



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Investment Memorandum

PSERS TAO Partners Parallel Fund, L.P.

High Yield Commitment

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Senior Investment Professional

September 22, 2015



Recommendation:

Staff, together with Portfolio Advisors, recommends the Board commit an additional \$250 million to PSERS TAO Partners Parallel Fund, L.P. (“PSERS TAO” or the “Fund”). TSSP Adjacent Opportunities Partners (“TAO”) consists of a series of parallel investment funds (collectively, the “TAO Vehicles”) formed to invest in adjacent and co-investment opportunities generated by TPG Special Situations Partners (“TSSP”), the credit a special situations platform of TPG Capital (“TPG”). PSERS is the sole Limited Partner in PSERS TAO and the Fund will continue to invest alongside the TAO Vehicles on a pro-rata basis.

Firm Overview:

TSSP was established in 2009 by Alan Waxman who, prior to joining TSSP, was a partner at Goldman Sachs (“GS”) and was the co-head and Chairman of the GS Americas Special Situations Group (“AmSSG”). TSSP was established to generate attractive risk-adjusted returns through the purchase or origination of opportunistic, special situations and middle market direct lending investments across the credit cycle, which represents a continuation of the activities conducted by Mr. Waxman at GS through AmSSG. Six of the nine other TSSP partners worked with Mr. Waxman in AmSSG, or one of its predecessor business units while at Goldman Sachs. Today, TSSP has over \$12 billion in assets under management and 133 total professionals globally. TSSP invests primarily through three platforms:

Platform	AUM (\$mm)
Special Situations (TPG Opportunities Partners)	\$7,916
Direct Lending (TPG Specialty Lending)	\$1,974
TAO (TSSP Adjacent Opportunities Partners)	\$2,577

Investment Strategy:

TAO will invest in opportunities sourced across the TSSP platform that offer attractive risk/reward characteristics but do not fit the investment mandates of the TPG Opportunities Partners funds (“TOP” or the “TOP Funds”) due to a non-control orientation, duration or other considerations, or the mandates of TPG Specialty Lending (“TSLX”) and TPG Specialty Lending Europe funds (“TSLE”) due to the nature of the transaction (collectively, “Adjacent Opportunities”). Adjacent Opportunities will have three primary areas of focus: (i) Defensive Yield, (ii) Stressed Opportunities, and (iii) Distressed Non-Control.

TSSP will also invest in crossover investments alongside the TOP Funds, TSLX and TSLE (“Crossover Opportunities”). Crossover Opportunities with the TOP Funds may include large, non-performing loan portfolios, global rescue financings and large cap distressed-for-control investments. Crossover Opportunities with TSLX and TSLE may include North American and European direct lending investments, respectively.

TSSP seeks to purchase or originate opportunistic credit, special situations and distressed investments and engage in direct lending across the credit cycle by targeting deep value opportunities with embedded complexity that are difficult to source, analyze, or execute. TSSP seeks top-down investment themes in dislocated sectors as well as bottom-up situation opportunities where they can exploit idiosyncratic or secular issues to structure investments with a skewed risk-adjusted return profile. This strategy will continue to capitalize on the “middle return” gap created by record low income yields, limited partner allocation bucket constraints, and the inability of credit hedge funds to match asset and liability duration.

TSSP expects to build TAO’s portfolio across three core components:

Strategy	Allocation
Adjacent Opportunities	~60% - 70%
Special Situations Crossover Opportunities	~15% - 25%
Direct Lending Crossover Opportunities	~10% - 20%



TSSP employs a global investment mandate, granting the team flexibility to pivot to the most attractive geographies over time. TSSP currently expects 50% - 60% of investments over the next three years to be in the U.S, and the remaining balance to be international, comprised of transactions mainly in Europe, Australia, New Zealand, Canada and Japan.

