CaIPERS Review of Investment Beliefs Implementation Report for May 18 Investment Committee

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May 2015



Introduction

| This Paper | This paper has been prepared for CalPERS Investment Committee and sets out the results of Towers Watson's review of CalPERS Investment Beliefs implementation | | | | | |
|-------------------------------|--|--|--|--|--|--|
| | CalPERS Investment Beliefs were completed in September 2013 to 'provide a basis for strategic management of the investment portfolio, inform organizational priorities, and ensure alignment between the Board and CalPERS staff' | | | | | |
| Purpose and scope of a review | There are three specific goals of this Investment Beliefs review: | | | | | |
| scope of a review | To apply oversight to the beliefs by assessing the <u>effectiveness of the usage</u> of current beliefs and that their usage accords with the expectations of key stakeholders, staff, Board and others; by focusing on how the beliefs are being used, we can consider ways by which the use of beliefs may be enhanced | | | | | |
| | By focusing on what are the current beliefs, to consider ways for their content to be enhanced but noting the beliefs were long-term and so no immediate reason exists to change them | | | | | |
| | To provide a positive feedback loop to secure the further commitment of the organization to the use of the beliefs recognizing that moving to a new way of operating (as occurred in introducing the beliefs approach) always requires ongoing commitment to embed the change elements in business-as-usual | | | | | |
| Sections of this Paper | Results of Investment Beliefs Survey | | | | | |
| | Results of Discovery One-to-Ones | | | | | |
| | Key issues and recommendations | | | | | |
| | Appendices: Global Best Practice investment governance; Survey raw scores | | | | | |
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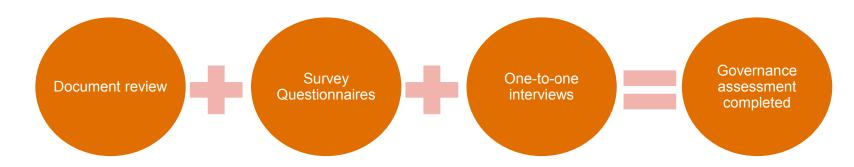
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Discovery coverage and process

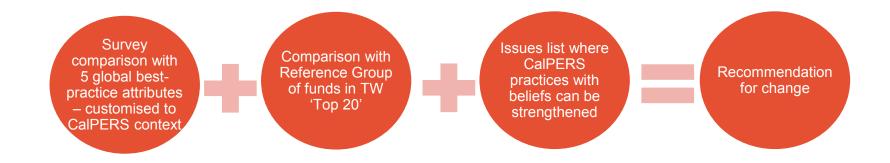
The discovery coverage

The research inputs were derived from document review, questionnaires and interviews with the key stakeholder groups.



The discovery research and benchmarking process

CalPERS practices were benchmarked against the five attributes in Global Best Practice and the selected Reference Group. This generated an issues list where strengthened practice is possible, and led to the key recommendations for change.



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Reference Group of 'Top 20'

- The composition of the Reference Group selected for comparison reflects a combination of their size, transparency and strong governance model. We think of these funds as among the most significant institutional investors in the world.
- There are 15 pension funds, four sovereign wealth funds, and one endowment fund with responsibility for US\$ 6.4 trillion.

| Americas | Europe, Middle East, Africa | Asia Pacific |
|---------------------------|-----------------------------|-------------------------|
| CalPERS (US) | NPFG (Norway) | CIC (China) |
| • CalSTRS (US) | ABP/APG (Netherlands) | • GPIF (Japan) |
| New York City (US) | PFZW/PGGM (Netherlands) | • PFA (Japan) |
| Texas Teachers (US) | ATP (Denmark) | GIC (Singapore) |
| • Yale (US) | British Telecom PS (UK) | NPS (Korea) |
| CPPIB (Canada) | ADIA (Abu Dhabi) | Future Fund (Australia) |
| Ontario Teachers (Canada) | GEPF (South Africa) | |

Survey results

Survey results – summary

| Overall survey assessment of | Total average score of 3.5 represents halfway score between 'fair' and 'good' – this puts the CalPERS results on a path to global best practice (where a score at or above 4 would be expected) | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|
| CalPERS implementation of | No individual area scores lower than 3.0 – this suggests reasonable consistency of CalPERS practice | | | | | | |
| investment beliefs | 'Alignment' stands out as the area with most work ahead | | | | | | |
| | The average of the five global best practice attributes were | | | | | | |
| | Alignment 3.1; Applicability 3.7; Actionability 3.5; Accuracy 3.4; Good governance 3.8 | | | | | | |
| | The Board and the INVO leadership view the investment beliefs more favorably than staff in several categories | | | | | | |
| | TW assesses CalPERS scores as above average relative to the Reference Group | | | | | | |
| Challenging beliefs | Beliefs #3 (wider stakeholder views) and #4 (three forms of capital) are highlighted throughout as challenging | | | | | | |
| | Beliefs #2 (long-term horizon) and #9 (multi-faceted risk) are also challenging especially in terms of alignment and evidence, and belief #1 (influence of liabilities) is difficult in some areas | | | | | | |
| | Belief #4 is the most highlighted belief at a Board level | | | | | | |
| | There was a significantly higher frequency of staff suggesting challenging beliefs – this emphasises some of the implementation difficulties of the program | | | | | | |
| Gaps which | There were multiple mentions of the following areas as 'gaps' in practice | | | | | | |
| respondents | Incorporation of long-term investment horizon | | | | | | |
| describe in current practice | Alignment of compensation structure with long-term time horizon | | | | | | |
| | ESG factor integration | | | | | | |
| | Measurement and assessment bases (overall beliefs program and risk in particular) | | | | | | |
| | Dealing with large number/set of beliefs and sub-beliefs | | | | | | |
| | | | | | | | |

