



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Investment Memorandum

Hayfin SOF II USD LP

High Yield Commitment

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Senior Investment Professional

February 11, 2016



Recommendation:

Staff, together with Portfolio Advisors, recommends the Board commit up to \$200 million to Hayfin SOF II USD LP (the “Fund” or “SOF II”). Hayfin Capital Management LLP (“Hayfin” or the “Firm”) is sponsoring the Fund to continue the Firm’s ‘Special Opportunities’ investment strategy.

Firm Overview:

Hayfin was established in 2009, in conjunction with Firm management, Towerbrook Capital Partners, and three strategic co-investors (Ontario Municipal Employees Retirement System, Public Sector Pension Investment Board of Canada, and Future Fund of Australia), to capitalize on the market dislocation in Europe after the 2008 financial crisis. In 2009, the original investors capitalized Hayfin’s management company by providing cash to form a balance sheet to invest in private credit. Since that time, Hayfin returned capital to shareholders through an intra-shareholder transaction, resulting in the Hayfin team becoming the largest shareholder in the business. Post-transaction, Hayfin operates purely as an investment manager of commingled funds and separate accounts with total AUM of €5.8 billion as of December 31, 2015:

Commingled Funds	Vintage	AUM ¹
Hayfin Special Opportunities Credit Fund (“SOCF I”)	2012	€1.0 billion
Direct Lending Fund	2013	€2.2 billion
Separately Managed Accounts		
Total	2009	€2.6 billion

(1) Carrying value of unrealized investments plus undrawn commitments.

Hayfin operates two complementary and cohesive investment strategies to provide specialized lending solutions to European middle-market companies: Special Opportunities and Direct Lending. The table below summarizes Hayfin’s AUM, return target and strategic focus by investment strategy:

Strategy	AUM	Return Target	Focus
Special Opportunities	€2.1 billion	+15% (unlevered)	<ul style="list-style-type: none"> Investments typically at senior levels of the capital structure Higher complexity and situations in which the market’s perceived risk is greater than Hayfin’s analysis of actual risk
Direct Lending	€3.7 billion	8% - 10% (unlevered)	<ul style="list-style-type: none"> Investments in senior debt, often partnering with banks Lending to performing middle-market companies, with low complexity

Investment Strategy:

The objective of the Fund is to generate asymmetric risk return by investing in situations where there is less competition to provide capital. As such, Hayfin strives to generate +15% gross portfolio-level returns by investing in opportunities which exhibit a level of complexity in sourcing, underwriting or structuring, where the market’s perceived risk is greater than Hayfin’s analysis of actual risk.

Hayfin intends to construct a well-diversified portfolio of predominately senior-secured loans to middle-market, Western European companies. The Fund will target 45 – 55 investments that will range in size and maturity; between €10 million and €40 million and two to four years, respectively. Hayfin defines middle market companies as those with Total Enterprise Value of up to €1.5 billion and EBITDA of €15 million to €100 million. Exposure to countries and industries are managed by selecting the best quality credit risk across the opportunity set. Hayfin believes that it is differentiated from its peers by its developed industry and structuring expertise around underserved segments in the primary lending and secondary markets. In particular, Hayfin has developed niche areas of expertise across a variety of investment themes, situations and sectors, including corporate distress, restructuring, specialized underwriting, structural complexity, and specialized asset financing in niche healthcare, maritime, non-performing loans and alternative credit.



The Special Opportunities and Direct Lending strategies source investments through two channels: primary lending and secondary markets. Hayfin has developed deep relationships across the European credit market landscape and built a focused sourcing network in key European geographies with an emphasis on a diverse range of sectors and origination channels to source a wide range of opportunities to provide financing. The table below provides an overview of the opportunities generated through Hayfin's sourcing channels:

Sourcing Channel	Strategy	Investment Profile
Primary Lending	Directly originated investments in predominantly European middle-market companies	<ul style="list-style-type: none"> Loans where traditional bank capital is not readily available, typically at senior levels of the capital structure Loans that refinance existing corporate capital structures where the incumbent lenders are unwilling or unable to roll their exposure Loans, including "super senior" and asset backed characteristics, in the form of rescue financing to companies in financial stress or undergoing a turnaround Loans to companies operating in niche sectors where specialist expertise is required to complete fundamental credit analysis
Secondary Markets	Single name and portfolio purchases of corporate loans and other credit assets	<ul style="list-style-type: none"> Existing debt of companies whose securities are deemed undervalued by Hayfin in the context of the return parameters of the Fund or where Hayfin expects a near-to-medium term event to generate return Existing debt of companies which require a balance sheet restructuring where Hayfin targets an asymmetric risk/return profile by leading the restructuring Existing debt of performing companies and other performing credit assets, whether individually or collectively in a portfolio, being sold by motivated sellers, including European banks and other market participants such as asset managers Existing credit assets with a complex or broken structural overlay, where Hayfin invests at a discount to fundamental value through understanding their inherent value Stressed and distressed loans and other credit assets in which Hayfin seeks to capitalize on its sourcing advantage and market relationships

