COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Investment Memorandum

International Infrastructure Finance Company II, L.P.

Infrastructure Commitment

James F. Del Gaudio
Senior Investment Professional

May 16, 2016

Recommendation:

Staff, together with Portfolio Advisors LLC, recommends the Board commit up to $100 million to International Infrastructure Finance Company II, L.P. (the "Fund" or "Fund II"). Mariner Investment Group, LLC is sponsoring the Fund to continue the Firm's infrastructure debt strategy.

Firm Overview:

Mariner Investment Group, LLC ("Mariner" or the "Firm") is a global alternative investment firm with ~$5.9 billion total assets under management as of March 31, 2016. The Firm was founded in 1992 by William J. Michaelcheck and is headquartered in Harrison, NY. Today, Mariner (and its directly controlled affiliates) employs over 150 professionals across the following locations: New York, Philadelphia (Fund II Strategy HQ), London, Tokyo, Dallas, Seoul, Harrison (NY), Rowayton (CT), and Summit (NJ). Mariner is registered as an investment adviser with the SEC and serves as the sponsor of the Fund and the investment manager to the partnership.

Mariner's global investment strategies encompass investments across single manager funds, multi manager funds, and other alternative investments. The table below summarizes Mariner's AUM by strategic focus as of March 31, 2016:

Strategy	AUM *($ billions)*	Focus
Single Manager Funds[1]	$2.2	Rates; Municipals; MBS; Infrastructure Financing; Closed-end Fund Arbitrage; Event Driven Credit; Derivatives Relative Value; Healthcare L/S Equity
Multi Manager Funds	$1.0	Fixed Income and Credit
Other Alternative Investments	$2.7	CLO; Private Equity; Fund of Funds

(1) Includes the Mariner Infrastructure Investment Management platform.

In 2012, Mariner formed the Mariner Infrastructure Investment Management ("MIIM") platform to capitalize on bank deleveraging opportunities resulting from increasingly tighter global bank capital and liquidity standards associated with 'Basel III' regulations. In December 2013, MIIM formed International Infrastructure Finance Company, L.P. (referred to as "Fund I," with total commitments of $400 million, of which PSERS committed $150 million) and Mariner Breakwater, LP (with total commitments of $100mm), for total aggregate commitments of $500 million. The MIIM platform is led out of the Firm's Philadelphia, PA office and includes seven fully dedicated employees that have day-to-day responsibility for the strategy. Fund I was established to assist bank counterparties in the management of their regulatory/economic capital and liquidity exposure to existing portfolios of infrastructure assets by making structured investments in senior, seasoned debt. Today, Fund I is ~75% drawn (with line of sight to 90%) and Mariner is targeting $500 million in new commitments for Fund II to continue this strategy and in an effort to take advantage of a compelling market opportunity in this niche asset class.

Market Opportunity:

The scale of bank deleveraging programs as a result of "Basel III" has led many financial institutions to seek capital solutions that can help them meet new requirements without some of the disadvantages associated with new equity issuance or asset sales. Mariner's credit enhancement approach may be more attractive to both banks and Fund investors as it can better align interests, avoid mark-to-market asset sales, and enable the Fund to identify and limit credit risk to an agreed upon portfolio of loans, thereby mitigating the risk of portfolio drift. Because infrastructure loans are long dated and typically unrated, new regulations can have an outsized effect on the amount of capital banks must hold against these portfolios. Notwithstanding this cumbersome regulatory treatment, infrastructure assets have performed well over Moody's documented life of the asset class, with low default rates and high ultimate recoveries. According to a 2016 Moody's report, from 1990 through 2014, the average implied ten-year total losses have equaled 1.25%, or $12.5 million per $1 billion of exposure.

According to a 2013 McKinsey report, the required global investment in infrastructure may be as high as $67 trillion from 2013 to 2030, nearly 60 percent more than the $36 trillion spent over the prior 18 years. According to Mariner, these considerable capital needs should provide sufficient on-going demand in the primary markets to generate assets for banks to finance, in turn supplying the Fund with assets as they season. Banks are highly experienced in underwriting infrastructure projects and taking them through their construction phases. Banks also have a strong desire to maintain direct relationships with core banking customers by making new loans and collecting syndicate fees / swap income along the way. As a result, the fact that Mariner promotes a bank empowerment strategy (as opposed to a bank replacement strategy) should benefit the Fund and its investors.

