CALSTRS

Investment Committee

Item Number 6 – Open Session

Subject: Collaborative Model 2.0

Presenter(s): Scott Chan

Item Type: Information

Date & Time: November 4, 2021 30 minutes

Attachment(s): None

PowerPoint(s): Collaborative Model 2.0

POLICY

The CalSTRS Collaborative Model is an investment strategy to manage more assets internally - to reduce costs, control risks and increase expected returns - and leverage our external partnerships to achieve similar benefits.

Implementation decisions, such as managing assets internally versus externally, are delegated to staff subject to the CalSTRS Investment Policy and Management Plan, IPMP. Decisions to provide additional resources and support to the CalSTRS Collaborative Model are not covered under any specific policy; however, if the Investment Committee approves any recommendations or changes that require policy changes, they will be integrated into the IPMP and any other policy document, as appropriate.

BACKGROUND AND HISTORY

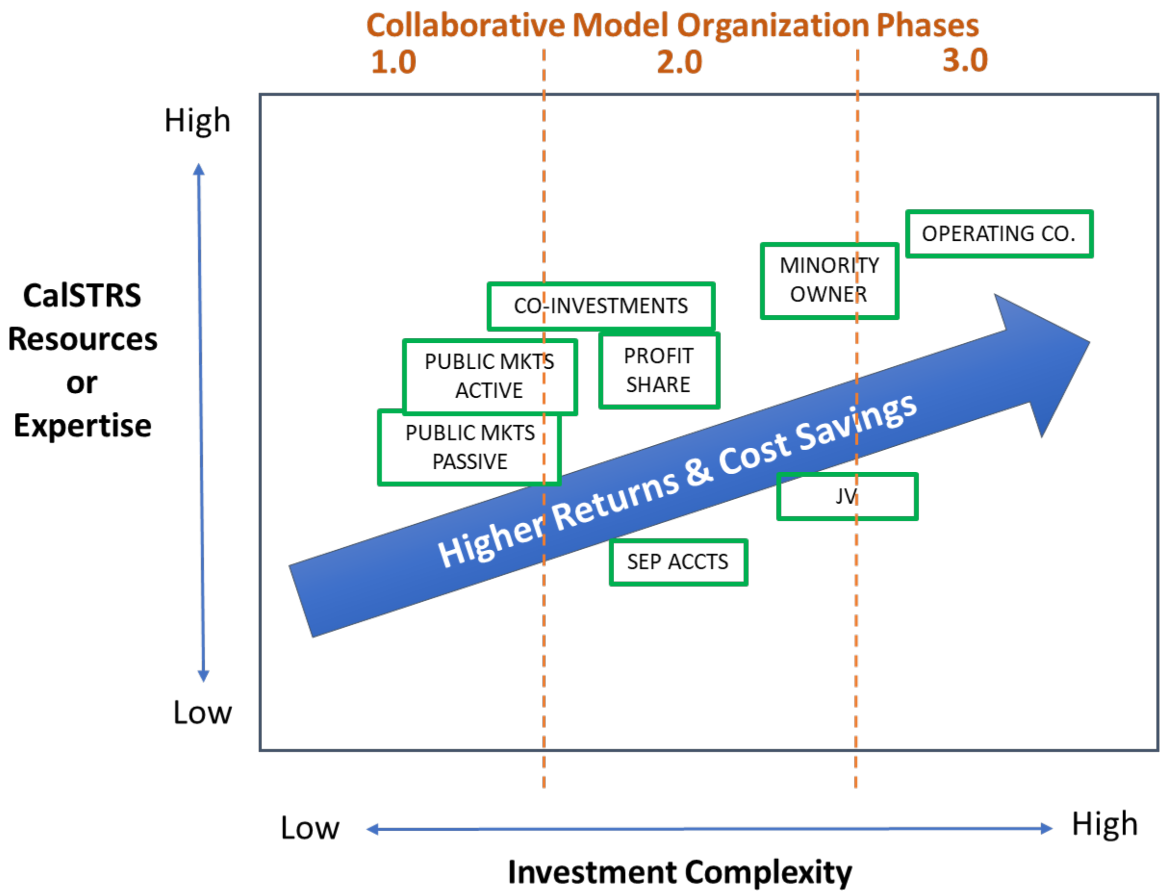
The CalSTRS Collaborative Model (CM) enables and supports our mission to secure the retirement future of California's educators.

