

Public Investment Memorandum

Portfolio Advisors Secondary Fund IV, L.P.

Private Equity Fund Commitment

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Manager, Private Markets

November 21, 2019



Recommendation:

PSERS Investment Office Professionals, together with Hamilton Lane Advisors, L.L.C. ("Hamilton Lane"), recommend to the Board a commitment of up to \$150 million to Portfolio Advisors Secondary Fund IV, L.P., ("Portfolio Advisors", or "PASF IV", or the "Fund").

Firm Overview:

Portfolio Advisors, LLC (or the "Firm") was formed in 1994 and based in Darien, CT. As of June 30, 2019, the Firm has over \$23 billion of assets under management on behalf of Portfolio Advisors sponsored funds and separate account advisory clients. Portfolio Advisors has established this Fund with a target of \$1.5 billion in capital commitments.

PASF IV is sponsored and managed by Portfolio Advisors, an employee-owned firm founded to provide a full range of private markets investment advisory and portfolio management services to sophisticated institutional investors. Portfolio Advisors brings significant resources to the activities of sourcing, analyzing, selecting, closing and managing private markets investments on behalf of institutional investors who are seeking attractive returns while striving to manage the risks associated with the private equity and private credit asset classes. Since its formation, Portfolio Advisors has expanded to become a firm of over 100 professionals with offices in Darien, Connecticut, Zurich, Switzerland, and Hong Kong. The Firm has a total of 27 Managing Directors who have an average of 21 years of experience in private markets investing and extensive experience in the disciplines needed to effectively manage a portfolio of private markets funds.

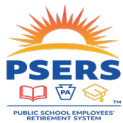
The Firm invests on behalf of its sponsored-funds and separate account clients in buyout, growth, venture, and special situations funds (such as mezzanine funds, distressed debt funds, energy funds, and other alternative investments), private credit funds, real estate funds, secondary and co-investment opportunities, and funds with a geographic focus, such as U.S., Europe and the Pan-Asia region. These investments generally fall into four categories: (i) interests in closed-end private partnerships (primaries); (ii) purchases of existing interests in closed-end private partnerships on the secondary market (secondaries); (iii) direct investments alongside fund sponsors (co-investments); and (iv) investments in private credit opportunities, including direct credit investments (private credit). By focusing on these areas, Portfolio Advisors is able to develop valuable insights into the portfolios and capabilities of fund managers as well as industry sectors. Portfolio Advisors currently serves as the investment manager of 36 private equity, private credit, and private real estate funds (four of which the Firm co-manages) and has established advisory relationships with many institutional clients. On behalf of its managed funds and separate accounts, the Firm has previously made over \$50 billion of commitments to private equity funds and has made commitments to over 350 underlying private equity and real estate investment funds on behalf of its advisory clients. The Firm also administers large private equity and real estate fund portfolios for its administrative clients, as well as for most of its advisory clients.

Fund Size:

The Fund is seeking Limited Partner equity commitments of up to \$1.25 billion, with a hard cap of \$2.25 billion.

Investment Strategy and Selection:

The global secondary market transaction volume has grown significantly from \$20 billion in 2008 to \$74 billion in 2018, an increase of 270%. Sellers of private equity funds may choose to sell a portfolio for a number of reasons, including reallocation of capital to different sponsors, changes in the management of primary investment programs, the wind down of a fund-of-funds or secondary fund, capital market



conditions, regulatory constraints, liquidity management, reduction of administrative burden, and a desire to lock in returns. Historically, Portfolio Advisors has closed on approximately 2% of the transaction volume it has reviewed. Given that PASF IV is expected to be of a comparable size to its previous funds, PASF IV expects to have ample transaction volume to selectively invest in high quality transactions.

Portfolio Advisors' secondary investment professionals intend to conduct comprehensive due diligence on each limited partnership interest or portfolio of limited partnership interests being considered for investment in PASF IV. In identifying potential secondary investments for PASF IV, Portfolio Advisors will follow a multi-stage due diligence process which includes:

