County Employees Retirement System
Investment Committee – Special Meeting
February 1, 2022 at 2:00 PM ET
Live Video Conference/Facebook Live

AGENDA

1.	**Call to Order**	**Dr. Merl Hackbart**
2.	**Opening Statement**	**Legal Services**
3.	**Roll Call**	**Sherry Rankin**
4.	**Public Comment**	**Sherry Rankin**
5.	**Approval of Real Return Investment Managers***	**Dr. Hackbart** **Anthony Chiu** **Steve Willer**
	a. Ceres Farms, LLC **b. Maritime Partners American Rivers Fund** **c. Arctos Sports Partners Fund II**	
6.	**Adjourn**	**Dr. Merl Hackbart**

Committee Action May Be Taken

County Employees Retirement System
1270 Louisville Road
Frankfort, KY 40601

KPPA
Kentucky Public Pensions Authority

CERS Investment Committee

Real Return Search and Recommendation Summary

February 1, 2023

Top Candidate Characteristics – Ceres Farms LLC

$175 Million Recommendation

Ceres Partners, LLC is a South Bend, Indiana-based firm founded in 2007 targeting investment in US row crop farmland, primarily in the Midwest. Ceres Farms LLC ("Ceres" or the "Fund") was launched in a commingled vehicle in January 2008 as a formally structured continuation of firm founder Perry Vieth's personal agriculture investments. The strategy focuses on acquiring undervalued, high-quality farmland, improving these assets, and leasing the assets to professional farmer-partners. Leases are generally 3-5 years, paid annually in cash prior to crops being planted, and have an upside participation tied to CBOT prices.

The Fund focuses on farmland that is below institutional radar by size and value. It also seeks to benefit from an extremely fragmented market, low transparency in farmland assets/transactions, and specialized asset knowledge and relationships that have taken years to develop.

Ceres seeks to provide investors with exposure to an evergreen, real-asset based alternative income strategy with relatively stable cash yields, upside optionality, inflation-hedging characteristics, and diversification to equity and fixed income assets.

Due Diligence Summary

<u>Date of First KPPA Meeting</u>
2/24/2021 (Call)

<u>Date of Subsequent Meetings</u>
8/1/2022 (Call)
9/26/2022 (Farm Onsite – Harrodsburg, KY)
10/19/2022 (Call)
11/7/2022 (Onsite – South Bend, IN)

<u>Date of Consultant Report</u>
Feb 2022

<u>Legal Negotiation Initiated</u>
10/30/2022

<u>Comparable Strategies Reviewed</u>
26 (farmland / agriculture)

KPPA
Kentucky Public Pensions Authority

Top Candidate Characteristics – American Rivers Fund

$175 Million Recommendation

Maritime Partners ("Maritime") is a New Orleans-based firm founded in 2015 targeting investment that provides leasing solutions to the United States inland marine transportation industry governed by the Merchant Marine ("Jones") Act of 1920.

The American Rivers Fund is an investment vehicle formed by Maritime to build and maintain a portfolio of over 1,500 barges and towboats.

The vessels are generally employed on multi-year triple net leases at a fixed rate throughout the entire lease term, which provides visibility into cash flow distributions which are paid quarterly to investors. The leases are specifically referred to as a hell-or-high-water bareboat charters which are legally binding contracts that cannot be canceled or modified for any reason outside of bankruptcy.

Due Diligence Summary

Date of First KPPA Meeting
7/6/2021 (Call)

Date of Subsequent Meetings
7/21/2021, 8/18/2021, 11/9/2021 (Calls)
8/2/2022 (Call)
8/31/2022 (Call)
10/14/2022 (Call)
10/25/2022 (Virtual Diligence)
11/17/2022 (Onsite – New Orleans)

Date of Consultant Report
May 2022

Legal Negotiation Initiated
10/28/2022

Comparable Strategies Reviewed
10 (asset leasing / transportation)

KPPA
Kentucky Public Pensions Authority

Top Candidate Characteristics – Arctos Sports Partners II

$175 Million Recommendation

Arctos Sports Partners ("Arctos") is a Dallas-based investment firm founded in 2019 targeting investments in the professional sports industry. The Firm seeks to provide strong, uncorrelated returns by purchasing a diversified portfolio of non-control stakes in professional sports franchises at attractive valuations, as well as providing bespoke liquidity solutions and structured growth capital to major professional sports franchises and their owners.

Arctos Sports Partners Fund II, LP is targeting $2.5 billion to continue investing in major sports franchises, which they believe are both attractive businesses and scarce, coveted assets with strong growth prospects backed by contractually recurring revenue. Sports ownership has outperformed global equities, small cap equities and median private equity over the past five, ten, and 20 years with low leverage and low correlation across market and economic cycles.

Due Diligence Summary

Date of First KPPA Meeting
2/16/2022 (Call)

Date of Subsequent Meetings
3/2/2022 (Onsite - Dallas)
3/28/2022 (Call)
6/23/2022 (Call)
6/28/2022 (Virtual Diligence)
9/12/2022 (Onsite – NYC)
9/21-22/2022 (Annual Meeting – Boston)

Date of Consultant Report
9/2/2022

Legal Negotiation Initiated
9/15/2022

Comparable Strategies Reviewed
8 (sports & entertainment)

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CERS Investment Committee

Ceres Farms, LLC

February 1, 2023

Ceres Farms Summary

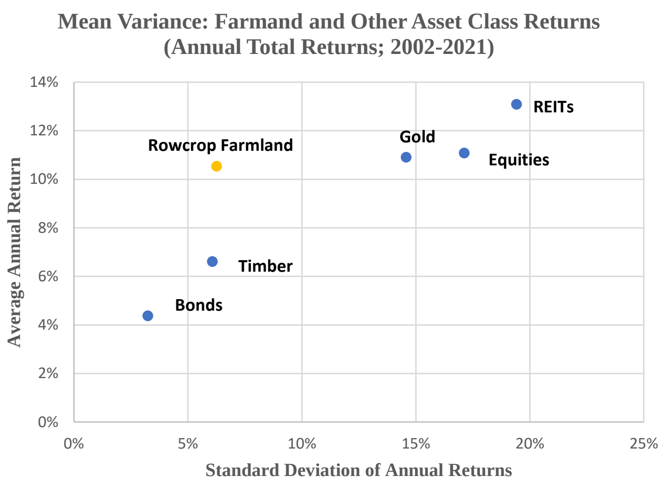
The Fund invests primarily in row crop farmland acquired below market value using rigirous pricing discipline and sourced largely through private transactions

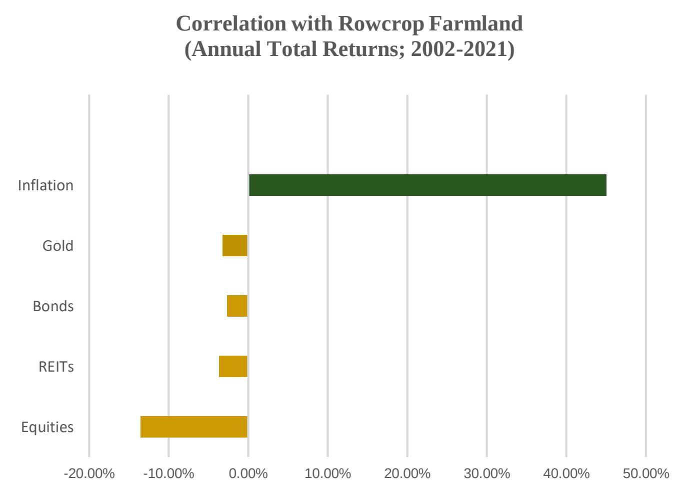
AUM	$1,221 Million
Offices	South Bend, Indiana
Focus	U.S. Row & Specialty Crop Farmland
Strategy	1. Acquire farms below market value 2. Make Improvements 3. Lease to Top Farmers
Holdings	502 Properties / 155,880 Acres / 11 States
Tenants	139 Farmers
Structure	Open-End Fund

Disclosure: Past Performance Is Not A Guarantee Of Future Results
Source: Ceres Farms LLC

Reasons to Invest in Farmland

1. **Historically, Strong Returns with Low Volatility**
   - Historically higher total return than bonds with similar volatility
2. **Income Generation**
   - Ceres currently targets an unlevered rent yield of 5%
3. **Diversification**
   - Low to negative correlations – hedge against broader market draw-downs
4. **Inflation Protection**
   - Positive correlation with inflation
5. **Inherently Sustainable**
   - Sustainability is key to effective long-term farm management





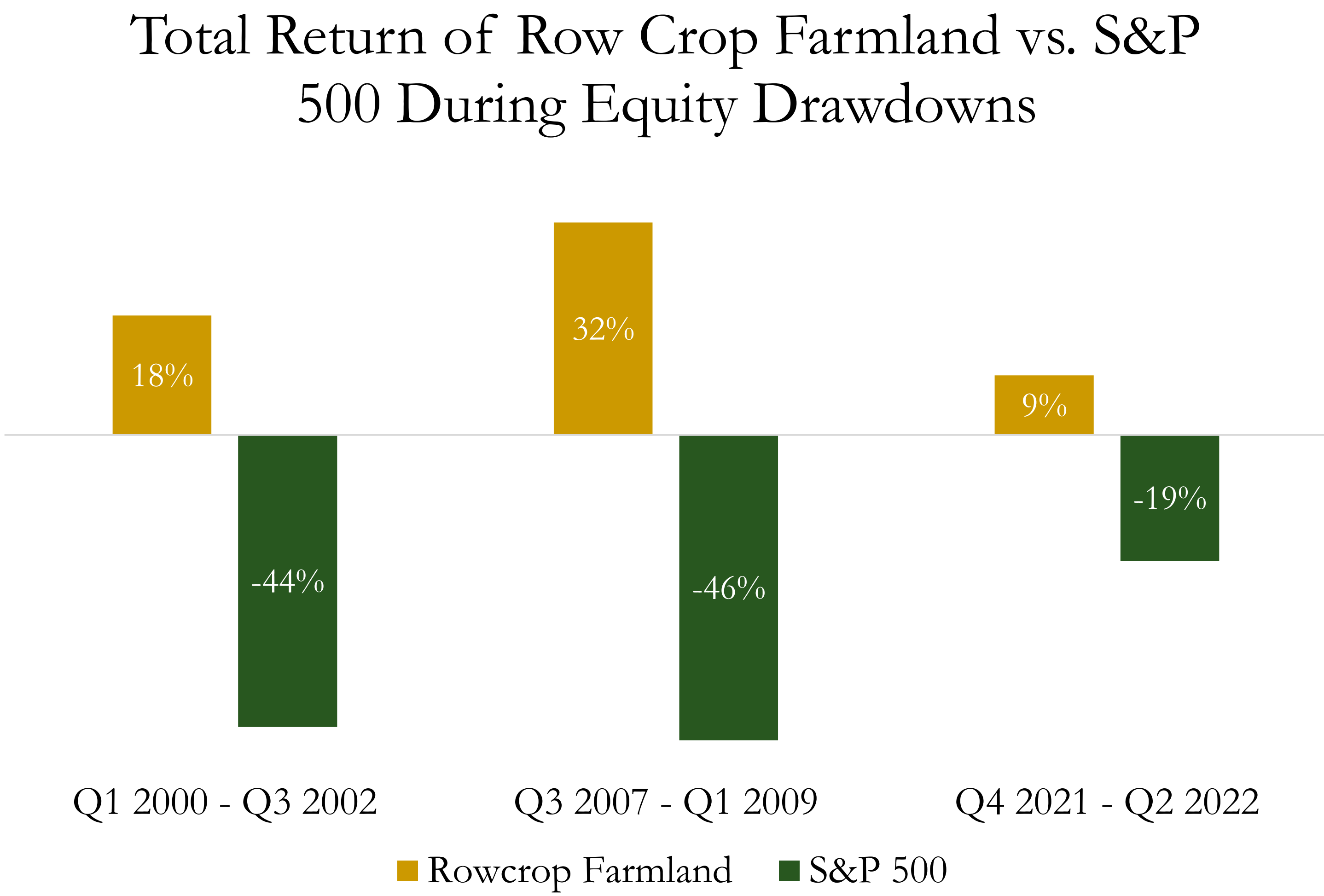
Disclosure: Past Performance Is Not A Guarantee Of Future Results

Sources: Farmland (NCREIF Annual Commodity Cropland Index); Equities (S&P 500); Bonds (B of A US Corp Master Total Return); MLPs (Alerian MLP Index); Gold (London Bullion Market Association); Timber (NCREIF Timber Index) ;REITS (NAREIT Index); Inflation (CPI US Bureau of Labor Statistics)

Ceres Partners

Diversification vs. Equities

Farmland has proven an effective diversifier – especially during major drawdowns in U.S. Equities



Source: NCREIF Commodity Cropland Index; S&P; Ceres Analysis
Disclosure: Past Performance is Not a Guarantee of Future Results

Ceres Farms Differentiation

Ceres is one of the longest tenured and most respected farmland managers in the U.S. with acreage across 11 states

Differentiated Strategy:

