherwise establishes an exemption from backup withholding.

Legislation commonly referred to as the "Foreign Account Tax Compliance Act," or "FATCA," generally imposes a 30 percent withholding tax on payments of certain types of income to foreign financial institutions that fail to enter into an agreement with the U.S. Treasury to report certain required information with respect to accounts held by U.S. persons (or held by foreign entities that have U.S. persons as substantial owners). The types of income subject to the tax include U.S. source interest and dividends, and the gross proceeds from the sale of any property that could produce U.S. source interest or dividends paid after December 31, 2016. The information required to be reported includes the identity and taxpayer identification number of each account holder that is a U.S. person and transaction activity within the holder's account. In addition, subject to certain exceptions, this legislation also imposes a 30 percent withholding on payments to foreign entities that are not financial institutions unless the foreign entity certifies that it does not have a greater than 10 percent U.S. owner or provides the withholding agent with identifying information on each greater than 10 percent U.S. owner. Depending on the status of Non-U.S. holders and the status of the intermediaries through which they hold their shares, Non-U.S. holders could be subject to this 30 percent withholding tax with respect to distributions on their shares and proceeds from the sale of their shares. Under certain circumstances, a Non-U.S. holder might be eligible for refunds or credits of such taxes.

Non-U.S. persons should consult their own tax advisers with respect to the U.S. federal income tax and withholding tax, and state, local and foreign tax consequences of an investment in the shares.

#### ***Failure to Qualify as a Regulated Investment Company***

If we fail to satisfy the 90 percent Income Test or the Diversification Tests for any taxable year, we may nevertheless continue to qualify as a RIC for such year if certain relief provisions are applicable (which may, among other things, require us to pay certain corporate-level federal taxes or to dispose of certain assets).

If we were unable to qualify for treatment as a RIC and the foregoing relief provisions are not applicable, we would be subject to tax on all of our taxable income at regular corporate rates. We would not be able to deduct distributions to shareholders, nor would they be required to be made. Such distributions would be taxable to our shareholders and provided certain holding period and other requirements were met, could qualify for treatment as "qualified dividend income" eligible for the 20 percent maximum rate to the extent of our current and accumulated earnings and profits. Subject to certain limitations under the Code, corporate distributions would be eligible for the dividends-received deduction. Distributions in excess of our current and accumulated earnings and profits would be treated first as a

return of capital to the extent of the shareholder's tax basis, and any remaining distributions would be treated as a capital gain. To requalify as a RIC in a subsequent taxable year, we would be required to satisfy the RIC qualification requirements for that year and dispose of any earnings and profits from any year in which we failed to qualify as a RIC. Subject to a limited exception applicable to RICs that qualified as such under Subchapter M of the Code for at least one year prior to disqualification and that requalify as a RIC no later than the second year following the non-qualifying year, we could be subject to tax on any unrealized net built-in gains in the assets held by us during the period in which we failed to qualify as a RIC that are recognized within the subsequent five years, unless we made a special election to pay corporate-level tax on such built-in gain at the time of our requalification as a RIC.

## **Subsidiaries**

H&H Ventures Management, Inc.<sup>SM</sup> ("Ventures"), formerly Harris & Harris Enterprises, Inc.<sup>SM</sup>, is a 100 percent wholly owned subsidiary of the Company and is consolidated in our financial statements. Ventures is a partner in Harris Partners I, L.P.<sup>SM</sup>, and is taxed as a C Corporation. Harris Partners I, L.P., is a limited partnership and has historically owned our interests in partnership investments. The partners of Harris Partners I, L.P., are Ventures (sole general partner) and the Company (sole limited partner). Ventures, as the sole general partner, consolidates Harris Partners I, L.P.

## **Available Information**

Additional information about us, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, are available as soon as reasonably practicable free of charge on our website at [www.HHVC.com](http://www.HHVC.com). Information contained on our website is not incorporated by reference into this Annual Report on Form 10-K, and you should not consider that information to be part of this Annual Report on Form 10-K.

You may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. You may obtain information regarding the Public Reference Room by calling the SEC at 1-800-SEC-0330.

## **Employees**

As of December 31, 2015, we employed nine full-time employees and one part-time employee. As of March 1, 2016, we have seven full-time employees and one part-time employee. We believe our relations with our employees are generally good.

**Item 1A. Risk Factors.**

Investing in our common stock involves significant risks relating to our business and investment objectives. You should carefully consider the risks and uncertainties described below before you purchase any shares of our common stock. These risks and uncertainties are not the only ones we face. Unknown additional risks and uncertainties, or ones that we currently consider immaterial, may also impair our business. If any of these risks or uncertainties materialize, our business, financial condition or results of operations could be materially adversely affected. In this event, the trading price of our common stock could decline, and you could lose all or part of your investment.

*Risks related to our investments.*

**Approximately 56.1 percent of the net asset value attributable to our equity-focused investment portfolio, or 46.6 percent of our net asset value, as of December 31, 2015, is concentrated in Adesto Technologies Corporation, Metabolon, Inc., HZO, Inc., and D-Wave Systems, Inc.**

At December 31, 2015, we valued our investment in Adesto, which had a historical cost to us of \$11,482,417, at \$13,645,682, our investment in Metabolon, which had a historical cost to us of \$7,231,212, at \$13,621,844, our investment in HZO, which had a historical cost to us of \$8,876,508, at \$7,126,786, and our investment in D-Wave, which had a historical cost to us of \$5,689,311, at \$6,931,138, which collectively represent 56.1 percent of the net asset value attributable to our equity-focused investment portfolio, excluding our rights to potential future milestone payments, or 46.6 percent of our net asset value.

Any downturn in the business outlook and/or substantial changes in the funding requirements of Metabolon, Adesto, HZO or D-Wave could have a significant effect on the value of our current investments in those companies, and the overall value of our portfolio, and could have a significant adverse effect on the value of our common stock.

**The difficult venture capital investment and capital market climates for the types of companies in which we invest could increase the non-performance risk for our portfolio companies.**

The potential for future global instabilities remains of concern. Even with signs of economic improvement, the availability of capital for firms that focus on investing in capital-intensive, science-enabled, small businesses, such as the ones in which we invest, continues to be limited. Historically, difficult financing environments have resulted in a higher than normal number of small businesses not receiving capital and being subsequently closed down with a loss

to investors, and other small businesses receiving capital but at significantly lower valuations than the preceding financing rounds. Additionally, tightening the liquidity environment for companies seeking financings, sales, IPOs or M&A transactions and the currently volatile public markets in general may negatively affect the available capital to the types of companies we invest in. Further, many of our portfolio companies receive non-dilutive funding through government contracts and grants. Reductions in government spending could have a direct and significant reduction in our portfolio companies' contract or grant awards. Such reductions can also result in reduced budgets at research facilities, which would reduce the volume of products they could potentially purchase from our portfolio companies.

We believe that these factors continue to contribute to the potential for non-performance risk for our portfolio companies that need to raise additional capital or that require substantial amounts of capital to execute on their business plans, as measured on an individual portfolio company basis. We define non-performance as the risk that the price per share (or implied valuation of a portfolio company) or the effective yield of a debt security of a portfolio company, as applicable, does not appropriately represent the risk that a portfolio company that requires or seeks to raise additional capital will be: (a) unable to raise capital, will need to be shut down and will not return our invested capital; or (b) able to raise capital, but at a valuation significantly lower than the implied post-money valuation of the most recent round of financing. In these circumstances, the portfolio company could be recapitalized at a valuation significantly lower than the post-money valuation implied by our valuation method, sold at a loss to our investment or shut down. In addition, significant changes in the capital markets, including periods of extreme volatility and disruption, have had, and may in the future have, a negative effect on the valuations of our investments and on the potential for liquidity events involving our investments. We believe further that the long-term effects of the difficult venture capital investment and difficult, but improving, liquidity environments will continue to affect negatively the fundraising ability of some small businesses regardless of near-term improvements in the overall global economy and public markets.

**Changes in valuations of early-stage small businesses tend to be more volatile than changes in prices of established, more mature securities.**

Investments in early- and mid-stage small businesses may be inherently more volatile than investments in more mature businesses. Such immature businesses are inherently fragile and easily affected by both internal and external forces. Our investee companies can lose much or all of their value suddenly in response to an internal or external adverse event. Conversely, these immature small businesses can gain suddenly in value in response to an internal or external positive development. Moreover, because of the lack of daily pricing mechanisms of our privately held companies, our ownership interests in such investments are generally valued only at quarterly intervals by our Valuation Committee. Thus, changes in valuations from one valuation point to another may be larger than changes in valuations of marketable securities that are revalued in the marketplace much more frequently, in some highly liquid cases, virtually continuously. Although we carefully monitor each of our portfolio companies, information pertinent to our portfolio companies is not always known immediately by us, and, therefore, its availability for use in determining value may not always coincide with the timeframe of our valuations required by the Federal securities laws.

As of December 31, 2015, our shares of Adesto Technologies Corporation and OpGen, Inc., and a portion of our shares of Enumeral Biomedical Holdings, Inc., which trade on an OTC exchange, were valued using the closing price at the end of the quarter as required by the 1940 Act owing to our determination that the common stock of these companies traded in an active market as of the valuation date. If in future quarters, shares of Adesto Technologies, OpGen and Enumeral Biomedical do not continue to trade in an active market as of the dates of valuation, the value of our shares could be materially different.



Additionally, we may price or invest in rounds at lower valuations than prior rounds of financing and/or previously reported valuations in order to receive more favorable terms, such as increased ownership percentages or liquidation preferences, which may result in decreased valuations in the interim. These decreases could be material.

**The capital markets may experience periods of disruption and instability. Such market conditions may materially and adversely affect debt and equity capital markets in the United States, which may have a negative impact on our business and operations.**

From time to time, capital markets may experience periods of disruption and instability. For example, between 2008 and 2009, the global capital markets were unstable as evidenced by periodic disruptions in liquidity in the debt capital markets, significant write-offs in the financial services sector, the re-pricing of credit risk in the broadly syndicated credit market and the failure of major financial institutions. Despite actions of the U.S. federal government and foreign governments, these events contributed to declining general economic conditions that materially and adversely impacted the broader financial and credit markets and reduced the availability of debt and equity capital for the market as a whole and financial services firms in particular. While market conditions have experienced relative stability in recent years, there have been continuing periods of volatility, and there can be no assurance that adverse market conditions will not reoccur in the future.

Equity capital may be difficult to raise during periods of adverse or volatile market conditions because, subject to some limited exceptions, as a BDC, we are generally not able to issue additional shares of our common stock at a price below our net asset value without first obtaining approval for such issuance from our stockholders and our independent directors.

Significant changes or volatility in the capital markets may also have a negative effect on the valuations of our investments. While most of our investments are not publicly traded, applicable accounting standards require us to assume as part of our valuation process that our investments are sold in a principal market to market participants. Significant changes in the capital markets may also affect the pace of our investment activity and the potential for liquidity events involving our investments. Thus, the illiquidity of our investments may make it difficult for us to sell such investments, and, as a result, we could realize significantly less than the amount at which we have valued our investments if we were required to sell them for liquidity purposes. An inability to raise or access capital could have a material adverse effect on our business, financial condition or results of operations.

**Uncertainty about the financial stability of the United States and of several countries in the European Union (EU) could have a significant adverse effect on our business, financial condition and results of operations.**

Owing to federal budget deficit concerns, S&P downgraded the federal government's credit rating from AAA to AA+ for the first time in history on August 5, 2011. Further, Moody's and Fitch had warned that they may downgrade the federal government's credit rating. Further downgrades or warnings by S&P or other rating agencies, and the U.S. government's credit and deficit concerns in general, could cause interest rates and borrowing costs to rise, which may negatively impact both the perception of credit risk associated with our debt portfolio and our ability to access the debt markets on favorable terms. In addition, a decreased U.S. government credit rating could create broader financial turmoil and uncertainty, which may weigh heavily on our financial performance and the value of our common stock.

In 2010, a financial crisis emerged in Europe, triggered by high budget deficits and rising direct and contingent sovereign debt in Greece, Ireland, Italy, Portugal and Spain, which created concerns about the ability of these nations to continue to service their sovereign debt obligations. While the financial stability of such countries has improved significantly, risks resulting from any future debt crisis in Europe or any similar crisis could have a detrimental impact on the global economic recovery, sovereign and non-sovereign debt in these countries and the financial condition of European financial institutions. Market and economic disruptions have affected, and may in the future affect, consumer confidence levels and spending, personal bankruptcy rates, levels of incurrence and default on consumer debt and home prices, among other factors. We cannot assure you that market disruptions in Europe, including the increased cost of funding for certain governments and financial institutions, will not impact the global economy, and we cannot assure you that assistance packages will be available or, if available, be sufficient to stabilize countries and markets in Europe or elsewhere affected by a financial crisis. To the extent uncertainty regarding any economic recovery in Europe negatively impacts consumer confidence and consumer credit factors, our business, financial condition and results of operations could be significantly and adversely affected.

In October of 2014, the Federal Reserve announced that it was concluding its bond-buying program, or quantitative easing, which was designed to stimulate the economy and expand the Federal Reserve's holdings of long-term securities, suggesting that key economic indicators, such as the unemployment rate, had showed signs of improvement since the inception of the program. It is unclear what effect, if any, the conclusion of the Federal Reserve's bond-buying program will have on the value of our investments. Additionally, in December of 2015, the Federal Reserve raised the federal funds rate. However, it is possible that, without quantitative easing by the Federal Reserve, these developments, along with the U.S. government's credit and deficit concerns and the European sovereign debt crisis, could cause interest rates and borrowing costs to rise, which may negatively impact our portfolio company's ability to access the debt markets on favorable terms.

Investing in small, privately held and publicly traded companies involves a high degree of risk and is highly speculative.

A substantial portion of our portfolio consists of investments in preferred stock and bridge loans that are not rated by any rating agency, and if such investments were rated, they would likely receive a rating below investment grade or "junk." A below investment grade or "junk" rating means that, in the rating agency's view, there is increased risk that the obligor on such debt will be unable to pay interest and repay principal on its debt in full. In addition, we have invested a substantial portion of our assets in privately held companies, the securities of which are inherently illiquid. We may seek to invest in publicly traded small businesses that we believe have exceptional growth potential. Our privately held companies may transition to publicly traded companies through routes other than traditional IPOs and be listed on OTC rather than national exchanges. Although these companies are publicly traded, their stock may not trade at high volumes, and prices can be volatile, which may restrict our ability to sell our positions. These privately held and publicly traded small businesses tend to lack management depth, to have limited or no history of operations and to not have attained profitability. Companies commercializing products enabled by disruptive science are especially risky, involving scientific, technological and commercialization risks. Because of the speculative nature of these investments, these securities have a significantly greater risk of loss than traditional investment securities. Some of our investments are likely to be complete losses or unprofitable, and some will never realize their potential. We

have been and will continue to be risk seeking rather than risk averse in our approach to our investments. Neither our investments nor an investment in our common stock is intended to constitute a balanced investment program.

**We have historically invested in sectors including life sciences, energy and electronics that are subject to specific risks related to each industry.**

We have historically invested the three largest portions of our portfolio in life sciences, energy and electronics companies. All of our life sciences investments can be characterized as investments in interdisciplinary life science companies where biology innovation is intersecting with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics. Our focus for new investments is in companies focused on precision health and precision medicine, which operate in life science-related industries and markets.

Our life sciences portfolio consists of companies that commercialize and integrate products in life sciences-related industries, including precision medicine, biotechnology, pharmaceuticals, diagnostics and medical devices. There are risks in investing in companies that target life sciences-related industries, including, but not limited to, the uncertainty of timing and results of clinical trials to demonstrate the safety and efficacy of products; failure to obtain any required regulatory approval of products; failure to show clinical utility; failure to develop manufacturing processes that meet regulatory standards; competition, in particular from companies that develop rival products; and the ability to protect proprietary technology. Adverse developments in any of these areas may adversely affect the value of our life sciences portfolio.

This life sciences industry is dominated by large multinational corporations with substantial greater financial and technical resources than generally will be available to the portfolio companies. Such large corporations may be better able to adapt to the challenges presented by continuing rapid and major scientific, regulatory and technological changes as well as related changes in governmental and third-party reimbursement policies.

Within the life sciences industry, the development of products generally is a costly and time-consuming process. Many highly promising products ultimately fail to prove to be safe and effective. There can be no assurance that the research or product development efforts of our portfolio companies or those of their collaborative partners will be successfully completed, that specific products can be manufactured in adequate quantities at an acceptable cost and with appropriate quality, or that such products can be successfully marketed or achieve customer acceptance. There can be no assurance that a product will be relevant and/or be competitive with products from other companies following the costly, time-consuming process of its development.

