

WASHINGTON, DC 20549

**Form 10-K**

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

For the fiscal year ended December 31, 2011

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.®  
(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:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, \$.01 par value	Nasdaq Global Market

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 Web site, 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

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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, 2011 was \$157,464,811 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 13, 2012, the registrant had 31,000,601 shares of common stock, par value \$.01 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE INCORPORATED AT

Harris & Harris Group, Inc. Proxy Statement for the 2012 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 venture capital company specializing in nanotechnology and microsystems that has elected to be regulated as a business development company ("BDC") under the Investment Company Act of 1940, which we refer to as 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. We were incorporated under the laws of the state of New York in August 1981. Our primary investment objective is to achieve long-term capital appreciation by making venture capital investments. Generation of current income is a secondary objective. We define 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. Our investment approach is comprised of a patient examination of available opportunities, thorough due diligence and close involvement with management of our portfolio companies. As a venture capital company, we invest in and provide managerial assistance to our portfolio companies, many of which, in our opinion, have significant potential for growth. We are overseen by our Board of Directors and managed by our officers and have no investment advisor.

We generally make venture capital investments exclusively in companies commercializing or integrating products enabled by nanotechnology or microsystems. This investment focus is not a fundamental policy and accordingly may be changed without shareholder approval, although we intend to give shareholders at least 60 days' prior notice of any change in investment focus.

Nanotechnology is measured in nanometers, which are units of measurement in billionths of a meter. Microsystems are measured in micrometers, which are units of measurement in millionths of a meter. We sometimes use "tiny technology" to describe both of these disciplines. Nanotechnology and microsystems are multidisciplinary and widely applicable, and they incorporate technology that was not previously in widespread use. Products enabled by nanotechnology and microsystems are applicable to a large number of industries including pharmaceuticals, medical devices, telecommunications, electronics and semiconductors, as well as industries that seek to address global problems related to resource constraints.

We consider a company to fit our investment thesis if the company employs or integrates or intends to employ or integrate technology that we consider to be at the microscale or smaller and if the employment of that technology is material to its business plan. Because it is in many respects a new field, tiny technology has significant scientific, engineering and commercialization risks.

As of December 31, 2011, our venture capital portfolio comprised 75.2 percent of our total assets, our cash comprised 22.5 percent of our total assets, and other assets comprised the remaining 2.3 percent of our total assets. The Company's outstanding debt balance was \$1,500,000 as of December 31, 2011.

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 expect to invest a substantial portion of our assets in securities that we consider to be private venture capital equity investments. These private venture capital 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. We expect to invest a minority portion of our assets in non-convertible debt securities issued to us by privately held and publicly traded small businesses. These investments usually pay interest and may include payment of fees and issuance of warrants for the purchase of equity securities at a future date. These investments are speculative in nature with limited marketability and a greater risk of investment loss than less speculative investments. We do not limit our investments to any particular industries or categories of investments within nanotechnology and microsystems. 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.

Achievement of our investment objective is basically dependent upon the judgment of a team of four professional, full-time members of management, all of whom are designated as Managing Directors: Douglas W. Jamison, Daniel B. Wolfe, Alexei A. Andreev and Misti Ushio. One of our directors, Lori D. Pressman, is also a consultant to us. This team collectively has expertise in venture capital investing, intellectual property and nanotechnology. 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.

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:

- Venture capital investments, whether in corporate, partnership or other form, including small businesses;
- 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

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·Miscellaneous investments.

### Investments and Strategies

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.

#### Venture Capital Investments

We define venture capital as the money and resources made available to privately held and publicly traded small businesses that we believe have exceptional growth potential. These businesses can range in stage from pre-revenue to generating positive cash flow. Substantially all of our long-term venture capital investments are in thinly capitalized, unproven, small companies focused on commercializing risky technologies. These businesses also 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 venture capital investments will never realize their potential, and some will be unprofitable or result in complete loss of our investment.

We may own 100 percent of the securities of a small business for a period of time and may control the company for a substantial period. 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 to potential bankruptcy.

In connection with our venture capital investments, we may participate in providing a variety of services to our portfolio companies, including the following:

· 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 and may subordinate our own investment to that of other investors. 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 mergers and acquisitions ("M&As"). While we do not currently derive income from these companies for the performance of any of the above services, we may seek to do so 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, in rare instances, in effect be conducting the operations of the portfolio company. As a venture capital-backed 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. Our goal is to assist each company in establishing its own independent capitalization, management and board of directors. We expect to be able to reduce our involvement in those small businesses that become successful, as well as in those small businesses that fail.

#### 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, preferred stock, debt instruments convertible into common or preferred stock, limited partnership interests, other beneficial ownership interests and warrants, options or other rights to acquire or agreements to sell any of the foregoing.

We may make 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 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, and the stock price may decline substantially before we are free to sell. These lock-up restrictions apply to us and our shares of the portfolio company 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.

We may employ an option strategy of writing (selling) covered call 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." Most of the options that will be sold by us are expected to be out-of-the-money, allowing for potential appreciation in addition to the proceeds from the sale of the option. 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 are 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 date can be 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 to write call options with expirations of no more than nine months from the date the call option is first listed for trading.

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 are issued as unregistered securities that are not freely tradable for 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 payments and 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, 2011, the debt obligations held in our portfolio consisted of convertible bridge notes, secured non-convertible notes, senior secured non-convertible debt through a participation agreement and a subordinated non-convertible note. The 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, highly speculative debt investments with limited marketability. Investments in lower-rated and non-rated securities, commonly referred to as "junk bonds," including our venture debt investments, are subject to special risks, including a greater risk of loss of principal and non-payment of interest. Generally, lower-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 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. The occurrence of adverse conditions and uncertainties to issuers of lower-rated securities would likely reduce the value of lower-rated securities held by us, with a commensurate effect on the value of our shares.

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. Any economic downturn could adversely affect the ability of issuers' lower-rated securities to repay principal and pay interest thereon. 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. In addition, lower-rated securities and comparable non-rated securities generally present a higher degree of credit risk. 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, so that 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 market value of investments in debt securities that carry no equity participation usually reflects 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 maintain 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 will normally 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 under "Venture Capital Investments" above.

### **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, 2011, the Company's outstanding debt balance was \$1,500,000, and we have no current intention to issue preferred stock.

A primary purpose of our borrowing power is for leverage, to increase our ability to acquire venture debt investments both by acquiring larger positions and by acquiring more positions while maintaining a substantial balance of cash on our balance sheet. As discussed in more detail below in "Management's Discussion and Analysis of Financial Condition and Results of Operations," we believe we need a strong balance sheet to have access to the best deal flow.

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. We do not currently intend to use borrowings to make equity-focused investments, which include convertible bridge notes intended for potential conversion to equity at a future date.

### **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 when circumstances exist, which are considered by management to make portfolio changes advisable.

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.

### **Competition**

Numerous companies and individuals are engaged in the venture capital business, and such business is intensely competitive. We believe our corporate structure permits public market investors to participate in venture capital and to participate in the emergence of nanotechnology while many of the leading companies are still private. We also believe our corporate structure permits greater liquidity and better transparency than other venture capital businesses. We believe that we have invested in more nanotechnology-enabled small businesses than any venture capital firm and that we have assembled a team of investment professionals that, in addition to a proven track record of successful venture capital investing, have scientific and intellectual property expertise that is relevant to investing in nanotechnology. 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 venture capital investments. There can be no assurance that we will be able to compete against these venture capital 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 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.