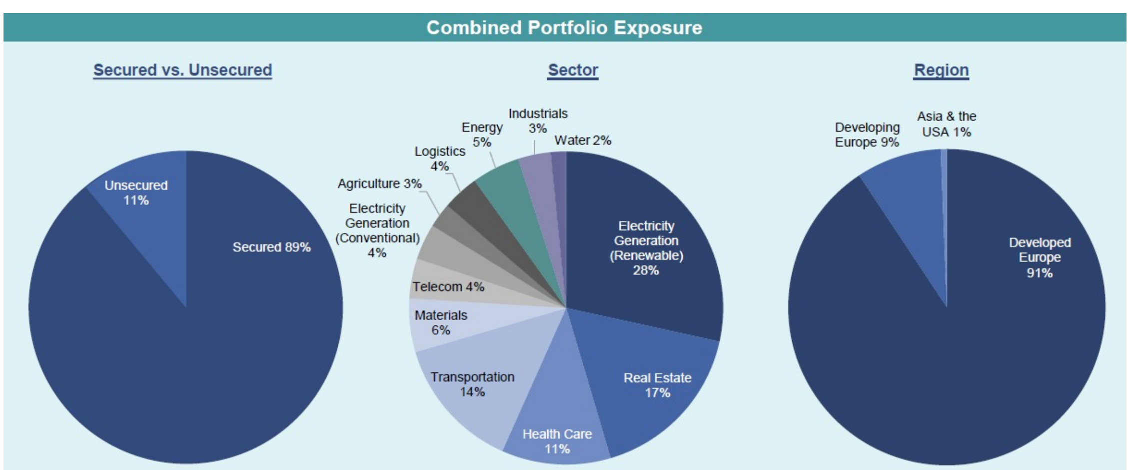
Portfolio Fit:

A commitment to Fund II will be allocated to PSERS' Infrastructure portfolio. As of March 31, 2016, PSERS' Infrastructure allocation was 1.07% versus a policy target of 1.0% (4.33% versus 4.0% of Total Real Assets exposure). It is important to note that PSERS' current exposure to-date is the result of a total return swap utilized to efficiently gain exposure to the asset class, which was established in October 2015. Currently, the synthetic exposure we have acquired is benchmarked to the FTSE Developed Core Infrastructure 50/50 Index. Over time, we intend to replace the swap exposure with active liquid strategies as well as private equity/debt strategies as compelling investment opportunities are identified. A commitment to the Fund will represent the first of such investments in a private debt fund in PSERS' Infrastructure portfolio. PSERS' prior commitment to Fund I was allocated to the High Yield portfolio, as an established Infrastructure allocation did not exist at that time.

Investment Strategy:

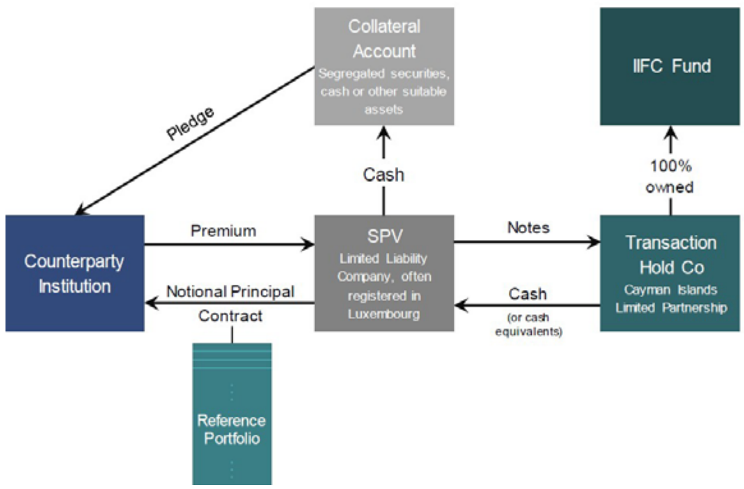
The Fund's primary investment objective is to generate current income through investments in seasoned, secured loan portfolios of senior corporate and project debt corresponding to operational infrastructure companies and facilities located in primarily Organization for Economic Cooperation and Development (OECD) countries. Mariner will seek to achieve its investment objectives primarily through the acquisition of credit assets such as loan portfolios or the provision of credit loss protection to owners of exposure to such portfolios, often in the form of credit-linked notes (synthetic securitizations). Fund II will maintain the same strategy as Fund I and intends to generate 11% to 14% gross portfolio-level returns with asymmetric risk return; investing in what Mariner considers a stable asset class that has experienced low historical default rates and high recovery rates.

