

Policy Committee Meeting

September 22, 2016

**TEACHER RETIREMENT SYSTEM OF TEXAS MEETING
BOARD OF TRUSTEES
AND
POLICY COMMITTEE**

(Committee Chair and Members: Mr. Corpus, Chair; Mr. Colonna, Mr. Elliott, Mr. Kelly, and Ms. Palmer)

*All or part of the September 22, 2016, meeting of the TRS Policy Committee and Board of Trustees may be held by telephone or video conference call as authorized under Sections 551.130 and 551.127 of the Texas Government Code. The Board intends to have a quorum physically present at the following location, which will be open to the public during the open portions of the meeting: **1000 Red River, Austin, Texas 78701 in the TRS East Building, 5th Floor, Boardroom.***

AGENDA

**September 22, 2015 –3:30 p.m.
TRS East Building, 5th Floor, Boardroom**

1. Call roll of Committee members.
2. Consider the approval of the proposed minutes of the June 16, 2016 committee meeting – David Corpus.
3. Consider recommending to the Board adoption of the proposed amendments to the Investment Policy Statement – Ashley Baum.
4. Consider recommending to the Board adoption of the proposed amendments to the General Authority Resolutions – Heather Traeger and Sylvia Bell.
5. Consider recommending to the Board adoption of the proposed rule amendments to TRS Active-Care Rule § 41.36, relating to enrollment periods for TRS-ActiveCare – Clarke Howard.
6. Consider authorizing for public comment publication in the *Texas Register* proposed amendments to the following TRS rules in Title 34, Part 3 of the Texas Administrative Code – Rebecca Smith and Heather Traeger:
 - A. § 23.7, relating to the Code of Ethics for Contractors.
 - B. § 23.8, relating to Expenditure Reporting by Certain Contractors.
 - C. § 25.24, relating to Performance Pay.
 - D. § 25.31, relating to Percentage Limits on Compensation Increases.

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Policy Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because the full Policy Committee constitutes a quorum of the Board, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.

- E. § 25.303, relating to Calculations of Actuarial Cost for Purchase of Compensation Credit.
 - F. § 29.83, relating to Calculation of Amount of Retirement Benefit.
7. Consider the proposed Rule Review Plan for TRS Rules in Chapter 53 of Title 34, Part 3 of the Texas Administrative Code, Certification by Companies Offering Qualified Investment Products, (403(b) Program Rules) and authorizing for public comment publication in the *Texas Register* a related Notice of Intention to Review (Proposed Rule Review Notice) – Rebecca Merrill.
 8. Consider updates to the Policy Review Schedule – Rebecca Merrill.

Tab 2

Minutes of the Policy Committee

June 16, 2016

The Policy Committee of the Board of Trustees of the Teacher Retirement System of Texas met on June 16, 2016, in the boardroom located on the fifth floor of the TRS East Building offices at 1000 Red River Street, Austin, Texas.

Committee members present:

Mr. David Corpus, Chair
Mr. David Kelly
Ms. Anita Palmer

Other Trustees:

Ms. Karen Charleston
Dr. Greg Gibson
Ms. Dolores Ramirez
Mr. Chris Moss

Others present:

Brian Guthrie, TRS
Ms. Carolina de Onis, TRS
Ms. Heather Traeger, TRS
Mr. Steve Huff, Reinhart Boerner Van Deuren

The Policy Committee Chair Mr. Corpus called the meeting to order at 11:12 a.m. with a quorum of committee members present.

1. Consider approval of the proposed minutes of the April 7, 2016 committee meeting – Committee Chair Mr. Corpus.

On a motion by Mr. Kelly, seconded by Ms. Palmer, the proposed minutes for the April 7, 2016, Policy Committee meeting were approved as presented.

2. Consider recommending to the Board adoption of amendments to the Code of Ethics for Contractors – Carolina de Onís and Heather Traeger.

Ms. Traeger reviewed the recommended changes to the Code of Ethics for contractors. Ms. Traeger explained the changes are designed to provide precision in evaluating the conflicts that TRS faces with its contractors and determine whether and how to mitigate, monitor and manage those conflicts in the cases in which they arise.

Ms. Traeger noted that the categories of contractors were reduced from five categories to three. She stated this does not change the scope of entities that are subject to the code. Ms. Traeger reported another change proposed was related to the process in which conflicts are reviewed. The process currently is a disqualification, where if there is a conflict of interest or a violation of the standards of conduct, then automatically, a contractor would be disqualified from providing those services to TRS. The proposed change would be to maintain the option to disqualify a contractor

but to create a disclosure and cure mechanism as another option. This would allow TRS, as appropriate, to evaluate the particular facts and circumstances of a proposed service by a contractor, and determine whether there are factors in play that would warrant proceeding with the particular service with that contractor. Ms. Traeger pointed out that the proposal creates a standardized form to document this conflict evaluation and would require a quarterly report on any use of this form to the Audit committee.

Ms. Palmer moved, Mr. Kelly seconded, the Committee unanimously voted to recommend to the Board the proposed amendments to the Code of Ethics for Contractors as recommended by staff.

The Policy Committee adjourned at 11:20 a.m.

Approved by the Policy Committee of the Board of Trustees of the Teacher Retirement System of Texas on September 22, 2016

Katherine H. Farrell
Secretary of the TRS Board of Trustees

Date

Tab 3



Proposed Modifications to Investment Policy

Ashley Baum, Senior Investment Manager

September 2016



Agenda

The Investment Management Division (“IMD”) is proposing modifications to the Investment Policy Statement (“IPS”) to the Policy Committee

- In keeping with the Board’s decision to move to a biennial review schedule, the IPS was reviewed in full this year
- This presentation highlights the key modifications and provides a full list of the recommended modifications

Additional items enclosed for your review and reference are:

1. Memorandum from Aon Hewitt
2. Memorandum from Dr. Keith Brown
3. Memorandum from Reinhart Boerner Van Dueren S.C.
4. Revised IPS (marked copy)
5. Revised IPS (clean copy)

Proposed Modifications

Modification	Proposed Change
1	Modify policy asset class to “Energy, Natural Resources, and Infrastructure (ENRI)” by merging ENR and the Infrastructure portion of Real Assets
2	Simplify permitted securities for public markets portfolios
3	Restrict short selling for internal public portfolios
4	Allow IMD to directly engage consultants for limited-scope engagements
5	<i>Shorten the Executive Summary to increase its effectiveness</i>
6	<i>Clarify EPU Short Positions Limit excludes Hedge Funds & Absolute Return Funds</i>
7	<i>Clarify prudence letter requirement is for externally managed investments</i>
8	<i>Lower tracking error target for Directional Hedge Funds from 600 bps to 400 bps</i>
9	<i>Add “FICC Traders” to the General Authority Resolution to express trading authority for certain professionals to specific asset types</i>
10	<i>Update credit rating compliance sources to include new Moody’s Counterparty Risk Assessment</i>
11	<i>Authorize Chief Compliance Officer to sign compliance disclosures/certificates and develop IPS-related disclosure forms, with CIO and ED approval</i>
12	<i>Improve Placement Agent Questionnaire (PAQ) language</i>
13	<i>Clarify and clean up IPS to improve document readability and clarity</i>

Reviewed by:			
<input checked="" type="checkbox"/>	Aon Hewitt	<input checked="" type="checkbox"/>	Audit
<input checked="" type="checkbox"/>	Keith Brown	<input checked="" type="checkbox"/>	Legal

Modification 1

Modify policy asset class to “Energy, Natural Resources, and Infrastructure (ENRI)”

Proposal

- Merge ENR and Real Assets infrastructure investments into Energy, Natural Resources, and Infrastructure (ENRI)
- Revise Real Assets target policy allocation to 14% (-2%) and ENRI target to 5% (+2%)
- Change benchmark to 40% Cambridge Infrastructure/40% Cambridge Natural Resources/20% CPI, one quarter lagged

Rationale

- Better management based on high energy sector overlap

Background Information

- All dedicated energy infrastructure investments are held and managed by Energy and Natural Resources (“ENR”)
- 2% of the Trust is invested in generalist infrastructure funds in the Real Assets portfolio
 - Those generalist funds are 70% energy-related
 - Energy sector exposure is expected to remain high in the future

Reviewed by:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Aon Hewitt | <input checked="" type="checkbox"/> Audit |
| <input checked="" type="checkbox"/> Keith Brown | <input checked="" type="checkbox"/> Legal |

Modification 2

Simplify permitted securities for public markets portfolios

Proposal

- Simplify the list of authorized securities in Section 2.2

Rationale

- Align the list of permitted securities in public markets portfolios to the definition of “Security” as defined in Texas Code 825.301a

Background Information

- Current IPS designates a list of authorized securities for the public markets portfolios (Internal and External)
 - Historic rules-based approach
- The permitted list has grown unwieldy

Reviewed by:

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| <input checked="" type="checkbox"/> Aon Hewitt | <input checked="" type="checkbox"/> Audit |
| <input checked="" type="checkbox"/> Keith Brown | <input checked="" type="checkbox"/> Legal |

Modification 3

Restrict internal short selling in internal public portfolios

Proposal

- Introduce a limit on the ability for internal portfolios to short securities to 25% of internal equity portfolios

Rationale

- Prudent restriction
- Internal limits will be consistent with the levels for External Managers

Background Information

- Current IPS allows short sales of authorized securities for the public markets portfolios (Internal and External) with no restriction
- External Manager Portfolios have an explicit limit on the amount of permitted short selling



*After 2016 proposed revisions, the referenced section will be 2.6c

Reviewed by:

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| <input checked="" type="checkbox"/> Aon Hewitt | <input checked="" type="checkbox"/> Audit |
| <input checked="" type="checkbox"/> Keith Brown | <input checked="" type="checkbox"/> Legal |

Modification 4

Allow IMD to directly engage consultants for limited-scope engagements

Proposal

- Define Advisors as consultants who provide recommendations or prudence letters and who must be Board-approved
- Clarify that IMD can engage other consultants as needed
- Require IMD to disclose hiring of any consultant to the Board in advance

Rationale

- Ensure current practice is reflected in the IPS language
- Reflect that IMD is authorized to hire providers directly for limited-scope engagements

Background Information

- The Board approves all consultants who provide recommendations or prudence letters
 - Hamilton Lane, Albourne, Townsend, Aon Hewitt, Blackrock, LaSalle, TPH
- There is occasional need for general research or specific diligence on individual transactions to support IMD (i.e. Green Street property valuation, Van Gotten reservoir analysis)
 - Speed required often does not allow for full Board meeting consideration

Reviewed by:

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| <input checked="" type="checkbox"/> Aon Hewitt | <input checked="" type="checkbox"/> Audit |
| <input checked="" type="checkbox"/> Keith Brown | <input checked="" type="checkbox"/> Legal |



Memo

To Board of Trustees, Teacher Retirement System of Texas (“TRS”)

From Steve Voss; Mike Comstock; Mike McCormick

Date September 6, 2016

Re 2016 Review of Investment Policy Statement

Introduction

As we have discussed with the Board many times in the past, it is difficult to underestimate the importance of a well written and unambiguous Investment Policy Statement (IPS). The IPS provides the means for the Board to control various critical aspects of the investment portfolio, including: long-term asset allocation, rebalancing ranges, monitoring and reporting practices, risk limits, governance practices, and benchmarks.

The Board has generally reviewed the TRS IPS on an annual basis. The purpose of such reviews is to ensure the document reflects the evolving investment portfolio, legal and regulatory developments, current best practices, and that it reflects input from relevant parties both outside and within TRS.

Over the years, this document has evolved to become quite comprehensive. Effort was taken during this year’s review to simplify the IPS where possible without losing critical meaning. Overall we think the level of detail in the modified document is appropriate given the context of TRS – that of a large and sophisticated institutional investor. Importantly, we also think the current policy reflects best practices. As an appendix to this memorandum we have included a list of items we think are indicative of best practices for investment policy, and TRS covers these well. We have shared this in the past but thought it worth including again, putting into better context these specific changes under consideration.

Proposed Changes

We are comfortable with the proposed changes and recommend the Board adopt them as presented by the Investment Management Division (IMD). These changes are based on thorough discussion and debate and include feedback and comments from fiduciary counsel, TRS Legal and Compliance, and the Board’s investment consultant and advisor.



Modification 1: Modify policy asset class to “Energy, Natural Resources, and Infrastructure (ENRI)” by merging ENR and the Infrastructure portion of Real Assets

We are in favor of the modification given the similar characteristics, namely the energy sector overlap, of the investments in the infrastructure funds to those in the energy and natural resources portfolio. Additionally, we believe the similarities will exist going forward. We see merit in merging the components to form a dedicated asset class consisting of energy, natural resources, and infrastructure. It’s important to note that the proposed revision better reflects the way IMD manages its internal resources. We believe the revisions to the policy allocations as outlined by IMD are appropriate and the proposed corresponding benchmarks are appropriate.

Modification 2: Simplify permitted securities for public market portfolios

We are in favor of aligning the list of permitted securities in public market portfolios to the definition of “Security” as defined in Texas Code 825.301a. It is our view that TRS has the necessary framework and governance structure in place to avoid the cumbersome approach of listing every permissible investment in section 2.2 of the IPS. Additionally, slowly inching closer to a more principles-based approach to policy, as opposed to a rules-based approach, delegates additional investment authority to IMD, but also reduces the likelihood of misinterpretation of what constitutes an allowable investment. We are comfortable with this modest shift: 1) given the oversight and robust reporting and risk management of IMD; 2) coupled with the existence of full transparency, a strong and clear ethical framework; and 3) the long continuity and strong culture of the team. We believe the conditions exist for a migration to a more streamlined approach to section 2.2. IMD may wish to review how the custodian will perform its daily compliance function given the more streamlined approach.

Modification 3: Restrict short selling for internal public portfolios

This change provides a limit of shorting on the internal portfolios that previously was not explicitly stated in policy. In the past the policy had addressed short selling activities associated with external public markets managers and made reference to the use of shorting in section 9.5 (Derivative Applications Permitted) and section 1.7 (Total Fund Measurement and Reporting Criteria). The new policy provides IMD the ability to short 25% of internal equity portfolios. While this language is more restrictive than limits placed on external managers it does provide IMD the opportunity to deviate meaningfully from the tracking error target established in Appendix A of the IPS. We doubt that IMD would decide to short 25% of its Global Best Ideas portfolio, but doing so would likely create tracking error outside of the 100 basis points neutral level.

Modification 4: Allow IMD to directly engage consultants for limited-scope engagements

It strikes us that this modification is a reflection of existing standard practice. Codifying this practice into policy is important and provides the Board an important level of oversight as it relates to funding external investment managers. From time to time, IMD may have a need to hire a consultant for limited-scope engagements. If such work does not constitute selection of external investment managers, Board approval is not necessary. However, IMD is required to disclose the hiring of any such consultant in advance and provide the Board a list of consultants engaged to assist or advise on a quarterly basis.



Remaining Modifications

The remaining nine modifications are less substantive than the four modifications listed above. We are comfortable with each modification as listed below:

- Shorten the Executive Summary to increase its effectiveness
- Clarify EPU Short Positions Limit excludes Hedge Funds & Absolute Return Funds
- Clarify prudence letter requirement is for externally managed investments
- Lower tracking error target for Directional Hedge Funds from 600 bps to 400 bps
- Add “FICC Traders” category in the General Authority Resolution to express trading authority for certain professionals to specific asset types
- Update credit rating compliance sources to include new Moody’s Counterparty Risk Assessment
- Authorize Chief Compliance Officer to sign compliance disclosures and develop IPS-related disclosure forms, with CIO and ED approval
- Improve Placement Agent Questionnaire (PAQ) language
- Clarify and clean up IPS to increase readability and comprehension

Summary

While the number of modifications proposed as part of the 2016 IPS review is greater than in recent years, we believe the changes are appropriate and further the evolution of TRS’ best-in-class IPS. Also, as previously stated, we note that the IPS is an important instrument related to the Board’s delegation of authority to IMD, and it is also an important articulation of the high level investment strategy to be used in the future.

As in years past, IMD has led the review process and worked closely with other departments within TRS: namely, Legal, Internal Audit, and Compliance. Lastly, feedback and input was solicited from external fiduciary counsel, Dr. Keith Brown, advisor to the Board, and from Aon Hewitt.

We are supportive of the modifications put forward by IMD for the reasons cited above and look forward to discussing the IPS review with you.



Appendix: Aon Hewitt's Key Elements of Investment Policy:

1. Introduction

- Reference to state or local law creating the plan
- Reference the board's right to have an investment committee and to set policy
- Intended beneficiaries of the plan (e.g., the plan is created for certain employees and their dependents and other beneficiaries of special trusts)
- Scope of policy (e.g., limited in application to pension fund assets or it may also include other assets)

2. Statement of Purpose

- The sole or fundamental purpose of the Retirement System (e.g., to provide retirement and other benefits to plan participants)
- Plan fiduciaries must act in the sole interest of plan participants and beneficiaries and for the exclusive purpose of providing benefits

3. Investment Goals or Objectives

- To preserve the actuarial soundness of the plan in order to meet benefit obligations
- To obtain a long-term rate of return (one or two market cycles), net of fees, equal to or in excess of the policy benchmark.
- The policy benchmark and asset allocation targets should be defined

4. Identification of Roles and Responsibilities

- Board of trustees – general and investment related duties
- Investment committee – role to make recommendations or final decisions
- Internal staff – general and investment related duties
- External investment consultants – duties, reporting lines, expectations regarding the frequency of communications and acknowledgement of fiduciary responsibilities
- Other external providers' duties, expectations and fiduciary responsibilities

5. Asset Allocation

- Describe the importance of asset allocation as the most important decision to be made in the investment management process
- Purpose is to provide an optimal mix of investments to produce desired returns and meet current and future liabilities, with minimal volatility
- Frequency and methodology of asset liability modeling and resetting allocation
- Describe permissible asset classes as well as minimum, maximum, and target ranges
- Diversification should be covered in regard to a single issuer, single asset class, economic sector, or country

6. Asset Class Guidelines and Benchmarks



- Benchmarks – who sets them and how often they are revisited, and their rationale
- Prohibited investments – short selling, margin, investments precluded by law or regulation

7. Rebalancing Policy

- Purpose of rebalancing – to ensure that the investment program adheres to its strategic asset allocation
- Describe how often the portfolio will be reviewed for rebalancing and whether a fixed threshold or proportional threshold will be used

8. Risk Management

- Acknowledgement and definition of risk to be managed in investment portfolio (active risk, credit risk, counterparty risk, market risk, operational risk, etc.)
- Risk Budget – articulation of risk guardrails for public traded asset classes and total fund relative to appropriate benchmarks
- Derivative usage permitted in risk management process, by internal or external parties

9. Monitoring and Reporting

- Purpose – to ensure compliance with the investment policy and applicable law, to manage risk, and assess the performance of managers
- Describe quarterly reporting for both external managers and other external investment professionals.
- Annual and more frequent reporting – define purpose and scope

10. Shareholder Activity

- Proxy positions -- describe the policy and how votes are cast and recorded
- Identify core principals of the Board (Board independence, Board management, shareholder rights) and communicate importance of fiduciary duty, integrity, and transparency
- Outline compensation for CEOs and other directors
- Structure of committees including audit, director nominating, board evaluation and governance, CEO Evaluation, and compliance and ethics
- Annual review of investment policy statement

11. Governance

- Identify core principals of the Board such as integrity and transparency
- If applicable, the emerging manager language could go here
- Discuss delegation and incorporate by reference the CIO position description
- Require an annual review of investment policy statement



DEPARTMENT OF FINANCE
THE UNIVERSITY OF TEXAS AT AUSTIN

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MEMORANDUM

To: Board of Trustees
The Teacher Retirement System (TRS) of Texas

From: Keith C. Brown 
Advisor to the TRS Board

Re: Proposed Changes to the TRS Investment Policy Statement

Date: September 6, 2016

I have reviewed the several changes to the Investment Policy Statement (IPS) that have been proposed recently by the Investment Management Division (IMD). *Overall, I endorse these modifications and recommend their adoption.*

In what follows below, I have included discussion and analysis of the most significant changes that have been proposed by the IMD staff. (For the sake of clarity, the headers for the various entries in this memo are based on those used in the notes accompanying the IMD's "Proposed Modifications to Investment Policy" presentation to the Board of September 2016.) Please note that in these discussion points I mention some additional issues that merit the Board's consideration before moving to final approval.

- #1: *Modify Policy Asset Class to "Energy, Natural Resources, and Infrastructure (ENRI)"*

This proposed change would expand the existing Energy and Natural Resources (ENR) asset class to include those infrastructure investments that are currently classified as being "generalist" rather than energy-specific. The amended asset class would then be called Energy, Natural Resources, and Infrastructure (ENRI) and the target allocation would be increased to 5% from its present level of 3%, with the tactical maximum allowable allocation increasing from 8% to 10% (the tactical minimum allocation would remain at 0%). The "budget" for this expanded allotment would come from a reduction in the Real Assets category, which is presumably the current asset class from which those existing investments would be shifted.

When the Board was originally contemplating the creation of a new ENR asset class in September 2013, I made the following observation:

Ultimately, I do not have any substantive objections to treating ENR as a separate asset class, but neither do I have any strong arguments to make as to why it should be. Presumably, this modification does not expand the universe of assets in which the IMD can make investments... Conversely, if the point is that this is a sector of the economy that is strategically important—both in general economic terms and to TRS in particular—it seems that a similar argument could be made for other market sectors as well (e.g., health care). The Board should be convinced that this modification is not the first step in an evolution that could result in an IPS that becomes too “granular” to be effective.