The research, development, manufacturing, and marketing of products developed by some life sciences companies are subject to extensive regulation by numerous government authorities in the United States and other countries. There can be no assurance that products developed by the portfolio companies will ever be approved by such governmental authorities.

Many life sciences portfolio companies will depend heavily upon intellectual property for their competitive position. There can be no assurance that the portfolio companies will be able to obtain patents for key inventions. Moreover, within the life sciences industry, patent challenges are frequent. Even if patents held by the portfolio companies are upheld, any challenges thereto may be costly and distracting to the portfolio companies' management.

Some of the life sciences portfolio companies will be at least partially dependent for their success upon governmental and third-party reimbursement policies that are under constant review and are subject to change at any time. Any such change could adversely affect the viability of one or more portfolio companies.

We will continue to make follow-on investments in our energy companies. Our energy portfolio consists of companies that commercialize and integrate products targeted at energy-related markets. There are risks in investing in companies that target energy-related markets, including the rapid and sometimes dramatic price fluctuations of commodities, particularly oil and sugar, and of public equities, the reliance on the capital and debt markets to finance large capital outlays, change in climate, including climate-related regulations, and the dependence on government subsidies to be cost-competitive with non-renewable or energy-efficient solutions. Adverse developments in this market may significantly affect the value of our energy portfolio, and thus our portfolio as a whole.

We will continue to make follow-on investments in our electronics companies. Our electronics portfolio consists of companies that commercialize and integrate products targeted at electronics-related markets. There are risks in investing in companies that target electronics-related markets, including rapid and sometimes dramatic price erosion of products, the reliance on capital and debt markets to finance large capital outlays, including fabrication facilities, the reliance on partners outside of the United States, particularly in Asia, and inherent cyclicity of the electronics market in general. Additionally, electronics-related companies are currently out of favor with many investment firms. Therefore, access to capital may be difficult or impossible for companies in our portfolio that are pursuing these markets.

**The three main industry sectors around which our investments have developed are all capital intensive.**

The industry sectors where we have historically made investments, life sciences, energy and electronics, are all capital intensive. Currently, financing for capital-intensive companies remains difficult. In some successful companies, we

believe we may need to invest more than we currently have planned to invest in these companies. There can be no assurance that we will have the capital necessary to make such investments. In addition, investing greater than planned amounts in our portfolio companies could limit our ability to pursue new investments and fund follow-on investments. Both of these situations could cause us to miss investment opportunities or limit our ability to protect existing investments from dilution or other actions or events that would decrease the value and potential return from these investments.

**Our Board of Directors may change our investment objective, operating policies and strategies without prior notice or shareholder approval, the effects of which may be adverse.**

In 2013 we announced the refinement of our investment focus for new investments in BIOLOGY+ companies. We define BIOLOGY+ as investments in interdisciplinary life science companies where biology innovation is intersecting with innovations in areas such as electronics, physics, materials science, chemistry, information technology, engineering and mathematics. In 2015, we refined this focus to precision health and precision medicine. Our focus on precision health and precision medicine is not a fundamental policy, and we will not be required to give notice to shareholders prior to making a change from this focus.

Our Board of Directors has the authority to modify or waive our investment objective, current operating policies, investment criteria and strategies without prior notice and without shareholder approval. We cannot predict the effect any changes to our current operating policies, investment criteria and strategies would have on our business, net asset value, operating results and the value of our stock. However, the effects might be adverse, which could negatively impact our ability to pay you dividends and cause you to lose all or part of your investments.

We invest in illiquid securities and may not be able to dispose of them when it is advantageous to do so, or ever.

Most of our investments are or will be equity, equity-linked, or debt securities acquired directly from small businesses. These securities are generally subject to restrictions on resale or otherwise have no established trading market. The illiquidity of most of our portfolio of securities may adversely affect our ability to dispose of these securities at times when it may be advantageous for us to liquidate these investments. We may never be able to dispose of these securities.

In addition, we are typically subject to lock-up provisions that prohibit us from selling our investments into the public market for specified periods of time after IPOs. After a portfolio company completes an IPO, its shares are generally subject to lock-up restrictions for a period of time. These lock-up restrictions apply to us and our shares of the portfolio company, potentially including any shares purchased by us in the IPO, and generally include provisions that stipulate that we are not permitted to offer, pledge or sell our shares, including selling covered call options on our shares, prior to the expiration of the lock-up period. We are also prohibited from entering into securities lending arrangements for these securities during the lock-up period. The market price of securities that we hold may decline substantially before we are able to sell these securities.

We may also hold securities of privately held companies that transition to publicly traded companies through reverse mergers into publicly traded shell companies. In such transactions, holders of shares of the privately held company



prior to the reverse merger may be subject to limitations on the sale of securities held including time and volume restrictions. These restrictions may limit our ability to dispose of these securities at times when it may be advantageous for us to liquidate these investments, and the market price of securities that we hold may decline substantially before we are able to sell these securities.

**Successful portfolio companies do not always result in positive investment returns.**

Depending on the amount and timing of our investments in our portfolio companies, even if a portfolio company is ultimately successful, the returns on our investment in such portfolio company may not be positive. Our portfolio companies often receive capital from other investors in rounds of financing. Depending on the amount of capital that it takes to operate a company until it either becomes cash flow positive or seeks to exit through an IPO or M&A transaction, each round of financing may have different terms, including liquidation preferences and control over company decisions. Depending on which rounds of financings the Company participates in and the terms of the last round of financing, the investment returns for any particular round may be higher or lower than others. Furthermore, our portfolio companies often require more capital than originally expected, and the ultimate value of those companies at realization may not be greater than the capital invested. Each of these scenarios and others could lead to a realized loss on an investment in an ultimately successful company.

**Our investments in debt and preferred equity securities of portfolio companies may be extremely risky, and we could lose all or part of our investments.**

A portfolio company's failure to satisfy financial or operating covenants imposed by us or other lenders could lead to defaults and, potentially, termination of its loans and foreclosure on its assets, which could trigger cross-defaults under other agreements and jeopardize our portfolio company's ability to meet its obligations under the debt securities that we hold. We may incur expenses to the extent necessary to seek recovery upon default or to negotiate new terms with a defaulting portfolio company. In addition, if a portfolio company goes bankrupt, even though we may have structured our interest as senior debt, depending on the facts and circumstances, including the extent to which we actually provided significant "managerial assistance" to that portfolio company, a bankruptcy court might recharacterize our debt holding and subordinate all or a portion of our claim to that of another creditor.

When we make an investment in a secured debt instrument of a portfolio company, we generally take a security interest in the available assets of the portfolio company, including the equity interests of its subsidiaries, which we expect to help mitigate the risk that we will not be repaid. However, there is a risk that the collateral securing our loans may decrease in value over time, may be difficult to sell in a timely manner, may be difficult to appraise and may fluctuate in value based upon the success of the business and market conditions, including as a result of the inability of the portfolio company to raise additional capital, and, in some circumstances, our lien could be subordinated to claims of other creditors. In addition, deterioration in a portfolio company's financial condition and prospects, including its inability to raise additional capital, may be accompanied by deterioration in the value of the collateral for the loan. Consequently, the fact that a loan is secured does not guarantee that we will receive principal and interest payments according to the loan's terms, or at all, or that we will be able to collect on the loan should we be forced to enforce our remedies.

When we make an investment in preferred equity securities of a portfolio company, these securities are generally structured as unsecured convertible securities that are non-income producing and thus are not meant to be viewed or considered debt securities. As such, our preferred equity securities are generally subordinated to claims by outstanding debt and other creditors. Deterioration in a portfolio company's financial condition and prospects, including its inability to raise additional capital, may be accompanied by deterioration in the value of the collateral for the loan.

A portfolio company's failure to satisfy financial or operating covenants imposed by us or other lenders could lead to defaults and, potentially, termination of its loans and foreclosure on its assets, which could trigger cross-defaults under other agreements and jeopardize our portfolio company's ability to meet its obligations under the debt securities that we hold and may not result in proceeds to return for our holdings of preferred stock. We may incur expenses to the extent necessary to seek recovery upon default or to negotiate new terms with a defaulting portfolio company. In addition, if a portfolio company goes bankrupt, even though we may have structured our interest as senior debt, depending on the facts and circumstances, including the extent to which we actually provided significant "managerial assistance" to that portfolio company and/or that we hold equity securities of the portfolio company, a bankruptcy court might recharacterize our debt holding and subordinate all or a portion of our claim to that of another creditor.

**To the extent we use debt to finance our investments, changes in interest rates could affect our cost of capital and net investment income.**

To the extent we borrow money to make investments, our net investment income will depend, in part, upon the difference between the rate at which we borrow funds and the return from invested funds. As a result, we can offer no assurance that a significant change in market interest rates will not have a material adverse effect on our net investment income in the event we use debt to finance our investments. In periods of rising interest rates, our cost of funds could increase, which could reduce our net investment income. In addition, an increase in interest rates could make it more expensive to use debt to finance our investments. As a result, a significant increase in market interest rates could increase our cost of capital, which would reduce our net investment income. A decrease in market interest rates may adversely impact our returns on our cash invested in treasury securities, which would reduce our net investment income and cash available to fund operations. We may also use the proceeds from borrowings to invest in non-income-producing investments. Under this scenario, we would incur costs associated with the borrowings without any income to offset those costs until such investment is monetized. It is possible we may not be able to cover the costs of such borrowings from the returns on those investments.

On September 30, 2013, the Company entered into the Loan Facility, which is a multi-draw credit facility that may be used by the Company to fund investments in portfolio companies. The Loan Facility requires payment of an unused commitment fee of one percent per annum on any unused borrowings. Borrowings under the Loan Facility bear interest at 10 percent per annum in cash. The Company has the option to have interest accrue at a rate of 13.5 percent per annum if the Company decides not to pay interest in cash when due. The Company currently pays interest in cash on its outstanding borrowings. As of December 31, 2015, we had \$5,000,000 in outstanding debt.

**Our portfolio companies may incur debt that ranks senior to our investments in such companies.**

We may make investments in our portfolio companies in the form of bridge notes that typically convert into preferred stock issued in the next round of financing of that portfolio company or other forms of convertible and non-convertible debt securities. Our portfolio companies usually have, or may be permitted to incur, other debt that ranks senior to the debt securities in which we invest. By their terms, debt instruments may provide that the holders are entitled to receive payment of interest and principal on or before the dates on which we are entitled to receive payments on the debt securities in which we invest. Also, in the case of insolvency, liquidation, dissolution, reorganization or bankruptcy of a portfolio company, holders of debt instruments ranking senior to our investment in that portfolio company would typically be entitled to receive payment in full before we receive any distribution in respect of our investment. After repaying such senior creditors, such portfolio company may not have any remaining assets to use for repaying its obligations to us. In addition, in companies where we have made investments in the form of bridge notes or other debt securities, we may also have investments in equity in the form of preferred shares. In some cases, a bankruptcy court may subordinate our bridge notes and/or other debt securities to debt holders that do not have equity in the portfolio company.

**Our portfolio companies face risks associated with international sales.**

We anticipate that certain of our portfolio companies could generate revenue from international sales. Risks associated with these potential future sales include:

- **Political and economic instability;**
- **Export controls and other trade restrictions;**
- **Changes in legal and regulatory requirements;**
- **U.S. and foreign government policy changes affecting the markets for the technologies;**
- **Changes in tax laws and tariffs;**
- **Convertibility and transferability of international currencies; and**
- **International currency exchange rate fluctuations.**

The effect of global climate change may impact our operations and the operations of our portfolio companies.

There may be evidence of global climate change. Climate change creates physical and financial risk, and some of our portfolio companies may be adversely affected by climate change. For example, the needs of customers of energy companies vary with weather conditions, primarily temperature and humidity. To the extent weather conditions are affected by climate change, energy use could increase or decrease depending on the duration and magnitude of any changes. Increases in the cost of energy could adversely affect the cost of operations of our portfolio companies if the

use of energy products or services is material to their business. A decrease in energy use owing to weather changes may affect some of our portfolio companies' financial condition through decreased revenues. Extreme weather conditions in general may disrupt our operations and the operations of our portfolio companies and require more system backups and redundancies, adding to costs, and can contribute to increased system stresses, including service interruptions.

*Risks related to our Company and an investment in our securities.*

**Regulations governing our operation as a BDC may limit our ability to, and the way in which we, raise additional capital, which could have a material adverse impact on our liquidity, financial condition and results of operations.**

Our business will in the future require a substantial amount of capital. We may acquire additional capital from the issuance of senior securities (including debt and preferred stock), the issuance of additional shares of our common stock or from securitization transactions. However, we may not be able to raise additional capital in the future on favorable terms or at all. Additionally, we may only issue senior securities up to the maximum amount permitted by the 1940 Act. The 1940 Act permits us to issue senior securities only in amounts such that our asset coverage, as defined in the 1940 Act, equals at least 200 percent after such issuance or incurrence. If our assets decline in value and we fail to satisfy this test, we may be required to liquidate a portion of our investments and repay a portion of our indebtedness at a time when such sales or repayment may be disadvantageous, which could have a material adverse impact on our liquidity, financial condition and results of operations.

*Senior Securities.* As a result of issuing senior securities, we would also be exposed to typical risks associated with leverage, including an increased risk of loss. If we issue preferred securities, such securities would rank “senior” to common stock in our capital structure, resulting in preferred shareholders having separate voting rights and possibly rights, preferences or privileges more favorable than those granted to holders of our common stock. Furthermore, the issuance of preferred securities could have the effect of delaying, deferring or preventing a transaction or a change of control that might involve a premium price for our common shareholders or otherwise be in your best interest.

*Additional Common Stock.* Our Board of Directors may decide to issue common stock to finance our operations rather than issuing debt or other senior securities. As a BDC, we are generally not able to issue our common stock at a price below net asset value without first obtaining required approvals from our shareholders and our independent directors. In any such case, the price at which our securities are to be issued and sold may not be less than a price, that in the determination of our Board of Directors, closely approximates the market value of such securities at the relevant time. We may also make rights offerings to our shareholders at prices per share less than the net asset value per share, subject to the requirements of the 1940 Act. If we raise additional funds by issuing more common stock or senior securities convertible into, or exchangeable for, our common stock, the percentage ownership of our shareholders at that time would decrease, and such shareholders may experience dilution.

**We are a non-diversified investment company within the meaning of the 1940 Act, and, therefore, we are not limited with respect to the proportion of our assets that may be invested in securities of a single issuer.**

We are classified as a non-diversified investment company within the meaning of the 1940 Act, which means that we are not limited by the 1940 Act with respect to the proportion of our assets that we may invest in securities of a single issuer. To the extent that we assume large positions in the securities of a small number of issuers, our net asset value may fluctuate to a greater extent than that of a diversified investment company as a result of changes in the financial condition or the market's assessment of the issuer. We may also be more susceptible to any single economic or regulatory occurrence than a diversified investment company. We do not have fixed guidelines for diversification, and, therefore, our investments could be concentrated in relatively few portfolio companies.

**Our financial condition and results of operations could be negatively affected if a significant investment fails to perform as expected.**

Our investment portfolio includes investments that may be significant individually or in the aggregate. If a significant investment in one or more companies fails to perform as expected, such a failure could have a material adverse effect on our financial condition and results of operations, and the magnitude of such effect could be more significant than if we had further diversified our portfolio.

**Ineffective internal controls could impact our business and operating results.**

Our internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. Even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. If we fail to maintain the adequacy of our internal controls, including any failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business and operating results could be harmed and we could fail to meet our financial reporting obligations.

**Economic recessions or downturns could impair our portfolio companies and harm our operating results.**

Many of our portfolio companies may be susceptible to economic downturns or recessions and may be unable to repay our loans during these periods. Therefore, during these periods our non-performing assets may increase and the value of our portfolio may decrease if we are required to write down the values of our investments. Adverse economic



conditions may also decrease the value of collateral securing some of our loans and the value of our equity investments. Economic slowdowns or recessions could lead to financial losses in our portfolio and a decrease in revenues, net income and assets. Unfavorable economic conditions also could increase our funding costs, limit our access to the capital markets or result in a decision by lenders not to extend credit to us. These events could prevent us from increasing investments and harm our operating results. We experienced to some extent such effects as a result of the economic downturn that occurred from 2008 through 2009 and may experience such effects again in any future downturn or recession.

**When we are a debt or minority equity investor in a portfolio company, we are often not in a position to exert influence on the entity, and other equity holders and management of the company may make decisions that could decrease the value of our portfolio holdings.**

When we make debt or minority equity investments, we are subject to the risk that a portfolio company may make business decisions with which we disagree and the other equity holders and management of such company may take risks or otherwise act in ways that do not serve our interests. As a result, a portfolio company may make decisions that could decrease the value of our investment.