The Collaborative Model Continuum

The Collaborative Model Continuum (Continuum) is a useful framing tool to understand CalSTRS history and the future phases of the CM. The Continuum portrayed in *Figure 1*, describes the evolutionary path for CalSTRS to manage more assets internally (or pursue increasingly 'direct' investment strategies) and demonstrates how executing increasingly complex investment strategies correspondingly increases the resource demands and/or expertise required of the organization. Accordingly, CalSTRS has needed to mitigate the risks of complexity by increasing resources and/or expertise in areas such as specialized staff, technology, risk management, compliance controls and consulting/advisory/legal services. Importantly, the Continuum helps to define how each phase of the Collaborative Model needs to be operationalized to be successful.

A necessary condition of undertaking complex investment strategies is they lead to increased returns, or lower costs, or a combination of the two. The Continuum illustrates three dimensions of investment complexity (along the x-axis of *Figure 1*): (1) Active/Passive; (2) Structure or Level of Control, and (3) Liquid/Illiquid markets. These are described further in *Appendix 1.* Our exposure to these different investment strategies, determines the level of complexity involved.

Figure 1: Collaborative Model Continuum



Organizational Phases

The Continuum can be broken out into three organizational phases (CM 1.0, 2.0, and 3.0). We are currently in the early part of implementing the Collaborative Model 2.0 (CM 2.0).

During the first phase of the Collaborative Model (CM 1.0), CalSTRS accomplished the following:

- **Public Markets:** brought the management of certain elements of public markets, Fixed Income and Global Equities, strategies in-house.
  - Internal active management of Fixed Income began in 1987; approximately 85 percent of our total Fixed Income assets are now managed internally.
  - Management of passive Global Equities began in 1998 and our internal management has accelerated from 2016-2020. Over 70 percent of our total passive Global Equities assets are now managed internally.

  - It is unlikely that significant additional assets will be managed internally, given the already high levels of internally managed public market strategies. However, the teams continue to save costs when appropriate – For example, Fixed Income began to manage a Core Plus portfolio internally in October 2020 and Global Equities began to manage an Emerging Markets passive portfolio internally in April 2021.

- **Private Markets:**
  - Private Equity increased the proportion of annual commitments in the form of no fee and no carried interest co-investments from less than 5 percent to approximately 20 percent over the past three years.
  - Inflation Sensitive has been investing more and more in custom separate accounts, co-investments and joint ventures.
  - Real Estate has approximately 80 percent of AUM in collaborative structures (joint ventures and separate accounts.) In addition, Real Estate has made five investments in operating companies.

Today, CalSTRS implements investment strategies representing all three phases of the Continuum. For example, in May 2019, CalSTRS became the majority owner of a real estate operating company, Fairfield (representing the 3.0 phase). However, institutionally, CalSTRS has more investments in the 1.0 phase, less in 2.0 and even less in 3.0. Therefore, the predominant opportunity exists to move progressively more CalSTRS investment strategies into the CM 2.0 phase.

It is important to note that the CM 2.0 builds on the first phase of the CM but does not eliminate or replace it. In other words, we will continue to execute and capitalize on the cost savings of internal management in the public and private markets, while increasing the number and types of strategies in the CM 2.0.

Progress to Date

As outlined in *Table 1*, Staff has achieved significant achievements in moving from CM 1.0 to CM 2.0 over the past two years. For reference, the history of milestones in the evolution of the CM, going as far back as 1980, is attached in *Appendix 2*.