Mariner intends to gain exposure to a diversified portfolio of loans associated with businesses operating in the infrastructure sector across a range of sub-sectors. In addition to its core focus on infrastructure, the Fund may provide solutions to similar assets on bank balance sheets, such as commercial real estate loans. Non-infrastructure exposure is expected to not exceed 20%. As presented in the diagram below, Fund I's exposure is broadly diversified across the infrastructure sector with most of the underlying assets based in Developed Europe. Although Fund II may have a lower concentration to Developed Europe, it is presently anticipated that this geography will represent a significant portion of Fund II exposure.



Investment Structure:

The assets targeted by the Fund will generally be post-construction phase, protected by a lien of high priority and represent a senior creditor claim on revenues of the underlying infrastructure facility. These loans will typically have long tenors, are unrated, and do not trade in a liquid secondary market. As such, these loans generally attract a more cumbersome regulatory treatment on both a capital and liquidity basis. Notwithstanding this regulatory treatment, the Fund's objective is to select assets from among loan portfolios in which the bank has demonstrated stable historical underwriting performance on both a default and recovery basis (reference portfolio). In particular, the Fund will emphasize assets that have been structured to include strong covenant packages, security, and amortization. Income and capital proceeds from sales, amortization, and/or refinancing of loan investments will typically be distributed to Fund investors in the quarter immediately following receipt. The Fund intends to work primarily with bank counterparties, but may also target other holders of credit assets or whole assets, by purchasing loans, loan portfolios, providing credit protection on loan portfolios, or otherwise securitizing or structuring financial transactions related to such assets. The diagram below depicts the representative investment structure of a typical synthetic securitization:



Investment Instruments:

The table below provides a summary of the primary investment instruments that fall within the Fund's investment mandate:

Instrument	Description
Infrastructure Loan Portfolios	Portfolios of predominately senior, secured, infrastructure and project finance debt, acquired by the Fund or a subsidiary, and financed through a senior financing facility.
Cash Securitization	In a cash securitization, an asset or a portfolio of assets are purchased by a special purpose vehicle through the issuance of multiple tranches of securitization notes. The more senior notes benefit from the subordination provided by the structure, while junior notes benefit from a lower cost of financing.
Synthetic Securitization	A synthetic securitization provides exposure to a predetermined portion of the credit risk of an asset or a portfolio of assets that are specifically designated as Reference Obligations, but are not sold by the holder of such assets into the vehicle. The credit protection is typically supported by collateral posted from a special purpose vehicle, which in turn issues Credit Linked Notes to investors.
Credit Default Swaps	Credit Default Swaps are a market-based instrument to transfer the risk of default on a certain asset or pool of assets to a buyer in exchange for a periodic premium.
Mezzanine Loans	A mezzanine loan is a loan made to the owner of a commercial asset that is (i) secured by pledges of the borrower's ownership interest in the property and/or equity interests in the mortgage borrower, (ii) subordinate to first or second mortgage liens on the property and (iii) senior to the borrower's equity interest in the property.

Investment Team:

MIIM was founded by Dr. Andrew Hohns, Managing Director and Lead Portfolio Manager, in 2012. As investment manager, Mariner's responsibilities include the identification of Fund investment opportunities, the application of a comprehensive, asset-level underwriting process to evaluate such opportunities, the development of investment recommendations to the Fund's Investment Committee ("IC"), the negotiation of terms related to such opportunities, and the management of the Fund's exposure. The Portfolio Management Team evaluates potential investment opportunities pursuant to its credit underwriting objectives, and presents such opportunities to the Fund's IC. The IC is comprised of two senior management employees of Mariner (Andrew Hohns, PhD and Basil Williams) and two designees who are not employees of Mariner (William Chew and Robert Gurman). All investments require the unanimous approval of the Fund's IC.

The Portfolio Management Team and all members of the IC are listed in the table below:

Name	Role	Yrs. Experience Mariner / Total	Prior Experience
Andrew Hohns, PhD	Managing Director; Lead Portfolio Manager; IC	4 / 15	Managing Director, Institutional Financial Markets, Inc. (f/k/a Cohen and Company)
Aaron Barnes	Managing Director; Underwriting Team	4 / 23	Vice President, Tangent Energy Solutions; Senior Business Developer, PPM Energy; Senior Counsel, CMS Energy; Associate, Freshfields
William Guilford	Managing Director; Underwriting Team	2 / 32	Senior Investment Officer, Gulf One Investment Bank; Executive Director, ABN AMRO Bank
Barbara O'Boyle	Managing Director; Underwriting Team	2 / 35	Vice President, Bechtel Enterprises; Vice President, Structured Finance Division, Export-Import Bank of the United States
Manutosh Mathur	Vice President; Underwriting Team	2 / 8	Vice President, Infrastructure Finance & Advisory, HSH NordbankAG; Associate Director, Fitch Ratings
Molly Whitehouse	Vice President; Underwriting Team	4 / 4	Analyst, Institutional Financial Markets, Inc.
Matt Ridgeway	Analyst	<1 / 1	N/A.
Basil Williams	Co-Chief Investment Officer, Mariner; IC	3 / 35	CEO, Concordia Advisors
William Chew	IC	n/a / 41	Managing Director (ret.), S&P
Robert Gurman	IC	n/a / 32	CFO, Pocono Manor Investors

The Fund is further supported by a four-person Board of Advisors (not employees of Mariner). The Board of Advisors is composed of prominent professionals from the fields of infrastructure finance, financial services, and academics. These individuals provide Mariner with valuable industry insight, complement the Portfolio Management Team's global network of relationships, and provide assistance in securing transactions and analyzing industry trends.

Investment Highlights:

Breadth & Experience of the Portfolio Management Team
The professionals involved in the Fund's strategy possess substantial experience in credit markets across multiple asset classes and structured credit strategies. The experience of the Portfolio Management Team and its Board of Advisors places particular emphasis on the origination, underwriting, and structuring of loans, bonds, and other debt instruments across a wide range of international jurisdictions. The Portfolio Management Team consists of seven finance professionals, including four senior credit underwriters with over 90 years combined experience. The team's professional service in the finance industry spans a range of institutions, including experience accumulated in employment related to the roles of lead debt arranger, guarantor, asset manager, financial advisor, rating agency, equity participant, developer, and/or legal advisor for several leading institutions in the project finance, infrastructure, and structured finance sectors. Through these roles, the Portfolio Management Team has developed an extensive network of relationships in finance, credit underwriting, bank regulatory capital management, and structured credit, through which Mariner has cultivated a pipeline of potential investments on behalf of the Fund.
Market Opportunity / Strong Investment Pipeline
The combination of banks' 'heavy-handed' capital treatment of infrastructure loans and their favorable historical performance should create a value-added opportunity for the Fund to invest in solutions that enable banks to better manage their risk-weighted capital. Banks are also keen on finding capital solutions that can help them meet new capital requirements without some of the disadvantages associated with new equity issuance (bank equities are trading below historical levels making new issuances dilutive and expensive) or asset sales (banks are reluctant to sell high quality assets at a discount). The Fund's bank empowerment strategy should benefit these institutions at a time when global infrastructure capital demand is high, allowing banks to continue making new loans to core customers. Mariner's first-priority investment pipeline represents more than $750 million of total investable capital through year-end 2018 and includes potential transactions with several leading global financial institutions including: commercial banks, U.S. super-regional banks, and multi-lateral development banks. Mariner's focused underwriting approach has enabled access to a number of distinct sub-portfolios that may possess uncorrelated credit risk, such as those related to German elderly care facilities, Italian hospitals, and specialty maritime roll-on/roll-off assets.
Alignment of Risk Exposure with Counterparty Banks
As part of the Fund's investment criteria, banks are required to retain a minimum 5% *pari passu* exposure to each loan in the reference portfolio throughout the life of the transaction. That said, banks will typically retain >5% evidenced by the ~11% average vertical risk share across the Fund I portfolio at the time of investment (infrastructure only). In the event of a default by an underlying borrower, the Fund's interests are expected to be designed to align with those of their counterparty banks and other banks who may have exposure to the underlying loan by sharing in the same tranche of economic risk. Therefore, in the event of such a default, Mariner believes that there is lower risk of moral hazard.

Investment / Risk Considerations:

Competition
While there are other institutional investment firms executing regulatory capital relief transactions for banks, competition is limited, especially strategies focused on infrastructure collateral. To date, other firms have focused primarily on higher-yielding collateral, such as small-to medium enterprise loans, credit card loans, and mortgage loan portfolios. It is typical for these transactions to focus on assets that are highly granular and not underwritten on an asset-by-asset basis but by using "statistical" techniques. Mariner's detailed asset-level underwriting and selection process is a key differentiator of the Fund's capital relief strategy. It is also important to note that there are no other mangers in PSERS' High Yield portfolio executing regulatory capital relief transactions.
Limited Prior Track Record / Positive Fund I Outlook
Prior to the launch of Fund I (December 2013), Mariner had not previously executed a regulatory capital relief strategy. As such, Fund I is still early in its gestation with an average investment age of less than two years and no full realizations. However, Fund I is tracking well and has not experienced any credit events to date. Since December 2013, Fund I has deployed ~75% of its capital in four transactions with large European financial institutions; taking ~$4.8 billion notional exposure to >300 seasoned, senior loans. Fund I currently has exposure to $3.4 billion due to amortizations, prepayments, and replenishments. These loans span a broad range of infrastructure sectors as well as commercial real estate. The coupon rate received on the four transactions has ranged between 11.05% to 12.45% plus a base rate. Given the Firm's strong pipeline, Mariner expects to complete one to two additional transactions by year end taking the fund to ~90% invested.
ORIX Relationship
In December 2010, ORIX USA Corporation ("ORIX USA"), acquired a majority ownership interest (~60%) in MIG Holdings, LLC ("MIG Holdings"), the parent company of Mariner (the "2010 Transaction"). ORIX USA is a diversified financial services company and a wholly-owned subsidiary of ORIX Corporation (NYSE: IX; TSE: 8591). Pursuant to a put/call mechanism agreed to in the 2010 Transaction and related rights, ORIX may acquire part or all of the remaining equity interests of MIG Holdings. Today, ORIX USA owns approximately 70% of the outstanding shares of MIG Holdings and controls three out of five votes on its Board of Managers which is responsible for general corporate and management oversight (exclusive of any investment related matters) of MIG Holdings. While it is important to consider this relationship, Mariner believes the affiliation with ORIX USA to be a net positive. ORIX USA was very supportive of Fund I representing a majority of the GP commitment and will also represent a majority of the Fund II GP commitment.
FX / Currency Management
While the Fund will be denominated in USD, Mariner employs a global strategy focused on collateral corresponding to operational infrastructure companies and facilities located in primarily OECD countries. Since European banks are the most prevalent in the infrastructure lending space, it is anticipated that some of the Fund's transactions will be denominated in Euros or other currencies. This creates the potential for adverse currency movements for a USD-denominated fund. During diligence this topic was raised with Mariner both in terms of Fund I's existing currency management and the plan for Fund II. Mariner aims to transact in USD and this was the case in two of the four current Fund I transactions. However, the other two transactions completed in Fund I were denominated in Euros. In both of these Euro transactions, Fund I entered into hedging arrangements (via a series of put options) with Barclays to convert both the coupon payments and the value at maturity from EUR to USD at specified strikes. While this is a reasonable approach to hedge the currency exposure, forward contracts could potentially be more cost effective. However, the ability to post margin (necessary for forward contracts) could require significant reserves against unfunded commitment causing a negative carry and the Fund to not be fully invested. Put options are simply an asset of the Fund. It is Mariner's intention to employ a similar approach for Fund II but PSERS will have the option to hedge the risk on our own should we desire.
Recommended Fund II Commitment Size Relative to Fund I
We are recommending PSERS commit $100 million to Fund II which is significantly smaller, in percentage terms, than the $150 million committed to Fund I in 2013. That said, this reduction is entirely driven by that fact that a commitment to Fund II will be allocated to PSERS' Infrastructure portfolio, whereas Fund I was allocated to the High Yield portfolio, since an established infrastructure allocation did not exist at that time. Furthermore, PSERS' Infrastructure allocation target is 1.0% of total plan assets versus a 6.0% target for High Yield. As such, it is anticipated that private equity/debt commitments in the Infrastructure portfolio will be smaller in size relative to those made in the High Yield Portfolio. Mariner remains a high-conviction manager that is well positioned to take advantage of a compelling market opportunity in a niche asset class.

Liquidity & Leverage Profile
The Fund will have a three-year investment period, with a one-year extension through the following January 15th, at the sole discretion of the general partner. During the investment period, under certain circumstances, the general partner will have the ability to re-invest distributable proceeds. That said, recycling is not expected to be a material factor in the Fund's investment strategy. After the expiration of the investment period, the Fund will have up to seven years to harvest its investments; which may be extended by two additional one-year periods at the reasonable discretion of the general partner. While Mariner does not plan to use explicit fund-level leverage, the Fund may utilize a variety of financing strategies to achieve its investment objectives. This includes embedded leverage through forms of credit enhancement or cash leverage through external credit facilities to acquire portfolios of its target assets. In respect of investments that employ embedded leverage, the Fund's investments are expected to be fully collateralized, and the Fund will not generally employ additional leverage on such investments. Borrowings or guarantees by the Fund shall, in the aggregate, not exceed 40% of the total commitments at any time.

