Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

MEETING DATE: June 15, 2022

SUBJECT: Portfolio Analytics Services

SUBMITTED FOR: __ Consent   __X__ **Deliberation and Action**   ___ **Receive and File**

RECOMMENDATION

Staff recommends that the Board award a contract to Burgiss to provide its Caissa portfolio analytics software services for a three-year period, and authorize the Chief Executive Officer to execute any documents necessary to effect the recommendation.

PURPOSE

This item supports the 2022 Annual Investment Plan, which identifies the evaluation of portfolio analytic and risk management services as an initiative for 2022. This item also supports the Strategic Management Plan goal to continuously enhance technology platforms to improve performance, productivity, and efficiency.

BACKGROUND

The Board authorized Staff to issue a request for proposals (RFP) in 2021 to evaluate third party portfolio analytics software services that will assist SCERS in identifying, assessing, monitoring, and reporting on exposures and risk across SCERS' total portfolio.

Over the past 10 plus years, SCERS has seen its assets double, from $5.9 billion in 2010 to approximately $12 billion today, while increasing plan diversification across a wide range of asset classes that serve varying roles within the total portfolio. The growth in SCERS' total portfolio has seen the number of manager relationships and investment strategies and funds that SCERS is invested with/in grow significantly. SCERS is currently invested in approximately 175 funds/mandates, up from 42 in 2010. Most of the fund growth has occurred within the alternative asset classes, including Private Equity, Private Credit, Real Assets, Real Estate, and Absolute Return (see chart below).

Underlying Fund Investments
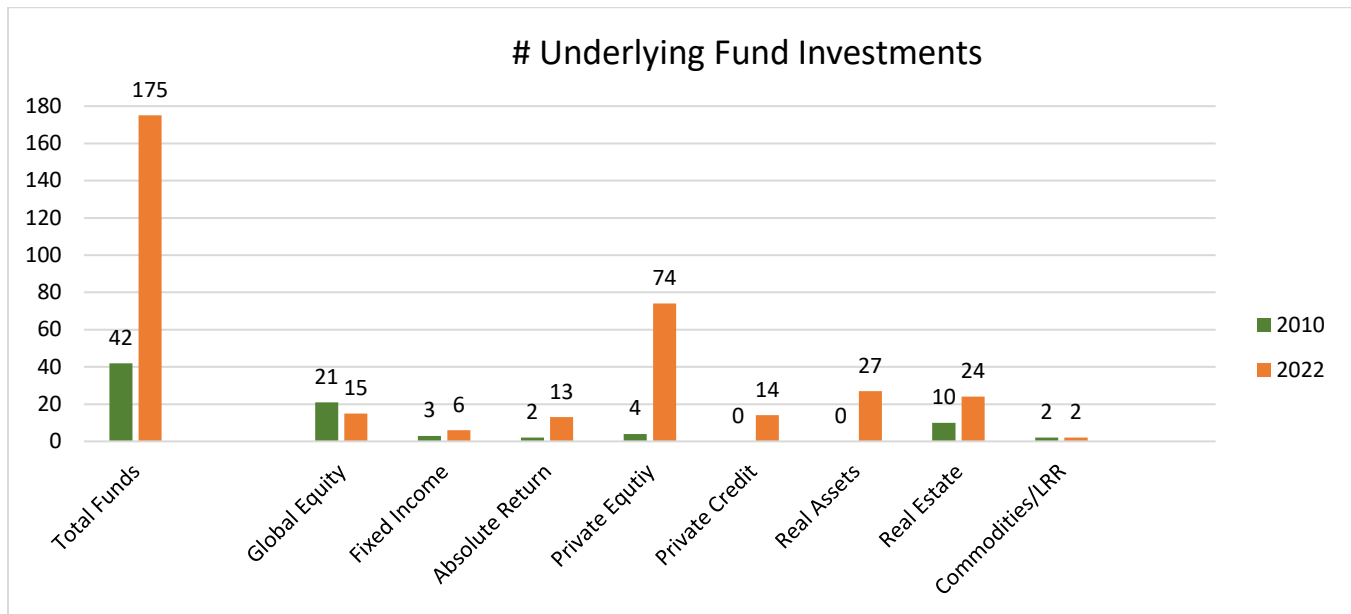
With a growing portfolio, having sufficient analytical tools available to Staff and the Board to properly oversee and manage a complex portfolio has become an increasingly important consideration. A growing number of service providers have developed robust analytical platforms and services catered toward institutional investors, including public pension plans. Many public pension plans employ these services with the objective to provide independent and comprehensive analytics separate from reporting provided from its consultants. Portfolio analytics services include multi-asset class, investment risk and analytics software, that assist in identifying, assessing, monitoring, and reporting portfolio exposures and risk. This includes the ability to view exposures across the entire portfolio (i.e., publics and privates), as well as granularly within assets classes, including the alternative asset classes. Asset class analytics provides granular views across asset classes, at the asset class level, the underlying investment fund level, and the portfolio company level.