- **Sourcing and Screening** - Portfolio Advisors will seek to identify potential investments for PASF IV mainly through existing relationships that have been developed over many years from serving as an investment advisor and fund-of-funds sponsor, and may include: fund sponsors, limited partners, brokers, intermediaries, vendors, and other parties.
- **Preliminary Due Diligence** - During the preliminary due diligence stage, Portfolio Advisors will evaluate the private equity fund manager's investment history, its commitment to the success of the given portfolio fund, the working relationship of the investment team, its ability to repeat successes of the past in current environments, and whether the fund manager has made a strong and convincing case that its strategy will perform and meet PASF IV's risk-adjusted return objectives. The investment professionals will also screen each portfolio fund's underlying portfolio companies to assess the underlying companies' financial condition, in order to provide an early indication of such portfolio's value. A preliminary investment committee meeting is typically held in which Portfolio Advisors' secondary team presents their preliminary due diligence findings from their initial screening. This discussion will determine whether or not PASF IV will continue to pursue the transaction under review.
- **Comprehensive Due Diligence** - Portfolio Advisors' secondary team will perform a complete bottom-up analysis by gathering performance data, including revenues, EBITDA, net debt levels, budget versus actual performance, and other pertinent information on the underlying portfolio companies. They will also review annual meeting notes and retrieve data from quarterly and/or annual reports. Underlying company data will be compared to public companies, M&A transactions, and other metrics to arrive at a reasonable range of value. During this process, Portfolio Advisors will also evaluate the impact of underlying fund portfolio terms, including the management fee and carried interest potential in addition to other transaction costs (including, but not limited to, the legal costs involved with structuring the transaction and facilitating the transfer). Detailed due diligence calls are typically conducted with each underlying portfolio fund manager during this phase of the process. During this process, Portfolio Advisors intends to leverage the private equity information it already has available through its proprietary private equity administration and performance monitoring PRIVILEGe® database system. Portfolio Advisors administers and monitors over \$25 billion in private equity commitments across over 2,000 private equity funds through PRIVILEGe®. An investment committee meeting is typically held in which Portfolio Advisors' secondary team presents their due diligence findings from their bottom-up analysis. This discussion will determine whether or not PASF IV will continue to pursue the transaction under review.
- **Final Investment Committee Meeting** - Proposed offers are reviewed and approved by PASF IV's Investment Committee (see page 3 for the composition of the Fund's Investment Committee). A final investment recommendation including the following information is reviewed during this process: summary and detail of the proposed transaction, pricing analysis, summary of notes and discussions with each fund manager, portfolio company level valuations, and qualitative and quantitative descriptions of underlying portfolio companies.



- **Final Negotiation and Offer** - Based on the outcome of the final Investment Committee meeting, Portfolio Advisors will enter into the final negotiation stage in which it negotiates the critical terms of the transaction and submits a final offer.
- **Finalizing Legal Diligence, Closing, and Investment Monitoring and Reporting** - Portfolio Advisors will utilize PRIVILEGe®, to monitor and report on PASF IV's investment activities. PRIVILEGe® is specifically designed to analyze private equity investment data and provide in-depth portfolio performance, diversification, and benchmarking analysis. Utilizing PRIVILEGe®, Portfolio Advisors will provide investors with quarterly and annual reports on the Funds, including quantitative and qualitative analyses of PASF IV's investments.

Investment Team:

The following list represents the individuals who will be dedicated to the Fund as well as Portfolio Advisors senior executives who will be involved in overseeing the successful execution of the Fund (as of 10/31/19):

Name	Title	Yrs. Experience Firm/Total	Prior Experience
Hugh Perloff*	Managing Director	21 / 21	Deloitte & Touche
Adam Clemens*	Managing Director	9 / 34	New York Life
William Indelicato*	Managing Director	24 / 26	Landmark Partners
Brian Murphy*	Managing Director	23 / 30	Morris Anderson
Ken Binick*	Managing Director	11 / 13	CIBC World Markets, Morgan Stanley
Greg Garrett*	Managing Director	9 / 18	Adams Street Partners
Patrick Gerbracht*	Managing Director	9 / 14	Pomona Capital
Benjamin Hur*	Managing Director	9 / 9	Citigroup
John Kyles*	Managing Director	10 / 22	Citigroup
Justin Lux*	Sr. Vice President	8 / 8	Lazard
Timothy Henn	Vice President	5 / 5	Raymond James
Jorge Rossello	Sr. Associate	3 / 3	SunTrust Robinson Humphrey
Patrick Brown	Sr. Associate	2 / 2	FTI Consulting

*Member of Investment Committee

Investment Instruments:

Portfolio Advisors will purchase (i) private equity limited partnership interests on the secondary market, and (ii) a limited number of direct private equity co-investments.

Portfolio Advisors Sourcing:

Portfolio Advisors' is seen as a strategic investor and secondary buyer because it deploys primary capital commitments of approximately \$2.5 billion annually through its fund products and separately managed



accounts. Since 2008, the secondary investment team has reviewed more than 1,600 deals representing \$250 billion of total exposure. Approximately 70% of closed investments in their prior funds represent existing sponsor relationships through either Portfolio Advisors' fund-of-funds or advisory business. In addition, 90% of the transactions in the prior funds have been either exclusive, general partner directed, or carve-outs from limited auctions. Portfolio Advisors sources its secondary transactions through the following channels:

