

INVESTMENTS BRANCH

Business Plans

FISCAL YEAR
2024–25

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Introduction

The Investments Branch business plan creates a blueprint for achieving our major goals in the year ahead. Our business plan allows us firstly, to “plan our work” to avoid being reactionary. Secondly, it allows the investment team to “work our plan” and adapt our approach, as needed, to take advantage of opportunities, mitigate risks, and meet new challenges that we cannot envision today.

One thing I can guarantee with certainty is that we will need to adapt to change. Throughout the course of this year, there will be new risks and we will witness many events we cannot anticipate because our world, and the global financial markets in which we operate, are both dynamic. Since we need to manage rapidly shifting opportunities and risks, the Investments Branch is intentionally building a more resilient, flexible, and dynamic approach to managing our portfolio. I will be working with the team to accelerate this approach over the next three years.

Investments Branch Priorities:

The Investments Branch has quantitatively defined achieving the two most important goals in securing the retirement future of our California teachers as:

1. Meeting or exceeding the 7% actuarial rate of return annually to fully fund our liabilities; and,
2. Outperforming our benchmarks within accepted risk levels.

While these are our two most important goals, the Investments Branch has also defined three strategic priorities that significantly contribute to achieving these goals:

- 1) Diversity in the Management of Investments (“DIMI”) Strategy. CalSTRS’ diverse investment team facilitates achieving or exceeding the 7% actuarial rate of return, enabling us to outperform benchmarks and peers, and fulfill our mission. Diversity is a competitive advantage because we know that diverse teams outperform non-diverse ones. In the May Investment Committee (IC) meeting each year, the Investment Committee receives an update on progress across the three pillars of our DIMI strategy: 1) Diversity across CalSTRS’ Investments staff; 2) Diversity across the CalSTRS portfolio; and 3) Engaging the industry and portfolio companies on diversity, equity and inclusion.
- 2) CalSTRS Path to Net Zero. The energy transition and the path to a net zero emissions economy requires an estimated \$100+ trillion of investment and stands as one of the investment opportunities for CalSTRS. However, it also requires staff to manage the associated

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risks that an economic shift of this magnitude creates to meet our financial goals in the future. In the May board meeting each year, the IC receives an update on progress across our three net zero strategies: 1) Measuring and reducing portfolio emissions; 2) Increasing low-carbon investments; and, 3) Engaging the industry and our partners to accelerate the path to net zero.

3) CalSTRS Collaborative Model (“CM”). The CM is an investment strategy for the investment team to save costs, increase returns, and enhance risk management by managing more of our assets in-house or leveraging our partners for similar benefits. At the November 2023 Investment Committee meeting, Staff updated the IC on progress implementing the first phase of the CM, including saving an estimated \$1.6 billion in fees. Staff continues to strive to become a “Global Partner of Choice” and maximize returns through sourcing differentiated transactions and creating innovative deal structures (through Separately Managed Accounts, Co-investments, Revenue/Economic Sharing, Joint Ventures, and Ownership), as well as using greater control and influence to manage our risks. Staff continues to focus on generating more value, particularly in enhancing returns and risk management across asset classes.

In the following sections, every division within the Investments Branch has created a summary business plan to implement our strategic priorities to achieve our two most important goals.

Resilient, Flexible, Dynamic Approach:

Three dramatic shifts in the current investing environment drive the need for the Investments Branch to accelerate building a more resilient, flexible, and dynamic approach to managing and constructing our investment portfolio:

- 1) Tailwinds have become headwinds:** many of the factors benefiting investments over the last several decades, such as deglobalization, interest rates and inflation, are now reversing.
- 2) Rise of systemic risks:** geopolitical uncertainty, the impacts of climate change, a number of growing divides in society is causing challenges in human capital management and the potential for unrest are risks that affect the whole financial system. Systemic risks have been increasing and are difficult to mitigate and manage across the CalSTRS portfolio.
- 3) Rapid pace of change:** markets always move dynamically but they now innovate at an even faster pace. For example, technology innovation, such as artificial intelligence (AI), brings tremendous economic benefits, but the pace and scale of its adoption creates challenges in regulating it effectively, managing talent shortages, and understanding its true disruptive potential for the economy.

The questions I continue to pose is how can CalSTRS build a team, an investment process, and a portfolio that can prove more resilient, dynamic, and flexible in managing rising risks and

Introduction continued

challenges? Over the past 18 months, the IC and Staff have been busy building a strong foundation for us to excel, and a structure for us to respond. Specifically, the IC has:

1. Approved a Leverage Policy (permitting a range from 0%-10%) and wider rebalancing bands around asset classes, providing Staff greater flexibility and discretion to invest in any environment;
2. Approved an allocation to Private Credit in the Strategic Asset Allocation, providing Staff the ability to move dynamically if warranted; and
3. Approved the Collaborative Strategies Portfolio (that ranges from 0%-5%), providing Staff flexibility to invest in opportunities that fall between asset classes, exist in new and emerging areas, or if divisions want to use more scale for the benefit of CalSTRS.

Building on these foundational investment policies, the Investments Branch leadership has created internal committees for Pacing (private markets cash flows forecasts and positioning) and Liquidity (liquidity plan and public markets positioning). These committees allow us to be systematic in our capital needs and in how we source liquidity which puts us in a position to be more dynamic rather than reactionary. The Investments Branch leadership has also developed an Annual Allocation process – which is reviewed quarterly with leaders across divisions – to ensure Staff collaborate across divisions, capture fast-moving investment opportunities, identify the best risk-adjusted investments, and build a more dynamic allocation process.

Later in July, I will announce the hire of a new Senior Investment Director (“SID”) to oversee the newly-created Total Fund Management Division that will be responsible for helping me to lead this asset allocation approach, manage, and oversee the liquidity of the total fund, and increase our risk management capabilities. I expect this new division will take three years to reach full capabilities, but the team will immediately begin to facilitate and accelerate these processes, add value to the total fund, and enhance our risk-adjusted returns. All these steps will help to develop the appropriate structure for CalSTRS to navigate risks and develop a more resilient portfolio.

I will ensure that the Investments team communicates any major issues or events to the Investment Committee throughout the year, but please always let me know if you have any questions.

Scott Chan

Chief Investment Officer

FIXED INCOME

FAST FACTS

Assets: \$35.5B as of 3/31/2024

Inception Date: 1987

Asset Management:

Internal Management: \$32.1B (90%)

External Management: \$3.4B (10%)

Number of External Managers: 8

Public Debt Managers: 5

Private Credit GPs: 3

Benchmark: 95% Bloomberg MSCI US Aggregate
Climate Custom/5% Bloomberg MSCI US High Yield
2% Cap Cash Pay Climate Custom

2024/25 Return Assumption: 5.2%

Alpha Objective: 15bps

Fixed Income also manages programs and/or portfolios for the Total Fund or other asset classes. Each has their own unique return objective: cash management, protection against inflation and rising interest rates, an increase in market risk and a strengthening U.S. dollar. These strategies amount to **assets under management of \$85.9B:**

Internal Management: \$64.6B (75%)

External Management: \$21.3B (25%)

PROGRAM DESCRIPTION

Established in 1987, the Fixed Income portfolio is managed both internally and externally using enhanced and active strategies. Fixed Income seeks to provide value and diversification through innovative/active asset allocation and bond selection, taking advantage of internally and externally managed strategies.

In addition, Fixed Income is responsible for the management of several other portfolios and programs for other asset classes or the Total Fund including cash management, currency management, risk mitigating long duration US Treasuries, US TIPS and securities lending.

INVESTMENT TEAM (34)

Director: Glenn Hosokawa

Senior Portfolio Manager: Rosie Lucchesini-Jack

Portfolio Managers: Cathy DiSalvo, Dan Depner, David Gold, Debra Ng, Geetha Arani, Ian McCarty, Sunny Dhillon

Associate Portfolio Managers: Aaron Crumpacker, Anthony Kennedy, Dante Malvini, Darin Yi, Kimmie Nicolas, Kristian Altier

Investment Officers: Aidan Hunter, Allison Prior, Eddie Chrisen, Debora Green, Julie Song, Marina Kong, Matt Schott, Melanie Guzman, Nick Clyde, Nick Sweet, Solomiya Williams, Stacey Reichenberg, Tiffany Lau

Support Team: Michaela Ma, Tyler Mah

Vacancies: 4

OUTLOOK FOR 2024-25

Despite the 525bps rise in interest rates, the economy and capital markets are still feeling the effects of the pandemic stimulus. Growth has remained relatively strong, the labor market shows little signs of stress but more importantly, inflation remains above the Federal Reserve's target. This means that interest rates could stay in restrictive territory for a longer period than what many would have expected at this point in the economic cycle. The result of the 'higher for longer' narrative is that yields across the Fixed Income universe remain attractive for investors.