**Our business model depends upon the development and maintenance of strong referral relationships with private equity, venture capital funds and investment banking firms.**

We are substantially dependent on our informal relationships, which we use to help identify and gain access to investment opportunities. If we fail to maintain our relationships with key firms, or if we fail to establish strong referral relationships with other firms or other sources of investment opportunities, we will not be able to grow our portfolio of equity investments and achieve our investment objective. In addition, persons with whom we have informal relationships are not obligated to inform us of investment opportunities, and therefore such relationships may not lead to the origination of equity or other investments. Any loss or diminishment of such relationships could effectively reduce our ability to identify attractive portfolio companies that meet our investment criteria, either for direct equity investments or for investments through private secondary market transactions or other secondary transactions.

**We may in the future choose to pay dividends in our common stock, in which case you may be required to pay tax in excess of the cash you receive.**

We may distribute taxable dividends that are payable in part in our common stock. In accordance with certain applicable Treasury regulations and private letter rulings issued by the Internal Revenue Service ("IRS"), a RIC may treat a distribution of its own common stock as fulfilling the RIC distribution requirements if each stockholder may elect to receive his or her entire distribution in either cash or common stock of the RIC, subject to a limitation that the aggregate amount of cash to be distributed to all stockholders must be at least 20 percent of the aggregate declared distribution. If too many stockholders elect to receive cash, each stockholder electing to receive cash must receive a pro rata amount of cash (with the balance of the distribution paid in common stock). In no event will any stockholder, electing to receive cash, receive less than 20 percent of his or her entire distribution in cash. If these and certain other requirements are met, for U.S. federal income tax purposes, the amount of the dividend paid in common stock will be equal to the amount of cash that could have been received instead of common stock. Taxable stockholders receiving such dividends will be required to include the full amount of the dividend as ordinary income (or as long-term capital gain to the extent such distribution is properly reported as a capital gain dividend) to the extent of our current and

accumulated earnings and profits for U.S. federal income tax purposes. As a result, a U.S. stockholder may be required to pay tax with respect to such dividends in excess of any cash received. If a U.S. stockholder sells the stock it receives as a dividend in order to pay this tax, the sales proceeds may be less than the amount included in income with respect to the dividend, depending on the market price of our common stock at the time of the sale. Furthermore, with respect to Non-U.S. stockholders, we may be required to withhold U.S. tax with respect to such dividends, including in respect of all or a portion of such dividend that is payable in common stock. In addition, if a significant number of our stockholders determine to sell shares of our common stock in order to pay taxes owed on dividends, it may put downward pressure on the trading price of our common stock.

**If we do not invest a sufficient portion of our assets in qualifying assets, we could fail to qualify as a BDC or be precluded from investing according to our current business strategy.**

As a BDC, we may not acquire any assets other than "qualifying assets" unless, at the time of and after giving effect to such acquisition, at least 70 percent of our total assets are qualifying assets, which may prevent us from making certain investments that we would otherwise view as attractive opportunities or important to facilitate transactions such as IPOs through participation in such offerings.

We believe that most of the investments that we may acquire in the future will constitute qualifying assets. However, we may be precluded from investing in what we believe are attractive investments if the investments are not qualifying assets for purposes of the 1940 Act. If we do not invest a sufficient portion of our assets in qualifying assets, we could be found to be in violation of the 1940 Act provisions applicable to BDCs, which would have a material adverse effect on our business, financial condition and results of operations. Rules under the 1940 Act could prevent us, for example, from making follow-on investments in existing portfolio companies (which could result in the dilution of our position and/or other punitive actions on our securities of those companies). If, in order to make additional investments, we need to dispose of such investments quickly, it could be difficult to dispose of such investments on favorable terms. We may have difficulty in such a case in finding a buyer and, if we do find a buyer, we may have to sell the investments at a substantial loss.

**Failure to maintain our status as a BDC could reduce our operating flexibility.**

We have elected to be regulated as a BDC under the 1940 Act. The 1940 Act imposes numerous constraints on the operations of BDCs. For example, BDCs must invest at least 70 percent of their gross assets in specified types of securities, primarily in private companies or thinly traded U.S. public companies, cash, cash equivalents, U.S. government securities and other high quality debt investments that mature in one year or less. Investments in securities issued as part of an IPO are not considered "qualifying assets." Furthermore, any failure to comply with the requirements imposed on BDCs by the 1940 Act could cause the SEC to bring an enforcement action against us and/or expose us to claims of private litigants. In addition, upon approval of a majority of our shareholders, we may elect to withdraw our status as a BDC. If we decide to withdraw our election, or if we otherwise fail to qualify or maintain our qualification as a BDC, we may be subject to the substantially greater regulation under the 1940 Act as a registered closed-end investment company. Compliance with such regulations would significantly decrease our operating flexibility and could significantly increase our costs of doing business and adversely impact your investment in us.

**We are uncertain of our sources for funding our future capital needs; if we cannot obtain capital from realized investments to reinvest or obtain debt or equity financing on acceptable terms, our ability to acquire investments and to expand our operations will be adversely affected.**

Any working capital reserves we maintain and capital obtained from realized investments may not be sufficient for investment purposes, and we may require debt or equity financing to operate. Accordingly, in the event that we develop a need for additional capital in the future for investments or for any other reason, these sources of funding may not be available to us. If we cannot obtain capital from realized investments or obtain debt or equity financing on acceptable terms, our ability to acquire investments and to expand our operations will be adversely affected. In such cases, we could be unable to make follow-on investments in existing portfolio companies (which could result in the dilution of our position and/or other punitive actions on our securities of those companies), which may negatively impact our net asset value per share, our investment returns and our ability to make distributions to our shareholders.

**Our ability to enter into transactions with our affiliates is restricted.**

We are prohibited under the 1940 Act from participating in certain transactions with certain of our affiliates without the prior approval of a majority of the independent members of our Board of Directors and, in some cases, the SEC. Any person that owns, directly or indirectly, five percent or more of our outstanding voting securities will be our affiliate for purposes of the 1940 Act, and we will generally be prohibited from buying or selling any securities from or to such affiliate, absent the prior approval of our Board of Directors. The 1940 Act also prohibits certain "joint" transactions with certain of our affiliates, which could include investments in the same portfolio company (whether at the same or closely related times), without prior approval of our Board of Directors and, in some cases, the SEC. If a person acquires more than 25 percent of our voting securities, we will be prohibited from buying or selling any security from or to such person or certain of that person's affiliates, or entering into prohibited joint transactions with such persons, absent the prior approval of the SEC.

**Our business may be adversely affected by the small size of our market capitalization.**

Changes in regulations of the financial industry have adversely affected coverage of small capitalization companies such as ours by financial analysts. A number of analysts that have covered us in the past are no longer able to continue to do so owing to changes in employment, to restrictions on the size of companies they are allowed to cover and/or their firms have shut down operations. An inability to attract analyst coverage may adversely affect the liquidity of our stock and our ability to raise capital from investors, particularly institutional investors. Our inability to access the capital markets on favorable terms, or at all, may adversely affect our future financial performance. The inability to obtain adequate financing could force us to seek debt financing, self-fund strategic initiatives or even forgo certain opportunities, which in turn could potentially harm our current and future performance.

Because there is generally no established market in which to value our investments, our Valuation Committee's value determinations may differ materially from the values that a ready market or third party would attribute to these investments.

There is generally no public market for the private equity securities in which we invest. Pursuant to the requirements of the 1940 Act, we value all of the privately held equity and debt securities in our portfolio at fair value as determined in good faith by the Valuation Committee, a committee made up of all of the independent members of our Board of Directors, pursuant to Valuation Procedures established by the Board of Directors. Determining fair value requires that judgment be applied to the specific facts and circumstances of each portfolio investment pursuant to specified valuation principles and processes. We are required by the 1940 Act to value specifically each individual investment on a quarterly basis and record unrealized depreciation for an investment that we believe has become impaired. Conversely, we must record unrealized appreciation if we believe that a security has appreciated in value. Our valuations, although stated as a precise number, are necessarily within a range of values that vary depending on the significance attributed to the various factors being considered.

We currently use option pricing models to determine and/or allocate the fair value of a significant portion of the privately held securities in our portfolio. Option pricing models, including the Black-Scholes-Merton model, require the use of subjective input assumptions, including expected volatility, expected life, expected dividend rate, and expected risk-free rate of return. In the Black-Scholes-Merton model, variations in the expected volatility or expected term assumptions have a significant impact on fair value. Because the privately held securities in our portfolio are not publicly traded, many of the required input assumptions are more difficult to estimate than they would be if a public market for the underlying securities existed.

Without a readily ascertainable market value and because of the inherent uncertainty of valuation, the fair value that we assign to our investments may differ from the values that would have been used had an efficient market existed for the investments, and the difference could be material. Any changes in fair value are recorded in our Consolidated Statement of Operations as a change in the "Net (decrease) increase in unrealized depreciation on investments."

Even when a portfolio of early-stage, high-technology investments proves to be profitable over the portfolio's lifetime, it is common for the portfolio's value to undergo a so-called "J-curve" valuation pattern. This means that when reflected on a graph, the portfolio's valuation would appear in the shape of the letter "J," declining from the initial valuation prior to increasing in valuation. This J-curve valuation pattern results from write-downs and write-offs of portfolio investments that appear to be unsuccessful, prior to write-ups for portfolio investments that prove to be successful. Because early-stage small businesses typically have negative cash flow and are by their nature inherently fragile, a valuation process can more readily substantiate a loss of value than an increase in value. Even if our investments prove to be profitable in the long run, such J-curve valuation patterns could have a significant adverse effect on our net asset value per share and the value of our common stock in the interim. Over time, as we continue to make additional investments, this J-curve pattern may be less relevant for our portfolio as a whole, because the individual J-curves for each investment, or series of investments, may overlap with previous investments at different stages of their J-curves.

**We expect to continue to experience material write-downs of securities of portfolio companies.**

Write-downs of securities of our privately held companies have always been a by-product and risk of our business. We expect to continue to experience material write-downs of securities of privately held portfolio companies. Write-downs of such companies occur at all stages of their development. Such write-downs may increase in dollar terms, frequency and as a percentage of our net asset value as our dollar investment activity in privately held companies continues to increase, and the number of such holdings in our portfolio continues to grow. As the average size of each of our investments increases, the average size of our write-downs may also increase. We may also choose to sell the securities of our privately held portfolio companies at a discount to the amounts at which they have been previously valued.





Option pricing models place a high weighting on liquidation preferences, which means that small differences in how the preferences are structured can have a material effect on the fair value of our securities at the time of valuation and also on future valuations should additional rounds of financing occur with senior preferences. As such, valuations calculated by option pricing models may not increase if 1) rounds of financing occur at higher prices per share, 2) liquidation preferences include multiples on investment, 3) the amount of invested capital is small and/or 4) liquidation preferences are senior to prior rounds of financing.

**Unfavorable regulatory changes could impair our ability to engage in liquidity events and dampen our returns.**

We currently rely on the ability to generate realized returns on our investments through liquidity events such as IPOs and M&A transactions.

When companies in which we have invested as private entities complete IPOs of their securities, these newly issued securities are by definition unseasoned issues. Unseasoned issues tend to be highly volatile and have uncertain liquidity, which may negatively affect their price. In addition, we are typically subject to lock-up provisions that prohibit us from selling our investments into the public market for specified periods of time after IPOs. The market price of securities that we hold may decline substantially before we are able to sell these securities. Government reforms that affect the trading of securities in the United States have made market-making activities by broker-dealers less profitable, which has caused broker-dealers to reduce their market-making activities, thereby making the market for unseasoned stocks less liquid than they might be otherwise.

We also invest in companies that may complete public listings through reverse mergers with publicly traded shell companies. The securities owned prior to the completion of the reverse merger are subject to sale restrictions of at least one year from the effective date of the reverse merger as long as the publicly traded company continues to comply with the requirements of Rule 144. In addition, stockholders deemed to be affiliates of the publicly traded company are subject to volume restrictions once the stock owned by those entities is tradable. Furthermore, in 2011, the SEC established new rules for "seasoning periods" for former shell companies to uplist to a national exchange. These rules may negatively affect the liquidity of our stock of these companies as well as the ability of the publicly traded companies to raise additional capital, if needed. These factors could negatively affect the performance of the publicly traded companies and our returns on investments in these companies.

In addition, the structural changes in the public markets that currently value near-term cash flows and predictable revenues versus long-term prospects for growth, and the regulatory burden imposed on publicly traded companies by governments worldwide, have reduced the appetite for some of our portfolio companies to pursue IPOs or other steps that would increase the liquidity of our ownership in these portfolio companies. This trend may lengthen the time that

our portfolio companies remain as privately held entities in our portfolio, and our returns on these investments may be dampened by the need or choice to seek monetization of such illiquid assets.

An inability to generate realized returns on our investments could negatively affect our liquidity, our reinvestment rate in new and follow-on investments and the value of our investment portfolio.

**We are subject to risks associated with our strategy of increasing assets under management by raising third-party funds to manage.**

We have announced our strategy to grow assets under management by raising one or more third-party funds to manage. It is possible that we will invest our capital alongside or through these funds in portfolio companies. There is no assurance when and if we will be able to raise such fund(s) or, if raised, whether they will be successful.

Our executive officers and employees, in their capacity as the investment advisor of a fund, may manage other investment funds in the same or a related line of business as we do. Accordingly, they may have obligations to such other entities, the fulfillment of which obligations may not be in the best interests of us or our shareholders.

**Our shares of common stock are trading at a discount from net asset value and may continue do so in the future.**

Shares of closed-end investment companies have frequently traded at a market price that is less than the net asset value that is attributable to those shares. In part as a result of adverse economic conditions and increasing pressure within the financial sector of which we are a part, our common stock traded below our net asset value per share during some periods in 2010 and consistently throughout 2011 through 2015. Our common stock may continue to trade at a discount to net asset value in the future. The possibility that our shares of common stock may trade at a discount from net asset value over the long term is separate and distinct from the risk that our net asset value will decrease. We cannot predict whether shares of our common stock will trade above, at, or below our net asset value. On December 31, 2015, our stock closed at \$2.20 per share, a discount of \$0.68, or 23.6 percent, to our net asset value per share of \$2.88 as of December 31, 2015. On March 14, 2016, our stock closed at \$1.90 per share, a discount of \$0.98, or 34 percent, to our net asset value per share as of December 31, 2015.

**Because we do not choose investments based on a strategy of diversification, nor do we rebalance the portfolio should one or more investments increase in value substantially relative to the rest of the portfolio, the value of our portfolio is subject to greater volatility than the value of companies with more broadly diversified investments.**

We do not choose investments based on a strategy of diversification. We also do not rebalance the portfolio should one of our portfolio companies increase in value substantially relative to the rest of the portfolio. Therefore, the value of our portfolio may be more vulnerable to events affecting a single sector or industry and, therefore, subject to greater volatility than a company that follows a diversification strategy. Accordingly, an investment in our common stock may present greater risk to you than an investment in a diversified company.

**We are dependent upon key management personnel for future success, and may not be able to retain them.**

None of our employees are subject to employment agreements. Our ability to attract and retain personnel with the requisite credentials, experience and skills will depend on several factors including, but not limited to, our ability to offer competitive wages, benefits and professional growth opportunities. Many of the entities with which we will compete for experienced personnel, including investment funds (such as venture capital funds) and traditional financial services companies, will have greater resources than us.

We are dependent upon the diligence and skill of our senior management and other key advisors for the selection, structuring, closing and monitoring of our investments. We utilize lawyers, and we utilize outside consultants to assist us in conducting due diligence when evaluating potential investments. There is generally no publicly available information about the companies in which we invest, and we rely significantly on the diligence of our employees and advisors to obtain information in connection with our investment decisions. Our future success, to a significant extent, depends on the continued service and coordination of our senior management team. The departure of any of our senior management or key advisors could materially adversely affect our ability to implement our business strategy. We do not maintain for our benefit any key-man life insurance on any of our officers or employees. The terms of our Loan Facility require that Douglas W. Jamison and Daniel B. Wolfe, or replacements suitable to our lender, devote substantially all of their time to Company matters, and failure to do so could trigger default.

**The failure in cyber security systems, as well as the occurrence of events unanticipated in our disaster recovery systems and management continuity planning, could impair our ability to conduct business effectively.**

The occurrence of a disaster such as a cyber attack, a natural catastrophe, an industrial accident, a terrorist attack or war, events unanticipated in our disaster recovery systems, or a support failure from external providers, could have an adverse effect on our ability to conduct business and on our results of operations and financial condition, particularly if those events affect our computer-based data processing, transmission, storage, and retrieval systems or destroy data. If a significant number of our managers were unavailable in the event of a disaster, our ability to effectively conduct our business could be severely compromised.