Survey results

| Investment Beliefs that ideally: | | How well have the Investment Beliefs worked in practice? | | | | | | |
|--|-------|--|------------|-------------|--|--|--|--|
| | Board | Staff | Dispersion | Respondents | | | | |
| a) Have the alignment of staff, reflecting settlement | 3.5 | 3.1 | н | 17 | | | | |
| b) Have produced alignment between Board and staff | 3.6 | 2.9 | н | 25 | | | | |
| c) Provide guidance on the considerations of wider stakeholders | 3.3 | 3.0 | М | 19 | | | | |
| d) Capture CalPERS-specific and unique context including liabilities, success measures, stakeholders | 4.3 | 3.7 | М | 19 | | | | |
| e) Reflect Board wishes and priorities | 4.1 | 4.0 | L | 25 | | | | |
| f) Reflect staff priorities, are focused on all portfolio relevant areas and guide portfolio priorities, apply to all individual asset classes equally | 4.0 | 3.1 | М | 17 | | | | |
| g) Have been evident in various policy and portfolio actions and decisions | 3.3 | 3.7 | М | 25 | | | | |
| h) Have correlated with investment experience; investment outcomes in the recent past have been consistent with investment beliefs | NA | 3.4 | L | 14 | | | | |
| i) Have supported the development of the investment framework and the development of investment policies, e.g. ALM, SAA | 4.4 | 3.6 | н | 19 | | | | |
| j) Have been a contributor to governance effectiveness; have been cited in tangible forms – papers, artifacts, stakeholder relations, press coverage | 4.1 | 3.6 | М | 25 | | | | |

Scoring: 1 – Not at all; 2 – Somewhat; 3 – Fair; 4 – Good; 5 – Exceptional

Dispersion calculated as standard deviation of total results, calibrated to Low, Medium, High

Questionnaires were obtained confidentially from 15 staff and 10 Board members

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Survey results (2)

| | | Which Investment Beliefs are especially challenging in this context? * | | | | | | | | |
|--|------|--|---------|--------|----|----|---------|--------|---|----|
| Investment Beliefs that ideally: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| a) Have the alignment of staff, reflecting settlement | | | | | | | | | | |
| b) Have produced alignment between Board and staff | | | | | | | | | | |
| c) Provide guidance on the considerations of wider stakeholders | | | | | | | | | | |
| d) Capture CalPERS-specific and unique context including liabilities, success measures, stakeholders | | | | | | | | | | |
| e) Reflect Board wishes and priorities | | | | | | | | | | |
| f) Reflect staff priorities, are focused on all portfolio relevant areas and guide portfolio priorities, apply to all individual asset classes equally | _ | | | | | | | | | |
| g) Have been evident in various policy and portfolio actions and decisions | | | | | | | | | | |
| h) Have correlated with investment experience; investment outcomes in the recent past have been consistent with investment beliefs | - | | | | | | | | | |
| i) Have supported the development of the investment framework and the development of investment policies, e.g. ALM, SAA | | | | | | | | | | |
| j) Have been a contributor to governance effectiveness; have been cited in tangible forms – papers, artifacts, stakeholder relations, press coverage | | | | | | | | | | |
| * Heatmap to reflect total count beliefs identified by respondents: Blank – 2 or fewer respo | nses | | 3-5 re: | sponse | es | 6- | 10 resp | oonses | 6 | |

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Survey results compared with Reference Group

| Published beliefs | 15 out of 20 Reference Group funds have published investment beliefs |
|---|---|
| Comparisons with Reference Group of 15 | In this sample of 15 funds, Towers Watson assesses the CalPERS adoption and implementation of investment beliefs as: |
| | Above average in staff alignment |
| | Average in Board-staff alignment |
| | Above average in positive impact of investment beliefs adopted (this factor combines applicability, actionability and accuracy) |
| | Above average in reflecting good governance |
| | Above average overall in global best practice assessment relative to the Reference Group |

Rapid Results summary – August 2014

- The survey results are substantially consistent with the Rapid Results review conducted in August 2014
- Assessed by measure of integration (table bottom right) percentage of respondents claiming Investment Beliefs are 'already largely integrated' in their Program Area
- High level of integration of Investment Beliefs associated with traditional investment management dimensions, but significant range
 of results across different asset classes
- Analysis through ADKAR change framework highlighted general perception of insufficient knowledge and inability to affect change
- Integration scores map quite closely to beliefs marked as challenging through questionnaire data
- However, some inconsistency of comparison with ADKAR scores around beliefs 6 and 7 in particular
- Beliefs 3, 4 and 9 remain low scorers in both integration assessment in August 2014 and questionnaire and discovery findings in March/April 2015

| Investment Belief | Average Across Asset Classes |
|----------------------------|------------------------------|
| 8 – Costs | 59% |
| 6 - Strategic Allocation | 58% |
| 7 - Risk Reward | 55% |
| 2 – Horizon | 54% |
| 1 - Liabilities | 45% |
| 5 – Accountability | 43% |
| 10 - Resources | 36% |
| 3 - Stakeholders | 34% |
| 4 - Three Forms of Capital | 29% |
| 9 – Multi-Risk | 29% |

Source: Investment Beliefs – Activities Update, August 18, 2014 presented to Investment Committee

One-to-One discussion results

Discovery One-to-Ones – Staff (1)

| Alignment and applicability issues | There was some feeling that the beliefs were more reflective of Board wishes than staff in some areas; while recognizing that the Board had legitimate ownership rights to some sections of the beliefs |
|-------------------------------------|--|
| | There are obvious and inevitable issues where cultural cohesion in beliefs may be limited particularly around the more contentious beliefs, the organization has not tried to socialise these issues away |
| | The potential tension between beliefs is not appreciated and needs some care; that is, that in implementing beliefs, some trade-offs must be made to emphasize one to the potential de-emphasis of another |
| | More work is needed to develop the portfolio construction disciplines from the beliefs; recognition that each program/department has done things their way |
| Grouping and sifting | Discussion around ways of separating and/or categorizing beliefs; some agreement that the number and detail in the beliefs created challenges to successful implementation |
| | Recognition that categorization into "investment-related" (#1-2, #6-9), "governance/organizational-related" (#5, #10), "aspirational" (#3-4) might help |
| | Acceptance that the beliefs were comprehensive; also that while many were mainstream some beliefs and particularly sub-beliefs did carry some 'edge' |
| | Need not to lose sight of affiliate portfolios although obvious concentration on PERF |
| Contribution to management and | Evidence of beliefs used as positive factor in senior staff hiring, as well as key draw for talent attractionbeliefs as a cultural emblem |
| governance | Positive overall effect to the Board-staff dynamic and collaboration |
| Commentary on individual beliefs | Some sense that belief #1 was not acted on with conviction; recognised the emphasis on benefits payment had been drawn into the mission; the mission and beliefs stood together |
| | In implementation there is a challenge if the "liabilities influence" is strong enough; some overlap with belief #9 |
| | The beliefs #3 and #4 were seen as aspirational and not straightforward to implement; the organization recognizes the tension and sees the conflation of investment motivation with values-based motivation; the integration of these beliefs with the long-term in belief #2 is unsettled |
| | integration of these beliefs with the long term in belief #2 is disetted |