Investment Team:

TAO is led by Alan Waxman, a former Goldman Sachs partner who ran Goldman Sachs' Americas Special Situations Group ("AmSSG"), an on-balance sheet proprietary investing platform. In total, TSSP employs 133 total professionals, including 82 investment professionals. The TSSP Partner Managing Directors are generally responsible for developing the business plan, thematic idea generation, sourcing strategy, analysis, execution and management of investments. TSSP investment themes often span across multiple funds, and the TSSP platform is managed as one large, coordinated team to nurture a culture where cross-sourcing is prevalent and intended to be a key differentiator. TAO's investment decision-making process is led by the TSSP Capital Committee (the "IC"). The IC is led by Alan Waxman, in conjunction with the nine other Partner Managing Directors. That said, all of TSSP's professionals are encouraged to participate and opine on investment decisions. That table below summarizes the experience of TSSP's 10 Partner Managing Directors:

Name	Title	Relevant Yrs. Experience	Prior Experience
Alan Waxman	TSSP Chief Investment Officer	19	Goldman Sachs
Matt Dillard	TAO/TOP Corporate Special Situations	10	Silver Point Capital, Lazard
Josh Easterly	TSLX Co-Chief Investment Officer	19	Goldman Sachs, Wells Fargo Foothill
Jamie Gates	Capital Formation & Strategic Initiatives	27	Starwood Capital, Goldman Sachs
Clint Kollar	Sourcing	15	Greywolf Capital, Goldman Sachs
Bornah Moghbel	TAO/TOP Europe Corporate Special Situations	11	Silver Point Capital, UBS
Vijay Mohan	TAO/TOP Corporate Special Situations	14	Halycon AM, Goldman Sachs
Michael Muscolino	TAO/TOP Asset Special Situations	16	FG Companies, Goldman Sachs
Steven Pluss	TSSP Chief Financial & Risk Officer	29	Goldman Sachs
David Stiepleman	TSSP Chief Operating Officer	18	Fortress, Goldman Sachs, Cleary Gottlieb

Investment Instruments:

Strategy	Instruments
Adjacent Opportunities	Investments in adjacent opportunities are expected to be made across the capital structure in various instruments. Current investments in the TAO portfolio include, but are not limited to, the following: 1st lien debt, 2nd lien debt, preferred equity, ABL, interest rate swap liability and royalty streams.
Special Situations	Similar to the adjacent opportunities strategy above, special situations investments are expected to span the entire capital structure.
Direct Lending	Investments will include standalone first lien loans, "uni-tranche" first lien loans, standalone second lien loans, mezzanine loans, structured equity, and selective investments in the equity of portfolio companies through warrants and other equity instruments.

Investment Structure:

The Partnership will seek to purchase or negotiate structured investments across the capital structure or through partnerships/SPVs that provide TAO with substantial downside protection. Downside protection may come in several forms, including puts to creditworthy entities, collateral in unrelated assets, off-market downside structural enhancements, or low exposure relative to the value of the collateral or underlying intrinsic value even in stressed scenarios. TAO has a bias to investing at the top of the capital structure in first dollar risk opportunities and seeks to create the last dollar of risk at a deep discount to intrinsic value. TSSP expects that a significant portion of the portfolio will be cash generative either



through contractual cash payments (i.e., interest, royalty payments and amortization), through resolutions on individual loans embedded within loan portfolios, or other cash yielding assets.