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 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, and the persons from whom, 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 stockholders 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**

We have elected to be treated as a RIC, taxable under Subchapter M of the Internal Revenue Code of 1986 (the "Code"), for federal income tax purposes. In general, a RIC is not taxable on its income or gains to the extent it distributes such income or gains to its shareholders. In order to qualify for favorable RIC tax treatment, we must, in general, (1) annually derive at least 90 percent of our gross income from dividends, interest and gains from the sale of securities and similar sources (the "Income Source Rule"); (2) quarterly meet certain investment asset diversification requirements (the "Asset Diversification Rule"); and (3) annually distribute at least 90 percent of our investment company taxable income as a dividend (the "Income Distribution Rule"). Any taxable investment company income not distributed will be subject to corporate level tax. Any taxable investment company income distributed generally will be taxable to shareholders as dividend income.

In addition to the requirement that we must annually distribute at least 90 percent of our investment company taxable income, we may either distribute or retain our realized net capital gains from investments, but any net capital gains not distributed may be subject to corporate level tax. It is our current intention not to distribute net capital gains. Any net capital gains distributed generally will be taxable to shareholders as long-term capital gains.

In lieu of actually distributing our realized net capital gains, we as a RIC may retain all or part of our net capital gains and elect to be deemed to have made a distribution of the retained portion to our shareholders under the "designated undistributed capital gain" rules of the Code. We currently intend to retain and so designate all of our net capital gains. In this case, the "deemed dividend" generally is taxable to our shareholders as long-term capital gains. Although we pay tax at the corporate rate on the amount deemed to have been distributed, our shareholders receive a tax credit equal to their proportionate share of the tax paid and an increase in the tax basis of their shares by the amount per share retained by us.

To the extent that we declare a deemed dividend, each shareholder will receive an IRS Form 2439 that will reflect each shareholder's receipt of the deemed dividend income and a tax credit equal to each shareholder's proportionate share of the tax paid by us. This tax credit, which is paid at the corporate rate, is often credited at a higher rate than the actual tax due by a shareholder on the deemed dividend income. The "residual" credit can be used by the shareholder to offset other taxes due in that year or to generate a tax refund to the shareholder. Tax exempt investors may file for a refund.

The following simplified examples illustrate the tax treatment under Subchapter M of the Code for us and our individual shareholders with regard to three possible distribution alternatives, assuming a net capital gain of \$1.00 per share, consisting entirely of sales of non-real property assets held for more than 12 months.

**Under Alternative A:** 100 percent of net capital gain declared as a cash dividend and distributed to shareholders:

1. No federal taxation at the Company level.
2. Taxable shareholders receive a \$1.00 per share dividend and pay federal tax at a rate not in excess of 15 percent\* or \$.15 per share, retaining \$.85 per share.
3. Non-taxable shareholders that file a federal tax return receive a \$1.00 per share dividend and pay no federal tax, retaining \$1.00 per share.



**Under Alternative B (Current Tax Structure Employed):** 100 percent of net capital gain retained by the Company and designated as "undistributed capital gain" or deemed dividend:

1. The Company pays a corporate-level federal income tax of 35 percent on the undistributed gain or \$.35 per share and retains 65 percent of the gain or \$.65 per share.

2. Taxable shareholders increase their cost basis in their stock by \$.65 per share. They pay federal capital gains tax at a rate not in excess of 15 percent\* on 100 percent of the undistributed gain of \$1.00 per share or \$.15 per share in tax. Offsetting this tax, shareholders receive a tax credit equal to 35 percent of the undistributed gain or \$.35 per share.

3. Non-taxable shareholders that file a federal tax return receive a tax refund equal to \$.35 per share.

\*Assumes all capital gains qualify for long-term rates of 15 percent, which may increase for gains realized after December 31, 2012.

**Under Alternative C:** 100 percent of net capital gain retained by the Company, with no designated undistributed capital gain or deemed dividend:

1. The Company pays a corporate-level federal income tax of 35 percent on the retained gain or \$.35 per share plus an excise tax of four percent of \$.98 per share, or about \$.04 per share.

2. There is no tax consequence at the shareholder level.

Although we may retain income and gains subject to the limitations described above (including paying corporate level tax on such amounts), we could be subject to an additional four percent excise tax if we fail to distribute 98 percent of our "regulated investment company ordinary income" and 98.2 percent of our "capital gain net income" for the relevant determination period.

As noted above, in order to qualify as a RIC, we must satisfy the Asset Diversification Rule 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 1999-2010, 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). In 2011, we qualified for RIC treatment even without certification. 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 Income Source Rule or Income Distribution Rule for such year. In the event we do not satisfy the Income Source Rule, the Asset Diversification Rule and the Income Distribution Rule 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. We will choose to take such action only if we determine that the result of the action will benefit us and our shareholders.

### **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 holds the lease for our office space in Palo Alto, California, 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. 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 Report 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, 2011, we employed directly 10 full-time employees. 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 objective. 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 the companies in our portfolio.

**Approximately 25.3 percent of the net asset value attributable to our equity-focused venture capital investment portfolio, or 18.8 percent of our net asset value, as of December 31, 2011, is concentrated in one company, Solazyme, Inc.**

At December 31, 2011, we valued our investment in Solazyme, which had a historical cost to us of \$5,444,197, at \$27,419,373, or 25.3 percent of the net asset value attributable to our equity-focused venture capital investment portfolio, excluding our rights to potential future milestone payments from the sale of BioVex to Amgen, or 18.8 percent of our net asset value. Solazyme is now publicly traded on the Nasdaq Global Select Market. As of December 31, 2011, we owned an aggregate of 2,304,149 shares of Solazyme. Our valuation of Solazyme as of December 31, 2011, was based on the share price as of the close of trading on December 30, 2011, which was \$11.90. Any downturn in the business outlook of Solazyme, any failure of the products of Solazyme to receive widespread acceptance in the marketplace, any broad decrease in value of the public markets or negative events in the biofuel or algae-derived oil industry sectors could have a significant effect on our specific investment in Solazyme, and the overall value of our portfolio, and could have a significant adverse effect on the value of our common stock. As of March 13, 2012, Solazyme's closing price was \$14.43 per share.

**The difficult venture capital investment and capital market climates could increase the non-performance risk for our portfolio companies.**

While the public markets and corporate growth are improving, unemployment remains high, and there are global instabilities, including sovereign debt issues and the potential for future inflation. Even with signs of economic improvement, the availability of capital for venture capital firms and venture-backed companies continues to be limited. Currently, financing for capital-intensive small businesses remains difficult. Historically, difficult venture environments have resulted in a higher than normal number of small businesses not receiving financing and being subsequently closed down with a loss to venture investors, and other small businesses receiving financing but at

significantly lower valuations than the preceding financing rounds. This issue is compounded by the fact that many existing venture capital firms have few remaining years of investment and available capital owing to the finite lifetime of the funds managed by these firms. Additionally, even if a firm was able to raise a new fund, commonly new funds are not permitted to invest with old funds in existing investments. As such, the currently improving liquidity environment for venture-backed companies through IPOs and M&A transactions and the currently improving public markets in general may not translate to an increase in the available capital to venture-backed companies, particularly those that have investments from funds that are in the latter stage of life unless it continues for some time into the future.