Discovery One-to-Ones – Staff (2)

| Public Markets | These programs have adapted well to the beliefs process |
|-----------------|---|
| | The major issues are the shared ones, particularly on sustainability |
| | The Program Reviews were somewhat over-engineered in respect of beliefs integration, but their inclusion was still seen as positive |
| Private Markets | Limited focus in the beliefs are given to the particular issues that confront private markets |
| | Benchmarks in private markets (particularly private equity and infrastructure) throw up difficulties |
| Socializing | The lack of narrative with beliefs (see hierarchy on page 26) may have left some open ends where beliefs need more cohesion and seeking that cohesion through internal discussions/socialization may not have fully covered these open ends |
| | Settlement at, as well as between, different organizational levels (staff, boards, stakeholders etc.) is vital, and the role of leadership is seen as key here |
| | |

Discovery One-to-Ones – Board

| Overall comments and progress | The Board feels strongly that staff have taken ownership of the beliefs and integrated them into processes and ways of working; reflective of good commitment and progress |
|----------------------------------|---|
| | The roles of the consultants on beliefs within the staff-Board-consultants triangle are not completely clear; this collaboration could be enhanced |
| | There is a sweet spot between individual domain rights/interests and presenting a unitary front which is yet to be found; this should be reflected in a <i>diversity in dialogue, unity in conviction</i> culture and approach |
| | The commitment of the Board remains high to the beliefs; positive momentum should be kept; reinforcing structures should be put in place |
| Communication and dialogue | Board needs unity and clarity of expression – this plays into a cultural point of 13 voices versus one (collective) voice, and how the Board communicates within its governance frameworks |
| | Anxiety exists over prominence of individual opinions/comments over a whole-Board stance, and how this is translated into clear directional communication to staff |
| Key issues identified | The conversation about beliefs could be considered stronger than the implementation of beliefs |
| | The need for measurement is seen as highly desirable – separating cause and effect if possible; that said there was acceptance that broader 'assessment' is a more effective tool in this context; current attempts fall a little short but do serve to highlight key problematic areas |
| Commentary on individual beliefs | Most success has been seen with #1, #2 and #8, although #2 has unrealised potential and #1 is in tension with the historic endowment mindset of CalPERS |
| | Belief #4 is a central theme and remains challenging – there is an uncertainly long time horizon associated with it – Board need to bring political capital to impress the value/importance of it on the staff |
| | Beliefs #3 and 4 need to be settled better in practice through more discussion and time – perhaps the most effective measures here are through informal Board-staff interactions, conversational deepening, development of improved narrative |
| | |

Discovery One-to-Ones – Consultants

| Overall comments and progress | Beliefs Program very clearly seen as successful work-in-progress; journey from 'tick-box' exercise, add-on thought, to more genuine inclusion of beliefs |
|-------------------------------------|--|
| | There remains a disconnect of beliefs driving investment activities (target state) and beliefs being reflected in (c into) investment work (current state); it will be interesting to see the different assimilation of beliefs by staff and Board who come into the process at different stages |
| | Process by nature provides discussions and debate, so is a marker of success in itself |
| | If beliefs are used well, they are a powerful tool with significant benefits; if beliefs are implemented well, they are the creator of diversity of thinking, and do not confine or muffle it – this is an area for focus |
| | Beliefs form part of the directional thinking towards one-portfolio, and CalPERS is much closer to this state than history but still has significant ground to go |
| | Alignment comes through as an area of work-in-progress, with leadership making good faith efforts |
| Communication and dialogue | Board-staff collaboration at a historic peak, and staff quality and responsiveness (broad measures including overall team balance) at similar high |
| | The Board is communicating a good balance on the key issues and largely avoids hobby-horsing |
| | Surfacing conflicts is seen as a beneficial part of the overall process and a dialogue aspect to be encouraged |
| | Better definition could provide clarity in certain areas, especially more aspirational elements of the Program |
| Key issues identified | Success measures not really incorporated yet, which would provide a good feedback loop |
| | A lack of clarity exists around the hierarchy of some decision-making and where beliefs (and which ones) fit into that process |
| | Staff are having most difficulty around more aspirational, non-financial areas within the statements |
| | Some 'sticking points' surface at Board level around 'unsaid beliefs' (contribution rates, return targets) that can override written beliefs statements |
| Commentary on individual beliefs | Most tension exists on ESG, particularly around its interpretation; this is a clear area for development and improved settlement |
| | There is not a strong consensus of implementation on belief #1 as yet, which will help drive key portfolio |