We depend upon computer systems to perform necessary business functions. Despite our implementation of a variety of security measures, our computer systems could be subject to cyber attacks and unauthorized access, such as physical and electronic break-ins or unauthorized tampering. Like other companies, we may experience threats to our data and systems, including malware and computer virus attacks, unauthorized access, system failures and disruptions. If one or more of these events occurs, it could potentially jeopardize the confidential, proprietary and other information processed and stored in, and transmitted through, our computer systems and networks, or otherwise cause

interruptions or malfunctions in our operations, which could result in damage to our reputation, financial losses, litigation, increased costs, regulatory penalties and/or shareholder dissatisfaction or loss.

**We are dependent on information systems and systems failures could disrupt our business, which may, in turn, negatively affect the market price of our common stock.**

Our business is dependent on our and third party communications and information systems. Any failure or interruption of those systems, including as a result of the termination of an agreement with any third-party service providers, could cause delays or other problems in our activities. Our financial, accounting, backup or other operating systems and facilities may fail to operate properly or become disabled or damaged as a result of a number of factors, including events that are wholly or partially beyond our control, and adversely affect our business. There could be:

• sudden electrical or telecommunications outages;

• natural disasters such as earthquakes, tornadoes and hurricanes;

• disease pandemics;

• events arising from local or larger scale political or social matters, including terrorist acts; and

• cyber attacks.

These events, in turn, could have a material adverse effect on our operating results and negatively affect the market price of our common stock.

**Our failure to make follow-on investments in our portfolio companies could impair the value of our portfolio.**

Following an initial investment in a portfolio company, we may make additional investments in that portfolio company as "follow-on" investments, in order to: (1) increase or maintain in whole or in part our ownership percentage; (2) exercise warrants, options or convertible securities that were acquired in the original or subsequent financing; or (3) attempt to preserve or enhance the value of our investment.

We may elect not to make follow-on investments or lack sufficient funds to make such investments. We have the discretion to make any follow-on investments, subject to the availability of capital resources. The failure to make a follow-on investment may, in some circumstances, jeopardize the continued viability of a portfolio company and our initial investment, or may result in a missed opportunity for us to increase our participation in a successful operation, or may cause us to lose some or all preferred rights pursuant to "pay-to-play" provisions that have become common in venture capital transactions. These provisions require proportionate investment in subsequent rounds of financing in order to preserve preferred rights such as anti-dilution protection, liquidation preferences and preemptive rights to invest in future rounds of financing. Even if we have sufficient capital to make a desired follow-on investment, we may elect not to make a follow-on investment because we may not want to increase our concentration of risk, because we prefer other opportunities or because we are inhibited by compliance with BDC requirements or the desire to maintain our tax status.



Bank borrowing or the issuance of debt securities or preferred stock by us, to fund investments in portfolio companies or to fund our operating expenses, would make our total return to common shareholders more volatile.

Use of debt or preferred stock as a source of capital entails two primary risks. The first is the risk of leverage, which is the use of debt to increase the pool of capital available for investment purposes. The use of debt leverages our available common equity capital, magnifying the impact on net asset value of changes in the value of our investment portfolio. For example, a BDC that uses 33 percent leverage (that is, \$50 of leverage per \$100 of common equity) will show a 1.5 percent increase or decline in net asset value for each one percent increase or decline in the value of its total assets. The second risk is that the cost of debt or preferred stock financing may exceed the return on the assets the proceeds are used to acquire, thereby diminishing rather than enhancing the return to common shareholders. If we issue preferred shares or debt, the common shareholders would bear the cost of this leverage. To the extent that we utilize debt or preferred stock financing for any purpose, these two risks would likely make our total return to common shareholders more volatile. In addition, we might be required to sell investments, in order to meet dividend, interest or principal payments, when it might be disadvantageous for us to do so.

As provided in the 1940 Act and subject to some exceptions, we can issue debt or preferred stock so long as our total assets immediately after the issuance, less some ordinary course liabilities, exceed 200 percent of the sum of the debt and any preferred stock outstanding. The debt or preferred stock may be convertible in accordance with SEC guidelines, which might permit us to obtain leverage at more attractive rates. The requirement under the 1940 Act to pay, in full, dividends on preferred shares or interest on debt before any dividends may be paid on our common stock means that dividends on our common stock from earnings may be reduced or eliminated. An inability to pay dividends on our common stock could conceivably result in our ceasing to qualify as a RIC under the Code, which would, in most circumstances, be materially adverse to the holders of our common stock.

As of December 31, 2015, we had \$5,000,000 in debt outstanding pursuant to the Loan Facility, and we did not have any preferred stock outstanding.

**If we are unable to comply with the covenants or restrictions of the Loan Facility, our business could be materially adversely affected.**

The Loan Facility contains certain affirmative and negative covenants, including without limitation: (a) maintenance of certain minimum liquidity requirements; (b) maintenance of an eligible asset leverage ratio of not less than 4.0:1.0; (c) limitations on liens; (d) limitations on the incurrence of additional indebtedness; and (e) limitations on structural changes, mergers and disposition of assets (other than in the normal course of our business activities). Complying with these restrictions may prevent the Company from taking actions that we believe would help it to grow its business or

are otherwise consistent with its investment objectives. These restrictions could also limit the Company's ability to plan for or react to market conditions or meet extraordinary capital needs or otherwise restrict corporate activities. For example, these restrictions, as currently in effect, would prohibit the Company from, or subject it to limitations on, incurring any additional indebtedness, which would include issuing any debt securities and buying back shares of the Company's stock.

The breach of any of the covenants or restrictions, unless cured within the applicable grace period, would result in a default under the Loan Facility that would permit the lenders thereunder to declare all amounts outstanding to be due and payable. Because the Loan Facility is secured by all the assets of the Company, in such an event, the Company may be forced to sell assets to repay such indebtedness. As a result, any default could cause the Company to sell portfolio company securities at a time that may not be advantageous and could have serious consequences to our financial condition. The Company may not be granted waivers or amendments to the Loan Facility if, for any reason, it is unable to comply with it, and the Company may not be able to refinance the Loan Facility on terms acceptable to it, or at all.

**We may expose ourselves to risks if we engage in hedging transactions.**

If we engage in hedging transactions, we may expose ourselves to risks associated with such transactions. We may utilize instruments such as forward contracts, currency options and interest rate swaps, caps, collars and floors to seek to hedge against fluctuations in the relative values of our portfolio positions from changes in market conditions, currency exchange rates and market interest rates. Hedging against a decline in the values of our portfolio positions does not eliminate the possibility of fluctuations in the values of such positions or prevent losses if the values of such positions decline. However, such hedging can establish other positions designed to gain from those same developments, thereby offsetting the decline in the value of such portfolio positions. Such hedging transactions may also limit the opportunity for gain if the values of the underlying portfolio positions should increase. It may not be possible to hedge against an exchange rate or interest rate fluctuation that is so generally anticipated that we are not able to enter into a hedging transaction at an acceptable price. Moreover, for a variety of reasons, we may not seek to establish a perfect correlation between such hedging instruments and the portfolio holdings being hedged. Any such imperfect correlation may prevent us from achieving the intended hedge and expose us to risk of loss. In addition, it may not be possible to hedge fully or perfectly against currency fluctuations affecting the value of securities denominated in non-U.S. currencies because the value of those securities is likely to fluctuate as a result of factors not related to currency fluctuations.

**We are authorized to issue preferred stock, which would convey special rights and privileges to its owners senior to those of common stock shareholders.**

We are currently authorized to issue up to 2,000,000 shares of preferred stock, under terms and conditions determined by our Board of Directors. These shares would have a preference over our common stock with respect to dividends and liquidation. The statutory class voting rights of any preferred shares we would issue could make it more difficult for us to take some actions that might, in the future, be proposed by the Board and/or holders of common stock, such as a merger, exchange of securities, liquidation or alteration of the rights of a class of our securities, if these actions were perceived by the holders of the preferred shares as not in their best interests. The issuance of preferred shares convertible into shares of common stock might also reduce the net income and net asset value per share of our common stock upon conversion.



**Loss of status as a RIC could reduce our net asset value and distributable income.**

We have elected to qualify and have qualified as a RIC under the Code. While we currently intend to continue to qualify as a RIC under the Code, we may generate more non-qualifying RIC income in 2016 than in previous years, which could result in us not qualifying as a RIC in 2016. As a RIC, we do not have to pay federal income taxes on our income (including realized gains) that is distributed to our shareholders. Accordingly, we are not permitted under accounting rules to establish reserves for taxes on our unrealized capital gains. If we failed to qualify for RIC status in 2014 or beyond, we would be taxed in the same manner as an ordinary corporation and distributions to our shareholders would not be deductible in computing our taxable income, which could materially adversely impact the amount of cash available for distribution to our shareholders. In addition, to the extent that we had unrealized appreciation, we would have to establish reserves for taxes, which would reduce our net asset value, accordingly. To requalify as a RIC in a subsequent taxable year, we would be required to satisfy the RIC qualification requirements for that year and dispose of any earnings and profits from any year which we failed to qualify as a RIC. Subject to a limited exception applicable to RICs that qualified as such under Subchapter M of the Code for at least one year prior to disqualification and that requalify as a RIC no later than the second year following the nonqualifying year, we could be subject to tax on any unrealized net built-in gain in the assets held by us during the period in which we failed to qualify as a RIC that are recognized within the subsequent 10 years (or shorter applicable period), unless we made a special election to pay corporate-level tax at the time of our requalification as a RIC.

We will not be eligible to be treated as a RIC if we are not able to qualify as a RIC in any given year. In order to qualify for the special treatment accorded to RICs, we must meet certain income source, asset diversification and annual distribution requirements. Recent changes in our business, including our strategy of taking larger positions in our portfolio companies and increased holding periods to exit through IPOs or M&A transactions, have created more risk specifically relating to the asset diversification requirements of maintaining our special tax status. To qualify as a RIC, we must meet certain asset diversification requirements at the end of each quarter of our taxable year. Failure to meet these tests in any year may result in the loss of RIC status. Because our ownership percentages in our portfolio have grown over the last several years, as of December 31, 2015, we had at least nine companies with significant valuations that are not qualifying assets for the purpose of the RIC test. As long as the aggregate values of our non-qualifying assets remain below 50 percent of total assets, we will continue to qualify as a RIC. It becomes more difficult to pass this test when companies in our portfolio are successful and we want to invest more capital in those companies to increase our investment returns. Rather than selling portfolio companies that are performing well in order to pass our RIC diversification tests, we may opt instead to not qualify as a RIC. If we fail to qualify for special tax treatment accorded to RICs for failure of our RIC diversification tests, or for any other reason, we will be subject to corporate-level income tax on our income.

**A deemed dividend election could affect the value of our stock.**

If we, as a RIC, decide to make a deemed distribution of realized net capital gains and retain the net realized capital gains for any taxable year, also referred to as a deemed dividend, we would have to establish appropriate reserves for

taxes that we would have to pay on behalf of shareholders. It is possible that establishing reserves for taxes could have a material adverse effect on the value of our common stock. Additionally, if we decide to make a deemed distribution and changes in tax law occur that would increase the dividend tax rates for individuals and corporations, the net benefit to shareholders from a deemed distribution could be adversely affected. Such changes, therefore, could reduce the overall benefit to our shareholders from our status as a RIC.

We operate in a heavily regulated environment, and changes to, or non-compliance with, regulations and laws could harm our business.

We are subject to substantive SEC regulations as a BDC. Securities and tax laws and regulations governing our activities may change in ways adverse to our and our shareholders' interests, and interpretations of these laws and regulations may change with unpredictable consequences. Any change in the laws or regulations that govern our business could have an adverse impact on us or on our operations. Changing laws, regulations and standards relating to corporate governance, valuation, public disclosure and market regulation, including the Sarbanes-Oxley Act of 2002 and the Dodd Frank Act, new SEC regulations, new federal accounting standards and Nasdaq Stock Market rules, create additional expense and uncertainty for publicly traded companies in general, and for BDCs in particular. These new or changed laws, regulations and standards are subject to varying interpretations in many cases because of their lack of specificity, and as a result, their application in practice may evolve over time, which may well result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

We are committed to maintaining high standards of corporate governance and public disclosure. As a result, our efforts to comply with evolving laws, regulations and standards have and will continue to result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies, our reputation may be harmed. This increased regulatory burden is causing us to incur significant additional expenses and is time consuming for our management, which could have a material adverse effect on our financial performance.

**Market prices of our common stock will continue to be volatile.**

We expect that the market price of our common stock price will continue to be volatile. The price of the common stock may be higher or lower than the price you pay for your shares, depending on many factors, some of which are beyond our control and may not be directly related to our operating performance. These factors include the following:

- stock market and capital markets conditions;

• internal developments in our Company with respect to our personnel, financial condition and compliance with all applicable regulations;

- announcements regarding any of our portfolio companies;

- announcements regarding developments in the life sciences-, energy- or electronics-related fields in general;



announcements regarding government funding and initiatives associated with the development of life sciences-, energy- or electronics-related products;

- a mismatch between the long-term nature of our business and the short-term focus of many investors;

significant volatility in the market price and trading volume of securities of BDCs, RICs or other financial services companies;

changes in regulatory policies or tax guidelines with respect to BDCs or RICs; general economic conditions and trends; and/or

departures of key personnel.

We will not have control over many of these factors, but expect that our stock price may be influenced by them. As a result, our stock price may be volatile, and you may lose all or part of your investment. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. Due to the potential volatility of our stock price, we may therefore be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

**Quarterly results fluctuate and are not indicative of future quarterly performance.**

Our quarterly operating results fluctuate as a result of a number of factors. These factors include, among others, variations in and the timing of the recognition of realized and unrealized gains or losses, the degree to which we and our portfolio companies encounter competition in our markets and general economic and capital markets conditions. As a result of these factors, results for any one quarter should not be relied upon as being indicative of performance in future quarters.

Investment in foreign securities could result in additional risks.

We may invest in foreign securities, and we currently have one investment in a foreign security. When we invest in securities of foreign issuers, we may be subject to risks not usually associated with owning securities of U.S. issuers. These risks can include fluctuations in foreign currencies, foreign currency exchange controls, social, political and economic instability, differences in securities regulation and trading, expropriation or nationalization of assets and

foreign taxation issues. In addition, changes in government administrations or economic or monetary policies in the United States or abroad could result in appreciation or depreciation of our securities and could favorably or unfavorably affect our operations. It may also be more difficult to obtain and enforce a judgment against a foreign issuer. Any foreign investments made by us must be made in compliance with U.S. and foreign currency restrictions and tax laws restricting the amounts and types of foreign investments.

Although most of our investments are denominated in U.S. dollars, our investment that is denominated in a foreign currency is subject to the risk that the value of a particular currency may change in relation to the U.S. dollar, in which currency we maintain financial statements and valuations. Among the factors that may affect currency values are trade balances, the level of short-term interest rates, differences in relative values of similar assets in different currencies, long-term opportunities for investment and capital appreciation and political developments.

Investing in our stock is highly speculative and an investor could lose some or all of the amount invested.

Our investment objectives and strategies result in a high degree of risk in our investments and may result in losses in the value of our investment portfolio. Our investments in small businesses are highly speculative and, therefore, an investor in our common stock may lose his or her entire investment. The value of our common stock may decline and may be affected by numerous market conditions, which could result in the loss of some or all of the amount invested in our common stock. The securities markets frequently experience extreme price and volume fluctuations that affect market prices for securities of companies in general, and technology and very small capitalization companies in particular. Because of our focus on the technology and very small capitalization sectors, and because we are a very small capitalization company ourselves, our stock price is especially likely to be affected by these market conditions. General economic conditions and conditions in the semiconductor and information technology, life sciences, materials science and other high-technology industries, including energy, may also affect the price of our common stock.

**Our strategy of writing covered calls and buying put options on public portfolio company securities held by us could result in us receiving a lower return for such investments than if we had not employed such strategy.**

There are several risks associated with transactions in options on securities. For example, there are significant differences between the securities and options markets that could result in an imperfect correlation between these markets, causing a given transaction not to achieve its objectives. A decision as to whether, when and how to use options involves the exercise of skill and judgment, and even a well-conceived transaction may be unsuccessful to some degree because of market behavior or unexpected events. As the writer of a covered call option, the Company forgoes, during the option's life, the opportunity to profit from increases in the market value of the security covering the call option above the sum of the premium and the strike price of the call, but has retained the risk of loss should the price of the underlying security decline. The writer of an option has no control over the time when it may be required to fulfill its obligation as a writer of the option. Once an option writer has received an exercise notice, it cannot effect a closing purchase transaction in order to terminate its obligation under the option and must deliver the underlying security at the exercise price.

As the buyer of a put option, we may incur losses if the price per share of the underlying stock to that option is above the strike price of the put option at the time of expiration, which would result in our put option expiring without value. Such expiration would reduce our overall returns on our investment in those publicly traded securities once they are

sold.