- **GP Relationship Transactions** - The secondary investment team generates significant deal flow from Portfolio Advisors' platform. Due to its longstanding relationships with high quality general partners, many general partners list Portfolio Advisors as a pre-approved buyer of limited partner interests in their funds.
- **Active Limited Partner** - Portfolio Advisors is an active participant within the private equity community. In 2018, Portfolio Advisors professionals were members of over 200 advisory boards and attended over 150 annual meetings. In addition, the secondary investment team conducts dedicated outbound sourcing campaigns targeting institutional investors, endowments, pensions, family offices, and other potential sellers.
- **Secondary Intermediary Relationships** - Secondary intermediaries are familiar with Portfolio Advisors' role as an active investor of primary capital. For many secondary sale processes, intermediaries will only contact approved secondary buyers who are existing investors in the funds being sold or have the ability to invest in the subsequent funds.

Investment Highlights:

- Attractive Performance
- Buyout and Growth Equity Focus
- Unique and Favorable Fee Structure
- Extensive Experience

Investment/Risk Considerations:

- General Capital Market Conditions
- Risks of Secondary and Co-Investment Investing

PSERS History & Performance:

This will be PSERS' second commitment to a Portfolio Advisors fund. PSERS has committed \$125M to Portfolio Advisors Secondary Fund III in 2017. Simultaneously, PSERS also created a separately managed account through which PSERS is authorized to invest, paripassu with the Portfolio Advisors Secondary Fund III, additional capital in an amount not to exceed \$200 million to exploit market dislocations if and when they occur. PSERS has not contributed to this separately managed account as of yet. The summary below is as of June 30, 2019:

<u>Fund (\$M)</u>	<u>Portfolio</u>	<u>Vintage</u>	<u>Commitment</u>	<u>Contributions</u>	<u>Distributions</u>	<u>NAV</u>	<u>Net IRR</u>	<u>Net MOIC</u>
Portfolio Advisors Secondary Fund III, L.P.	PE	2017	125	63	16	62	36.3%	1.25x
Total			\$ 125	\$ 63	\$ 16	\$ 62	36.3%	1.25x



Portfolio Fit:

A commitment to the Fund will give PSERS' Private Markets portfolio, specifically in the private equity space, additional exposure to the secondary market. A commitment to the PASF IV fund will be allocated to the Private Equity sleeve of PSERS' Private Markets portfolio. The table below summarizes PSERS' projected Private Equity exposure as of June 30, 2019 (in millions):

Investment Type	Market Value ¹	%	Unfunded ^{1, 2}	%	Total Exposure	%
Private Equity	\$5,579	64.5%	\$3,707	74.4%	\$9,286	68.1%
Special Situations	\$1,181	13.6%	\$621	12.4%	\$1,802	13.2%
Venture Capital	\$1,078	12.5%	\$591	11.8%	\$1,669	12.2%
Internal Co-invest	\$816	9.4%	\$67	1.3%	\$883	6.5%
Total	\$8,654	100.0%	\$4,985	100.0%	\$13,640	100.0%

¹ As of June 30, 2019; ² Includes commitments approved through October 2019.

Investment Committee Disclosure:

Relationship with Hamilton Lane:	Hamilton Lane will not be committing any discretionary capital to PASF IV, and no other advisory clients besides PSERS will be committing to the Fund.
Introduction Source:	PSERS has been an investor with Portfolio Advisors since 2017 and was an advisory client of the firm from 2002 to 2017.
Placement Agent:	Portfolio Advisors has not engaged a placement agent in soliciting business from PSERS. However, Portfolio Advisors has retained Lytton (Canada) and EBW (Latin America) in soliciting business from investors in those respective countries/geographies. Those investors will be in the Cayman (i.e. offshore) partnership and will pay their pro-rata portion of the placement agent expense. PSERS will be an investor in the Domestic partnership. Neither the Domestic Partnership nor PSERS will be charged a placement agent fee.
PA Political Contributions:	None Disclosed
PA Presence:	None
Potential Conflicts:	None Disclosed
History with PSERS:	Yes, please see "PSERS History & Performance" on page 4
PSERS Allocation Implementation Committee Approval Date:	November 21, 2019

Oversight Responsibility:

Investment Office:	Charles J. Spiller	Deputy CIO, Non-Traditional Investments
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COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

	Darren C. Foreman, CAIA Director Luke M. Jacobs, CFA Manager
External Consultant:	Hamilton Lane



Hamilton Lane

October 29, 2019

Board of Trustees
Commonwealth of Pennsylvania
Public School Employees' Retirement System
5 North 5th Street
Harrisburg, PA 17101

Re: Portfolio Advisors Secondary Fund IV, L.P.