Utilizing a risk return framework, Fixed Income recommended an overweight to Fixed Income within the Fund's diversifying bucket. During the upcoming fiscal year 24-25, Fixed Income will execute this recommendation as market conditions allow.

In addition, Fixed Income will also continue to build out its private credit platform and work towards the Total Fund's recommended 2% target allocation. Fixed Income will pursue relationships with general partners that specialize in senior, secured direct lending using a variety of structures such as funds, BDCs (Business Development Companies), separately managed accounts and co-investments. Fixed Income can leverage existing Fund relationships as the partner of choice, allowing CalSTRS to take advantage of shared economics such as revenue sharing to bring down overall costs.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff: Fixed Income staff are key contributors to the Investments Diversity team. With roles ranging from co-sponsorship of the Diversity Steering Committee to sub-committee members, Fixed Income believes that attracting and retaining diverse professionals will drive innovation and encourage diversity of views. With 90% of the Fixed Income assets internally managed, diversity is a competitive advantage in the management of those assets. As an ally and advocate for its staff, Fixed Income meets team members where they are on their respective career paths including offering volunteer and stretch assignments such as advisory board membership and attendance at senior staff meetings. Fixed Income will continue to focus on its diverse recruitment pipeline across all staff classifications.

Industry and portfolio engagement: Emerging and diverse Core Plus manager, LM Capital, is not only one of Fixed Income's few external managers, but also one its oldest relationships. Additionally, staff regularly engage with managers and partners in numerous forums such as Beyond Talk and affinity partners such as the National Association of Security Professionals.

Portfolio management: Fixed Income has an open-door policy of using diverse broker-dealers for trade executions and currently conducts business with 13 emerging brokers. With most of its assets' internally managed, Fixed Income does not have a dedicated emerging manager program. However, the selection process of a new manager has evolved to facilitate the consideration of a broad universe of managers regardless of assets under management, based on quantitative and qualitative factors that indicate a successful asset management business partner.

PATH TO NET ZERO

Measuring and reducing carbon emissions

Corporate bonds account for almost all the Fixed Income measurable emissions exposure. On October 1, 2023, Fixed Income began implementing an emissions reduction strategy via a low-carbon credit-related index optimization strategy. The indices are

optimized each month to reduce emissions incrementally while maintaining close alignment with the parent indices and minimizing active risk. While the strategy is still in the early stages, Fixed Income will continue to implement the Investment Committee-approved reduction strategies and report annually on emissions reduction progress.

Investing in climate solutions

Green, social and sustainability bonds enable issuers to raise capital for projects that support the transition to a low-carbon economy and align with CalSTRS net zero pledge. When market conditions allow, staff will continue to be an active buyer of these securities. To date, Fixed Income has investments totaling over \$550M in green, sustainability, sustainability-linked and social bonds.

Using influence to accelerate the net zero transition

With most of Fixed Income's assets actively managed by internal staff, involvement in industry-wide advocacy groups is essential to ensure CalSTRS voice is heard in accelerating the transition to net zero. Staff are members of the Cambridge 1.5° Celsius-Aligned Corporate Bonds Index Committee, the Standards Board of the Climate Bonds Initiative and the International Capital Markets Associations Green Bond Principles Committee. These organizations' principles and guidelines promote the increase of bond financing that aligns with the goals of CalSTRS net zero pledge.

COLLABORATIVE MODEL

Fixed Income staff works with multiple asset classes by managing strategies within their portfolio such as a Treasury portfolio for RMS, and the TIPS portfolio for Inflation Sensitive. In addition, the team is integral to the CalSTRS leverage strategy including the management of the Reverse Repo program, one of the lowest cost borrowing options available. With the addition of Private Credit to the Fixed Income portfolio, staff have begun creating Collaborative relationships and structures with some of the top direct lending investment firms in the county. These structures allow CalSTRS to invest capital at favorable economic terms with additional flexibility to take advantage of market opportunities.

GLOBAL EQUITY

FAST FACTS

Assets: \$135.1 Billion as of 3/31/2024

Inception Date: 1986

Asset Management:

Internal Management: \$108.4 bn (80%)

External Management: \$26.7 bn (20%)

Number of External Portfolios: 25

Benchmark:

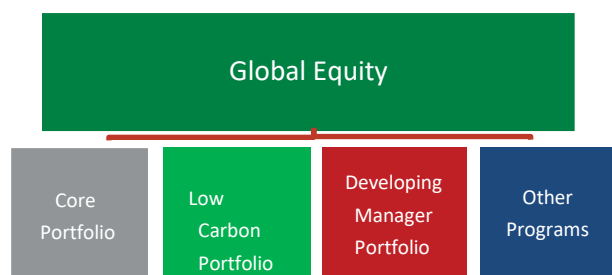
Asset-weighted blend of Custom MSCI All Country World Index (ACWI) Investable Market Index (IMI) and Custom MSCI ACWI Low Carbon Target Index

Return Assumption: 8.0%

Excess Return Target: 30 basis points, net-of-fees

Active Risk Budget Range: 10 to 50 basis points

PROGRAM DESCRIPTION



Established in 1986, the Global Equity (GE) portfolio is invested in passive and active strategies across the U.S., developed non-U.S., and emerging markets. Approximately 80% of the portfolio is managed internally by CalSTRS staff in passive strategies, with the rest managed by external investment managers.

The GE team also manages a Developing Manager Program, Cash Equitization Program, and Stock Distribution Program. Beginning in fiscal year 23-24, GE has been transferring capital to the Low Carbon Index portfolio toward the target 20% allocation for CalSTRS Total Public Equity.

INVESTMENT TEAM (23)

Director: June Kim (10 years at CalSTRS; 28 total)

(Senior) Portfolio Managers: David Murphy, Jason Crawford, Raymond Venner, Wayne Yim, Wilson Yee

Associate Portfolio Managers: Edgar Ramirez, Justin Wiles, Sharon Jou, Shawn Webster

Investment Officers: Adriana Gutierrez, Alex Glaeser, Chris Louie, Jessie Kong, Jimmy Garcia, Justin Bosley, Mark Melvani, Misty Watson, Shivi Krishna

Support Team: Katherine Chamorro

Vacant Positions: 3

OUTLOOK FOR FY 2024-25

During the last fiscal year, equity markets continued to rally, benefitting from recession fears not materializing, investor enthusiasm for advances in artificial intelligence (AI), and the outperformance of several large technology companies.

Looking forward to fiscal year 24-25, Global Equity staff have a cautious outlook for public equities as the benefits of remarkable innovation are somewhat offset by the extended valuations of U.S. equities, the challenge of companies maintaining current profit margins, and the effects of higher interest rates for longer. The GE portfolio is well positioned to navigate the challenging environment, given its active manager stock selection and tilts to quality and value factors. Staff seek to invest in the most promising opportunities across all regions, while remaining well diversified. The internally managed passive portfolios play a vital role within GE by providing extremely low-cost market exposure to all regions and flexibility to adjust allocations to active managers.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

The Global Equity team is diverse across various dimensions including work experience, education, background, ethnicity, age, and gender.

Recruitment efforts include advertising open positions as widely as possible to attract a diverse pool of

qualified candidates. This includes posting with organizations known for their diverse membership in addition to posting at universities and trade organizations (e.g., CFA Institute). Diversity efforts include training and developing growth opportunities for existing professionals on the team to provide knowledge transfer and develop expertise.

Industry engagement and portfolio management

Global Equity staff continue to actively lead, facilitate, and participate in conferences, organizations, and outreach to promote Diversity, Equity, and Inclusion (DEI) in the investment industry.

GE’s external investment managers understand the importance of DEI, and many are considered industry leaders in creating a diverse and inclusive workplace. Knowledge sharing of best practices is a valuable source of information for CalSTRS’ DEI efforts, and GE staff continues to dialogue with investment managers on the topic. As part of the Investment Branch’s strategic goals for DEI, GE staff will evaluate ways to enhance the DEI assessment component of manager due diligence.