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**Our compensation structure as an internally managed BDC could be materially different than our compensation structure if we were externally managed.**

As an internally managed BDC, our compensation structure is determined and set by our Board of Directors. This structure currently includes salary and bonus and incentive compensation, which is issued through grants and subsequent vesting of restricted stock. We are not generally permitted to employ an incentive compensation structure that directly ties performance of our investment portfolio and results of operations to compensation owing to our granting of restricted stock as incentive compensation.

This compensation structure contrasts to that of an externally managed BDC, where management fees used to pay salaries and bonuses of the employees of the external adviser are determined based on a percentage of total (gross) assets, and cash-based incentive compensation is determined based on the performance of the BDC's investment portfolio and operating performance.

The differences between the compensation structure of our internally managed BDC and that of an externally managed BDC could lead to material differences in the compensation of our management team when compared with the compensation that would have been due if we were externally managed. For example, for the fiscal year ended December 31, 2015, salaries and benefits (excluding compensation costs related to restricted stock) accounted for approximately 3.5 percent of total assets. Owing primarily to a reduction in the number of full-time employees, we currently expect salaries and benefits to be approximately 2.8 percent of total assets for the fiscal year ending December 31, 2016, under the assumption that our total assets remains constant with those as of the end of 2015. This percentage could be higher if our total assets decrease as of the end of 2016 or could be lower if our total assets increase as of the end of 2016. If we were externally managed, the management fees that would be used to pay such expenses would be fixed based on the investment advisory agreement between the BDC and the adviser. This percentage is commonly set at 2.0 percent of total assets.

Incentive compensation is paid to our employees through grants of restricted stock. This restricted stock vests in part over time and in part when the volume-weighted stock price is at or above pre-determined stock price targets over a 30-day period. In 2015, approximately 100,500 shares of restricted stock vested based on time, and no restricted stock vested based on stock price. The company recognized approximately \$798,965 in non-cash compensation expense related to restricted stock in 2015. While a portion of the amount of restricted stock that vests is directly correlated to our stock price, there is no specific direct correlation between vesting and performance of the BDC's investment portfolio and operating performance. If we were externally managed, we would pay our adviser in cash a portion of our net realized gains less unrealized depreciation. This percentage is commonly set at 20 percent. If we were externally managed in 2015, we would not have paid incentive compensation to our adviser.

**The Board of Directors intends to grant restricted stock pursuant to the Amended and Restated Harris & Harris Group, Inc. 2012 Equity Incentive Plan (the "Stock Plan"). These equity awards may have a dilutive effect on existing shareholders.**

In accordance with the Stock Plan, the Company's Board of Directors plans to grant equity awards in the form of restricted stock from time to time for up to 10 percent of the total shares of stock issued and outstanding as of the effective date of the Stock Plan (June 7, 2012). Issuance of shares of restricted stock results in existing shareholders owning a smaller percentage of the shares outstanding.

You have no right to require us to repurchase your shares.

You do not have the right to require us to repurchase your shares of common stock.

**Future sales of our common stock in the public market could cause our stock price to fall.**

Sales of a substantial number of shares of our common stock in offerings, such as follow-on public offerings, registered direct or PIPE transactions, or rights offerings, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities.

**Item 1B. Unresolved Staff Comments.**

None.

**Item 2. Properties.**

The Company maintains its offices at 1450 Broadway, New York, New York 10018, where it leases approximately 6,900 square feet of office space pursuant to a lease agreement expiring on December 31, 2019. (See "Note 11. Commitments and Contingencies" contained in "Item 8. Consolidated Financial Statements and Supplementary Data.")

We believe that our office facilities are suitable and adequate for our business as it is contemplated to be conducted.

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**Item 3. Legal Proceedings.**

We and our consolidated subsidiaries are not currently subject to any material legal proceedings. From time to time, we and our consolidated subsidiaries may be a party to certain legal proceedings in the ordinary course of business, including proceedings relating to the enforcement of our rights under contracts with our portfolio companies. While the outcome of these legal proceedings cannot be predicted with certainty, we do not expect that these proceedings will have a material effect upon our financial condition or results of operations.

**Item 4. Mine Safety Disclosures.**

Not applicable.



**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.****Market Information**

Our common stock is traded on the Nasdaq Global Market under the symbol "TINY." The following table sets forth the range of the high and low sales price of the Company's shares during each quarter of the last two fiscal years and the closing share price as a percentage of net asset value, as reported by the Nasdaq Global Market. The quarterly stock prices quoted represent interdealer quotations and do not include markups, markdowns or commissions.

Quarter Ended	Market Price		Net Asset Value ("NAV") Per Share at End of Period	Premium or (Discount) as a % of NAV	
	High	Low		High	Low
March 31, 2015	\$3.85	\$2.86	\$ 3.39	13.6	(15.6 )%
June 30, 2015	\$3.15	\$2.56	\$ 3.34	(5.7 )%	(23.4 )%
September 30, 2015	\$2.88	\$2.05	\$ 2.80	2.9	(26.8 )%
December 31, 2015	\$2.38	\$2.00	\$ 2.88	(17.4 )%	(30.6 )%
March 31, 2014	\$3.94	\$2.83	\$ 3.73	5.6	(24.1 )%
June 30, 2014	\$3.91	\$3.12	\$ 3.87	1.0	(19.4 )%
September 30, 2014	\$3.43	\$2.90	\$ 3.85	(10.9 )%	(24.7 )%
December 31, 2014	\$3.09	\$2.51	\$ 3.51	(12.0 )%	(28.5 )%

Shares of BDCs may trade at a market price that is less than the value of the net assets attributable to those shares. The possibility that our shares of common stock will trade at premiums that are unsustainable over the long term or at a discount from net asset value is separate and distinct from the risk that our net asset value will decrease. Historically, our shares of common stock have traded at times at a discount and at other times at a premium to net asset value. For the last two years, our stock has generally traded at a discount to net asset value. The last reported price for our common stock on December 31, 2015, was \$2.20 per share, which was a 23.6 percent discount to our net asset value of \$2.88 as of December 31, 2015.

**Shareholders**

As of March 11, 2016, there were approximately 110 holders of record and approximately 12,500 beneficial owners of the Company's common stock.

## Dividends

We did not pay a cash dividend or declare a deemed dividend for 2015 or 2014. For more information about deemed dividends, please refer to the discussion under "Tax Status."

## Issuer Purchases of Equity Securities

On August 6, 2015, our Board of Directors authorized a repurchase of up to \$2.5 million of the Company's common stock in the open market within a six-month period. Under the repurchase program, we may, but we are not obligated to, repurchase our outstanding common stock in the open market from time to time provided that we comply with the prohibitions under our Insider Trading Policies and Procedures and the guidelines specified in Rule 10b-18 of the Securities Exchange Act of 1934, as amended, including certain price, market volume and timing constraints. In addition, any repurchases are conducted in accordance with the 1940 Act. During the year ended December 31, 2015, we repurchased 509,082 shares at an average price of approximately \$2.36 per share, inclusive of commissions. This represented a discount of approximately 18.1 percent of the net asset value per share at December 31, 2015. The total dollar amount of shares repurchased in this period was \$1,199,994, leaving a maximum of \$1,300,006 available for future program purchases as of December 31, 2015. The six-month period expired on February 6, 2016. On March 3, 2016, our Board of Directors reauthorized the repurchase of up to \$2.5 million of the Company's common stock within a six-month period. As of March 14, 2016, no additional repurchases have occurred, leaving a maximum of \$2.5 million available for future repurchases.

The following table discloses on a monthly basis for the year ended December 31, 2015, the total number of shares repurchased (including the total number of shares repurchased under this program), the average price paid per share, and the maximum number of shares (or approximate dollar value) of shares that may yet be repurchased under the program.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Program	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Program
August 21- 31, 2015	88,875	\$ 2.54	88,875	\$ 2,274,557
September 1-30, 2015	209,944	2.44	298,819	1,762,338
October 1-12, 2015	119,365	2.20	418,184	1,500,003
November 30, 2015	11,899	2.22	430,083	1,473,643

December 1-9, 2015	78,999	2.20	509,082	1,300,006
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**Securities Authorized for Issuance Under Equity Compensation Plans****EQUITY COMPENSATION PLAN INFORMATION****As of December 31, 2015**

Plan Category	<b>Number of securities to be issued upon exercise of outstanding options, warrants and rights<sup>(1)</sup></b>	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in Column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	1,402,912	\$ 9.85	(2)
Equity compensation plans not approved by security holders	-	-	-
<b>TOTAL</b>	<b>1,402,912</b>	<b>\$ 9.85</b>	<b>(2)</b>

<sup>(1)</sup> Represents shares subject to options.

<sup>(2)</sup> The Company's Stock Plan permits the issuance of stock options and restricted stock in an aggregate amount of up to 20 percent of our issued and outstanding common stock (the "Plan Maximum Shares") as of the effective date of the Stock Plan (June 7, 2012). Under the Stock Plan, all of the Plan Maximum Shares are available for grants of stock options, and half of the Plan Maximum Shares (up to 10 percent of our issued and outstanding common stock as of the effective date of the Stock Plan) is available for grants of restricted stock. As of December 31, 2015, there were 3,734,879 shares remaining available for issuance under the Stock Plan, 2,037,731 of which were available for grant in the form of restricted stock. If any shares subject to an award granted under the Stock Plan are forfeited, cancelled, exchanged or surrendered, or if an award terminates or expires without a distribution of shares, those shares will again be available for awards under the Stock Plan.

**Performance Graph**

The graph below compares the cumulative five-year total return of holders of the Company's common stock with the cumulative total returns of the Nasdaq Composite index and the Nasdaq Financial index. We chose broader indices for comparison because we make investments in multiple industries, and we do not believe there is an appropriate index of companies with an investment strategy similar to our own with which to compare the return on our common stock. The graph assumes that the value of the investment in the Company's common stock and in each of the indexes (including reinvestment of dividends) was \$100 on December 31, 2010, and tracks it through December 31, 2015.

**COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN\***

Among Harris & Harris Group, Inc., the NASDAQ Composite Index and the NASDAQ Financial Index

\*\$100 invested on 12/31/10 in stock or index, including reinvestment of dividends.  
Fiscal year ending December 31.

	12/10	12/11	12/12	12/13	12/14	12/15
Harris & Harris Group, Inc.	100.00	79.00	75.34	68.04	67.35	50.23
NASDAQ Composite	100.00	100.53	116.92	166.19	188.78	199.95
NASDAQ Financial	100.00	91.04	106.16	153.95	162.67	168.32

*The stock price performance included in this graph is not necessarily indicative of future stock price performance.*

*Source: Research Data Group, Inc.*

**Stock Transfer Agent**

American Stock Transfer & Trust Company, 59 Maiden Lane, New York, New York 10038 (Telephone 800-937-5449, Attention: Mr. Paul O'Leary) serves as our transfer agent. Certificates to be transferred should be mailed directly to the transfer agent, preferably by registered mail.

**Item 6. Selected Financial Data.**

The information below was derived from the audited Consolidated Financial Statements included in this report and in previous annual reports filed with the SEC. This information should be read in conjunction with those Consolidated Financial Statements and Supplementary Data and the notes thereto. These historical results are not necessarily indicative of the results to be expected in the future.

**Financial Position as of December 31:**

	2015	2014	2013	2012	2011
Total assets	\$96,461,286	\$112,094,861	\$125,063,946	\$131,990,250	\$150,343,653
Total liabilities	\$7,749,615	\$2,440,434	\$2,362,371	\$3,553,476	\$4,645,246
Net assets	\$88,711,671	\$109,654,427	\$122,701,575	\$128,436,774	\$145,698,407
Net asset value per outstanding share	\$2.88	\$3.51	\$3.93	\$4.13	\$4.70
Cash dividends paid	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Cash dividends paid per outstanding share	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Shares outstanding, end of year	30,845,754	31,280,843	31,197,438	31,116,881	31,000,601

**Operating Data for Year Ended December 31:**

	2015	2014	2013	2012	2011
Total investment income	\$916,995	\$517,800	\$470,902	\$722,227	\$702,765
Total expenses <sup>1</sup>	\$8,079,505	\$8,419,527	\$8,493,108	\$9,525,570	\$9,041,130
Net operating loss	\$(7,162,510)	\$(7,901,727)	\$(8,022,206)	\$(8,803,343)	\$(8,338,365)
Total tax expense	\$2,148	\$17,896	\$27,994	\$15,236	\$6,922
Net realized gain (loss) income from investments	\$4,531,700	\$(5,083,625)	\$18,516,268	\$2,406,433	\$2,449,705



Net (increase) decrease in unrealized depreciation on investments	\$(17,302,729)	\$(585,068 )	\$(18,283,020)	\$(13,589,990)	\$2,347,297
Share of loss on equity investment	\$(312,291 )	\$0	\$0	\$0	\$0
Net decrease in net assets resulting from operations	\$(20,245,830)	\$(13,570,420)	\$(7,788,958 )	\$(19,986,900)	\$(3,541,363)
Decrease in net assets resulting from operations per average outstanding share	\$(0.65 )	\$(0.43 )	\$(0.25 )	\$(0.65 )	\$(0.12 )

<sup>1</sup> Included in total expenses is non-cash, stock-based compensation expense of \$798,965 in 2015; \$857,006 in 2014; \$1,249,756 in 2013; \$2,928,943 in 2012; and \$1,894,800 in 2011.

## Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The information contained in this section should be read in conjunction with the Company's 2015 Consolidated Financial Statements and notes thereto.

### Cautionary Statement Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements that involve substantial risks and uncertainties. These forward-looking statements are not historical facts, but rather are based on current expectations, estimates and projections about the Company, our current and prospective portfolio investments, our industry, our beliefs, and our assumptions. Words such as "anticipates," "expects," "intends," "plans," "will," "may," "continue," "believes," "seeks," "estimates," "would," "could," "should," "targets," "projects," and variations of these words and similar expressions are intended to identify forward-looking statements. The forward-looking statements contained in this Annual Report involve risks and uncertainties, including statements as to:

- our future operating results;
- our business prospects and the prospects of our portfolio companies;
- the impact of investments that we expect to make;
- our contractual arrangements and relationships with third parties;
- the dependence of our future success on the general economy and its impact on the industries in which we invest;
- the ability of our portfolio companies to achieve their objectives;
- our expected financings and investments;
- the adequacy of our cash resources and working capital; and
- the timing of cash flows, if any, from the operations and/or monetization of our positions in our portfolio companies.

These statements are not guarantees of future performance and are subject to risks, uncertainties, and other factors, some of which are beyond our control and difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements, including without limitation:

• an economic downturn could impair our portfolio companies' ability to continue to operate, which could lead to the loss of some or all of our investments in such portfolio companies;

• a contraction of available credit and/or an inability to access the equity markets could impair our investment activities;

interest rate volatility could adversely affect our results, particularly if we elect to use leverage as a material part of our investment strategy;

currency fluctuations could adversely affect the results of our investments in foreign companies, particularly to the extent that we receive payments denominated in foreign currency rather than U.S. dollars; and

the risks, uncertainties and other factors we identify in "Risk Factors" and elsewhere in this Annual Report on Form 10-K and in our other filings with the SEC.

Although we believe that the assumptions on which these forward-looking statements are based are reasonable, any of those assumptions could prove to be inaccurate, and as a result, the forward-looking statements based on those assumptions also could be inaccurate. Important assumptions include our ability to originate new investments, certain margins and levels of profitability and the availability of additional capital. In light of these and other uncertainties, the inclusion of a projection or forward-looking statement in this Annual Report on Form 10-K should not be regarded as a representation by us that our plans and objectives will be achieved. These risks and uncertainties include those described or identified in "Risk Factors" and elsewhere in this Annual Report on Form 10-K. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Annual Report on Form 10-K.

## **Background and Overview**

We incorporated under the laws of the state of New York in August 1981. In 1983, we completed an initial public offering ("IPO"). In 1984, we divested all of our assets except Otisville BioTech, Inc., and became a financial services company with the investment in Otisville as the initial focus of our business activity.

In 1992, we registered as an investment company under the 1940 Act, commencing operations as a closed-end, non-diversified investment company. In 1995, we elected to become a business development company ("BDC") subject to the provisions of Sections 55 through 65 of the 1940 Act.

We build transformative companies enabled by disruptive science by identifying and investing in such companies and then providing strategic, operational and management resources, and creative financial solutions.

We believe we provide four core benefits to our shareholders. First, we provide shareholders with access to disruptive science-enabled companies, particularly ones that are targeting opportunities in the precision health and precision

medicine markets that would otherwise be difficult to access or inaccessible for most current and potential shareholders. Second, we have an existing portfolio of companies in exciting markets at varying stages of maturity that provide for a potential pipeline of investment returns over time. Third, we provide access for accredited investors to co-invest with us in our portfolio companies through our pre-emptive rights. Fourth, we are able to invest opportunistically in a range of types of securities to take advantage of market inefficiencies.