The portfolio analytics services will assist Staff in being able to dynamically view a spectrum of exposures, risk analytics, and performance attribution. It will also provide Staff with the ability to provide useful information for the Board, to complement reporting by SCERS' investment consultants.

RFP PROCESS

Staff created and issued a RFP, which was released in June 2021, and SCERS received nine submissions. Staff reviewed all of the responses and invited five firms for interviews and to provide demonstrations of their platforms. These firms included:
1. Blackrock – Aladdin/eFront
2. Burgiss/Caissa
3. RMC
4. Solovis
5. State Street

Staff met with each firm in late 2021, and came away from the demonstrations with the belief that there were several services that would meet the portfolio analytics requirements of SCERS. Subsequent to the initial demonstrations, Staff had several follow-up demonstrations with the leading candidate firms.

There are several considerations that Staff evaluated in selecting a portfolio analytics service for recommendation, including:

- Functionality, usability, flexibility, and customization of the software and platform
- Holistic view of SCERS' total portfolio
- Exposure management, including a multi-dimensional view of exposures across asset class, sector, geography, and security type
- Risk analytics
- Performance analytics and attribution analysis
- Reporting
- Liquidity management
- Complexity of onboarding and maintaining the service
- Cost

After an extensive evaluation of the portfolio analytics service providers, Staff recommends that SCERS retain the services of Burgiss and its Caissa portfolio analytics software platform.

BURGISS/CAISSA OVERVIEW

Organization:

Founded in 2010, Caissa has emerged as an industry-leading multi-asset class investment analytics platform, developed for institutional allocators, including pension funds, endowments, foundations, and family offices. Caissa's web-based software platform is designed to perform exposure, risk, liquidity, attribution, and private markets modeling analysis across multi-asset class portfolios. Caissa's platform offers exposure aggregation across public and private market investments. The company is headquartered in New York, NY, with a second office in San Francisco. Caissa is led by Co-founder/President Susan Veksler and Co-founder/CEO David Hsu.

In October 2021, Caissa (portfolio analytics software service) and Burgiss (a private markets data platform) merged. MSCI has a minority holding in Burgiss. The combined company of Burgiss and Caissa has over 450 employees. The entirety of the firm's revenue comes from offering the Caissa platform and corresponding Burgiss data services to institutional allocators. The Caissa platform has multiple teams across product management, engineering, data, and client solutions. Burgiss has proposed two individuals to serve as the Client Solutions team for SCERS. The two founders of Caissa would also be engaged in the SCERS relationship.