Issues summary and recommendations

Issues summary

| 1. The alignment and impact of Investment Beliefs embedded in staff practices | Investment beliefs have progressed at CalPERS well through the three change phases: awareness, commitment and embedding; given this is an adaptive process involving significant change, Board, leadership and staff all deserve credit for progress But there is room to improve practice further and ultimately attain global best practice, particularly with respect to alignment Leadership has been successful in changing culture in respect of beliefs and has a large continuing influence The status of beliefs implementation is not capable of precise 'measurement' but it can be 'assessed' |
|--|---|
| 2. The traction of Investment Beliefs with staff | Staff applying investment beliefs at times need to draw them from short-term memory (like Kahneman's concept of 'fast thinking'); in these cases the number of beliefs may be too large Staff applying them at times have difficulty with potential tension between them, so there is an anxiety that there is insufficiently clear hierarchy in the investment process |
| 3. The alignment and impact of Investment Beliefs embedded in in IC practices | Investment beliefs have been successfully taken on and embedded by the IC There is some diversity of view among IC members on beliefs interpretation, which can present difficulties when the IC seems to lack unity in its overall convictions While the alignment is travelling along a positive natural trajectory, there is room to improve practice with respect to investment beliefs further |
| 4. Investment Beliefs in unsettled areas | Investment beliefs act as effective guides to thinking in many areas of the investment process, but in two specific areas it is apparent that they are not leading to settled positions; first, there is the overall goals with respect to meeting liabilities; second, there is the nexus of long-term investing, sustainability, global governance and three forms of capital In these areas, the investment process captured by <i>investment beliefs → investment frameworks and policies → portfolio construction</i> is not completed with great depth A strengthened investment process would include greater 'narrative' and 'evidence' supporting the investment beliefs; include a stronger investment framework; carry more consistency of practice through the Program's portfolio construction (see investment process 'unpacked') |
| 5. Dialogue between IC and staff | There are obstructions to effective governance at all funds, and CalPERS specifically, as captured in belief #10 The fundamental value that the IC can add is as an engaged, thoughtful, informed partner in addressing through dialogue the strategically critical issues of: low return era, limits to growth and sustainability, transformational change (politics, economies, finance, environment, corporations, society); so the issue is how far the IC can progress towards this global best practice goal through culture and governance |

Recommendations

| 1. Strengthening the Investment Beliefs alignment | We recommend the strengthening of alignment is sustained with a number of 'soft' steps as follows: Using the Program reviews to help bring out regular reviews of beliefs application Embed beliefs as part of performance review and qualitative input to compensation Strengthen the cultural and leadership influences on using investment beliefs, the power carried by leadership to make a difference on this is huge |
|--|--|
| 2. Strengthening the Investment Beliefs traction with staff | A) We support the idea as surfaced in the Discovery discussions to separate the beliefs into two groups in future presentation Core beliefs - #1-2, #6-9 Key beliefs - #3-5 and #10 This 'prism' gives more opportunity for staff to be focused on the critical areas and identify areas where the beliefs can give CalPERS a competitive investing edge B) We support work to fill out narrative and evidence supporting the investment beliefs in accordance with the global best practice hierarchy set out later |
| 3. Further embedding Investment Beliefs in IC practices | We recommend the strengthening of IC alignment is sustained with a number of 'soft' steps as follows: Working to a culture and practice of <i>diversity in dialogue, unity in conviction</i> Ensure Board adoption of beliefs is undertaken annually following discussion Ensure consulting input reinforces the beliefs application |
| 4. Tackle the interpretation of Investment Beliefs in unsettled areas | As a significant step towards clarification of the framework for seeing the unsettled areas we suggest the commitment of the Board offsite in July to two sessions A) How should beliefs #1 and #9 map to investment policies and framework using a strategic dialogue covering: - liability risk and mission impairment risk, explicit link to benefit payment mission - operationalizing the <i>risk through multiple lenses</i> concept - building a coherent hierarchy of decision-taking incorporating portfolio priorities - how factors and asset classes can be joined up B) How should beliefs #2-4 map to investment policies and framework using a strategic dialogue covering: - the successful implementation of global governance principles and policies - the long-horizon focus and integration of financial and extra-financial factors (the 'Universal Owner' principle) - creating a clarity in priorities which strengthens the hierarchy of decisions |
| 5. Using Investment Beliefs as a catalyst to governance change | In belief #10, the CalPERS governance is described in terms of governance effectiveness; critical to this is how the IC can add value as an <i>engaged, thoughtful, informed partner</i> We recommend the Board and the staff consider how to develop a <i>dialogue culture</i> in their engagement |

Global best practice in investment governance and investment beliefs

The context for governance

| Governance is the foundation of sound | Institutional funds have a mission for their stakeholders of "creating value" – that is create risk-adjusted excess returns |
|---|--|
| investment | Governance is the capacity to create value derived from the skills, resources and processes employed by the fund |
| Governance – doing the right things | Most references to the 'governance' of institutional funds focus on basic issues of good practice – doing things right – captured in such principles among others as fiduciary and ethical standards, prudent man principle, accountability of the Board, with accompanying measurement and oversight, controls and disclosures on conflicts |
| | While believing these are important, these do little to address the value-creating part of a fund's mission. To capture this, what we characterize as <i>doing the right things</i> to achieve excellent performance, we have to consider a stronger competency and organizational efficiency model |
| General principles underpinning models | Success in investment requires an alignment between governance and the investment model used – investment results always reflect investment governance context |
| of governance | Coherent strategies with strong governance create value, complex strategies with weak governance destroy value |
| | Investment is in some situations a competitive activity, in some situations it is a co-operative activity |
| | Source: Clark and Urwin Best-practice investment management: 2007 SSRN |

Clark & Urwin framework

| 'Global best practice' is a method, technique or approach drawn from global research that has consistently shown strong results, and that can be used as a guide or benchmark The Towers Watson application of global best practice to governance follows the Clark and Urwin research which studied the practices and performances of a large number of global asset owners The current Towers Watson global best practice model is derived both from empirical study considering performance and deductive methods observing practice that appeared to be particularly effective This facilitates a structured and rigorous approach, and also allows detailed comparisons with global best practice to be made |
|--|
| There are qualifications though: |
| The links between practice and performance are not stable over time, any model of effective investment governance will need to be adaptive |
| There is the danger of using it as a business buzzword – one best practice model cannot be appropriate for all situations |
| The Clark and Urwin model is described in detail in published research from 2007 (Best-practice investment management: 2007; source SSRN). |
| The model drew its conclusions from a detailed study of a global group of successful funds taken from various institutional backgrounds including pension funds, sovereign wealth funds, and endowments |
| A total of 12 <u>factors</u> were found that were associated with global best practice. These factors involved coverage of a further set of <u>attributes</u> or features. By assessing the alignment of a fund with these factors and attributes, a governance assessment can be made. |
| The research is public and the source is the most widely referenced research in the field. The model has been used frequently since its inception in 2007 by a number of different institutional funds which allows some informal benchmarking to be undertaken. |
| |

