



Thoma Bravo Fund XIV, L.P.
Thoma Bravo Discover Fund III, L.P.

Presentation to Pennsylvania State Employees' Retirement System

September 29, 2020

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Thoma Bravo Private Equity at a Glance

Strong PERFORMANCE

- Realized Software track record: 3.7x Gross MoM and 49.6% Gross IRR¹

Experienced ORGANIZATION

- Focused on Software investing for nearly two decades
- Managing Partners have been together for 14+ years
- Responsible for over 260 Software acquisitions since 2003² representing about \$78B³ of Enterprise Value

Expanding Software MARKET

- About \$7.4T software public market capitalization, +640% increase since 2008⁴
- Most mature software companies are privately owned⁵
- Market generally lacks operational discipline, allows for Thoma Bravo value-add advantage

Differentiated STRATEGY

- Strategy centered around accelerating growth through operational excellence

Repeatable PROCESS

- Consistent execution of the strategy enabled by Thoma Bravo's proprietary processes, business metrics and Operating Partners

Thoma Bravo is an organization with over \$55B under management and a long history of strong performance in a growing Software market

Past performance is not an indicator of future results and all data is qualified by the Notes to Presentation. The complete investment history of Thoma Bravo is available to PA SERS staff upon request. 1) Returns are the result of Realized Investments in Software made by or under the supervision of persons now part of the Thoma Bravo investment staff while at Thoma Bravo or its predecessor firm, Thoma Cressey Bravo, Inc. Since in some cases the investments constituted only a portion of the funds in which they were made, no fund investor could have made such an investment and no investor received the returns indicated. The performance of an investment and the aggregate performance of investments were calculated using actual cash flows and the Value of Remaining Interests in the investments for the period from closing of the first investment in January 2003 through 6/30/20. The aggregate performance calculations were made as if each investment was made by one continuous fund beginning in January 2003. 2) Includes add-on acquisitions. 3) As of 6/30/20. Although Thoma Bravo's typical strategy is to acquire control positions in its Equity Funds' portfolio companies, number also represents full value of acquisitions when investments were non-control, minority investments. 4) Source: S&P Capital IQ. Current market capitalizations are based on the end of the trading day on 6/30/20; 2008 is as of 12/31/08. See Notes to Presentation. 5) Source: S&P Capital IQ. See Notes to Presentation.