In that context, this latest proposed revision seems sensible in that it gathers more investments of a similar nature into the same asset class category. Further, it is likely to allow for a more effective deployment of IMD staff resources inasmuch as similar investment vehicles will be managed directly by the same team.

A related issue that arises with this proposed revision is the identity of the benchmark for the expanded ENRI asset class. Currently, the ENR benchmark is a blend of 75% Cambridge Associates Natural Resources and 25% of the quarterly Consumer Price Index. Once again, when the Board was considering adopting that benchmark three years ago, I wrote:

Strictly speaking, this benchmark is not investible, which means that its role as an expression of the true opportunity cost for the allocation is somewhat diminished. The justification for its adoption...is that changes in historical levels of this benchmark are highly correlated with past movements in the actual ENR portfolio, which is a reasonable and appropriate argument. Nevertheless, given the importance of this designation for performance measurement and compensation purposes, the Board should monitor the effectiveness of this hybrid index on an on-going basis.

The proposed benchmark for the new ENRI asset class is also a hybrid measure that would consist of 40% Cambridge Associates Natural Resources, 40% Cambridge Associates Infrastructure, and 20% quarterly Consumer Price Index. As before, the justification for this specification is based on the closeness of its historical return movements with those produced by the actual ENRI investments, which remains a reasonable justification. However, this is still not a fully investable index, so the original caveat noted three years ago remains in place as well.

- #2: *Simplify Permitted Securities for Public Markets Portfolios*

Arguably, this is the most impactful of the proposed IPS changes; certainly, it represents the biggest philosophical shift in the way the policy document is expressed. Indeed, the using the word “simplify” to describe how the revised Section 2.2 compares to the existing Section 2.2 really understates what adopting this proposal would entail.

Essentially, the proposed language would replace a specific list of acceptable investable security types and investment strategies with a “principles-based” approach to defining an overall philosophy of what types of investment are permissible in the Public Markets portfolio. As the IMD staff has noted, this sort of migration is becoming increasingly common in IPS documents at comparable institutions and recent research published by the CFA Institute argues that this approach actually represents best practice in this area.

The important thing for the Board to consider with respect to this proposal is whether the new approach offers the same level of risk control over what the public portion of the Trust is and is not permitted to invest in. One advantage of the current security list approach is that the Board can express *exactly* what is acceptable and, by omission from the list, what is not. On the other hand, the list system has grown to be unwieldy in size and can also get outdated rather quickly. In fact, it is unlikely that any such list could ever keep pace with the way modern capital markets continue to innovate and grow, which could potentially put the System at a temporary disadvantage relative to some of its more progressive peers. Further, the list in the existing Section 2.2 includes things that are not even securities (e.g., short sales, risk parity portfolios, overlay strategies).

The narrower question to be addressed here is whether the proposed principles-based language would permit certain investment vehicles to be included in the Public Markets portfolio that the existing policy does not. I am not sure whether this is the case, but it is likely that a new phrase such as “Fixed income securities, whether publicly traded or restricted (cf. Section 2.2.b)” allows for a wider range of alternatives than does the current itemized list. Of course, that does not make the new approach wrong in any way, but it does raise the bar on whether the Board feels that it has sufficient control over what types of securities can and cannot find their way into the Trust portfolio.

By way of summarizing with an analogy, the current list approach can be thought of as akin to an “opt in” system (i.e., a security can only get into the portfolio if it is on the list) whereas the proposed principles-based scheme has some elements of an “opt out” system (i.e., within a category, such as fixed income, a potentially unacceptable security might be able to be purchased unless it was specifically excluded). Arguments can be made on behalf of both approaches, so the Board needs to be comfortable with the one it chooses.

- *#3: Restrict Short Selling for Internal Public Portfolios*

This proposal imposes specific language on the limits of the Internal Public Markets (IPM) staff to engage in short selling activities. The new language in Section 2.3.c mirrors existing short selling restrictions for External Public Market (EPM) managers (cf. Section 2.6.c), with the notable difference that the IPM constraints are generally more restrictive. The new language constrains aggregate short sales by IPM (excluding derivative positions, which are covered separately) to 25% of the value of the internal equity portfolios of the Trust.

It is probably worth noting that the addition of this language actually significantly limits the ability of the IPM staff to engage in short selling activity relative to what is

permissible under the current policy. In fact, because of circular wording in the existing IPS, it is not clear that there is presently *any* restriction on the IPM staff when it comes to short selling. So, this proposed language introduces a needed restriction where there currently may not be one.

Further, to the extent that short selling can be viewed as a potential form of leverage in the overall portfolio, these tighter restrictions for the IPM staff are appropriate and consistent with distinctions adopted elsewhere in policy with regard to the risk-taking abilities of internal and external managers (e.g., in Appendix A, the tracking error target for internal equity managers is 100 basis points compared to a 300 basis point target for external managers). Also, it is worth noting that even the 25% maximum for IPM short selling activity falls beneath one of the primary “bright line” boundaries for what constitutes a hedge fund (cf. the criteria listed in Section 2.5).

Finally, it should also be noted that any short selling activity will have an impact on the net asset allocation position for the affected asset class. To take a simple example, suppose the combined long positions from IPM and EPM in U.S. equities is 20% but that there are also combined short sales in these securities totaling 5% of the Trust. This would result in a *net* allocation of 15% to U.S. equities, which while above the minimum level permitted in policy (i.e., 13% as shown in Section 1.6) would change an overweight position to an underweight position relative to the target level of 18%. Thus, both the direct and indirect effects of all short selling activity are something that needs to be monitored carefully.

- *#4: Allow IMD to Directly Engage Consultants for Limited-Scope Engagements*

This proposal introduces specific language in Section 1.7.o that allows IMD staff to hire consultants—subject to a requirement to report those engagements to the Board in advance—for purposes other than providing investment recommendations or prudence letters. Section 1.3 still specifies that the Board is responsible for approving consultants and advisors that make investment recommendations or generate prudence letters.

This seems like a reasonable and efficient delegation of authority on the part of the Board. In essence, it makes explicit in the IPS document what appears to have evolved as standard practice anyway, which is a good thing from the standpoint of avoiding unintended confusion in the future.

- *#5: Shorten the Executive Summary to Increase Its Effectiveness*

In what appears to be an effort to streamline the IPS and make it more readable, the Executive Summary section has been shortened from four-and-a-half pages to one-and-a-half pages. This reduction was achieved primarily by removing a lot of duplicative language that is contained elsewhere in the IPS document (e.g., the definitions of Private Equity and Real Asset portfolios). So, the new version proposed for the Executive Summary does indeed achieve the intended purpose.

It may be worth noting that it is a little unusual to see an Executive Summary in a policy document in the first place. However, the inclusion of this feature was specifically requested several years ago by former Trustees who wanted the most relevant items in the IPS to be singled out and highlighted up front, presumably to make monitoring the various policy requirements easier to accomplish. Consequently, since the Executive Summary was created for that reason, the Board should be certain that the reduced version being proposed remains a satisfactory solution in terms of providing the desired degree of information and control.

- *#8: Lower Tracking Error Target for Directional Hedge Funds*

The tracking error targets in Appendix A have been altered slightly to decrease from 600 basis points to 400 basis points the extent to which returns to Directional Hedge Funds can deviate from the benchmark for this asset class. This represents a somewhat more restrictive policy than currently in place and brings the tracking error target for Directional Hedge Funds in line with that specified for Stable Value Hedge Funds.

- *#13: Clarify and Clean Up IPS to Increase Readability and Comprehension*

Throughout the IPS document, there have been several slight changes to the way in which sections are presented or worded. As noted, these were done in an effort to eliminate redundant or unnecessary language, remove outmoded date references, clarify awkward descriptions, etc. In the vast majority of cases, this is exactly what the changes appear to do. So, as with the shortening of the Executive Summary in Modification #5 discussed above, these adjustments generally result in a more readable and coherent IPS.

It may also be worth mentioning that beyond cleaning up redundancies in language, there are a few places where wording from the current IPS has been relocated to a different place in a slightly altered form. For instance, in delineating the role of the Internal Investment Committee (IIC) in Section 1.3.c, the following clause has been inserted:

If a Board member desires that any external investment opportunity scheduled for consideration by the IIC be submitted for consideration by the Board, the Board member should notify the Executive Director and the CIO sufficiently in advance to permit completion of due diligence and consideration by the Board and by the appropriate Board committee, as applicable, before the anticipated closing date.

This appears to be a modified version of language that is listed in Section 3.4 of the current IPS, although the intention of the passage remains unchanged.



September 6, 2016

Board of Trustees:

Re: Investment Policy Statement Revisions

TRS will present proposed changes to the Investment Policy Statement ("IPS") for the Board's consideration and approval at the Board's September 2016 meeting. TRS periodically reviews and updates the IPS to remain consistent with industry standards and practice. The IPS was reviewed in full this year in accordance with the Board's decision to move to a biennial review schedule.

The proposed changes include clarifications as well as substantive revisions. The proposed draft of the IPS would modify the ENR portfolio and would change the benchmark. In addition, the proposed revisions to Sections 2.1 and 2.2 on Public Markets revise the list of permitted investment types to follow a principles-based approach. The proposed revisions also tighten short selling limits for internal public portfolios and clarify that External Public Markets Portfolios short positions limit excludes hedge funds and absolute return funds.

The IPS also includes a few delegations of authority. First, the IPS delegates authority for engaging consultants that do not provide recommendations or prudence letters to IMD, with advance notice to the Board. The IPS also delegates authority to the Chief Compliance Officer to sign compliance disclosures and develop IPS-related disclosure forms with Executive Director and Chief Investment Officer approval.

We reviewed and discussed the proposed changes to the IPS. Additionally, we made comments to TRS on the proposed revisions, which we believe were carefully and collaboratively considered. TRS also consulted with experts such as HEK and Dr. Brown on the proposed revisions. The Policy Committee has reviewed IMD's proposed revisions. At the upcoming meeting, the Board will also review IMD's proposed revisions and receive input and confirmation from HEK and Dr. Brown that the proposed changes are appropriate. At the conclusion of this process, the Board will have followed a well-documented, prudent review process, resulting in these IMD recommended changes. Overall, the Board will have demonstrated positive fiduciary oversight of the IPS revisions.

Yours very truly,

REINHART BOERNER VAN DEUREN s.c.

BY

Steven D. Huff



INVESTMENT POLICY STATEMENT

(Adopted September ~~18, 2014~~XX, 2016 to be effective October 1, 2014~~6~~)

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EXECUTIVE SUMMARY

This Executive Summary is not intended to replace, and must be read in conjunction with, the Investment Policy Statement (the "Policy"). In the event of a conflict between the Executive Summary and the Investment Policy Statement, the Investment Policy Statement shall govern. Capitalized terms have the meanings assigned to them in Policy.

Introduction / Background
Total Fund and Portfolio Design;
Restrictions

The Board has the primary fiduciary responsibility for investing TRS trust assets in accordance with Article XVI, Section 67 of the Texas Constitution and with applicable law. The Board establishes investment objectives and policy. The Board also monitors the actions of the Investment Division, consultants and advisors to ensure compliance with its policies. The Board and Investment Division are assisted by outside investment consultants and internal and external legal counsel.

See Article 1.3 Roles of Board, Staff, Consultants and Advisors.

The Investment Policy Statement provides a formal plan for investing pension trust fund (the "Trust") and health insurance program assets. The policy defines the roles and responsibilities of the Investment Division and other parties granted and approved by the Board within that plan.

The Internal Investment Committee is established and assigned the authority to review and approve investments. The IIC's authority is limited by the size of the investments it can approve without also obtaining approval from the Board. The limitations are 0.5% for initial allocations, 1% for follow on allocations, 3% total to any one organization in each of External Public Markets, Private Equity, Real Assets and Energy and Natural Resources and 6% total to any one organization in the total Trust with each of the foregoing percentage stated as a percentage of the Total Trust and calculated at time of investment. In addition, the CIO has Special Investment Opportunity authority of up to \$1 billion. See "Appendix B—IIC Approval Authority and Manager Organization Allocation Limits."

The Trust's objectives are to (a) control risk and (b) achieve a long term rate of return that exceeds (i) the assumed actuarial rate of return adopted by the Board, (ii) inflation plus 5% and (iii) the Trust's Policy Benchmark. The Trust is subject to a "prudent person" standard of care under the Texas Constitution.

Within the constraints of the IPS, the Investment Division is authorized to engage advisors and consultants, authorize commitments to be funded over an extended period of years, serve or hire independent third parties to serve on External Advisory Committees or Boards, as Board Observers or on the governing body of a non-public (private) or a publicly traded business entity, allow short positions, engage in overlay strategies, rebalance the portfolio, and transfer, withdraw or terminate its investments. Private Market and External Public Markets investments will be submitted to the Board for authorization if the appropriate consultant or advisor does not concur with the investment or at the request of any Board member.

Except as required by fiduciary duties created by the Texas Constitution or applicable law, each TRS investment portfolio, including separate account investments, will comply with Chapters 806 and 807 of the Government Code relating to prohibitions on investments in Sudan and Iran, respectively.

TRS will not invest in securities of any company that derives a significant portion of its revenues from products or services intended exclusively to appeal to a prurient interest in sex through explicit depictions of sexual activity. The restriction does not apply to pooled investment vehicles, provided that the Investment Division shall engage with

	<p>the managers of such vehicles and use commercially reasonable efforts during due diligence to determine whether such vehicles invest in any company that would not be eligible for direct investment by TRS.</p> <p>See “Article 1— Total Fund and Portfolio Design”</p>																								
<p><u>Objectives</u></p>	<p>The Trust’s objectives are to (a) control risk and (b) achieve a long-term rate of return that exceeds (i) the assumed actuarial rate of return adopted by the Board, (ii) inflation plus 5% and (ii) the Trust’s Policy Benchmark. The Trust is subject to a “prudent person” standard of care under the Texas Constitution.</p>																								
<p><u>Authority and Key Restrictions</u></p>	<p>The Board assigns implementation authority to the Investment Division and as such the Investment Division has created a committee to oversee and implement Board-approved investment policy. The Internal Investment Committee’s (IIC) authority is limited by the size of the investments it can approve without also obtaining approval from the Board. The Chief Investment Officer (CIO) has Special Investment Opportunity authority of up to \$1 billion.</p> <p>See “Appendix B – IIC Approval Authority and Manager Organization Allocation Limits.”</p>																								
<p>Asset Allocation</p>	<p>Each broad asset class category outlined below provides a distinct and purposeful role within the Total Fund. The Board sets these asset class targets based on periodic asset allocation and asset/liability studies while seeking to achieve the Trust’s stated objectives.</p> <table border="1" data-bbox="678 993 1341 1184"> <thead> <tr> <th><u>Broad Asset Class Category</u></th> <th><u>Target</u></th> <th><u>Min</u></th> <th><u>Max</u></th> </tr> </thead> <tbody> <tr> <td><u>Global Equity</u></td> <td><u>57%</u></td> <td><u>50%</u></td> <td><u>68%</u></td> </tr> <tr> <td><u>Stable Value</u></td> <td><u>16%</u></td> <td><u>11%</u></td> <td><u>23%</u></td> </tr> <tr> <td><u>Real Return</u></td> <td><u>22%</u></td> <td><u>17%</u></td> <td><u>27%</u></td> </tr> <tr> <td><u>Risk Parity</u></td> <td><u>5%</u></td> <td><u>0%</u></td> <td><u>10%</u></td> </tr> <tr> <td><u>Total</u></td> <td><u>100%</u></td> <td></td> <td></td> </tr> </tbody> </table> <p><u>Asset Class</u> _____ <u>Target</u></p> <p><u>Global Equity</u></p> <p>USA _____ 18%</p> <p>Non-US Developed _____ 13</p> <p>Emerging Markets _____ 9</p> <p>Directional Hedge Funds _____ 4</p> <p>Private Equity _____ 13</p> <p><u>Stable Value</u></p> <p>US Treasuries _____ 11%</p> <p>Absolute Return _____ 0</p> <p>Stable Value Hedge Funds _____ 4</p> <p>Cash _____ 1</p> <p><u>Real Return</u></p> <p>Global Inflation Linked Bonds _____ 3%</p> <p>Real Assets _____ 16</p> <p>Energy and Natural Resources _____ 3</p> <p>Commodities _____ 0</p>	<u>Broad Asset Class Category</u>	<u>Target</u>	<u>Min</u>	<u>Max</u>	<u>Global Equity</u>	<u>57%</u>	<u>50%</u>	<u>68%</u>	<u>Stable Value</u>	<u>16%</u>	<u>11%</u>	<u>23%</u>	<u>Real Return</u>	<u>22%</u>	<u>17%</u>	<u>27%</u>	<u>Risk Parity</u>	<u>5%</u>	<u>0%</u>	<u>10%</u>	<u>Total</u>	<u>100%</u>		
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	<p>Risk Parity _____ 5%</p> <p>Total _____ 100%</p> <p>In addition to the target for each broad, each asset class category, there are specific targets for subcategories with has minimum and maximum allocations which, with certain exceptions, ranges that are +/-5% around the target allocation, with certain exceptions.</p> <p>See “Section 1.6 – Total Fund Asset Mix and Benchmarks.”</p>
Measurement and Reporting	<p>Investment performance, <u>peer performance</u>, policy compliance, asset allocation, external investments activities, derivatives usage, risk limits, liquidity, leverage, private markets strategy, staffing, board and board observer seats, use of placement agents and other information will be monitored and reported to the Board.</p> <p>See “Section 1.7 – Total Fund Measurement and Reporting Criteria.”</p>
Public Markets Portfolios	<p>The portfolios are authorized to invest in publicly traded or Rule 144A (either through an exchange or over the counter) assets such as equities, exchange traded funds, equity linked notes, options, futures, swaps, forwards, corporate debt, sovereign or sovereign sponsored entity debt (including US Treasuries), mortgage backed securities, collateralized mortgage obligations, commercial mortgage backed securities, asset backed securities, any investment in one of the public markets benchmarks, mutual funds, closed end funds, structured notes, structured credit transactions, repurchase transactions, State of Texas pooled investment funds, foreign currencies, short sales, local access products and other investments. See “Section 2.2 – Public Markets Portfolios Authorized Investments.”</p> <p>Certain restrictions apply to the internally managed portfolios including restrictions on the amount of equity of any company that can be held (not more than 20%) and those listed in Section 1.8.,</p> <p>See “Section 2.3 – Internal Public Markets Portfolios Portfolio Restrictions.”</p>
External Public Markets Portfolio	<p>The portfolio is comprised of (a) externally managed public investments that do not qualify as Hedge Funds (Agency Agreements limited to less than 30% of the Trust), (b) Hedge Funds (limited to less than 10% of the Trust) and (c) absolute return portfolios (includes credit sensitive investments). Hedge Fund is defined in Section 2.6.</p> <p>See “Section 2.7 – External Public Markets Portfolio Authorization” and “Section 2.8 – External Public Markets Portfolio Restrictions.”</p>
Private Markets Portfolio	<p>General principles of investing in private markets apply to the Private Equity, Real Assets and Energy and Natural Resources portfolios. See “Article 3 – Private Markets Portfolios.”</p>
Private Equity Portfolio	<p>The portfolio makes investments either through funds or directly in equity, equity rights securities, preferred stock, convertible securities, debt obligations, warrants, rights, options and other investments. Private equity strategies are often classified as venture capital, mezzanine, buyout, emerging markets and special situation. See “Article 4 – Private Equity Portfolio.”</p>
Real Assets Portfolio	<p>The portfolio makes investments either through funds or directly in equity, debt, rights, warrants or other investments in real estate, infrastructure, timber, agriculture, oil and gas, mortgage related investments, real estate investment trusts, master limited</p>