Best-practice investment governance

The Clark/Urwin study identified six "Core" factors deemed achievable by most organizations. A further six "Exceptional" factors are associated with best-in-class organizations

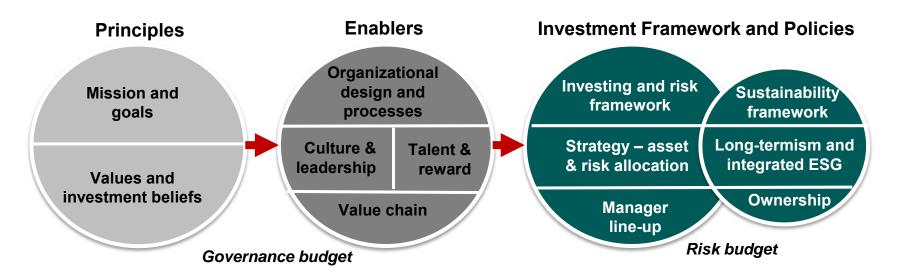
| 2. E | 1. Mission clarity | Clarity of the mission and the commitment of stakeholders to the mission | | | | |
|--|-----------------------------|---|--|--|--|--|
| <i>(</i>) | 2. Effective time budget | Resourcing each element in the investment process with an appropriate budget considering impact and required capabilities | | | | |
| 3. Lo 3. Lo 4. So 5. R 6. M 7. In | 3. Leadership | Leadership, being evident at the board, IC and executive (investment team) level, with the key role being the IC Chairman, CEO and CIO | | | | |
| | 4. Strong beliefs | Strong investment philosophy and beliefs that command fund-wide support, align with operational goals and inform all Investment decision-making | | | | |
| ŭ | 5. Risk budget | The risk budget framework captures the key measures of prospective risk and return being aligned to goals and incorporating an accurate view of alpha and beta and factor-exposures | | | | |
| | 6. Manager line-up process | The portfolio construction making effective use of external managers, governed by clear mandates, aligned to goals, selected with rigorous application of fit for purpose criteria | | | | |
| | 7. Investment executive | The use of a highly investment competent investment function tasked with clearly specified responsibilities, with clear accountabilities to the IC | | | | |
| ctors | 8. Required competencies | Selection to the board and senior staff guided by: numeric skills, capacity for logical thinking, ability to think about risk in the probability domain | | | | |
| nal fa | 9. Effective compensation | Effective compensation practices used to build bench strength and align actions to the mission, different strategies working according to fund context | | | | |
| 5. Risk 6. Mana 7. Inves 8. Requ 9. Effect 10. Con 11. Rea | 10. Competitive positioning | Frame the investment philosophy and process by reference to the institution's comparative advantages and disadvantages | | | | |
| | 11. Real-time decisions | Utilise decision-making systems that function in real-time not calendar-time | | | | |
| | 12. Learning organization | Work to a learning culture which deliberately encourages change and challenges the commonplace assumptions of the industry | | | | |

Source: Best-practice investment management: Lessons for asset owners from the Oxford University-Watson Wyatt project on governance, Gordon L Clark and Roger Urwin, September 2007.

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Investment organization framework

| Delivering investment value requires more than governance; there needs to be sound organizational design | An investment organization needs to align the Investment Framework and Policies with the Enablers in the organization and its Strategic Principles to deliver optimal execution The same approach can be used to ensure the investment organization can accommodate scale and investment complexity |
|--|--|
| Complexity and significant growth in assets will place emphasis on organizational design and processes | The key contributors to support the change are the Enablers In our experience investors typically focus on the Investment Policies. However, understanding and managing the other parts of the organization are critical to operational success |



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Asset owners and change processes

| Research findings | Governance research points at considerable governance gaps in the investment industry. For example: "Most funds have felt constrained by the limits of their expertise, have struggled to make effective judgements on financial markets, and have tended to be bystanders to the passage of events" From 'Innovative models of fund governance in the context of the global financial crisis' Clark & Urwin, 2009 |
|-------------------|--|
| Levels of change | Levels of commitment to change can be graduated. We see three distinct levels described below |
| | We would not advocate always for one particular approach; there are many issues of context. But we are generally unsupportive to incremental change with tackling governance issues as the multi-faceted aspects of the issues do not yield well to this method |
| | With investment beliefs programs it is critical to look for a commitment to change at least at the targeted level; the mistakes funds make with beliefs is seeing them as an incremental process |



- 'most stones unturned'

- light adaptation in response to major issues as they arise or are identified

- low time and energy commitment to change

- most problems don't get addressed with this approach

Targeted change

- 'some stones turned'
- review of current practices and identification of gaps
- commitment to change those issues that are less complex
- moderate time and energy needed
- can yield some quick wins, but
- deeper-seated issues cannot be dealt with this way

Transformational change

- 'all stones turned'
- problems addressed at root with holistic analysis and treatment
- strong innovation and
- implementation required
- strong change sponsorship
- required for major time and energy commitment