Client Information:
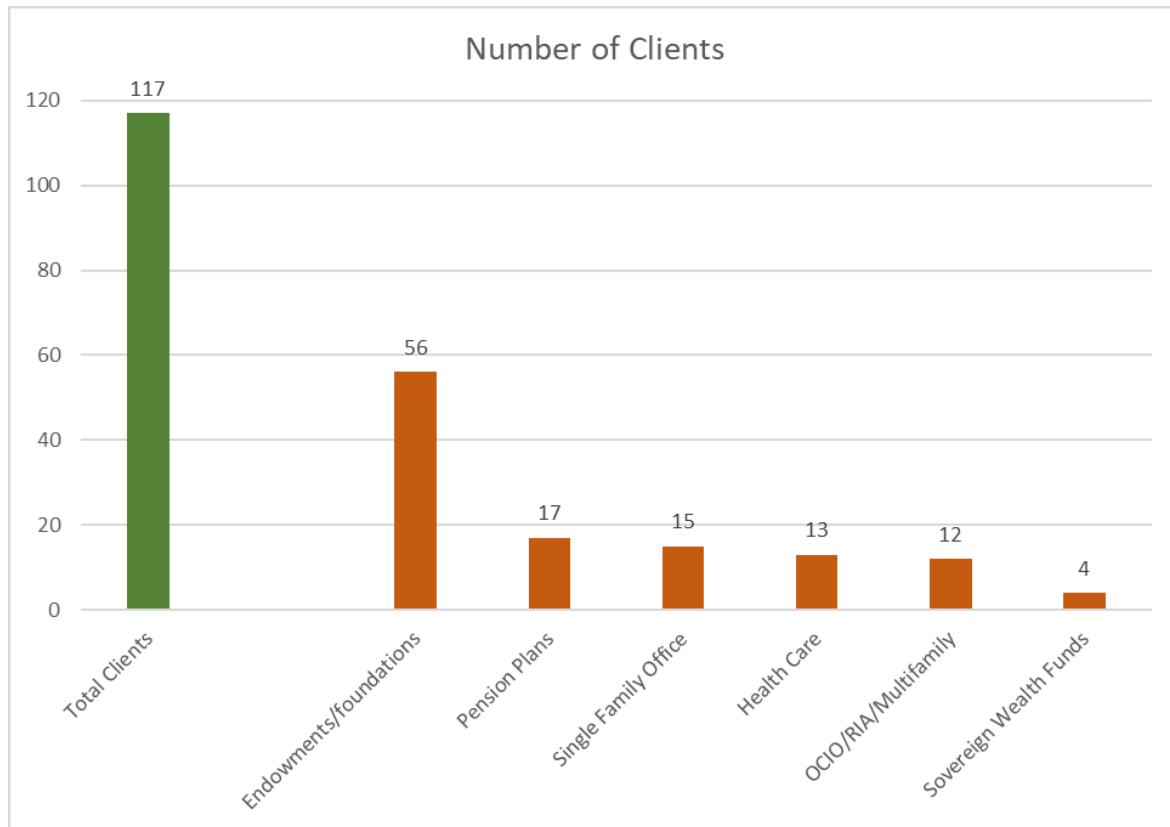
The Caissa software platform is used by over 100 clients, with over 50 comprising the endowment and foundation community, and 17 coming from pension plans. Several California public pension plans use the Caissa software services. The bulk of clients that use the Caissa platform have assets in the range of $1 to $20 billion. Caissa's total portfolio view has been an attractive feature to a wide variety of clients, especially those with smaller staffs. The merger with Burgiss is a couple of years old, and there are natural synergies, which are still evolving. Burgiss' software is one of the most widely used platforms for tracking private markets in the institutional investor community, and Caissa anticipates migrating Burgiss clients on the Caissa software platform. Burgiss has clients from more than 1,000 firms in 32 countries, delivering data that represents over $8.6 trillion in private assets. It serve these clients out of offices in Hoboken, NJ, London, Sofia, Singapore, and Stellenbosh (South Africa).

Portfolio Analytics and Risk Services:

The Caissa platform allows institutional asset allocators to integrate a broad spectrum of investment-related data into a web-based platform. Clients leverage data to view their entire portfolio holistically across public and private investments. The software enables users to perform look-through exposure analysis, calculate performance, assess risk via holdings-based stress tests, review liquidity, analyze attribution, build private market models across their multi-asset class portfolios, and generate detailed on-demand reporting at the push of a button.