	<p>partnerships, non-fixed assets and other opportunistic investments in real assets. Real estate investments are often classified as core, core plus, value added and opportunistic. See “Article 5—Real Assets Portfolio.”</p>
Energy and Natural Resources Portfolio	<p>The portfolio makes investments in energy and natural resources related assets through public funds, private equity funds, or directly through equity, equity rights securities, preferred stock, convertible securities, debt obligations, warrants, rights, options and other investments whether public or private. Energy and natural resource investments are often classified by resource type and where the investment is in the resource value chain (upstream, midstream or downstream). See “Article 6—Energy and Natural Resources Portfolio.”</p>
Emerging Managers Program	<p>The Investment Division will make a good faith effort to invest a target allocation of \$1.65 billion with qualified emerging managers in the External Public Markets Portfolio, Private Equity Portfolio and the Real Assets Portfolio. Emerging managers can include, but are not limited to, minority, women, and disabled veteran-owned or controlled organizations generally with less than \$2 billion assets under management or a performance track record of less than five years. See “Article 7—Emerging Managers Program” and “Appendix C—Emerging Managers.”</p>
Overlay Portfolios	<p>Overlay Portfolios are designed to manage risk, asset allocation, and market exposures through futures, options, swap agreements, or forward agreements. Overlay Portfolios may be implemented in connection with the Total Fund or with any investment or portfolio within the Total Fund. Overlay portfolios are restricted by the asset allocation limits of the Trust. In addition, certain uses of currency overlays are restricted to less than (a) 5% to all non-US dollar currencies, (b) 2% to any one developed market currency (except the US dollar) and (c) 1% to any emerging market currency, each calculated as a percentage of the Trust. See “Article 8—Overlay Portfolios.”</p>
Derivatives	<p>Derivatives are authorized only if they efficiently manage and reduce the risk of the overall investment portfolio. Derivatives can be used to (a) implement investment strategies in a lower cost or efficient manner, (b) efficiently manage the Total Fund portfolio, (c) construct portfolios that could not be efficiently constructed using cash market securities, (d) hedge and control risks and (e) facilitate transition trading.</p> <p>Derivatives may only invest in legally permissible policy asset categories and may not be used to circumvent the asset allocation or other policy restrictions. All use of derivatives must be properly documented. All over-the-counter derivatives must be executed using ISDA documentation or, if centrally cleared, clearing agreements. All counterparties must have a credit rating of at least A (Standard & Poor’s or Fitch) or A3 (Moody’s). In addition, the net market value of derivatives positions with any counterparty may not exceed \$500 million (calculated net of collateral) and may not exceed 5% of the total market value of the Fund (without consideration of collateral).</p> <p>See “Article 9—Authorized Uses of Derivatives.”</p>
Risk Management	<p>The Investment Division will monitor and manage risk of the Total Fund Portfolio and report to the Board on a periodic basis. <u>Key risks include, but are not limited to: Market Risk, Foreign Exchange Risk, Credit and Counterparty Risk, Leverage, Liquidity, and Tracking Error. including:</u></p> <p>Market Risk—will be managed and measured using at a minimum a quantified estimate of downside risk (e.g., value at risk), asset allocation limits, private markets holdings analysis, and a quantified estimate of risk relative to the benchmark (tracking error).</p>

	<p>Foreign Exchange Risk—will be managed according to a Currency Hedge Ratios approved by the Board. The current Currency Hedge Ratios are stated in Appendix D.</p> <p>Credit Risk—the primary sources of credit risk are derivative counterparty risk (mitigated by credit provisions in the derivatives documentation), the risk from repurchase agreements (limited to 5% of the Trust market value) and securities lending.</p> <p>Liquidity Risk—a prudent liquidity management will be established to ensure that the Fund maintains ample liquidity to meet its funding commitments, especially disbursements of benefits and TRS investment activities.</p> <p>Leverage Risk—the permitted uses of leverage are defined. Leverage will not be used to exceed the asset allocation ranges of the policy.</p> <p>Other managed risks include operations risk, settlement risk and legal risk.</p> <p>Compliance cure periods or corrective action plan periods established for violations of policy or other compliance limits are 90 days for passive violations (a violation due to changing market or credit conditions) and 15 days for active violations (a violation due to entering into an agreement or investment that breaches a policy limit at inception or thereafter through failure to monitor).</p> <p>See “Article 10 – Risk Management and Oversight.”</p>																		
<p>Health Insurance Program</p>	<p>Authorized investments for the Health Insurance Program Portfolio are conservative, short term securities consistent with the guidelines employed by the Comptroller when investing State funds. See “Article 11— Health Insurance Program Portfolio.”</p>																		
<p>Political Contributions; Improper Influence; Placement Agents and Finders</p>	<p>The purpose of this policy is to ensure the integrity of all TRS investment transactions and conformity with the highest fiduciary, ethical, and legal standards by all parties involved. All investment decisions made by the Board and the Investment Division must be based solely on the merits in conformity with fiduciary standards and applicable law. All investment decisions and recommendations must be free of impropriety or improper influence and the appearance of either. The Investment Division shall obtain full disclosure of all matters having the potential to harm TRS’s reputation or the integrity of TRS’s investment processes, or that could constitute unethical or unlawful conduct during the investment due diligence process. Neither TRS nor any TRS investment shall be burdened with or liable for any Placement Fee. Adequate disclosure must be made in connection with any investment in the form of “Appendix F— Political Contributions; Improper Influence; Placement Agents and Finders Questionnaire.”</p> <p>See “Article 12— Political Contributions; Improper Influence; Placement Agents and Finders.”</p>																		
<p>Tracking Error</p>	<p>Neutral tracking error targets are established for certain portfolios of the Trust:</p> <table border="1" data-bbox="548 1661 1243 1885"> <thead> <tr> <th></th> <th>Target</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td><u>Internal</u></td> <td></td> <td></td> </tr> <tr> <td><u>Equity (Global Best)</u></td> <td>100 bps</td> <td></td> </tr> <tr> <td><u>Global Inflation Linked</u></td> <td></td> <td>200 bps</td> </tr> <tr> <td><u>External</u></td> <td></td> <td></td> </tr> <tr> <td><u>Equity (US Large Cap)</u></td> <td>300 bps</td> <td></td> </tr> </tbody> </table>		Target	Max	<u>Internal</u>			<u>Equity (Global Best)</u>	100 bps		<u>Global Inflation Linked</u>		200 bps	<u>External</u>			<u>Equity (US Large Cap)</u>	300 bps	
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<u>Equity (US Large Cap)</u>	300 bps																		

<u>Equity (International; Developed, EAFE)</u>	<u>300 bps</u>	
<u>Equity (International; Emerging Markets)</u>	<u>300 bps</u>	
<u>Equity (World Equity)</u>	<u>300 bps</u>	
<u>Stable Value Hedge Funds</u>	<u>400 bps</u>	
<u>Directional Hedge Funds</u>	<u>400 bps</u>	
<u>Total Public Fund</u>	<u>100 bps</u>	<u>300 bps</u>

Internal
Equity (Global Best) 100 bp

External
Equity (US; Large Cap) 300 bp
Equity (International; Developed, EAFE) 300
Equity (International; Emerging Markets) 300
Equity (World Equity) 300
Stable Value Hedge Funds 400
Directional Hedge Funds 600
Total Public Fund Tracking Error 100

In addition, Total Global Inflation Linked and Total Public Fund have maximum tracking error limits of 200 bp and 300 bp, respectively. – See “Appendix A – Tracking Error Neutral (in annualized basis points).”

Authority
The employee titles in the Investment Group are specified and three types of investment authority are described including (i) general authority for investment matters, (ii) over the counter derivatives contracts and (iii) transfers of funds or assets; fund or account redemptions and withdrawals. In addition, the employees of the Financial Group, Executive Group and Trading Group are also specified and their authority is described. See “Appendix E – General Authority Resolution.”

ARTICLE 1 – TOTAL FUND AND PORTFOLIO DESIGN

1.1. Introduction

The Teacher Retirement System of Texas (“TRS”) administers a pension trust fund and other health insurance programs for retirees and certain active public education employees under State of Texas constitutional and statutory provisions. TRS is governed by a Board of Trustees (the “Board”). TRS provides service and disability retirement benefits and death and survivor benefits for Texas public education employees and their beneficiaries. Benefits are funded by state and member contributions and investment returns.

1.2. Purpose and Design

The purpose of this Investment Policy Statement (this “Policy”) is to provide a formal plan for investing pension trust fund and health insurance program assets to achieve defined investment objectives consistent with the TRS mission statement adopted by the Board and with applicable law.

This Policy also defines the roles and responsibilities of the various entities involved in the investment process and facilitates internal and external communication of investment policy.

The appendices to this Policy are incorporated into and form part of this Policy for all purposes. ~~Capitalized terms not defined in this Policy have the meanings assigned to them in the “TRS Glossary of Investment Terms” (“Glossary”), which definitions are also incorporated into and form part of this Policy for all purposes. Modifications to the appendices or the Glossary that would have a substantive effect on this Policy require Board consideration and adoption.~~

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Terms that are not defined within the body of this Policy have the meanings assigned to them in the “Definitions” at the end of this Policy.

1.3. Roles of Board, Staff, Consultants and Advisors

The Board has the primary fiduciary responsibility for investing TRS trust assets in accordance with Article XVI, Section 67 of the Texas Constitution and with applicable law. The Board establishes investment objectives and policy, obtains expert advice and assistance, and oversees the employment of a qualified and competent investment staff (“Investment Division”) and legal staff. The Board also monitors the actions of staff, ~~and~~ consultants ~~and advisors~~ to ensure compliance with its policies. The Board has a Policy Committee of the Board (“Policy Committee”), an Investment Management Committee of the Board (“IMD Committee”) and a Risk Management Committee of the Board (“Risk Management Committee”), each of which is a standing committee of the Board charged with those responsibilities set forth in the Bylaws of the Board. The Board and the Investment Division are assisted by outside investment consultants and internal and external legal counsel.

4

- a. The Board Investment ~~Consultant~~ Advisor is selected by the Board ~~provides to provide~~ education, advice, commentary, and discussion as requested at Board meetings, ~~assists~~ with development and review of investment policies and procedures, ~~performs~~ due diligence and ~~recommends~~ managers or investments, ~~reports~~ issue prudence letters, report on the progress of the Fund in meeting its investment objectives, and ~~compares~~ the performance of the portfolio to established benchmarks. The Investment Division and Board Investment ~~Consultant~~ Advisor provide information as needed to assist the consulting actuary in performance of actuarial services.
- b. The Investment Division has fiduciary responsibilities delegated by the Board under applicable law. The Investment Division manages the Fund according to the Board's policies, advises and informs the Executive Director and the Board about investments, and recommends modifications to this Policy. The Investment Division executes all transactions, performs risk-management functions, and prepares investment reports.
- c. The Internal Investment Committee (“IIC”) ~~is hereby established to review, consider~~ reviews, considers, and authorizes proposed investments and external manager engagements ~~and investments~~ as required by this Policy ~~for the Public Markets Portfolios and the Private Markets Portfolios~~. Additionally, the IIC will manage the currency hedge ratios (set forth in Appendix D) and review as needed.

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A prudence or recommendation letter provided by an Advisor is required for all external opportunities presented to the IIC unless an exception has been made by the CIO.

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To the extent If a Board member desires that any external investment opportunity scheduled for consideration by the IIC be submitted for consideration by the Board, the Board member should notify the Executive Director and the CIO sufficiently in advance to permit completion of due diligence and consideration by the Board and by the appropriate Board committee, as applicable, before the anticipated closing date.

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The permanent IIC membership consists of the Chief Investment Officer (“CIO”), the Deputy CIO and the Chief Risk Officer (“CRO”). There must be a minimum of five members on the IIC and, in addition to the CIO and the Deputy CIO, at least two members must be Investment Division Senior Managing Directors (“SMDs”). The CIO will notify the Chairman of the IMD Committee in advance of any appointment or removal of a SMD from the IIC. Termination of a member's TRS employment terminates IIC membership as of the date the employee or TRS gives notice of termination, as the case may be. The Investment Division shall notify the Board and the Executive Director if there is any change to the membership of the IIC.

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The CIO will establish procedures and guidelines for the operations of the IIC. The IIC procedures and guidelines may provide that the CIO may appoint and remove select Directors as non-permanent voting members to the IIC. The IIC procedures and guidelines will define a quorum and establish the vote required to authorize an investment or external manager engagement or, if required by this Policy, recommend an investment or external manager engagement to the Board, which vote may not be less than a majority of the then-incumbent IIC members present and voting at a meeting at which a quorum is present. The CIO shall have the power to veto any investment or delegation of investment discretion authorized or recommended by the IIC pursuant to a vote of its members.

The Executive Director or his designee may attend any meeting of the IIC, and the Investment Division shall deliver to the Executive Director copies of all IIC materials, analyses, correspondence, and agendas as and when delivered to IIC members or other TRS employees. The Executive Director is not a member of the IIC, however, acting in his or her capacity as the chief executive officer and chief administrative employee of TRS as set forth in the Board's Bylaws, the Executive Director shall, after consultation with the CIO, have the power to veto any investment or delegation of investment discretion proposed for IIC consideration or authorized or recommended by the IIC pursuant to a vote of its members whenever he deems such veto to be in TRS' best interest.

When this Policy requires that the Board authorize an investment or an engagement of an external manager, the IIC shall vote on whether to recommend such investment or engagement to the Board. The results of the vote shall be reported to the Board in the materials provided to the Board for consideration.

- d. All proposed changes to this Policy will be reviewed by the legal staff for compliance with state and federal laws regarding fiduciary responsibility, investment prudence, ethics compliance, and other applicable standards or requirements before submission to the Policy Committee. Except as authorized by the Executive Director, proposed changes to this Policy will first be presented to the Policy Committee, which will consider recommending the proposed changes to the Board. The Board may consider and adopt proposed changes that have not been considered by the Policy Committee. This Policy shall be reviewed at least once every three years.

- e. The Investment Division is authorized to engage one or more qualified consultants and Advisors to assist the Investment Division with respect to investment opportunities. The Board must approve each Advisor prior to engagement.

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Notwithstanding the foregoing, IIC consideration and approval of a sub-manager of an External Manager who manages sub-managers does not in any event require a separate, additional prudence letter or letter of recommendation from an Advisor; provided, further, that such External Manager of sub-managers (i) is fully liable for any action or omission of the sub-manager as if the action or omission had been taken by such External Manager and (ii) recommends the engagement of the sub-manager in writing to the IIC. For avoidance of doubt, this paragraph does not prohibit the CIO from requiring a prudence letter from an Advisor with respect to the IIC's consideration of a sub-manager to be recommended by a manager.

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1.4. Total Fund Objectives

In this Policy, the total or overall investment portfolio includes all assets invested by TRS to provide retirement, death, health, and disability benefits administered by the system, including cash and cash equivalents (the “Total Fund” or the “Fund”) and will be structured and managed to achieve the following objectives:

- a. Control risk through proper diversification of asset classes and by establishing long-term risk and return expectations; and
- b. As applicable to the pension plan, achieve a long-term rate of return that:
 - i. Exceeds the assumed actuarial rate of return adopted by the Board;
 - ii. Exceeds the long-term rate of inflation by an annualized 5%; and
 - iii. Exceeds the return of ~~a composite benchmark of the respective long term normal asset mix weighting of the major asset classes~~ the Fund Policy Benchmark.

1.5. Total Fund Investment Standard

Article XVI, Section 67(a)(3) of the Texas Constitution and Section 825.301, Government Code, states that the standard of care for TRS investments is a “prudent person” standard. Section 825.301, Government Code, provides that Section 117.004(b), Property Code, applies to TRS investment decisions. Section 117.004(b) generally states that the determination of the prudence of a single investment decision will be made taking into consideration the investment of all of the assets of the trust, or the assets of the collective investment vehicle, as the case may be, rather than a consideration as to the prudence of the single investment of the trust, or the single investment of the collective investment vehicle, as the case may be.

All investments made by the Total Fund must be in “securities” as defined in Government Code Section 825.301(a) ~~provided, however, that until September 1, 2019,~~ except that TRS may buy and sell those instruments set forth in Section 825.301(a-1), Government Code, to efficiently manage and reduce the risk of the overall investment portfolio only until September 1, 2019.

The Board and the Investment Division may obtain the assistance and advice of external investment ~~experts~~ consultants, including external managers operating under ~~Agency Agreements, and other~~ investment ~~counselors or consultants~~ management agreements (“IMAs”) as needed.

1.6. Total Fund Asset Mix and Benchmarks

The Investment Division will assist the Board in engaging in an asset-liability study for the pension plan at least once every five (5) years to review asset classes, return-risk assumptions, and correlation of returns with applicable benchmarks and across asset classes. A key objective of the asset-liability study shall be the development through statistical modeling techniques of a diversified portfolio that specifies ranges of prudent portfolio exposures and a “long-term target” position for each asset class. The normal portfolio mix will represent the portfolio that is expected to meet the Board’s actuarial return objectives for the pension plan within the risk tolerances specified herein.

Each asset class allocation percentage has a “long-term target” position within the overall portfolio and a maximum and minimum range around that target allocation. All percentages refer to market value.

Each asset class is described by an associated benchmark that describes, in general terms, the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes the benchmark serves as a proxy for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio. Those benchmarks, along with the allocation ranges, are identified in the table on the following page, and are referred to as the ~~“Policy Benchmarks.”~~

[Table appears on following page]

Asset Class	Benchmark	Bloomberg Ticker	Minimum Range ^{1,2}	Maximum Range ^{1,2}	Target ²
Global Equity:					
USA	MSCI USA Investible Market	MIMUUSAG	13%	23%	18%
Non-US Developed	MSCI EAFE and Canada	NDDUEC	8%	18%	13%
Emerging Markets	MSCI EM	NDUEEGF	4%	14%	9%
Directional Hedge Funds	HFRI Fund of Funds Composite	HFRIFOF	0%	10%	4%
<i>Total Public Equity</i>	<i>Target-weighted Blend</i>		<i>39%</i>	<i>49%</i>	<i>44%</i>
Private Equity	Customized State Street Private Equity Index – lagged one quarter ³		8%	18%	13%
Total Global Equity	Target-weighted Blend		50%	64%	57%
Stable Value:					
US Treasuries ⁴	Barclays Capital (BarCap) Long Treasury Index	LUTLTRUU	0%	20%	11%
Absolute Return (Including Credit Sensitive Investments) ⁵	3 Month LIBOR + 2%	USCOTR03 (plus 2%)	0%	20%	0%
Stable Value Hedge Funds	HFRI Fund of Funds Conservative	HFRIFOFC	0%	10%	4%
Cash	Citigroup 90-day US Treasury	SBMMTB3	0%	5%	1%
Total Stable Value	Target-weighted Blend		11%	21%	16%
Real Return:					
Global Inflation Linked Bonds	BarCap US Treasury TIPS index	LBUTTRUU	0%	8%	3%
Real Assets	NCREIF ODCE – lagged one quarter		19%	21%	14%
Energy and , Natural Resources ⁶ <u>Resources and Infrastructure</u>	75% Cambridge Associates Natural Resources (reweighted⁵) /40% Cambridge Associates Infrastructure/ <u>25%</u> quarterly Consumer Price Index – lagged one quarter	CPI (for CPI)	0%	8%	5%
Commodities	Goldman Sachs Commodity Index	SPGCCITR	0%	5%	0%
Total Real Return	Target-weighted Blend		17%	27%	22%
Risk Parity:					
Risk Parity	Risk Parity Benchmark ^{7,6}		0%	10%	5%
TOTAL FUND	Target-weighted Blend				100%

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¹ With respect to the maximum range and minimum range, the CIO may increase any maximum range by 5% or decrease any minimum range by 5% (but may not decrease a minimum range below zero) if the CIO concludes in a writing delivered to the Executive Director and to the Board of Trustees stating the action taken and the reasons why the CIO believes that such increase or decrease would be in the best interests of TRS; provided, the maximum range for Total Global Equity may not be increased above 68%. Before taking action, the CIO must request comments from the Chairman of the appropriate Board Committee and TRS consultants and advisors. The Board, at the next succeeding Board meeting, must authorize the increase or decrease if the CIO proposes that the changes continue in effect after such Board meeting. The CIO will notify the Chief Compliance Officer of any such change to a maximum or minimum range. If the Board does not authorize the continuation of the change to a maximum or minimum range after the next succeeding Board meeting, the Investment Division shall use best efforts to rebalance the portfolio to bring the asset classes within the ranges in the table above within 90 days.

² To calculate the Total Fund benchmark, the benchmark weight of each of ~~the~~ Private Equity, Real Assets, ~~and~~ Energy ~~and~~, Natural Resources, ~~and~~ Risk Parity Infrastructure, will be set each quarter as the ending actual weight from the prior quarter; ~~provided, commencing October 1, 2016 the benchmark weight for Risk Parity shall be 5%. Any difference in the calculated Risk Parity benchmark weight from the target benchmark weight will be offset using other asset classes with 20% of such difference applied to USA, 20% to Non-US Developed, 20% to Directional Hedge Funds, 20% to US Treasuries and 20% to Global Inflation Linked Bonds.~~ Any difference in the calculated Private Equity, Real Assets and Energy ~~and~~, Natural Resources, ~~and~~ Infrastructure benchmark weights from the target benchmark weights will be offset using other asset classes with 20% of such difference applied to USA, 20% to Non-US Developed, 20% Emerging Markets, 20% to US Treasuries and 20% to Global Inflation Linked Bonds.

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The Investment Division does not normally manage the allocations to Private Equity, Real Assets and Energy ~~and~~, Natural Resources, and Infrastructure on a tactical basis and will use its best efforts to achieve the Target allocation for these asset classes; provided, with notification to and comment sought from the Chairman of the appropriate Board Committee, the Investment Division may seek to achieve a higher or lower Target so long as such Target is within the Minimum Range and the Maximum Range.

~~To assist in asset class transition as investments in private market assets are increased to achieve the Targets, prior to October 1, 2017, the Minimum Range for Real Assets will be 8% and the Maximum Ranges for USA, Non-US Developed, Emerging Markets, Total Public Equity, Total Global Equity and Total Stable Value will be 25%, 20%, 15%, 55%, 68% and 23% respectively.~~

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- ³ The Customized State Street Private Equity Index is composed of the quarterly reported SSPEI, one quarter lagged and adjusted for the most recent quarter-end currency spot prices. Quarterly returns are geometrically linked for longer return horizons.
- ⁴ Non-US developed sovereign bonds with a net short market value may be held in the US Treasury portfolio. The absolute value of the market value of the bonds so held may not exceed 2% of the Total Trust.
- ⁵ Absolute Return is a broad category that includes all assets that have a high probability of generating a positive absolute return regardless of market conditions over a one to three year period.
- ~~⁶ The Energy and Natural Resources benchmark will be calculated on a quarterly basis one quarter lagged. The Cambridge Associates Natural Resources Index is comprised of Timber, Energy and Upstream/Royalties sub-indices and will be reweighted quarterly using its actual weightings based upon beginning of quarter Timber weight and an equal weight for each of Energy and Upstream/Royalties.~~
- ⁷ The Risk Parity Benchmark will be calculated using a group of risk parity managers. ~~Until September 30, 2015 and annually~~ Annually thereafter, the CIO, in consultation with the Board Investment Consultant and with comment sought from the Chairman of the appropriate Board Committee, will from time to time revise the list of risk parity managers comprising the benchmark. If the benchmark is not provided by a third party, the benchmark will be calculated monthly using an equal weighting of the listed risk parity managers. Any resulting changes to the composition of the benchmark will be presented for Board consideration prior to October 1 for the year commencing on such date.