Background on the investment beliefs framework

| General background to investment beliefs | Governance best practice asserts that investment decisions are strengthened if they follow the foundations derived from the <i>investment beliefs and values</i> of the fund 'Investment beliefs' are working assumptions and conjectures about the investment world that underlie investment practices and decisions which, when developed and shared, help make decision-making more effective. A set of beliefs is generally referred to as a belief system 'Values' are the organizational preferences that guide actions towards the behaviours and outcomes that t fund wants; they follow from mission and goal clarity that identifies organizational purpose in the context or stakeholders and their respective priorities | | | | | | |
|---|--|--|--|--|--|--|--|
| Developing investment beliefs and values | Investment beliefs and values are likely to differ across the board and investment team members and stakeholders but for effective practice it is critical to develop shared values and beliefs The process cannot reasonably expect a perfect consensus (one identical shared view); it should target a settlement (views coming together in an agreement to work to a shared view) The process of codifying values and beliefs involves considering something inherently abstract (or 'soft') and codifying it in a clear and more tangible form (or 'hard') Investment beliefs and values are adjacent to the investment framework and policies and the decision process that make up the investment process – we set this out in diagrammatic form overleaf | | | | | | |
| CalPERS decided on shared responsibility for the beliefs | CalPERS viewed the beliefs as the responsibility of the Board as a unitary and unified body with Staff providing guidance to the Board in their development The Board views were paramount on beliefs about context, mission and values (Beliefs #1-5 and #9-10) The Staff views had significant influence on beliefs about investment content and strategy (Beliefs #6-8) The Staff had significant input to the sub-beliefs | | | | | | |
| Benefits of this framework | <i>Focus</i>: The investment beliefs framework helps to achieve focus, coherence and time-efficiency in decisions which are complex, sensitive and have competing issues <i>Governance</i>: The framework helps integrate the different parts of governance – board, executive, investment providers <i>Transparency</i>: It also helps decisions to be subject to greater transparency for the benefit of beneficiaries and stakeholders | | | | | | |

The investment process 'unpacked'

| | following is a generic description of the best practice elements in such a process | |
|---|---|-----------------------|
| nvestment beliefs and values | Investment beliefs and values are foundational thinking used to produce working assumptions and prefer that guide the frameworks, policies and decisions in the investment process They are premised on a deductive framework – they use logical thinking backed up by evidence in a hig inter-connected context to suggest norms best-suited to the particular organizational setting | |
| nvestment ramework and policies | The investment framework flows from the investment beliefs and lays down the way that the investment challenge should be approached. The framework will incorporate among other things: how risk, return an liquidity are viewed and measured; how allocations can be made to asset classes and risk factors and sk buckets; how sustainability and inter-generational factors are viewed; how ESG factors are considered; w benchmarks and strategic KPI's should be used Investment policies act as a bridge to translate beliefs and the investment framework into defined paramethat can be directly applied to portfolios; examples include strategic asset allocation policy; risk/liquidity p | till vhat eters |
| | | |
| Decision process | The decision process codifies a consistent and coherent approach to portfolio construction working within context and parameters of the investment beliefs, framework and policies | n the |
| Decision process Investment Be and Values | iefs Investment Framework Portfolio Construction | |
| | iefs Investment Framework Portfolio Construction | |

Investment beliefs format – the hierarchy used by CalPERS

CalPERS framework

CalPERS adopted 10 core beliefs, supported by a series of sub-beliefs to each statement

- The disclosures do not include detailed narrative or evidence as a deliberate choice, reflecting a pragmatism
 around the 'soft' and evolving nature of a beliefs system, and the required flexibility to capture the best longterm results of a beliefs adoption program
- The CalPERS statement of intent:

"The Investment Beliefs are not a checklist to be applied to every decision. They are a guide for making decisions that often require balancing multiple, inter-related decision factors. They provide context for CaIPERS actions, reflect CaIPERS values, and acknowledge CaIPERS responsibility to sustain its ability to pay benefits for generations."

| Core beliefs | Sub-beliefs | Policies/Framework | Decision Process | Narrative and Evidence |
|---|---|---|---|---|
| B₁ B₁₀ | B_{1a}, B_{1b}, B_{1c} B_{10a}, B_{10b}, B_{10c} | Framework F Policies P(a),P(b) | DP Decision matrix of rights and responsibilities | Narrative – explanation/implications Evidence for beliefs empirical (historical) data and forward-looking inductive reasoning |
| Concise Owned by Board/IC Staff input/ advice | More detailed Owned by Board and Staff Approved by Board/IC | More actionable Owned by Staff Approved by Board/IC in case-by- case review | Detailed Process owned by Staff Process approved by Board | Owned by Staff Often informal through verbal communication as well as written Endorsed by Board/IC |

Direction of deeper thinking

Global best practice model – Investment Committee/Staff engagement

| Best practices in decision-making | Best practice models must address: Having the correct resources and competencies for decisions How to ensure the organization is consistently strong in its thinking and communication How to use the IC as a sounding board to the investment team's ideas while making certain interventions periodically; as a catalyst in bringing new thinking; to energise and hold the investment team to account How to ensure that both culturally and pragmatically the two parts of the organization work well together |
|---------------------------------------|---|
| Best practice collaboration | Strong investment decisions predominantly come from people and process factors. But, in collaboration, funds can produce greater effectiveness through an engagement model between IC and the investment team where the IC is an engaged, thoughtful, informed partner |
| Investment engagement – IC role | The Investment Committee's role is: 1. Decisions on aspects of the fund 's mission, goals and risk profile, and other key context, including primary responsibility for SAA (strategic asset allocation), using input 2. Engagement on investment content: sounding board, challenge, over-ride, prompt to the departments 3. Encouragement and motivation of the investment team 4. Resource and performance management of the investment leadership, including periodically appointment in key roles |
| | Engagement is a particularly critical activity, not to produce second-guessing of investment team views, but to: Act as a sounding board when the investment team has new investment ideas that need testing Provide challenges where the investment team's paper and presentation is considered incomplete or unconvincing Over-ride in limited circumstances where alternative decisions are supported; in this area the grounds for having an alternative view are particularly related to context, more than content Give pro-active prompts on areas IC members believe the investment team should add to its thinking drawing from the IC's diverse experiences |
| | Engagement is critical in its second order impact. Good engagement leads to better IC appreciation of investment team competencies leading to better results in relation to encouragement and motivation; and resource and performance management. |
| Investment staff role | The investment team's role in this collaboration is to take decisions in delegated areas with high quality accompanying communication and input to the IC facilitating their oversight and decision-making roles |