The Caissa platform has a great deal of functionality, and will be able to aggregate a variety of SCERS' data inputs to produce a comprehensive and easy to use suite of analytical and risk management tools.
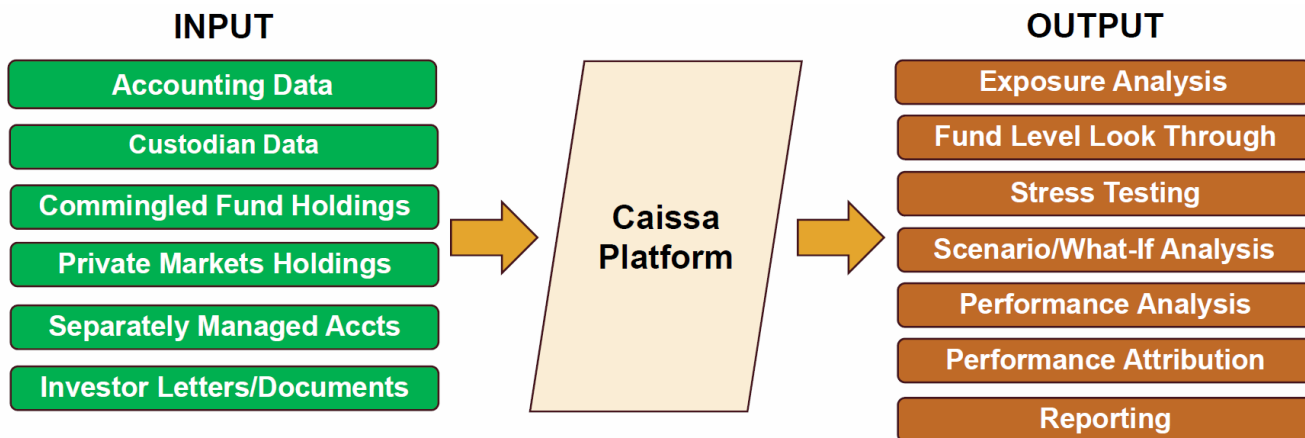
The Caissa software platform can view exposures by hundreds of dimensions, including asset class, sector, security type, region, country, or currency across the total portfolio. Caissa's exposure views go down to the underlying portfolio company/security level.

The Caissa platform can perform risk modeling based on holdings data or return data. The user can perform market, historical, hypothetical, and multi-factor stress tests based on actual holdings of the portfolio and underlying investment managers. The platform can run stress tests for the portfolio based on hypothetical moves within broad markets and the impact to a portfolio's performance over multiple time-periods. The software allows users to understand a portfolio's sensitivities to a broad array of stress events across various markets. Users can also perform 'What-If' forecasting by modeling hypothetical transactions, such as adding new managers, forecasting cash flows, and planning redemptions.

On the performance front, the Caissa software analyzes performance through a variety of metrics across the total portfolio or by any sub-portfolio or ad hoc grouping. Caissa can be leveraged as a performance book of record or for shadow accounting purposes. Caissa will provide SCERS the ability to balance performance across the custodian, State Street, as well as the investment consultants, Cliffwater, Verus, and Townsend. The Caissa platform measures performance across a number of metrics, including alpha, beta, standard deviation, and drawdown analysis relative to over 10,000 pre-loaded benchmarks, including SCERS' policy index benchmarks such as Cambridge Associates and NCREIF. Attribution can by conducted over a number of dimensions, such as time, across asset classes, security type, country, or sector. Caissa also offers a number of reporting tools, either through standard or custom reports specific to a client.

The Caissa service is web-based and does not require any software installations. The software appears easy to navigate, providing a wide range of analyses based on holding level information. Burgiss, the firm's private markets data platform, can handle all functionality of SCERS' current private markets account service provider, Colmore, and a host of additional functionality and

reposting functions. With the addition of data from Burgiss, data from SCERS' custodian, State Street, and SCERS' investment managers directly, SCERS will have a total portfolio view of assets with Caissa. As with the other services reviewed, some absolute return fund data could be an issue because hedge fund managers do not provide full transparency on all holdings, particular short positions, which will rely on returns-based analysis or proxies.

CAISSA DIFFERENTIATORS

All of the software platforms of the finalist firms were impressive. Ultimately, the recommendation of Caissa came down to the usability of the platform by Staff and which platform best fit with the structure and complexity of SCERS' portfolio and the resources that Staff could dedicate to the software service. This is where Caissa represented the best fit for SCERS. The Caissa platform has a nice graphical interface that is intuitive and easy to use. Burgiss provided Staff with trial access to using its platform, including importing segments of SCERS' portfolio data into their platform, which was very helpful to Staff in better evaluating the usability and functionality of the Caissa platform.