GE’s Developing Manager program was established in 2004, and it evolved over the decades as the GE portfolio shifted active management into areas of the market that are less efficient. As of 12/31/23, the market value of the program was close to \$2 billion. Staff continue to consider developing managers when conducting GE manager searches.

NET ZERO

Measuring and reducing carbon emissions

Global Equity is committed to achieving a net zero emissions investment portfolio by 2050 or sooner. An important step in tracking the progress toward net zero goals is measuring and reporting the annual carbon emissions of the GE portfolio. Staff will continue to measure and monitor portfolio emissions in FY24-25, looking for opportunities to refine the process.

The CalSTRS Investment Committee approved a 20% allocation of Total Public Equity assets to an internally managed portfolio that tracks the Custom MSCI ACWI Low-Carbon Target index. GE is on track to complete

the implementation in calendar year 2024.

Staff can measure emissions from the entire GE portfolio, including the Low-Carbon Index portfolio, and expects a significant reduction in emissions from the implementation of this emissions reduction strategy. Staff will also explore and stay informed of alternative indices that may help achieve CalSTRS’ net zero goals, carefully considering risks and returns.

Using influence to accelerate the net zero transition

GE staff will continue to research and work with its external investment managers to understand how they assess the risks of climate change and their expectations of how companies and industries will evolve in response to the risks. This type of collaboration will continue to expand staff’s knowledge about climate change and its impact on industries and portfolios.

COLLABORATIVE MODEL

Since the start of the Collaborative Model, Global Equity has significantly increased the amount of assets directly managed internally. The team now manages approximately \$100 billion in index strategies across all global markets. Internal management allows more flexibility to implement timely and risk-controlled portfolio rebalancing. GE also implements tactical asset allocation trades for the Total Fund, at times in challenging equity markets.

GE will continue to expand its internal management capabilities, collaborate with peers, and explore new areas that could add value or reduce costs for the fund. A few areas for GE’s potential expansion of the Collaborative Model include: (1) research quantitative or rules-based models for internally managed portfolios; (2) explore opportunities with other asset classes to internally manage equity or derivatives strategies; (3) assist the Total Fund with its strategic goals around leverage and liquidity.

In collaboration with SISS, GE is managing the Total Public Equity active risk to remain within the 10 to 60 basis point policy range approved by the Board in May 2023.

INFLATION SENSITIVE

FAST FACTS

Assets: \$21.1 Billion as of 3/31/2024

Inception Date: 2008 – part of the Absolute Return asset class. 2014 - renamed Inflation Sensitive (“IS”).

Asset Management:

Internal Management: \$5.4 Billion (26%)

External Management: \$15.7 Billion (74%)

Number of External Managers: 26

Benchmark: The weighted blend of the Bloomberg U.S. Government Inflation Linked Bond Index, Bloomberg Commodities Index, CPI +400bps (quarter lagged), NCREIF Timberland Fund and Separate Account Index (NTFSAI – Value Weighted, net) (quarter lagged), and CPI +300bps (quarter lagged), 3-month Treasury Bill (quarter lagged). New strategy benchmarks will be blended with the benchmark as they are added.

2024/25 Return Assumption: 8.5 - 9.0%

Alpha Objective: 15 - 25bps

PROGRAM DESCRIPTION

The Inflation Sensitive asset class was established in 2014. The asset class has a hybrid structure, currently comprised of: Infrastructure, Commodities, U.S. TIPS, Timberland, Agriculture, and Private Debt. Approximately 57% of the Inflation Sensitive portfolio is comprised of Infrastructure investments, with most of the team focused on that strategy. Additional time is spent, as opportunities arise, on Timberland and Agriculture investments, with one team member devoted to Commodities and U.S. TIPS portfolio oversight. The team began investing in private infrastructure debt opportunities in 2023.

INVESTMENT TEAM (16)

Director: Paul Shantic

Portfolio Managers: Charles Fitzpatrick, Michael Warmerdam, John-Charles Gish

Associate Portfolio Managers: Marketa Ostadalova, Madison Doris, Jackie Liu

Investment Officers: Guldip Dhillon, Selina Muasya, Krishneel Krishna, Chris Ellis, Mohammad Quader, Jackee Mwiti, Fiorella Salvador Ynjante

Support Team: Richard Novoa

Vacancies: 1

OUTLOOK FOR 2024-25

The Inflation Sensitive asset class currently represents slightly over 6% of the total CalSTRS Fund, reaching its target weight for the asset allocation in early 2023. The major focus of the IS portfolio has been around the current regime of higher inflation and interest rates.

Now that IS has reached the asset allocation target, IS Staff is more selective around managers and co-investment opportunities and feel comfortable with the number of accounts that have been established. Infrastructure is still the stabilizing sub-asset class of the unit. Infrastructure continues to provide stable returns, income generation capabilities, and many of the assets reprice to the economic circumstances. Staff expect Infrastructure, U.S. TIPS, and Private Debt to perform well, with Commodities lagging. Staff do not expect to bring any policy changes before the Board this coming fiscal year.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

Two IS team members sit on the Investments Diversity team and IS staff attend regularly held meetings as well as additional outreach efforts and learning opportunities in partnership with the DIMI efforts. The IS team is diverse and includes people with diverse backgrounds in leadership positions. Diverse hiring however is not enough. A major part of the team’s DIMI efforts revolves around

enhancing existing investment professionals' experience and their training. Training and effective mentoring by senior IS Staff is key to the individual's and the unit's future growth. The development of internally guided expertise is also necessary to continue the advancement of the Collaborative Model framework.

Industry and portfolio engagement

The team continues to expand recruitment outreach efforts by tapping into affinity partners' membership networks. Inflation Sensitive is also continuing its engagement and outreach efforts with: Beyond Talk, NAA, AAAIM, NASP, NASP/MIDA Africa, along with CalSTRS sponsored and co-sponsored diversity efforts. The team actively engages and collaborates with diverse managers across the asset class and will continue this in FY 24-25.

Portfolio management

Inflation Sensitive committed \$220 million to diverse-managed firms in 2023, and continues to seek and pursue separately managed accounts, funds, and co-investment opportunities with diverse-managed firms. To get a better sense of what asset managers are doing around diversity in terms of policies, best practices, and outcomes, Inflation Sensitive Staff continues to refine the Due Diligence Questionnaire and on-going monitoring practices. Staff want to ensure that the team approaches the topic in a thoughtful way to not only drive home the importance of the issue but also work towards questions that are substantive.

PATH TO NET ZERO

Inflation Sensitive remains actively involved with the CalSTRS private asset Net Zero Green team which is structured around the following three core strategies:

Measuring and reducing carbon emissions

IS staff has seen an increase in GRESB (an independent organization providing validated ESG performance data and peer benchmarks) reporting across the Infrastructure portfolio. While GRESB initially began as a real estate peer benchmarking platform, it has since expanded its services to

include similar services for infrastructure investors and managers. Staff is analyzing GRESB reports and scores to identify potential emissions measurement and reporting opportunities going forward.

Investing in climate solutions

The Inflation Sensitive portfolio has significant exposure to low-carbon solutions across multiple investments and the team continues to work to identify additional opportunities to expand investments.

Using influence to accelerate the net zero transition

IS staff surveyed existing managers to identify how they are considering the net zero transition, how they align with CalSTRS's net zero pledge, and how they could achieve better alignment with the pledge. In fiscal year 24-25, staff will continue to survey our managers and monitor their progress on net zero integration. While industry standardized reporting requirements are lacking and there are challenges in monitoring and measuring emissions across complex infrastructure investments, the team remains dedicated to collaborating with managers and with the SISS team to enhance measurement and reporting tools.

COLLABORATIVE MODEL

Inflation Sensitive is focused on identifying investment opportunities with strategic partners as core infrastructure pricing begins to become more attractive over time, with markets starting to adjust to higher interest rates. The team has negotiated collaborative structures with top tier investment partners and other leading institutional players that give CalSTRS significantly greater control of the investments at a lower management cost than a typical closed end fund.

Internally, IS staff will continue to collaborate with the Total Fund team and utilize the leverage and credit opportunities available to IS, as well as the Collaborative Strategies (Opportunities sleeve) portfolio. Staff anticipates an increase in climate-oriented investments in the market and will continue to collaborate with the SISS team on these opportunities.