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1.7. Total Fund Measurement and Reporting Criteria

The Investment Division will deliver reports to the Board (and the appropriate Board committee, as applicable) adequate to indicate whether the Total Fund is meeting its objectives and that will permit the Board to monitor each portfolio for compliance with this Policy. The Board will establish performance and risk measurement and attribution standards for the Total Fund, each asset class, and component portfolios.

The following comparisons and reviews will be performed quarterly (unless otherwise noted) and presented to the Board:

- a. **Investment Performance** – Investment performance for the Total Fund and each component portfolio, net of external management fees (if applicable); will be compared with their respective benchmark indices. Fund performance will be judged primarily by comparisons to long-term (3, 5 and 10 year) Policy Benchmark returns.
- b. **Monitoring of compliance with Policy** – Portfolios will be reviewed for compliance with the requirements set forth in this Policy. The Chief Compliance Officer will have overall responsibility for compliance monitoring. However, if considered necessary, TRS will hire external parties to obtain assistance regarding compliance monitoring. To ensure independence in compliance monitoring the Chief Compliance Officer or external parties hired will not be given the authority to trade securities. To ensure ongoing compliance with this Policy and completeness of disclosures to the Board regarding compliance, the Chief Compliance Officer has authority to require certifications from applicable IIC members or Managing Directors disclosing known compliance violations. The Chief Compliance Officer reports all known compliance exceptions to the Board at the next meeting of the Board. The Chief Compliance Officer is authorized to execute and deliver compliance-related disclosures, reports, filings and certifications on behalf of TRS. The Chief Compliance Officer, with the CIO and Executive Director's approval, is also authorized to develop, disseminate and collect disclosure forms to monitor the requirements of this Policy.

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- c. **Asset class exposures and weightings** – The exposure of cash and derivative instruments to each asset class will be aggregated and compared with their respective benchmarks and with the authorized ranges around those benchmarks. Hedge Fund exposure will be reported relative to its statutory limit, if applicable.
- d. **External investments under consideration** – For any external investment under consideration by the Investment Division (including Hedge Funds, external managers, and private markets investments), the Investment Division will provide the Board the following information prior to the date of the applicable IIC meeting:
 - i. Name of the investment vehicle and investment manager;
 - ii. Total fund or strategy size;
 - iii. TRS investment amount under consideration;
 - iv. Investment strategy;
 - v. Names of the external manager or fund principals;
 - vi. Projected TRS commitment or funding date;
 - vii. Placement agent or firm sponsoring the offering or engagement, if any;
 - viii. Prospective fees;
 - ix. Other TRS investments with the firm;
 - x. Historical fund or manager performance; and
 - xi. Type of investment representation contemplated and proposed individual to serve, if any.
- e. **External investments activities** – The Investment Division will provide the Board with a list of all external investments, including any additions, withdrawals, transfers or terminations, on at least a semi-annual basis.
- f. **Derivatives** – The Investment Division shall provide a comprehensive report of all outstanding derivative applications (including derivative types, counterparties, notional amounts, and fair values) used by internal managers and external managers under ~~Agency Agreements~~IMAs on at least a semi-annual basis. 13
- g. **Risk limit** – The Investment Division will report at least semi-annually the Total Fund and benchmark total estimated risk relative to the upper and lower bounds corresponding to the maximum and minimum downside risk measures that could be achieved through the asset allocation limits in this Policy.
- h. **Liquidity** – The Investment Division will report at least semi-annually to the Board the use of external liquidity funding mechanisms.
- i. **Leverage** – The Investment Division will report the Gross and Net Leverage derived from internal derivative use, internal short sales, external managers, Hedge Funds, and leverage resulting from use of external liquidity funding mechanisms as outlined in the Liquidity Policy on at least a semi-annual basis.
- j. **Transparency report** – The Investment Division will provide a transparency report to the Board that may be used to disclose any of the required information described herein. This report may be delivered in electronic or physical formats.
- k. **Private Markets Long-Term Strategy** – The Investment Division will review with the Board its long-term strategy for each Private Markets Portfolio at least every three years. This review will include information on target sub-strategy allocation, return, risk and liquidity expectations. Tactical deviations from this long-term strategy will be reviewed on an annual basis.
- l. **Staffing** – The Investment Division will provide an update no less than annually reporting on ~~the staffing of key employees~~positions in the division, including turnover, transfers and the creation ~~or elimination of new~~key positions. 13
- m. **Placement Agent Disclosures** – The Investment Division shall compile all responses to the placement agent questionnaire (Appendix F) for the purposes of Article 12 and report the results to the Board at least semi-annually. Each response shall include the questionnaire information as of the date the IIC approved the investment. Reports shall include the amounts and recipients of any political contribution or Placement Fee and the relationship of the recipients to the Placement Agent or Texas Elected Official ~~or Candidate~~, as applicable. 12
- n. **Participation as Board Observers or on Governing Boards** – The Investment Division shall provide the Board with an annual report on all board observer positions and positions held by employees or third party representatives serving on the governing body of a business entity in which TRS holds a direct or indirect investment interest.

- o. ~~HC Membership-Consultant Engagements~~ – The Investment Division shall provide the Board ~~and a list of consultants engaged to assist or advise the Executive Director~~ Investment Division with ~~notice if there is any change to the membership of the HC~~ respect to investment opportunities and portfolio management with notice in advance of any engagement.
- p. **Other information** – Any other information or reports as the Board may request or require from time to time.

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1.8. Total Fund Portfolio Implementation and Design; Restrictions

- a. The Total Fund investment portfolio is characterized by the following functional portfolios that are charged with the implementation of day-to-day portfolio investment and management activity:
 - i. Internal Public Markets (“IPM”) Portfolios;
 - ii. External Public Markets ~~Portfolio;~~ (“EPM”) Portfolios
 - iii. Private Markets Portfolios;
 - iv. Overlay Portfolios; and
 - v. Risk Management and Oversight.

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~~The objectives, authority and limitations of each of these portfolios, and the authorized uses of derivatives, are described throughout the remainder of this Policy.~~

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- b. The CIO will determine the proper mix of assets allocated for internal management under the parameters of the IPM Portfolio and those to be allocated to the External Manager Portfolio component of the EPM Portfolio. In no event shall the aggregate allocation to external managers pursuant to ~~Agency Agreements~~ investment management agreements (“IMAs”) exceed 30 percent (or a different percentage of, not more than 50 percent, if a ~~different~~ greater percentage is specified in the Government Code) of the Total Fund at the time of investment, as specified in Section 825.301 (a-2), Government Code. ~~For avoidance of doubt, this restriction does not apply to assets held by funds (including Hedge Funds) which limit the liability of TRS to the capital contributed and any distributions that TRS might be legally obligated to contribute or repay to the fund.~~

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~~The preceding paragraph does not affect the target allocation and the range of allocation for the Hedge Fund Portfolio, which shall not exceed 10% of the Total Fund, or such lesser or greater percentage as allowed by applicable law and Section 2.7 of this Policy. (unless extended by law, this authority reverts to 5% on September 1, 2019) of the Total Fund in Hedge Funds as defined in Section 2.5. Compliance with the statutory limit is to be determined at the time TRS executes the investment documents for each Hedge Fund investment or additional investment.~~

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- c. ~~Subject to Appendix G,~~ The Investment Division is authorized to represent TRS on ~~external advisory~~:
 - i. ~~Advisory~~ committees or boards and as board observers in investments in which TRS has an investment interest.
 - ~~d. Subject to Appendix G, after~~ ii. After evaluation of the net benefit to TRS, employees in the Investment Division are authorized to represent TRS or to nominate or appoint third-party independent non-employees to represent TRS on the governing body of a non-public (private) or a publicly-traded business entity in which TRS holds a direct or indirect investment interest.

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~~The objectives, authority and limitations of each of these investment areas, and the authorized uses of derivatives, are described throughout the remainder of this Policy.~~

- ~~f.d.~~ Except as required by fiduciary duties created by the Texas Constitution or applicable law, each TRS investment portfolio, including separate account investments, will comply with Chapters 806 and 807 of the Government Code relating to prohibitions on investments in Sudan and Iran, respectively. Additionally, TRS may avail itself of the protection afforded by applicable federal law, ~~including the U.S. Sudan Accountability and Divestment Act and the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010.~~

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ge. TRS will not invest directly in securities of any company that derives a significant portion of its revenues from products or services intended exclusively to appeal to a prurient interest in sex through explicit depictions of sexual activity. These include sexually explicit films, videos, publications, and software; topless bars and strip clubs; and explicit sexually-oriented telephone and Internet services. The restriction does not apply to pooled investment vehicles, provided that the Investment Division shall engage with the managers of such vehicles and use commercially reasonable efforts during due diligence to determine whether such vehicles invest in any company that would not be eligible for direct investment by TRS.

hf. The General Authority Resolution adopted by the Board ~~on September 18, 2014 and~~ designating those officers authorized to execute documents and attached as Appendix E is incorporated in this Investment Policy. Should the Board supersede such resolution, such superseding resolution shall be incorporated in this Investment Policy and replace the superseded resolution as Appendix E as of the effective date of the superseding resolution.

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ARTICLE 2 – PUBLIC MARKETS PORTFOLIOS

2.1. Public Markets Portfolios Objectives

The Public Markets Portfolios ~~are comprised of~~include the ~~Internal Public Markets~~IPM Portfolios and the ~~External Public Markets~~EPM Portfolios. ~~The primary (exclusive of the portfolios described in Articles 3 through 7). The~~ objectives of the Public Markets Portfolios are to ~~manage~~invest in publicly -traded, ~~marketable and restricted~~ securities ~~and related instruments, in accordance with the risk parameters established by the permitted asset allocation ranges of this Policy,~~ to meet or exceed the performance of the ~~relevant~~ Policy Benchmark, ~~as allocated~~Benchmarks or to ~~manage~~ the Public Markets Portfolios. ~~asset allocation and risk of the Trust.~~

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2.2. Public Markets Portfolios Authorized Investments

The Public Markets Portfolios are authorized to invest in the ~~securities described as follows~~following:

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- a. ~~Equity securities of all companies traded or listed on a national exchange in the U.S. or in countries in the MSCI ACWI ex-US benchmark, and any component security of a Policy Benchmark.~~
- b. ~~Common stocks, preferred stocks, convertible bonds, rights, warrants, units and depositary receipts (“DRs”) that trade publicly or pursuant to Rule 144A of the Securities and Exchange Commission (the “SEC”), without regard to the issuer’s principal place of business or jurisdiction of incorporation or organization, including common or preferred stock issued in initial public offerings (“IPOs”).~~
- c. ~~Illiquid, restricted or non publicly traded securities offered or sold pursuant to an exemption from registration other than under SEC Rule 144A and which are expected to become public or otherwise freely marketable within three years after the investment date.~~
- d. ~~Exchange traded funds (“ETFs”) and closed end funds tracking an applicable benchmark (or a significant subset or sector of a benchmark) if listed on a U.S. stock exchange or market or on a stock exchange or market in a country in which TRS is authorized to buy and sell securities.~~
- e. ~~Exchange listed or private placement equity linked notes intended to track authorized international equity securities or indices, and registered index funds in any country index series intended to track its respective country index, provided that the country is in the Policy Benchmark.~~
- f. ~~Exchange traded futures contracts, options contracts, and options on futures contracts in order to efficiently manage or reduce the risk of the overall investment portfolio, or both, in accordance with this Policy and applicable law.~~
- g. ~~Over the counter swap and option agreements, including but not limited to total return swaps, interest rate swaps, credit default swaps, and currency swaps, to efficiently manage or reduce the risk of the overall investment portfolio, or both. The Fund may also use forward agreements and any other instrument commonly used by institutional investors to manage institutional investment portfolios, in accordance with this Policy and applicable law.~~

- ~~h. Evidence of indebtedness and securities that evidence an ownership interest in debt obligations that are issued, insured, guaranteed by, supported by, or based on the credit of the following:

 - ~~i. The United States (“U.S.”) or any U.S. agency, department, or government sponsored enterprise (“GSE”);~~
 - ~~ii. The debt obligations of states, municipalities or any state agency of the United States of America;~~
 - ~~iii. Corporations chartered by the United States or any state thereof; and~~
 - ~~iv. Foreign governments, supranationals, subnationals, and corporations chartered by foreign governments.~~~~
- ~~i. Agency and non-agency mortgage backed securities.~~
- ~~j. Collateralized mortgage obligations (“CMO”).~~
- ~~k. Commercial mortgage backed securities (“CMBS”).~~
- ~~l. Asset backed securities (“ABS”).~~
- ~~m. All securities and all types of securities that are either included in the applicable benchmark or that will be added to the benchmark as of the announcement date of their future inclusion.~~
- ~~n. Mutual funds, closed end funds, exchange traded funds, structured notes, limited partnerships, commingled funds, or any other security types that:

 - ~~i. Are intended to track or replicate the returns of the Policy Benchmark or a portion thereof or that are intended to reduce the overall tracking error of the portfolio; or~~
 - ~~ii. Invest in non-dollar fixed income instruments; or~~
 - ~~iii. Invest in bank loans; or~~
 - ~~iv. Invest in high yield securities.~~~~
- ~~o. Passive funds, structured credit basket transactions, or trusts containing high yield fixed income securities selected according to defined parameters and, if the investment contract, offering documents, or prospectus requires distribution to TRS of securities held by fund or trust under specified circumstances, such securities.~~
- ~~p. Repurchase and triparty repurchase transactions.~~
- ~~q. Investments in State of Texas pooled investment funds.~~
- ~~r. Foreign currencies that may be required to settle security transactions denominated in those foreign currencies and any authorized instrument or contract intended to manage transaction or currency exchange risk in purchasing, selling or holding investments.~~
- ~~s. Short sales.~~
- ~~t. Local Access Products, including equity linked certificates, participation notes, and low exercise price call warrants which replicate the performance of an underlying security, index, or market for which investment in the local market or in the ADRs or GDRs, or the total return swap market would be difficult or costly, or both.~~
- ~~u. Risk Parity portfolios.~~

~~In addition to the foregoing, the Public Markets Portfolios are authorized to engage in overlay strategies in accordance with the guidelines set forth in Article 8. Overlay strategies may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls otherwise established by this Policy.~~

- a. All securities in a Policy Benchmark, all securities that trade publicly (whether on an exchange or over the counter) or pursuant to SEC Rule 144A, and securities issued in underwritten initial public offerings (“IPOs”);
- b. Fixed income securities, whether publicly traded or restricted;
- c. Restricted Securities which are expected to become public or otherwise freely marketable within three years after the initial investment date pursuant to registration or an exemption from registration;
- d. Derivatives in accordance with Article 9; and

e. Cash and cash equivalents.

Investments in securities authorized in this Section 2.2 may also be made through IMAs and securities issued by Private Investment Funds that predominantly invest in securities authorized above in accordance with asset allocation parameters and restrictions of this Policy and subject to the IIC approval process in Section 1.3 and Appendix B.

2.3. Internal Public Markets Portfolios Restrictions

- a. Not more than 20% of the outstanding equity securities of a single class of any company may be purchased. ~~In calculating this 20% limit, any amounts that are held in the External Public Markets Portfolios and which are also~~ Securities which are deemed to be beneficially held by TRS for purposes of Section 13 of the Securities Exchange Act of 1934, ~~(including equity securities held in a separate account (an IMA or a commingled account Private Fund in which TRS is deemed to be the beneficial owner for purposes of Section 13 of such act), shall be included~~ counted against the 20% limit.
- b. The IPM Portfolios shall conform to the tracking error targets prescribed in Appendix A.
- c. ~~The IPM Portfolios may hold short positions in securities listed in Section 2.2. The aggregate short positions exposure excluding derivatives of the IPM Portfolios may not exceed 25% of the market value of the internal equity portfolios of the Trust, nor may any short sale or position violate the laws or rules of any jurisdiction or exchange in or on which the applicable securities are traded or listed.~~

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~~2.4. External Public Markets Portfolio~~

~~The component portfolios of the External Public Markets Portfolio (the “EPM Portfolio”) are:~~

- ~~a. The External Manager Portfolio, which consists of:~~
- ~~i. Commingled or other private investment funds which are not determined to be Hedge Funds as defined by Section 2.6 of this Policy, and~~
 - ~~ii. Separate accounts managed or advised by external managers operating under an Agency Agreement with TRS.~~
- ~~b. The Hedge Fund Portfolio.~~
- ~~c. The Absolute Return Portfolio including Credit Sensitive Investments.~~

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2.5. External Public Markets Portfolio Objectives

~~The primary objective of the EPM Portfolio is to invest directly or indirectly in securities authorized in Section 2.2, commingled funds, Hedge Funds, and related instruments, in accordance with the asset allocation parameters of this Policy, to meet or exceed the performance of the Policy Benchmark over a 5 to 10 year market cycle as allocated to the EPM Portfolio.~~

2.4. External Public Markets Portfolio

The primary objective of the EPM Portfolio is to invest directly or indirectly in securities authorized in Section 2.2 and related instruments to meet or exceed the performance of the Policy Benchmarks over a 5 to 10 year market cycle. The EPM Portfolio will employ a wide variety of investment and trading strategies with varying levels of liquidity and leverage. It is expected that some strategies will involve more concentrated, shorter term investments as well as those that are longer term in nature and thus will generally have more tracking error than expected within the IPM Portfolios, while other investments will have less correlation, beta and volatility and thus will offset the overall volatility of the EPM Portfolio and the Total Fund. The External Public Markets Portfolios (the “EPM Portfolio”) are:

- a. The External Manager Portfolio, which consists of:
- i. Private Funds that are determined not to be Hedge Funds as defined by Section 2.5 of this Policy, and
 - ii. Separate accounts managed or advised by External Managers under an IMA with TRS.

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b. The Hedge Fund Portfolio.

c. The Absolute Return Portfolio including Credit Sensitive Investments.

62.5. Hedge Fund Defined

In this Policy, “Hedge Fund” means a private, ~~commingled~~ investment ~~vehicle~~ fund with the following general characteristics, as set forth in Section 825.3012, Government Code:

- a. Is not registered as an investment company;
- b. Issues securities only to accredited investors or qualified purchasers under an exemption from registration; and
- c. Engages primarily in strategic trading of securities and other financial instruments.

“Hedge Fund” includes a private investment fund of funds or ~~other commingled~~ similar vehicle that itself invests in Hedge Funds. An investment in a Hedge Fund does not involve a delegation of investment discretion to an external manager for purposes of the statutory limit on delegation to ~~external managers~~ External Managers.

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For the purposes of complying with Section 825.3012, Government Code, the Investment Division shall use the following criteria to analyze and determine whether a private investment fund is “primarily engaged in strategic trading” and should be classified as a hedge fund:

Criteria “Strategic Trading of Securities”	Characteristics Non-Hedge Fund	Characteristics Potential Hedge Fund
1. Variability in Asset Class Concentration	Asset allocation typically stays the same throughout a market cycle, as shown by historical practice	Unconstrained; asset class mix can change dynamically in response to market conditions or as opportunities arise
2. Beta to underlying index specified for the particular mandate	Generally higher levels of beta (e.g., 0.75+)	Often less beta (e.g., <0.75)
3. Securities Traded	Primarily publicly-traded securities	Typically public or private instruments, and often with some illiquid (e.g., “side pockets”) investments segregated for accounting and incentive fee purposes
4. Leverage	Gross leverage less than 250% and net leverage 75% to 125%	Unconstrained by policy and practice – managers often unwilling to commit to constraints
5. Short sales of company-specific securities (i.e., non-derivatives)	Typically <50% gross short	Shorting of company-specific securities is integral to investment strategy or process, with gross short positions exceeding 50%
6. Use of Derivatives	Limited use of derivatives (notional value excluding derivatives used to hedge currency risk is less than 100% of net asset value)	Derivatives are integral to strategy or process (notional value excluding derivatives used to hedge currency risk is greater than 100% of net asset value)
7. Transparency	Generally position-level transparency for investor	Risk-level transparency, but little or no position-level transparency

Criteria “Strategic Trading of Securities”	Characteristics Non-Hedge Fund	Characteristics Potential Hedge Fund
8. Liquidity	Limited use of lock-ups, short or no notice period; frequent (e.g., monthly) or no redemption windows	Often lock-ups, withdrawal fees, notice periods exceeding 30 days and/or less frequent redemption windows than monthly; gates and ability to suspend redemptions can extend redemption for years or frustrate liquidity goals
9. Performance Fees	May charge performance fees, but often over asset class hurdle	Generally, manager charges management and performance or incentive fees, or both, but usually with no asset class hurdle

In this Section 2.6:

Beta is a measure of an asset’s volatility in relation to a specific market or risk factor, as observed over a market cycle; the measure of an asset’s risk in relation to the market (for example, the S&P500) or to an alternative benchmark or factors. Generally, the return of a security with a beta of 1.5 will be, on average, 1.5 times the market return.