We believe that these factors continue to introduce significant non-performance risk for venture-backed companies that need to raise additional capital or that require substantial amounts of capital to execute on their business plans. We define non-performance risk as the risk that a portfolio company 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. 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.

**The average length of time from founding to a liquidity event is at historical highs, which could result in companies remaining in our portfolio longer, leading to lower returns, write-downs and write-offs.**

Beginning in about 2001, many fewer venture capital-backed companies per annum have been able to complete IPOs than in the years of the previous decade. On average, more capital and more time than in previous decades are required for companies to reach these liquidity events. This trend could lead to companies staying longer in our portfolio as private entities that may require additional funding. In the best case, such stagnation would dampen returns, and in the worst case, could lead to write-downs and write-offs as some companies run short of cash and have to accept lower valuations in private financings or are not able to access additional capital at all. The difficult venture capital climate is also causing some venture capital firms to change their investment strategies. Accordingly, some venture capital firms are reducing funding of their portfolio companies, making it more difficult for such companies to access capital and to fulfill their potential. In some cases this leads to write-downs and write-offs of such companies by other venture capital firms, such as ourselves, who are co-investors in such companies.

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

We have invested a substantial portion of our assets in privately held companies, the securities of which are inherently illiquid. We also seek to invest in publicly traded small businesses that we believe have exceptional growth potential. 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 have not attained profitability. Companies commercializing products enabled by nanotechnology or microsystems 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 venture capital 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 venture capital and other investments. Neither

our investments nor an investment in our common stock is intended to constitute a balanced investment program.



Our portfolio companies working with nanotechnology and microsystems may be particularly susceptible to intellectual property litigation.

Research and commercialization efforts in nanotechnology and microsystems are being undertaken by a wide variety of government, academic and private corporate entities. As additional commercially viable applications of nanotechnology emerge, ownership of intellectual property on which these products are based may be contested. From time to time, our portfolio companies are or have been involved in intellectual property disputes and litigation. Any litigation over the ownership of, or rights to, any of our portfolio companies' technologies or products could have a material adverse effect on those companies' values.

The value of our portfolio could be adversely affected if the technologies utilized by our portfolio companies are found, or even rumored or feared, to cause health or environmental risks, or if legislation is passed that limits the commercialization of any of these technologies.

Nanotechnology has received both positive and negative publicity and is the subject increasingly of public discussion and debate. For example, debate regarding the production of materials that could cause harm to the environment or the health of individuals could raise concerns in the public's perception of nanotechnology, not all of which might be rational or scientifically based. Nanotechnology in particular is currently the subject of health and environmental impact research. As nanotechnology commercialization increases and companies continue to mature, awareness about these safety and environmental concerns could increase as well. If health or environmental concerns about nanotechnology or microsystems were to arise, whether or not they had any basis in fact, our portfolio companies might incur additional research, legal and regulatory expenses, and might have difficulty raising capital or marketing their products. Government authorities could, for social or other purposes, prohibit or regulate the use of nanotechnology. Legislation could be passed that could circumscribe the commercialization of any of these technologies.

**We invest in sectors including energy, electronics and healthcare that are subject to specific risks related to each industry.**

The three largest portions of our portfolio are invested in energy, electronics and healthcare companies. Our energy portfolio consists of companies commercializing nanotechnology-enabled products targeted at energy-related markets. We have historically used the term "cleantech" to describe these types of companies. We now use the term "energy" to describe these companies and include our companies formerly categorized as cleantech companies in this category. 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. For example, the attractiveness of alternative methods for the production of biobutanol and

biodiesel can be adversely affected by a decrease in the demand or price of oil. Adverse developments in this market may significantly affect the value of our energy portfolio, and thus our venture capital portfolio as a whole.

Our electronics portfolio consists of companies commercializing and integrating nanotechnology-enabled 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 cyclicality of the electronics market in general. Additionally, electronics-related companies are currently out of favor with many venture capital firms. Therefore, access to capital may be difficult or impossible for companies in our portfolio that are pursuing these markets.

Our healthcare portfolio consists of companies that commercialize and integrate products enabled by nanotechnology and microsystems in healthcare-related industries, including biotechnology, pharmaceuticals, diagnostics and medical devices. There are risks in investing in companies that target healthcare-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 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 healthcare portfolio.

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

The industry sectors where nanotechnology and microsystems are gaining the greatest traction, energy, electronics and healthcare, 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 portfolio companies may generate revenues from the sale of products that are not enabled by nanotechnology.**

We consider a company to be enabled by nanotechnology or microsystems if a product or products, or intellectual property covering a product or products, that we consider to be at the microscale or smaller is material to its business plan. In addition to developing products that we consider nanotechnology, some of these companies may also develop products that we do not consider enabled by nanotechnology. Some of these companies will generate revenues from the sale of non-nanotechnology-enabled products. Additionally, it is possible that a portfolio company may decide to change its business focus after our initial investment and decide to develop and commercialize non-nanotechnology-enabled products.



**Our venture debt investments 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 a senior secured term loan investment in 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.

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

To the extent we borrow money to make venture debt investments, our net investment income will depend, in part, upon the difference between the rate at which we borrow funds and the rate at which we invest those 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 venture debt investments. In periods of rising interest rates, our cost of funds could increase, which could reduce our net investment income. Currently, all of our venture debt investments are at a fixed rate. Some of our future debt investments may bear interest at variable rates and the interest income from these investments could be negatively affected by decreases in market interest rates. In addition, an increase in interest rates would 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 interest rates may have an adverse impact on our returns by requiring us to seek lower yields on our debt investments and by increasing the risk that our portfolio companies will prepay our debt investments, resulting in the need to redeploy capital at potentially lower rates. A decrease in market interest rates may also adversely impact our returns on our cash invested in treasury securities, which would reduce our net investment income.



On February 24, 2011, the Company established a \$10 million three-year revolving credit facility with TD Bank, N.A., to be used in conjunction with its investments in venture debt. As of March 13, 2012, we had \$1,500,000 outstanding from our \$10 million credit facility.

**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 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 due to weather changes may affect some of our portfolio companies' financial condition through decreased revenues. Extreme weather conditions in general require more system backup, adding to costs, and can contribute to increased system stresses, including service interruptions.

Risks related to the illiquidity of our 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 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.

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

We rely on the ability to generate realized returns on our investments through liquidity events such as IPOs and merger and acquisition transactions. Recent government reforms affecting publicly traded companies, stock markets,

investment banks and securities research practices have made it more difficult for privately held companies to complete successful IPOs of their equity securities, and such reforms have increased the expense and legal exposure of being a public company.

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 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.

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.