INVESTMENT STRATEGY & RISK (ISR)

FAST FACTS

Assets: \$5.0 Billion as of 3/31/2024 (Innovative Strategies Portfolio, now part of the Collaborative Strategies Portfolio)

Inception Date: May 2019

Asset Management: External Managers: \$5.0 Billion (100%)

Number of External Managers: 18

Benchmark: A short-term blended performance benchmark comprised of underlying strategies and a long-term benchmark of the assumed actuarial rate of return for the Fund at 7%.

PROGRAM DESCRIPTION

Originally established in 2009 as Innovation & Risk and renamed Investment Strategy & Risk (ISR) in 2019, ISR comprised Asset Allocation, Risk Management, and Innovative Strategies. With the creation of the Collaborative Strategies portfolio that includes the Innovative Strategies portfolio, the ISR team now focuses on 3 areas of Total Fund Management: Portfolio Construction & Asset Allocation, Balance Sheet Management, and Risk Management. These areas include the Asset-Liability Management Study (ALM) conducted every 4 years, chairing the Risk Allocation Committee (RAC), liquidity management, and Total Fund risk.

INVESTMENT TEAM (15)

Director: Vacant

(Senior) Portfolio Managers: Glen Blacet (Innovative Strategies), Josh Diedesch, Benjamin Wang

Associate Portfolio Managers: Anthony Schmitz, Matt Lisonbee (Innovative Strategies)

Investment Officers: Angela Tran, Elena Pevzner, Jose Paniagua, Kate Wallen (Innovative Strategies), Matt Toepel, Miguel Uribe (Innovative Strategies)

Support Team: Vacant

Vacancies: 4

OUTLOOK FOR 2024-25

After a historic rise, interest rates remain higher than at any time in the past 15 years, providing opportunities and challenges for the Total Fund. Liquidity and cash flows in the private markets generally remain low, with fewer transactions. At the same time, higher interest rates provide greater risk-adjusted returns in Fixed Income and Private Credit opportunities. The fund remains close to its long-term policy targets and will continue to seek opportunities to expand liquidity and capitalize on opportunities in public and private markets.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

Members of the ISR team actively support and participate in internal DEI efforts, including formal mentoring through the Investment Branch mentor Program, informal mentoring, the Diversity Committee, Beyond Talk, and other events. The team also takes advantage of stretch assignments, cross-functional learning opportunities, and other internal training to grow and develop. As a growing team, ISR actively seeks to attract candidates with diverse backgrounds, experiences, and education.

Portfolio management

With the wide scope of roles for ISR and the complexity of the Total Fund, diversity is a critical part of making and informing sound decisions. Diversity of background, experience, and education helps to support robust discussion and alternative viewpoints. The ISR team actively seeks to promote diversity in its role in the many cross-functional and cross-asset initiatives in asset allocation, risk management, and balance sheet management.

PATH TO NET ZERO

Measuring and reducing carbon emissions

The ISR team will continue to work with the asset

classes, SISS team, and Investment Services to support emissions measurement across the portfolio. This work includes actively working with the teams on emissions measurement methodology and implementation throughout the risk management system.

Investing in climate solutions

As the group responsible for leading the ALM, ISR works with the senior leadership team and asset classes to identify strategic opportunities to invest in climate solutions. The team also provides risk management support to ensure climate solution strategies and risk-adjusted returns are aligned with the asset allocation.

Using influence to accelerate the net zero transition

Integration of net zero and climate risk into Total Fund management is a rapidly evolving field. The team will continue to engage with asset owner peers and industry organizations to identify and expand best practices in implementing net zero strategies.

This includes approaches to transition risk and physical risk in strategic asset allocation, as well as portfolio management decisions that incorporate net zero and climate risk.

COLLABORATIVE MODEL

ISR supports the Collaborative Model through thorough analysis of asset allocation and balance sheet management. Due to the new opportunities and options the Collaborative Model has added, including the recently approved Leverage Policy and Collaborative Strategies Portfolio Policy, the team is responsible for running various portfolio models that help to identify attractive risk-adjusted returns across asset classes, adding significant value in the asset allocation process. In addition, by actively monitoring, managing, and sourcing liquidity, the team enhances Collaborative Model execution internally and by ensuring liquidity for opportunities in any market environment.

PRIVATE EQUITY

FAST FACTS

Assets: \$51.7 Billion as of 3/31/2024

Inception Date: 1988

Asset Management:

External Management: \$51.7 Billion (100%)

Number of External Managers: 121

Benchmark: (1) Customized State Street Global ExchangeSM Private Equity Index (GXPEI); and (2) MSCI ACWI IMI plus 150 basis points.

2024/25 Return Assumption: 9.5%

Alpha Objective: 70 bps

PROGRAM DESCRIPTION

Established in 1988. Components include limited partnerships, co-investments, and secondary transactions.

Global mandate: 74% North America, 16% Europe, 10% other, primarily Asia.

Portfolio is concentrated with 121 active manager relationships. Selection is biased toward partnerships with experienced and stable management teams, strong track records, appropriately sized funds, and high levels of side-by-side general partner commitments. Strong alignment of interest and utmost integrity are requisite.

INVESTMENT TEAM (35)

Director: Margot Wirth

(Senior) Portfolio Managers: Robert Ross, Aizaz Ali, Tom Baker, Seth Hall, Carlos Monfiglio, and Georgia Pappas.

Associate Portfolio Managers: Nadiath Adechoubou, Amanda Coleman, Henry Ha, Geetika Misra, Chris Moore, Vanessa Morris, Delfina Palomo, and Katherine Rodota.

Investment Officers: Wayne Chung, Nick Koehler, Tyler Rico, Samantha Samson, Christopher Singh, Ryan Brown, Scott Huckell, Khoi Nguyen, Arthur Ma, and Kylee Neidigh.

Investment Analysts: Jessica Singh and Brianna Torres.

Support Team: Nancy Vang, Jenny Tran Siri, and Yana Early.

Vacancies: 5

OUTLOOK FOR 2024-25

The pace of investment slowed in 2023 as investors, like CalSTRS, processed a changing market dynamic, including: higher interest rates, a renewed focus on cash flow management, a non-existent IPO market, and a wide bid-ask spread between buyers and sellers due to valuation disagreements. Similar dynamics were found at the start of 2024, but transaction volume has increased due to the public markets roaring back, the fear of recession waning (partially attributable to a strong consumer), and the Federal Reserve's implicit promise to cut rates if needed. While most transactions are in companies that could be labeled "high quality" (strong cash flow, diversified customer base, and predictable revenue growth), valuations are reflecting more reasonable pricing than what was seen during the late 2020 to 2021 timeframe.

In many cases, "lower quality" businesses are not even transacting, and equity capital is harder to come by given a difficult PE fund raising market due to LPs becoming more discerning and a limited capacity to make new commitments. This dynamic benefits the highest performing and most reputable PE managers – many of which are part of the CalSTRS PE Program.

Private equity investing involves long time horizons and patient capital. Staff believes that the long-term strategies and plans for CalSTRS' Private Equity program remain intact. That said, Private Equity is considering and, in some cases, implementing shorter-term tactical shifts regarding commitment pacing and portfolio composition.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

Private Equity highly values diversity and has successfully maintained and recruited a team with a

high-level of gender, ethnic, racial, and other forms of diversity. At the leadership level (APM and above), 8 of 15 team members identify as female and over 50% of the overall team identify as Hispanic or non-white. Staff will look to further engage on diversity this year by supporting employee resource groups (e.g., women on the PE team networking together).

Industry and portfolio engagement

Private Equity collaborates with ILPA on industry initiatives and issues related to diversity as well as with other diversity-focused organizations such as NAIC, NASP, AAAIM, and NAA.

Portfolio management

Private Equity seeks and promotes diversity amongst its investment partners. Such efforts are multi-faceted and include (but are not limited to) the funding of emerging managers (which tend to be substantially more diverse than established legacy organizations). To date, Private Equity has made commitments targeting such managers totaling \$2.6 billion. An additional estimated \$4.2 billion in commitments have been made to partners with a majority ownership by diverse individuals.

PATH TO NET ZERO

Measuring and reducing carbon emissions

Private Equity continues to engage with CalSTRS' investment partners to evaluate their net zero capabilities and recently conducted a comprehensive survey to assess their efforts and understand the degree to which each is engaged in carbon emissions measurement and reporting. Staff will be reviewing and evaluating these survey responses in FY24-25.