Leverage is a condition in which the net potential monetary exposure of an obligation exceeds the value of the underlying assets supporting the obligation. **Net Leverage** is calculated as the difference between (A) the sum of (i) the market value of all long cash market positions, (ii) the notional value of all long derivative positions, and (B) the sum of (i) the absolute market value of all short cash market positions, and (ii) the absolute notional value of all short derivative positions divided by (C) the net market value of the fund. **Gross Leverage** is the total of (A) the sum of (i) the market value of all long cash market positions, (ii) the notional value of all long derivative positions, (iii) the absolute market value of all short cash market positions, and (iv) the absolute notional value of all short derivative positions divided by (B) the net market value of the fund. For option based instruments, notional value may be calculated using hedge ratios to derive a delta-equivalent exposure.

Proposed investments in funds classified as Hedge Funds will be reported to the Board of Trustees (and appropriate Board committee, as applicable) quarterly. If the criteria examined do not clearly indicate, based on at least a preponderance of criteria, how a fund should be classified for statutory purposes, Investment Division may elect to present the pertinent information to the IIC for consideration of classification. Further, if the application of any one or more of the criteria for leverage, short sales, and derivatives, standing alone, would classify the fund as a Hedge Fund, but the preponderance of criteria would classify the fund as a non-Hedge Fund, the Investment Division may either decline to authorize the investment or may elect to present the pertinent information to the IIC for consideration of the classification of the fund and, if applicable, authorization for investment.

Prior to investment, the CIO will determine whether each Hedge Fund is a Stable Value Hedge Fund or a Directional Hedge Fund by reference to factors such as investment strategy, underlying investments, correlation, beta, leverage, expected return and expected risk.

2.76. External Public Markets Portfolio Authorization

- a. **Approval Authority – Hedge Fund Portfolio, External Manager and Absolute Return Portfolios** – The IIC is hereby authorized to approve investments ~~in the External Public Markets Portfolio in accordance with the guidelines set forth in Section 2.5. The limits areas~~ defined and set forth in Appendix B of this Policy ~~apply to allocations and commitments by the External Public Markets Portfolio.~~

The Investment Division may authorize an allocation to an ~~external manager~~ External Manager even if the external manager will invest ~~a portion of~~ the assets in a ~~commingled private investment~~ fund or funds or a tax-qualified collective trust managed by an Affiliate of the external manager, ~~provided, however, except~~ that the Investment Division shall determine whether any such ~~commingled~~ fund should be classified as a Hedge Fund for purposes of Section 825.3012, Government Code.

- b. **Board Consideration** – ~~If a Board member desires that any Hedge Fund investment or external manager strategy mandate on the list delivered to the Board under Section 1.7 be submitted for consideration by the Board, the Board~~

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member should notify the Executive Director and the CIO sufficiently in advance to permit completion of due diligence and consideration by the Board before the anticipated closing date.

e. ~~External Public Markets Advisors and Consultants~~—The Investment Division is authorized to engage one or more qualified external advisors (each, an “Advisor”) to assist and advise the Investment Division with respect to investment opportunities within the EPM Portfolio. Each Advisor engaged by the Investment Division must be approved by the CIO and the Board. The applicable advisor or consultant will provide a prudence letter or letter of recommendation for all opportunities presented to the IIC unless an exception has been made by the CIO. ~~Notwithstanding the foregoing, IIC consideration and approval of a sub-manager of an external manager who manages sub-managers does not in any event require a separate, additional prudence letter or letter of recommendation from an Advisor; provided, further, that such external manager of sub-managers (i) is fully liable for any action or omission of the sub-manager as if the action or omission had been taken by such external manager and (ii) recommends the engagement of the sub-manager in writing to the IIC. For avoidance of doubt, this paragraph does not prohibit the CIO from requesting a separate prudence letter from an Advisor with respect to the IIC’s consideration of a sub-manager to be recommended by a manager.~~

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d. ~~Allocation measurement~~ – Only the net long position of each ~~external manager~~External Manager, fund vehicle, separate account, or Hedge Fund will be counted against the asset allocation policy; however, both long and short positions will be modeled (through proxies if necessary) to calculate Total Fund risk.

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ec. ~~Short positions limit~~ – ~~In addition to investments authorized under Section 2.2, the External Public Markets Portfolio~~The EPM Portfolios may hold short positions in securities ~~listed on a national exchange or U.S. treasuries authorized under Section 2.2.~~ The aggregate short positions exposure of the External ~~Public Markets~~Manager Portfolio may not exceed 25% of the market value of the External ~~Public Markets~~Manager Portfolio without the prior written consent of the CIO. In no event may the aggregate short positions exposure of the External ~~Public Markets~~Manager Portfolio exceed 50% of the market value of the External ~~Public Markets~~Manager Portfolio, nor may any short sale or position violate the laws or rules of any jurisdiction or exchange in or on which the applicable Securities are traded or listed. These limits do not apply to the Hedge Fund Portfolio or the Absolute Return Portfolio.

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f. ~~Overlay strategies~~—The External Public Markets Portfolio is authorized to engage in overlay strategies in accordance with the guidelines set forth in Article 8. ~~Overlay strategies may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls otherwise established by this Policy.~~

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g. ~~d.~~ ~~Rebalancing Authority~~ – Subject to the limits set forth in this Policy, the CIO, Deputy CIO or the head of ~~External Public Markets~~EPM may add ~~funds~~to previously approved ~~funds or~~investments for the purposes of rebalancing or adjusting risks. Such additional investments or allocations shall not, on a monthly basis, exceed 2% of the Hedge Fund Portfolio, External Manager Portfolio, or Absolute Return Portfolio (as appropriate) per investment. This subsection does not affect or limit the authority of the Investment Division to withdraw funds from approved investments.

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he. ~~Termination Authority~~ – The CIO, Deputy CIO or the head of ~~External Public Markets~~EPM may transfer, withdraw or terminate interests in the EPM Portfolio, provided that the action does not result in a material, un-waived breach of the terms and conditions of the applicable investment agreements.

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2.87. External Public Markets Portfolio Restrictions

a. ~~Agency Agreements~~IMAs, considered in the aggregate, may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls otherwise established by this Policy, including the provisions of Section 2.2.

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b. ~~The Investment Division may delegate management of not more than 30% (or a different percentage of not more than 50% if a different percentage is specified in the Government Code) of the market value of the assets of the Total Fund to external managers pursuant to Agency Agreements. For avoidance of doubt, this restriction does not apply to assets held by funds (including Hedge Funds) which limit the liability of TRS to the capital contributed and any distributions that TRS might be legally obligated to contribute or repay to the fund.~~

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e. ~~The Investment Division is authorized to invest up to 10% (unless extended by law, this authority reverts to 5% on September 1, 2019) of the Total Fund in Hedge Funds as defined in Section 2.6. Compliance with the statutory limit~~

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is to be determined at the time TRS executes subscription documents for each Hedge Fund investment or additional investment.

d. _____

b. The EPM Portfolios are subject to the size limitations in Section 1.8b.

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c. Each Agency Agreement~~IMA~~ with an ~~external manager~~External Manager shall specify the applicable policies, risk controls, portfolio characteristics, reporting requirements, requirements or restrictions, including criteria for determining quality of investments or the use of standard debt rating services.

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ed. Each Agency Agreement~~IMA~~ with an ~~external manager~~External Manager shall terminate on or before September 1, 2019; ~~provided, however, except~~ that an Agency Agreement~~IMA~~ may include provisions for optional renewal or extension of the agreement by the Investment Division beyond September 1, 2019 that are contingent on amendment of TRS statutes to authorize such agreements after that date.

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2.98. External Public Markets Portfolio Conflicts of Interest

Conflicts of interest, including the appearance of conflicts, in the selection and engagement of external investment managers will be avoided at all times. Potential or actual conflicts of interest must be evaluated during due diligence and after engagement under applicable ethics policies and statutory provisions, including without limitation Section 825.212, Government Code, which does not apply to Hedge Fund managers in that capacity. The Investment Division will develop guidelines and procedures to identify actual or potential conflicts of interest affecting external managers to be engaged pursuant to Agency Agreements~~IMAs~~. The Investment Division shall employ reasonable diligence to identify conflicts of interest affecting TRS trustees, employees and advisors with respect to all private investments.

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2.109. Risk Parity Portfolios

Risk Parity ~~portfolios are~~is an asset allocation strategy~~iesy~~ that focuses upon equalizing the risk contributions of the asset classes or risk factors comprising the portfolio. Risk Parity then uses leverage to scale the resulting portfolio to target a stated level of portfolio risk ~~or return~~ commensurate with comparable to typical pension fund unleveraged asset allocation strategies.

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2.110. Public Markets Portfolios Restrictions

a. The market value of ~~investments~~Restricted Securities purchased in Public Markets Portfolios pursuant to ~~Section~~ 2.2c will not exceed 2% of the market value of the Total Fund at time of investment; ~~provided, except that~~ prior to October 1, 2017, this limit will be 1% of the market value of the Total Fund at time of investment.

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ARTICLE 3 – PRIVATE MARKETS PORTFOLIOS

3.1. Private Markets Portfolios

The Private Markets Portfolios are (1) the Private Equity Portfolio (the “PE Portfolio”), (2) the Real Assets Portfolio (the “RA Portfolio”) and (3) the Energy ~~and~~, Natural Resources and Infrastructure Portfolio (the “ENRI Portfolio”).

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Private markets opportunities that will be considered for investment include the following: investments in securities of any legally permissible investment vehicle, including Private Investment Funds, co-investments, secondary investments, externally managed separate accounts investing in securities, hybrid structures securities investing with characteristics of in equity or debt, joint ventures, secondary market transactions, entity-level investing or other off-market investments, new and emerging managers, and opportunistic investments (e.g., investments in the management entity of a private markets investment firm or sponsor, public-to-private transactions, and the acquisition of business development company or investment trust assets).

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3.2. Private Markets Portfolios Authorization

The Private Markets Portfolios are authorized to invest in the asset classes specified in this Policy and may hold and exercise rights, options and warrants attached to securities relating to an investment by the Private Markets Portfolios.

Funding of committed capital in Private Markets Portfolios will occur over an extended time period and may take several years before the total allocation to each asset class is fully invested. Because an individual investment may begin to return capital to the investor prior to the full funding of the investor's commitment, the outstanding invested capital of the investment might at times be substantially less than the total commitment. In recognition of the above characteristics unique to the Private Markets Portfolios, a "committed" allocation to an investment may exceed the respective allocation targets authorized. It will not be a violation of this Policy if changes in the market values of the public assets portfolios or the Private Markets Portfolios cause the market value of the Private Markets Portfolios to exceed the upper limit of the allocation ranges established in this Policy.

3.3. — Private Markets Investment Process

Private Markets External Advisors and Consultants

~~The Investment Division is authorized to engage one or more Advisors to assist and advise the Investment Division with respect to investment opportunities within the Private Markets Portfolios. Each Advisor engaged by the Investment Division to provide investment advice with respect to Private Markets Portfolio investments must be approved by the CIO, the head of Private Equity, the head of Real Assets, or the head of Energy and Natural Resources (as appropriate), and the Board. Subject to the direction of the private equity, real assets, energy and natural resources investment staff, as appropriate (each, a "Private Markets Team"), Advisor duties may include, but are not limited to, the following:~~

- ~~a. — Performing due diligence on specific Private Markets investment opportunities assigned by a Private Markets Team;~~
- ~~b. — Providing research related to private markets and opportunities, economic conditions, and performance expectations;~~
- ~~e. — Assisting a Private Markets Team, upon request, in identifying potential Private Markets investment opportunities;~~
- ~~d. — Providing, upon request, written recommendations to a Private Markets Team regarding investments for the Private Markets Portfolios;~~
- ~~e. — Assisting a Private Markets Team in the negotiation of required investment contracts and legal documentation; and~~
- ~~f. — Providing a prudence letter or letter of recommendation for all opportunities presented to the IIC unless an exception has been made by the CIO.~~

~~To the extent an Advisor is directed by a Private Markets Team to perform due diligence on an investment opportunity, such due diligence will be performed in accordance with prudent underwriting objectives established by such Private Markets Team for the applicable Private Markets Portfolio. Each investment opportunity must meet these prudent underwriting standards in order to merit inclusion within the respective portfolios.~~

3.4. — Private Markets Authorization of Investments

Investment Authority. The limits defined and set forth in Appendix B ~~of this Policy~~ apply to allocations and commitments by the Private Markets Portfolios.

If, after due diligence by either of the Advisor and the Investment Division, the Advisor and the Investment Division do not concur on whether a private markets investment within the Investment Division's discretion should be made, the Investment Division may elect to present the opportunity to the appropriate Board committee for consideration of a recommendation to the Board to authorize the investment. Unless the Board authorizes an investment, a proposed investment may not be made without the concurrence of both the Investment Division and the Advisor.

~~Private markets opportunities that will be considered for investment include the following: primary investments in any legally permissible investment vehicle, including limited liability entities (usually limited partnerships), co-investments, secondary investments, commingled funds, separate accounts, hybrid structures investing in equity or debt, joint ventures, secondary market transactions, entity level investing or other off market investments, new and emerging managers, and opportunistic investments (e.g., investments in the management entity of a private markets investment firm or sponsor, public to private transactions, and the acquisition of business development company or investment trust assets).~~

~~To the extent a Board member desires that any private markets investment opportunity submitted for consideration by the IIC be also submitted for consideration by the trustees, the Board member should notify the Executive Director and the CIO sufficiently in advance to permit completion of due diligence and consideration by the Board and by the appropriate Board committee, as applicable, before the anticipated closing date.~~

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Termination Authority. The CIO, Deputy CIO or, as applicable, the head of Private Markets, the head of Private Equity, the head of Real Assets, or the head of Energy ~~and~~, Natural Resources and Infrastructure (as applicable) may transfer, withdraw or terminate interests in the Private Markets Portfolios in accordance with the investment documents, provided that the action does not breach any agreement to which TRS is legally bound.

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Commitment Authorization. Each investment must be authorized as required by the provisions, guidelines, and limitations established in this Policy. Any structure in which TRS invests shall meet established legal requirements.

Rebalancing Authority. Subject to the limits set forth in this Policy, the CIO, Deputy CIO or, as applicable, the head of Private Markets, the head of Private Equity, the head of Real Assets or the head of Energy ~~and~~, Natural Resources and Infrastructure may add funds to previously approved investments for the purposes of rebalancing or adjusting risks. Such additional investments or allocations shall not exceed, on a monthly basis, 2% of each of the Private Equity Portfolio, the Real Assets Portfolio or the ENRI Portfolio (respectively, as appropriate) per investment. This subsection does not affect or limit the authority of the Investment Division to withdraw funds from approved investments; provided, the withdrawal does not breach any agreement by which TRS is legally bound.

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~~**Overlay Authority.** The Private Markets Portfolios are authorized to engage in overlay strategies in accordance with the guidelines set forth in Article 8. Overlay strategies may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls otherwise established by this Policy.~~

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ARTICLE 4 – PRIVATE EQUITY PORTFOLIO

4.1. Private Equity Portfolio Objectives

Diversification

The primary long-term objective of the PE Portfolio is to develop a prudently diversified portfolio of investments that is expected to enhance the overall risk-return profile of the Total Fund and to reduce risk within the PE Portfolio.

The following attributes will be considered in constructing a diversified PE Portfolio: strategy, geography, industry sectors, size of investment, and vintage year.

4.2. Private Equity Portfolio Authorized Investments

Private equity funds build portfolios of private investments in the equity or ~~equity rights securities~~ debt of operating companies. Private equity funds may acquire investments in debt obligations, public or private common and preferred stocks, convertible securities, and any warrants, rights, or options attached to any of the foregoing that relate to equity ownership in an issuer. Privately-acquired securities usually have transfer restrictions and are not as liquid as publicly-traded securities. Private equity funds are often classified by strategy, including: buyouts, credit, special situations and venture capital; ~~mezzanine; buyout-acquisition; international-emerging markets; and special situation (e.g., /growth equity, turnarounds, distressed);~~

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4.3 Private Equity Portfolio Restrictions

The Private Equity Portfolio is authorized by and is subject to the terms and conditions described in Article 3.

ARTICLE 5 – REAL ASSETS PORTFOLIO

5.1. Real Assets Portfolio Objectives

The RA Portfolio will be structured to achieve the following investment objectives:

- a. As the primary focus, contribute favorably to diversification of the Total Fund through exposure to real assets' low or negative correlation to the Public Markets portfolios.
- b. Provide competitive returns through capital appreciation.
- c. The following attributes will be considered in constructing a diversified RA Portfolio: strategy, geography, property types, size of investment, vintage year, and the number of funds or investment managers represented in the portfolio. No specific geographic diversification or leverage targets are required.

5.2. Real Assets Portfolio Authorized Investments

The RA Portfolio will focus on private or public real estate equity ~~or equity-linked securities~~ investments, private or public real estate debt, ~~infrastructure, timber, agricultural real estate, oil and gas~~, real asset mezzanine debt or equity, mortgage-related investments, entity-level investments, private or public real estate investment trusts ("REITs"), private or public master limited partnerships ("MLPs"), ~~non-fixed assets~~ and other opportunistic investments in real assets. Real estate investments are often classified by strategy, including: core; core-plus; value-added; ~~and~~ opportunistic. ~~Direct investment in physical commodities is prohibited, and special situations.~~

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5.3. Real Assets Portfolio Restrictions

The RA Portfolio is authorized by and is subject to the terms and conditions described in Article 3.

ARTICLE 6 – ENERGY ~~AND~~ NATURAL RESOURCES AND INFRASTRUCTURE PORTFOLIO

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6.1. Energy ~~and~~ Natural Resource Resources and Infrastructure Portfolio Objectives

The ENRI Portfolio will be structured to achieve the following investment objectives:

- a. Contribute favorably to diversification of the Total Fund by increasing exposure to assets with a higher degree of inflation sensitivity.
- b. Provide competitive returns through capital appreciation.
- c. The following attributes will be considered in constructing a diversified ENRI Portfolio: general inflation sensitivity, expected return, strategy, geography, resource exposure, size of investment, vintage year, where investment is in the resources value chain (upstream, midstream or downstream) or infrastructure type, and the number of funds or investment managers represented in the portfolio. No specific geographic diversification or leverage targets are required.

6.2. Energy ~~and~~ Natural Resource Resources and Infrastructure Portfolio Authorized Investments

The ENRI Portfolio may invest in private and public energy or natural resource or infrastructure related securities either directly or through funds which may include investments in public or private equity, equity-linked investments including options, warrants, preferred equity, and structured equity, private or public debt, entity-level investments, master limited partnerships, commodity futures, natural resources interests (mineral, royalty or working interests), timber and agricultural property, water, power generation, renewable energy, and associated infrastructure, services and technology. Energy and natural resource investments are often classified by resource type and where the investment is in the resource value chain (upstream, midstream or downstream). Infrastructure assets are classified as core, value-add and opportunistic. Direct investments in physical commodities are prohibited.

6.3. Energy ~~and~~ Natural Resource Resources and Infrastructure Portfolio Restrictions

The ENRI Portfolio is authorized by and is subject to the terms and conditions described in Article 3.

ARTICLE 7 – EMERGING MANAGERS PROGRAM

TRS shall make a good-faith effort to invest with qualified emerging managers for the External Public Markets Portfolios and the Private Markets Portfolios. For the avoidance of doubt, these portfolios may also include investments in energy ~~and~~, natural resources ~~and infrastructure~~. The Investment Division is authorized to invest with qualified funds-of-funds managers skilled at identifying small and emerging managers in the private equity, real asset and public equity markets. The target dollar allocation is outlined for this program in Appendix C.

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Emerging managers can include, but are not limited to, minority, women, and disabled veteran-owned or -controlled organizations. Conversely, not all minority, women, and disabled veteran-owned or -controlled organizations are necessarily considered emerging managers for the purposes of this program. Whether a management firm is an “emerging manager” depends on all of the facts and circumstances. In general, emerging managers are defined as newer, independent private investment management firms that manage less than \$2 billion, or have a performance track record as a firm shorter than five years, or both.

All investments with emerging managers will be subject to due diligence by an independent qualified external ~~advisor~~ Advisor. The Investment Division may appoint Emerging Managers Program consultants, ~~advisors and evaluators~~, without a requirement for approval from the Board. The ~~a~~ Advisor will present each investment recommendation to the IIC for its approval. In general, an emerging manager should be registered with the appropriate authorities if such registration would be consistent with industry practices. Each investment will have a minimum size of \$5 million. With respect to the ~~External Public Markets~~ EPM Portfolio, the total investment by TRS with each emerging manager may not exceed 40% of such emerging manager’s assets under management ~~at the time of IIC approval~~. With respect to the Private Equity Portfolio and the Real Assets Portfolio, the total investment by TRS into each fund raised by an emerging manager may not exceed 40% of the size of such fund ~~at the time of IIC approval~~. This paragraph does not apply to investments executed as part of a fund-of-funds mandate.

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The Investment Division shall document its efforts to identify and expand its investments with qualified emerging managers for the purpose of board and legislative reporting on the methods and results, including data disaggregated by race, ethnicity, gender, and fund size. All investments under the emerging manager program must be made prudently and in accordance with fiduciary and ethical standards.