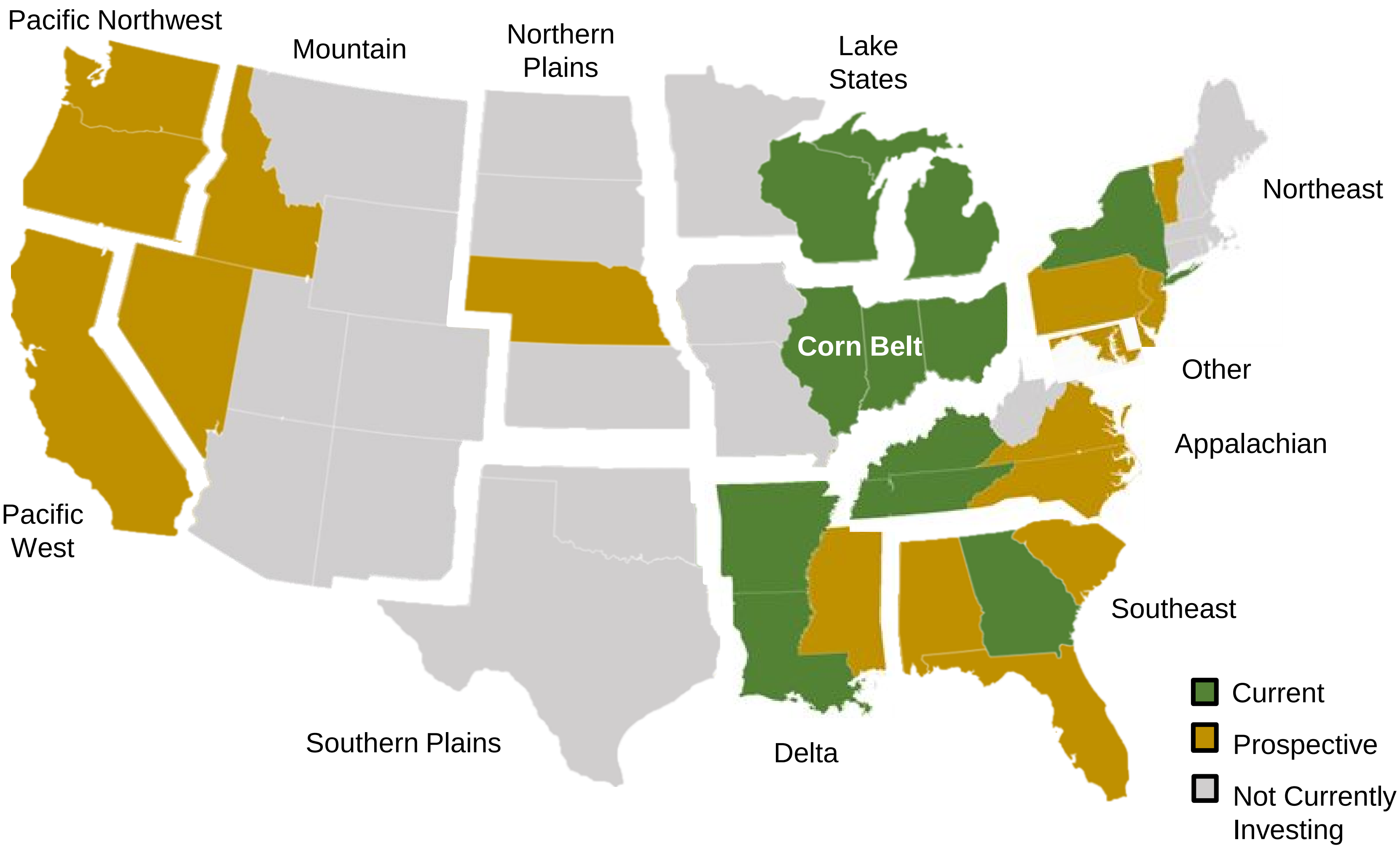
- In-house farm management with a disciplined value investment approach
- Value-add projects to improve and optimize each asset
- Elite farm tenant relationships provide a sourcing, investment analysis and farm-leasing edge over other managers
- Market focus on U.S. row and specialty crop farmland

Ceres Farms has consistently outperformed the NCREIF Annual Commodity Cropland Index (see Performance vs. Benchmark Slide in Appendix)

Ceres Partners

Ceres Farms Portfolio & Growth

Focus on the "Corn Belt" & "Lake State" regions



Ceres Farms Differentiation

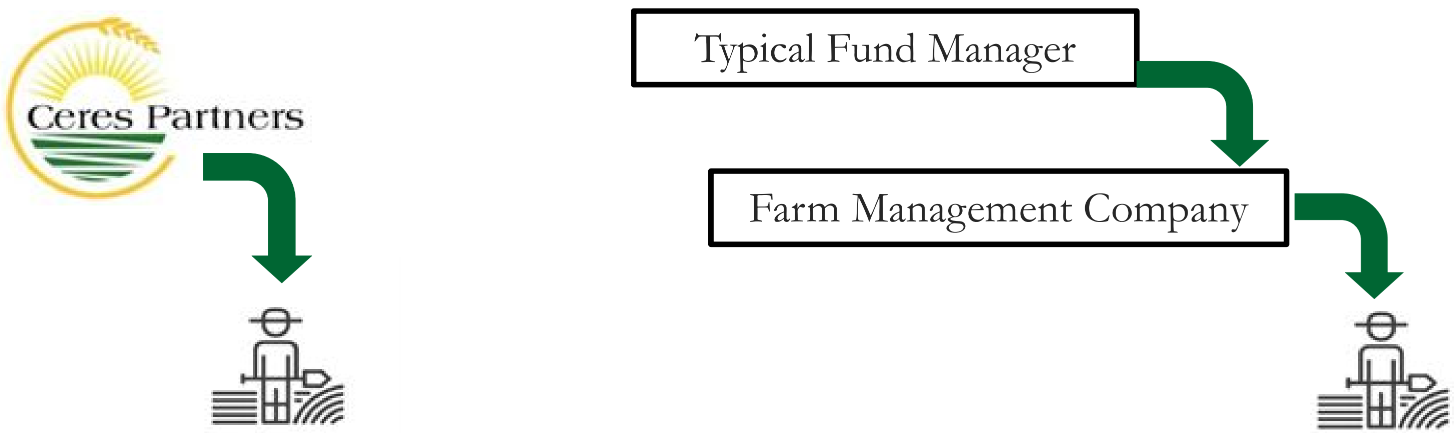
Each element confers specific benefits for investors

Element	Ceres Strategy	Benefits
In-House Farm Management	Unlike competitors, Ceres does not outsource farm management to contract regional farm managers	• Avoids conflicts of interest • Avoids farm management fees • Enhances relationship with elite farm tenants • Enhanced valuation & farm management
Value Focused	Value investment approach & value-add farm improvements	• Disciplined underwriting improves return & limits risk • Value-add strategy improves yield, increases farm value & attracts top farmers
Tenant Partners	Hard-to-replicate network of relationships with sophisticated farmers	• Proprietary sourcing • Information advantage for valuation • Top farmers pay higher rents
Row & Specialty Crop Focused	Row Crop (corn & soy) & Specialty Crop (onions, tomatoes, pumpkins, etc.)	• Better risk/return metrics over long-term • Passive landlord not active operator
U.S. Only with Midwest Focus	Focus on the U.S. Midwest	• More stable returns (lower beta) • Strong water resources

Ceres Partners

Differentiation – In-House Farm Management

In-house farm management avoids conflicts, fees & enhances competency

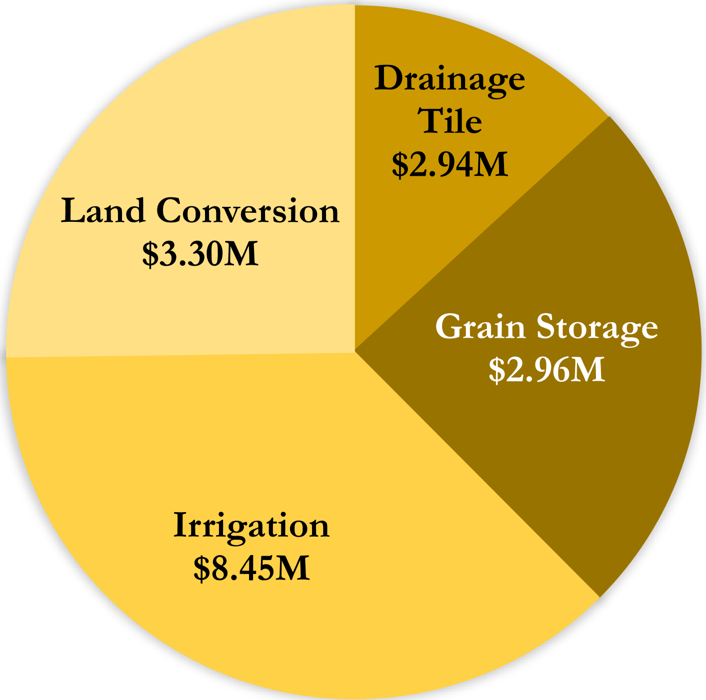


- Farm management companies have multiple clients and multiple conflicting lines of businesses
- In-house farm management removes the middleman and enhances the direct farmer relationship
- Direct farmer relationships provide local help in sourcing add-on acquisitions and farm valuation
- Difficult to replicate the direct farmer network once built

Differentiation – Value-Add Expertise

Over the past 3 years, Ceres has invested nearly ~$17.6 million in improvements

Value-Add Projects



Source: Ceres Farms LLC
Note: CAPEX numbers calculated from 1/1/2019 through 12/31/2021

Ceres Partners

Differentiation – Farm Partners

Ceres has built long-term relationships with sophisticated farmers

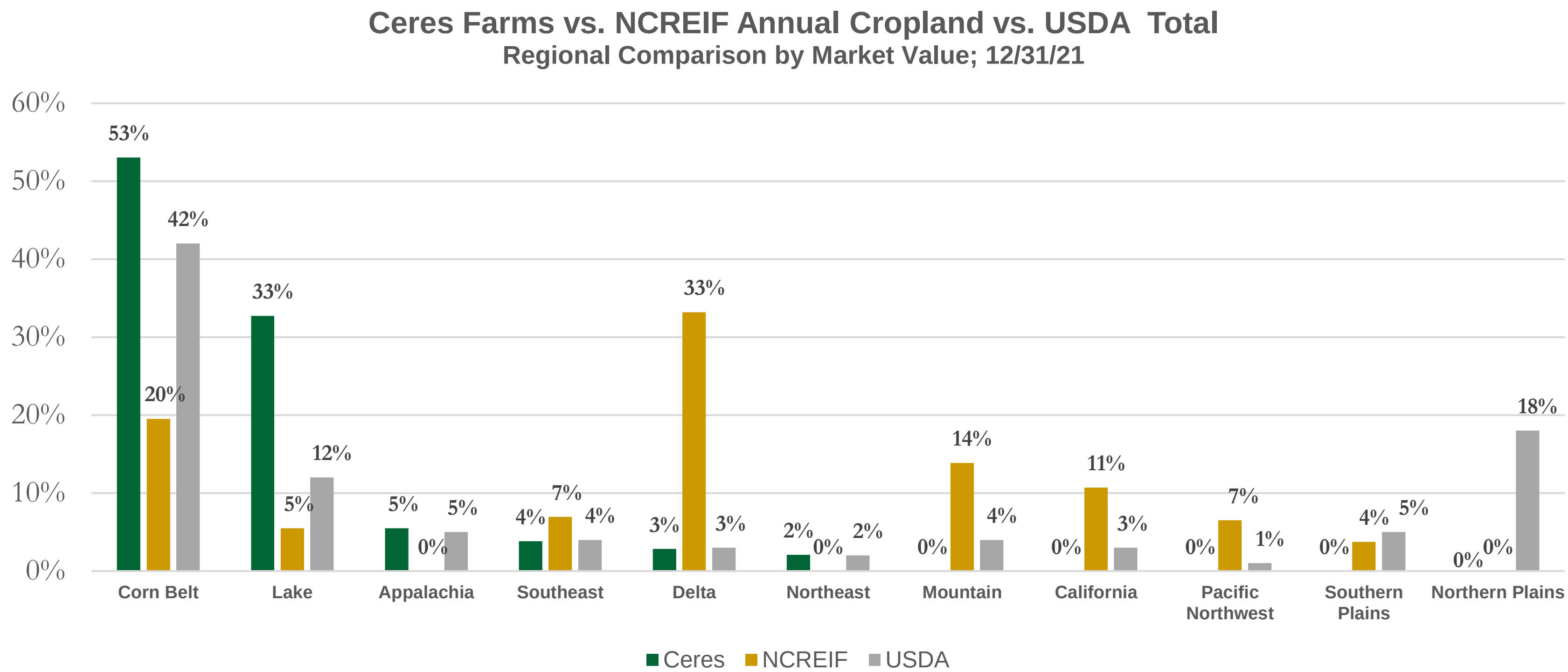
- Experienced, educated, entrepreneurial, trusted farmers with proven business acumen, lease the farmland owned by Ceres Farms
- Average length of Ceres relationship with a farmer is over 5 years
- Invaluable for sourcing, investment analysis and earning top rents on our farms
- Ceres helps top farmers scale their farming business by adding more acreage

Source: Ceres Farms LLC

Ceres Partners

Differentiation – US Midwest Row & Specialty Focus

Ceres is intentionally overweight the Midwest [Corn Belt & Lake regions] compared to other managers with 85% of our assets in those 2 regions



Over the Past Decade

- 33% of institutional investments have been made in the Delta, which represents only 3% of the total value of US Farmland
- 25% of institutional investments have been made in the Corn Belt & Lake States, which make up 54% of the total value of US Farmland

Source: NCREIF; USDA; Ceres Analysis
Note: Based on Total Market Value by Region

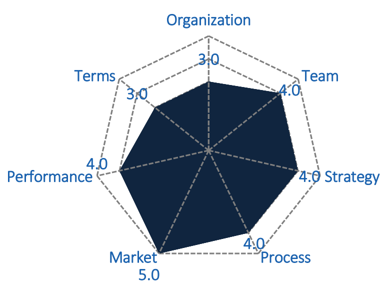
Wilshire

Ceres Farms

Final Diligence

Investment Type	Primary
Target Size (B) / Hard Cap (B)	USD / 1.5 / No Hard Cap
First Close (M)	$15
First Close Date	December 2007
Final Close Date	Evergreen
Vintage Year	2008
Geographic Focus	North America
Strategy	Agriculture
Industry	Farmland
Investment Size (M)	$1 – $20
Number of Investments	470 assets; 140 lessees
Investment Period	6 months
Fund Term	Evergreen
GP Commitment (M)	2.5%
Target Return	10% net
Management Fee – Investment Period	1.0% on invested
Carry / Hurdle	15% / 5%

*Terms stated assume total Wilshire commitments above $30 million.