PSERS History & Performance:

PSERS previously committed $150 million to Fund I. As of March 31, 2016, Fund I generated a 6.1% net IRR and a 1.07x net MOIC. The table below summarizes PSERS' Fund I performance as of March 31, 2016:

Fund ($mm)	Portfolio	Vintage	Commitment	Contributions	Distributions	NAV	Net IRR	MOIC
Fund I	HY	2013	$ 150.0	$ 110.3	$ 11.1	$ 106.8	6.1%	1.07x

Finance Committee Disclosure:

Relationship with Portfolio Advisors:	None Disclosed
Introduction Source:	Fund Sponsor
Placement Agent:	MIIM has not retained a third-party placement agent. However, Mariner Group Capital Markets, Inc. ("MGCM"), an affiliate of Mariner and a FINRA registered limited purpose broker dealer, was established almost 25 years ago with the primary objective of satisfying regulatory obligations associated with the marketing and private placement of securities interests in private investment vehicles advised by Mariner and its affiliates. Importantly, any sales or placement related fees payable to MGCM are paid by Mariner out of its management/incentive fees and not by any client account (e.g., the Fund). Finally, there is no placement agreement between MGCM, Mariner or any fund (including Fund II or the MIIM Team).
PA Political Contributions:	None Disclosed
PA Presence:	The MIIM team is based in Philadelphia
Potential Conflicts:	We are not aware of Mariner having any investment conflicts.
First Time Fund With PSERS:	No
PSERS Internal Alpha Committee Approval:	May 6, 2016

Oversight Responsibility:

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

May 2, 2016

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

Re: International Infrastructure Finance Company Fund II, L.P.

Dear Trustees:

In 2012, Mariner Investment Group, LLC ("Mariner" or the "Firm"), a diversified, multi-strategy alternative asset manager primarily focused on credit-related strategies, formed the Mariner Infrastructure Investment Management ("MIIM") platform to capitalize on bank deleveraging opportunities resulting from increasingly tighter global bank capital and liquidity standards associated with Basel III regulations. MIIM primarily focuses on making investments in loans, bonds and other debt instruments associated with infrastructure projects located primarily in Organization for Economic Cooperation and Development (OECD) countries. In December 2013, MIIM formed International Infrastructure Finance Company Fund, L.P. (referred to as "Fund I") with total commitments of $400 million, of which PSERS committed $150 million, and Mariner Breakwater, L.P. with commitments of $100 million, for total aggregate commitments of $500 million to execute this strategy. Mariner recently initiated fundraising efforts for MIIM's second fund, International Infrastructure Finance Company Fund II, L.P. ("Fund II" or the "Fund"), to continue this investment strategy. Mariner is seeking to raise between $500 million and $750 million (expected hard cap) for Fund II with a first close expected around mid-year. The General Partner is expected to make a commitment equal to 2.5% of commitments, up to $12.5 million.

The Fund will seek to achieve its investment objective of generating stable, current income primarily through structured investments in portfolios of "seasoned," "senior," "secured" credit exposures related to infrastructure, asset-backed financings and project finance loans. The assets targeted by the Fund will generally be post-construction phase, protected by a lien of high priority and represent the senior most creditor claim on revenues of the underlying infrastructure facility. MIIM's approach targets inflation-linked returns while mitigating the ramp-up risk typically associated with equity-oriented infrastructure fund investments.

The investment strategy is designed to assist bank counterparties in the management of their regulatory capital and liquidity exposure against existing portfolios of project finance assets, generally by providing credit protection on a portfolio of project finance loans. The primary credit segment from which MIIM expects to source these opportunities is infrastructure, but additional similar assets may be identified in segments such as commercial real estate and equipment leasing. Although the Fund may seek to enter into opportunistic investments through a variety of forms and instruments, it is expected that credit protection

PORTFOLIO ADVISORS LLC

instruments will primarily take the form of credit-linked notes. Bank counterparties can utilize the resulting surplus of released regulatory and economic capital to accomplish their goals such as originating new loans in the project finance sector, reserving against other assets, downsizing balance sheets and/or increasing overall capital levels.

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 March 30, 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 Infrastructure component of the portfolio.

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

William Indelicato – Managing Director, Darien Office
Geoffrey Kelleman – Vice President, Darien Office

Based on the above, Portfolio Advisors recommends that PSERS commit to up to $100 million in International Infrastructure Finance Company Fund II, 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