Table 1: Collaborative Model Milestones 2019-2021

Collaborative Model Milestones

Date	Milestone	Asset Class / Program
May 2019	CalSTRS begins "Pillars" project to build internal capabilities and support the Collaborative Model	Investment Branch wide
May 2019	CalSTRS becomes majority owner of Fairfield Residential Company LLC	Real Estate
September 2020	Innovation invests $1B in first direct lending strategies that include revenue sharing and equity ownership stakes	Innovative Strategies
October 2020	Fixed Income funds internally managed core plus portfolio	Fixed Income
November 2020	Investment Staff presents the 2019 Annual Investment Cost Report showing five straight years of decreased overall costs in basis points	Investment Services
December 2020	Fixed Income invests in first private credit investment	Fixed Income
February 2021	Fixed Income and Real Estate commit $500m to a private credit investment	Real Estate / Fixed Income
April 2021	Internal management of emerging markets equity index portfolio	Global Equity
April 2021	Funded SISS Low-Carbon Transition Readiness ETFs	Global Equity / SISS
June 2021	Funded SISS Low-Carbon Emerging Markets Portfolio	Global Equity / SISS
June 2021	Private Equity achieves goal of investing at least 20% of annual commitments in the form of no fee / no carried interest co-investments	Private Equity
July 2021	Staff begins public/private crossover strategy research	Global Equity / Private Equity
August 2021	First joint venture establishing a C-Corp/Operating Company	Inflation Sensitive

Up to this point, CalSTRS has grown the Collaborative Model progressively and prudently to mitigate the associated risks by increasing staff (both investment and other CalSTRS business units), adding software and technology, bolstering risk management, operational expertise, and compliance controls, and adding consulting and legal expertise. Staff has been working toward achieving internal operational excellency, that involves strong operational control processes and a robust compliance program. CalSTRS continues to make enhancements by centralizing the new investment strategies process across all asset classes and building a roadmap for the ever-changing regulatory environment.

In addition, CalSTRS has become a more responsive and nimble organization through improving internal operations and processes by implementing the enterprise-wide Pillars Project. The Pillars Project has delivered significant efficiencies and enhancements relating to four key areas: Human Resources, Procurement, Travel and Hybrid (Legal, Financial Services, Technology and Communications).

According to the Collaborative Model Savings report, CalSTRS has achieved an estimated average annual savings of $195 million over the past 4 years. In calendar year 2020, the Collaborative Model produced roughly $309 million in cost savings. Additionally, according to the 2020 Cost Report, CalSTRS spent $2.2 billion (including incentive fees) to manage the investment program in calendar year 2020. Out of this expense, $439 million is attributable to CalSTRS investment staff and all associated costs of operations to manage or oversee 64 percent of assets internally or in Collaborative Model partnerships (reflecting 13 percent in the private-internal category and 51 percent in the public-internal category). On the other hand, CalSTRS spent the remainder of the $2.2 billion or over $1.7 billion to pay external managers.

DISCUSSION

The purpose of this item is to describe and explain the opportunities and challenges of the second phase in the evolution of the Collaborative Model. There are three important points to understanding CM 2.0: (A) The Vision to be the global partner of choice; (B) The Three Keys to unlocking the vision; and (C) The Partnership required between the Board, investment staff, CalSTRS organization and consultants to succeed in implementing the vision.

A. Vision: Global Partner of Choice

To fully capitalize on the benefits of the Collaborative Model, it is paramount that CalSTRS be the 'Global Partner of Choice' to capture the best investment opportunities worldwide. Being perceived as such by our investment partners, managers and peers, leads to superior deal flow and better investment opportunities. This vision moves CalSTRS from a best in-class organization to a world leading pension fund. Accomplishing this vision requires an organization-wide effort and realizing it will help to secure the retirement futures of California's educators.