Key: 5 = Top Decile; 4 = Top Quartile; 3 = Average;
2 = Bottom Half; 1 = Bottom Decile; 0 = No Information

Firm Overview

Ceres Partners, LLC (the "Firm") is an alternative investment firm based in South Bend, IN with approximately $1.1 billion of assets under management. The Firm was founded in 2007 by Perry Vieth, who left his position as CIO of Fixed Income & Currency at Putnam/PanAgora Asset Management. The Firm employs 23 professionals of which nine are dedicated to investments. While singularly focused on food and agriculture, Ceres manages two investment vehicles with distinct strategies and investment objectives: Ceres Farms, LLC which invests in U.S. farmland, and Ceres Sustainable Food & Agriculture Fund, which invests growth equity in private food & agriculture businesses. Ceres is a founding member of Leading Harvest, an independent non-profit which seeks to provide a single standard for sustainable agriculture.

Investment Strategy

Ceres Farms LLC (the "Fund") was launched in a commingled vehicle in January 2008 as a formally structured continuation of Mr. Vieth's personal agriculture investments. The strategy focuses on acquiring undervalued, high-quality farmland, improving these assets, and leasing the assets to professional farmer-partners. Leases are generally 3-5 years, paid annually in cash prior to crops being planted, and have an upside participation tied to CBOT prices. Ceres Farms focuses on U.S.- based, row crop farmland below the institutional radar by size (≈100-6,000 acres) and value (≈$200 thousand - $20+ million). The inefficiencies upon which the strategy seeks to capitalize are driven by extreme market fragmentation, lack of transparency in farmland assets/transactions, a lack of timely data flow, and the prerequisite for asset specialization and relationships which take significant time to accumulate. The Fund seeks to provide investors with exposure to an evergreen, real-asset based alternative income strategy with relatively stable cash yields, upside optionality, inflation hedging characteristics, and diversification to equity and fixed income asset classes. The allocation parameters for the Fund stipulate significant diversification by state, tenant, farm size, and crop type.

Track Record

Ceres Farms gross performance of 13.5% can be deconstructed between contractual income (rent) and asset appreciation. Since inception, ≈51% of gross returns have been driven by contractual income or approximately, while the balance has resulted from asset appreciation. The Fund has experienced a 0% loss ratio across 474 acquisitions since inception

Fund	Vintage	Size ($M)	1 Year Net IRR	ITD Net IRR
Ceres Farm	2008	1,050	10.9%	10.0%

Source: Ceres Farms as of October 31, 2021.Investors as of March 31, 2022.

Investment Merits

- Highly fragmented and opaque market with significant barriers to entry
- Advantaged sourcing capabilities and due diligence insights via Ceres' farmer-partner network
- Specialized team with dual agronomic and investment acumen and farmer relationships
- Holistic diversification and inflation protection from both income and asset appreciation

Investment Concerns

- Significant outside ownership
- High carried interest and low preferred return relative to total return targets
- No key-person provision

Key Investment Personnel

Name	Title	Experience
Perry Vieth	Founder, CEO	PanAgora
Brandon Zick	CIO	Morgan Stanley, Lehman Brothers
Hunt Stookey	Direct of Research	AEW Capital Mgmt., HighQuest Partners, Stax
Paul Kinsella	Senior Portfolio Manager	Avatar Securities, Oberweiss Asset Mgmt., Balyasny Asset Mgmt.

Past performance is not indicative of future results.

KENTUCKY PUBLIC PENSIONS AUTHORITY

INVESTMENTS

To: CERS Investment Committee

From: Anthony Chiu, Deputy CIO

Date: February 1, 2023

Subject: Investment Recommendation – Ceres Farms

KPPA Investment Staff is proposing an investment in Ceres Farms LLC ("Ceres" or the "Fund"), an open-end fund based in South Bend, Indiana that primarily focuses on owning US Midwest farmland and renting it to tenant farmers that grow row crops (primarily corn and soybeans) contingent on successful IMA negotiations. This investment will be part of the Real Return allocation.

The Fund launched in 2008 and as of 12/31/22 owns over 162,000 acres of farmland in 12 states. Over 15 years, Ceres has built a network of 140 tenants that farm Ceres's acreage in addition to land that they own personally as well as acres that they lease from other landowners.

As a result of the new asset allocation that took effect in March 2022, target portfolio weights for Real Return allocations were increased for the Plans. After the sizable Putnam mandate was terminated in February 2022, Plan allocations to Real Return ranged from 2-3%. This proposed investment will help move the plans toward target as it gets deployed over the next 1-2 years while providing a positively correlated exposure to broad inflation.

Business / People:
Ceres was founded by Perry Vieth, who was head of fixed income at PanAgora and became interested in diversifying his personal investments into real assets in the mid-2000s. He bought his first farms in 2005 and formed Ceres in late 2007.

Today the firm has $1.4 billion under management, with the Fund comprising the large majority of assets. There is also a small private equity effort focused on agriculture technology. It currently has $42 million of assets across two funds and is managed by a team based outside of Boston.

Brandon Zick is the Chief Investment Officer for the Fund and was promoted from Senior Portfolio Manager in 2019. He was the firm's first outside investment team hire in 2010 and is supported by three Senior Portfolio Managers: Paul Kinsella (10 years at Ceres), Nate Kaehler (9 years at Ceres), and Luke Drachenberg (7 years at Ceres).

Brandon, Paul, and Nate are three of the Fund's six Investment Committee members, which also includes founder Perry Vieth, CFO Steve Cardinal, and head of research Hunt Stookey. As a firm, Ceres has just over 20 employees, including five on the Portfolio Management team and six on legal and firm operations, which can be intensive given the amount of appraisals and other documentation required for over 500 farm properties.

Investment Process and Portfolio:

The Fund has compiled an attractive portfolio of farms and tenants over its 15-year history. Ceres's focus is on the Midwest, with over 80% of its acreage in Indiana, Michigan, Illinois, Ohio, and Kentucky.

However, Ceres has and will opportunistically acquire farms in other areas where they will have tenants and crops they know in place. This is important because Ceres takes a direct management approach to its farms, rather than utilizing a third party. Like any leasing business, non-payment of rent is a primary risk, and Ceres's approach keeps them close to how their tenants' fields and financials are faring. Tenant coverage is mainly divided amongst the portfolio management team by geography, with each operator having a primary and a backup contact from Ceres.

Besides operating farms for Ceres and paying rental income, tenants are also a key source of new deals for the Fund. Land and capital are the limiting factors in this space, and it is essential for farmers to have enough acreage and scale over which to spread their fixed equipment costs. In an ideal world, farmers would prefer to own as much land as they can, but if their balance sheet is not large enough, maintaining access to farm acreage through a lease is the next best option. Since Ceres allows operators to lease a farm that they source if the Fund ends up buying it, tenants are motivated to find and show them attractive deals.

Finally, strong tenants are also important for maintaining the land and utilizing the improvements that Ceres adds to properties, such as irrigation, grain storage, and drainage tile. However, Ceres is mindful of customer concentration and has built a diversified tenant base. The Fund's largest two tenants each lease just 6% of the Fund's tillable acres, and the top 10 tenants comprise 36% of acreage.

Cropwise, nearly 75% of the Fund's land is used for corn and soybeans. Specialty crops such as green beans, peas, and potatoes comprise an additional 15-20%. However, the Fund has less exposure to individual crop price swings since it receives the large majority of its rental payments upfront in spring before anything is planted.

Ceres does not have any leverage at the portfolio level, and does not utilize much debt at the property level either - even though historically it has had more attractive deals than capital to deploy. However, this dynamic has flipped in recent years as farmland prices have heated up and more capital has been committed to the Fund. As a result, Ceres has established an investment queue that currently stands around $220 million, and they estimate that it would take 12 to 24 months for this commitment to be fully deployed.

Performance:

Fund	1 yr	3 yr	5 yr	Since Inception	Inception Date
Ceres Farms LLC	18.6%	11.8%	9.0%	10.6%	Jan-08
NCREIF Annual Commodity Cropland Index	18.6%	11.5%	8.7%	9.7%	

Source: Ceres, NCREIF as of 12/31/22

For calendar year 2022, the Fund produced a net return of 4.7% for the 4th quarter and 18.6% for the year, compared to 6.3% and 18.6%, respectively, for the NCREIF Annual Commodity Cropland Index. Appreciation has driven unusually strong returns over the past two years, although Staff is not expecting that to continue as a base case.

Rather, over the long term we are interested in accessing two main sources of return: (1) an income return that has historically been in the 3-4% range and (2) modest appreciation that should be aided by inflation as well as an ongoing decline in farmland supply due to development and soil degradation. The Fund will also benefit from additional income sources, including options on solar, industrial, and housing development.

Conclusion: Staff is recommending an investment of $175 million to be shared among all CERS Plans. This will represent an additional ~1.1-1.2% of Plan assets (depending on fluctuations in market value) when fully invested.

<u>Investment and Terms Summary</u>

Type of Investment:	Real Return
Structure:	Open end
Management Fee:	1.25% of NAV
Performance Fee:	12.5% of profits above a 5% hurdle
Purpose:	Capture current income from row crop farmland rental and option payments; achieve modest capital appreciation resulting from inflation and a continuing decrease in farmland supply
Risks:	Key Person, Tenant Farmer Credit, Liquidity, Fund Size
Exp. Net Return:	5 - 9%

* No placement agents have been involved or will be compensated as a result of this recommendation.

Kentucky Public Pensions Authority

CERS Investment Committee

Maritime Partners, LLC – American Rivers Fund

February 1, 2023

Executive Summary

Maritime Partners, LLC ("MP") is an inland marine focused investment platform which seeks to generate attractive risk adjusted returns through developing leasing solutions for the United States inland marine transportation industry.

- MP owns and manages a portfolio of approximately 1,800 inland marine assets with an estimated Fair Market Value ("FMV") of $1.6bn.[6] The assets generally operate on long-term contract.
  - Inland marine transportation assets primarily consist of barges and towboats which transport commodities along the 12,000 miles of domestic inland waterways, including the Mississippi River and the Gulf Intracoastal Waterway.
- American Rivers Fund, LLC ("Company","ARF") is a pooled investment vehicle formed with the intention of continuing to build a consolidated portfolio of inland marine assets operating on long-term contract.
- **Contractual Cash Flow Generates Strong Yield & Total Return:** We anticipate the Company will pay 10%+ annual cash distributions on a quarterly basis with a target net IRR of 15% with upside as the market continues to improve and as the natural forces of inflation drive upward lease rates and asset values over time.
- **Limited Residual Risk:** In our experience, leased inland marine equipment utilization has historically been near 100% over a 25+ year time horizon which provides conviction that the asset will generate cash flow in any market condition.[5] Further, we estimate that inland marine equipment has a 30 – 50 year useful life and produces cash flow throughout its entire useful life.
- **Non-Correlated, Recession Resistant Industry:** The inland marine industry is the most cost-efficient method of transporting non-discretionary commodities which represent the basic building blocks of the domestic economy.[1] Therefore, in our opinion, demand is non-correlated to GDP.
  - Cost Efficiency: Inland marine transportation is the most cost-efficient method of surface transportation.[1] As measured on a ton-mile basis, the cost of inland marine transportation is 60% cheaper than rail and 97% cheaper than truck.[1]
  - Non-discretionary End Markets: The industry transports non-discretionary commodities, primarily food, fuel, chemicals and aggregates.[2]
- **Inflation Hedge:** We believe the tangible nature of the assets create a hedge against inflation. Barge replacement cost has steadily increased at approximately 3.5% per year since 1975.[3]

ARF owns and manages a portfolio of approximately 1,600 assets with a FMV of approximately $1.3bn.[4] Additionally, ARF continues to acquire assets through MP's new build program and through secondary market opportunities.

Sources: (1) PWC: Economic Contribution of the US Tugboat Industry (May 2017), (2) IHS Markit (June 2021); (3) Price Quotes from Various Shipyards; (4) Dufour, Laskay & Strouse Marine Survey and Appraisal ("DLS") (as of 9/30/2022), Ardmore Preferred based on par value of preferred shares, MG Transport based on DLS valuation; (5) GATX/MP; (6) FMV calculated internally using the Cost Approach methodology in compliance with ACA policies

Inland Marine Transportation Equipment

Dry Cargo Barge

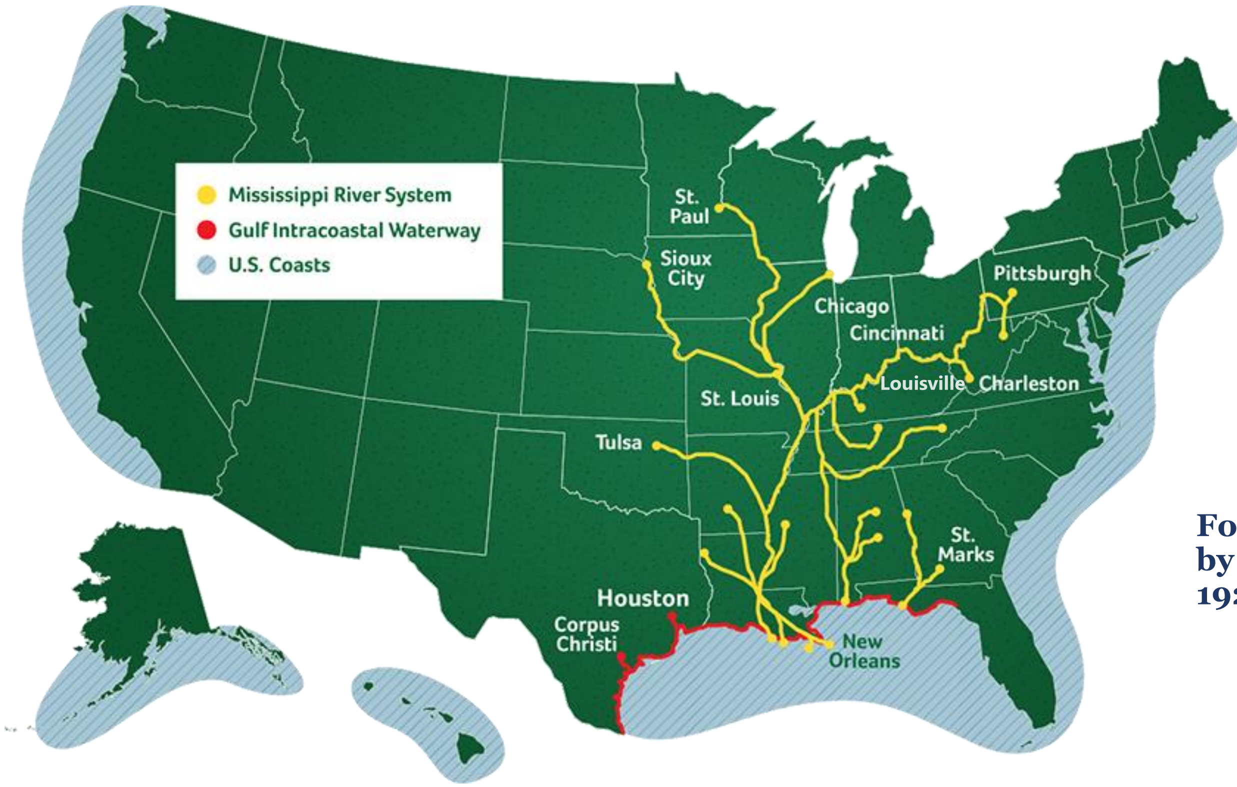
2,600 Horsepower Towboat

30,000 Barrel Clean Tank Barge

Dry Cargo Barge Tow

United States Inland River System

We believe the inland marine industry plays a vital role in transporting the commodities which comprise the basic inputs to the U.S. economy. Towboats and barges transport cargo via the Mississippi River System and its tributaries as well as the Gulf Intracoastal Waterway.