Another differentiating factor for Caissa is the partnership with Burgiss, where Burgiss indicated that it already covers 90% of SCERS' current underlying private markets funds, which means the fund level data going back to the inception of each of SCERS' private market funds is already in Burgiss' platform. For these private market funds, Burgiss would just need to upload SCERS specific cash flow data. Burgiss will work to attain the fund data for the remaining 10% of SCERS' funds. The Burgiss data will also provide granular transparency to the holdings/property level for SCERS' underlying managers and funds. The Caissa platform makes this data easy and efficient to view and analyze.

Burgiss also has a document management function to keep track of SCERS' underlying fund documents and private market capital call and distribution notices.

COST

The cost of portfolio analytics software services varied among candidates, and some firms proposed a fixed cost while others variable pricing dependent on the number of underlying strategies/funds within SCERS' portfolio. On an apples-to-apples level, the annual costs ranged from $265,000 to $693,000.

Caissa's pricing is based on a $160,000 total portfolio management platform/base fee with additional variable costs for absolute return and private capital/markets transparency services, and private markets capital call and distribution processing (Book of Record fee). Caissa has proposed a 10% discount to the portfolio management and private capital transparency fees for the first year, and a 5% discount for year 2. The variable fee charges are as follows:
- Absolute return transparency fee: $1,200 per fund
- Private capital transparency fee: $600 per fund
  - Per fund fee drops to $100 for funds that are greater than 12 years old
- Private capital book of record fee: $500 per fund

Staff calculated the estimated fees for Caissa's service over the first three years. The calculation estimates that SCERS will add 20 new private market funds per year, and that 3% of SCERS' private market funds will liquidate or will be sold per year. The estimated calculation also adds a couple of new absolute return funds over the three-year period.

	Year 1	Year 2	Year 3
Caissa Base Fee:			
Burgiss Total Portfolio Management Platform *	$144,000	$152,000	$160,000
Caissa Variable Fees:			
Private Capital Book of Record - per fund	$500	$516	$533
Private Capital Transparency - per fund * **	$540	$570	$600
Absolute Return Transparency - per fund	$1,200	$1,200	$1,200
SCERS Funds:			
Net Private Markets Funds ***	139	161	187
Absolute Return Funds	13	14	15
Total Fees:			
Burgiss Total Portfolio Management Platform	$144,000	$152,000	$160,000
Private Capital Book of Record	$69,500	$83,076	$99,580
Private Capital Transparency ***	$73,300	$84,490	$92,400
Absolute Return Transparency	$19,200	$21,600	$24,000
Total:	**$302,000**	**$336,000**	**$370,000**
One Time Fees:	**$31,800**		
Estimated Total Annual Fee	**$333,800**	**$336,000**	**$370,000**

* 10% discount year 1; 5% discount year 2

** Private market funds that are > 12 years old are charged $100 per year

*** Net private market funds includes estimated 20 new funds per year,
    and a reduction of an estimated 3% of private market portfolio liquidating per year

**** Includes in calculation $100 charge for private market funds > 12 years old

Aggregating the base fee with the additional/variable fees equates to a total estimated cost of approximately $334,000 in year one (also includes one-time set up fees), which will growth to approximately $370,000 by the end of year 3. The estimated costs have been included in the 2022-23 Board-approved budget.

While the cost is meaningful, Staff expects the portfolio analytics service to replace a legacy Performance Analytics service provided by SCERS' custodian, State Street, which has an annual fee of $150,000. The Caissa portfolio analytics service covers more than what State Street provides. Eliminating State Street Performance Analytics would offset the annual Caissa cost by approximately $150,000.

Additionally, SCERS has been using Colmore to provide private markets accounting and analytics over the past few years, which has variable pricing, but has an annual cost of approximately $250,000. Caissa also offers a 'book of record' service ($500 per fund), which is similar to what Colmore is currently providing to SCERS. SCERS uses Colmore for book of record/private markets accounting and some transparency services. SCERS is partially

renewing its contract with Colmore for a one-year term, starting in August of 2022; however, only for the private markets accounting service (not the transparency service, which will be covered by Caissa), for an annual cost of $190,000. The $60,000 reduction in Colmore also offsets the Caissa fees.