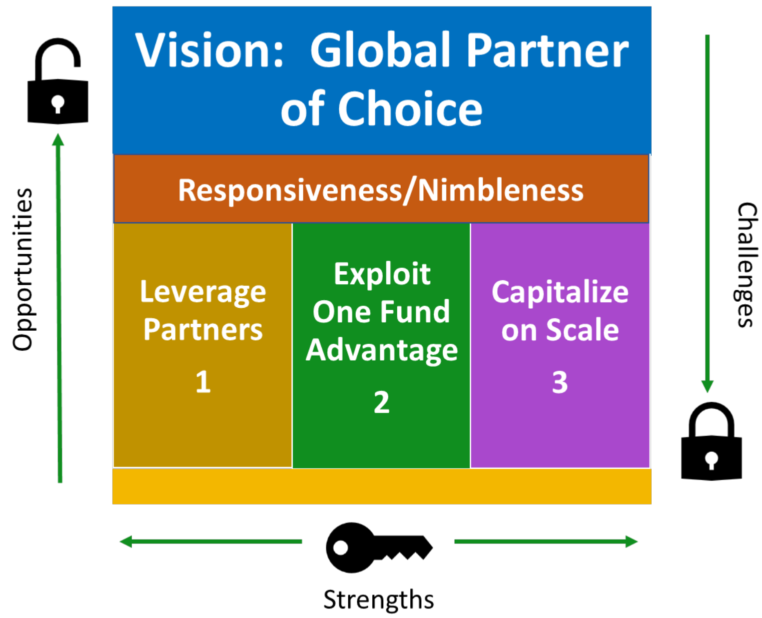
In the optimal and final phase of the Collaborative Model, CalSTRS will have evolved into an organization that has built out the necessary resources and expertise. This includes, but is not limited to, risk management, operational processes, and compliance controls to mitigate execution risk and traverse all three phases along the Continuum. Accordingly, CalSTRS would be able to execute on any CM investment strategy described in *Appendix 1* across all asset classes.

CalSTRS organizational transformation is evolving while competition is accelerating for a smaller set of valuable investment transactions. CalSTRS competes against larger (greater assets), well-resourced (large and sophisticated investment teams) and more flexible/nimble organizations. CalSTRS must therefore continue to evolve and become even more nimble, dynamic, and adaptive to stand out as a desirable partner in a sea of global competition.

B. Three Keys Unlock the Vision

Three keys, capitalizing on CalSTRS strengths, will help unlock our vision for CM 2.0: (1) Leverage Partners; (2) Exploit 'One Fund Advantage', and (3) Capitalize on Scale. Each of these three keys affords CalSTRS the opportunities to meet our vision, but they also bring forward new sets of organizational challenges.

Figure 2: Vision and Three Keys



1. Leverage Partners

Strength

CalSTRS has developed an excellent reputation and brand across the investment management industry. At the TRB/Investment Committee level, CalSTRS board members have provided stable and thoughtful oversight on investment policies and long-term vision while deftly navigating the many difficult political issues attendant to U.S. public pension plans. CalSTRS has developed a strong culture of excellence, that continues to attract and retain top talent. As a result, CalSTRS is often perceived to be more consistent, rational, thoughtful, knowledgeable, and transparent than many other organizations in its peer group. These characteristics tend to make CalSTRS more sought-after as an investment partner and this leads to higher quality relationships, better deal flow and better investment opportunities.

Opportunities

This competitive advantage provides fertile ground for CalSTRS to leverage our partners to not only save costs, but also raise returns through value-added investment structures like profit-sharing opportunities.

Case Study: In September 2020, the Innovative Strategies team invested in a private direct lending strategy with a significant level of assets both in limited partnership investments and in no fee, no carry co-investments. By investing in limited partnerships and increasing the proportionate ratio of no fee, no carry co-investments, we are able to dramatically reduce costs. However, what's different in CM 2.0 is that the Innovative Strategies team also negotiated a revenue sharing agreement which enables CalSTRS to benefit from the potential growth of the platform. CalSTRS will receive a portion of all revenues, including asset management fees and carried interest, earned by the manager. Under the arrangement, CalSTRS also received a small equity ownership stake in the company that manages the direct lending funds.

The additional value of creating these structures with our partners can be significant, and in the case study above, its estimated that 30-40 percent of the total value add arises from the cost savings of co-investments, while 60-70 percent arises from equity ownership and revenue sharing.