Foreign competition is prohibited by the Merchant Marine Act of 1920, also known as the Jones Act.[1]

FOREIGN VESSELS ARE PROHIBITED FROM OPERATING IN US MARITIME COMMERCE.[1] THEREFORE, THE US INLAND MARINE INDUSTRY CURRENTLY HAS NO CORRELATION TO INTERNATIONAL SHIPPING.

Sources: (1) Journal of Maritime Law and Commerce (Apr 2018)

Contractual Cash Flow

Quarterly distributions may provide investors with annual cash yields of 10%+ and a base case net IRR of 15%.

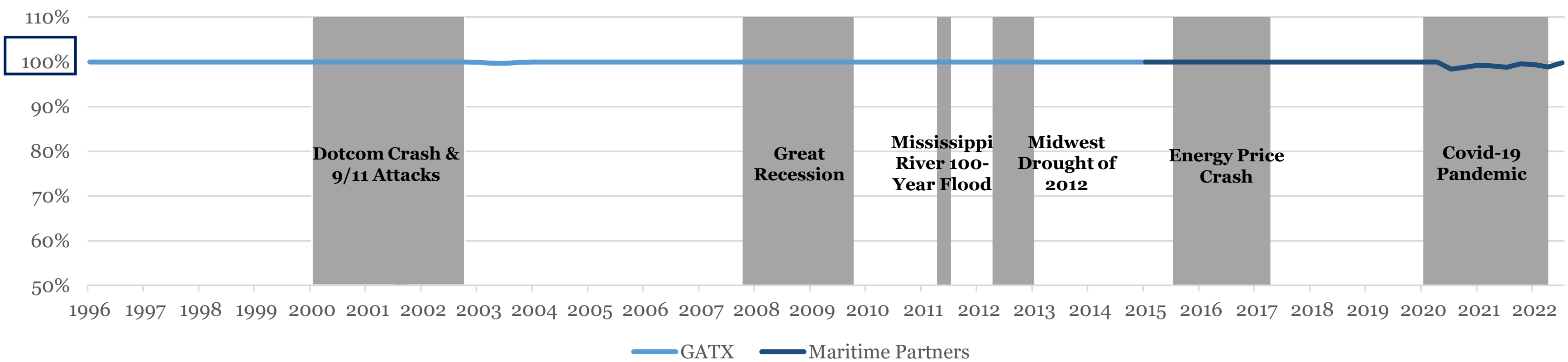
- **A majority of the vessels are employed on multi-year triple net lease at a fixed rate throughout the entire lease term which provides visibility into cash flow distributions which are paid to investors on a quarterly basis.**
  - The lease contract is specifically referred to as a hell-or-high-water bareboat charter.
  - This type of contract cannot be canceled or modified for any reason whatsoever outside of bankruptcy.
  - The bareboat charter contract is "triple-net" and therefore requires the lessee to pay for maintenance, taxes and insurance. Therefore, the Company's primary operational expenses are administrative in nature.
  - Lease revenue ("charter hire") is typically paid monthly in advance, on the first of the month and therefore the Company does not require investment in working capital.
  - <u>In addition, favorable acquisition price and the strategic deployment of leverage drive projected net IRR to 15%+ with upside as the market continues to improve and the natural forces of inflation potentially drive lease rates and asset values upward over time.</u>

Quarterly distributions are anticipated to provide investors with annual cash yields of 10%+ and a base case net IRR of 15%.

Limited Residual Risk

Leased inland marine assets tend to stay on lease with the same operator for the asset's entire useful life (30 – 50 years).[1,2]

Historical Utilization of GATX and MP's Inland Marine Leased Fleet



- Leased-in assets are integrated into an operator's logistical network and restrictive redelivery conditions make returning equipment an expensive and time-consuming exercise.
- The inland marine industry is geographically concentrated. If a lessee rejects equipment, that equipment will likely end up working in a competitor's fleet so rejecting a lease effectively erodes market share.
- A lessee will have invested its own capital in maintaining an asset (as required per the bareboat charter agreement) and returning the asset to a lessor would eliminate further returns on this capital.
- From 1996 through 2016, GATX managed an inland marine lease portfolio with an average value of $400mm.[1] The above chart lays out GATX's inland marine leased fleet utilization through 2016 when GATX exited the inland marine leasing industry and also MP's leased fleet utilization since inception in 2015.
- Additionally, we believe the J. Russel Flowers ("JRF") fleet of over 1,000 leased vessels, which ARF recently acquired, had maintained a near 100% utilization since inception in 1994.
  - Despite Covid-19 related lock down measures leading to the largest downturn ever seen in the inland marine industry, MP's leased fleet utilization remained above 98%.[2]

Over the past 25-years, leased fleet utilization as measured by GATX and MPs' respective portfolios has averaged just below 100% despite several shocks to the macroeconomy and the inland marine industry.

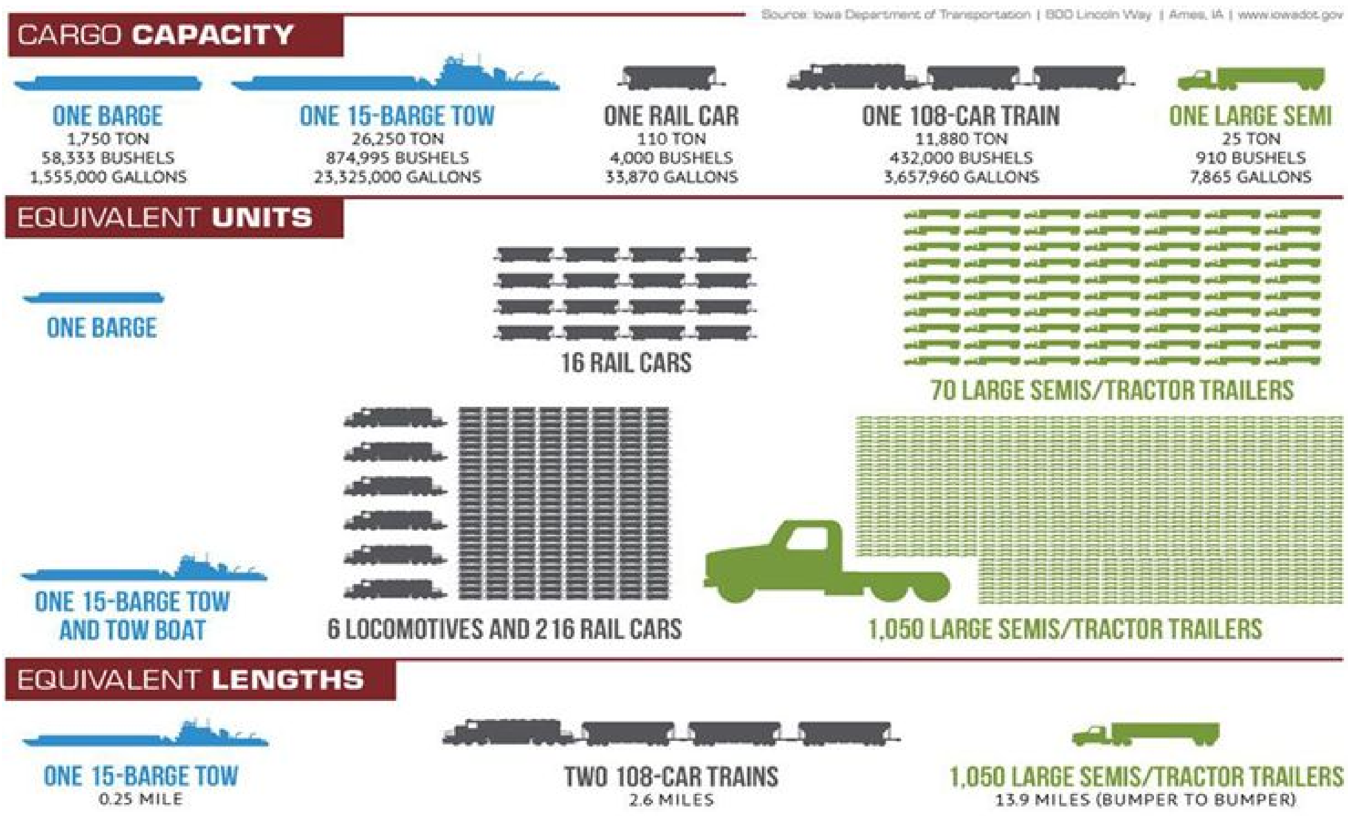
Sources: (1) GATX (2) Internal Calculations

Inland Marine Transportation Efficiency

The inland marine industry is the most cost-efficient method of transporting the non-discretionary commodities which comprise the basic inputs to the United States economy.[1]

- One 15-barge tow can move the equivalent of two 216 railcar freight trains and 1,050 large semi-tractor trailer trucks.[1]
- A barge can haul one ton of freight 647 miles on a single gallon of fuel compared to 477 miles for a railcar and 145 miles for a truck.[1]
- Shipping cargo via barge costs 0.72 cents/ton-mile which is 60% cheaper than rail (2.24 cents) and 97% cheaper than truck (26.6 cents).[1]

Barge Cargo Capacity vs. Rail and Truck

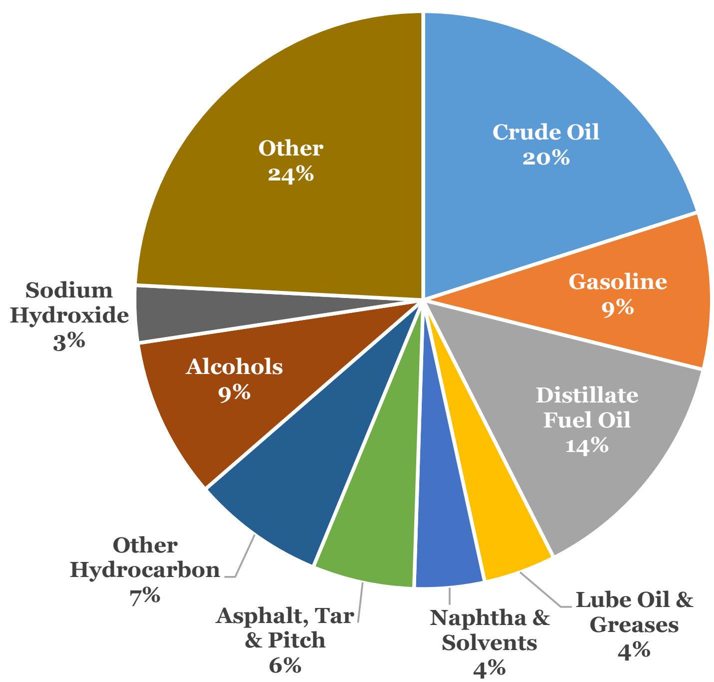


Sources: (1) PWC: Economic Contribution of the US Tugboat Industry (May 2017), Iowa DOT (Feb 2019)

Underlying Commodity Demand Drivers

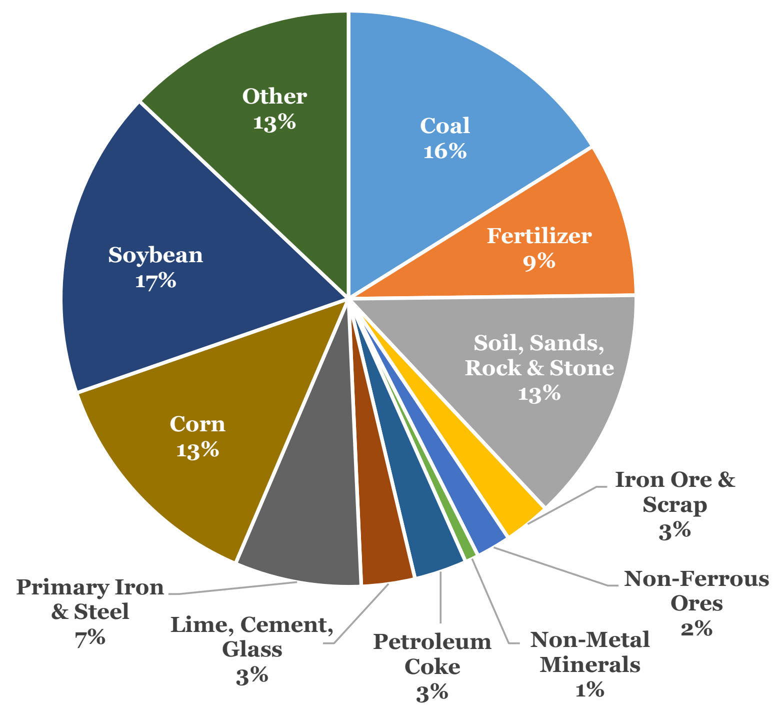
The inland marine industry is the most cost-efficient method of transporting the non-discretionary commodities which comprise the basic inputs to the U.S. economy.[1]

Liquid Cargo[2]



- The above provides a breakdown of liquid commodities transported in 2020 as measured in ton-miles.
- An estimated total of 49.3 billion liquid freight ton-miles were transported in 2020 via barge.[2]

Dry Cargo[2]



- The above provides a breakdown of dry commodities transported in 2020 as measured in ton-miles.
- An estimated total of 194.1 billion dry freight ton-miles were transported in 2020 via barge.[2]

The US economy currently relies on barge transportation for the movement of key commodities.