Furthermore, Staff will evaluate Caissa's book of record services against Colmore over the next year, and if there is redundancy, then Colmore could be replaced. If SCERS were to eliminate the private markets accounting from Colmore in year 2, this would offset the Caissa cost by another $190,000, which in aggregate with eliminating State Street Performance Analytics, would translate to a cost savings of more than $60,000 in year 2 for Caissa's services over what SCERS has been paying State Street and Colmore. In effect, by consolidating and streamlining various software services, this recommendation is likely to realize ongoing cost savings to SCERS.

ONBOARDING AND IMPLEMENTATION

Part of the evaluation of service providers focused on the onboarding, implementation, and ongoing management of the service, which entails adding SCERS' portfolio data into the service provider's platform. SCERS' portfolio receives data from a variety of sources and vendors, State Street (custodied assets), investment managers (commingled funds), and other service providers. The portfolio analytics service provider will need to facilitate retrieving and uploading this data from State Street and SCERS' investment managers.

In addition, the ongoing management of the platform will be the responsibility of the service provider. This includes updating existing manager data, adding new managers and funds, and updating asset allocation and benchmark information.

Caissa has been onboarding and managing institutional multi-asset class allocators to and within their platform since 2010. From client references, it appears that Caissa pays great attention to detail and is hands on during the onboarding process, as well as the long-term maintenance of its clients. Burgiss' in-house data team handles all processing and uploading of client information and data onto the platform. As reference earlier, Burgiss indicated that it already covers 90% of SCERS' current underlying private markets funds, which means the fund level data going back to the inception of each fund is already in Burgiss' platform. For these private market funds, Burgiss would just need to upload SCERS specific cash flow data for its Book of Record service. Burgiss will work to attain the fund data for the remaining 10% of SCERS' funds, with Staff playing an intermediary role. Burgiss also has significant experience working with and setting up institutional-level feeds with the major custodians and leading service providers.

A key role for Staff will be providing Burgiss with SCERS' portfolio hierarchy and asset allocation early in the process, as well as policy index benchmarks, to make sure these match with SCERS' investment policy statements and SCERS' consultants. During the onboarding process, Caissa anticipates needing approximately two hours a week of Staff's time, including answering questions and addressing issues Burgiss might encounter with the data, and to review certain milestones and achievements.

The onboarding process is a multi-step process, and the timing will depend on the quality of the data and manager response times. The onboarding includes SCERS' historical performance track-record, asset allocation hierarchy, and exposures including portfolio holdings. There will be periods of high Staff involvement during crucial points. Staff, for example, will need to arrange for Burgiss/Caissa to be added to manager distribution lists as it relates to quarterly reports and cash flow notices.

| Assessment | → | Data Upload and Verification | → | Ongoing Data Management | → | Continuing Support and Data Security |

Burgiss estimates that the onboarding will vary for various components. Exposure holdings are estimated to take up to two months, while performance will take three to four months. While Burgiss has marketed a 'white glove' approach to onboarding and maintaining SCERS' data, Staff if realistic that there will be periods that require heavy Staff involvement. Staff plans to have the resources of an investment analyst and a senior member of the investment staff dedicate time for the onboarding process, and on a continuing basis once the service is up and running.

There will also be a ramp up period in learning how to use the Caissa platform and all of its capabilities. All members of the investment staff are expected to use the Caissa platform on a regular basis for different functions, depending on the role of the individual. This includes total portfolio analysis as it relates to exposures across geographies, asset classes, sectors, and risk factors. It also could include running stress tests and scenario analysis of the portfolio. It will also be used at a more granular level within asset classes as it relates to sector exposures, fund level data, and even underlying company level data. Finally, the software will also be used to provide succinct and additive reporting to the Board.

ATTACHMENTS
- Board Order
- Staff Portfolio Analytics Services Presentation

Prepared by:

/S/

_____
Steve Davis
Chief Investment Officer

Reviewed by:
/S/   /S/

_____   _____
Jim Donohue   Eric Stern
Deputy Chief Investment Officer   Chief Executive Officer

Retirement Board Order
Sacramento County Employees' Retirement System

Before the Board of Retirement
June 15, 2022

AGENDA ITEM:

Portfolio Analytics Services

THE BOARD OF RETIREMENT hereby accepts the recommendation of staff to award a contract to Burgiss to provide its Caissa portfolio analytics software services for a three-year period, and authorize the Chief Executive Officer to execute any documents necessary to effect the recommendation.