## Review of 2015

We believe accomplishments and adjustments to our business made during 2015 position us for potential future growth. These items include:

Two of our portfolio companies, Adesto Technologies Corporation and OpGen, Inc., completed IPOs and are now traded on the NASDAQ stock exchange under the symbols IOTS and OPGN, respectively.

Molecular Imprints, Inc., and SiOnyx, Inc., were sold to undisclosed buyers. We hold shares in the buyer of Molecular Imprints and have an economic interest in future returns from the buyer of SiOnyx. CordenPharma International bought out SynGlyco, Inc.'s rights to future payments.

We sold our shares of Nantero, Inc., to an undisclosed current investor in the company at a gain on our investment.

We received milestone payments related to the sales of BioVex Group, Inc., to Amgen, Inc., and Molecular Imprints, Inc., to Canon, Inc.

We received the final principal payment from our initial set of non-convertible debt investments made between 2010 and 2012. We believe these investments generated an attractive return on investment, provided us with short-term income and all principal was repaid in full.

We repurchased 509,082 shares of our stock for approximately \$1.2 million at an average price per share of \$2.36.

We ended 2015 with \$17.9 million in cash and \$19.1 million in secondary liquidity (publicly traded positions).

We decreased our expenses for the third consecutive year. Additionally, in 2016, we are positioned to significantly reduce our net operating loss by an additional 20-30 percent.

AgBiome LLC, EchoPixel, Inc., Magic Leap, Inc., Metabolon, Inc., NGX Bio, Inc., and ORIG3N, Inc., raised rounds of capital from new and current investors at higher prices per share than each company's respective prior round of financing.

HZO, Inc., raised capital from current investors at the same price per share as the prior round of financing and TARA Biosystems, Inc., attracted capital from two new investors in a convertible note financing.

- A number of our portfolio companies announced significant developments including:

D-Wave secured multi-year agreements with Lockheed Martin and Google/NASA/USRA and a order from Los Alamos National Laboratory. The company also announced and shipped its first 1,000 qubit computers. Google announced that D-Wave's quantum computer was able to find solutions to complicated problems of nearly 1,000 variables up to 10<sup>8</sup> (100,000,000) times faster than classical computers.

AgBiome formed a strategic partnership with Genective, a leading developer of biotech crops, to accelerate the discovery of a new generation of insect control traits.

- HZO announced partnerships with Dell and Motorola. HZO's solutions are incorporated into Dell's Latitude 12 Rugged Tablet and Motorola's Moto Surround earbuds.

OpGen announced the acquisition of AdvanDx, a developer of advanced molecular diagnostic products. Through this deal, OpGen gained a family of FDA approved and CE marked rapid molecular tests for use with the company's Acuitas MDRO Gene tests and bioinformatics for multi-drug resistant organisms.

We also faced the following challenges during the year:

- Net asset value per share decreased from \$3.51 as of December 31, 2014, to \$2.88 as of December 31, 2015.

Our share price decreased from \$2.95 as of December 31, 2014, to \$2.20 as of December 31, 2015, and \$1.92 as of March 11, 2016.

Even though financings of some of our portfolio companies may have occurred at increases in price per share from prior rounds of financing, such increases in value may not be reflected in full in our values owing to other rights and preferences afforded to investors in those rounds of financing. This challenge, in part, led to a decrease in our net asset value per share during 2015.

IPOs of small companies are difficult to complete, and when they are completed, they often occur at valuations lower than publicly traded comparable companies and rounds of private financing.

The values of public equities, particularly those of microcapitalization companies, are highly volatile. While Adesto Technologies Corporation is trading above its IPO price, Champions Oncology, Enumeral and OpGen all decreased in value during 2015. Our own stock price has been under considerable pressure from these and other headwinds.



We had three companies, Cobalt Technologies, Inc., Cambrios Technologies Corporation and Ultora, Inc., cease operations and assign each company's assets to a trustee for liquidation for the benefit of creditors. We did not receive any proceeds from Cobalt Technologies, and we do expect to receive proceeds from Cambrios Technologies and Ultora.

The downturn in the oil and gas sector has negatively affected the business operations of at least one of our portfolio companies, Produced Water Absorbents, Inc.

While Bridgelux, Inc., agreed to be acquired by a consortium of buyers in July 2015, the transaction has yet to close and we are uncertain if and when it will close.

## 2016 Outlook

We have three core initiatives that we believe will continue to position us to generate returns for stockholders through appreciation in our net asset value, stock buybacks and dividends.

We believe major changes are coming to the American health care system over the next decade. The promise of precision medicine will be leading many of these changes. We believe we are in a unique position to build certain of

- 1) our current and our future portfolio companies addressing precision health and precision medicine as majority-owned subsidiaries or controlled-partner companies. Our team is already actively engaged in this market with our companies.

- 2) these maturing companies exit, we plan to return to shareholders a much greater portion of future realized gains from these investments in the form of dividends and share repurchases than we have historically.

- 3) We will continue to reduce our net operating loss (defined as our investment income less our expenses). We will see a further reduction in net operating loss of 20-30 percent in 2016, after an 11 percent reduction over the period of time from 2013 through 2015. We believe this will take us to an expense level we believe is at a minimum to operate a publicly traded BDC in the current regulatory environment. This reduction in net operating loss will permit our shareholders to realize more of the value of our portfolio as it matures in the coming years.

We will also seek to increase substantially the short-term income generated from existing and new investments to offset our operating expenses and potentially generate additional cash flows for shareholders of Harris & Harris Group.

## Reduction of Net Operating Loss

During 2015, we reduced our net operating loss from approximately \$7.9 million to \$7.2 million. We aim to reduce this net operating loss further in 2016. This reduction will be achieved through three primary sources. First, we will generate more short-term income from our investments primarily through interest payments on debt securities and through consulting agreements where we will provide management, financial and other services to our portfolio companies, particularly those we control. Second, we are focused on building companies. The expenses incurred in doing so will be borne by those companies and we will reduce certain expenses historically borne by us. Third, we have reduced the size of our investment team from four managing directors to two managing directors. Alexei Andreev, one of our former managing directors, transitioned to a venture partner role in December of 2015 and is now a part-time employee of the Company. Misti Ushio, another of our former managing directors, resigned on February

29, 2016, in order to pursue her role as CEO of one of our precision health and precision medicine portfolio companies, TARA Biosystems, Inc. She will provide consulting services to us on certain of our portfolio companies and on an as-needed basis.

## Portfolio Summary

As of December 31, 2015, we had 20 privately held, equity-focused companies in our portfolio that have yet to complete liquidity events (e.g., public listings or merger and acquisition ("M&A") transactions) and are not in the process of liquidating their assets. These do not include 1) our publicly traded and unrestricted securities of Champions Oncology, Inc.; 2) our publicly traded securities of Adesto Technologies Corporation, Enumeral Biomedical Holdings, Inc., and OpGen, Inc., which are subject to restrictions on their sale; 3) our venture debt deal with NanoTerra, Inc.; 4) our rights to milestone payments from Amgen, Inc., Laird Technologies, Inc., and Canon, Inc.; 5) our portfolio companies that are in the process of liquidating their assets or have shut down, including Cambrios Technologies Corporation, Laser Light Engines, Inc., and Ultora, Inc.; and 6) our portfolio companies, Black Silicon Holdings, Inc., and SynGlyco, Inc., that exist to collect payments from the sale of subsidiaries or assets, and Bridgelux, Inc., that entered into an acquisition agreement. As of December 31, 2015, we valued these 20 privately held equity-focused companies at \$50,636,074. Including the companies referenced above, we valued our total portfolio at \$77,152,904 as of December 31, 2015.

## Summary of Returns

Since our investment in Otisville in 1983 through December 31, 2015, we have made a total of 107 equity-focused investments. We have completely exited 76 and partially exited two of these 107 investments, recognizing aggregate net realized gains of \$88,888,217 on invested capital of \$135,891,182, or 1.7 times invested capital. For the securities of the 26 privately held companies in our equity-focused portfolio held at December 31, 2015, we have net unrealized depreciation of \$36,986,842 on invested capital of \$91,386,857. We have aggregate net realized gains on our exited companies, offset by unrealized depreciation for our 26 currently held equity-focused investments of \$51,901,375 on invested capital of \$227,278,039. The above net realized gains do not take into consideration our annual operating expenses over the period from 1983 to December 31, 2015, which expenses are directly or indirectly borne by our shareholders. At December 31, 2015, from first dollar in, the average and median holding periods for the 26 privately held equity-focused investments were 5.4 years and 4.5 years, respectively. Historically, as measured from first dollar in to last dollar out, the average and median holding periods for the 76 investments we have fully exited were 4.6 years and 3.6 years, respectively.

The amount of net realized gains includes the following exits in 2015:

- Realized gains of \$1,790,891 from the repayment of certain bridge notes of Black Silicon Holdings, Inc., from the proceeds received from the sale of its wholly owned subsidiary, SiOnyx, Inc. On August 3, 2015, SiOnyx, Inc., reorganized its corporate structure to become a subsidiary of a new company, Black Silicon Holdings. At the time of reorganization, our warrants in SiOnyx were cancelled, and we realized a loss of \$231,656 on those securities. Our security holdings of SiOnyx converted into securities of Black Silicon Holdings. SiOnyx was then acquired by an

undisclosed buyer. Black Silicon Holdings received cash and a profit interest in the undisclosed buyer that is held through our ownership in Black Silicon Holdings;

· Realized gains of \$3,109,347 from the sale of our investment in Nantero, Inc., on invested capital of \$1,718,706;

· Realized gains of \$242,485 from the sale of the non-semiconductor business of Molecular Imprints, Inc., on invested capital of \$928,884;

· Realized gains of \$398,762 on our rights to milestone payments from Canon, Inc., associated with the sale of Molecular Imprints, Inc.,

· Realized gains of \$862,346 from rights to milestone payments resulting from the achievement during the fourth quarter of 2015 of the second milestone associated with Amgen, Inc.'s acquisition of BioVex Group, Inc.;

· Realized loss of \$995,143 on our investment in Cobalt Technologies, Inc., owing to its securities declared worthless on December 31, 2015.

· Realized losses totaling \$689,243 on the expiration of certain warrants in Bridgelux, Inc., D-Wave Systems, Inc., and Metabolon, Inc.

The aggregate net realized gains and the cumulative invested capital do not reflect the cost or value of our freely tradable shares of Champions Oncology, Inc., or OpGen, Inc., that we owned as of December 31, 2015. The aggregate net realized gains also do not include potential milestone payments that could occur as part of the acquisitions of BioVex Group, Inc., Nextreme Thermal Solutions, Inc., or Molecular Imprints, Inc., at points in time in the future. If these amounts were included as of December 31, 2015, our aggregate net realized gains and cumulative invested capital from 1983 through December 31, 2015, would be \$89,522,284 and \$143,961,382, respectively, or 1.6 times invested capital. These amounts also do not include our shares of Adesto Technologies Corporation and Enumeral Biomedical Holdings, Inc., that, while traded publicly, are restricted, are companies with which we are currently considered an affiliate, and/or are subject to lock-up agreements.

### **Recent and Potential Liquidity Events From Our Portfolio as of December 31, 2015**

On June 11, 2015, the Company and an undisclosed buyer entered into a Share Purchase Agreement for the purchase by such buyer of the Company's shares of preferred stock of Nantero, Inc. Upon execution of the Agreement, the Company received \$4,828,052 in proceeds from the sale.

On April 18, 2014, Canon, Inc., completed its acquisition of Molecular Imprints, Inc.'s semiconductor lithography equipment business. On October 1, 2015, the Company received proceeds of \$795,567 upon the achievement of the

first milestone associated with this transaction. We could receive an additional \$625,000 from amounts held in escrow as well as up to \$938,926 upon the achievement of certain additional milestones. As of December 31, 2015, we valued the remaining potential milestone payments from the sale of Molecular Imprints at \$461,819. There can be no assurance as to the timing and how much of the remaining amount we will ultimately realize in the future, if any. With the closing of the transaction, a new spin-out company, which retained the name "Molecular Imprints, Inc.," was formed to continue development and commercialization of nanoscale patterning in consumer and biomedical applications, and we became a shareholder of the new company.

On May 1, 2015, this new spin-out of Molecular Imprints, Inc.'s non-semiconductor business was acquired. Upon closing of the transaction, we received our initial payment of \$705,794 and 24,897 shares of Series B Preferred Stock of the acquiring company. As of December 31, 2015, additional proceeds of \$126,972 and 4,394 shares of Series B Preferred Stock of the acquiring party are held in an indemnity escrow and \$3,386 is held in a stockholder representative funding escrow until May 1, 2016. There can be no assurance as to how much of these amounts we will ultimately realize. As of December 31, 2015, we valued the funds and the shares of stock held in escrow from the sale of Molecular Imprints at \$63,428 and \$28,299, respectively.

As of December 31, 2015, we valued the remaining potential milestone payments from the sale of BioVex Group, Inc., at \$2,900,232. If all the remaining milestone payments were to be paid by Amgen, Inc., we would receive an additional \$4,141,910. There can be no assurance as to the timing and how much of this amount we will ultimately realize in the future.

As of December 31, 2015, we valued potential milestone payments from the sale of Nextreme Thermal Solutions, Inc., to Laird Technologies, Inc., at \$0.

Enumeral Biomedical Holdings is traded publicly on the OTC market under the symbol ENUM. Certain of the Company's shares of Enumeral Biomedical Holdings are subject to restrictions on transfer, and we are also subject to a lock-up agreement that restricts our ability to trade all securities of Enumeral owned by us, exclusive of the general restriction on the transfer of unregistered securities. The lock-up period on our 7,966,368 shares of Enumeral Biomedical Holdings expired on January 31, 2016. ENUM's stock closed trading on March 14, 2016, at \$0.19 per share.

On May 5, 2015, OpGen, Inc., completed an IPO. As of that date, the company's common stock and warrants trade on the NASDAQ Capital Market under the symbols OPGN and OPGNW, respectively. With the close of the offering, our preferred stock and certain of our bridge notes were converted into shares of common stock of OpGen. We invested \$1.8 million in the IPO, inclusive of \$650,000 in outstanding demand notes. OpGen's common stock closed trading on March 14, 2016, at \$1.58 per share.

In July 2015, SynGlyco negotiated the acceleration and settlement of payments due to it from the sale of its synthesis business to Corden Pharmaceuticals. This acceleration of payments yielded proceeds that paid off in full our senior secured debt investment with a payment to us of \$567,500. We received additional repayments for our outstanding secured convertible bridge notes of approximately \$750,000 during the first quarter of 2016. Additionally, SynGlyco entered into two license agreements that may provide additional payments in the future. These payments may bring our total cash distributions from this investment to approximately \$1.7 million. We invested a total of \$8.8 million in SynGlyco, beginning with our initial investment in 2007 and valued our securities of the company at \$908,444 as of December 31, 2015.





On July 21, 2015, Bridgelux signed a definitive agreement to be acquired by an investment group led by China Electronics Corporation and ChongQing Linkong Development Investment Company. The close of this transaction is subject to customary regulatory approvals.

In August 2015, SiOnyx, Inc., reorganized its corporate structure to become a subsidiary of a new company, Black Silicon Holdings, Inc. Our security holdings of SiOnyx converted into securities of Black Silicon Holdings. SiOnyx was then acquired by an undisclosed buyer. We received proceeds of \$2,429,202 and a profit interest in the undisclosed buyer that is held through our ownership in Black Silicon Holdings.

On October 27, 2015, Adesto Technologies Corporation completed an IPO priced at \$5.00 per share, trading on the NASDAQ Capital Market under the symbol "IOTS." The Company invested \$1,000,000 in the offering. We are subject to a lock-up agreement that restricts our ability to trade all securities of Adesto owned by us. This lock-up agreement expires on April 25, 2016. On March 14, 2016, the closing price of Adesto's shares of common stock was \$5.65.

Our companies often plan for and/or begin the process of pursuing potential sales and/or IPOs of those companies by hiring bankers and/or advisors to attempt to pursue such liquidity events. We consider these efforts to be in the ordinary course of business for those companies until the potential and timing of a transaction become tangible through events such as acceptance of letters of intent to acquire a company and/or the beginning of a road show to pursue an IPO.

### **Review of Transactions Involving Our Publicly Traded Positions**

We have generated \$2,469,676 in net cash premiums on call options sold and put options purchased of Solazyme since the company completed an IPO in May 2011. We have sold all of our shares of Solazyme since its IPO for net proceeds, after commission, of \$22,571,157 or an average sale price of \$9.80 per share. Including premiums from call and put options, the average sale price for these shares was \$10.87 per share. Our average cost basis in Solazyme is \$2.36 per share. During the year ended December 31, 2015, we sold 50,000 shares of Solazyme.