Investing in climate solutions

Private Equity currently has exposure to multiple energy transition/low-carbon investments within its portfolio (typically on an indirect basis and in some instances on both an indirect and a direct basis, i.e., including co-investments). In addition to exposure

via Private Equity's investment partners, staff continues to focus on sourcing direct low-carbon co-investment opportunities as part of the Collaborative Model and in co-ordination with the SISS Private Portfolio (Scaling sleeve). Private Equity and SISS have evaluated numerous opportunities together and have completed three co-investments to date representing over \$90 million of commitments.

Staff continues to actively communicate CalSTRS' focus on low-carbon investment opportunities to general partners who are now acutely aware that this is a high priority. As a result, staff continues to get inbound calls on co-investment opportunities where decarbonization is a key investment theme or part of the general partner's value creation plan. Going forward, staff will maintain this level of engagement with general partners to ensure that additional opportunities are presented to CalSTRS.

COLLABORATIVE MODEL

Private Equity is well positioned to accomplish the team's primary Collaborative Model objective to increase the Co-Investment portfolio to 25% to 35% of the PE portfolio. PE has a highly capable and specialized team that has a strong reputation in the market to evaluate and invest in large and often complex opportunities. The team also looks to participate in the Collaborative Strategies (Opportunities sleeve) Portfolio with investments that may exceed the team's allocation or diversification goals.

Staff continues striving to become better and more sophisticated in co-investments and other forms of direct investing. With increased resources, staff is now serving as observers on corporate boards to better monitor larger portfolio positions and to further advance knowledge of operating companies in general. Private Equity is also building skills and planning to increase capabilities to transact secondary deals (both partnerships and co-investments). No associated policy issue for this will arise in the coming fiscal year.

REAL ESTATE

FAST FACTS

Assets: \$47.8 Billion as of 3/31/2024
Inception Date: 1985
Asset Management:
 External Management: \$47.8 Billion (100%)
Number of External Managers: 66
Benchmark: Open End Diversified Core Equity (NFI-ODCE)
2024/25 Return Assumption: 0% to 1.5%
Alpha Objective: 70 basis points over benchmark

PROGRAM DESCRIPTION

CalSTRS Real Estate Program		
Core \$29.4 Billion 61.4%	Value Add \$7.5 Billion 15.7%	Opportunistic \$10.9 Billion 22.9%

Direct investment structures with high levels of control (Collaborative Model aligned) are preferred. Staff seeks best-in-class investment managers to provide diversification by product type, geography and strategy. The portfolio also includes real estate private credit investments to further reduce risk.

INVESTMENT TEAM (34)

Director: Julie Donegan

Portfolio Managers: Bruce Deutsch, Chris Preston, Daniel Clark, Don Palmieri, Greg Arendt, Hank Thomas, Michael McGowan, Mitch Pleis, Sally Stocks

Associate Portfolio Managers: Kari Maynard, Michael Yager, Orintheo Swanigan

Investment Officers: Alicia McClain, Cristine Chan, Emilio Navarrete, Gina Tavarez, Helena Posner, Hiep Tran, Jake O’Hagan, Mauricio Smith, Oksana Kovalchuk, Renyi Wang, Samantha Phan, Tiffany Manzitto

Support Team: Alina Lindquist, Ashley Chapman, Jessica Hudson, Kayla Ruotolo, Susan Daniel

Vacancies: 4

OUTLOOK FOR 2024-25

Real estate is navigating a complex but potentially rewarding investment landscape. Tightened monetary policies to combat inflation have resulted in higher borrowing costs and a decrease in liquidity. These market dynamics provide opportunities for long-term investors like CalSTRS. The team has been selectively increasing investments in real estate debt, which is seeing higher return opportunities in this capital constrained environment. Staff continues to rebalance the portfolio, decreasing office exposure while increasing investments in data centers, warehouses and retail assets. Increased investment in housing, particularly affordable housing, is also a focus for the portfolio.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

Three Real Estate team members, including the Director of Real Estate, sit on the Investments Diversity Team and are active industry participants in DEI roundtables and forums. The Real Estate team focuses on increasing its diversity that includes hiring candidates with diverse backgrounds in leadership positions. In addition to hiring diverse candidates, we seek to provide career path opportunities and growth for the team. We focus on enhancing our team’s experience through training and intentional career path development for all members of the team.

Industry and portfolio engagement

Team members are active participants in CalSTRS’ focused committees, providing insights and leadership at the asset class level. Real Estate sponsors internships for diverse students through the Pension Real Estate Association/Sponsors for Educational Opportunity (PREA/SEO) program, hiring college students to join the team for the summer. Real Estate has hired two diverse candidates for the summer internship program in 2024.

Portfolio management

Real Estate supports the development of emerging

investment management firms by providing them with access to institutional capital while providing a path to direct allocations. Since 2001, Real Estate has committed over \$10 Billion to emerging managers. CalSTRS partners with Belay Investment Group, a majority woman-owned investment firm, on our emerging manager program. CalSTRS recently added a direct relationship through Belay with Primestor, a minority-owned and led emerging manager that has fostered local economic development in overlooked urban minority communities.

PATH TO NET ZERO

Measuring and reducing carbon emissions

Real Estate is an Investor Member of GRESB (an independent organization providing validated ESG performance data and peer benchmarks) and began reporting carbon emissions through GRESB in 2021. In calendar year 2023, Real Estate measured approximately 400 assets with a combined gross net asset value of \$25.5 billion, representing 50 percent of the Real Estate portfolio value. Real Estate will continue to use GRESB to measure 2024 emissions (based on calendar year 2023 data) and is evaluating expanding the measurement of the portfolio.

Investing in climate solutions

In addition to examining improvements or procedures that will reduce energy use, staff reviews the feasibility of adding solar installations on assets.

Using influence to accelerate net zero transition

Real Estate continues to engage with its partners on improving their sustainability practices and aligning their emissions with CalSTRS net zero goals. In 2022, CalSTRS staff joined the PREA Environmental Committee and became a chair of the new NCREIF ESG Committee.

COLLABORATIVE MODEL

The Real Estate team continues to expand its use of collaborative structures, including investments into real estate operating companies (REOCs). Due to the complexity and time commitment need for these investments, staff often utilizes the services of an external advisor to help oversee REOCs. Real Estate continues to expand its partnerships with external like-minded institutional investors to scale existing and future investments and REOCs.

Real Estate also continues to partner internally with Fixed Income and Sustainable Investment and Stewardship Strategies teams for overlapping investment opportunities. The RE team also works with the Total Fund team to manage the lines of credit utilized by Real Estate and other asset classes.

RISK MITIGATING STRATEGIES (RMS)

FAST FACTS

Assets: \$29.4 billion as of 3/31/2024

Inception Date: July 2016

Asset Management:

Internal Management: \$7.8B (26.5%)

External Management: \$21.6B (73.5%)

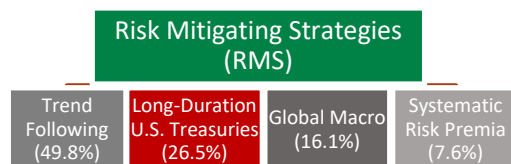
Number of External Managers: 15

Benchmark: blended performance benchmark comprised of the actual weightings for each of the strategies utilized in the portfolio multiplied by their respective benchmarks.

2024/25 Return Assumption: 5.5%

Alpha Objective: 0.20%

PROGRAM DESCRIPTION



The objective of RMS is to provide protection to the Total Plan during deep and extended equity market downturns. The portfolio strategies currently consist of: trend following, long-duration U.S. Treasuries, global macro, and systematic risk premia.

RMS maintains a level of portfolio risk that is prudent and allows the program to fulfill its mandate of providing diversification over a full business cycle. RMS' stated objective is to generate 20 basis points of positive relative return versus the policy benchmark.

INVESTMENT TEAM (15)

Director: Steven Tong

Portfolio Managers: Carrie Lo, Jeffrey Jaro

Associate Portfolio Managers: Dianna Dean, Sean Ehrlich

Investment Officers: Denny Young, Ibukun Aina, Michel Paniagua, Saphira Tran, Stefanie Bradaric, Zang Thao

Support Team: Karen Pham

Vacancies: 3

OUTLOOK FOR 2024-25

Market uncertainty is likely to continue as markets shift focus between growth and inflation expectations. This requires focus, proactiveness, and adaptability to meet RMS' objective of preserving capital.