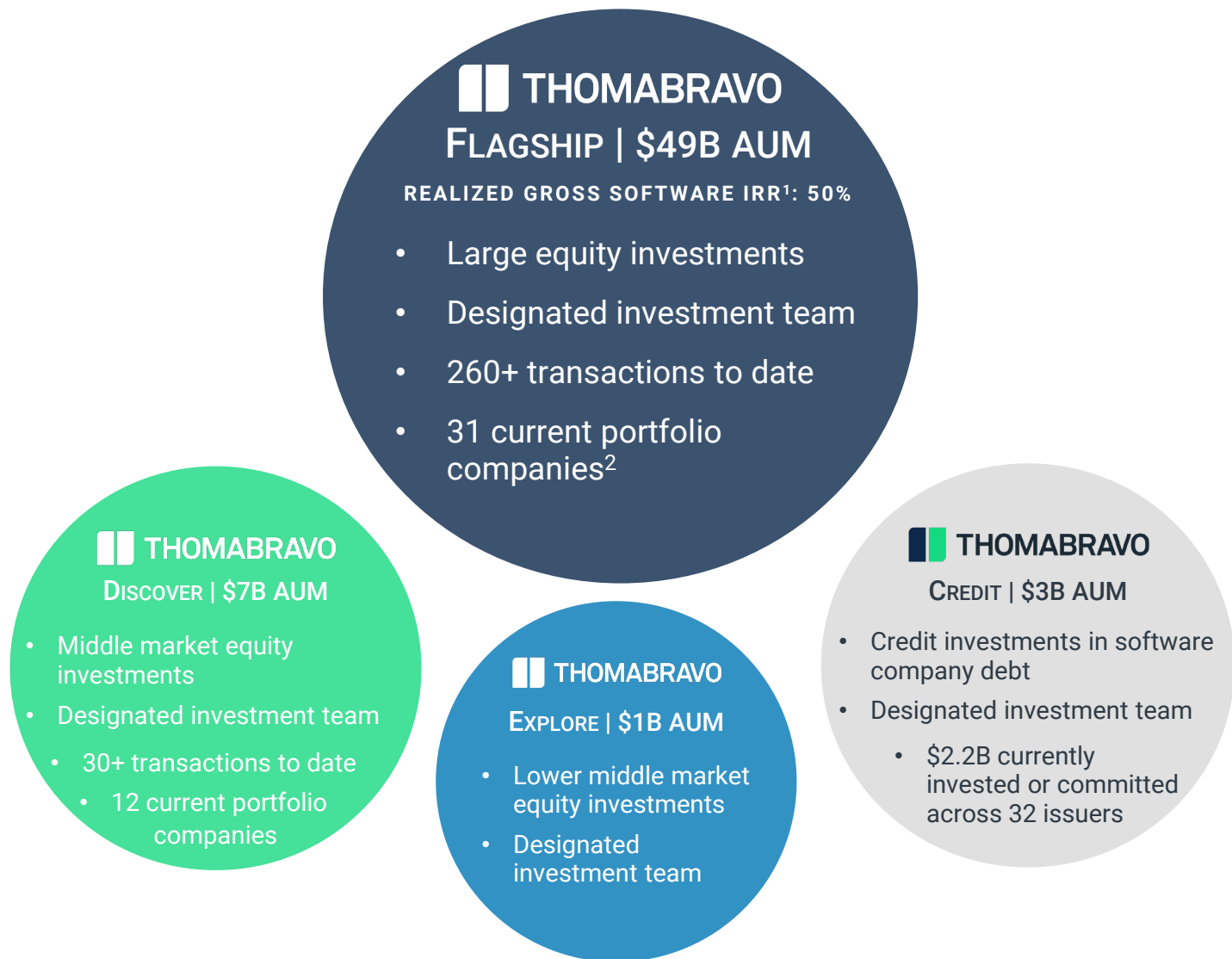
Equity Fund Performance Summary

EQUITY FUND PERFORMANCE SUMMARY AS OF 6/30/20

FUND	VINTAGE YEAR	FUND SIZE	NET MOM (TVPI)	LP NET IRR
Fund VII	2000	\$554M	2.1x	24.8%
Fund VIII	2005	\$765M	2.9x	18.3%
Fund IX	2008	\$823M	3.8x	44.7%
Fund X	2011	\$1,275M	2.9x	39.4%
<i>SOFI</i> ¹	2013	\$418M	2.8x	35.4%
Fund XI	2014	\$3,662M	3.3x	32.9%
<i>SOFII</i> ¹	2015	\$1,065M	2.2x	22.2%
Discover Fund	2015	\$1,074M	2.1x	35.9%
Fund XII	2016	\$7,604M	1.5x	16.0%
Discover Fund II	2017	\$2,438M	1.2x	22.8%
Fund XIII	2018	\$12,595M	1.5x	83.0%

The historical returns achieved by any prior fund or individual investment are not a prediction of future performance or a guarantee of future results, and there can be no assurance that these or comparable returns will be achieved by investments made by a fund individually or in the aggregate. To the extent values include unrealized investments, Thoma Bravo believes the values used for such investments are reasonable and appropriate for these types of investments; however, there can be no assurance that proceeds will be realized on these investments or that, if and when realized, the proceeds will be equal to the values used. All data is qualified by the Notes to Presentation. 1) See Notes to Presentation.

Thoma Bravo Platform



As of 6/30/2020. Past performance is not an indicator or guarantee of future results and all data presented is qualified by the Notes to Presentation. AUM figures are rounded to the nearest billion dollars. Flagship, Discover, Explore and Credit Funds have approximately \$49.4B, \$6.9B, \$808M and \$2.8B AUM respectively. Full investment history of Thoma Bravo available upon request. 1) Since Software investments constitute only a portion of the investments held by Fund VII, Fund VIII, Fund IX, Fund X and SOFI, no fund investor could have made such an investment and no investor received the return indicated. 2) Software investments only. J.D. Power and Autodata represent one (1) portfolio company. Dynatrace and SIGOS represent two (2) companies.

Organization

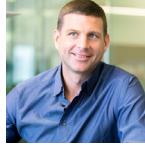
INVESTMENT TEAM LEADERSHIP

Managing Partners
together since 2005

Managing Partners and
Partners responsible
for all of the Firm's
Software investments

No Partner turnover
since founding

Seth Boro
Managing Partner



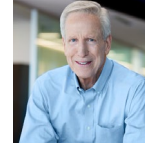
Orlando Bravo
Managing Partner



Scott Crabill
Managing Partner



Lee Mitchell
Managing Partner



Holden Spaht
Managing Partner



Carl Thoma
Managing Partner



Jack Le Roy
Partner



A.J. Rohde
Partner



Robert (Tre) Sayle
Partner



Hudson Smith
Partner



Chip Virnig
Partner

OPERATING PARTNER GROUP

Over 25 OPERATING PARTNERS / ADVISORS¹

- Operating Partner model is well established, with some having served for 10+ years
 - Many are former Thoma Bravo portfolio company executives
- Broad experience and select areas of expertise: sales, marketing, R&D, finance

CULTURE

CULTURE OF COLLABORATION AND RESULTS

- No third-party ownership, creating strong alignment with limited partners
- Approximately 110 total team members with limited turnover²

Our mission: to deliver superior value to our investors and companies by forming collaborative partnerships

Note: As of 6/30/20. 1) The title "Senior Operating Partner", "Operating Partner", or "Operating Advisor" is not intended to indicate that a team member with this title is a partner, principal, employee or affiliate of Thoma Bravo or any Thoma Bravo fund or other affiliate. Persons with these titles provide expertise to Thoma Bravo and its portfolio companies. They are independent contractors and may also be employees of current or former portfolio companies and may have business or investment activities unrelated to Thoma Bravo. See, note jj in Notes to Presentation. 2) Excluding Operating Partners and Operating Advisors.