We have sold 769,295 shares of our position in Champions Oncology, Inc., in open market transactions for net proceeds, after commission, of \$873,944 or an average sale price of \$1.14 per share. Our average cost basis in Champions is \$0.67 per share. During the year ended December 31, 2015, we did not sell any shares of Champions.

**Maturity of Current Equity-Focused Portfolio**

Our current portfolio is comprised of companies at varying stages of maturity in a diverse set of industries. As our portfolio companies mature, we seek to invest in new early- and mid-stage companies that may mature into mid- and late-stage companies. This continuous progression creates a pipeline of investment maturities that may lead to future sources of positive contributions to net asset value per share as these companies mature and potentially experience liquidity and exit events. Our pipeline of investment maturities for the 24 equity-focused companies in our portfolio that are not in the process of being sold or shut down are shown in the figure below (our "Active Portfolio").

\* Indicates publicly traded company as of December 31, 2015.

Note: Equity-focused portfolio companies and stage classifications as of December 31, 2015, not including 1) our rights to milestone payments associated with the acquisitions of BioVex Group, Nextreme Thermal Solutions and Molecular Imprints; and 2) portfolio companies currently in the process of being liquidated or sold, have ceased or are in the process of ceasing operations and/or are seeking a sale of their assets, including Cambrios, Laser Light Engines, Ultora, SynGlyco, Bridgelux, and Black Silicon.

We expect some of our portfolio companies to transition between stages of maturity over time. This transition may be forward if the company is maturing and is successfully executing its business plan or may be backward if the company is not successfully executing its business plan or decides to change its business plan substantially from its original plan. Transitions backward may be accompanied by an increase in non-performance risk, which reduces valuation. We discuss non-performance risk and its implications on value below in the section titled "Valuation of Investments."

We categorized our five new portfolio companies in 2015, Lodo Therapeutics Corporation, Magic Leap, Inc., ORIG3N, Inc., Petra Pharma Corporation and Phylagen, Inc., as early-stage companies.

## Portfolio Company Revenue

We aggregate the revenues of our equity-focused portfolio companies on an annual basis and report these aggregated amounts for the prior three calendar years. These revenues include contributions solely from those equity-focused portfolio companies that have yet to complete liquidity events (e.g., IPOs, up-listings, or M&A transactions) and are not in the process of being shut down as of December 31, 2015. This approach enables the comparison of aggregate revenues for our portfolio as of the end of a given year with those generated by the same set of companies in prior years. As such, the total revenues in a given historical year will fluctuate owing to the change of the composition of our equity-focused portfolio companies.

We had 20 of our 26 companies in our Active Portfolio as of December 31, 2015, that generate revenues ranging from nominal to significant from commercial sales of products and/or services, from commercial partnerships and/or from government grants. The following table lists the aggregate revenues and change between years for these 20 portfolio companies in 2013, 2014 and 2015, grouped by stage of development, as of December 31, 2015, and in total.

	2015 Aggregate Revenue (\$ Million)	2014 Aggregate Revenue (\$ Million)	Change in Revenues from 2014 to 2015	2013 Aggregate Revenue (\$ Million)	Change in Revenues from 2013 to 2014	
Early Stage	\$ 2.7	\$ 1.7	59	% \$ 1.8	-6	%
Mid Stage	\$ 45.4	\$ 23.3	95	% \$ 18.3	27	%
Late Stage	\$ 190.6	\$ 239.7	-20	% \$ 217.3	10	%
Total	\$ 238.7	\$ 264.7	-10	% \$ 237.4	11	%
Combined Mid and Late Stage	\$ 236.0	\$ 263.0	-10	% \$ 235.6	12	%

The revenue amounts listed in the table above include revenues generated by our portfolio companies in the years reported, but do not include revenues from acquired businesses prior to the consummation of those transactions.

## Ownership of Our Portfolio Companies

By studying our portfolio in greater detail, it is evident to us that potential returns from approximately half of the companies in our portfolio could be the real drivers of net asset value growth over the coming years. These companies include ones in which we have substantial ownership and ones where we currently believe the potential value at exit is

substantial. The table below provides some additional detail on our ownership of the 20 privately held, equity-focused companies in our portfolio that have yet to complete liquidity events (e.g., public listings or M&A transactions) and are not in the process of liquidating their assets. Phylagen, Inc., which we consider an equity-focused company, is not included in the chart below. Our ownership of Phylagen is solely in a note in a series seed financing for which we do not have any voting rights.

Portfolio Company	Voting Ownership Range
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EchoPixel, Inc.	
NGXBio, Inc.*	
Produced Water Absorbents, Inc.	>20%
ProMuc, Inc.*	
Senova Systems, Inc.*	

ABSMaterials, Inc.	
TARA Biosystems, Inc.*	15-20%

HZO, Inc.	
ORIG3N, Inc.	10-15%

Accelerator IV-New York Corporation

AgBiome, L.L.C.	
Ensemble Therapeutics Corp.	5-10%
Metabolon, Inc.	
Petra Pharma Corp.	

Mersana Therapeutics, Inc.	2.5-5%
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D-Wave Systems, Inc.**	
Lodo Therapeutics Corp.	
Magic Leap, Inc.	0-2.5%
Nanosys, Inc.	

\*Denotes a controlled affiliated company.

\*\*We own voting and non-voting classes of preferred equity of D-Wave Systems, Inc. If the non-voting preferred equity was included in the calculation, our ownership of D-Wave would be in the 2.5-5% range.

### **Level of Involvement in Our Portfolio Companies**

The 1940 Act generally requires that BDCs offer to "make available significant managerial assistance" to portfolio companies. We are actively involved with our portfolio companies through membership on boards of directors, as observers to the boards of directors and/or through frequent communication with management. As of December 31, 2015, we held at least one board seat or observer rights on 17 of our 20 equity-focused portfolio companies that have yet to complete a liquidity event or public listing and are not in the process of being shut down or have not agreed to be acquired (85 percent).



## Investments and Current Investment Pace

The following is a summary of our initial and follow-on equity-focused investments from January 1, 2011, to December 31, 2015. We consider a "round led" to be a round where we were the new investor or the leader of a group of investors in an investee company. Typically, but not always, the lead investor negotiates the price and terms of the deal with the investee company.

### Investments in Our Equity-Focused Portfolio of Investments

#### in Privately Held and Publicly Traded Companies

	2011	2012	2013	2014	2015
Total Incremental Investments	\$17,688,903	\$15,141,941	\$18,076,288	\$14,276,808	\$11,963,021
No. of New Investments	4	2	2	3	4
No. of Follow-On Investment Rounds	31	26	37	33	31
No. of Rounds Led	4	3	9	8	8
Average Dollar Amount – Initial	\$1,339,744	\$1,407,500	\$550,001	\$338,677	\$395,738
Average Dollar Amount – Follow-On	\$397,740	\$474,113	\$449,359	\$401,842	\$334,841

### Our Sources of Liquid Capital

The sources of liquidity that we use to make our investments are classified as primary and secondary liquidity. As of December 31, 2015, and December 31, 2014, our total primary and secondary liquidity was \$37,053,638 and \$29,620,665, respectively. We do not include funds available and undrawn from our credit facility as primary or secondary liquidity. We believe it is important to examine both our primary and secondary liquidity when assessing the strength of our balance sheet and our future investment capabilities.

Primary liquidity is comprised of cash and certain receivables. As of December 31, 2015, we held \$17,922,630 in cash and \$30,427 in certain receivables. As of December 31, 2014, we held \$20,748,314 in cash and \$230,478 in certain receivables.

During the year ended December 31, 2015, we received proceeds of \$2,070,955 from our rights to milestone payments from Amgen, Inc., associated with the sale of BioVex Group, Inc., proceeds of \$795,567 from our rights to milestone payments from Canon, Inc., associated with the sale of Molecular Imprints, Inc., proceeds of \$191,609 for fees for

providing managerial assistance to certain portfolio companies, proceeds of \$411,296 from the repayment of the senior secured debt by Nano Terra, Inc., proceeds of \$8,353 from our former investment in Contour Energy Systems, Inc., proceeds of \$2,429,202 from the repayment of certain bridge notes in Black Silicon Holdings, proceeds of \$4,828,052 on the sale of our investment in Nantero, proceeds of \$705,794 on the sale of our investment in Molecular Imprints, proceeds of \$103,310 on the sale of certain warrants of GEO Semiconductor, Inc., proceeds of \$567,500 from the repayment of the senior secured debt of SynGlyco, Inc., net proceeds of \$170,662 on the sale of our remaining 50,000 shares of Solazyme. The proceeds from these transactions added to our primary liquidity during the year ended December 31, 2015. Future payments upon achieving milestones from the sale of BioVex Group, Inc., and the sale of Molecular Imprints, Inc., to Canon, Inc., would also add to our primary liquidity in future years if these milestones are achieved successfully. The probability-adjusted values of the future milestone payments for the sales of BioVex and Molecular Imprints, as determined at the end of each fiscal quarter, are included as an asset on our Consolidated Statements of Assets and Liabilities and will be included in primary liquidity only if and when payment is received for achievement of the milestones.

Our secondary liquidity is comprised of the stock of both unrestricted and restricted publicly traded companies. Although these companies are publicly traded, their stock may not trade at high volumes and prices may be volatile, which may restrict our ability to sell our positions at any given time. As of December 31, 2015, our secondary liquidity was \$19,100,581. Champions Oncology, Inc., accounts for \$944,819 of the total amount of secondary liquidity based on the volume weighted average price of its common stock during the quarter ended December 31, 2015. Adesto Technologies Corporation, Enumeral Biomedical Holdings, Inc., and OpGen, Inc., account for \$13,645,682, \$1,831,468 and \$2,678,612, respectively, of the total amount of secondary liquidity based on the closing price of their common stock as of December 31, 2015. We were subject to lock-up agreements restricting our ability to trade our securities of Enumeral Biomedical Holdings and Adesto Technologies, exclusive of the general restriction on the transfer of unregistered securities, as of December 31, 2015. The lock-up period on our 7,966,368 shares and warrants for the purchase of 1,755,120 shares of common stock of Enumeral Biomedical Holdings expired on January 31, 2016. The lock-up period on our 1,769,868 shares of common stock of Adesto Technologies expires on April 25, 2016.

During the year ended December 31, 2014, proceeds from several transactions added to our primary liquidity. We sold 117,834 shares of our investment in Solazyme, Inc., in open market sales. We received \$1,407,520 in net proceeds from these transactions. We also sold 575,756 shares of our investment in Champions Oncology, Inc., in open market sales. We received \$636,259 in net proceeds from these transactions. We purchased and sold call option contracts on our publicly traded positions generating net proceeds of \$119,697. On April 18, 2014, we received proceeds of \$6,486,461 from the sale of Molecular Imprints, Inc.'s semiconductor lithography equipment business to Canon, Inc. We received proceeds of \$2,374,827 from the sale of Xradia, Inc., which were released from escrow during the year. On August 1, 2014, the Company received \$549,238 in payment of the outstanding principal, interest and warrants of OHSO Clean, Inc. On November 17, 2014, the Company received \$2,070,955 upon achievement of the BLA filing milestone associated with the acquisition of BioVex Group, Inc., by Amgen, Inc. On December 18, 2014, the Company received \$48,071 from Nanosys, Inc., in payment of the principal amount plus accrued interest of a convertible promissory note. On December 24, 2014, the Company received \$79,310 of total proceeds due of \$158,621 from the sale of certain warrants of GEO Semiconductor, Inc. The remaining proceeds due of \$79,311 are included in our receivables as of December 31, 2014.

As of December 31, 2014, our secondary liquidity was \$8,641,873. Solazyme, Inc., accounts for \$129,000 of the total amount of secondary liquidity based on the closing price of its common stock of \$2.58 as of December 31, 2014. Champions Oncology accounts for \$1,261,695 of the total amount of secondary liquidity based on the closing price of its common stock of \$0.50 as of December 31, 2014. Enumeral Biomedical accounts for \$7,251,178 of the total amount of secondary liquidity based on the closing price of its common stock of \$1.05 as of December 31, 2014, less a liquidity discount to reflect that these shares are subject to restrictions on transfer. We were also subject to a lock-up agreement that restricts our ability to trade our securities of Enumeral Biomedical, exclusive of the general restriction on the transfer of unregistered securities. The lock-up period on our 7,966,368 shares of Enumeral Biomedical expired on January 31, 2016. Secondary liquidity did not include the value of warrants or options we hold in Champions Oncology, Inc., or Enumeral Biomedical Holdings, Inc.

We also have the \$20,000,000 Loan Facility, which we can draw on to increase liquidity. As of December 31, 2015, we had \$5,000,000 in debt outstanding relating to this Loan Facility.

### **Current Business Environment**

The success of our business is predicated on our ability to build companies that provide returns on our invested capital through increases in value of our ownership of those companies, through realized returns generated through the sale of our securities of those companies and, currently to a lesser extent, through short-term income generated from our involvement with those companies. All of these factors can be affected by the current business environment.

Our ability to increase the value of our ownership in our investee companies requires that the current business environment be favorable for the companies to be able to execute on their business and attract additional capital at progressively lower costs over time. These two factors may not necessarily be linked as, more often than not, the price of capital is determined by new investors, and there may not be competition that would provide the company with more leverage in negotiations of price and terms. This situation is especially impactful in private financings and public financings of small capitalization companies where there are limited investors from which to raise capital. The IPO of our portfolio company, Adesto Technologies Corporation, is an example of this situation where the values of publicly traded comparable companies were substantially above the value at which Adesto was able to raise capital in the transaction. We believe this situation will continue for the foreseeable future given the decrease in investors willing to invest in small capitalization companies. That said, certain companies will continue to raise capital at increasing valuations and under favorable terms, and for such companies, the current business environment can be supportive of such events.

Even if a company raises additional capital, our participation may be limited owing to our available capital. These situations are occurring more frequently, particularly as the types of companies in which we invest are raising large rounds of financing from deep-pocketed investors. The impact to us is dilution, which may affect value and our ultimate returns, and loss of control. The current business environment is dominated by such large funds, which make it difficult for us to maintain ownership and control in certain companies. This factor is part of the reason for our shift in focus to build companies that we can finance and control with our available capital and investments that produce income where our returns are not as impacted by dilution or loss of control.

The most pronounced issue for certain of our portfolio companies in terms of execution related to the current business environment is the significant decrease in the price of oil during 2015 and continuing into 2016. Our exposure to this market is limited to our investment in Produced Water Absorbents, Inc., which is valued at less than two percent of our total assets.



Our ability to generate realized returns through the sale of the securities of our investee companies is impacted by the values of publicly traded companies, particularly microcapitalization companies and the global environment for mergers and acquisitions (M&A). The valuations of microcapitalization indices decreased during 2015, and such decreases in value continued into 2016. We believe the current business environment is relatively risk-adverse, which leads to liquid capital being shifted from risky companies, which are often microcapitalization companies, to less risky companies and results in a decrease in the overall value of those companies. Given the uncertainty over future interest rates, the U.S. election, the oil and gas markets, and the global economy, particularly in China, we expect that the values of microcapitalization companies will continue to be volatile and under pressure, which may affect our ability to monetize our positions in our publicly traded portfolio companies and the value which is ultimately realized from these investments.

According to Thomson Reuters and the National Venture Capital Association ("NVCA"), 2015 was the slowest year for venture-backed M&A transactions since 2009. We believe the uncertainties of the current business environment discussed above will continue to affect the market for M&A transactions. This uncertainty may lead to deals taking longer to close than originally expected or may result in deals not closing at all.

Our short-term income is generated through interest income from convertible and non-convertible debt investments, yield-enhancing fees on debt investments and fees for providing managerial assistance to our investee companies. We believe the current business environment is supportive for us to be able to continue to generate income from these sources as the majority of such income comes from securities or engagements with companies outside of the oil and gas industries and is associated with companies that we control.

## **Valuation of Investments**

We value our privately held investments and certain publicly traded investments that are determined to not trade in an active market each quarter as determined in good faith by our Valuation Committee, a committee of all the independent directors, within guidelines established by our Board of Directors in accordance with the 1940 Act. See "Footnote to Consolidated Schedule of Investments" contained in "Consolidated Financial Statements" for additional information.

The values of privately held companies are inherently more difficult to determine than those of publicly traded companies at any single point in time because securities of these types of companies are not actively traded. We believe, perhaps even more than in the past, that illiquidity, and the perception of illiquidity, can affect value. Management believes further that the long-term effects of the difficult venture capital market and difficult exit environments will continue to affect negatively the fundraising ability of weak companies regardless of near-term improvements in the overall global economy and public markets and that these factors can also affect value.

We note that while the valuations of our privately held, venture capital-backed companies may decrease, sometimes substantially, such decrease may facilitate an increase in our ownership of the overall company in conjunction with a follow-on investment in such company. In these cases, the ultimate return on our overall invested capital could be greater than it would have been without such interim decrease in valuation.