I HEREBY CERTIFY that the above order was passed and adopted on June 15, 2022 by the following vote of the Board of Retirement, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

ALTERNATES (Present but not voting):

_____
Richard B. Fowler II
Board President

_____
Eric Stern
Chief Executive Officer and
Board Secretary

Portfolio Analytics Services

June 15, 2022

Introduction

- Staff recommends that the Board award a contract to Burgiss to provide its Caissa portfolio analytics software services for a three-year period
    - Authorize the Chief Executive Officer to execute any documents necessary to effect the recommendation

- Agenda:
    - Background on Portfolio Analytics RFP
    - Evaluation process
    - Caissa overview
    - Cost
    - Onboarding

SCERS Portfolio Growth

- $12 billion in assets vs. $5.9 billion in 2010
- Diversification across asset classes - publics and privates
  - Growth in investment manager relationships and underlying funds

SCERS Assets (billions)

	2010	2022
	$5.9	$12.0

Total Underlying Fund Investments

	2010	2022
	42	175
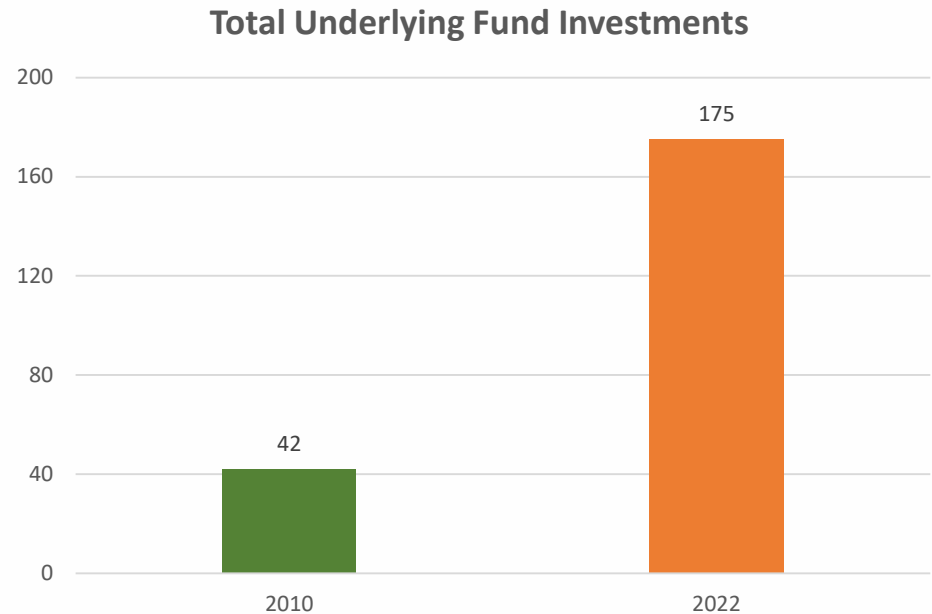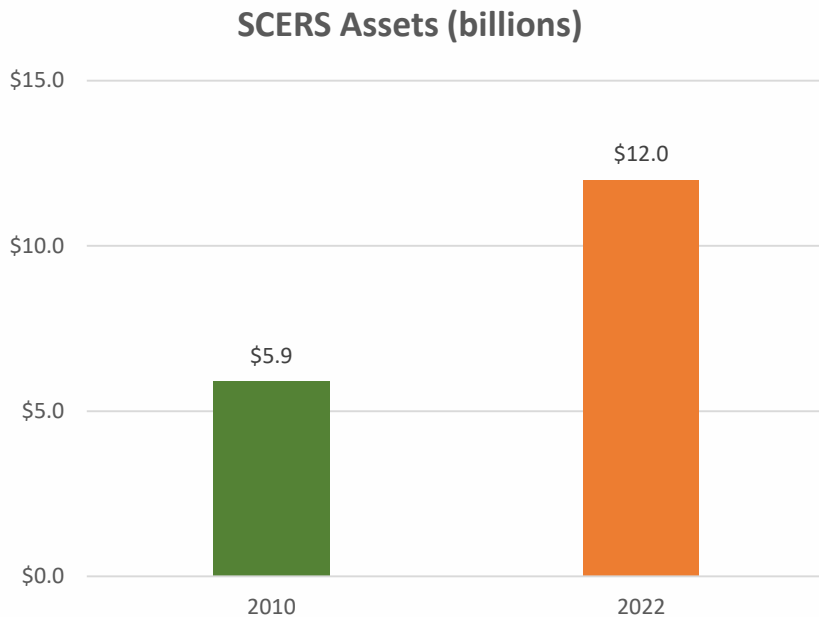
Portfolio Analytics Services