Thoma Bravo Breadth of Software Investing Experience

APPLICATION SOFTWARE



INFRASTRUCTURE SOFTWARE



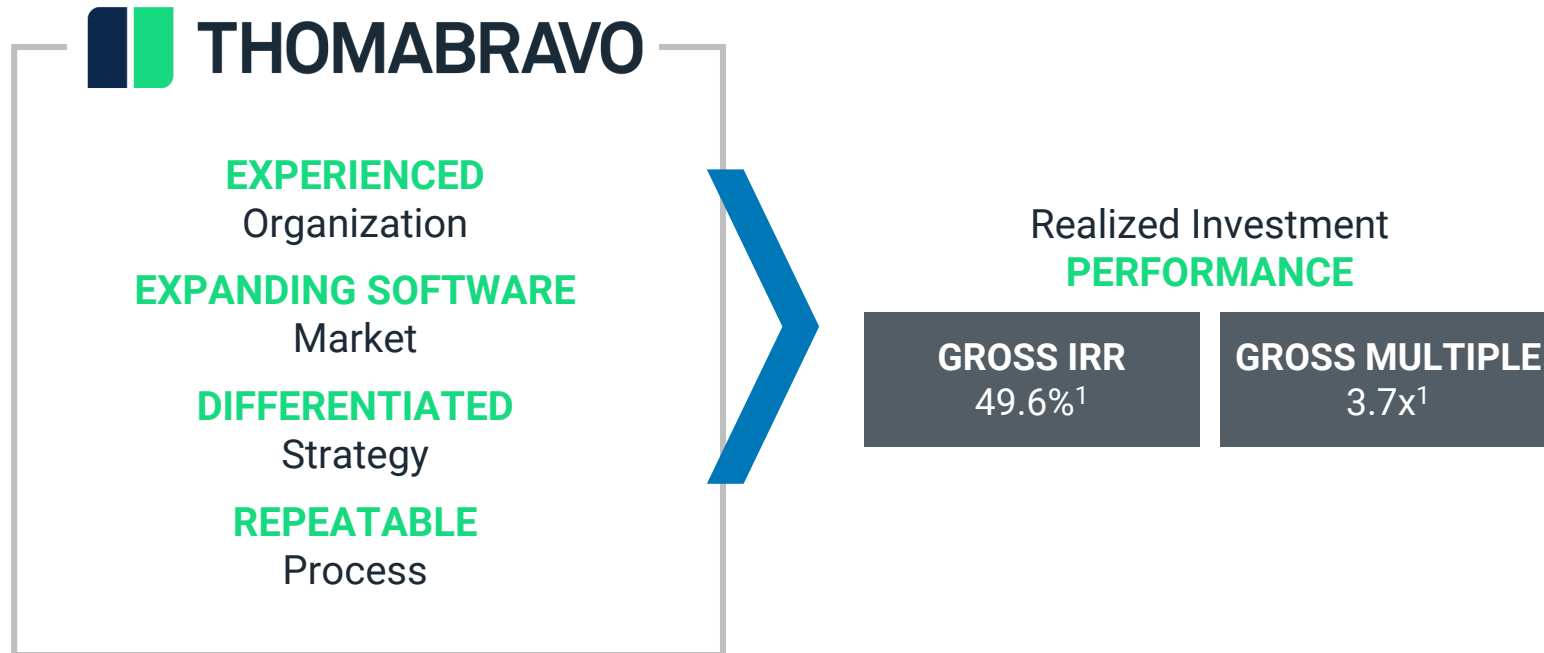
SECURITY SOFTWARE



Responsible for over 260 Acquisitions¹ Since 2003 Representing over \$78 billion¹ of Enterprise Value

Representative software-related past and current portfolio companies shown; does not include all investments made by Thoma Bravo Equity Funds. The companies whose logos appear on this slide include both portfolio companies acquired with an equity investment by a Thoma Bravo fund and add-on investments acquired by a portfolio company without an equity investment by a Thoma Bravo fund. Not all investments have been successful. 1) Invested dollar amount represents Total Capital Invested by Equity Funds managed by Thoma Bravo plus about \$3.5B of equity from co-investors as of 6/30/20. Although Thoma Bravo's typical strategy is to acquire control positions in its Equity Funds' portfolio companies, some investments have been non-control, minority investments. 2) Includes only Software acquisitions (including add-ons) as of 6/30/20.

Summary



Past performance is not an indicator of future results and all data is qualified by the Notes to Presentation. 1) These returns are the result of Realized Investments in Software made by or under the supervision of persons now part of the Thoma Bravo investment staff while at Thoma Bravo or its predecessor firm, Thoma Cressey Bravo, Inc. Since Software investments constitute only a portion of the investments held by Fund VII, Fund VIII, Fund IX, Fund X and SOFI, no fund investor could have made such an investment and no investor received the return indicated. The performance of an investment and the aggregate performance of investments were calculated using actual cash flows and the Value of Remaining Interests in the investments for the period from closing of the first investment in January 2003 through 6/30/20. The aggregate performance calculations were made as if each investment was made by one continuous fund beginning in January 2003.



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