Investment Structure:

Hayfin is particularly focused on capital preservation and expects investments to be at senior levels of the capital structure, at generally low debt-to-earnings and loan-to-value ratios (4.4x and 61%, respectively, across SOCF I as of September 30, 2015). Hayfin believes that rigorous documentation and structural protections are critical to preserving capital value. For example, with regard to primary lending opportunities, Hayfin aims to structure its investments to the specific financial needs of the potential borrower, protecting Hayfin's rights and managing its risk while creating incentives for the borrower to achieve its business plan. The investment downside risk can be mitigated by negotiating covenants designed to preserve invested capital, such as various affirmative and negative covenants, default penalties, protection of security over assets and change of control provisions.

The table below summarizes the expected components of return for both primary lending and secondary investments:

Strategy	Components of Return ¹
Primary Lending	Hayfin seeks to structure investments with floating rate coupons linked to short-term market base rates (typically UK LIBOR or EURIBOR), which helps reduce interest rate risk. The components investment yield will typically consist of up-front fees (1% to 8%), cash-pay interest (3% to 11%) and in certain circumstances PIK interest (up to 8%). The resultant primary loans exhibit all in expected yields to a three year time horizon of 8% to 20%, with the portfolio averaging 15%. Opportunistically, structures may also include warrants and other types of equity yield enhancements, including equity participations, which could increase yields on those investments by an additional 1% to 5%.
Secondary Markets	Hayfin purchase 'off-the-run' illiquid secondary positions with expected returns 12% to 25% in situations that are typically floating rate, reducing interest rate risk. The components of the investment yield will typically be concentrated in the discounted price paid to the expected recovery value of the asset, 10% to 50%. The cash pay interest of the secondary assets is generally lower, on average, than the primary investments (secondary 0.40% to 8% versus primary 3% to 11%). The resultant secondary positions exhibit all in expected yields to a three year time horizon 12% to 25%, with the portfolio averaging 15% based on conservative marking practices.

(1) Ranges of expected return were based on those achieved across SOCF I portfolio as of September 30, 2015.



Investment Instruments:

The Fund has a flexible investment mandate that gives Hayfin the ability to make investments in a wide variety of instruments, securities, loans and other assets. Given the current and medium-term credit outlook in Europe, Hayfin expects that the Fund's portfolio will be heavily weighted towards secured investments at the most senior levels of the capital structures of its portfolio companies. The table below provides a summary of the principal investments that fall within the Fund's investment mandate.

Instrument	Description
First Lien Secured Loans	Senior term loans are debt instruments that represent the most senior claim on a company's assets and cash flows. Such loans typically have three to eight years maturity.
Uni-Tranche Loans	Uni-tranche loans are senior secured loans that have embedded first lien and junior secured risk in a single investment. Uni-tranche loans are structured to provide control over a company's capital structure as a "one-stop" style financing solution by eliminating the need for negotiations with other credit classes in the event of a restructuring process.
Second Lien Secured Loans	These loans have second-ranking security over a company's assets. They represent a claim which is junior to senior secured loans and senior to other subordinated debt (mezzanine and high yield debt) and common and preferred equity.
Mezzanine Loans	Mezzanine loans are subordinated debt instruments that represent a claim on a company's assets which is senior only to the borrower's common and preferred equity, but subordinated to senior or any second lien loans.
High Yield Debt	Debt that is issued publicly and that is rated below investment grade by one or more rating agencies is commonly referred to as high yield debt. High yield debt may be secured with a first or second lien, although historically it has been most commonly unsecured.
Equity Instruments	Debt instruments purchased by or originated by the Fund may also include an equity component (typically referred to as "kickers") such as common stock, preferred stock, a warrant, a profit participation right or other minority shareholding. These equity instruments are typically not key drivers of Hayfin's investment thesis.