Investment Highlights:

Experienced & Cohesive Senior Management Team
Alan Waxman is the former Co-Head of AmSSG, the proprietary distressed/special situations group within Goldman Sachs. Additionally, six of the other nine Partners in the TSSP platform previously worked with Mr. Waxman at AmSSG. The senior leadership team has over 150 years of collective investment experience and has generated consistent returns in all phases of credit and economic cycles.
TSSP Track Record
Since inception in May 2009, the team has invested and committed ~\$9.7 billion of capital across the TAO, TOP and TSLX platforms. Through June 30, 2015, TAO 1.0 has generated a 27.2% Gross IRR (18.7% Net), and TAO 2.0 has generated an 18.1% Gross IRR (11.1% Net). Through June 30, 2015 the TSLX and TOP Funds and have generated the following returns: TSLX: 16.1% Net IRR, TOP I: 26.7% Gross IRR, TOP II: 28.6% Gross IRR, TOP III: 16.6% Gross IRR.
Alpha-Oriented, Opportunistic Investment Strategy
TSSP's multi-area approach, similar to the senior team's experience within AmSSG, provides a differentiated business model that will allow the Fund to pursue opportunities during all parts of the credit cycle and generate attractive risk-adjusted returns that are not dependent on a high corporate default rate environment. This strategy will continue to capitalize on the "middle return" gap created by record low income yields, LP allocation bucket constraints, and the inability of hedge funds to match asset and liability duration.
Integrated TPG Platform
TSSP is a fully-integrated investing platform within TPG. As such, TSSP leverages TPG's breadth of global investing experience, the turn-around capabilities of TPG's Operations Group and sector expertise of TPG's industry coverage teams.
Proprietary Sourcing Model
TSSP focuses its sourcing efforts on creating differentiated deal flow through their direct sourcing efforts and external network of strategic partners that enables them to attack specific asset classes in specific markets or jurisdictions. As a result, ~92% of TSSP transactions across the platform have been higher barrier to entry opportunities that have been sourced away from Wall Street.

Investment Considerations:

Competition From Other Opportunistic Credit Platforms
While competition does exist across the credit landscape, TSSP's platform is differentiated due to their integrated team, opportunistic strategy and geographic footprint. Furthermore, TSSP expects the Fund to benefit from limited direct competition as evidenced by the fact that ~70% of TAO's investments do not overlap with any other GP and an additional 17% overlap with just one other GP (often a strategic partner in a specific investment).
Liquidity Constraints on Incremental Commitment
PSERS' additional commitment to TAO will be subject to a minimum commitment period of five and one-half years. After the expiration of the minimum commitment period, PSERS will be entitled to issue a termination election notice. If PSERS does not issue notice during the 30 day period following the expiration of the minimum commitment period, PSERS will only be permitted to issue a termination election notice during the 30 day period following the second anniversary of the expiration of its minimum commitment period, and the 30 day period following each successive second anniversary. Upon issuing a termination notice, the investment period will terminate at the end of the quarter 12 months after the termination election is made. PSERS' prior \$250 million commitment to PSERS TAO is subject to a five year minimum investment period which concludes on October 23, 2019 and PSERS has the ability to issue a termination election notice at any time thereafter (as opposed to every two years for any additional commitment), with the termination taking effect at the end of the quarter 12 months after the termination election is made.



PSERS History & Performance:

Since 2011, PSERS has committed \$600 million to four TSSP-managed partnerships. As of June 30, 2015, TSSP generated a 19.0% net IRR and a 1.34x net MOIC for PSERS. The table below summarizes PSERS' historical performance across TPG by partnership:

Fund (\$mm)	Portfolio	Vintage	Commitment	Contributions	Distributions	NAV	Net IRR	MOIC
TOP NPL (A), L.P.	HY	2011	\$ 100.0	\$ 62.4	\$ 34.8	\$ 66.9	22.2%	1.6x
TPG Opportunities Partners II (A), L.P.	HY	2011	100.0	69.9	24.2	81.6	18.5%	1.5x
TPG Opportunities Partners III (A), L.P.	HY	2014	150.0	26.2	0.0	24.9	NM	1.0x
PSERS TAO Partners Parallel Fund, L.P.	HY	2014	250.0	75.9	0.0	81.5	NM	1.1x
Sub-Total TSSP (High Yield)			\$ 600.0	\$ 234.4	\$ 59.0	\$ 255.0	19.0%	1.3x
TPG Partners, L.P.	PE	1993	24.2	24.4	89.3	0.0	36.6%	3.7x
TPG Partners II, L.P.	PE	1997	50.0	53.9	91.4	0.0	9.9%	1.7x
TPG Partners V, L.P.	PE	2006	250.0	261.9	307.8	0.0	3.1%	1.2x
TPG Partners VI, L.P.	PE	2008	350.0	364.5	486.7	0.0	10.8%	1.3x
Sub-Total TPG Partners (Private Equity)			\$ 684.2	\$ 704.6	\$ 975.2	\$ 0.0	12.2%	1.4x
Grand Total (TPG)			\$ 1,284.2	\$ 939.0	\$ 1,034.2	\$ 255.0	12.9%	1.4x