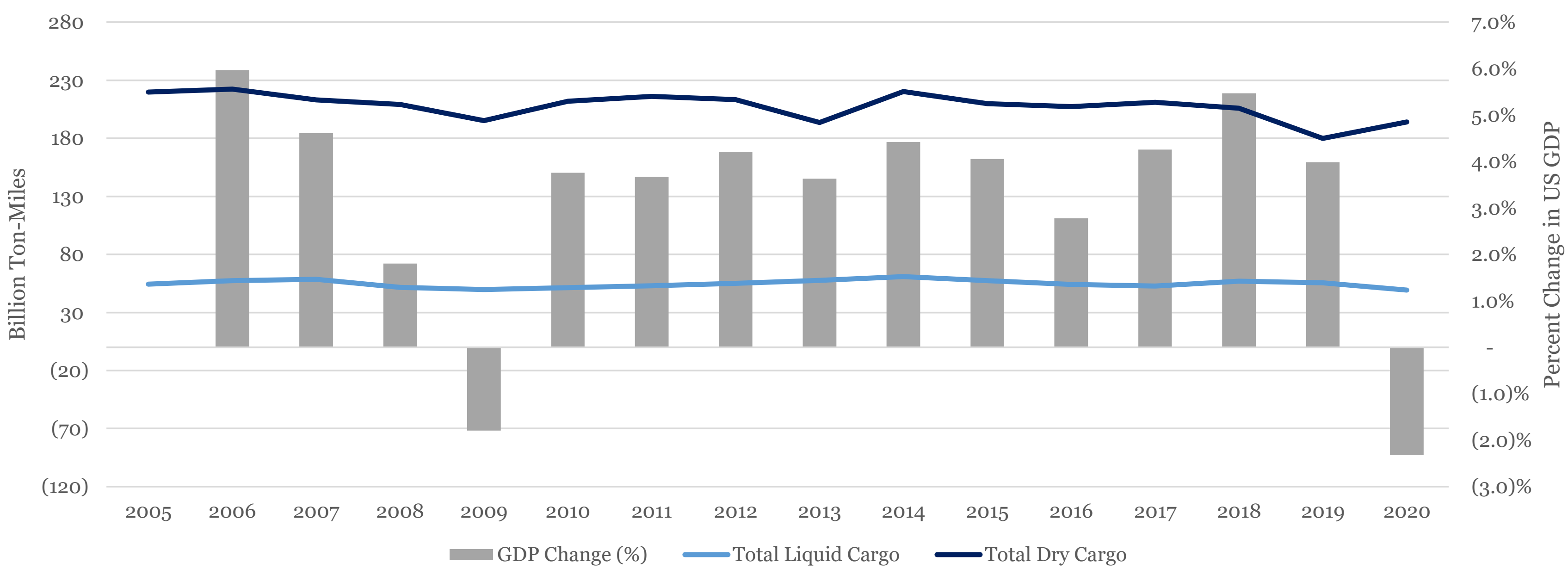
Sources: (1) PWC: Economic Contribution of the US Tugboat Industry (May 2017); (2) IHS Markit (June 2021)

Confidential

Recession Resistant Industry

We believe demand for inland marine transportation is uncorrelated to the underlying domestic economic environment due to the non-discretionary nature of the commodities transported.

Barge Demand vs Percent Change in US GDP[1,2]



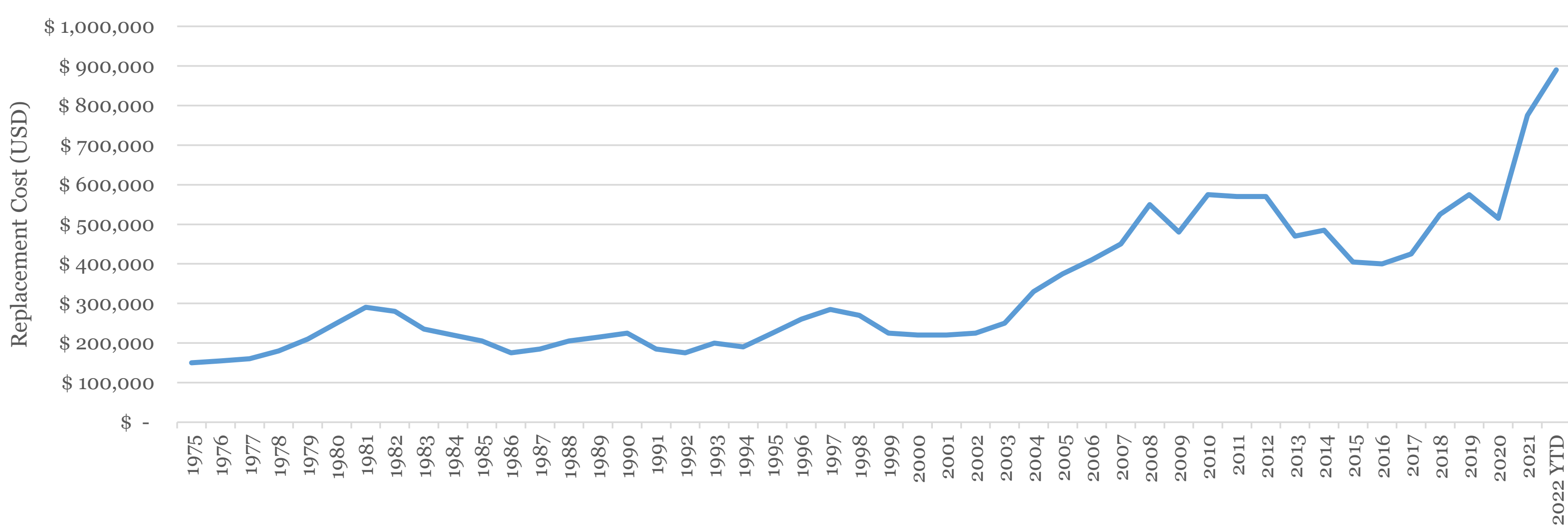
- The cargoes transported by the industry consist of food and fuel and therefore need to be consumed regardless of the underlying economic environment.[2]
  - Therefore, as can be seen in the chart above, cargo volumes have remained remarkably steady in the face of economic cycles.[1,2]
- Since 2006, the percent change in demand for inland marine transportation and the percent change in underlying US domestic GDP growth has demonstrated limited correlation as evidenced by an R-Squared coefficient of 1.68%.[3]

Sources: (1) FRED; (2) IHS Markit (June 2021); (3) Internal Calculation

Hedge Against Inflation

Barge replacement cost has steadily increased over the past 45 years demonstrating a compounding annual growth rate ("CAGR") of 3.56% per year since 1975.[2]

Annual Average New Build Open Hopper Barge Price[1]



- As seen in the chart above, the natural forces of inflation will drive upwards the replacement cost of a barge by approximately 3.5% per year.[1,2]
  - Key inflation drivers are steel input costs and labor input costs.[3]
- An inland marine barge or towboat generally depreciates in straight-line fashion over a useful life of 30 – 50 years.
- However, the continued increase in replacement cost shifts upward the depreciation curve and, we believe, protects investor principal against inflation.

INLAND MARINE EQUIPMENT ARE TANGIBLE REAL ASSETS WHICH WE BELIEVE PROTECT AGAINST INFLATION.

Sources: (1) Price Quotes From Various Shipyards; (2) Internal Calculations (3) Bureau of Labor Statistics

Wilshire

Maritime Partners American Rivers Fund

Final Diligence

Investment Type	Primary
Target Size (B) / Hard Cap (B)	USD / 1.3 / No Cap
First Close (M)	$12.6
First Close Date	2018
Final Close Date	Evergreen
Vintage Year	2018
Geographic Focus	North America
Strategy	Infrastructure
Industry	Marine Transportation
Investment Size (M)	$5 – $100
Number of Investments	1600+
Investment Period	2 years after each close
Fund Term	Evergreen
GP Commitment (M)	$3.5m
Target Return	15% – 20% net IRR
Management Fee – Investment Period	1.5% on invested
Management Fee – Post-Investment Period	1.5% on invested
Carry / Hurdle	20% / 7%

Key: 5 = Top Decile; 4 = Top Quartile; 3 = Average;
2 = Bottom Half; 1 = Bottom Decile; 0 = No Information

Firm Overview

Maritime Partners ("MP" or "Firm") is a transportation focused investment platform which seeks to generate returns through developing leasing solutions to the United States inland marine transportation industry governed by the Merchant Marine ("Jones") Act of 1920. The Firm was cofounded by Bick Brooks and Austin Sperry who bring extensive investment and operational experience, respectively. Maritime Partners currently manages a portfolio of 1,600+ inland marine transportation assets which primarily consist of barges and towboats. Maritime Partners, with over $1.27 billion of AUM, manages these assets through a series of separate accounts and its recently formed commingled fund. The maritime assets transport non-discretionary commodities along the ~12,000 miles of domestic inland waterways, including the Mississippi River and the Gulf Intracoastal Waterway.

Investment Strategy

The American Rivers Fund, LLC is an investment vehicle formed to build and maintain a consolidated portfolio of inland marine assets operating on 3+ year triple-net lease and has an exclusive pipeline of an additional new build capacity via its ownership in one of the only remaining commercial producing shipyards in the United States. The vessels are employed on multi-year triple net lease at a fixed rate throughout the entire lease term which provides great visibility into cash flow distributions which are paid to investors on a quarterly basis. The leases are specifically referred to as a hell-or-high-water bareboat charters which is a legally binding contract that cannot be canceled or modified for any reason whatsoever outside of bankruptcy. The bareboat charter contract is "triple-net" and therefore requires the lessee to pay for maintenance, taxes and insurance. Furthermore, lease revenue ("charter hire") is typically paid monthly in advance, on the first of the month and therefore does not require investment in working capital for the Fund.

Track Record

American Rivers Fund's gross performance attribution can be broken out by lease income and asset appreciation. Since inception, ≈50% of returns have been driven by lease income as assets are held at cost until they are sold or retired. After fees, taxes, and ad hoc expenses, the net return to investors has been 21% and annualized cash distributions of 10%

Fund	Vintage	Size ($M)	Net Return	Net Yield
American Rivers Fund	2018	682	20.8%	11.5%

Source: Maritime Partners, HFRI, and Bloomberg as of December 31, 2021. Net Yield is distributed yield calculated as of 3/31/2022.

Investment Merits

- Specialized and experienced senior team with advantageous sourcing and due diligence insight
- Consistent, low to mid-teens distributed cash yields defensible in an inflationary environment
- Singular focus on the Fund and its success

Investment Concerns

- Geopolitical risk negatively affecting the United States import/export volumes
- Lean team with less experience in managing a business

Key Investment Personnel

Name	Title	Experience
Bickford Brooks	Co-Founder, CEO	Guggenheim Partners
Austin Sperry	Co-Founder, President	Gunderson Marine Shipbuilding, FL Marine Transport, U.S. Sailing
Eric Livingston, ASA	COO	Citizens Asset Finance, GATX, ATEL Capital, GE Capital

Past performance is not indicative of future results.

KENTUCKY PUBLIC PENSIONS AUTHORITY

INVESTMENTS

To: KRS Investment Committee

From: Anthony Chiu, Deputy CIO

Date: February 1, 2023

Subject: Investment Recommendation – American Rivers Fund

KPPA Investment Staff is proposing an investment in the American Rivers Fund, LLC (the "Fund"), an open-end fund managed by Maritime Partners ("Maritime" or the "Firm") contingent on successful IMA negotiations. Based near New Orleans, Maritime leases barges and towboats for US inland marine transportation of essential dry and liquid cargoes such as food, fuel, chemicals, and aggregates. This investment will be part of the Real Return allocation.

The Firm launched in 2015 and as of 9/30/22 owns nearly 1,800 vessels with an estimated value of $1.6 billion. Maritime has grown its fleet by building vessels, buying through the secondary market from banks and non-bank lessors, as well as acquiring other lessors.

As a result of the new asset allocation that took effect in March 2022, target portfolio weights for Real Return allocations were increased for the Plans. After the sizable Putnam mandate was terminated in February 2022, Plan allocations to Real Return ranged from 2-3%. This proposed investment will help move the plans toward target as capital is deployed in 2023 while providing a positively correlated exposure to broad inflation.

Business / People:
Austin Sperry and Bick Brooks co-founded Maritime in 2015. The pair originally met when a childhood friend at Guggenheim asked Sperry to help with due diligence of marine transportation opportunities in 2010. At the time, Brooks covered transportation and industrials at Guggenheim, while Sperry had married into a family with decades of shipping experience and began working in the shipping industry himself in 2005. Sperry subsequently took business roles at Florida Marine Transporters and Greenbrier prior to starting Maritime.