Investment Team:

The Hayfin team comprises 55 experienced industry professionals (including 36 investment professionals) who specialize in sourcing, structuring and managing private credit investments. Hayfin is headquartered in London, with offices in Amsterdam, Frankfurt, Luxembourg, Madrid, Paris, Tel Aviv and New York. Hayfin's day-to-day management and operations are led by Tim Flynn, Andrew McCullagh, and Mark Tognolini, who comprise the Firm's management committee. Hayfin's investment decision-making process is led by the Firm's six-member Investment Committee (the "IC"). The members of the IC include Tim Flynn (as Hayfin's Chief Executive Officer) and five additional senior members of the Hayfin management and investment teams. Any decision adopted by the IC requires the approval of a supermajority of the members present at a meeting. The table below summarizes the experience of Hayfin's IC:

Name	Role	Yrs. Experience	Prior Experience
Tim Flynn	Management Committee: Chief Executive Officer	21	Goldman Sachs, Sullivan & Cromwell
Kamran Hussain	Managing Director: Investment Analyst	16	HBK, Morgan Stanley
Andrew McCullagh	Management Committee: Head of Origination	26	Merrill Lynch, Bankers Trust
Guy du Parc Braham	Managing Director: Co-Head of Investment Research	24	Goldman Sachs, Deutsche Bank
Carlos Pla	Managing Director: Co-Head of Investment Research	16	Goldman Sachs
Mark Tognolini	Management Committee: Chief Operating Officer	16	Goldman Sachs, Allen & Overy

Market Opportunity:

Following the global financial crisis, increased regulations and bank disintermediation has created a significant opportunity for alternative lenders such as Hayfin. In an effort to improve financial stability and prevent the failure of large financial institutions from occurring again, there has been a drive from



governments, regulators and central banks to reduce leverage in the banking system and build more resilient financial institutions. Within Europe, this deleveraging process is still in its early stages and will require considerable redistribution of financial risk from banks to the capital markets (including reducing the dependence on banks for credit). While larger sized corporates generally have access to the public debt markets for financing, small and medium sized companies are typically unable to issue debt in the public markets, making access to financing increasingly challenging. S&P estimates that mid-market companies in Europe require ~€2.1 trillion to cover their re-financing needs through 2018. This has the potential to create ample opportunity for Hayfin to step into the funding gap left by banks as they continue to de-lever and provide creative financing solutions to medium-sized companies.

Investment Highlights:

Breadth & Experience of the Hayfin Team
The Hayfin team comprises 55 experienced professionals (including 36 investment professionals) who specialize in sourcing, structuring and managing private credit investments. Hayfin is headquartered in London, with offices in Amsterdam, Frankfurt, Luxembourg, Madrid, Paris, Tel Aviv and New York. As such, Hayfin has assembled one of the largest and most experienced private credit investment teams in Europe, with deep rooted relationships built over many years. Collectively, Hayfin's 36 investment professionals have 500+ years of investment experience, with the Firm's three-person management committee (Tim Flynn, Andrew McCullagh, and Mark Tognolini) averaging 21 years investment experience.
Market Opportunity
Hayfin believes that the transition from banks to institutional investors as a primary source of financing to companies is a long term trend and represents a secular shift in European lending dynamics. As such, Hayfin anticipates continued constraint of traditional sources of credit to middle-market European companies and lasting pressure on European financial institutions to de-risk and de-leverage. Staff shares this sentiment and believes Hayfin in well-positioned to step into the funding gap left by banks as they continue to de-lever and provide creative financing solutions to medium-sized companies.
Flexible Investment Strategy / Dual Sourcing Channels
Hayfin employs a broad investment strategy and is not tied to any specific theme or situation. Hayfin invests across all types of credit assets and capital structures seeking the most attractive risk-adjusted return. Hayfin is differentiated by their ability to both originate direct primary loans as well as acquire secondary assets. Primary lending provides a competitive advantage as their established brand ensures that they are a first call for European companies that increasingly fall outside the parameters of traditional lenders. Secondary sourcing provides flexibility of deployment as cycles turn. Also, the continued evolution of Hayfin's Direct Lending strategy has served to benefit the Firm's Special Opportunities strategy. This has allowed Hayfin to cast a wider net and engage a broader range of companies with the market now not only viewing Hayfin as a 15%+ lender but an 8%+ lender. Once engaged, Hayfin has a greater ability to obtain favorable pricing.
Track Record / Low Loss Ratio Since Inception
Since inception in 2009 through September 30, 2015, Hayfin has invested €3.6 billion of capital on a gross basis at a 15.8% expected gross IRR across the Special Opportunities strategy. This comprises 59 realized investments, which have generated a 19.1% gross IRR to date and 40 unrealized investments, which are expected to generate a 14.2% gross IRR. In aggregate, Hayfin's 99 Special Opportunities investments generated a 15.3% gross IRR as of September 30, 2015. Since inception through September 30, 2015, Hayfin has not incurred any realized losses as a result of an event of default by a borrower in respect of any investment across its two principal strategies (Special Opportunities & Direct Lending).
SOCF I held a final close on July 10, 2013 with €989 million of commitments. As of September 30, 2015, SOCF I has realized 17 investments, which have generated a 35.0% gross IRR and currently has 37 unrealized investments, which are expected to generate a 14.3% gross IRR (currently 10.5%). In aggregate, SOCF I generated a 13.1% gross IRR (8.1% net) and a 1.12x gross multiple (1.09x net) as of September 30, 2015. As of the same date, SOCF I generated a 0.6% loss ratio entirely attributable to unrealized investments which Hayfin ultimately expect to deliver positive returns averaging 19.1% gross IRR. This is a testament to the quality of Hayfin's underwriting capabilities and focus on capital preservation.