#### **Risks related to our Company.**

#### **The recent downgrade of the U.S. credit rating and the economic crisis in Europe could negatively impact our liquidity, financial condition and earnings.**

Recent U.S. debt ceiling and budget deficit concerns, together with continued signs of stress in sovereign debt conditions in Europe, have increased the possibility of additional credit-rating downgrades and economic slowdown. Although U.S. lawmakers passed legislation to raise the federal debt ceiling in 2011, Standard & Poor's Ratings Services lowered its long-term sovereign credit rating on the United States from "AAA" to "AA+". Currently, U.S. lawmakers will be required to increase the federal debt ceiling again at the end of 2012 to prevent default on its obligations. The impact of these factors and the current crisis in Europe with respect to the ability of certain European Union countries to continue to service their sovereign debt obligations is inherently unpredictable and could adversely affect the United States and global financial markets and economic conditions. There can be no assurance that governmental or other measures to aid economic recovery will be effective. These developments, and the government's credit concerns in general, could create broader financial turmoil and uncertainty, adversely affect our business in many ways, including, but not limited to, decreasing our stock price, adversely impacting our portfolio companies' ability to obtain financing, or obtaining financing but at significantly lower valuations than the preceding financing rounds. The illiquidity of our investments may make it difficult for us to sell such investments if required. As a result, we may realize significantly less than the value at which we have recorded our investments. In addition, significant changes in the capital markets, including the disruption and volatility, have had, and may continue to have, a negative effect on the valuations of our investments and on the potential for liquidity events involving our investments. Market disturbances could also affect the value of our publicly traded portfolio companies and our privately held companies whose values are derived primarily from the values of publicly traded comparable companies, which as of December 31, 2011, accounted for 35.5 percent of the equity-focused venture capital portfolio. If any of these events were to occur, it could materially adversely affect our business, financial condition and results of operations.



**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 capital sources 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 use the Black-Scholes-Merton option-pricing model to determine the fair value of warrants held 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 securities underlying the warrants 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 increase in unrealized appreciation on investments."



In the venture capital industry, even when a portfolio of early-stage, high-technology venture capital 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 venture capital 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 nanotechnology 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.

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

Investments in privately held, 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, 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.

**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. If the average size of each of our investments in nanotechnology increases, the average size of our write-downs may also increase.

**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.

We are dependent upon the diligence and skill of our senior management and other key advisers for the selection, structuring, closing and monitoring of our investments. We utilize lawyers, and we utilize outside consultants, including one of our directors, Lori D. Pressman, 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 advisers 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 advisers 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.

**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, 2011, the Company's outstanding debt balance was \$1,500,000, and we did not have any preferred stock outstanding. On February 24, 2011, we established a \$10 million three-year revolving credit facility with TD Bank, N.A., to be used in conjunction with our investments in venture debt. We do not plan to use this credit facility in conjunction with any private venture capital equity investments.

**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, have qualified and currently intend to continue to qualify as a RIC under the Code. 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 2012 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 qualify again to be taxed as a RIC in a subsequent year, we would be required to distribute to our shareholders our earnings and profits attributable to non-RIC years, reduced by an interest charge on 50 percent of such earnings and profits, which charge would be payable by us to the IRS. In addition, if we failed to qualify as a RIC for a period greater than two taxable years, then, in order to qualify as a RIC in a subsequent year, we would be required to elect to recognize and pay tax on any net built-in gain in our assets (the excess of aggregate gain, including items of income, over aggregate loss that would have been realized if

we had sold our assets to an unrelated party for fair market value) or, alternatively, be subject to taxation on such built-in gain recognized for a period of 10 years.

**A deemed dividend election would 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 nanotechnology, energy, electronics or healthcare-related fields in general;
- environmental and health concerns regarding nanotechnology, whether real or perceptual;
- announcements regarding government funding and initiatives related to the development of nanotechnology, energy, electronics or healthcare-related products;
- a mismatch between the long term nature of our business and the short term focus of many investors;
- 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.

**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.

To the extent that we do not realize income or choose not to retain after-tax realized capital gains, we will have a greater need for additional capital to fund our investments and operating expenses.

As a RIC, we must annually distribute at least 90 percent of our investment company taxable income as a dividend and may either distribute or retain our realized net capital gains from investments. As a result, these earnings may not be available to fund investments. If we fail to generate net realized capital gains or to obtain funds from outside sources, it would have a material adverse effect on our financial condition and results of operations as well as our ability to make follow-on and new investments. Because of the structure and objectives of our business, we generally expect to experience net operating losses and rely on proceeds from sales of investments and investment income from our venture debt to defray a significant portion of our operating expenses. Investment sales are unpredictable and may not occur. In addition, as a BDC, we are generally required to maintain a ratio of at least 200 percent of total assets to total borrowings and preferred stock, which may restrict our ability to borrow to fund these requirements. Lack of capital could curtail our investment activities or impair our working capital.

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 investments that are denominated in a foreign currency are 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 objective 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 general conditions in nanotechnology and in the semiconductor and information technology, life science, materials science and other high-technology industries, including energy, may also affect the price of our common stock.

Our shares might trade at discounts from net asset value or at premiums that are unsustainable over the long term.

Shares of BDCs like us may, during some periods, trade at prices higher than their net asset value and during other periods, as frequently occurs with closed-end investment companies, trade at prices lower than their net asset value. The possibility that our shares will trade at discounts from net asset value or at premiums that are unsustainable over the long term are risks separate and distinct from the risk that our net asset value per share will decrease. The risk of purchasing shares of a BDC that might trade at a discount or unsustainable premium is more pronounced for investors who wish to sell their shares in a relatively short period of time because, for those investors, realization of a gain or loss on their investments is likely to be more dependent upon changes in premium or discount levels than upon increases or decreases in net asset value per share. Our common stock may not trade at a price higher than or equal to net asset value per share. On December 31, 2011, our stock closed at \$3.46 per share, a discount of \$1.24, or 26.4 percent, to our net asset value per share of \$4.70 as of December 31, 2011. On March 13, 2012, our stock closed at \$4.20 per share, a discount of \$0.50, or 10.6 percent, to our net asset value per share as of December 31, 2011.

**Our strategy of writing covered calls on public portfolio company securities 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.

**The Board of Directors intends to grant restricted stock or stock options to our employees pursuant to the Company's Equity Incentive Plan. These equity awards may have a dilutive effect on existing shareholders.**

In accordance with the Company's Equity Incentive Plan, the Company's Board of Directors may grant equity awards in the form of stock options or restricted stock (subject to receiving shareholder approval at our 2012 Annual Meeting of Shareholders) from time to time for up to 20 percent of the total shares of stock issued and outstanding. When options are exercised, net asset value per share will decrease if the net asset value per share at the time of exercise is higher than the exercise price. Alternatively, net asset value per share will increase if the net asset value per share at the time of exercise is lower than the exercise price. Therefore, existing shareholders will be diluted if the net asset

value per share at the time of exercise is higher than the exercise price of the options. Even though issuance of shares pursuant to exercises of options increases the Company's capital, and regardless of whether such issuance results in increases or decreases in net asset value per share, such issuance, as well as issuance 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.")

On July 1, 2008, we signed a five-year lease for approximately 2,290 square feet of office space at 420 Florence Street, Suite 200, Palo Alto, California 94301, commencing on August 1, 2008, and expiring on August 31, 2013. We currently sublet all 2,290 square feet of this office space.

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

**Item 3. Legal Proceedings.**

The Company is not currently a party to any legal proceedings.