Portfolio Fit:

A commitment to the Fund will be allocated to the Opportunistic bucket of PSERS' High Yield portfolio. As of June 30, 2015, the High Yield portfolio (based on total exposure) was allocated 46% Opportunistic, 25% Senior Loans, 21% Mezzanine and 8% Real Assets. An additional commitment to PSERS TAO will allow PSERS to increase its exposure to a high-conviction manager that is well positioned to execute on its opportunistic investment strategy.

The table below summarizes PSERS' projected exposure inclusive of a recommended \$250 million commitment to PSERS TAO:

Investment Type	Active Commitments ¹	%	Market Value	%	Unfunded ¹	%	Total Exposure ¹	%
Opportunistic	\$ 3,223.1	43.2%	\$ 1,378.6	44.7%	\$ 1,476.7	52.8%	\$ 2,855.3	48.6%
Senior Loans	2,315.0	31.0%	881.1	28.6%	505.6	18.1%	1,386.7	23.6%
Mezzanine	1,290.4	17.3%	549.0	17.8%	622.1	22.3%	1,171.1	19.9%
Real Assets	628.8	8.4%	277.2	9.0%	190.3	6.8%	467.5	7.9%
Total	\$ 7,457.2	100.0%	\$ 3,085.8	100.0%	\$ 2,794.8	100.0%	\$ 5,880.6	100.0%

(1) Include post Q2'2015 pending/closed commitments.



Liquidity & Leverage Profile:

The Fund will be structured as an evergreen investment vehicle which will continue until dissolved by either TSSP or PSERS. PSERS' additional commitment to TAO will be subject to a minimum commitment period of five and one-half years. After the expiration of the minimum commitment period, PSERS will be entitled to issue a termination election notice. If PSERS does not issue notice during the 30 day period following the expiration of the minimum commitment period, PSERS will only be permitted to issue a termination election notice during the 30 day period following the second anniversary of the expiration of its minimum commitment period, and the 30 day period following each successive second anniversary. Upon issuing a termination notice, the investment period will terminate at the end of the quarter 12 months after the termination election is made. PSERS' prior \$250 million commitment to PSERS TAO is subject to a five year minimum investment period which concludes on October 23, 2019 and PSERS has the ability to issue a termination election notice at any time thereafter (as opposed to every two years for any additional commitment), with the termination taking effect at the end of the quarter 12 months after the termination election is made. After a termination election takes effect, investments will be disposed of and distributions will be made in the ordinary course. TSSP will have the ability to recycle proceeds from portfolio investments limited to the invested capital portion of such proceeds.

With the exception of a capital call facility generally used to manage the amount and frequency of capital calls, TAO has not utilized any portfolio-wide leverage to date and expects to utilize only modest leverage going forward.

Finance Committee Disclosure:

Relationship with Portfolio Advisors:	TPG Opportunities Partners III: PAPEF VII: \$20mm TPG Opportunities Partners II: PAPEF VI: \$25mm
Placement Agent:	None utilized for PSERS
PA Political Contributions:	None Disclosed
PA Presence:	Yes
Conflicts:	None Disclosed
First Time Fund With PSERS:	No
PSERS Internal Alpha Committee Approval:	September 22, 2015

Oversight Responsibility:

Investment Office:	Charles J. Spiller Managing Director James F. Del Gaudio Senior Investment Professional
External Consultant:	Portfolio Advisors LLC



September 14, 2015

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

Re: TSSP Adjacent Opportunities Partners, L.P.