Option pricing models use call option theory to derive the value of sets of classes of securities taking into account the financial rights and preferences of classes of securities such as liquidation preference, redemption rights and dividends. This method treats common and preferred stock as call options on the company's enterprise value. It derives breakpoints based on liquidation preferences of the preferred stock and then calculates the values of those liquidation preferences and the company as a whole using Black-Scholes-Merton equations. The sum of these values yields the estimated enterprise value of the portfolio company. This method of derivation is often referred to as "backsolve" as it uses the price per share of the most recent round of financing to backsolve for the values of the other classes of outstanding securities of the company.

Option pricing models use the following inputs in their calculations:

- Last Round Price per Share

• Liquidation Preferences (including dividends and redemptions, if any)

• Estimated Time to Exit

• Estimated Volatility

• Risk-Free Interest Rate

• Outstanding Capitalization of the Company

Variations in these inputs and assumptions can have a significant impact on fair value. Companies that are valued using market comparables and/or volatilities derived from publicly traded securities are subject to the volatilities within those markets.

Given the consideration of the liquidation preferences, option pricing models more accurately represent scenarios where liquidation preferences are honored, as they would be in an M&A scenario, but not in public offering scenarios where it is common to have all classes of preferred stock converted to common stock. Liquidation preferences are business terms that are common in the venture capital industry and are generally used to provide some downside protection should the company not meet expectations. They can be structured on parity with prior rounds of financing or senior to prior rounds of financing. They can include multiples on the amounts invested and can provide for further distributions following the initial preference or be restricted to the amount of invested capital.



This high weighting of liquidation preferences means that small differences in how the preferences are structured can have a material effect on the fair value of our securities at the time of valuation and also on future valuations should additional rounds of financing occur with senior preferences. As such, valuations calculated by option pricing models may not increase if 1) rounds of financing occur at higher prices per share, 2) liquidation preferences include multiples on investment, 3) the amount of invested capital is small and/or 4) liquidation preferences are senior to prior rounds of financing.

We note that the ultimate return on any investment may be materially different than the fair value derived as of the date of valuation.

Four of our portfolio companies trade in public exchanges and are subject to the volatility inherent in the public markets. The following table illustrates the range of values of these securities.

### Public Companies' Trading History

	<b>Price per Share on March 14, 2016</b>	<b>Q4 2015 Trading Range</b>	<b>H&amp; H Ownership Value in Q4 2015 Trading Range*</b>	<b>January - December 2015 Trading Range</b>	<b>H&amp; H Ownership Value in January - December 2015 Trading Range*</b>
Adesto Technologies Corporation	\$ 5.65	\$5.00 - \$8.50	\$8.8 - \$15.0 Million	\$5.00 - \$8.50	\$8.8 - \$15.0 Million
Champions Oncology, Inc.**	\$ 3.50	\$3.22 - \$5.49	\$0.8 - \$1.3 Million	\$2.40 - \$9.00	\$0.6 - \$2.2 Million
Enumeral Biomedical Holdings, Inc.	\$ 0.19	\$0.18 - \$0.42	\$1.4 - \$3.3 Million	\$0.18 - \$1.07	\$1.4 - \$8.5 Million
OpGen, Inc.	\$ 1.58	\$1.45 - \$2.79	\$2.0 - \$3.9 Million	\$1.45 - \$5.44	\$2.0 - \$7.7 Million
<b>Total:</b>			<b>\$13.0- \$23.5 Million</b>		<b>\$12.8- \$33.4 Million</b>

\*Calculated based on common shares held as of December 31, 2015.

\*\*On August 12, 2015, Champions Oncology effected a 12:1 reverse stock split; trading range reported on a split-adjusted basis.

In each of the years in the period of 2011 through 2015, excluding our rights to milestone payments, we recorded the following gross write-ups in privately held securities as a percentage of net assets at the beginning of the year ("BOY"), gross write-downs in privately held securities as a percentage of net assets at the beginning of the year, and

change in value of private portfolio securities as a percentage of net assets at the beginning of the year.

### Gross Write-Ups and Write-Downs of the Privately Held Portfolio

	2011	2012	2013	2014	2015
Net Asset Value, BOY	\$ 146,853,912	\$ 145,698,407	\$ 128,436,774	\$ 122,701,575	\$ 109,654,427
Gross Write-Downs During Year	\$(11,375,661 )	\$(19,604,046 )	\$(19,089,816 )	\$(14,050,501 )	\$(15,710,180 )
Gross Write-Ups During Year	11,997,991	\$ 14,099,904	\$ 10,218,994	\$ 4,587,923	\$ 6,628,025
Gross Write-Downs as a Percentage of Net Asset Value, BOY	(7.8 )%	(13.5 )%	(14.9 )%	(11.5 )%	(14.3 )%
Gross Write-Ups as a Percentage of Net Asset Value, BOY	8.2 %	9.7 %	8.0 %	3.8 %	6.0 %
Net Change as a Percentage of Net Asset Value, BOY	0.4 %	(3.8 )%	(6.9 )%	(7.7 )%	(8.3 )%

From December 31, 2014, to December 31, 2015, the value of our equity-focused portfolio, including our rights to potential future milestone payments from the sales of BioVex Group, Inc., Nextreme Thermal Solutions, Inc., and Molecular Imprints, Inc., decreased by \$12,201,330, from \$89,292,045 to \$77,090,715.

Not including our rights to potential future milestone payments from the sale of BioVex Group, Inc., Nextreme Thermal Solutions, Inc., and Molecular Imprints, Inc., our equity-focused portfolio companies decreased in value by \$12,369,516 from \$86,098,180 to \$73,728,664.

We note that our Valuation Committee and ultimately our Board of Directors take into account multiple sources of quantitative and qualitative inputs to determine the value of our privately held portfolio companies.

We also note that our Valuation Committee does not set the value of our unrestricted or registered shares of Enumeral Biomedical Holdings, Inc., which trade on an OTC exchange, or the value of our shares of Adesto Technologies Corporation or the unrestricted or registered shares and a portion of our warrants for the purchase of common stock of OpGen, Inc., which both trade on the NASDAQ Capital Market. For the fourth quarter of 2015, our Valuation Committee set the value of Champions Oncology, Inc., owing to the determination that it did not trade in an active market.

Five portfolio companies, Adesto Technologies Corporation, D-Wave Systems, Inc., Enumeral Biomedical Holdings, Inc., Nanosys, Inc., and Produced Water Absorbents, Inc., accounted for \$20.9 million, or 84.3 percent, of the gross write-downs of our portfolio companies held as of December 31, 2015.

The change in value of Adesto Technologies Corporation was primarily owing to the pricing terms of its IPO and subsequent public market transactions, which valued the company at a substantial discount to the average multiple to revenues of comparable publicly traded companies that were used to value the company as of December 31, 2014.

We note that a portion of our securities of Enumeral Biomedical Holdings and OpGen were not fair valued by the Valuation Committee as of December 31, 2015, because those securities were registered, unrestricted securities that traded in an active market and were, therefore, valued based on the closing price of the shares on the date of valuation. The primary contributing factor for the decrease in valuation of our restricted shares and our warrants of Enumeral Biomedical Holdings was a decrease in the stock price of the company from \$1.05 as of January 2, 2015, to \$0.23 as of December 31, 2015. The primary contributing factor for the decrease in valuation of OpGen was a decrease in the stock price of the company from \$6.00 as of May 6, 2015, the date of its IPO, to \$1.90 as of December 31, 2015.

The primary contributing factor for the decrease in valuation of Nanosys, Inc., was the changes in the revenues and multiples of revenues of publicly traded comparable companies used to derive the value of our securities of the company. The primary contributing factor for the decrease in valuation of Produced Water Absorbents, Inc., was the market downturn in the oil and gas industries. The primary contributing factor for the decrease in valuation of D-Wave Systems, Inc., was foreign currency fluctuations.

As of December 31, 2015, our top ten investments by value accounted for approximately 79 percent of the value of our equity-focused portfolio.

### Top Ten Equity-Focused Investments by Value

<u>Portfolio Company</u>	<u>Value as of 12/31/2015</u>	<u>Cumulative % of Equity Focused Venture Capital Portfolio</u>
Adesto Technologies Corp.*	\$13,645,682	19%
Metabolon, Inc.	\$13,621,844	37%
HZO, Inc.	\$7,126,786	47%
D-Wave Systems, Inc.	\$6,931,138	56%
AgBiome, L.L.C.	\$5,490,289	64%
OpGen, Inc.*	\$2,806,415	67%
Bridgelux, Inc.	\$2,538,884	71%
Senova Systems, Inc.	\$2,111,748	74%
Ensemble Therapeutics Corp.	\$2,110,902	76%
TARA Biosystems, Inc.	\$2,023,439	79%

\* Adesto Technologies and OpGen ranks by value include the value of their Level 1 asset shares.

### Results of Operations

We present the financial results of our operations utilizing accounting principles generally accepted in the United States of America ("GAAP") for investment companies. On this basis, the principal measure of our financial performance during any period is the net increase (decrease) in our net assets resulting from our operating activities, which is the sum of the following three elements:

Net Operating Income (Loss) - the difference between our income from interest, dividends, and fees and our operating expenses.

Net Realized Gain (Loss) on Investments - the difference between the net proceeds of sales of portfolio securities and their stated cost.

Net Increase (Decrease) in Unrealized Appreciation or Depreciation on Investments - the net unrealized change in the value of our investment portfolio.

Owing to the structure and objectives of our business, we generally expect to experience net operating losses and seek to generate increases in our net assets from operations through the long-term appreciation and monetization of our investments. We have relied, and continue to rely, primarily on proceeds from sales of investments, rather than on investment income, to defray a significant portion of our operating expenses. Because such sales are unpredictable, we attempt to maintain adequate working capital to provide for fiscal periods when there are no such sales.

The potential for, or occurrence of, inflation could result in rising interest rates for government-backed debt. We may also invest in both short- and long-term U.S. government and agency securities. To the extent that we invest in short- and long-term U.S. government and agency securities, changes in interest rates result in changes in the value of these obligations that result in an increase or decrease of our net asset value. The level of interest rate risk exposure at any given point in time depends on the market environment, the expectations of future price and market movements, and the quantity and duration of long-term U.S. government and agency securities held by the Company, and it will vary from period to period. During the years ended December 31, 2015, and December 31, 2014, our average holdings of U.S. government securities were \$0 and \$2,999,955, respectively.

#### *Comparison of Years Ended December 31, 2015, 2014, and 2013*

During the years ended December 31, 2015, December 31, 2014, and December 31, 2013, we had net decreases in net assets resulting from operations of \$20,245,830, \$13,570,420 and \$7,788,958, respectively.

#### Investment Income and Expenses:

During the years ended December 31, 2015, 2014, and 2013, we had net operating losses of \$7,162,510, \$7,901,727 and \$8,022,206, respectively. The variation in these results is primarily owing to the changes in investment income and operating expenses, including non-cash expense included in salaries, benefits and stock-based compensation of \$798,965 in 2015, \$857,006 in 2014, and \$1,249,756 in 2013. During the years ended December 31, 2015, 2014, and 2013, total investment income was \$916,995, \$517,800 and \$470,902, respectively. During the years ended December 31, 2015, 2014, and 2013, total operating expenses were \$8,079,505, \$8,419,527 and \$8,493,108, respectively.

During the year ended December 31, 2015, as compared with the year ended December 31, 2014, investment income increased, reflecting increases in interest income from convertible bridge notes, non-convertible promissory notes, yield-enhancing fees on debt securities and fees for providing managerial assistance to portfolio companies, offset by decreases in interest income from senior secured debt, senior secured debt through a participation agreement, and a



decrease in our average holdings of U.S. government securities. During the year ended December 31, 2015, our average holdings of U.S. government securities were \$0 as compared with \$2,999,955 during the year ended December 31, 2014, primarily owing to the decrease in yield available over the durations of maturities in which we were willing to invest.

Operating expenses, including non-cash, stock-based compensation expenses, were \$8,079,505 and \$8,419,527 for the years ended December 31, 2015, and December 31, 2014, respectively. The decrease in operating expenses for the year ended December 31, 2015, as compared with the year ended December 31, 2014, was primarily owing to decreases in salaries, benefits and stock-based compensation expense, administration and operations expense, directors' fees and expenses, and insurance expense, offset by increases in professional fees, rent expense, interest and other debt expense and custody fees.

Salaries, benefits and stock-based compensation expense decreased by \$647,733, or 13.3 percent, for the year ended December 31, 2015, as compared with December 31, 2014, primarily as a result of a decrease in salaries and benefits owing primarily to a decrease in our employee headcount, a decrease of \$214,090 in the projected benefit obligation expense accrual for medical and pension retirement benefits, and a decrease in compensation cost of \$58,041 for restricted stock awards associated with the Stock Plan, offset by an increase in employee bonus expense of \$172,500. At December 31, 2015, we had nine full-time employees and one part-time employee as compared with 12 full-time employees and one part-time employee at December 31, 2014. While the non-cash, stock-based compensation expense for the Stock Plan increased our operating expenses by \$798,965, this increase was offset by a corresponding increase to our additional paid-in capital, resulting in no net impact to our net asset value. Administration and operations expense decreased by \$163,283, or 24.0 percent, for the year ended ended December 31, 2015, as compared with December 31, 2014, primarily as a result of decreases in managing directors' travel-related expenses and net decreases in general office and administration expenses, including decreases in costs associated with a Meet the Portfolio Day held during 2014. We did not hold a Meet the Portfolio Day during the year ended December 31, 2015. Insurance expense decreased by \$33,993, or 10.6 percent, for the year ended December 31, 2015, as compared with December 31, 2014. Directors' fees and expenses decreased by \$15,186, or 4.1 percent, for the year ended December 31, 2015, as compared with December 31, 2014, primarily owing to a smaller Board of Directors.

Professional fees increased by \$127,164, or 9.2 percent, for the year ended December, 2015, as compared with December 31, 2014, primarily as a result of an increase in certain legal fees and accounting fees associated with exploration of strategic opportunities, offset by a decrease in certain consulting fees. Rent expense increased by \$2,780, or less than one percent, for the year ended December 31, 2015, as compared with December 31, 2014. Our rent expense of \$301,828 for the year ended December 31, 2015, includes \$353,619 of rent paid in cash, net of \$51,791 non-cash rent expense, credits and abatements that we recognize on a straight-line basis over the lease term. Our rent paid in cash of \$353,619 includes \$30,822 of real estate tax escalation charges on our corporate headquarters located at 1450 Broadway in New York City. Interest and other debt expense increased by \$393,750, or 104.3 percent, for the year ended December 31, 2015, as compared with December 31, 2014, primarily as a result of utilization fees associated with a drawdown of the Loan Facility. Custody fees increased by \$1,747, or 2.9 percent, for the year ended December 31, 2015, as compared with December 31, 2014.

During the year ended December 31, 2014, as compared with the year ended December 31, 2013, investment income increased primarily owing to increases in interest income from convertible bridge notes, interest income from a non-convertible promissory note, income from yield-enhancing fees on debt securities and fees for providing managerial assistance to one of our portfolio companies, offset by a write-off of \$77,268 of previously accrued bridge note interest, a decrease in interest income from subordinated and senior secured debt and senior secured debt through

a participation agreement, rental income from the sublet of our office space at 420 Florence Street, Palo Alto, CA, owing to the expiration of the lease in 2013, and a decrease in our average holdings of U.S. government securities. During the year ended December 31, 2014, our average holdings of U.S. government securities were \$2,999,955 as compared with \$18,353,323 during the year ended December 31, 2013, primarily owing to the decrease in yield available over the durations of maturities in which we were willing to invest.

Operating expenses, including non-cash, stock-based compensation expenses, were \$8,419,527 and \$8,493,108 for the year ended December 31, 2014, and December 31, 2013, respectively. The decrease in operating expenses for the year ended December 31, 2014, as compared with the year ended December 31, 2013, was primarily owing to decreases in salaries, benefits and stock-based compensation expense, rent expense and insurance expense, offset by increases in administration and operations expense, professional fees, interest and other debt expense, directors' fees and expenses and custody fees.

Salaries, benefits and stock-based compensation expense decreased by \$482,956, or 9.0 percent, for the year ended December 31, 2014, as compared with December 31, 2013, primarily as a result of decreases in compensation cost for restricted stock awards associated with the Stock Plan owing to a reversal of compensation expense of \$256,334 for stock awards that were forfeited as a result of the voluntary termination of one of our employees on June 30, 2014, and the voluntary termination of two of our employees on December 31, 2014, a decrease in employee bonus expense of \$165,500, and a decrease in salary and benefits owing to the aforementioned voluntary termination of one of our emplo