**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 on the closing share price as a percentage of net asset value, as reported by 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, 2011	\$6.30	\$4.27	\$4.73	33.2%	(9.7)%
June 30, 2011	\$5.92	\$4.85	\$5.43	9.0%	(10.7)%
September 30, 2011	\$5.58	\$3.45	\$4.38	27.4%	(21.2)%
December 31, 2011	\$4.15	\$3.17	\$4.70	(11.7)%	(32.6)%
March 31, 2010	\$5.33	\$3.93	\$4.42	20.6%	(11.1)%
June 30, 2010	\$5.50	\$4.06	\$4.51	21.9%	(10.0)%
September 30, 2010	\$4.40	\$3.70	\$4.51	(2.4)%	(18.0)%
December 31, 2010	\$4.73	\$4.12	\$4.76	(0.6)%	(13.4)%

Historically, our shares of common stock have traded at times at a discount and at other times at a premium to net asset value. The last reported price for our common stock on December 31, 2011, was \$3.46 per share, which was a 26.4 percent discount to our net asset value of \$4.70 as of December 31, 2011.

**Shareholders**

As of March 12, 2011, there were approximately 129 holders of record and approximately 17,424 beneficial owners of the Company's common stock.

## Dividends

We did not pay a cash dividend or declare a deemed dividend for 2011 or 2010. For more information about deemed dividends, please refer to the discussion under "Tax Status."



## Securities Authorized for Issuance Under Equity Compensation Plans

### EQUITY COMPENSATION PLAN INFORMATION

As of December 31, 2011

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans <sup>(2)</sup> (excluding securities reflected in Column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	3,389,117	\$8.13	(1)
Equity compensation plans not approved by security holders	-	-	-
TOTAL	3,389,117	\$8.13	(1)

<sup>(1)</sup> A maximum of twenty percent (20%) of our total shares of our common stock issued and outstanding may be available for awards under the plan, subject to adjustment as described below. Shares issued under the plan may be authorized but unissued shares or treasury shares. If any shares subject to an award granted under the 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 plan.

<sup>(2)</sup> Does not include information about the Harris & Harris Group, Inc. 2012 Equity Incentive Plan proposed for approval at the 2012 Annual Meeting of Shareholders.

### 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. 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, 2006, and tracks it through December 31, 2011.



	12/06	12/07	12/08	12/09	12/10	12/11
Harris & Harris Group, Inc.	100.00	72.70	32.67	37.80	36.23	28.62
NASDAQ Composite	100.00	110.26	65.65	95.19	112.10	110.81
NASDAQ Financial	100.00	87.76	59.40	61.13	69.41	63.33

*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: Ms. Jennifer Donovan) 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:**

	2011	2010	2009	2008	2007
Total assets	\$ 150,343,653	\$ 149,289,168	\$ 136,109,101	\$ 111,627,601	\$ 142,893,332
Total liabilities	\$ 4,645,246	\$ 2,435,256	\$ 1,950,843	\$ 2,096,488	\$ 4,529,988
Net assets <sup>1</sup>	\$ 145,698,407	\$ 146,853,912	\$ 134,158,258	\$ 109,531,113	\$ 138,363,344
Net asset value per outstanding share	\$ 4.70	\$ 4.76	\$ 4.35	\$ 4.24	\$ 5.93
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 <sup>1</sup>	31,000,601	30,878,164	30,859,593	25,859,573	23,314,573

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

	2011	2010	2009	2008	2007
Total investment income	\$ 702,765	\$ 446,038	\$ 247,848	\$ 1,987,347	\$ 2,705,636
Total expenses <sup>2</sup>	\$ 9,041,130	\$ 8,001,845	\$ 9,009,063	\$ 12,674,498	\$ 14,533,179
Net operating loss	\$ (8,338,365)	\$ (7,555,807)	\$ (8,761,215)	\$ (10,687,151)	\$ (11,827,543)
Total tax expense (benefit)	\$ 6,922	\$ 4,461	\$ (753)	\$ 34,121	\$ 87,975
Net realized gain (loss) income from investments	\$ 2,449,705	\$ (3,740,518)	\$ (11,105,577)	\$ (8,323,634)	\$ 30,162
Net increase (decrease) in unrealized appreciation on investments	\$ 2,347,297	\$ 21,883,175	\$ 19,718,327	\$ (30,170,712)	\$ 5,080,936

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Net (decrease) increase in net assets resulting from operations	\$(3,541,363)	\$10,586,850	\$(148,465)	) \$(49,181,497)	\$(6,716,445)	)
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(Decrease) increase in net assets resulting from operations per average outstanding share	\$(0.12)	) \$0.34	\$(0.01)	) \$(1.99)	\$(0.30)	)
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<sup>1</sup> We completed offerings of our common stock as follows: 0 shares in each of 2011 and 2010; 4,887,500 shares in 2009; 2,545,000 shares in 2008; and 1,300,000 shares in 2007.

<sup>2</sup> Included in total expenses is non-cash, stock-based, compensation expense of \$1,894,800 in 2011; \$2,088,091 in 2010; \$3,089,520 in 2009; \$5,965,769 in 2008; and \$8,050,807 in 2007.

## **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 2011 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 material part of our venture debt 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 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 BDC subject to the provisions of Sections 55 through 65 of the 1940 Act.

We believe we provide five core benefits to our shareholders. First, we are an established firm with a positive track record of investing in venture capital-backed companies. Second, we provide shareholders with access to emerging nanotechnology-enabled companies that would otherwise be difficult to access or inaccessible for most current and potential shareholders. Third, we have an existing portfolio of companies at varying stages of maturity that provide for a potential pipeline of investment returns over time. Fourth, we are able to invest opportunistically in a range of types



of securities to take advantage of market inefficiencies. Fifth, we provide access to venture capital investments in a vehicle that, unlike private venture capital firms, is both transparent and liquid.

We invest in companies enabled by nanotechnology and microsystems. We believe companies that leverage breakthroughs at the nanoscale are emerging as leaders in their respective industries. These companies primarily impact the energy, healthcare and electronics sectors. We focused the Company on making venture capital investments in companies that commercialize and integrate products enabled by nanotechnology in 2002. We believe this was the period of time when nanotechnology was beginning to emerge from its gestational phase to its commercial phase. We believe the coming decades will be the period of time when the commercial impact of nanotechnology will become widespread. We believe that as this occurs, our portfolio companies are well positioned to profit and that we will see investment returns as a result.

We define venture capital investments as the money and resources made available to privately held and publicly traded small businesses with exceptional growth potential. We believe that we are the only U.S.-based, publicly traded venture capital company making investments exclusively in nanotechnology and microsystems. We believe we have invested in more nanotechnology-enabled companies than any other venture capital firm.

Nanotechnology is the study of structures measured in nanometers, which are units of measurement in billionths of a meter. Microsystems are measured in micrometers, which are units of measurement in millionths of a meter. We sometimes use "tiny technology" to describe both of these disciplines.

We consider a company to fit our investment thesis if the company employs or intends to employ technology that we consider to be at the microscale or smaller, and if the employment of that technology is material to its business plan. By making these investments, we seek to provide our shareholders with a specific focus on nanotechnology and microsystems through a portfolio of venture capital investments that address a variety of industries, markets and products.

We believe nanotechnology can be classified as a transformative technology. An innovation qualifies as a transformative technology if it has the potential for pervasive use in a wide range of sectors in ways that change the competitive dynamics in those sectors. Transformative technologies often take decades to fully diffuse through respective sectors. We believe the period of 2001 through 2010 was the first decade in the commercial development of nanotechnology products. According to the National Science Foundation and the National Nanotechnology Initiative, this decade witnessed average growth rates of nanotechnology-related research and development funding, peer-reviewed publications and patent applications of 23 percent to 35 percent. According to the same institutions, nanotechnology-enabled companies created over 300,000 jobs worldwide and introduced over \$200 billion worth of products. Our portfolio companies experienced similar growth during this period of time with aggregate revenues increasing 21 percent from 2007 to 2011, and 11.6 percent from 2010 to 2011.