The Firm started with one vessel that Sperry sourced and matched with a lessee that he knew through family and work contacts in the industry. Things grew from there, as Maritime financed its initial vessel purchases through special purpose vehicles (SPVs) they raised from investors, as well as a credit facility from Stonebriar Commercial Finance. However, these SPVs did not have the benefit of diversification or help Maritime in terms of building a commingled asset base that could be leveraged at lower cost.

Thus, Maritime launched the Fund in December 2018 and has been able to reduce its cost of capital as it has grown. Today, the Fund's fleet has grown to nearly 1,600 vessels with an estimated value of $1.3 billion. The warehouse and acquisition lines that the Fund has secured provide Maritime with a financing advantage over other lessors, and they are planning to complete an asset-backed securitization (ABS) that would further lower their cost of capital in the first half of 2023. While these transactions are already common in aircraft and railcar leasing, Maritime believes this would be the US inland marine industry's first ABS deal.

On the investment team, Brooks is supported by a VP and 3 analysts. Sperry manages the operating side of the business with significant assistance from COO Eric Livingston and VP of Business Development / Director of Government Affairs Beau Berthelot. Livingston previously worked for 15 years at GATX managing their inland marine leasing division until GATX chose to exit that business in 2017 and focus on railcar leasing. Prior to joining Maritime in April 2022, Berthelot had similar roles in the inland marine industry at Conrad Shipyard and Waller Marine from 2012-22. The Firm also hired James Canafax as General Counsel in December 2022, who brings industrial experience from legal roles with Babcock & Wilcox and McDermott International.

Investment Process and Portfolio:

The Fund leases its fleet of marine equipment to transportation company operators, with hopper barges (65% of the Fund's ~1,600 vessels), tank barges (14%), deck barges (4%), and towboats (4%) comprising the majority of the fleet. Maritime obtained a significant portion of this fleet in late 2021 when it acquired over 1,000 vessels from J. Russell Flowers, Inc. ("Flowers"), making the Firm the largest lessor of marine equipment in the United States. Flowers was an independent marine equipment lessor started in 1991 by the eponymous founder, who passed away in 2017 at age 80.

Maritime's leases are mostly multi-year, triple net contracts that are also known as "hell-or-high-water bareboat charters" that cannot be canceled or modified outside of bankruptcy. Even in the unusual circumstance of a bankruptcy, which did occur in February 2020 as one of Maritime's top customers (American Commercial Barge Lines, or ACBL) filed for Chapter 11 protection - the Fund was well-protected. Maritime's leases were not rejected or restructured, and the event actually enabled the Fund to buy some assets at attractive pricing from a bank who was also a lessor to ACBL.

Maritime acknowledged that lessors can have assets that get renegotiated in bankruptcy, but noted that the supply of marine equipment is so tight that utilization is likely to remain close to 100% as it has since at least the mid-1990s. In most industries, high demand would elicit a supply response, as it did during the 2010s in ocean shipping. However, the Jones Act prevents foreign competition from entering the US inland marine market.

Additionally, a significant number of US shipyards supplying barges have shut down over the past 5 years. Barges for the dry market were oversupplied in the mid-2010s, causing orders to drop. Then the energy bust and COVID pandemic weakened demand in the liquid market. Finally, all-time high construction prices resulting from steel price and labor inflation have continued to drive layoffs and shutdowns. This dynamic will likely limit the supply of new equipment in the industry, as well as new lessor entrants to the market for several years.

Meanwhile, Maritime secured production capacity in 2017 with the industry's largest remaining shipbuilder - publicly traded Arcosa (NYSE: ACA), which was spun off from Trinity Industries (NYSE: TRN) in 2018. The Firm has been Arcosa's largest customer the past four years, and has an exclusive option agreement on a portion of their production capacity through 2027.

Like any leasing business, non-payment of rent is a primary risk, and the Fund has significant customer concentration. As of 9/30/22, the Fund's top 10 lessee counterparties are renting 85% of the fleet by value, with the top 2 lessees comprising 31% and 22% of the total fleet. A hypothetical downside scenario for this investment could entail one or more of these counterparties having financial difficulties and returning a sizable, non-cash flowing fleet of vessels to Maritime all at once.

However, we view this as a highly unlikely scenario given the industry's tight supply conditions for at least the medium term, as well as the essential nature of the cargos transported. As Maritime notes, if a lessee rejects the Fund's equipment, the vessels that they were leasing will probably end up working in a competitor's fleet, thus eroding their market share.

Additionally, Maritime is actively seeking to reduce customer concentration, especially to its top 2 lessees. While high steel prices have slowed shipbuilding, the Fund still has a new construction order book of $150 million and has been taking delivery of some new vessels that it plans to lease with new or smaller existing counterparties.

The Fund is also diversified by commodity exposure. Maritime has expressed a goal of having the portfolio split fairly evenly among the dry (crops, fertilizer, steel, stone, coal), liquid (chemicals, refined products), and horsepower (towing) segments. Today, the Fund has more dry market exposure (43%), with liquids comprising about a third and towing around 20%.

Finally, the Fund selectively utilizes leverage and has generally had debt of around 30-40% LTV since inception. It obtained financing for its purchase of Flowers in December 2021 as well as its August 2022 acquisition of M/G Transport, a dry bulk transporter of petroleum coke, sugar, and barite.

Currently, the Fund is raising capital for its pipeline of newly constructed vessels as well as a $1 billion pipeline of secondary acquisition opportunities that Maritime sees in the market.

Performance:

Fund	1 yr	3 yr	Since Inception	Inception Date
American Rivers Fund	22.3%	17.6%	18.1%	Dec-18

Source: Maritime Partners as of 9/30/22

Appreciation has driven unusually strong returns over the past two years, although Staff is not expecting that to continue as a base case. Steel price and labor cost inflation pushed vessel replacement cost higher and resulted in a sizable portfolio markup for the Fund in 1Q 2021. Assets were also written up after the Flowers acquisition closed in 4Q 2021. Although ARF's vessels were marked down by the Fund's appraiser in 3Q 2022 due to a 20% decline in scrap steel value assumptions, the Fund still managed a small positive net return for the quarter.

Over the long term we are interested in accessing two main sources of return: (1) an annual income return that Maritime believes can reach 10% and (2) modest appreciation as inflation increases vessel replacement cost.

Conclusion: Staff is recommending an investment of $175 million to be shared among all CERS Plans. This will represent an additional ~1.1-1.2% of Plan assets (depending on fluctuations in market value) when fully invested.

Investment and Terms Summary

Type of Investment: Real Return

Structure: Open end

Management Fee: 2% on invested capital

Performance Fee: 20% of profits above a 7% annual cash hurdle, with a 50/50 catch up

Purpose: Capture current income and inflation exposure from barge and towboat lease payments

Risks: Key Person, Customer Concentration, Barge Operator Credit, Liquidity

Exp. Net Return: 7 - 10%

* No placement agents have been involved or will be compensated as a result of this recommendation.

KPPA
Kentucky Public Pensions Authority

CERS Investment Committee

Arctos Sports Partners Fund II

February 1, 2023

EXECUTIVE SUMMARY

Introduction to Arctos Sports Partners ("Arctos")

We partner with professional sports franchise owners to increase value, growth, liquidity and financial flexibility.

FIRST MULTI-LEAGUE, MULTI-FRANCHISE SPORTS STRATEGY OF SCALE

North American League Approvals

Customized Solutions

Growth Capital | *Liquidity Solutions*

ARCTOS SPORTS PARTNERS

Largest first-time private equity fund raised(1)

Private Equity International

2020 Mid-Market Firm of the Year in North America(1)
(Awarded March 1st, 2021)

Industry-leading IP, data, and analysis

ARCTOS INSIGHTS

ARCTOS OPERATING PLATFORM

FIRM STATISTICS(2)

37	$2.7Bn	16
Employees	*Committed Capital*(3)	*External Advisors*

ASPF 1 STATISTICS (2020 VINTAGE)(2)

94%	[redacted]	
Structured	*Net MOIC*(A)	*Model Net MOIC*(B)
25	[redacted]	[redacted]
Investments	*Net IRR*(A)	*Model Net IRR*(B)

A. INCLUDES IMPACT OF UNREALIZED CARRIED INTEREST, MANAGEMENT FEES, EXPENSES, AND THE USE OF A SUBSCRIPTION FACILITY FOR ALL LIMITED PARTNERS
B. INCLUDES IMPACT OF UNREALIZED CARRIED INTEREST, MANAGEMENT FEES, EXPENSES, AND THE USE OF A SUBSCRIPTION FACILITY ASSUMMING ALL INVESTORS ARE CHARGED THE HIGHEST MANAGEMENT FEE AND CARRIED INTEREST FEE RATES

ARCTOS

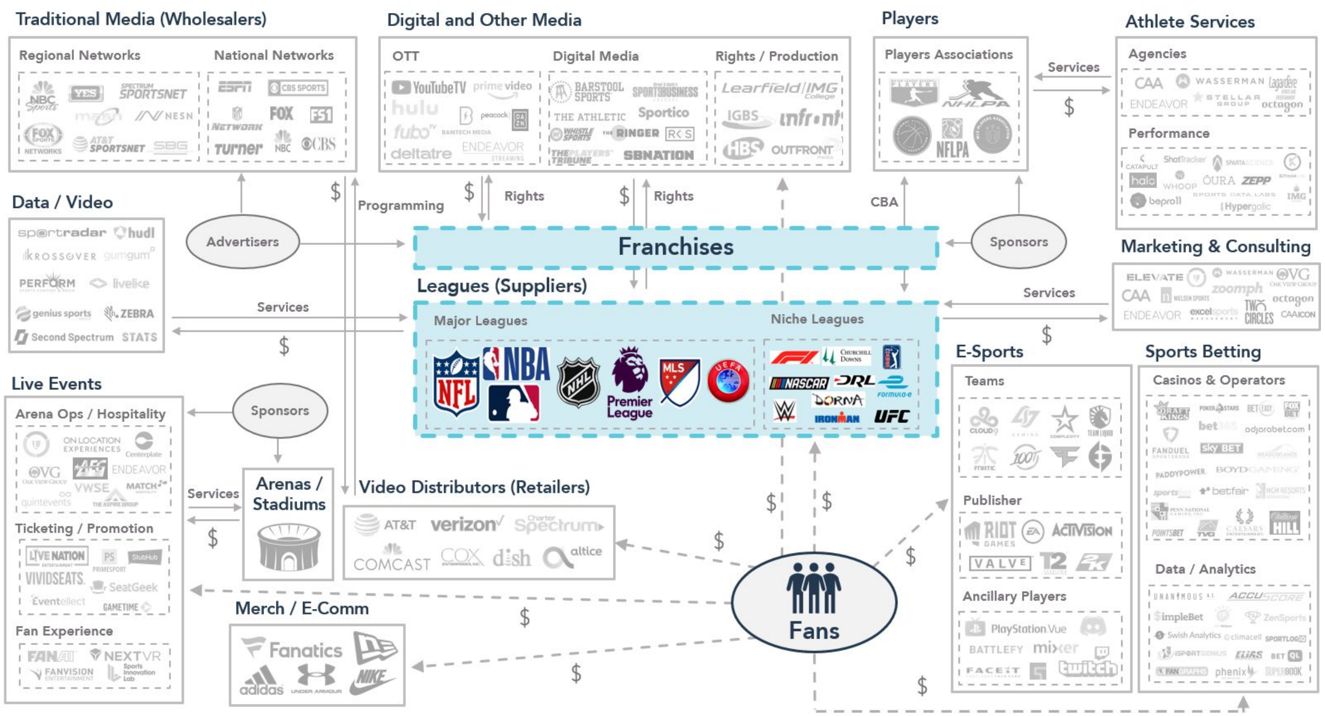
PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS. PLEASE REFER TO THE DISCLAIMERS FOR IMPORTANT INFORMATION REGARDING THE USE OF PERFORMANCE AS WELL AS ENDNOTES (A, B, C) FOR ADDITIONAL DISCLAIMERS

(1) LARGEST DISCLOSED FIRST-TIME FUND OUTSIDE OF CERTAIN CORPORATE AND STATE-BACKED VEHICLES, ACCORDING TO PRIVATE EQUITY INTERNATIONAL; ARCTOS HAS NOT PAID ANY COMPENSATION TO PEI IN CONNECTION WITH ITS RECEIPT OF OR USE OF THE RATINGS HEREIN. FOR FURTHER INFORMATION REGARDING PEI METHODOLOGY IN DETERMINING RECIPIENTS OF SUCH AWARDS, PLEASE SEE HTTPS://WWW.PRIVATEEQUITYINTERNATIONAL.COM/PEI-AWARDS-2020-AMERICAS-WINNERS
(2) FIRM STATISTICS AS OF DECEMBER 2022. ASPF 1 STATISTICS AS OF 9/30/2022
(3) FROM ARCTOS SPORTS PARTNERS FUND I, LP AND ARCTOS SPORTS PARTNERS FUND I FEEDER, LP (TOGETHER, AS APPLICABLE, "FUND I" OR "ASPF1") AS WELL AS ARCTOS SPORTS PARTNERS FUND II, LP AND ARCTOS SPORTS PARTNERS FUND II FEEDER, LP (TOGETHER, AS APPLICABLE, "FUND II' OR "ASPF2"), AND AFFILIATES.

EXECUTIVE SUMMARY

Why Sports: Franchises Power the Sports Ecosystem

Arctos invests in the $450Bn+ market for premier sports franchises, the segment that Arctos believes is least competitive and on which much of the rest of the sports ecosystem depends.