Market reversals are particularly challenging for the Trend Following strategy. To navigate this, the Trend Following portfolio is diversified in terms of how quickly different managers identify trends and the universe of investments traded. A new manager will be added to the portfolio aimed at smoothing performance during these periods. The Long Duration U.S. Treasuries portfolio may continue to be challenged by the current prevailing high-interest rate regime yet has continued to perform as a safe-haven.

Market dispersion has also increased as global central bank policies and growth rates increasingly take different paths. This should enhance the opportunity set for Global Macro, Systematic Risk Premia (SRP), and Diversifying Strategies to stabilize returns in the year ahead. A new SRP manager will be added to further improve returns.

Manager selection and monitoring will continue to be critical. Staff's focus on investment and operational risk management and the greater integration between these two key risk processes is expected to create opportunities to protect the portfolio through market headwinds in the coming year.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

RMS staff continues to be diverse and includes people with a range of backgrounds. DIMI efforts revolve around training and effective mentoring of existing staff. RMS also encourages expanding equal opportunities to all qualified candidates from various backgrounds. To continue the momentum of diversity within the hiring process, RMS has broadened the talent search by expanding recruitment channels to include affinity groups, professional social network platforms, and attending events at local universities.

Industry engagement and portfolio management

To track DEI progress of external managers, RMS participates in CalSTRS' annual DEI survey where all managers explain their diversity strategies. Eleven of RMS' fifteen external managers have women and/or people of color in significant leadership roles. In the past fiscal year, one of these managers promoted a LGBTQ+ woman to CEO.

Diversity efforts are assessed in the initial due diligence of investments for RMS, with a DEI section incorporated in the investment recommendation. Ongoing discussion of DEI is part of meetings with existing managers.

In the community, RMS actively supports the CalSTRS student intern program, to attract diverse professionals, and the Investments Branch mentorship program, to promote internal growth and development. RMS also volunteers at community events, such as the Junior Achievement Stock Market Challenge, to expose diverse youth to investing and financial literacy.

RMS is also active on the CalSTRS Diversity Team by contributing ideas to influence the investment community and support diversity initiatives. RMS will continue to be active in attending DEI events such as ones organized by the Association of Asian American Investment Managers, Toigo Foundation, Beyond Talk, Catalyst: California's Diverse Investment Manager Forum, and emerging manager conferences. These events and forums showcase CalSTRS commitment to DEI initiatives.

PATH TO NET ZERO

Measuring and reducing carbon emissions

RMS has measured Scope 1 and Scope 2 emissions from its long cash equities and corporate debt holdings. However, for most of the RMS portfolio, there are challenges in measuring and reducing portfolio emissions. RMS investment managers generally trade derivatives, not company stock, bonds, or underlying commodities, and presently there is no accepted standard for how to measure emissions in derivatives. RMS will continue to work with partners on potential ways to expand portfolio emissions measurement capabilities.

Investing in climate solutions

The structure of derivatives makes it challenging to

directly impact carbon emissions, so many managers avoid creating funds dedicated to net zero strategies. The managers that have started dedicated funds focused on climate emissions are too young to produce reliable track records. RMS will continue to monitor the opportunities as they develop over time. During fiscal year 24/25, RMS plans to incorporate net zero metrics in the underwriting of new investments and create a rating guideline that evaluates and tracks manager integration of net zero considerations.

Using influence to accelerate the net zero transition

Despite difficulties measuring portfolio emissions and investing in low carbon solutions, staff will continue to survey its managers on their net zero policies and practices. The survey will serve as a tool to discuss relevant net zero topics, understand the industry's direction, highlight manager successes and challenges, and promote progress in emissions measurement.

Staff will continue to encourage the increase of net zero considerations into managers' investment and risk management processes, as well as their allocation of net zero resources.

COLLABORATIVE MODEL

The Collaborative Model provides opportunities for staff to refine the execution of the RMS program and leverage the internal expertise across the Investment Branch. In doing so, staff believes it can continue to improve the program's ability to diversify the exposure to equity growth risk at the CalSTRS Total Fund level. Staff has been working with Fixed Income and Operations teams to consider improvements to the cash management process within the managed account platform to lower costs and enhance returns. Staff has also been exploring lower-cost solutions to improve the efficiency of the program and complement the externally managed implementation. For example, staff has started to conduct research on investment bank products. Staff plans to continue this work with the help of Global Equity and Fixed Income teams. Other potential areas of exploration include index replication products, liquidity management, and co-investment opportunities. In addition, staff remains cognizant of the explicit costs paid to managers. Staff has historically had success negotiating preferable terms with managers and expects to be able to continue to do so as the portfolio grows.

SUSTAINABLE INVESTMENT & STEWARDSHIP STRATEGIES (SISS)

FAST FACTS

Assets: \$5.2 Billion as of 3/31/2024
Inception Date: 1978 (as Corporate Governance)

Asset Management:

Internal Management: \$0.3 Billion (6%)
 External Management: \$4.9 Billion (94%)

Number of External Managers: 16 (8 Public + 8 Private)

Public Portfolio Benchmark: CalSTRS Custom MSCI All Country World Investable Market Index (MSCI ACWI IMI)

Private Portfolio Benchmark: Blended weight of respective private asset class benchmarks; positive contributions to sustainable global economy

Alpha Objective – SISS Public Portfolio: 70 bps

PROGRAM DESCRIPTION



The SISS unit was established in 1978 and is responsible for CalSTRS sustainable investment related activities. The unit is organized around three focus areas, including the implementation of CalSTRS net zero portfolio emissions by 2050 or sooner, pledge:

Sustainable Investment: Portfolio management includes active public market strategies deriving investment performance through the intentional integration of sustainability considerations in the investment process and private market strategies with attractive risk-return characteristics and demonstrable positive sustainability outcomes.

Stewardship: Activities to align the financial markets with CalSTRS long-term investment horizon. Primary activities include proxy voting, portfolio company

engagement and regulatory/legislative engagement to influence sustainable business practices.

Strategic Relations: Outreach and communications to a wide range of internal and external audiences with a focus on CalSTRS investments and engagements.

INVESTMENT TEAM (29)

Director: Kirsty Jenkinson (5 yrs CalSTRS; 28 yrs total)

(Senior) Portfolio Managers: Aeisha Mastagni; Brian Rice; Daniel Lau; Lynn Paquin; Nick Abel; Nile Garritson

Associate Portfolio Managers: Douglas Chen; Joshua Kim; Katherine Fackler; Sarah Maile

Investment Officers: Annie Kropinova; April Uyematsu; Gabriel deMesa; Ilena Drake; Joakim Mahlberg; Matthew Saha; Michael Wilson; Nicole Sanchez; Rajveer Dhanoa; Rekha Vaitla; Steven Parker; Taylor Tsao

CEA: Michael Weston

Support Team: Gerade Mejia; Samuel Hernandez; Veronica Ballejos

Vacancies: 2

OUTLOOK FOR 2024-25

SISS believes there are long-term secular growth tailwinds supporting sustainable investment – driven by the urgency of climate action, policy support, technology, evolving business models, and consumer preferences shifts. However, looking to FY24-25, staff anticipates potential headwinds for sustainability-related public equities relating to market uncertainty around near-to-medium term interest rates, possible economic contraction and global political instability.

Staff is reconstituting the SISS Public Portfolio in alignment with its new allocation framework as an active satellite portfolio of CalSTRS Total Public Equity. The SISS Private Portfolio, is actively growing CalSTRS’ exposure to climate solutions aligned with its target allocation, which includes a robust pipeline of investments across the private markets risk-return spectrum. Going forward, a key challenge will be balancing and prioritizing team resources between increasing investment due diligence for more complex private transactions, reconstituting the SISS Public Portfolio, onboarding new team members, and escalating stewardship initiatives in an increasingly charged political landscape in the U.S.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Internal staff

In alignment with the Branch’s strategic goal of improving hiring and retention, the team intentionally prioritizes diversity in the hiring process, with the current team benefiting from gender, national and cultural diversity, with multiple team members having been born outside the U.S. and nine languages spoken fluently. SISS staff sit on the Investment Branch DEI Steering Committee and Diversity Team.