Investment Considerations:

Competition From Other Middle Market Lenders

Hayfin's platform is differentiated due to their experienced team, local sourcing model, and niche expertise. While the European market has seen many new entrants over recent years, the middle market is underserved relative to the broader institutional market. Opportunities are generally relationship based where certainty of execution and experience are leading selection factors. Hayfin boasts one of the largest and experienced private credit investment teams in Europe with 55 experienced professionals (including 36 investment professionals). Hayfin operates a local sourcing model with dedicated geographical coverage and focuses on managing key relationships and maintaining multiple contact points. Hayfin's focus on niche areas is consistent with the thematic approach of identifying situations or sub-sectors where capital and competition are scarce and experience can address issues of complexity.

PSERS History & Performance:

PSERS previously committed €200 million to Hayfin Special Opportunities Credit Fund LP ("SOCF I"). As of September 30, 2015, SOCF I generated an 8.0% net IRR and a 1.10x net MOIC when calculating in the fund's local currency (EUR). This equates to a (-2.6%) net IRR and a 0.97x net MOIC when translating to base currency (USD). The table below summarizes PSERS' SOCF I performance in both local and base currency as of September 30, 2015:

Fund (mm)	Portfolio	Vintage	Commitment	Contributions	Distributions	NAV	Net IRR	MOIC
SOCF I (EUR)	HY	2012	€ 200.0	€ 160.5	€ 5.3	€ 171.6	8.01%	1.10x
SOCF I (USD) ¹	HY	2012	\$ 223.6	\$ 204.5	\$ 6.1	\$ 191.9	(-2.59)%	0.97x

(1) Based on daily exchange rates according to Bloomberg.

Portfolio Fit:

A commitment to the Fund will be allocated to the Opportunistic bucket of PSERS' High Yield portfolio. As of September 30, 2015, the High Yield portfolio (based on total exposure) was allocated 52% Opportunistic, 26% Senior Loans, 14% Mezzanine and 8% Real Assets. An additional commitment to Hayfin will allow PSERS to continue its relationship with a high-conviction manager that is well positioned to execute on its investment strategy by providing creative financing solutions to medium-sized companies.

The table below summarizes PSERS' projected exposure inclusive of a recommended \$200 million commitment to the Fund:

Investment Type (\$mm)	Active Commitments ¹	%	Market Value	%	Unfunded ¹	%	Total Exposure ¹	%
Opportunistic	\$ 4,073.6	49.5%	\$ 1,630.7	53.2%	\$ 1,765.0	53.5%	\$ 3,395.7	53.4%
Senior Loans	2,665.0	32.4%	754.2	24.6%	854.1	25.9%	1,608.4	25.3%
Mezzanine	871.4	10.6%	369.6	12.1%	525.8	15.9%	895.4	14.1%
Real Assets	626.2	7.6%	311.8	10.2%	152.2	4.6%	464.0	7.3%
Total	\$ 8,236.2	100.0%	\$ 3,066.3	100.0%	\$ 3,297.1	100.0%	\$ 6,363.5	100.0%

(1) Include post Q3'2015 pending/closed commitments.