PRIVATE EQUITY INVESTMENTS IN SPORTS

(2015-2022)

League ownership rule changes have unlocked institutional capital in recent years and Arctos is a key first-mover

- **~$72Bn** – Sponsor-backed transactions since 2015
- **~$12Bn** – Invested in North American and European franchises
- **~$4Bn** – North American sports franchises only

~70% Arctos' share of North American sports franchise deals completed by sponsors

$39Bn Arctos' sourced deal flow to date

~7% Arctos deal flow conversion rate(1)

ARCTOS

SOURCE: BAIN & COMPANY, ARCTOS ANALYSIS AS OF DECEMBER 2022.
FOR ILLUSTRATIVE PURPOSES ONLY. INCLUSION OF SUCH LOGOS DOES NOT IMPLY AFFILIATION WITH OR ENDORSEMENT BY SUCH FIRMS OR BUSINESSES. CAN BE NO ASSURANCE THAT ANY PIPELINE OPPORTUNITIES WILL BE MADE AVAILABLE FOR ANY FUND AND/OR ARCTOS. PLEASE REFER TO ENDNOTES (G, H) FOR ADDITIONAL DISCLAIMERS.
(1) AS OF DECEMBER 2022. ARCTOS DEAL FLOW CONVERSION RATE DEFINED AS TOTAL ARCTOS SOURCED DEAL FLOW DIVIDED BY TOTAL CAPITAL COMMITTED ACROSS ARCTOS SPORTS PARTNERS FUND I, LP AND ARCTOS SPORTS PARTNERS FUND I FEEDER, LP (TOGETHER, AS APPLICABLE, "FUND I" OR "ASPF1") AS WELL AS ARCTOS SPORTS PARTNERS FUND II, LP AND ARCTOS SPORTS PARTNERS FUND II FEEDER, LP (TOGETHER, AS APPLICABLE, "FUND II" OR "ASPF2") AS WELL AS CO-INVESTMENTS

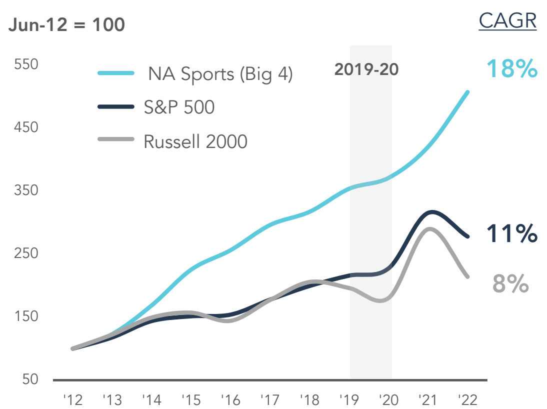
EXECUTIVE SUMMARY

Why Sports: Strong Performance Across Economic Cycles

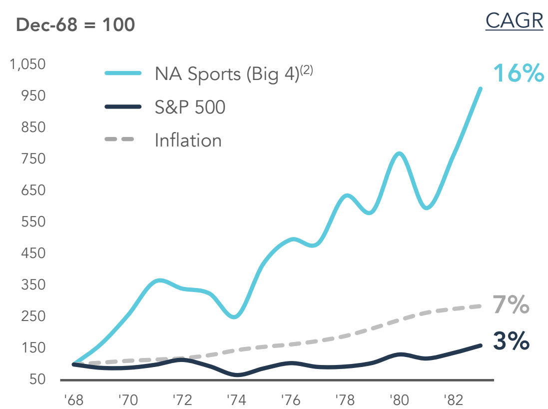
We believe sports ownership has generated attractive returns with low leverage and correlation across market and economic cycles.

STRONG LONG-TERM PERFORMANCE…

Annualized Return from 2012-2022[1]



Annualized Return During the 1970's 'Great Inflation'[2]

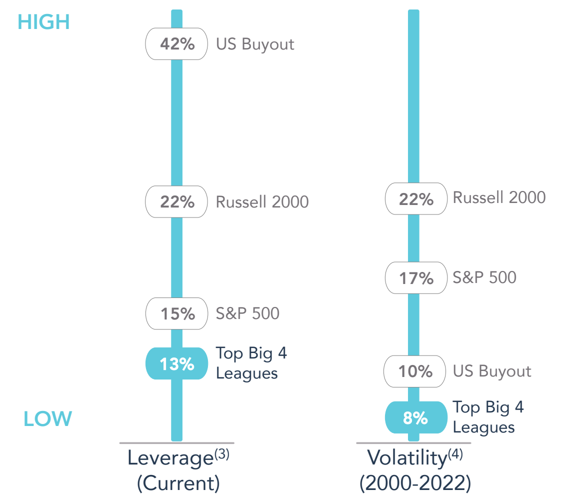


Pooled Asset Class Returns (IRR – 2012-2022[5])

17%	20%	9%
US Buyout IRR	*Venture Capital IRR*	*Real Assets IRR*

We believe sports assets grew and preserved wealth through the Great Inflation (1970's)

…WITH LOWER LEVERAGE AND RISK



Sports Have Low Correlation (2000-2022)[5]

0.14	0.08	0.12
vs. S&P 500	*vs. Russell 2000*	*vs. US Buyout*

ARCTOS

PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS. PLEASE REFER TO ENDNOTE (I) FOR ADDITIONAL DISCLAIMERS

(1) SOURCE: FORBES, CAPITAL IQ (S&P 500 AND RUSSELL 2000 PRICES REPRESENT LAST SALE PRICE FROM JUNE 30 OF SELECTED CALENDAR YEAR TO MATCH FORBES REPORTING SCHEDULE); LEAGUE RETURN METRICS ARE BASED ON ENTRY AT THE AGGREGATE FORBES EQUITY VALUE PER LEAGUE REPORTED. REFER TO ENDNOTES (D, E) FOR ADDITIONAL DISCLAIMERS REGARDING THE INFORMATION PRESENTED ON THIS SLIDE

(2) CAPITALIQ; NA SPORTS (BIG 4) REPRESENTS A REPEAT SALES INDEX CREATED USING 38 BIG FOUR FRANCHISE TRANSACTION PAIRS OF EQUIVALENT OR SIMILAR FRANCHISES THAT TRADED BETWEEN 1964 AND 1993, INCLUDING EXPANSION FEES AND CONTROL SALES. METHODOLOGY IS FROM BAILEY, MUTH, AND NOURSE (1963). WE TAKE A THREE-YEAR ROLLING AVERAGE OF THE RESULTING INDEX TO ACCOUNT FOR NOISE FROM LOW SAMPLE SIZE

(3) FORBES 2022 VALUATION DATA; "BIG 4" = NFL, NBA, MLB, AND NHL; US BUYOUT: BURGISS PRIVATE CAPITAL INDEX, ARCTOS ESTIMATE BASED ON 5X LEVERAGE / 12X ASSUMED PURCHASE MULTIPLE; S&P & RUSSELL 2000: CAPITAL IQ AS OF DECEMBER 2022

(4) STANDARD DEVIATION OF RETURNS FROM 2000-2022. QUARTERLY RETURNS FOR US BUYOUT BASED ON THE BURGISS PRIVATE CAPITAL INDEX. SOURCE: BURGISS, CAPITAL IQ, FORBES

(5) CORRELATION OF SPORTS RETURNS TO SELECTED CATEGORY BASED ON ANNUAL RETURNS FROM 2000-2022 (USING JUNE-TO-JUNE BASIS TO MATCH FORBES REPORTING SCHEDULE). SOURCE: FORBES, BURGISS PRIVATE CAPITAL INDEX, CAPITAL IQ, REFER TO ENDNOTES (D, E) FOR ADDITIONAL DISCLAIMERS

EXECUTIVE SUMMARY

Why Sports: Unique Business Fundamentals

Sports franchises have unique business fundamentals and return drivers. Arctos seeks to generate alpha through a combination of strong franchise selection, pricing and creative structuring, and value-added initiatives.

OWNERSHIP ATTRIBUTES

1. Ratable Ownership of Global League Business (NBA)
2. Regionally Protected Franchise Areas (San Francisco)
3. Long-term and Recurring Revenues and Increased Profitability
4. Passionate and Sticky Customers (Fans)
5. Attractive Supply Demand Dynamics and High Barriers to Entry

SPORTS OWNERSHIP IN ACTION: GOLDEN STATE WARRIORS[1]

Portfolio of Intellectual Property/Content, Growth Equity, and Real Estate

1/30th Owner of NBA – $3B FCF[2]

Real Estate Footprint

Exclusive Rights to Marketing & TV Territory

League Distributions

Contracted Revenue from:

- TV & Digital Media
- Licensing & Data Rights
- Sponsorships

Local Team & Real Estate Revenue

Contracted Revenue from:

- Season Tickets, Suites, & Premium
- Local TV
- Sponsorships

ARCTOS

SOURCE: ARCTOS PROPRIETARY RESEARCH AS OF DECEMBER 2022; PLEASE REFER TO ENDNOTES (C, D) FOR ADDITIONAL DISCLAIMERS
(1) THE INVESTMENT PRESENTED HEREIN IS FOR ILLUSTRATIVE PURPOSES ONLY, HAS BEEN SELECTED IN ORDER TO PROVIDE AN EXAMPLE OF THE TYPES OF INVESTMENTS MADE BY ARCTOS AND DOES NOT PURPORT TO BE A COMPLETE LIST THEREOF. IT SHOULD NOT BE ASSUMED THAT INVESTMENTS MADE IN THE FUTURE WILL BE COMPARABLE TO THE INVESTMENTS DESCRIBED HEREIN. CERTAIN INFORMATION WAS PROVIDED BY THIRD PARTIES AND CERTAIN STATEMENTS REFLECT ARCTOS' BELIEFS AS OF THE DATE HEREOF BASED ON PRIOR EXPERIENCE AND CERTAIN ASSUMPTIONS THAT ARCTOS BELIEVES ARE REASONABLE BUT MAY PROVE INCORRECT.
(2) CALCULATED AS >$100M OF 2022A NBA DISTRIBUTIONS PER TEAM X 30 TEAMS.

EXECUTIVE SUMMARY

Why Arctos: Partner of Choice

Arctos has catalyzed innovation and transformation in the market for sports-focused investing.

OUR PEOPLE

Our team marries deep sports operating experience with extensive investment and structuring expertise

Sports & Entertainment Experience

Investing Experience

OUR ADVISORS

Robust set of external advisors that deepen our connectivity to franchises and assist in driving value-add capabilities

Arctos Operating Advisors[(1)]

- **16** *External Advisors*
- **17** *Years of Experience on Average*
- **9+** *Categories of Expertise[(2)]*

Representative Experience

ARCTOS' COMPETITIVE ADVANTAGE

First Multi-League, Multi-Franchise Sports Strategy with a Compounding Information Advantage and Proven Value-Add Capabilities

1 Our League Approvals

- ✓ Approved by MLB, NBA, NHL, and MLS in North America
- ✓ No other firm has approvals for multiple teams in more than one North American league

2 Our Operating Platform

- ✓ Arctos Operating Platform ("AOP") provides value creation and shared service capabilities
- ✓ Investments and partnerships with SeatGeek and Elevate
- ✓ Deep bench of external advisors

3 Research and Data Science Engine

- ✓ Arctos Insights provides business research and information content
- ✓ Most complete database of sports data in the world
- ✓ Compounding information advantage

4 First Mover Advantage

- ✓ Access to proprietary deal flow from existing portfolio
- ✓ Several follow-on deals completed across our franchises to date
- ✓ Lowest execution risk counterparty in the ecosystem

PLEASE REFER TO ENDNOTES (C, D) FOR ADDITIONAL DISCLAIMERS

(1) ARCTOS OPERATING ADVISORS ARE NOT EMPLOYED BY ARCTOS AND WILL RECEIVE COMPENSATION AND REIMBURSEMENT OF EXPENSES FROM THE FUND OR THE FUND'S INVESTMENTS. SUCH AMOUNTS GENERALLY WILL NOT BE OFFSET AGAINST THE MANAGEMENT FEE.

(2) AREAS OF EXPERTISE INCLUDE: MEDIA, TICKETING, SPORTS BETTING, SPONSORSHIP, REAL ESTATE, ESG & DEI, INTERNATIONAL SPORTS EXPERTISE, TECH & INNOVATION, AND FRANCHISE & LEAGUE OPERATIONS

EXECUTIVE SUMMARY

Why Arctos: First Mover Advantage & Barriers to Entry

While significant barriers to entry limit the competitive set of sports investments, we believe these help bolster Arctos' first mover advantage as a partner of choice for top-tier ownership groups.