Dear Trustees:

In December 2011, TPG (the "Firm") formed TSSP Adjacent Opportunities Partners, L.P. ("TAO" or the "Fund"), to pursue adjacent and co-investment opportunities generated across TPG Special Situations Partners ("TSSP"), the Firm's credit and special situations platform. These adjacent opportunities offer attractive risk/reward characteristics, but are not appropriate for the TPG Opportunities Partners ("TOP") or the TPG Specialty Lending ("TSL") platforms due to return, duration or control characteristics. TAO will also invest a portion of its capital in co-investment opportunities generated from the TOP and TSL platforms. TAO represents a further continuation of the opportunistic strategy employed by Alan Waxman, the Managing Partner and CIO of TSSP, during his time as CIO of Goldman Sachs' Americas Special Situations Group ("AmSSG"). PSERS has already committed to invest \$250 million in TAO thru PSERS TAO Partners Parallel Fund, L.P. ("PSERS TAO"), which invests pro-rata alongside TAO. PSERS is the sole limited partner in PSERS TAO. TAO and PSERS TAO are structured as open-ended vehicles and will continue in perpetuity until they are dissolved by either TSSP or PSERS.

Adjacent opportunities will include non-control opportunities with attractive risk/reward profiles, high return but low multiple of money / shorter duration situations and select longer duration opportunities with minimal macroeconomic correlations. The Firm broadly categorizes these opportunities into three buckets: Defensive Yield, Stressed Opportunities and Distressed Non-Control. TPG anticipates that TAO's portfolio will be comprised of approximately 60 – 70% adjacent opportunities, 15 – 25% TOP co-investments and 10 – 20% TSL co-investments. In general, TSSP will actively pursue investments for TAO where it can integrate the expertise of TPG's Operating Group and network of sourcing/servicing platforms as well as the intellectual property provided by the Firm's industry coverage groups. Overall, TAO will target returns in the 11 – 14% IRR range.

TSSP has created a diversified opportunistic credit portfolio in TAO across asset classes, geographies and strategy. Notably, approximately 70% of the TAO portfolio investments do not overlap with other private equity sponsors and an additional 17% only overlap with one other sponsor, providing a level of differentiation versus its competitors. Within the TAO portfolio, approximately 75% of investments represent first-dollar risk (top of the capital structure), providing downside protection. To date, TAO has not utilized any portfolio-wide leverage (with the exception of a capital call facility generally used to manage the amount and frequency of capital calls), providing further downside protection. Note that at



times, TAO may pursue transactions where leverage can be utilized on an asset-level and/or non-recourse basis. Finally, approximately 96% of the investments in the TAO portfolio generate current yield.

Portfolio Advisors' recommendation is based upon the following analytical factors and is made within the context of PSERS' investment guidelines.

- Detailed due diligence, including interviews with industry peers and private equity professionals. The on-site due diligence visit was performed on July 15, 2015.
- 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.
- 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 High Yield Fixed Income component of the portfolio.

The individuals at Portfolio Advisors who were primarily involved in the due diligence process for the Fund are:

John Kyles – Managing Director, Darien Office

Geoffrey Kelleman – Senior Associate, Darien Office

Based on the above, Portfolio Advisors recommends that PSERS commit up to \$250 million in TSSP Adjacent Opportunities Partners, L.P. thru PSERS TAO Partners Parallel Fund, L.P. Portfolio Advisors 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. Portfolio Advisors does not provide legal or other non-investment-related advice.

Sincerely,

WILLIAM J. INDELICATO
MANAGING DIRECTOR