Liquidity & Leverage Profile:

During the Fund's three-year investment period, Hayfin will have the ability to re-invest all investment proceeds other than net investment income. As a result, any investment proceeds other than net investment income returned to PSERS will increase PSERS' undrawn commitments (up to the amount of its initial commitment) and will be available for recall. After the expiration of the investment period, the Fund will have four years to harvest its investments; which may be extended by two additional one-year periods at the discretion of the GP in order to provide for an orderly realization of the Fund's investments and the winding up of the Fund's business.

Hayfin does not intend to employ leverage to enhance returns. However, Hayfin may borrow funds for capital call, bridging, working capital and/or liquidity purposes.

Finance Committee Disclosure:

Relationship with Portfolio Advisors:	None Disclosed
Placement Agent:	Credit Suisse Private Fund Group ("CS") has been engaged as the Firm's exclusive placement agent. CS will be compensated by (i) a non-refundable cash retainer and (ii) a negotiated fee based on a percentage per annum of gross management fees paid to Hayfin by certain new investors. Any placement fees paid to CS will be paid by Hayfin and not the Fund. Since PSERS is an existing investor in SOCF I, Hayfin will not pay a fee to CS in direct relation to PSERS' commitment to the Fund.
PA Political Contributions:	None Disclosed
PA Presence:	No
Conflicts:	None Disclosed
First Time Fund With PSERS:	No
PSERS Internal Alpha Committee Approval:	February 11, 2016

Oversight Responsibility:

Investment Office:	Charles J. Spiller Deputy CIO, Non-Traditional Investments James F. Del Gaudio Senior Investment Professional
External Consultant:	Portfolio Advisors LLC



February 10, 2016

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

Re: Hayfin SOF II USD LP

Dear Trustees:

Hayfin Capital Management LLP (“Hayfin” or the “Firm”), is raising €1.5 billion (€2.0 billion hard-cap) to continue their special opportunities investment strategy. This includes targeted commitment to both the US-\$-denominated vehicle, Hayfin SOF II USD LP, and the €-denominated vehicle (together “SOF II” or the “Fund”). The first closing is targeted for March at an expected size of €1.0 billion to €1.2 billion. The final close is expected for the 2nd or 3rd quarter 2016. The Hayfin management team will commit €10 million to the Fund. Hayfin’s investment strategy is opportunistic with a strong focus on fundamental value investing coupled with downside protection, even in complex opportunities. The Firm may invest in a variety of instruments, loans, securities, and other assets. This includes first and second lien secured loans, high yield bonds and uni-tranche loans. Hayfin occasionally invests in mezzanine and equity instruments as equity “kickers”. For SOF II, Hayfin intends to build a diversified portfolio of predominately senior-secured loans to middle-market European companies. A material part of the portfolio is expected to be in sponsorless transactions. The Fund will target 45 – 55 investments that will range in size from €10 million and €40 million and maturities of between two to four years.

Hayfin focuses on investments at attractive valuations in businesses or situations that it understands, and in structures that should protect its capital in a downside scenario. Investments are based on fundamental credit analysis, requiring thorough research of each investment opportunity. This includes market due diligence (competitive landscape, industry outlook, etc.) and in-depth company due diligence with an analysis of financial trends and sensitivities in the borrowers historic financial performance. Furthermore, rigorous documentation and structural protections are considered as critical to preserve capital value. The Firm utilizes internal legal resources, who are experienced in structuring and documenting debt investments at all levels of an investee company’s capital structure and in each of the relevant creditor regimes in Europe. Also, Hayfin applies a top-down strategy to identify investment themes that might impact a particular investment. From a portfolio construction perspective, the Firm is especially cautious of businesses that operate in peripheral Europe, are deeply cyclical, and/or have substantial consumer exposure. Hayfin uses its differentiated industry and structuring expertise in certain niche verticals, which are underserved segments in the primary lending and secondary markets.



Portfolio Advisors' 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 on-site due diligence visit was performed on January 19 and 20, 2016.
- 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:

Peter Schwanitz – Managing Director, Zurich Office

Mario Haidacher – Senior Associate, Zurich Office

Stepahn Fleury – Analyst, Zurich Office

Based on the above, Portfolio Advisors recommends that PSERS commit to up to \$200 million in Hayfin SOF II USD LP (and related investment vehicles). 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