We are currently in the second decade in the commercial development of nanotechnology products. We believe it will be this second decade and beyond where large portions of industry come to rely on nanotechnology as a fundamental enabler of advanced products.



## **Investment Objective and Strategy**

Our principal investment objective is to achieve long-term capital appreciation by making equity-focused venture capital investments. Therefore, a significant portion of our current venture capital investment portfolio provides little or no income in the form of dividends or interest. Current income is a secondary investment objective. We seek to reach the point where future growth is financed through reinvestment of our capital gains from our venture capital investments and where current income offsets portions of our annual expenses during periods of time between realizations of capital gains on our investments. We also plan to implement a strategy to grow assets under management by raising one or more third-party funds to manage. There is no assurance when and if we will be able to raise such fund(s) or, if raised, whether they will be successful.

We have discretion in the investment of our capital to achieve our objectives. We seek long-term capital appreciation through venture capital investments in equity-related securities of companies that we believe have exceptional growth potential. These businesses can range in stage from pre-revenue to generating positive cash flow. These businesses tend to be thinly capitalized, unproven, small companies that lack management depth, have little or no history of operations and are developing unproven technologies. These businesses may be privately held or publicly traded. We historically have invested in equity securities of these companies that are generally illiquid due to restrictions on resale and to the lack of an established trading market. We refer to our portfolio of investments in equity and equity-related securities in later sections of the Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") as our "equity-focused" portfolio of investments. We may take advantage of opportunities to generate near-term cash flow by investing in non-convertible debt securities of businesses. These businesses tend to be generating cash or have near-term visibility to reaching positive cash flow. We refer to our portfolio of investments in non-convertible debt in later sections of the MD&A as our "venture debt" portfolio of investments.

We are early-stage and long-term investors. We seek to identify investment opportunities in industries and markets that will be growth opportunities three to seven years from the date of our initial investment. We expect to invest capital in these companies at multiple points in time subsequent to our initial investment. We refer to such investments as "follow-on" investments. Our efforts to identify and predict future growth industries and markets rely on patient and deep due diligence in nanotechnology-enabled innovations developed at universities and corporate and government research laboratories, and the examination of macroeconomic and microeconomic trends and industry dynamics. We believe it is the early identification of and investments in these growth opportunities that will lead to investment returns for our shareholders, growth of our net assets, and capital for us to invest in tomorrow's growth opportunities.

## **Involvement with Portfolio Companies**

The 1940 Act 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, 2011, we held at least one board seat or observer rights on 22 of our 27 equity-focused portfolio companies (81 percent).

We may hold two or more board seats in early-stage portfolio companies or those in which we have significant ownership. We may transition off of the board of directors to an observer role as our portfolio companies raise additional capital from new investors, as they mature or as they are able to attract independent members who have relevant industry experience and contacts. We also typically step off the board of directors upon the completion of an IPO. Our observer rights at board of directors meetings commonly cease when companies complete an IPO. We held observer rights in NeoPhotonics Corporation and Solazyme, Inc., until the completion of each company's IPO.

We may be involved actively in the formation and development of business strategies of our earliest stage portfolio companies. This involvement may include hiring management, licensing intellectual property, securing space and raising additional capital. We also provide managerial assistance to late-stage companies looking for potential exit opportunities by leveraging our relationships with the banking and investment community and our knowledge and experience in running a micro-capitalization publicly traded business.

### **Historical Investments and Current Investment Pace**

Since our investment in Otisville in 1983 through December 31, 2011, we have made a total of 93 equity-focused venture capital investments. We have exited 66 of these 93 investments, realizing total gross proceeds of \$158,872,869 on our cumulative invested capital of \$91,890,222. The gross proceeds received include our upfront payment from the sale of BioVex Group, Inc., to Amgen, Inc., in the first quarter of 2011, but do not include the potential milestone payments that could occur as part of this transaction at points in time in the future or the portion of the upfront payment held in escrow as of December 31, 2011.

The gross proceeds received also include our upfront payment from the sale of Innovalight, Inc., to E.I. du Pont de Nemours and Company ("DuPont") in the third quarter of 2011 and the sale of Crystal IS, Inc., to the Asahi Kasei Group in the fourth quarter of 2011, but do not include the portion of the upfront payments held in escrow as of December 31, 2011. Both the gross proceeds and the cumulative invested capital do not reflect the cost or value of our ownership of NeoPhotonics or Solazyme which completed IPOs on February 2, 2011, and May 27, 2011, respectively, as we have not yet sold or had our shares called from us through exercise of the call options written by us on a portion of these investments.

From August 2001 through December 31, 2011, all 51 of our initial equity-focused investments have been in companies commercializing or integrating products enabled by nanotechnology or microsystems. From August 2001 through December 31, 2011, we have invested a total (before any subsequent write-ups, write-downs or dispositions) of \$143,998,386 in these companies. We currently have 27 equity-focused companies in our portfolio. At December 31, 2011, from first dollar in, the average and median holding periods for these 27 investments were each 5.0 years. Historically, as measured from first dollar in to last dollar out, the average and median holding periods for the 66 investments we have exited were 4.2 years and 3.3 years, respectively.

The following is a summary of our initial and follow-on equity-focused investments in nanotechnology companies from January 1, 2007, to December 31, 2011. 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**

	2007	2008	2009	2010	2011
Total Incremental Investments	\$20,595,161	\$17,779,462	\$12,334,051	\$9,560,721	\$17,688,903
No. of New Investments	7	4	2	3	4
No. of Follow-On Investment Rounds	20	25	29	27	31
No. of Rounds Led	3	4	5	5	4
Average Dollar Amount – Initial	\$1,086,441	\$683,625	\$174,812	\$117,069	\$1,339,744
Average Dollar Amount – Follow-On	\$649,504	\$601,799	\$413,256	\$341,093	\$397,740

During the twelve months ended December 31, 2011, we made three venture debt investments. The following is a summary of our investments in venture debt to date.

**Investments in Our Venture Debt Portfolio of Investments**

**In Privately Held and Publicly Traded Companies**

	2007	2008	2009	2010	2011
No. of Investments	0	0	0	1	3
Total Dollar Amount	\$ 0	\$ 0	\$ 0	\$500,000	\$1,400,000

In the fourth quarter of 2011, we made a \$500,000 venture debt investment in one of our equity-focused portfolio companies. We note that all amounts, values and numbers mentioned below regarding our equity-focused portfolio companies include this investment in those calculations.

**Importance of Availability of Liquid Capital**

Private venture capital 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 venture-backed 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 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 venture capital 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.

Venture capital firms traditionally invest beside other venture capital firms in a process called syndication. The size of the fund and the amount of capital reserves available to syndicate partners is often an attribute that potential 2) co-investors consider when deciding on syndicate partners. As we do not have committed capital from limited partners, we believe we must have adequate available liquid capital on our balance sheet to be able to have access to high-quality deal flow.

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 3) are useful to protect and potentially increase the value of our positions in our portfolio companies as they mature. Commonly, 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.