Dear Trustees:

Portfolio Advisors, LLC ("Portfolio Advisors") was initially founded as the private equity investment platform for General Reinsurance before spinning out and forming a separate firm in 1994. The General Partner launched its first commingled fund-of-funds in 2000 and its first secondary vehicle in 2008. Portfolio Advisors is led by William Indelicato, Adam Clemens and Brian Murphy, collectively the management committee, who oversee the day-to-day management of the organization, while group heads and other senior investment professionals dedicate time across multiple investment and back-office functions. The General Partner maintains a dedicated team of six senior-level investment professionals and is led by Managing Director Hugh Perloff, who has been with Portfolio Advisors for 21 years. Deal teams are typically staffed with two to three members of the secondary team and senior professionals are integrally involved. The investment team expects to benefit from the broader Portfolio Advisors platform, which consists of \$23.5 billion of client assets, primary relationships with over 250 managers and 82 professionals globally across investment, business development and back-office roles. The investment team also leverages PRIVLEGe, Portfolio Advisors's proprietary database that contains underlying data from the General Partner's private equity vehicles. The General Partner is targeting \$1.5 billion in commitments from limited partners for its fourth secondaries fund, Portfolio Advisors Secondary Fund IV, L.P. (the "Fund"). Portfolio Advisors expects to hold a first close in November 2019 and a final close in December 2020. The General Partner will commit 3.0% of commitments to invest alongside the Fund.

Portfolio Advisors is a well-known General Partner and has created deep networks with limited partners, general partners, brokers and intermediaries through its consistent activity in the private markets, which has led to advantaged sourcing. Similar to prior funds, Portfolio Advisors will primarily target middle-market focused buyout funds and funds with diversified strategies as a result of the attractive risk-return profile. The General Partner will seek to allocate roughly 25% of the Fund to venture- and growth-focused strategies in order to capture additional upside. Additionally, the Fund expects to deploy 10% of commitments in distressed or special situations funds and 10% of commitments in opportunistic strategies based on market dynamics. The General Partner has identified a core group of managers within the buyout and venture strategies and expects to allocate a majority of the Fund's capital to these groups. Portfolio Advisors seeks to invest with managers that are not concentrated in one industry and prefers defensible industries. From a geographic perspective, the General Partner will seek to acquire interests in U.S. focused funds, expecting approximately 80% of the Fund's investments to be made within the region. The General Partner aims to primarily generate returns through portfolio appreciation, rather than obtaining limited partner interests at large discounts to NAV. The General Partner has generated top-quartile or near top-quartile net returns across Funds I through III. Additionally, Portfolio Advisors' focus on top-tier managers and highly funded interests helps reduce blind pool risk and has resulted in strong capital preservation.

Portfolio Advisors Secondary Fund IV's investment thesis can be summarized as follows:



Hamilton Lane

- Experienced, cohesive investment team supported by Portfolio Advisors' institutional platform
- Disciplined strategy targeting high quality, traditional secondary transactions
- Consistent, attractive returns across prior funds without the use of leverage

Hamilton Lane's recommendation is based upon the following analytical factors and is made within the context of Commonwealth of Pennsylvania, Public School Employees' Retirement System's ("PSERS") investment guidelines.

- Detailed due diligence, including interviews with industry peers and private equity professionals. The initial review was completed August 21, 2019; the on-site due diligence was conducted September 18, 2019; the Fund was approved by Hamilton Lane's Investment Committee on October 28, 2019 and the recommendation to PSERS was issued October 29, 2019
- Evaluation of the composition of the investment team, how they work together, compensation structure and other factors that help determine whether a group is likely to be able to replicate past successes as currently configured
- Detailed operational due diligence, including interviews with Portfolio Advisors's back office team to review the controls and processes surrounding the firm's finance, fund administration, tax, legal, compliance, IT, HR, and accounting functions
- Evaluation of the Fund's proposed investment strategy within the context of the current investment environment
- The strategy proposed for the Fund is appropriate for the Private Markets Partnership component of the portfolio

The individuals at Hamilton Lane who were involved in the due diligence process for the Fund are:

John Stake – Principal, Bala Cynwyd Office
Ilene Levinson – Vice President, Bala Cynwyd Office
Conor Kelly – Associate, Bala Cynwyd Office
Julia Schumacher – Analyst, Bala Cynwyd Office

Based on the above, Hamilton Lane recommends that PSERS commit up to \$150 million in Portfolio Advisors Secondary Fund IV, L.P. Hamilton Lane makes this recommendation considering the General Partner's qualifications and PSERS' overall investment guidelines.

This recommendation is given solely for the benefit of PSERS and cannot be relied upon by other investors considering an investment in the Fund, since their needs, objectives and circumstances may not be identical to those of PSERS. The scope of this recommendation is limited to the investment merits of the Fund. Hamilton Lane does not provide legal or other non-investment-related advice.

Sincerely,

Michael Koenig,
Chief Client Officer

Corina English,
Principal