Challenges

Training/Retaining/Recruiting Staff: As we increase the level and number of complex investment strategies, a higher level of staff resources and/or specialist expertise will be required. The Investment Branch will have the challenging task of training, retaining and mentoring staff while continuing to create a team-oriented culture as we transition to a blended work environment. Another challenge is recruiting for investment positions over the next five years as outlined in the 2021 Investment BCP. To support this effort, the Investment Branch is actively recruiting talent living outside the Sacramento region in areas such as San Francisco and Los Angeles – and at a national level.

Technology: In order to take advantage of the opportunity set across our partners, we will need better ways to track our partners' activities and relationships through enhanced software and technology.

2. Exploit 'One Fund Advantage'

Strength

CalSTRS is well-known in the industry for our team-oriented and collegial culture. CalSTRS has won the award, *"Best Places to Work in Money Management"* by Pensions and Investments six times and consecutively for five years (2013, 2016-2020). This competitive advantage is paying dividends in the CM 2.0 as multiple asset classes are teaming up to find investment opportunities together where there is less market competition. The One Fund Advantage seeks to exploit opportunities that exist in the gaps between asset classes, across multiple asset classes, from private markets to public markets and to leverage insights and knowledge across the entire CalSTRS platform.

Opportunities

Case Study: The Real Estate team has traditionally invested in private lending for commercial real estate. Separately, the Fixed Income team buys public CMBS (commercial mortgage-backed securities) pools. What's different in CM 2.0 is that recently the Real Estate team partnered with Fixed Income to jointly launch, with a partner, the ability to both execute private real estate lending strategies through securitizing loan pools into CMBS. This partnership enables CalSTRS to capture the value of the spread (versus paying the spread) and provides options to invest in the higher risk (Real Estate) or lower risk (Fixed Income) pools of assets with an informational advantage. This exemplifies an opportunity that is both between two asset classes but also spans the spectrum of investing from private to public assets.

Challenges

Benchmark flexibility: Traditionally, asset owners are organized into distinct asset classes with specific benchmarks; and CalSTRS is no exception. One of the flaws in this model is an organization's ability to capture opportunities that fall in between or across asset classes. These opportunities naturally fall outside of our asset class benchmarks and represent tracking error.

Incentives: Our current incentive structures focus more weight on asset class performance, which creates a greater incentive to focus on risks that are included in an asset class benchmark. This tends to limit focus on 'total fund' opportunities. Accordingly, while the culture supports and is ready to capitalize on these opportunities, incentives may need to be aligned to further this goal.

Technology: More advanced software and technology systems are required to communicate knowledge across teams, better track and capture these opportunities, and provide deeper analyse on these complex investments. Integration of technology systems and investment analytics software will require a unique skillset of staff with expertise in both investments and information technology.

3. Capitalize on Scale

Strength

As the largest educator-only pension fund in the world, CalSTRS can take advantage of our scale. Larger position sizes facilitate our ability to create more value-added structures along the Continuum.

Opportunities

Case Study: Approximately one year ago, Private Equity invested $250 million in a co-investment alongside one of their most successful investment partners with whom they have a decade long relationship. This investment is exceeding expectations and the investment partner is seeking to raise additional capital to continue to build the portfolio company. This presents a potentially lucrative opportunity to invest additional funds with no fee and no carried interest charges in a well-performing portfolio company with a highly regarded investment partner. However, under current policy, staff lacks delegated authority to invest more than $250 million in any one co-investment.

Challenges

Risk mitigation: Larger position sizes increase execution risks and require additional staff expertise and operational controls to mitigate these risks.

"Unwarranted Diversification" dilutes scale: Similar to exploiting a One Fund Advantage, there is also a challenge in capitalizing on our scale at each asset class level. At large funds, such as CalSTRS, asset classes attempt to diversify their asset class portfolios to manage risk to a benchmark. As each asset class is far smaller than the aggregate CalSTRS fund, individual asset class position sizes are smaller than the scale that CalSTRS is capable of taking on to achieve diversification on a total fund level.

Technology: Larger position sizes and more staff control requires a data solution that allows for dynamic data analysis and data aggregation to manage exposures across the portfolio.