ARTICLE 8 – OVERLAY PORTFOLIOS

8.1. Overlay Portfolios Objectives

Overlay Portfolios are designed to manage risk, asset allocation, and market exposures through futures, options, swap ~~agreements~~ contracts, or forward agreements. Overlay Portfolios may be implemented in connection with the Total Fund or with any investment or portfolio within the Total Fund.

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8.2. Overlay Portfolios Authorized Investments

Overlay Portfolios may contract for, buy, sell, and hold the following contracts and derivative instruments in accordance with this Policy:

- a. Exchange-traded futures contracts;
- ~~b. Exchange-traded option contracts;~~
- ~~eb.~~ Options on exchange-traded futures contracts;
- ~~dc.~~ Over-the-counter or exchange-traded swap ~~agreements~~ contracts;
- ~~ed.~~ Over-the-counter ~~or exchange-traded~~ option ~~agreements; contracts; and~~

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~~fe.~~ Forward ~~agreements; and~~

~~g.~~ ~~Forward settling securities transactions~~contracts.

8.3. Overlay Portfolios Restrictions

Overlay Portfolios may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls or restrictions otherwise established by this Policy or applicable law.

When engaging in currency overlay strategies, the Overlay Portfolio may not increase or decrease the net notional exposure of the Total Fund:

- a. To all non-dollar currencies in aggregate by more than 5% of the market value of the Total Fund;
- b. To any single developed market currency (except for the U.S. Dollar) by more than 2% of the market value of the Total Fund; and
- c. To any single emerging market currency by more than 1% of the market value of the Total Fund.

The foregoing percentage limit restrictions do not apply to currency derivatives used (i) as part of the non-discretionary foreign exchange risk management policy described in Section 10.2, (ii) to settle security transactions denominated in those foreign currencies and any authorized instrument or contract intended to manage transaction or currency exchange risk in purchasing and selling investments and (iii) for hedging the characteristics of an individual investment to align it with the characteristics of such investment's benchmark.

ARTICLE 9 – AUTHORIZED USES OF DERIVATIVES

This Article enumerates the applications, documentation and limitations for the use of derivatives as permitted under Section 825.301, Government Code.

9.1. Derivatives Objective and Investment Standard

The Board's objectives for using derivatives are to efficiently manage and reduce the risk of the overall investment portfolio. Through the use of derivatives, the risks that are bound together in traditional cash market investments can be separated and managed independently.

Derivatives authorized by this Policy may only be used to efficiently manage and reduce the risk of the overall investment portfolio in accordance with applicable law. In addition, all uses of derivatives must comply with the fiduciary standard of prudence set forth in Article XVI, Section 67(a)(3), Texas Constitution, which requires that all TRS investments must be made using the judgment and care under the circumstances then prevailing that persons of ordinary prudence, discretion, and intelligence exercise in the management of their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income there from as well as the probable safety of their capital.

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9.2. Derivatives Policy Scope

Except where specifically noted, this Policy applies to all derivatives transactions executed by the Investment Division and by ~~external managers~~External Managers operating under an ~~Agency Agreement~~IMA. This Policy does not apply to registered or ~~Private Investment Funds, including limited liability entities,~~ issuing securities to TRS.

This Policy applies to all exchange-traded derivatives and over the counter ("OTC") derivative instruments authorized by law. This Policy does not apply to the use of derivatives by ~~private investment funds issuing securities to TRS~~Private Investment Funds unless TRS in fact controls and has a legal right to approve the investment policy or guidelines of such funds.

9.3. Derivatives Use by External Managers and ~~Commingled~~Private Investment Funds (Hedge Funds)

The Total Fund may have external exposure to derivatives in two ways.

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- a. First, the Total Fund will invest as a passive investor in Hedge Funds organized as limited-liability entities, which limits potential losses to the capital contributed to the entity. TRS is not a party to the management agreement between the Hedge Fund and its investment manager. Hedge Fund and other ~~commingled~~ fund managers owe the same legal duties to all investors.
- i. The Investment Division must exercise thorough due diligence in assessing the scope of the Hedge Fund manager's uses of derivatives, their purpose, experience of the fund manager's staff in managing these positions, inherent leverage, and the manager's systems, controls and operations in determining suitability of these entities for TRS investment.
- b. Second, TRS may delegate discretion, through ~~Agency Agreements~~IMAs, to ~~external managers~~External Managers who act as a TRS agent with respect to Total Fund assets and who are authorized to enter into specified contracts and commitments that will be legally binding on TRS. External managers are TRS fiduciaries.
- i. For ~~external managers~~External Managers engaged pursuant to ~~Agency Agreements~~IMAs, Investment Division must view the ~~external manager~~External Manager as an extension of the internal Investment Division's investment management processes and must require ~~external managers~~External Managers to comply with this Policy and applicable guidelines and law on the use of derivatives to the same extent as Investment Division. Guidelines for the scope and use of derivatives will be established on a case-by-case basis with each ~~external manager~~External Manager in the applicable ~~Agency Agreement~~IMA. An ~~external investment manager~~External Manager of publicly-traded investments engaged by TRS under an ~~Agency Agreement~~IMA may engage in derivatives transactions only if expressly authorized by, and the transactions are consistent with, the overall investment objectives and restrictions established in the ~~Agency Agreement~~IMA, this Policy, and applicable law. Each ~~Agency Agreement~~IMA must be consistent with applicable law, this Policy, and other TRS policies. An ~~Agency Agreement~~IMA may only authorize such uses of derivative instruments when the Investment Division reasonably concludes after due diligence that the ~~external manager~~External Manager possesses the experience, expertise, and qualifications to prudently use derivatives, and has appropriate operational, compliance, and risk management personnel, policies, and procedures to effectively monitor and control their use, including the use of leverage.
- ii. Selection, engagement, and monitoring of ~~external managers~~External Managers engaged through an ~~Agency Agreement~~IMA requires a clear understanding of the managers' uses of derivatives, particularly as it relates to various risk controls, compliance functions, and leverage. Investment Division will monitor risk exposures and leverage on both an individual entity and aggregate basis. The permitted uses of derivatives and leverage by each ~~external manager~~External Manager must be fully documented in each ~~Agency Agreement~~IMA.

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9.4. Derivatives Definition; Authorization

Derivatives are financial instruments the value of which are derived, in whole or part, from the value of any one or more underlying securities or assets, or index of securities or assets (such as a bonds, stocks, financial commodities, and currencies). For the purposes of this Policy, derivatives include, without limitation, futures contracts; options; options on futures contracts; forward contracts; swap agreements, including swap contracts with embedded options; any instrument or contract intended to manage transaction or currency exchange risk in purchasing, selling or holding investments; and any other instrument commonly used by institutional investors to manage institutional investment portfolios. Derivatives, for purposes of this policy, do not include currency forwards with a tenor of 30 days or less if such forwards do not require upfront amounts to be paid or received. ~~Derivatives may be purchased through a national exchange or through a direct OTC arrangement with a counterparty.~~

Derivatives may be exchange traded or "over the counter" (OTC). Exchange traded derivatives are listed and traded on a national exchange. Fulfillment of the contract is generally guaranteed by the exchange on which the instruments are traded. OTC derivatives are negotiated transaction between a buyer and a counterparty, which may result in non-standard terms.

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9.5. Derivatives Applications Permitted

Consistent with the objectives set out in Section 9.1, derivative applications may be used by Investment Division and external managers engaged through ~~Agency Agreements~~IMAs to:

- a. Implement investment strategies in a lower cost and efficient manner;
- b. Efficiently manage the Total Fund portfolio by altering the portfolio's market (systematic) exposure in lieu of trading the underlying cash market securities through purchases or short sales, or both, of appropriate derivatives;
- c. Construct portfolios with risk and return characteristics that could not be efficiently created with cash market securities consistently with the objectives in this Policy and in compliance with applicable law;
- d. Hedge and control risks so that the Total Fund's risk-return profile is more closely aligned with the Total Fund's targeted risk-return profile through purchases or short sales, or both, of appropriate derivatives; and
- e. Facilitate transition trading when holdings must be rebalanced or reallocated among permissible investments as a result of changes to applicable benchmark indexes or policy changes.

The only authorized uses of derivative transactions are efficient portfolio management and reduction of risk in portfolios and to implement investment strategies authorized by this Policy more effectively and at a lower cost than would be possible in the cash market. External managers may not engage in derivative applications that are inconsistent with the applicable ~~Agency Agreement~~IMA, this Policy and applicable law, unless specifically authorized by the TRS Board and the ~~Agency Agreement~~IMA has been amended accordingly.

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9.6. Derivatives Applications Not Permitted

- a. Derivatives may not be used for any activity a primary purpose of which is speculation or to profit while materially increasing risk to TRS. Derivatives are considered speculative if their uses have no material relation to objectives and strategies specified by this Policy or any related policies or resolutions of the Board, and their use is not reasonably and substantially intended to produce efficiency in portfolio management and reduce market, credit, or liquidity risks applicable to the portfolio. Derivatives may not be used for circumventing limitations or restrictions imposed by this Policy or applicable regulatory requirements. Derivative applications may only be used to invest in asset classes that are consistent with TRS's legally permissible policy asset categories (including currencies), implementation strategies, and risk-return characteristics.
- b. Investments in derivatives underlain by physical commodities are prohibited unless such derivatives are cash-settled whether by its contract terms, by rolling the position, or by trading out of the position before a delivery obligation can arise. Standing orders or instructions for rolling or trading out of positions may be used to prevent delivery obligations from arising under commodities derivatives contracts.
- c. The Policy does not apply to, or authorize, any use of derivatives underlain by single-asset real estate mortgages, or title to real estate or property affixed to real estate.

9.7. Derivatives Documentation and Controls

Prior to the implementation of a new internal derivative instrument type or application, Investment Division shall document the purpose, justification, baseline portfolio, derivative application portfolio, risks (including, at a minimum, market, modeling, pricing, liquidity, and legal risks), the expected increase or reduction in systematic and idiosyncratic risk resulting from the application, the amount of leverage employed under the strategy, the prudent reasons for employing leverage, and the procedures in place to monitor and manage the derivative exposure. The documentation will be approved by the CIO and reported to the IIC and the Board (or appropriate Board committee, as applicable) at their next regularly-scheduled quarterly meetings. The Investment Division shall adopt fully documented control procedures to properly account and value the Total Fund's exposure to each derivatives application, whether internal or external under an ~~Agency Agreement~~IMA. The Investment Division shall establish an appropriate risk management procedure to monitor compliance both internally and by ~~external managers~~External Managers and will take corrective action if necessary. The Investment Division shall have due regard for operational risks associated with various derivatives strategies, including risk management, accounting systems, liquidity needs, adequate staffing, and staff qualifications.

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9.8. Derivatives Limitations

Counterparty Risks: In order to limit the financial risks associated with derivative applications, guidelines for rigorous counterparty selection criteria and ISDA agreements shall be created by the Investment Division to reduce counterparty risk for over-the-counter (“OTC”) derivatives. Any counterparty in an OTC derivative transaction with TRS must have a credit rating (which may be a counterparty risk assessment) of at least A- (Standard & Poor’s or Fitch) or A3 (Moody’s). All OTC derivative transactions, including those managed through Agency AgreementsIMAs, must be subject to established ISDA Master Agreements or, if centrally cleared, clearing agreements and have full documentation of all legal obligations of both parties to each transaction. All ISDA Master Agreements entered into by or on behalf of TRS by the Investment Division or an external managerExternal Manager engaged pursuant to an Agency AgreementIMA (if applicable) shall provide for netting of obligations. The Investment Division and external managersExternal Managers may also use collateral arrangements to mitigate counterparty credit or performance risk. The net market value of all OTC derivative positions, including those managed through Agency AgreementsIMAs, less collateral posted, for any individual counterparty may not exceed \$500 million. The net market value of all OTC derivative positions for any individual counterparty, without consideration of collateral, may not exceed 5% of the total market value of the Fund. If these market-value limits are exceeded, the Investment Division will inform the CIO, Executive Director, and Chairman of the appropriate Board committee as soon as practicable and take appropriate corrective action within a 90-day period or develop a corrective action plan that will be presented to the Board at its next regularly scheduled meeting at which investment matters will be discussed following the initial 90-day corrective action period.

Global Risk Limitations: Notwithstanding other limitations in this Policy, transactions that would cause the aggregate risk exposure of the Total Fund, including externally-managed portfolios, to exceed the aggregate risk limits established by the current asset allocation policies of the Board are not permitted. On a Total Fund basis, the combined economic exposure introduced through both cash and derivative market positions is subject to the asset allocation ranges, risk limits, and other portfolio parameters described in this Policy.

Position Limits: For futures and options positions TRS will comply with all position and aggregate limits established by the applicable regulatory and legal organizations and authorities within each jurisdiction.

9.9. Derivatives Risk Management and Compliance

To ensure compliance with this Article 9, all internally- and externally-managed derivatives (other than derivatives held in Hedge Funds) must be marked to market on a daily basis by the Fund’s external custodian(s), and such daily reports will be reviewed for accuracy by the TRS Risk Management staff and Investment Administration Center personnel. Compliance with the requirements of this Policy will be monitored by the Chief Compliance Officer using information systems and data from internal and external sources. Any violations of this Article 9 will be reported immediately to the Executive Director and to the Chief Investment Officer, who will determine, if considered material as determined by Chief Compliance Officer, Chief Investment Officer, and Executive Director, the appropriate remedy and report promptly to the Board (and the appropriate Board committee, as applicable).

ARTICLE 10 – RISK MANAGEMENT AND OVERSIGHT

10.1. Market Risk Management

The Investment Division will establish a framework for measuring enterprise-level risk for both the Total Fund Portfolio and the established benchmark, including any transition benchmarks employed during asset allocation shifts. At a minimum, this framework must include a quantified estimate of downside risk (e.g., value-at-risk (“VaR”), estimated shortfall, or various parametric and non-parametric statistics). The Investment Division will monitor the relative positioning of the Total Fund Portfolio vis-à-vis the benchmark no less frequently than monthly.

- a. **Asset allocation limits** – In addition to the Total Fund Portfolio level risk limits, the portfolio will be constrained to the asset allocation percentages and ranges prescribed by this Policy. Accordingly, the total exposure to each asset class must be based on the individual exposures of each cash security and each outstanding derivative contract.
- b. **Risk limit** – The Investment Division will model and monitor the Total Fund Portfolio and benchmark to ensure that the total estimated risk for the Public Markets portion of the Portfolio is within the upper and lower bounds corresponding to the maximum and minimum downside risk measures that could be achieved through the asset allocation limits in this Policy.

- c. **Proxy securities and indices** – If necessary and prudent, the Investment Division will employ proxies to approximate the economic characteristics of actual investments if the terms and conditions of the actual investments or the underlying holdings are not readily available or where the complexity of the underlying investment renders a deterministic model impractical.
- d. **Private market assets holdings** – The Investment Division may include private investments in this analysis either by proxy or by actually modeling the terms and conditions of the underlying exposures; however, if the inclusion of these investments is deemed to distort the true risk characteristics of the portfolio, the Board may approve the use of an alternative methodology for analyzing the risk characteristics of those investments.
- e. **Active risk limits** – In addition to the portfolio-level risk statistics described above, a target tracking error will be imposed on each asset class mandate ~~whether implemented through internal or external managers or commingled funds~~. Additionally, a target tracking error will be imposed on the entire portfolio that takes into account both internally and externally managed portfolios and ~~commingled private~~ funds as well as both asset allocation and security selection decisions. These limits are specified in Appendix A, ~~attached hereto~~.

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10.2. Foreign-Exchange Risk Management

The objective of the Foreign-Exchange (“F/X”) policy is to effectively manage portfolio return volatility associated with foreign currency risk. F/X risk is the possibility of a negative currency return as a result of adverse movements in foreign exchange rates. The F/X policy sets forth a structure and implementation plan to determine the level of strategic currency risk that the Fund is willing to tolerate.

Currency hedge ratios will be separately applied to the Fund’s public-markets and private-markets non-dollar exposures. Each currency hedge ratio is the percentage of aggregate, non-dollar currency exposure to be passively hedged. The hedging horizon is intermediate (one to three years). The results of the currency hedge ratio decisions will be presented to the Board (or the appropriate Board committee, as applicable) for approval by the Board and incorporated into the benchmark as prescribed in Appendix D.

From an implementation perspective, an F/X overlay manager would have responsibility for implementing the currency hedge ratio decisions and would not exercise delegated investment discretion. The F/X overlay may be implemented internally or externally. If external, the non-discretionary F/X overlay manager would not fall under the definition of either an ~~“external manager”~~ External Manager or a Hedge Fund. A non-discretionary external F/X overlay manager would merely implement the investment decision that has already been made by the IIC.

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10.3. Credit Risk Management

- a. **Counterparty exposures** – The maximum allowable unsecured counterparty exposure for OTC derivative transactions is \$500 million, based on the total net market value of all OTC positions held with each counterparty. The total counterparty exposure for each counterparty, including the collateralized portions of these agreements, may not exceed 5% of the market value of the Total Fund. The minimum credit rating, based on a nationally recognized statistical rating organization (“NRSRO”), must be at least A- or better at the inception of the contract. For any counterparty that experiences deterioration in credit quality that results in a NRSRO rating below the A- level, subsequent to the inception of transaction, additional eligible collateral may be posted, or the transaction may be terminated.
- b. All OTC derivatives must be governed by an ISDA Master Agreement and Credit Support Annex or, if centrally cleared, by clearing agreements, and must include both close-out netting provisions and collateralization provisions.
- c. **Repurchase agreements** – The counterparty limits for repurchase transactions and tri-party repurchase transactions may not exceed 5% of the market value of the Total Fund unless those transactions are covered by a third-party indemnification agreement by an organization that bears a long-term NRSRO credit rating of A- or better and is enhanced by acceptable collateral. Each repurchase agreement will be entered into under the PSA/ISMA Global Master Repurchase Agreement.

Each ISDA Master Agreement must also include a table that delineates the excess purchased securities margin (haircut) required, based on the collateral type, duration, and credit quality.

- d. **Securities lending** – When securities lending activity is performed by an external, third party lending agent, Investment Division will examine the credit underwriting practices of the lending agent, including enforcement of collateral requirements, counterparty analysis, and surveillance. Additionally, Investment Division will periodically review the securities lending lines by counterparty. A securities lending agent must be an organization rated A- or better by a NRSRO. More detailed information about TRS securities lending activities is specified in the separate Securities Lending Policy.

10.4. Liquidity Risk Management

The objective of the Liquidity Risk Management policy is to ensure that the Fund maintains ample liquidity to meet its funding commitments. The two kinds of commitments which necessitate a prudent liquidity policy are:

- a. Disbursements of benefits and related obligations to plan participants, including retirement, death, health, and disability benefits payments.
- b. TRS investment activities: These are mainly associated with risk management and funding of ~~external managers~~ **External Managers and Private Funds**. Some examples include:
- i. TRS engages in derivatives to efficiently manage and reduce risk of the overall investment portfolio. Use of these instruments requires liquidity for collateral, margin and payment obligations at the time of a reset, call or maturity;
 - ii. TRS funds accounts managed by ~~public markets external managers~~ **External Managers**; and
 - iii. TRS manages unfunded capital commitments that the Fund is legally obligated to fund when called by ~~private markets~~ general partners.

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External Funding Authority

The Investment Division is authorized to establish external funding mechanisms (such as master repurchase agreements with one or more counterparties) and the flexibility to operate in all types of market liquidity environments to allow prudent management of these commitments while achieving a long-term rate of return and adhering to the asset allocation limits outlined in this Policy. In addition to these external funding mechanisms, TRS will maintain adequate funds in its custodial account to cover investment-related obligations. Finally, the Board authorizes the Investment Division to access the cash holdings backing the OTC swaps to manage its commitments.

Limitations Applicable to External Funding Authority

Liquidity provided from these external funding mechanisms may not exceed 2% of the market value of the Total Fund. The expectation is that the liquidity funded through external funding mechanisms will be short-term (less than 30 days). The Investment Division must seek approval from the CIO for extended use of external funding sources. The Investment Division shall report such approvals for extended use to the Board not later than the next regular quarterly meeting.

10.5. Operations Risk Management

- a. **Overdrafts** – The Investment Division will monitor the frequency and costs associated with all overdraft activity.
- b. **Custodial Bank(s)** – The Investment Division will conduct on-site due diligence to review the operational controls set in place by all custodial banks. The Investment Division will also consider the extent of remedies provided by the custodian and its overall ability to fulfill its commitments should operational failures occur.

10.6. Settlement Risk Management

The Investment Division will monitor unsettled trade activity by counterparty and instrument type.

10.7. Legal Risk Management

Legal documentation for all accounts, investment subscriptions, ~~external managers~~ **External Managers**, investments in ~~Private Investment Funds (Private Markets Portfolios and Hedge Funds)~~, and derivatives will be reviewed, negotiated and approved for TRS execution by internal or external legal counsel, or both. The Investment Division, in consultation with the Office of the General Counsel, will exercise diligence to ensure that all contracts are legally binding and enforceable in a suitable venue.

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The Investment Division will seek the assistance, review, and advice of legal counsel whenever it is prudent to do so. The Office of the General Counsel has primary responsibility for the engagement of outside legal counsel for investment matters, subject to applicable statutes and rules adopted by the Office of the Attorney General.