We may have the opportunity to increase ownership in late rounds of financing in some of our most mature companies. Many private venture capital funds that invested in these companies are reaching the end of the term associated with their limited partnerships. This issue may limit the available capital to these funds for follow-on 4) investments, and the ability to take advantage of potentially valuable terms given to those who have investable capital. Having permanent, liquid capital available for investment and access to the capital markets allows us to take advantage of these opportunities as they arise.

## **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, 2011, and December 31, 2010, our total primary and secondary liquidity was \$65,368,303 and \$42,079,934, respectively. We do not include our credit facility as primary or secondary liquidity. Primary liquidity is comprised of cash and certain receivables. As of December 31, 2011, we held \$33,841,394 in cash, of which \$25,251,666 was held in non-interest-bearing, fully FDIC insured bank accounts. As of December 31, 2011, we held \$0 in U.S. government obligations. During the first quarter of 2011, we received the upfront payment of \$7.7 million from the disposition of BioVex. During the third quarter of 2011, we received approximately \$4.5 million from the disposition of Innovalight. During the fourth quarter of 2011, we received approximately \$1.7 million from the disposition of Crystal IS. These payments immediately added to our primary liquidity. Payments upon achieving milestones of the BioVex acquisition or expiration of the escrow periods for the BioVex, Crystal IS and Innovalight acquisitions would also add to our primary liquidity in future quarters if these milestones are achieved successfully and escrowed funds are released in part or in full. The probability-adjusted value of the future milestone payments for the BioVex acquisition and of the funds held in escrow from the acquisitions of BioVex, Crystal IS and Innovalight, as determined at the end of each fiscal quarter, is included as an asset on our Consolidated Statements of Assets and Liabilities and will be included in primary liquidity only when payment is received for achievement of the milestones.

Our secondary liquidity is comprised of the stock of 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, 2011, our secondary liquidity was \$31,457,861. NeoPhotonics and Solazyme account for \$29,484,527 of this amount based on the closing price of each company as of December 31, 2011. Champions Oncology accounts for \$1,973,334 of the total amount of secondary liquidity. As of December 31, 2011, our shares of each of these companies are freely tradable securities. A decision to sell our shares would result in the cash received from the sale of these assets being included in primary liquidity. Until that time, we will continue to include the value of our shares of our publicly traded portfolio companies in secondary liquidity unless the average trading volume of each company reaches sufficient levels for us to monetize our stock in such companies over a short period of time.

Should additional portfolio companies successfully complete IPOs or should we make additional investments in publicly traded companies, our source of secondary liquidity could materially increase. We believe these developments make it important, therefore, to examine both our primary and secondary liquidity when assessing the strength of our balance sheet and our future investment capabilities.

## **Liquidity Events from Our Portfolio in 2011**

During the year ended December 31, 2011, we had five liquidity events in the portfolio.

On December 28, 2011, the Asahi Kasei Group completed its acquisition of Crystal IS. We received a portion of our payment of \$1.74 million for our securities of Crystal IS. As of December 31, 2011, approximately \$288,000 in additional proceeds from the transaction is held in escrow to cover potential indemnity claims, working capital shortfalls and the expenses of the stockholder agent. The majority of this amount is held in escrow for a period of 15 months from the date of the transaction.

On July 21, 2011, DuPont completed its acquisition of Innovalight. We received payment of \$4.55 million for our securities of Innovalight. As of December 31, 2011, approximately \$928,000 in additional proceeds from the transaction is held in escrow to cover potential indemnity claims for a period of 18 months from the date of the transaction.

On May 27, 2011, Solazyme completed an IPO by selling 10,975,000 shares of common stock at \$18 per share. The common stock of Solazyme trades on the Nasdaq Global Select Market under the symbol "SZYM." As of December 31, 2011, we owned an aggregate of 2,304,149 shares of Solazyme. This position was valued at \$27,419,373 as of December 31, 2011. Our valuation of Solazyme as of December 31, 2011, was based on the share price as of the close of trading on December 30, 2011, which was \$11.90. As of March 13, 2012, Solazyme's closing price was \$14.43 per share. In December 2011, we sold call options covered by a portion of our shares owned of Solazyme that resulted in cash premiums paid to the Company of \$300,000.

On March 4, 2011, Amgen completed its acquisition of BioVex. The acquisition included an upfront payment of \$425 million and milestone payments of up to \$575 million. On March 11, 2011, we received our upfront payment of \$7,702,470. As of December 31, 2011, our portion of the upfront payment that remained in escrow was approximately \$953,000. As of December 31, 2011, we valued potential milestone payments and funds held in escrow from the sale of BioVex at \$3,839,384. If all the remaining milestone payments were to be paid by Amgen, and if the full amount held in escrow is released, we would receive \$10,479,604. We have not received any milestone payments as of December 31, 2011, and there can be no assurances as to how much of this amount we will ultimately realize in the future, if any.

On February 2, 2011, NeoPhotonics completed an IPO by selling 7,500,000 shares of common stock at \$11 per share. The common stock of NeoPhotonics trades on the New York Stock Exchange under the symbol "NPTN." As of December 31, 2011, we owned an aggregate of 450,907 shares of NeoPhotonics. This position was valued at \$2,065,154 as of December 31, 2011.

### **Potential Liquidity Events from Our Portfolio in 2012**

In the first quarter of 2012, one of our portfolio companies received a non-binding letter of interest for the potential acquisition of the company. As of March 13, 2012, the discussion between these two companies is ongoing, and there can be no assurance that these companies will reach mutually acceptable terms to consummate a transaction.

Also in the first quarter of 2012, three of our portfolio companies have commenced planning for and/or began the process of hiring bankers to pursue potential sales and/or IPOs of those companies. As of March 13, 2012, these efforts are ongoing, and there can be no assurance that either of these companies will be able to consummate either type of transaction.

### **Strategy for Managing Publicly Traded Positions**

Our equity-focused portfolio companies may seek to raise capital and provide liquidity to shareholders through IPOs. It is generally rare that pre-IPO investors are afforded the ability to sell a portion of shares owned in the IPO. These pre-IPO shares are often subject to lock-up provisions that prevent the sale of those shares, options against those shares or other transactions associated with those shares until expiration of the lock-up period, which is often 180 days from the date of the IPO. We commonly plan to hold our shares of our publicly traded portfolio companies following the expiration of the lock-up restrictions if we believe that the prospects for future growth of the portfolio company and the underlying value of our shares are as great or greater than other opportunities we are currently encountering. We believe we are able to make such assessments using our extensive knowledge of the companies having actively worked with them and their management teams over multiple years as pre-IPO investors. As such, we may hold our shares of publicly traded portfolio companies for extended periods of time from the date of IPO.

Following the expiration of the lock-up restrictions, we may pursue the sale of call options covered by our ownership of shares in our publicly traded portfolio companies. The Company will only "sell" or "write" options on common stocks held in the Company's portfolio. We will not sell "naked" call options, *i.e.*, options representing more shares of the stock than are held in the portfolio. These call options give the buyer the right to purchase our stock at a given price, the "strike price," prior to a specific date, the "expiration date." A call option whose strike price is above the current price of the underlying stock is called "out-of-the-money." Most of the options that will be sold by us are expected to be out-of-the-money, allowing for potential appreciation in addition to the proceeds from the sale of the option. 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. For conventional listed call options, the options' expiration date can be 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 to write call options with expirations of no more than nine months from the date the call option is first listed for trading.

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.

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 3)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.