- Greater portfolio growth and complexity emphasizes the need for sufficient portfolio analytical tools

- What are portfolio analytics services?
  - Multi-asset class, analytics software
  - Attained through third party service providers
  - Assists in systematically identifying, assessing, monitoring, and reporting portfolio exposures and risk
    - Holistically across total fund, and across and within individual asset classes
  - Sources and aggregates data from various SCERS vendors including custodian and investment managers, and other service providers

- Provides institutional investors comprehensive analytics separate from reporting provided from its consultants

RFP Process

- RFP released in June 2021

- Interviewed and demonstration from 5 firms

- Evaluation considerations:

Functionality, usability, flexibility, and customization

Holistic view of SCERS' total portfolio

Exposure management

Risk analytics

Performance analytics and attribution analysis

Complexity of onboarding and maintenance

Cost

Recommendation - Caissa

- Industry-leading multi-asset class investment analytics platform, developed for institutional allocators

- Web-based software service designed to perform exposure, risk, liquidity, attribution, and private markets modeling analysis across multi-asset class portfolios

- Caissa founded in 2010 and merged with Burgiss in 2021
  - Caissa – portfolio analytics software service
  - Burgiss – private markets data platform

- Over 100 clients – pension plans, endowments, family offices

- Over 450 employees worldwide

Why Caissa

- Checks all of the boxes on functionality
- Usable and intuitive platform with nice graphical interface
- Burgiss covers 90% of SCERS' current underlying funds
- Private markets cash flow processing and document management capabilities
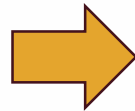
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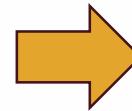
- Accounting Data
- Custodian Data
- Commingled Fund Holdings
- Private Markets Holdings
- Separately Managed Accts
- Investor Letters/Documents

Caissa Platform

OUTPUT

- Exposure Analysis
- Fund Level Look Through
- Stress Testing
- Scenario/What-If Analysis
- Performance Analysis
- Performance Attribution
- Reporting

Caissa Estimated Costs

	Year 1	Year 2	Year 3
Base Fee:			
Total Portfolio Management Platform	$144,000	$152,000	$160,000
Variable Fees:			
Private Capital Book of Record	$69,500	$83,076	$99,580
Private Capital Transparency	$73,300	$84,490	$92,400
Absolute Return Transparency	$19,200	$21,600	$24,000
One Time Fees	$31,800		
Estimated Total Annual Fee	$333,800	$336,000	$370,000

- Potential to consolidate and streamline various existing software services, to offset Caissa fees
  - State Street Performance Analytics - $150k per year
  - Colmore – private markets accounting and transparency - $250k per year
    - partially renewing Colmore for one year
- Potential overall cost savings in Year 2

Onboarding and Implementation

- Caissa's in-house data team leads all processing and uploading of client information and data onto the platform
  - Includes SCERS' historical performance track-record, asset allocation hierarchy, and exposures including portfolio holdings

- Staff has an intermediary role
  - Providing asset allocation hierarchy
  - Arrange for Caissa to be added to manager distribution lists
  - Assist Caissa with data issues and to review certain milestones and achievements
  - There will be periods that require heavy Staff involvement

- Expect onboarding to take at least six months

| Assessment | → | Data Upload and Verification | → | Ongoing Data Management | → | Continuing Support and Data Security |