Barriers to Entry – Key Assumptions

GENERAL PARTNER CONFLICTS

Existing Franchise Owners

Example General Partners

BainCapital, Arctos Capital Group, Blackstone, TPG, ARES, Platinum Equity, CRESCENT, Clayton Dubilier & Rice, FORTRESS, APOLLO, GUGGENHEIM

PORTFOLIO CONFLICTS

Gambling, Player Rep Businesses, or Company that a Player Owns

Example Firms

EQT, APOLLO, TPG, KKR, SILVERLAKE

LIMITED PARTNER CONFLICTS

Umpires, Players, Player Agents, or Owners

Example Limited Partners

Goldman Sachs, UBS, J.P.Morgan, citi, CREDIT SUISSE

FUND STRUCTURE CONFLICTS

Unique Fund Structure Requirements

Example Requirements

NBA	NHL
10 Yrs	$1 Bn
Minimum remaining Fund life	*Minimum amount raised for this strategy*

Arctos' Differentiation

POWER OF THE EMBEDDED BUYER

Low Execution Risk Counterparty

Example Follow-on Investments

Golden State Warriors, Liverpool Football Club, Sacramento Kings

ARCTOS CONFIDENTIAL, PROPRIETARY, AND TRADE SECRET

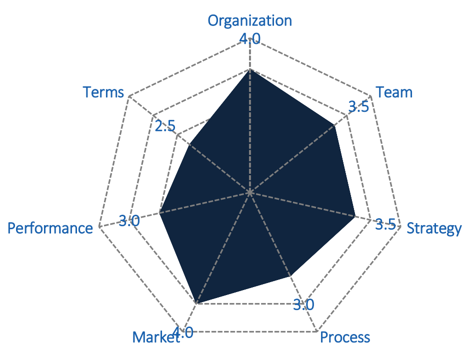
SOURCE: BAIN & COMPANY, ARCTOS ANALYSIS AS OF OCTOBER 2021
THIRD-PARTY LOGOS INCLUDED HEREIN ARE PROVIDED FOR ILLUSTRATIVE PURPOSES ONLY. INCLUSION OF SUCH LOGOS DOES NOT IMPLY AFFILIATION WITH OR ENDORSEMENT BY SUCH FIRMS OR BUSINESSES. INFORMATION HEREIN REFLECTS CURRENT BELIEFS OF ARCTOS AND IS BASED ON A VARIETY OF ASSUMPTIONS AND ESTIMATES THAT ARE SUBJECT TO VARIOUS RISKS. SELECT INVESTMENTS PRESENTED HEREIN ARE SOLELY FOR ILLUSTRATIVE PURPOSES, HAVE BEEN SELECTED IN ORDER TO PROVIDE EXAMPLES OF THE TYPES OF INVESTMENTS MADE BY ARCTOS AND DO NOT PURPORT TO BE A COMPLETE LIST OF ARCTOS INVESTMENTS. IT SHOULD NOT BE ASSUMED THAT INVESTMENTS MADE IN THE FUTURE WILL BE COMPARABLE IN QUALITY, STRUCTURE OR PERFORMANCE TO THE INVESTMENTS DESCRIBED HEREIN. PLEASE SEE THE SCHEDULE OF INVESTMENTS IN THE VDR FOR A COMPLETE LIST OF FUND I'S INVESTMENTS. SELECTION OF SUCH THIRD-PARTY FIRMS OR BUSINESSES SHOWN HEREIN IS SUBJECTIVE IN NATURE BASED ON ARCTOS' BELIEFS AND ULTIMATELY MAY PROVE TO BE INACCURATE.

Wilshire

Arctos Sports Partners Fund II

Preliminary Diligence

Investment Type	Primary
Target Size (B) / Hard Cap (B)	USD / $2.5 / TBD
Second (B)	$1.5
Second Close Date	October 2022
Final Close Date	Q2, 2023
Vintage Year	2022
Geographic Focus	North America
Strategy	Growth Equity
Industry	Sports
Investment Size (M)	$50-$500
Number of Investments	15 to 20
Investment Period	5 years
Fund Term	10 years
GP Commitment (M)	1% of committed
Target Return	2.1x-2.3x net ROI
Management Fee – Investment Period	1.75% on committed
Management Fee – Post-Investment Period	1.25% on invested
Carry / Hurdle	20% / 8%



Key: 5 = Top Decile; 4 = Top Quartile; 3 = Average;
2 = Bottom Half; 1 = Bottom Decile; 0 = No Information

Past performance is not indicative of future results.

Firm Overview

Arctos Partners, LP (the "Firm") is a private equity investment firm based in Dallas, TX which manages $4.5 billion of assets under management. The Firm was founded in September 2019 by Ian Charles, David O'Conner, Joseph Nasr, and Jordan Solomon. The Firm employs 35 professionals of which 24 are responsible for transaction evaluation and execution. To date, the Firm has raised one institutional fund, Arctos Sports Partners Fund I ("ASPF1"), which was one of the first private equity funds focused on providing liquidity solutions to non-control owners in major professional sports. Members of the Firm have previously worked together at both Landmark Partners and Madison Square Garden, owner and operator of the New York Knicks, New York Rangers, and multiple sports and entertainment facilities.

Investment Strategy

Arctos Sports Partners Fund II (the "Fund") was launched in a commingled vehicle in 2022. The Arctos team intends to invest the assets of the Fund in non-control ownership stakes in professional sports franchises, primarily in the NBA, MLB, NFL, and NHL, collectively known as the "Big 4" North American professional sports leagues. The Fund will also opportunistically pursue sports teams in other North American professional sports leagues as well as international sports teams. The Arctos team emphasizes the importance of sourcing discounted transactions, with an emphasis on franchises that have a higher probability of a near-term, or intermediate-term, change-in-control transaction. The Fund typically looks to provide secondary capital to provide liquidity to minority owners or provide growth equity to control owners. This capital can be provided through a combination of structured or preferred equity, common equity or credit. Arctos utilizes their proprietary data and analytics platform as a differentiated sourcing tool providing insight into each franchise's intrinsic value and to provide value-add to the franchises. The Firm then initiates a due diligence process focused on the correlation between team performance and financial performance, as well as the quality of the underlying real estate, and quality of the ownership and management groups.

Track Record

ASPF1 has closed on $2.1 billion in capital commitments and has made 24 investments to date, primarily across North American and European franchises. Of the $2.1 billion raised in the 2019 vintage fund, $1.7 billion has been committed, and $1.1 billion has been invested, with $6 million in realizations to date. Overall, there are 24 investments most recently marked at 1.32x gross MOIC and 52.0% gross IRR.

Fund	Vintage	Size ($M)	Net IRR	Net MOIC
ASPF1	2019	2,100	[redacted]	[redacted]

Source: Arctos Sports Partners as of June 30, 2022.
Returns to investors charged the highest fees and carried interest are 1.26x net MOIC and 59.2% net IRR.

Investment Merits

- Dedicated strategy with few notable competitors in the targeted market.
- Network and relationships with sports leagues and team owners.
- Tailwinds behind sports franchises particularly valuable media rights.

Investment Concerns

- Young track record with no realizations.
- Fund term may be extended at GP discretion.
- Limited investment universe and difficult asset to exit.
- Consumer discretionary end market during an uncertain economic period.

Key Investment Personnel

Name	Title	Experience
Ian Charles	Managing Partner, Co-Founder	Landmark Partners, Cogent Partners
David O'Conner	Managing Partner, Co-Founder	Madison Square Garden Company ("MSG"), Creative Artists Agency ("CAA")

KENTUCKY PUBLIC PENSIONS AUTHORITY

INVESTMENTS

To:	CERS Investment Committee
From:	Anthony Chiu, Deputy CIO
Date:	February 1, 2023
Subject:	Investment Recommendation – Arctos Sports II

KPPA Investment Staff is proposing an investment in Arctos Sports Partners Fund II (the "Fund") contingent on successful IMA negotiations. Based in Dallas, Arctos Sports Partners ("Arctos" or the "Firm") provides liquidity and strategic capital to the owners of major professional sports franchises, with a focus on what they call the United States' Big 5 sports leagues - Major League Baseball ("MLB"), the National Basketball Association ("NBA"), the National Hockey League ("NHL"), Major League Soccer ("MLS"), and the National Football League ("NFL"). This mandate will also offer the opportunity for fee-free co-investment should it be approved and will be part of the Real Return allocation.

Fund I launched in November 2019 and was fully committed as of August 2022 to 25 transactions. Fund II had a first close of $1 billion in May 2022, was activated in June 2022, and raised an additional $300 million in August 2022. To date, it has investments in 3 franchises: the National Basketball Association's Utah Jazz and Golden State Warriors as well as Major League Baseball's Los Angeles Dodgers.

As a result of the new asset allocation that took effect in March 2022, target portfolio weights for Real Return allocations were increased for the Plans. After the sizable Putnam mandate was terminated in February 2022, Plan allocations to Real Return ranged from 2-3%. This proposed investment will help move the plans toward target as it gets deployed over the next 2-4 years while providing a positively correlated exposure to broad inflation.

Business / People:
Arctos was co-founded in 2019 by Ian Charles, who was previously at private equity secondaries firm Landmark Partners for nearly 14 years (2006-19). Charles had been approached by sellers of minority stakes in sports teams in 2011 and was attracted to sports' low correlation to public markets and unusual blend of core infrastructure, real estate, and growth equity assets. However, at the time institutional investment in the US's major sports leagues was generally prohibited in the wake of non-core or stressed sales of teams by corporate owners like Disney, News Corporation, Anheuser-Busch, and Tribune Company in the early and mid-2000s.

In 2019, Major League Baseball amended its bylaws to allow investment funds to acquire minority stakes in multiple teams. As a result, Charles re-engaged on sports investing and was introduced to David (Doc) O'Connor by mutual friend Sam Kennedy, who is the President and CEO of the Boston Red Sox. O'Connor had been the President and CEO of Madison Square Garden Company (NYSE: MSG) from 2015-17 and was at Creative Arts Agency (CAA) for over 30 years prior. At CAA, O'Connor founded and grew the CAA Sports division to be the company's largest and most profitable division at the time of his departure.

After deciding to partner together, Charles and O'Connor both recruited partners they had worked with at prior firms to co-found Arctos. Jordan Solomon joined from MSG, where he was the Executive Vice President of MSG Sports and had worked with O'Connor. Joseph Nasr joined from Stellus Capital and had worked with Charles at both Cogent Partners and Landmark Partners. Two additional partners joined the team in 2021. Robyn Slutzky joined as Head of Capital Solutions and had been the Co-Head of Private Equity Due Diligence for JPMorgan's Private Bank. Former two-sport professional athlete Chad Hutchinson joined from Sixth Street Partners, where he was a Managing Director and built a dedicated agriculture business and fund.

Today the six partners lead a team of 35, which includes 22 investment professionals. The firm has $2.7 billion of committed capital, which would grow to more than $4.5 billion if Fund II closes at its $2.5 billion target in 2023. Arctos is also supported by a roster of 17 operating advisors that have executive level experience with sports teams, leagues, and key revenue areas such as media rights, sponsorship, ticketing, and gambling.

Investment Process and Portfolio:
In less than 3 years, Arctos has compiled an attractive portfolio of minority stakes in teams across 4 of the 5 major sports leagues in the United States, as well as selective exposure to European soccer.

While this portfolio has come together relatively quickly, Arctos has had to surmount a myriad of barriers to invest. First is sourcing. The underwriting of sports team cash flows and valuations is fairly similar to what is done for other private investments. But accessing the deals, information, and management teams for these closely held assets is not easy.

Like private equity secondaries 15 years ago, there is no central repository where sports team minority stakes trade. Thus, Arctos has built a team with investment and sports backgrounds that is supplemented by the aforementioned operating advisors - all of whom are leveraging their networks and relationships to create a pipeline of attractive investment opportunities and conduct due diligence. And as they did at Landmark, Arctos has a dedicated data insights team that they now believe has complete coverage of every deal in the market. This franchise-level information sharpens their underwriting, which takes a probabilistic approach to key variables like revenue growth, asset dispositions, and control transaction timing.

At first glance, a key risk to this strategy for Arctos and its investors is that they are providing liquidity to sellers of vanity assets that are underpinned by consumer and corporate spending near a market top. However, this perception is somewhat outdated, as nearly 80% of new control owners across the Big 5 leagues since 2010 have earned the wealth that enabled their team purchase through technology, investing, and/or entrepreneurial roles. Many of these sophisticated business owners can access capital from many sources, but choose to partner with Arctos, who the control owners believe will help them grow and optimize their franchises through access to industry contacts and best practices.

This leads to another key barrier to entry that Arctos has passed - league approval. Ownership transactions must be approved by the leagues and/or a super-majority of team owners, and several of Arctos's control owner partners have helped the firm build and extend its first mover advantage in this space. Arctos was the first institutional investor approved to be a minority equity owner in MLB, the NBA, the NHL, and MLS. The firm also believes Fund II will likely have exposure to the NFL, as that league may soon join the others in allowing institutional investors to take minority stakes in teams.

Additionally, each US league has ownership restrictions that hinder or entirely prevent generalist private equity firms from investing equity in multiple teams. As a result, larger well-known firms like Blackstone, Ares, Fortress and Apollo are unable to own equity of these assets. While there will eventually be more competition - especially since the leagues want more capital to flow into the space - Arctos is the clear scale player today.

This has helped them with a final barrier: diligence, structuring, and execution of attractive investments. Transferring their experience from private equity secondaries, Arctos has been able to structure investments to provide downside protection as the buyer of choice in the space. Rather than simple common equity deals, the Funds' investments typically include provisions such as purchase deferrals, liquidity preferences, and exit rights. Also, once they are on a team's cap table, Arctos has positioned itself to be a de facto embedded buyer for other minority stake sellers - and has been able to acquire additional exposure to several NBA and MLB teams at attractive pricing.

Today Arctos's investments are diversified across sports leagues, geographic markets, and ownership groups. Fund I is an almost even split of liquidity solutions and growth capital deals. Nearly 90% of the fund has been invested in MLB, NBA, NHL, and MLS franchises. [redacted]

Performance:

Fund	Vintage	Size ($ MM)	Gross IRR	Gross Multiple
Arctos I	2020	$2,137	[redacted]	[redacted]
Arctos II	2022	$2,500 (target)	NM	1.2x

Source: Arctos as of 9/30/22

As of 9/30/22, Fund I is marked at 1.6x gross. Arctos believes their marks are conservative relative to the valuations where stakes in franchises like the Chicago Cubs, Nashville Predators, and Los Angeles Lakers have transacted recently.

Utilizing the deal structuring mentioned above, one of the investments in Fund II was made at an attractive valuation from the 2020 timeframe and has been marked up slightly as a result.

Conclusion: Staff is recommending an investment of $175 million to be shared among all CERS Plans. This would consist of a $87.5MM commitment to Fund II and $87.5MM for co-investments. When fully funded, this would represent an additional ~1.1-1.2% of Plan assets (depending on fluctuations in market value).

Investment and Terms Summary

Type of Investment: Real Return

Structure: GP / LP

Management Fee: Years 1-5: 1.55% on committed capital
Thereafter: 1.25% on invested capital, net of write-offs and distributions

Performance Fee: 20% over an 8% preferred return, with a modified American waterfall

Purpose: Capture the long-term valuation growth of scarce sports team and league assets, which are backed by contracted cash flow streams as well as non-team assets.

Risks: Equity, Liquidity, Lack of Control, Valuation, Key Person

Exp. Net Return: 8% - 12%

* No placement agents have been involved or will be compensated as a result of this recommendation.