Industry and portfolio engagement

Influencing corporate board oversight of DEI is one of CalSTRS [Stewardship Priorities](#) through SISS team collaboration with the Human Capital Management Coalition (HCMC) and the California Investors for Effective Board Diversity. Additionally, DEI is actively promoted through proxy voting, including votes against directors of non-diverse boards and CalSTRS support for multiple shareholder proposals requesting enhanced board director diversity and skills disclosure.

Portfolio management

SISS proactively evaluates and encourages partners to continuously improve their DEI activities. As of 03/31/24, 25% of SISS external partners are diverse managers. In addition, all sustainability-focused managers in the SISS Public Portfolio have extensive DEI programs including firm-wide unconscious bias training for staff as well as stewardship-related diversity goals.

PATH TO NET ZERO

Measuring and reducing carbon emissions

SISS leads the public market emissions measurement process (including for the SISS Public Portfolio) and during FY24-25, will work with other units to further refine CalSTRS emissions measurement to meet evolving data requirements and support emissions reduction plans. In FY24-25, the SISS Private Portfolio team will develop a ‘taxonomy’ for portfolio holdings to better understand portfolio carbon exposure and to help direct future climate solutions investments.

Investing in climate solutions

SISS has exposure to approximately \$2.8 billion in sustainability-focused public equity managers investing in companies supporting the transition to a low-carbon

economy. During FY24-25, SISS expects to onboard up to four new sustainability-focused public equity managers, including one decarbonization strategy that invests across renewable energy, electrification, and resource efficiency themes.

The SISS Private Portfolio has currently committed more than \$1.8 billion to climate solutions ranging from infrastructure to venture capital investments. In FY24-25, SISS intends to continue to grow exposure to climate solutions in line with the approved pacing to the 1% strategic asset allocation target for the SISS Private Portfolio.

Using influence to accelerate the net zero transition

SISS is responsible for escalating CalSTRS climate and net zero oriented engagements with companies, regulators, and policy makers. CalSTRS continues to hold company directors accountable for corporate climate risk management through proxy voting and through engagements with high emitting companies to set targets to reduce greenhouse gas emissions. Staff continues to focus on mitigating methane emissions, a potent greenhouse gas, and to advocate for the widespread adoption of global sustainability disclosures.

COLLABORATIVE MODEL

The SISS Private Portfolio advances the goals of the Collaborative Model through both its ‘Scaling’ and ‘New Opportunities’ sleeves. The ‘Scaling’ sleeve leverages existing partnerships at preferred economics across CalSTRS private asset classes with a particular focus on climate solutions. The ‘New Opportunities’ sleeve expands CalSTRS exposure to climate solutions through new partnerships that take advantage of unique return opportunities while leveraging advantaged economics, increased oversight and greater control. At times, these investments include opportunities that do not ‘fit’ cleanly into existing private asset class policies and benchmarks.

Staff anticipates a higher proportion of investments occurring in the ‘New Opportunities sleeve’, given its robust pipeline, including possible platform partnerships and co-investments. SISS intends to further leverage external advisors to assist with more complex transactions and improve risk-averse structures to ensure staff can effectively execute in a timely manner, maintaining CalSTRS position as a partner of choice.

INVESTMENT OPERATIONS

FAST FACTS

Assets: \$336.2 Billion as of 3/31/2024

Asset Mix	In Millions	%
Public Equity*	139,831	41.59
Private Equity*	51,809	15.41
Real Estate*	47,849	14.23
Fixed Income	35,496	10.55
Risk Mitigating Strategies	29,382	8.74
Inflation Sensitive	21,073	6.27
Innovative Strategies*	5,413	1.61
Cash	5,273	1.57
Strategic Overlay	103	0.03
Total	\$ 336,229	100%

* Includes Sustainable Investment & Stewardship Strategies
 Public and Private investments total of \$5,234 (in Millions)

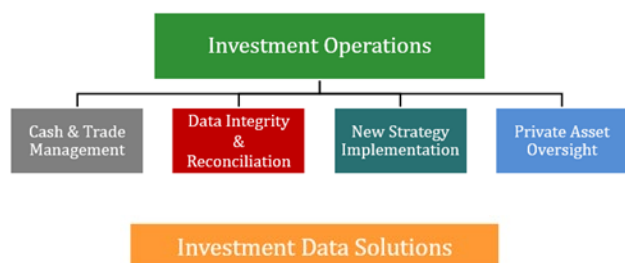
Asset Management:

Internal Management: \$159.1 Billion (47%)

External Management: \$177.1 Billion (53%)

Number of External Managers: 182

PROGRAM DESCRIPTION



Investment Operations was formally established in 1987 and is an essential component of the Investment branch. Investment Operations focuses on a multitude of investment services functions to support internal and external portfolio activities across all asset classes, such as pre-settlement and post trade portfolio controls, and cash flow management to ensure fund liquidity to meet member obligations. Additionally, Investment Operations manages the CalSTRS global custodian relationship to protect investment assets and minimize custodial risk, enabling investment management to concentrate on generating alpha.

INVESTMENT OPERATIONS (38)

Head of Investment Operations: Kelly Criss (10.5 years at CalSTRS, 19 years industry)

Associate Portfolio Managers: Harmony Kingston, Haytham Sharief, Matthew Schroeder, Pedro Morais

Investment Officers: Alicia Osborn, Andrey Golub, Carlos Maciel, Chris Hunter, Daniel Thai, Diego Sanchez, Edwin Chu, Eli Bradaric, Erica Hogans, Erick Gutierrez, Harshini Perera, Huy Ngo, James Hagerty, Joanne Taylor, Karen Tuason, Kimberly Le, Lilit Arakelyan, Lucy Yang, Mami Wong, Michael Carlson, Mylene Wu, Ralph Smith, Robert Corey, Ron Leu, Sonia Sanchez, Taylor Henry, Thomas Willardsen, Timothy Smith, Wendy Raute

Vacancies: 4

INVESTMENT DATA SOLUTIONS (5)

Head of Investment Data Solutions: Albert Yong (1.5 years at CalSTRS, 22 years industry)

Associate Portfolio Manager: Jen Enos

Investment Officers: Pamela Okino, Jessica Whitmer

Vacancies: 1

OUTLOOK FOR 2024-25

Total Fund Management: Investment Operations will continue to partner with the asset classes to support the implementation of Total Fund strategies including the liquidity instruments, leverage reporting, private markets cash pacing, private markets data stewardship, trade management, and liquidity oversight.

Operational Risk Management: As a core responsibility, Investment Operations is focused on identifying, assessing, and mitigating potential risks, improving the effectiveness of internal controls, providing custodian oversight, trading order management system, and private asset fee consultant.

Valuation Oversight: The team continues to establish operational processes and controls for valuation oversight of new investment strategies, while developing and implementing best practices of valuation. As the complexity of new investments

increases, oversight will continue to evolve and be re-evaluated to ensure an accurate fair value is reflected.

Branch Wide Initiatives: Investment Operations is leading the effort to open a new satellite investment office in San Francisco to expand CalSTRS diverse talent pool and enhance engagement and collaboration. Additionally, as CalSTRS staff begin to move into 200 Waterfront, Investment Operations is partnering with other CalSTRS business areas on space planning for the Investments Branch.

Technology: The Investment Data Solutions (IDS) group leads key Investment Branch technology initiatives including building data solutions and a target investment technology roadmap. The IDS group is exploring the capabilities of Generative AI to enhance various business functions with the goal of improving cost savings and efficiency, while driving better investment decision-making. A strategically designed and robust data and technology architecture, supported by modern technologies and a comprehensive investment data governance structure are needed to enable data-driven investment decisions across all asset classes and for Total Fund analysis.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

Diversity, equity, and inclusion are key drivers of innovation and business success, and it is critical that all employees are valued, respected, and empowered to contribute their unique perspectives. Investment Operations promotes a workplace culture of diverse thought and backgrounds within the team and throughout hiring and retention practices. Staff advertise open job opportunities with affinity groups to identify a pool of qualified and diverse candidates. Additionally, interview panels include diverse team members. Staff partner with Human Resources to assist in the screening criteria for recruitments. To promote staff's growth, the team encourage internal training opportunities across the different Operations' teams and external industry-focused education while providing mentoring by senior staff.

The Director of Investment Services is a member of the

CalSTRS Investment Branch Internal Diversity Steering Committee and other staff actively participate in the Diversity Team. The Operations team continues to support engagement and outreach efforts by attending industry events and participating in community programs such as Beyond Talk, Catalyst, Pathways for Women, Toigo Foundation, Junior Achievements and National Charity League.