10.8. Risk Management Compliance Cure Periods and Remedies

- a. **Passive violations** – A passive violation occurs when the portfolio breaches a prescribed policy limit as the result of changing market or credit conditions. The Investment Division will report the violation to the Board and will remedy the violation within 90 days of the violation or prepare a written action plan that must be approved by Board resolution to extend the cure period beyond 90 days.
- b. **Active violations** – An active violation is caused by entering into an agreement or investment that breaches a policy limit at inception or thereafter through failure to monitor. In this case, a thorough analysis of controls will ensue and be reported to the Chief Investment Officer, the Executive Director and the Chairman of the appropriate Board committee, as soon as practical, and to the full Board at its next regularly scheduled meeting at which investment matters will be discussed. The Investment Division will seek to remedy the violation when possible. In instances where the costs of immediate remedies are prohibitive, the Investment Division will develop a corrective action plan that will be submitted to the CIO within a reasonable time after the violation occurs, not to exceed 15 days, depending on the nature and complexity of the investment holding and transactions needed to remedy the violation. The Board will be apprised of the violation at its next regularly scheduled meeting along with the corrective action plan.

10.9. Permitted Uses of Leverage

The Investment Division is authorized to use the following types of leverage:

- a. Derivative strategies in accordance with the risk parameters established by the asset allocation ranges of this Policy and applicable legal restrictions;
- b. Short sales in accordance with this Policy;
- c. F/X hedging in accordance with this Policy;
- d. Risk Parity investments in accordance with this Policy;
- e. Embedded leverage within the Total Fund’s limited partnership investments; and
- f. Collateralized fundings including securities lending activities, pledges, repurchase and reverse repurchase agreements and other external funding mechanisms.

Leverage will not be used to exceed the risk parameters established by the asset allocation ranges of this Policy.

ARTICLE 11 – HEALTH INSURANCE PROGRAM PORTFOLIO

11.1 Health Insurance Program Portfolio Objective

The primary objective of the Health Insurance Program Portfolio is to preserve capital through investment in conservative, short-term securities.

11.2 Authorized Investments for the Health Insurance Program Portfolio

Section 404.024, Government Code describes the Authorized Investments employed by the comptroller when he or she invests state funds. The Investment Division shall employ this list of Authorized Investments when the Investment Division invests the Health Insurance Program Portfolio.

ARTICLE 12 – POLITICAL CONTRIBUTIONS; IMPROPER INFLUENCE; PLACEMENT AGENTS AND FINDERS

12.1 Scope

This policy ~~in this Article 12~~ applies to all TRS investment transactions other than direct investments in registered and freely marketable securities, including without limitation new agreements (including follow-on and co-investments), sales or transfers of investment interests, increases in funding or capital commitment to an existing relationship or fund, or an amendment that increases management fees or compensation under an agreement.

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This policy also applies to attempts to influence TRS investment decisions through contacts with TRS trustees, or contacts with, or political contributions made for the benefit of, one or more Texas Candidates or Elected Officials, and also applies to contacts with persons employed by any such candidate or official.

If any provision of this policy conflicts with a provision of another policy adopted by the TRS board (the “Board”), the stricter provision shall apply.

12.2 Purpose

The purpose of this policy is to ensure the integrity of all TRS investment transactions and decisions and conformity with the highest fiduciary, ethical, and legal standards by all parties involved. All investment decisions made by the Board and the Investment Division and must be based solely on the merits in conformity with fiduciary standards and applicable law. All advice and investment recommendations made by consultants ~~and advisers~~ must be based solely on the merits after the necessary due diligence. All investment decisions and recommendations must be free of impropriety or improper influence and the appearance of either.

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12.3 Philosophy

The Board desires that the Investment Division obtain full disclosure of all matters having the potential to harm TRS’s reputation or the integrity of TRS’s investment processes, or that could constitute unethical or unlawful conduct during the investment due diligence process.

12.4 Required Disclosures and Questionnaire

At a minimum, all external Fund or Manager Parties and if applicable, all Placement Agents that will receive a Placement Fee with respect to an investment or commitment by TRS shall provide detailed written responses to the questionnaire attached hereto as Appendix F as early as reasonably possible in the due diligence process for a TRS investment transaction. The Executive Director is authorized to approve such revisions to Appendix F from time to time as he deems to be in the best interest of TRS and consistent with this policy.

In addition, all Fund or Manager Parties who disclose the involvement of a Placement Agent shall provide a detailed description of the services to be performed by the Placement Agent and how the Placement Agent is used (e.g., with all prospects, or only with a subset of prospects). The Investment Division shall obtain a copy or summary of the terms of an agreement to compensate a Placement Agent for the due diligence file. The Investment Division shall provide all prospective Fund or Manager Parties with a copy of this policy and the Appendix F questionnaire upon commencement of due diligence.

12.5 Contractual Representations, Warranties and Covenants

Each Fund or Manager Party shall represent and warrant to TRS in the executed closing documents for the transaction that its responses to Appendix F to this policy and any supplemental inquiries are true, correct, and complete in all material respects, and shall also covenant to update any such information within 10 business days of any change in the information in the responses.

In addition, each Placement Agent shall fully disclose the terms of its arrangements with a Fund or Manager Party for payment of a Placement Fee and any political contributions by the Placement Agent to any Texas Candidates or Elected Officials, and

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shall certify as to the matters addressed in Appendix F, as applicable, to TRS in a writing executed by an authorized officer that the disclosures required by this policy are true and complete in all material respects.

~~Each final investment agreement shall provide~~ A Placement Agent must agree in writing to pay to TRS with the option to receive a reimbursement of management or advisory fees ~~sum equal to the amount of its Placement Fees to be paid if any certificates or contractual relating to TRS's investment if the Placement Agent's certifications, representations, warranties, or questionnaire responses are untrue or misleading.~~

~~A Fund or covenants relating to this policy have been breached.~~ Manager Party using a Placement Agent must agree in writing to pay to, credit to TRS's capital account, or offset TRS's management fees or outstanding funding commitment with, a sum equal to the Placement Fees due to the Placement Agent with respect to TRS's investment agreement or commitment if the Fund or Manager Party's certifications, representations, warranties, or questionnaire responses are untrue or misleading.

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12.6 Prohibitions

Neither TRS nor any TRS investment shall be burdened with or liable for any Placement Fee. No TRS investment may be made if the transaction involves either (a) a Placement Agent who is not registered with either of the Securities and Exchange Commission or the Financial Industry Regulatory Authority ("FINRA"), or (b) the sharing of a Placement Fee with a non-registered person or entity. No TRS investment may be made if an authorized officer or the board, in consultation with legal counsel, determines that a disclosed contact with a TRS board member or Texas Candidate or Elected Official, or a contribution to a Texas Candidate or Elected Official, has created an unacceptable risk to the integrity and reputation of the TRS investment program or has been made in violation of a TRS policy or applicable law. A contact-based referral, without more, by a trustee of either an investment opportunity or a Manager or Fund Party contact to the Executive Director, Chief Investment Officer, or Deputy Chief Investment Officer does not constitute such a risk or a violation of this policy.

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12.7 Reporting

The investment staff shall compile all responses to the questionnaire and report the results to the Board at least semi-annually. Reports shall include the amounts and recipients of any political contribution or Placement Fee and the relationship of the recipients to the Placement Agent or Texas Candidate or Elected Official, as applicable.

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12.7 Definitions

Affiliate – means a person or entity controlled by or under common control with another person or entity.

Fund or Manager Party – includes, (a) as to a private investment fund, a fund sponsor, the general partner, managing member, or its equivalent with respect to a fund, fund sponsor, or fund management firm, (b) as to an external, separate account under an investment manager, the asset management agreement, the investment management entity and the parent of such asset management entity, and (c) as to any other investment transaction, an issuer, company, holder, sponsor, underwriter, investment banker, or other party sponsoring, issuing or soliciting ~~as a counterparty to a transaction,~~ investment, agreement, or commitment from TRS and (d) as to (a), (b) and (c), any Affiliate, principal, owner, agent, officer, shareholder, director, managing member, or employee having authority to act on behalf of such person, fund, or firm.

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Placement Agent – includes any third party, whether or not affiliated with a Fund or Manager Party, that is a party to an agreement or arrangement (whether oral or written) with a Fund or Manager Party for the direct or indirect payment of a Placement Fee in connection with a TRS investment. Any other person or entity who claims a Placement Fee or who by agreement with a Placement Agent will share in a Placement Agent's Placement Fee is also deemed to be a Placement Agent whether or not the person or entity is an Affiliate, principal, agent, owner, officer, shareholder, director, managing member, or employee of the first Placement Agent. For purposes of this policy, a "finder;" For the avoidance of doubt, a finder, broker-dealer, originator, fundraiser, financing arranger, underwriter, or investment bank receiving a Placement Fee is a Placement Agent.

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Placement Fee – includes any compensation or payment, directly or indirectly, of a commission, finder's fee, or any other consideration or benefit to be paid to a party other than the relevant Fund or Manager Party in connection with a TRS investment, agreement or commitment.

Relative – means a spouse (including an ex-spouse), parent, child (including adopted), sibling, niece, nephew, aunt, or uncle.

Texas Candidate or Elected Official – includes any candidate for a state office or an elected official of the State of Texas, including but not limited to the governor, lieutenant governor, comptroller of public accounts, attorney general, and any member of the Texas Legislature, and also includes a campaign fund or political action committee, or PAC for an elected official, and any Relative of a Texas candidate or elected official.

TRS Person – means any person listed on Exhibit A attached to Appendix F to this Policy or to any other due diligence document, and includes without limitation any current or former TRS board member, Executive Director, Deputy Director, Chief Financial Officer, Investment Division or Office of the General Counsel employee, any investment consultant or actuary, any outside counsel engaged by TRS, and any Relative of a TRS Person, whether or not listed on an Exhibit A, TRS Persons.

**APPENDIX A – TRACKING ERROR NEUTRAL
(IN ANNUALIZED BASIS POINTS)¹**

Internal	Neutral
Equity (Global Best)	100
External	
Equity (USA)	300
Equity (International; Developed, EAFE)	300
Equity (International; Emerging Markets)	300
Equity (World Equity)	300
Stable Value Hedge Funds	400
Directional Hedge Funds	6400

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	Neutral	Maximum
Total Global Inflation Linked		200
Total Public Fund Tracking Error	100	300

¹ Tracking error will be measured on a realized basis over a three year period.

APPENDIX B – IIC APPROVAL AUTHORITY AND MANAGER ORGANIZATION ALLOCATION LIMITS

Allocations to a single manager organization may only exceed the limits specified in this Appendix B with the prior authorization of the Board.

Article Affected	Portfolio	Initial Allocation or Commitment with Manager Organization, by Portfolio	Additional or Follow-On Allocation or Commitment with the same Manager Organization, by Portfolio	Total Manager Organization Limits, by Portfolio
2.7	External Public Markets Portfolios	0.5%	1%	3%
4.2	Private Equity Portfolio	0.5%	1%	3%
5.2	Real Assets Portfolio	0.5%	1%	3%
6.2	Energy and , Natural Resources and <u>Infrastructure</u> Portfolio	0.5%	1%	3%
Total IIC Approval Authority, each Manager Organization				6%

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All allocation or commitment limits are expressed as a percentage of the Total Fund value and are to be calculated as of the date the applicable investment ~~agreements are executed~~ is approved by the IIC.

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“Affiliate” means any person directly or indirectly controlling, controlled by, or under common control with, another person. A “manager organization” includes its Affiliates without regard to the names of the entities.

The percentage limit for additional or follow-on allocations or commitments applies to each additional or follow-on allocation or commitment by a listed portfolio to a manager organization and is in addition to, and not cumulative of, the limit specified for initial allocations or commitments. By way of example, if a portfolio initially allocates 0.2% of the Total Fund to a manager organization, the portfolio may thereafter allocate or commit up to 1.0% in a single additional or follow-on allocation or commitment to the same manager organization for a total of 1.2% allocated or committed to the same manager organization (0.2%+1.0%). If a portfolio initially allocates 0.2%, then makes an additional allocation or commitment of 0.8%, and desires to make a further additional or follow-on allocation to the same manager organization, the applicable limit for the further additional or follow-on allocation is 1.0% of the Total Fund, for a total of 2.0% allocated or committed to the manager organization (0.2%+0.8%+1.0%). All investments occurring in the six months prior to the follow-on investment, co-investment or additional investment shall be included in the calculation of the percentage limits. If the initial investment occurred less than six months prior to the current investment, the initial allocation limit of 0.5% rather than the follow-on allocation limit of 1.0% will apply.

In calculating the available limits, returned capital is excluded from the sum of existing total allocations or commitments. Committed capital is included during the applicable investment period of a fund without regard to whether the commitment amount is funded or unfunded or the fund is open-ended. After the investment period, committed but unfunded capital is not included in the calculation of outstanding commitments for the purposes of this Appendix B. Capital that has been returned but that is subject to recall by a private investment fund is considered to be committed or allocated for the purposes of the limits in this Appendix B.

Authority for Special Investment Opportunities. Notwithstanding the limits set forth in this Appendix B, the CIO may designate an investment opportunity as a “Special Investment Opportunity” if the circumstances indicate a reasonable probability that a rapid investment response will be required in order for TRS to acquire the investment in excess of the limits on Investment Division authority set forth in this Appendix B. Circumstances requiring a rapid response may include, but are not limited to, distressed situations or market dislocations creating opportunities to acquire interests or assets at pricing that indicates a reasonable probability that the interests or assets are undervalued or will increase in value. The CIO shall notify the Executive Director as promptly as possible of the Special Investment Opportunity. The CIO and the Executive Director shall consult with the Chairman of the Board and the Chairman of the Investment Management Committee and determine if it is not practicable to present the opportunity for consideration by the Board. If the opportunity will not be added to an agenda, and the

CIO and the Executive Director conclude that the investment would be in the best interests of TRS, the CIO and the Executive Director may authorize and conclude an investment up to \$1 billion in that Special Investment Opportunity.

After one investment in a Special Investment Opportunity has been made, no further investment in a Special Investment Opportunity may be made until the Board has reauthorized the CIO's authority to designate a Special Investment Opportunity. Such reauthorization shall renew the CIO's and the Executive Director's authority to invest up to \$1 billion in a Special Investment Opportunity under this provision.

APPENDIX C – EMERGING MANAGERS

Articles Affected:	Portfolio	Target Allocation (in millions)
2.7	External Public Markets Portfolios ²	250
4.2	Private Equity Portfolio ^{1,3}	950
5.2	Real Assets Portfolio ^{1,2}	450
	Total	1,650

For the avoidance of doubt, these portfolios may also include investments in energy ~~and~~, natural resources and infrastructure.

² The CIO may increase or decrease each portfolio Target Allocation by \$200 million; provided, the total Target Allocation must remain unchanged as a result of such increase or decrease.

³ Target Allocation based on net market value.

APPENDIX D – CURRENCY HEDGE RATIOS

Portfolio	Currency Hedge Ratio
Public Markets Portfolios	0%
Private Markets Portfolios	0%

APPENDIX E – GENERAL AUTHORITY RESOLUTION

Board of Trustees
General Authority Resolutions Adopted ~~September 18, 2014~~ Effective as of October 1, 2016

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Investment Group

Resolved, That Investment Division employees holding the following TRS working titles are members of the “**Investment Group**”:

Chief Investment Officer
Senior Managing Director
Senior Director
Senior Investment Manager

Deputy Chief Investment Officer
Managing Director
Director

Resolved further, That the Executive Director is authorized and directed to designate in writing those individual members of the **Investment Group** who are authorized within the investment areas designated by the Executive Director, in addition to the Chief Investment Officer and the Deputy Chief Investment Officer, to take any one or more of the following actions authorized below in accordance with these resolutions until the authority is revoked.

Resolved further, That the Executive Director is authorized and directed to designate in writing, by investment area and category or item designation, the specific authorities granted to each authorized member of the **Investment Group**, until the authority is revoked.

A. General Authority for Investment Matters other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- A.1 Buy, sell, or give orders or instructions for transactions in currencies and securities, and any amendments or modifications of such orders or instructions.
- A.2 Direct Investment Operations personnel to deliver, pay, expend, or receive cash, currencies, monies, securities (including restricted or Rule 144A securities) in connection with a contract to buy or sell securities.
- A.3 Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of securities transactions.
- A.4 Direct Investment Operations personnel to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract; and to instruct other cash movements, including movements of cash to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Notwithstanding any provision of this Section A, authority granted under this Section A does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

B. Investment Contracting Authority other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- B.1 Make, execute, deliver, waive, modify, amend, renew, extend, assign, terminate, or transfer, in each case in writing, investment-related documents, including without limitation, written contracts, investment management agreements, subscription agreements, capital commitments, account agreements, consents, certificates, powers of attorney, notes, deeds, security agreements, pledges, mortgages, endorsements, directions and instructions to amend, modify, fix, and

execute written investment guidelines in investment management agreements with external managers and fund managers, and any and all documents necessary or proper to effectuate the authority granted in this Section B.1.

- B.2 Jointly with a member of the **Financial Group** or the **Executive Group**, execute investment fund redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash or securities to a TRS account by a third-party fund, external manager, account, debtor, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements, side letter agreements, or other investment-related documents executed by TRS in connection with a new investment, and any amendments or modifications to such documents and agreements other than redemption and withdrawal notices and corresponding instructions for the transfer or delivery by wire or physical transfer of cash or securities.

Notwithstanding any provision of this Section B, the authority granted under this Section B does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

C. Derivatives Authority

Resolved further, That the Chief Investment Officer or the Deputy Chief Investment Officer and any member of the **Investment Group** who is designated by the Executive Director as a member of the derivatives team, in addition to any authority expressly designated by the Executive Director under these resolutions is authorized may act on behalf of TRS to:

- C.1 Negotiate, make, fix, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, documents related to derivatives transactions, including without limitation, master agreements, schedules, credit support annexes, collateral-management agreements, transaction confirmations, account agreements, and clearing agreements, and deliverables relating to such documents and agreements.
- C.2 Make, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, disclosures, questionnaires, elections, certifications, or other administrative documents and deliverables related to derivatives accounts or transactions.
- C.3 Jointly with a member of the **Financial Group** or the **Executive Group**, execute, amend, modify, or terminate documents, directions, and instructions to deliver and pay cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.4 Direct Investment Operations personnel to receive cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.5 Buy, sell, or give orders or instructions for transactions in derivatives, and any amendments or modifications of such orders or instructions.
- C.6 Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of derivatives transactions.

Financial Group

Resolved further, That the “**Financial Group**” comprises employees holding the following TRS working titles:

Chief Financial Officer	Director of Investment and Benefit Accounting
Director of General Accounting and Budgeting	Team Leader of Investment Accounting
Manager of Financial Reporting	Assistant Director of General Accounting and Budgeting

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, jointly with an authorized member of the **Investment Group** or the **Executive Group**, to execute redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash, collateral, margin, or securities to a TRS account by a third-party fund, account, debtor, or derivatives counterparty, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements and side letter agreements and any amendments to subscription agreements or side letter agreements.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, to execute authorizations to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract;

instruct other cash movements, including movements of assets to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS to authorize and direct members of the Investment Accounting team to verify or confirm to a custodian or prime broker any order for the transfer or delivery of currencies, monies, securities, or contracts to any other person.

Executive Group

Resolved further, That the “**Executive Group**” comprises employees holding the TRS working titles of Executive Director and Deputy Director, and each member of the **Executive Group** is authorized and empowered to perform, with respect to a particular matter or transaction, any and all of the acts that any and all employees in the **Investment Group** or the **Financial Group** are authorized to perform, except that when joint action by a member of the **Investment Group** and a member of the **Financial Group** is required, only one member of the **Executive Group** may act jointly with a member of either of the **Investment Group** or the **Financial Group**.

Trading Group

Resolved further, That the “**Trading Group**” comprises the employees holding the following TRS working titles: Managing Director, Director, —Trading Center, and Trader. Each member of the **Trading Group** is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix, and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell securities, derivatives, forward contracts, or currency.

Fixed Income, Currency, and Commodities (“FICC”) Trading Group

Resolved further, That the **Fixed Income, Currency, and Commodities (“FICC”) Trading Group** comprises the employees holding the following TRS working titles: FICC Trader. Each member of the **FICC Trading Group** is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell fixed income securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix, and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell fixed income securities, derivatives, forward contracts, or currency.

Chief Compliance Officer

Resolved further, That the Chief Compliance Officer is authorized and empowered on behalf of TRS to take the following actions: to execute and deliver compliance-related disclosures, reports, filings, and certifications and, with the Chief Investment Officer and Executive Director’s approval, to develop, disseminate and collect disclosure forms to monitor the requirements of the Investment Policy Statement.

APPENDIX F – POLITICAL CONTRIBUTIONS; IMPROPER INFLUENCE; PLACEMENT AGENTS AND FINDERS QUESTIONNAIRE

Date: _____

Fund ~~or~~ Manager ~~Name~~: Party or Placement Agent:* _____

Investment Name: _____

Completed by: _____

Date submitted: _____

Note: TRS may require completion of a new questionnaire or updating of responses at any time, including as of the closing date for any transaction investment or additional funding. All questions must be answered. ~~Terms not defined in this questionnaire shall have the definitions set forth in Article 12 of the Investment Policy Statement.~~

** All capitalized terms have the meaning set forth in Article 12 of the Investment Policy Statement, which is available at: http://www.trs.texas.gov/investments/documents/investment_policy_statement.pdf*

- A) Contacts with State Officials; Political Contributions. Has any person lobbied, communicated with, or made political contributions during the past three years on behalf of the Fund or Manager Party to a Texas Elected Official in connection with a prospective investment transaction with a Texas state investment entity, including TRS?
 - 1) If the answer is “yes,” please provide a complete list of the name(s) of the entities and individual(s) involved, the approximate dates of the contributions, the amounts of the contributions, a summary of the contacts or communications, and the nature of the discussion in regards to the investment with any Texas state investment entity, including TRS. If the answer is no, please respond with “NA.”