C. Partnership

To succeed in achieving the vision of the Collaborative Model and continue to move along the Continuum towards CM 2.0, investment staff and the entire CalSTRS organization need to progress in a way that mitigates execution risk. As the type and number of complex investment strategies increases, CalSTRS has an opportunity to build our risk management, compliance controls and processes while growing our internal staff resources and expertise to match the challenges of these changes. CalSTRS began investing directly in 1987 and has built a successful track record to date of growing internal management in a prudent manner, while saving costs and bolstering returns.

As described, unlocking the three keys of the Collaborative Model vision, brings both significant opportunities and challenges. Investments will rely on a strong partnership between the Board, Investment Staff, CalSTRS business units, and the Board's consultants to be successful.

Staff suggests the following steps to build on the partnership that has already been developed and supports the Collaborative Model:

1. Present policy changes to address the most acute scaling issues identified at the asset class level for i) Private Equity in the January or March 2022 Investment Committee and ii) Inflation Sensitive in the summer of 2022. The presentations will include the investment strategy and subsequent risk management, processes, compliance controls and additional resources needed to match these changes.
2. Present policy changes for Innovative Strategies and the IPMP. These policy changes will create an opportunities portfolio within the Innovation portfolio to take advantage of total fund opportunities related to Scale and a 'One Fund Advantage'. The presentation will include the investment strategy and subsequent risk management, processes, compliance controls and additional resources needed to match these changes.
3. Capitalize on Meketa's current review of benchmarks and incentives regarding how these topics relate to and can maximize opportunities to unlock the One Fund Advantage and Scale related investment opportunities, with appropriate governance and risk controls.
4. Staff will update the Board with considerations regarding technology needs as appropriate. Currently, staff is in the process of developing a long-term roadmap for technology, data and analytics needed to support the Collaborative Model, including dedicated technology services staff.

Staff is available to answer questions at the November Board meeting or prior.

Appendix 1

Description of Collaborative Model Investment Strategies

Public Markets Passive: Global equity or fixed income investment strategies mirroring an index.

Public Markets Active: Global equity or fixed income investment strategies taking active risk to an index in order to earn excess returns.

Separate accounts: An investment structure where the account is either custodied and controlled by CalSTRS or in a fund-of-one.

Co-investments: Private Markets (or less typically, Public Markets) investments made directly into an operating company alongside a private markets firm/financial sponsor (GP).