PATH TO NET ZERO

Investment Operations is committed to supporting CalSTRS' pledge to move the investment portfolio to net zero emissions by 2050 or sooner.

Staff are members of the Net Zero Green Team and internal working groups, assisting with the development and implementation of action plans and evaluating potential operational risks. The team partners with the asset classes to implement and support new sustainability-focused investment strategies across the Total Fund. Staff leverage partnerships with service providers to gain new insights in developing an overall investment framework while being cost conscious and supporting current low-carbon internal strategies.

With the need for increased analytics and reporting around net zero strategies, staff will continue to partner with asset classes and CalSTRS custodian to research, implement, and support analytical solutions, data feeds, and technology to measure the progress of net zero efforts. Staff will seek increased engagement from the custodian regarding net zero reporting, expertise, and support.

COLLABORATIVE MODEL

Operations continues to partner with the asset classes to implement and service investment strategies across the branch. Staff continue to innovate and optimize current tasks to expand bandwidth, increase efficiency, and enhance operational control, monitoring and mitigation functions. The growth of private markets collaborative investments and the additional focus on liquidity solutions has presented the fund with a new set of opportunities along with added complexity of direct ownership of assets and leverage strategies. This

has both a private and public component and requires increased focus on internal controls, liquidity management and optimal asset allocation. Operations supports these initiatives by providing liquidity forecast, cash pacing data and onboarding services for new collaborative strategies.

INVESTMENT PERFORMANCE & COMPLIANCE (IPC)

FAST FACTS

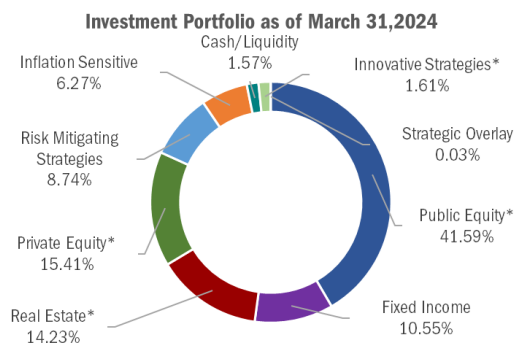
Assets: \$336.2 Billion as of 3/31/2024

Asset Management:

Internal \$159.1 billion (47%)

External \$177.1 billion (53%)

Benchmark: STRS Custom Total Fund Index



* Includes Sustainable Investment & Stewardship Strategies Public and Private investments

PROGRAM DESCRIPTION

The IPC program comprises of two functional areas: **Investment Performance & Analytics and Investment Compliance.**

Investment Performance & Analytics ensures performance accuracy through robust examinations. The team performs strategy consultation and implementation, performance attribution, costs and other types of portfolio analysis. Staff produces analytics to help understand the drivers of performance and evaluate short- and long-term investment decisions. In addition to providing advisory services and independent reviews of benchmarks, staff also implement and manage all custom investment benchmarks and the Total Fund hierarchy structure.

Investment Compliance focuses on investment laws and regulations, policies impacting the Investment Branch, conflicts of interest, and mitigating business risk. Staff advise the asset classes on compliance topics and best practices over the entire life cycle of an investment or strategy. The team’s work is driven by a principles-based philosophy in establishing oversight and controls over compliance matters - to effectively avoid and mitigate

potential business risks. Staff work in conjunction with the other critical control areas within CalSTRS to support branch and enterprise initiatives.

INVESTMENT TEAM (20)

Head of Investment Performance & Compliance: Shifat Hasan (12 years at CalSTRS; 19 years total)

Associate Portfolio Managers (APM): Kimberly McDonnell, Melissa DaRonco, Mike Dunigan, Sanjay Singh

Investment Officers: Ryan Phillips, Monica Robinson, Richard Morgan, Nicole Rains, Marcella Tedla, Katie Lee, Catrina San Juan, Robert Cordova, Evan Clapham, Diego Meneses, Aishwarya Rangarajan, Diana Campos

Vacancies: 3

OUTLOOK FOR 2024-25

The Total Fund is managed through a complex structure of portfolios and benchmarks representing various aggregates rolling up to the asset classes. IPC is positioned to support strategic and tactical portfolio decisions through expert advisory role, robust controls and post investment analytics.

Investment Performance & Analytics: An area of focus in FY 24-25 is the implementation and expansion of enhanced performance and analytics reporting. In partnership with custodian, State Street Bank, a new performance analytics system will provide a Total Fund Multi-Asset Class platform as a critical step toward modernizing the investment reporting infrastructure and capabilities. Staff continue to evaluate and enhance performance analytics to provide valuable insights related to investment objectives, allocation and risk management decisions.

Investment Compliance: In FY 24-25, the team will continue to support governance across all asset classes; focus on risk mitigation through system enhancements to the personal trading program, development of additional conflict of interest disclosures, enhanced periodic reporting, and oversight of activities required by policy and regulation. The team is also developing standardized processes to support the private asset classes in their pre-deal negotiations and due diligence, particularly by assessing implications for Material Nonpublic Information (MNPI), investment policy, and regulatory provisions and requirements.

DIVERSITY IN THE MANAGEMENT OF INVESTMENTS (DIMI)

IPC supports the vision and long-term strategic goals of the DIMI program and its increased integration into the asset classes. Staff are members of the Diversity Steering Committee and the Head of IPC provides oversight and review of the Diversity Officer’s work and ongoing guidance regarding DIMI’s approach and initiatives. IPC staff are members of the Investments Diversity Team. In FY 24-25, the team will support data collection initiatives under the DIMI strategic plan.



Internal Staff: Diversity, Equity and Inclusion begin with the team’s hiring practices, expanding beyond traditional definitions and seeking to create a team with complementary backgrounds and skill sets. The team emphasizes diverse work styles, education, and experience and focuses on learning and utilizing every individual’s strength through sessions and activities to better understand, appreciate and celebrate the collective strength derived from diverse backgrounds. Staff support mentorship opportunities through CalSTRS internal mentorship programs and the Student Internship Program.

Industry and Portfolio Engagement: IPC continues to play a key role in the implementation of AB890, providing support for survey management, data collection and reporting. The team continues to assist with broader industry engagement through participation on panels, workshops and conferences including Beyond Talk and Catalyst forum.

Portfolio Management: In support of the Special Mandates program, staff will continue to monitor the performance of Investment Committee directed strategies that are expected to provide positive returns and ancillary benefits focused on DEI and ESG practices. Performance staff prepare annual Board reports inclusive of returns relative to their respective benchmarks and engage with the Board’s consultant

for independent assessment.

PATH TO NET ZERO

IPC provides subject matter expertise in regulatory oversight, portfolio restrictions, (relating to thermal coal), opportunity cost scenario analysis and performance and cost implications relating to active portfolio decisions. In partnership with SISS, IPC has portfolio restriction costs analytics and will continue expanding these analytics in FY 24-25.

IPC staff are members of multiple net zero working groups advising on cost measures, ESG policies, and measuring performance results. IPC continues to support implementation decisions as the asset classes seek to align with the Investment Committee’s net zero pledge and meet the Total a critical strategic partner to the asset classes in the implementation of investments and investment strategies, Total Fund structural changes, benchmarks and assessing certain pre-funding and post funding business risks. Fund’s risk and return goals. Specifically, the team serves as

COLLABORATIVE MODEL

IPC plays a key role in the governance and oversight of Total Fund initiatives and strategies. Staff develop and update policies and guidelines, mitigate risk, and implement efficient processes. The team also supports Total Fund liquidity, leverage efforts and provides independent oversight by advocating for best business practices and implementation support. The team generates analytics for Collaborative Model strategies: savings success, value added, relative comparison, cost and savings projections, and controlling risks. These efforts are in line with the Collaborative Model objectives to take advantage of an expanded opportunity set, implement non-traditional portfolio hierarchies, and measure results.

The team has embarked on a consultative-oriented model to support the asset classes in their investment endeavors. Approved at the May 2024 Investment Committee, staff played a key part in the structure and governance of the Collaborative Strategies Portfolio policy – which is significant in allowing staff to continue expanding investment opportunities. IPC will continue to apply expertise in monitoring, implementing, and measuring these strategies by leveraging the team’s Total Fund experience.