Contact details and limitations of reliance

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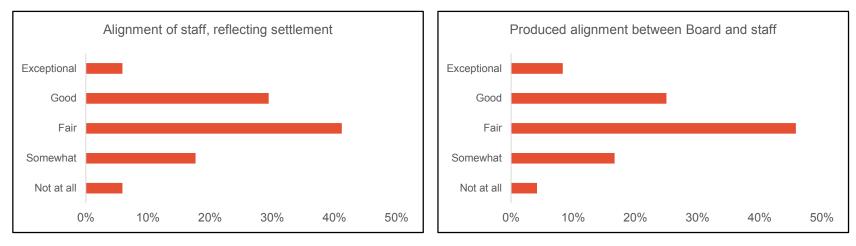
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Survey – Raw Scores

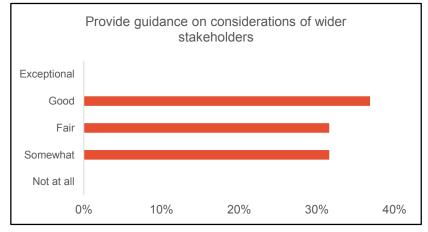
Investment Beliefs

Questionnaire results – raw scores (1)



17 responses to this question; .5 scores included into categories on weighted basis

25 responses to this question; .5 scores included into categories on weighted basis



19 responses to this question; .5 scores included into categories on weighted basis

Capture CalPERS-specific and unique context including liabilities, success measures, stakeholders

19 responses to this question; .5 scores included into categories on weighted basis

30%

40%

50%

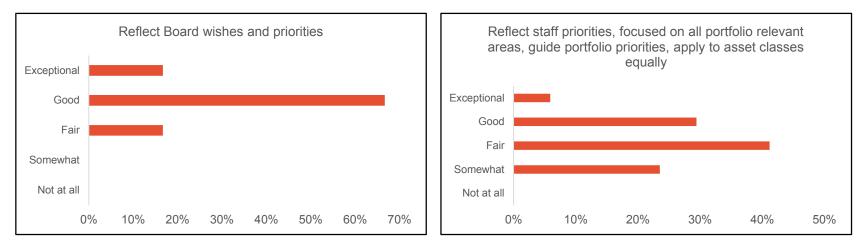
60%

20%

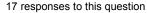
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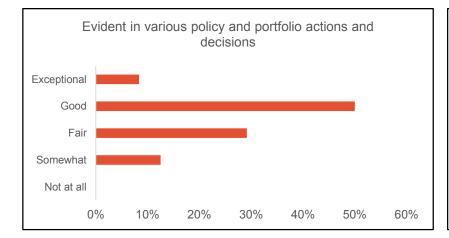
10%

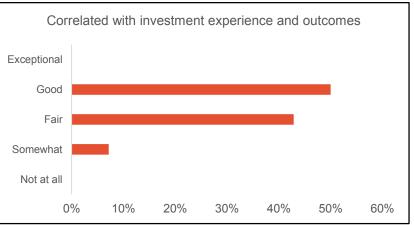
Questionnaire results – raw scores (2)



25 responses to this question; .5 scores included into categories on weighted basis



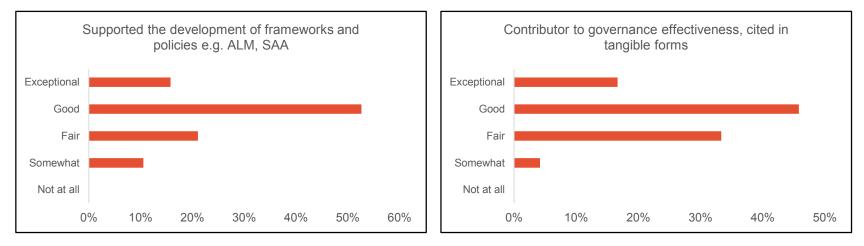




25 responses to this question

14 responses to this question

Questionnaire results – raw scores (3)



19 responses to this question; .5 scores included into categories on weighted basis

25 responses to this question

Questionnaire results – raw scores (4)

| Investment Beliefs that ideally: | | Which Investment Beliefs are especially challenging in this context? * | | | | | | | | | | |
|--|---|--|----|---|---|---|---|---|---|----|--|--|
| | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| a) Have the alignment of staff, reflecting settlement | 1 | 5 | 8 | 9 | 2 | 1 | 1 | 2 | 5 | 1 | | |
| b) Have produced alignment between Board and staff | 1 | 5 | 10 | 8 | 2 | 1 | 1 | 2 | 3 | 1 | | |
| c) Provide guidance on the considerations of wider stakeholders | 1 | 1 | 6 | 4 | - | - | 1 | 1 | 1 | 1 | | |
| d) Capture CalPERS-specific and unique context including liabilities, success measures, stakeholders | 3 | 3 | 3 | 1 | - | 1 | 1 | - | 3 | - | | |
| e) Reflect Board wishes and priorities | - | 3 | 8 | 5 | 1 | 1 | 1 | 3 | 3 | 1 | | |
| f) Reflect staff priorities, are focused on all portfolio relevant areas and guide portfolio priorities, apply to all individual asset classes equally | 1 | 2 | 6 | 6 | 4 | 3 | 3 | 1 | 3 | 3 | | |
| g) Have been evident in various policy and portfolio actions and decisions | 3 | 5 | 4 | 5 | 2 | 1 | 3 | 2 | 5 | - | | |
| h) Have correlated with investment experience; investment outcomes in the recent past have been consistent with investment beliefs | 2 | 2 | 5 | 5 | 1 | 1 | 3 | 1 | 2 | 1 | | |
| i) Have supported the development of the investment framework and the development of investment policies, e.g. ALM, SAA | 4 | 2 | 3 | 4 | - | 2 | 1 | - | 3 | - | | |
| j) Have been a contributor to governance effectiveness; have been cited in tangible forms – papers, artifacts, stakeholder relations, press coverage | 1 | 1 | 4 | 4 | 2 | 1 | 1 | 1 | 3 | 2 | | |

* Count of individual beliefs identified

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CalPERS Investment Beliefs (A)

I. Liabilities must influence the asset structure.

A. Ensuring the ability to pay promised benefits by maintaining an adequate funding status is the primary measure of success for CalPERS.