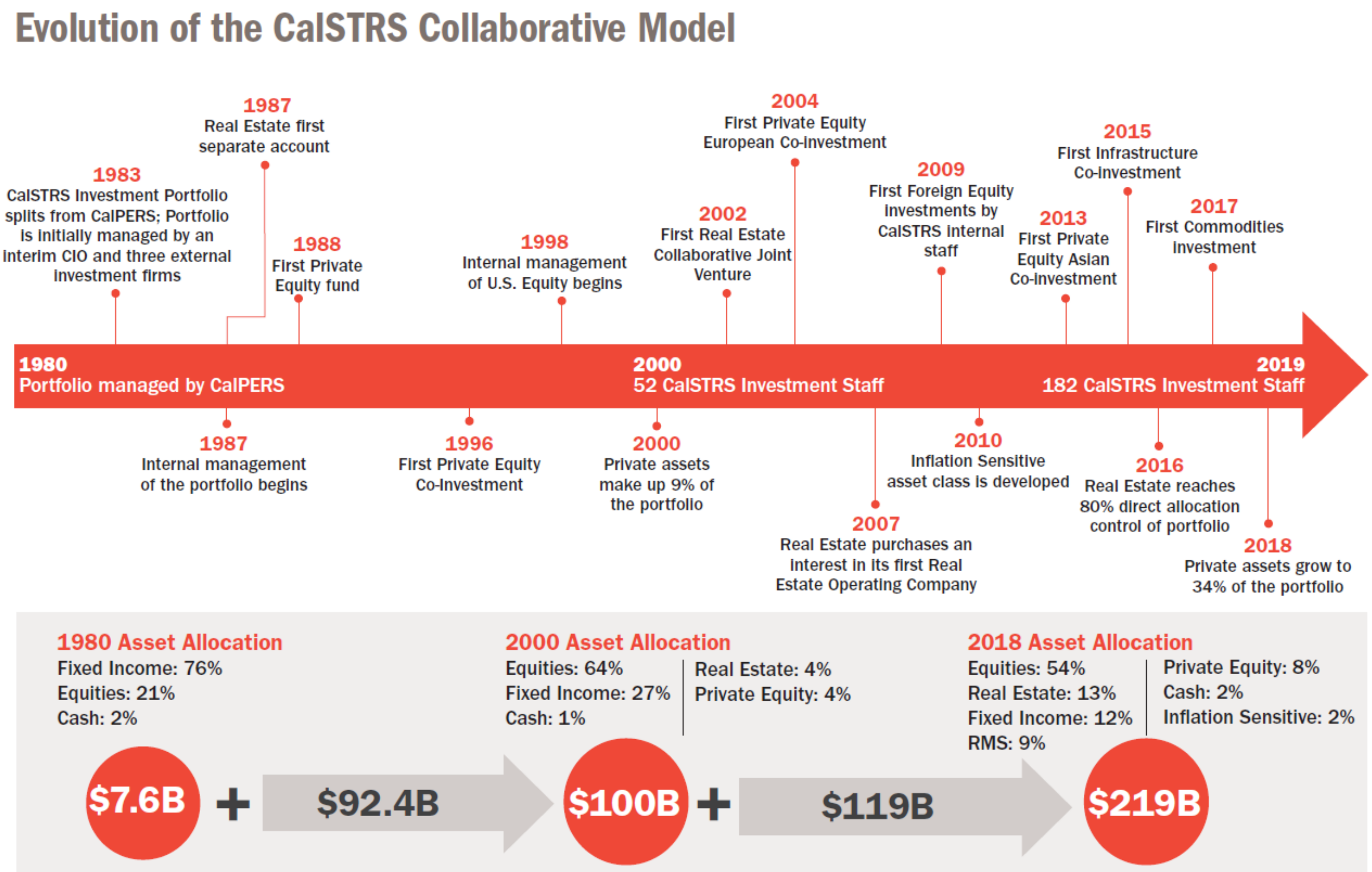
Profit-share: An investment in a fund or the operating company whereby CalSTRS shares in the profits or revenues generated.

Minority ownership: An investment in the operating company with minority ownership.

JVs (Joint Ventures): A vehicle in which CalSTRS partners equally with another peer or an investment manager to launch a fund or an operating company.

Operating companies: An investment in the operating company with majority ownership.

Appendix 2


Evolution of the CalSTRS Collaborative Model
1983
CalSTRS Investment Portfolio splits from CalPERS; Portfolio is initially managed by an interim CIO and three external investment firms
1987
Real Estate first separate account
1988
First Private Equity fund
1998
Internal management of U.S. Equity begins
2002
First Real Estate Collaborative Joint Venture
2004
First Private Equity European Co-investment
2009
First Foreign Equity investments by CalSTRS internal staff
2013
First Private Equity Asian Co-investment
2015
First Infrastructure Co-investment
2017
First Commodities investment
1980
Portfolio managed by CalPERS
2000
52 CalSTRS Investment Staff
2019
182 CalSTRS Investment Staff
1987
Internal management of the portfolio begins
1996
First Private Equity Co-investment
2000
Private assets make up 9% of the portfolio
2007
Real Estate purchases an interest in its first Real Estate Operating Company
2010
Inflation Sensitive asset class is developed
2016
Real Estate reaches 80% direct allocation control of portfolio
2018
Private assets grow to 34% of the portfolio
1980 Asset Allocation
Fixed Income: 76%
Equities: 21%
Cash: 2%
2000 Asset Allocation
Equities: 64%
Fixed Income: 27%
Cash: 1%
Real Estate: 4%
Private Equity: 4%
2018 Asset Allocation
Equities: 54%
Real Estate: 13%
Fixed Income: 12%
RMS: 9%
Private Equity: 8%
Cash: 2%
Inflation Sensitive: 2%
$7.6B
+
$92.4B
$100B
+
$119B
$219B