### **Maturity of Current Equity-Focused Venture Capital Portfolio**

Our equity-focused venture capital portfolio is composed of companies at varying maturities facing different types of risks. We have defined these levels of maturity and sources of risk as: 1) Early Stage/Technology Risk, 2) Mid Stage/Market Risk and 3) Late Stage/Execution Risk. Early-stage companies have a high degree of technical, market and execution risk, which is typical of initial investments by venture capital firms, including us. These companies often require substantial development of their technologies before they begin introducing products to market. Mid-stage companies are those that have overcome most of the technical risk associated with their products and are now focused on addressing the market acceptance for their products. For those companies developing therapeutics or medical devices, the focus is on bringing their products through the first phases of clinical trials. Late-stage companies are those that have determined there is a market for their products, and they are now focused on sales execution and scale. Late-stage healthcare and biotechnology companies are typically either in Phase III Clinical Trials, which are the pivotal trials before a possible FDA approval and commercial launch of a product, or are generating revenue from the commercial sale of one or more products. The charts below show our assessment of the stage of maturity of the 27 companies in our equity-focused portfolio of investments and include the cost and value ascribed to the companies within each of these stages of maturity.



We seek to create a portfolio of companies that enables consistent flows of potential liquidity events in multiple industries in three sectors, energy, healthcare and electronics, which can be monetized as these companies mature.

We classify energy companies as those that seek to improve performance, productivity or efficiency, and to reduce environmental impact, waste, cost, consumption or raw materials using nanotechnology-enabled solutions. We have historically used the term "cleantech" to describe these types of companies. We now use the term energy to describe these companies and include our companies formerly classified as cleantech companies in this category.

We classify healthcare companies as those that use nanotechnology to address problems in healthcare-related industries, including biotechnology, pharmaceuticals and medical devices.

We classify electronics companies as those that address problems in electronics-related industries, including semiconductors.

We believe a portfolio of companies focused on a diverse set of industries reduces the potential impact of cyclicity of any one industry. Our current portfolio is comprised of companies at varying stages of maturity in a diverse set of industries within three sectors. We also include our positive exits from these portfolios. We consider NanoGram Devices to have been both an energy and a healthcare portfolio company. 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. This diversity of industries and our pipeline of investment maturities are demonstrated by the distribution of our current early- and mid-stage portfolio companies within each sector shown in the table below.

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 are commonly 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."

During the fourth quarter of 2011, we did not transition any companies between classifications of stage of maturity; however, we sold Crystal IS, Inc., which was included in our energy portfolio as an early-stage company.

We currently have 22 companies in our equity-focused venture capital portfolio that generate revenues ranging from nominal to significant from commercial sales of products and/or services, from commercial partnerships and/or from government grants. In aggregate, our portfolio companies had approximately \$424 million in revenue in 2011, an 11.6 percent increase from aggregate 2010 revenue of approximately \$380 million and a 58.8 percent increase from aggregate 2009 revenue of \$267 million.

## Current Business Environment

The fourth quarter of 2011 ended with broad increases in value in the public market indices, but the values of nanotechnology-related companies and investment companies lagged behind these indices. Venture capital fundraising, investment activity, and the volume of liquidity events were all down in the fourth quarter from the prior quarter in 2011. This downtrend precipitated from continued general macroeconomic instability and uncertainty and volatility in the public markets. In 2011, fewer exits by U.S. venture-backed companies netted more capital as the median price paid for an acquisition and the median amount raised during an IPO increased. Throughout 2011, 522 mergers, acquisitions, buyouts and IPOs netted \$53.2 billion, a 14 percent drop in deal activity and 26 percent increase in capital raised compared with 2010. The difference in capital raised in IPOs can largely be attributed to two companies that combined raised \$1.7 billion through their IPOs. Thirty-eight U.S. venture capital funds raised \$5.6 billion in the fourth quarter of 2011, according to Thomson Reuters and the National Venture Capital Association. This level marks a 162 percent increase by dollar commitments, but a 41 percent decline by number of funds compared with the third quarter of 2011, which saw 64 funds raise \$2.1 billion during the period. This quarter marks the lowest number of funds raising money since the third quarter of 2009. U.S. venture capital fundraising for all of 2011 totaled \$18.2 billion from 169 funds, a 32 percent increase by dollars compared with 2010 and with the same number of funds. Fundraising for all but the top-tier venture capital funds continues to be difficult owing in part to the closely watched 10-year benchmark for venture capital returns that stood at only 2.59 percent as of September 30, 2011, which is the most recent data available for this statistic from Cambridge Associates, LLC.

The current business environment is also complicated by global economic uncertainty and regional unrest. It remains unclear if and how the debt crisis in Europe will spread from Greece, Portugal, Italy, Ireland and Spain to other countries in the region or beyond and whether it will result in a slowing of worldwide economic growth or even trigger a further global financial crisis. It is unclear if the rising budget deficits in the United States will result in further downgrades in its credit rating. Any outcome could be heightened potentially should an alternative to U.S. Treasury securities emerge as the global safe-haven for invested capital or should large holders of these securities, such as China, decide to divest of them in large quantities or in full. It is unclear how regional unrest will affect the global economy should it persist and/or expand beyond northern Africa and the Middle East. All of this uncertainty could lead to a further broad reduction in risk taken by investors and corporations, which could reduce further the capital available to our portfolio companies, could affect the ability of our portfolio companies to build and grow their respective businesses, and could decrease the liquidity options available to our portfolio companies.

Historically, difficult venture environments have resulted in a higher than normal number of companies not receiving financing and being subsequently closed down with a loss to venture investors, and other companies receiving financing but at significantly lower valuations than the preceding financing rounds. This issue is compounded by the fact that many existing venture capital firms have few remaining years of investment and available capital owing to the finite lifetime of the funds managed by these firms. Additionally, even if a firm was able to raise a new fund, commonly venture capital firms are not permitted to invest new funds in existing investments. This limitation of available capital can lead to fractured syndicates of investors. A fractured syndicate can result in a portfolio company being unable to raise additional capital to fund operations. This issue is especially acute in capital-intensive sectors that are enabled by nanotechnology, such as energy, healthcare and electronics. The portfolio company may be forced to sell before reaching its full potential or be shut down entirely if the remaining investors cannot financially support

the company. As such, improvements in the exit environment for venture-backed companies through IPOs and merger and acquisition transactions may not translate to an increase in the available capital to venture-backed companies, particularly those that have investments from funds that are in the latter stage of life unless the markets improve for some time into the future.

Our overall goal remains unchanged. We want to maintain our leadership position in investing in nanotechnology and microsystems and to increase our net asset value. The current environment for venture capital financings continues to favor those firms that have capital to invest regardless of the stage of the investee company. We continue to finance our new and follow-on equity and convertible debt investments from our cash reserves held in bank accounts. We have historically held, and may in the future again hold, our cash that finances our operations in U.S. Treasury securities. We believe the turmoil of the venture capital industry and the current economic climate provide opportunities to invest this capital at historically low valuations in equity and convertible debt securities and at high yields in non-convertible debt securities of new and existing privately held and publicly traded companies of varying maturities.

### **Valuation of Investments**

We value our privately held venture capital investments 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.")

The values of privately held, venture capital-backed companies are inherently more difficult than publicly traded companies to assess 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.

In each of the years in the period 2007 through 2011, the Company 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**

2007 2008