B. CalPERS has a large and growing cash requirement and inflation-sensitive liabilities; assets that generate cash and hedge inflation should be an important part of the CalPERS investment strategy.

C. CalPERS cares about both income and appreciation components of total return.

D. Concentrations of illiquid assets must be managed to ensure sufficient availability of cash to meet obligations to beneficiaries.

II. A long time investment horizon is a responsibility and an advantage. Long time horizon **requires** that CalPERS:

A. Consider the impact of its actions on future generations of members and taxpayers.

B. Encourage investee companies and external managers to consider the long-term impact of their actions.

C. Favor investment strategies that create long-term, sustainable value and recognize the critical importance of a strong and durable economy in the attainment of funding objectives.

D. Advocate for public policies that promote fair, orderly and effectively regulated capital markets.

Long time horizon enables CalPERS to:

A. Invest in illiquid assets, provided an appropriate premium is earned for illiquidity risk.

B. Invest in opportunistic strategies, providing liquidity when the market is short of it.

C. Take advantage of factors that materialize slowly such as demographic trends.

D. Tolerate some volatility in asset values and returns, as long as sufficient liquidity is available.

III. CalPERS investment decisions may reflect wider stakeholder views, provided they are consistent with its fiduciary duty to members and beneficiaries.

A. As a public agency, CalPERS has many stakeholders who express opinions on investment strategy or ask CalPERS to engage on an issue. CalPERS preferred means of responding to issues raised by stakeholders is engagement.

B. CalPERS primary stakeholders are members / beneficiaries, employers and California taxpayers as these stakeholders bear the economic consequences of CalPERS investment decisions.

C. In considering whether to engage on issues raised by stakeholders, CalPERS will use the following prioritization framework:

1. Principles and Policy – to what extent is the issue supported by CalPERS Investment Beliefs, Principles of Accountable Corporate Governance or other Investment Policy?

2. Materiality – does the issue have the potential for an impact on portfolio risk or return?

3. Definition and Likelihood of Success – is success likely, in that CalPERS action will influence an outcome which can be measured? Can we partner with others to achieve success or would someone else be more suited to carry the issue?

4. Capacity – does CalPERS have the expertise, resources and standing to influence an outcome?

IV. Long-term value creation requires effective management of three forms of capital: financial, physical and human.

A. Governance is the primary tool to align interests between CalPERS and managers of its capital, including investee companies and external managers. B. Strong governance, along with effective management of environmental and human capital factors, increases the likelihood that companies will perform over the long-term and manage risk effectively.

C. CalPERS may engage investee companies and external managers on their governance and sustainability issues, including:

1. Governance practices, including but not limited to alignment of interests.

2. Risk management practices.

3. Human capital practices, including but not limited to fair labor practices, health and safety, responsible contracting and diversity.

4. Environmental practices, including but not limited to climate change and natural resource availability

CalPERS Investment Beliefs (B)

V. CalPERS must articulate its investment goals and performance measures and ensure clear accountability for their execution.

A. A key success measure for the CalPERS investment program is delivery of the long-term target return for the fund.

B. The long time horizon of the fund poses challenges in aligning interests of the fund with Staff and external managers.

C. Staff can be measured on returns relative to an appropriate benchmark, but Staff performance plans should include additional objectives or key

performance indicators to align Staff with the fund's long-term goals.

D. Each asset class should have explicit alignment of interest principles for its external managers.

VI. Strategic asset allocation is the dominant determinant of portfolio risk and return.

A. CalPERS strategic asset allocation process transforms the fund's targeted rate of return to the market exposures that Staff will manage.

B. CalPERS will aim to diversify its overall portfolio across distinct risk factors / return drivers.

C. CalPERS will seek to add value with disciplined, dynamic asset allocation processes, such as mean reversion. The processes must reflect CalPERS characteristics, such as time horizon and size of assets.

D. CalPERS will consider investment strategies if they have the potential to have a material impact on portfolio risk and return.

VII. CalPERS will take risk only where we have a strong belief we will be rewarded for it.

A. An expectation of a return premium is required to take risk; CalPERS aims to maximize return for the risk taken.

B. Markets are not perfectly efficient, but inefficiencies are difficult to exploit after costs.

C. CalPERS will use index tracking strategies where we lack conviction or demonstrable evidence that we can add value through active management.

D. CalPERS should measure its investment performance relative to a reference portfolio of public, passively managed assets to ensure that active risk is being compensated at the Total Fund level over the long-term.

VIII. Costs matter and need to be effectively managed.

A. CalPERS will balance risk, return and cost when choosing and evaluating investment managers and investment strategies.

B. Transparency of the total cost to manage the CalPERS portfolio is required of CalPERS business partners and itself.

C. Performance fee arrangements and incentive compensation plans should align the interests of the fund, Staff and external managers.

D. CalPERS will seek to capture a larger share of economic returns by using our size to maximize our negotiating leverage. We will also seek to reduce cost, risk and complexity related to manager selection and oversight.

E. When deciding how to implement an investment strategy, CalPERS will implement in the most cost effective manner.

IX. Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error.

A. CalPERS shall develop a broad set of investment and actuarial risk measures and clear processes for managing risk.

B. The path of returns matters, because highly volatile returns can have unexpected impacts on contribution rates and funding status.

C. As a long-term investor, CalPERS must consider risk factors, for example climate change and natural resource availability, that emerge slowly over long time periods, but could have a material impact on company or portfolio returns.

X. Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives.

A. Diversity of talent (including a broad range of education, experience, perspectives and skills) at all levels (Board, Staff, external managers, corporate boards) is important.

B. CalPERS must consider the government agency constraints under which it operates (e.g., compensation, civil service rules, contracting, transparency) when choosing its strategic asset allocation and investment strategies.

- C. CalPERS will be best positioned for success if it:
- 1. Has strong governance.
- 2. Operates with effective, clear processes.
- 3. Focuses resources on highest value activities.
- 4. Aligns interests through well designed compensation structures.

5. Employs professionals who have intellectual rigor, deep domain knowledge, a broad range of experience and a commitment to implement CalPERS Investment Belief.