- B) Contacts with TRS Board Members. Has any person lobbied or otherwise communicated on behalf of one or more of the Fund, the Manager Party, or, if applicable, the Placement Agent with a current or former member of the TRS Board of Trustees during the past two years for the purpose of asking the current or former member to seek to influence a decision by the TRS investment staff or a TRS advisor or consultant to recommend that TRS invest?
 - 1) If the answer is “yes,” please provide a complete listing of the name(s) of the entities and individual(s) involved, the approximate dates of the contacts or communications, and the nature of the discussion in regards to this investment. If the answer is no, please respond with “NA.”

- C) Placement Agents and Placement Fees. Is or was the Fund, the Manager Party, or if applicable, the Placement Agent a party to any agreement or arrangement (whether oral or written) to pay a Placement Fee to or for the benefit of any Placement Agent (or any other Placement Agent) in connection with TRS’s prospective investment agreement or commitment?
 - 1) If the answer to C) is “yes,” please provide a copy of the written agreement or agreements creating the obligation to pay a Placement Fee. If the agreement is not written, please provide a written summary of the agreement. Additionally, please state the amount of the Placement Fee (or the formula for its determination if the amount is not yet determined) and the date of its payment or anticipated payment. If the answer to C) is no, please respond with “NA.”
 - 2) If the answer is “yes,” please list the name(s) of the person or entity. If the party to the agreement is an entity, please also list the names of the principal owners, officers, directors, or managing members of the Placement Agent and provide a resume for each such person. If the answer to C) is no, please respond with “NA.”

- 3) If the answer is “yes,” state whether the Placement Agent, or any of its Affiliates, is registered as a lobbyist with any state government or the federal government and identify the registrants and the applicable jurisdictions where registered. If the answer to C) is no, please respond with “NA.”
- 4) Will or did any TRS Person or any Relative of a TRS Person receive, has any such person received, or might any such person receive, any compensation or payment, directly or indirectly, of a commission, finder’s fee, or any other consideration or benefit to be paid to a Placement Agent (a “Placement Fee”) in connection with TRS’s investment? If the answer is “yes,” please list the name or names of the TRS Person or Relative of a TRS Person and provide details about the terms of the Placement Fee. If the answer to C) is no, please respond with “NA.”
- 5) Will or did any Texas Elected Official or a Relative of a Texas Elected Official receive a Placement Fee in connection with TRS’s investment? If the answer is “yes,” please list the name or names of the official and provide details about the terms of the Placement Fee, including the amounts and timing of payments. If the answer to C) is no, please respond with “NA.”
- 6) Did (or will) any third party person or entity who is not employed or otherwise affiliated with a Placement Agent, including a current or former TRS Person, either (a) recommend the Placement Agent or (b) receive a share of a Placement fee or any other economic benefit in connection with TRS’s investment, whether directly or indirectly through a Placement Agent engaged by you? If the answer to C) is no, please respond with “NA.”
- 7) If the answer to 6) is “yes,” please list the name of the person or entity, the relationship of the person or entity to the Placement Agent and your firm, and provide a description of the arrangement and the reason for the payment. If the answer to C) is no, please respond with “NA.”
- 8) State whether the Placement Agent or any of its Affiliates is registered as an investment advisor with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or a similar agency outside the United States. Provide details about each such registration or explain why registration is not required. If there is no Placement Agent, please respond with “NA.”

The undersigned certifies, represents and warrants on behalf of the Fund, the Manager Party, or Placement Agent(s), as applicable, that, ~~to the best of its knowledge after due inquiry,~~ (a) it has ~~received,~~ reviewed and understood ~~and~~ Article 12 of the TRS Investment Policy Statement (“Article 12”) received with this Questionnaire, and agrees to abide by Article 12’s requirements, (b) ~~the foregoing to the best of its knowledge after due inquiry, its~~ responses to this questionnaire are ~~complete, true, and correct~~ complete and do not omit any statement or fact necessary to make any statement made not misleading in any material respect, and (c) no ~~prior~~ other statements or representations, if any, whether oral or written, made by or on behalf of the Fund, the Manager Party, or Placement Agent(s), as applicable, relating to ~~the subject matter of Article 12 and this~~ Questionnaire in connection with TRS’s due diligence inquiries, ~~a prospective the subject investment agreement, or commitment, as the case may be, including any side letter agreements, transaction~~ were untrue or misleading in any material respect when they were made. The undersigned ~~further~~ acknowledges and agrees that ~~any response to this questionnaire is inaccurate, misleading, incomplete or otherwise untrue or false in any respect, TRS has, in in~~ addition to the provisions of Article 12, all express remedies at required in Article 12 and the transaction documents, which are not intended to be exclusive, TRS reserves all other remedies available to it in law or in and equity with respect to its agreements with the any untrue or misleading statement. The undersigned must update any such information within 10 business days of any change in the information in the responses.

[s]Signature block for Placement Agent or Fund or Manager Party]

Date: _____

Attachment: Exhibit A, TRS Persons

APPENDIX G - EXTERNAL ADVISORY COMMITTEES OR BOARDS, BOARD OBSERVERS, AND BOARD REPRESENTATION

- (A) **External Advisory Committees or Boards and Board Observers.** A TRS investment-related agreement may provide that an Investment Division employee may represent TRS by serving:
1. On an advisory committee, advisory board, or similar advisory body to a TRS investment vehicle, whether the position is voting or non-voting; or
 2. As a non-voting TRS observer at meetings of the governing body of an investment vehicle, including a business entity, in which TRS has an interest.
- (B) **Board Representation by a TRS Employee.** A TRS investment-related agreement may provide for TRS representation on the governing body of a non-public (private) or a publicly-traded business entity in which TRS holds a direct or indirect investment interest.
1. **Requirements:**
 - a. The TRS employee representative may not serve in a position that under applicable law has general liability to third parties, such as a general partnership position.
 - b. An agreement for TRS representation on an external governing body must be in writing and, to the extent possible, address limitations on capacity and fiduciary duties, liability insurance, indemnification, travel payments or reimbursements, and perquisites provided to persons on the governing body in the entity's ordinary course of business.
 - c. Duties that an employee owes to TRS must be primary.
 - d. The external entity's insurance and indemnification will be primary relative to any available TRS liability and indemnification coverage.
 - e. If compensation or reimbursement of expenses will be paid, the agreement must require payment of any compensation or reimbursement directly to TRS.
 2. **Qualification:** A TRS employee representative must hold one of the following TRS titles to be eligible to serve: Senior Investment Manager, Director, Senior Director, Managing Director, Senior Managing Director, Deputy CIO, or CIO.
 3. **Authorization:**
 - a. For a non-public (private) entity, either of the CIO or the Deputy CIO, in consultation with the Office of the General Counsel, must authorize an employee to serve.
 - b. For an entity that has issued publicly-traded securities, the CIO and the Executive Director, in consultation with the Office of the General Counsel, must authorize an employee to serve.
 - c. The CIO and Deputy CIO may not serve on an external governing body without prior authorization from the Executive Director.
- (C) **Board Representation by a Non-Employee Independent Third Party.** A TRS investment-related agreement may grant TRS a contractual right or option to appoint, nominate, remove, or replace a non-employee independent third party to serve on the governing body of a business entity in which TRS has or will have an investment interest.
1. **Requirements:**
 - a. A third-party may not be TRS's agent and shall have full discretion when voting as a member of the governing body.
 - b. TRS will not insure or indemnify any third party representative.
 2. **Qualification:** The third party must clear a conflict check.
 3. **Authorization:** The third party must be approved by the head of the applicable investment area and either of the Deputy CIO or the CIO, in consultation with the Executive Director.

DEFINITIONS

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In this Policy,

4

Advisor is a consultant that must be approved by the Board and the CIO. An Advisor issues investment recommendations or prudent investment letters in connection with investment opportunities presented to the IIC, Board, or both

Consultant means a person or entity engaged to provide research, studies and investment advice to the Board, the Investment Division, or both. An Advisor is a consultant that requires Board approval. This definition does not affect any definitions in the Code of Ethics for Contractors.

Custom benchmark means a benchmark created for or specified in an investment vehicle or IMA that is not a Policy Benchmark. Investment guidelines for a vehicle or IMA may include one or more custom benchmarks. Inclusion of a custom benchmark in an IMA does not modify the investments authorized in this Policy.

External Manager means an investment adviser engaged pursuant to an investment agreement to invest TRS assets on a discretionary basis pursuant to contractual guidelines negotiated, prescribed or controlled by TRS. A manager or general partner of a private fund is not an External Manager.

Trust or Fund means the overall investment portfolio, including cash and cash equivalents.

Fund Policy Benchmark is a target allocation-weighted aggregation of the individual Policy Benchmarks according to Section 1.6.

Investment Management Agreement or IMA means a contract between TRS and an External Manager for the discretionary investment of TRS assets in securities according to specified guidelines. The account managed by an External Manager is sometimes referred to as a separate account.

Manager Organization means any group of entities that are affiliated by reason of (1) interlocking ownership (which need not be total or by majority in interest), (2) power to control one or more of the other entities, or (3) common control by a third entity or being associated with others under common ownership or control. Control includes the power to make policies for an entity. Parents, subsidiaries, and affiliates having interlocking ownership or control arrangement with at least one other entity in the group are typical of manager organizations.

Policy Benchmark means the relevant benchmark for an asset class listed in the allocation table in Section 1.6.

Private investment fund or private fund means any non-publicly traded limited liability investment vehicle aggregating investment capital for reinvestment, including without limitation reinvestment of capital in private companies, other investment funds, real assets, debt instruments, derivatives, commodities, or publicly traded securities. Private funds generally issue Restricted Securities to investors through private placements.

Publicly traded securities means securities that trade on a national securities exchange or in an over-the-counter market through broker-dealers who make a market in securities.

Restricted Securities means securities acquired under an exemption from registration under the securities laws, such as through private placements, 144A offerings, or Regulation D offerings. Restricted securities may not be transferred unless they are registered or are exempt from the registration requirements. SEC Rule 144(a)(3) lists types of transactions in which restricted securities occur. Privately offered limited partnership and limited liability company interests are usually restricted securities.

Securities has the meaning assigned in Section 825.301(a). Whether notes, local access products, warrants or other financial instruments or contracts are securities requires legal analysis.



INVESTMENT POLICY STATEMENT
(Adopted September XX, 2016 to be effective October 1, 2016)

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EXECUTIVE SUMMARY

This Executive Summary is not intended to replace, and must be read in conjunction with, the Investment Policy Statement (the “Policy”). In the event of a conflict between the Executive Summary and the Policy, the Policy shall govern. Capitalized terms have the meanings assigned to them in Policy.

Introduction / Background

The Board has the primary fiduciary responsibility for investing TRS trust assets in accordance with Article XVI, Section 67 of the Texas Constitution and with applicable law. The Board establishes investment objectives and policy. The Board also monitors the actions of the Investment Division, consultants and advisors to ensure compliance with its policies. The Board and Investment Division are assisted by outside investment consultants and internal and external legal counsel.

See Article 1.3 Roles of Board, Staff, Consultants and Advisors.

The Investment Policy Statement provides a formal plan for investing pension trust fund (the “Trust”) and health insurance program assets. The policy defines the roles and responsibilities of the Investment Division and other parties granted and approved by the Board.

Objectives

The Trust’s objectives are to (a) control risk and (b) achieve a long-term rate of return that exceeds (i) the assumed actuarial rate of return adopted by the Board, (ii) inflation plus 5% and (iii) the Trust’s Policy Benchmark. The Trust is subject to a “prudent person” standard of care under the Texas Constitution.

Authority and Key Restrictions

The Board assigns implementation authority to the Investment Division and as such the Investment Division has created a committee to oversee and implement Board-approved investment policy. The Internal Investment Committee’s (IIC) authority is limited by the size of the investments it can approve without also obtaining approval from the Board. The Chief Investment Officer (CIO) has Special Investment Opportunity authority of up to \$1 billion.

See “Appendix B – IIC Approval Authority and Manager Organization Allocation Limits.”

Asset Allocation

Each broad asset class category outlined below provides a distinct and purposeful role within the Total Fund. The Board sets these asset class targets based on periodic asset allocation and asset/liability studies while seeking to achieve the Trust’s stated objectives.

Broad Asset Class Category	Target	Min	Max
Global Equity	57%	50%	68%
Stable Value	16%	11%	23%
Real Return	22%	17%	27%
Risk Parity	5%	0%	10%
Total	100%		

In addition to the target for each broad asset class category target, there are specific targets for subcategories with minimum and maximum ranges that are +/-5% around the target allocation, with certain exceptions.

See “Section 1.6 – Total Fund Asset Mix and Benchmarks.”

Measurement and Reporting

Investment performance, peer performance, policy compliance, asset allocation, external investments activities, derivatives usage, risk limits, liquidity, leverage, private markets strategy, staffing, board and board observer seats, use of placement agents and other information will be monitored and reported to the Board.

See “Section 1.7 – Total Fund Measurement and Reporting Criteria.”

Risk Management

The Investment Division will monitor and manage risk of the Total Fund Portfolio and report to the Board on a periodic basis. Key risks include, but are not limited to: Market Risk, Foreign Exchange Risk, Credit and Counterparty Risk, Leverage, Liquidity, and Tracking Error.

See “Article 10 – Risk Management and Oversight.”

Tracking Error

Neutral tracking error targets are established for certain portfolios of the Trust:

	Target	Max
Internal		
Equity (Global Best)	100 bps	
Global Inflation Linked		200 bps
External		
Equity (US Large Cap)	300 bps	
Equity (International; Developed, EAFE)	300 bps	
Equity (International; Emerging Markets)	300 bps	
Equity (World Equity)	300 bps	
Stable Value Hedge Funds	400 bps	
Directional Hedge Funds	400 bps	
Total Public Fund	100 bps	300 bps

See “Appendix A – Tracking Error Neutral (in annualized basis points).”

ARTICLE 1 – TOTAL FUND AND PORTFOLIO DESIGN

1.1. Introduction

The Teacher Retirement System of Texas (“TRS”) administers a pension trust fund and other health insurance programs for retirees and certain active public education employees under State of Texas constitutional and statutory provisions. TRS is governed by a Board of Trustees (the “Board”). TRS provides service and disability retirement benefits and death and survivor benefits for Texas public education employees and their beneficiaries. Benefits are funded by state and member contributions and investment returns.

1.2. Purpose and Design

The purpose of this Investment Policy Statement (this “Policy”) is to provide a formal plan for investing pension trust fund and health insurance program assets to achieve defined investment objectives consistent with the TRS mission statement adopted by the Board and with applicable law.

This Policy also defines the roles and responsibilities of the various entities involved in the investment process and facilitates internal and external communication of investment policy.

The appendices to this Policy are incorporated into and form part of this Policy for all purposes.

Terms that are not defined within the body of this Policy have the meanings assigned to them in the “Definitions” at the end of this Policy.

1.3. Roles of Board, Staff, Consultants and Advisors

The Board has the primary fiduciary responsibility for investing TRS trust assets in accordance with Article XVI, Section 67 of the Texas Constitution and with applicable law. The Board establishes investment objectives and policy, obtains expert advice and assistance, and oversees the employment of a qualified and competent investment staff (“Investment Division”) and legal staff. The Board also monitors the actions of staff and consultants to ensure compliance with its policies. The Board has a Policy Committee of the Board (“Policy Committee”), an Investment Management Committee of the Board (“IMD Committee”) and a Risk Management Committee of the Board (“Risk Management Committee”), each of which is a standing committee of the Board charged with those responsibilities set forth in the Bylaws of the Board. The Board and the Investment Division are assisted by outside investment consultants and internal and external legal counsel.

- a. The Board Investment Advisor is selected by the Board to provide education, advice, commentary, and discussion as requested at Board meetings, assist with development and review of investment policies and procedures, perform due diligence and recommend managers or investments, issue prudence letters, report on the progress of the Fund in meeting its investment objectives, and compare the performance of the portfolio to established benchmarks. The Investment Division and Board Investment Advisor provide information as needed to assist the consulting actuary in performance of actuarial services.
- b. The Investment Division has fiduciary responsibilities delegated by the Board under applicable law. The Investment Division manages the Fund according to the Board's policies, advises and informs the Executive Director and the Board about investments, and recommends modifications to this Policy. The Investment Division executes all transactions, performs risk-management functions, and prepares investment reports.
- c. The Internal Investment Committee (“IIC”) reviews, considers, and authorizes proposed investments and external manager engagements as required by this Policy. Additionally, the IIC will manage the currency hedge ratios (set forth in Appendix D) and review as needed.

A prudence or recommendation letter provided by an Advisor is required for all external opportunities presented to the IIC unless an exception has been made by the CIO.

If a Board member desires that any external investment opportunity scheduled for consideration by the IIC be submitted for consideration by the Board, the Board member should notify the Executive Director and the CIO

sufficiently in advance to permit completion of due diligence and consideration by the Board and by the appropriate Board committee, as applicable, before the anticipated closing date.

The permanent IIC membership consists of the Chief Investment Officer (“CIO”), the Deputy CIO and the Chief Risk Officer (“CRO”). There must be a minimum of five members on the IIC and, in addition to the CIO and the Deputy CIO, at least two members must be Investment Division Senior Managing Directors (“SMDs”). The CIO will notify the Chairman of the IMD Committee in advance of any appointment or removal of a SMD from the IIC. Termination of a member’s TRS employment terminates IIC membership as of the date the employee or TRS gives notice of termination, as the case may be. The Investment Division shall notify the Board and the Executive Director if there is any change to the membership of the IIC.

The CIO will establish procedures and guidelines for the operations of the IIC. The IIC procedures and guidelines may provide that the CIO may appoint and remove select Directors as non-permanent voting members to the IIC. The IIC procedures and guidelines will define a quorum and establish the vote required to authorize an investment or external manager engagement or, if required by this Policy, recommend an investment or external manager engagement to the Board, which vote may not be less than a majority of the then-incumbent IIC members present and voting at a meeting at which a quorum is present. The CIO shall have the power to veto any investment or delegation of investment discretion authorized or recommended by the IIC pursuant to a vote of its members.

The Executive Director or his designee may attend any meeting of the IIC, and the Investment Division shall deliver to the Executive Director copies of all IIC materials, analyses, correspondence, and agendas as and when delivered to IIC members or other TRS employees. The Executive Director is not a member of the IIC, however, acting in his or her capacity as the chief executive officer and chief administrative employee of TRS as set forth in the Board’s Bylaws, the Executive Director shall, after consultation with the CIO, have the power to veto any investment or delegation of investment discretion proposed for IIC consideration or authorized or recommended by the IIC pursuant to a vote of its members whenever he deems such veto to be in TRS’ best interest.

When this Policy requires that the Board authorize an investment or an engagement of an external manager, the IIC shall vote on whether to recommend such investment or engagement to the Board. The results of the vote shall be reported to the Board in the materials provided to the Board for consideration.

- d. All proposed changes to this Policy will be reviewed by the legal staff for compliance with state and federal laws regarding fiduciary responsibility, investment prudence, ethics compliance, and other applicable standards or requirements before submission to the Policy Committee. Except as authorized by the Executive Director, proposed changes to this Policy will first be presented to the Policy Committee, which will consider recommending the proposed changes to the Board. The Board may consider and adopt proposed changes that have not been considered by the Policy Committee. This Policy shall be reviewed at least once every three years.
- e. The Investment Division is authorized to engage one or more qualified consultants and Advisors to assist the Investment Division with respect to investment opportunities. The Board must approve each Advisor prior to engagement.

Notwithstanding the foregoing, IIC consideration and approval of a sub-manager of an external manager who manages sub-managers does not in any event require a separate, additional prudence letter or letter of recommendation from an Advisor; provided, that such external manager of sub-managers (i) is fully liable for any action or omission of the sub-manager as if the action or omission had been taken by such external manager and (ii) recommends the engagement of the sub-manager in writing to the IIC. For avoidance of doubt, this paragraph does not prohibit the CIO from requiring a prudence letter from an Advisor with respect to the IIC’s consideration of a sub-manager to be recommended by a manager.

1.4. Total Fund Objectives

In this Policy, the total or overall investment portfolio includes all assets invested by TRS to provide retirement, death, health, and disability benefits administered by the system, including cash and cash equivalents (the “Total Fund” or the “Fund”) and will be structured and managed to achieve the following objectives:

- a. Control risk through proper diversification of asset classes and by establishing long-term risk and return expectations; and

- b. As applicable to the pension plan, achieve a long-term rate of return that:
 - i. Exceeds the assumed actuarial rate of return adopted by the Board;
 - ii. Exceeds the long-term rate of inflation by an annualized 5%; and
 - iii. Exceeds the return of the Fund Policy Benchmark.

1.5. Total Fund Investment Standard

Article XVI, Section 67(a)(3) of the Texas Constitution and Section 825.301, Government Code, states that the standard of care for TRS investments is a “prudent person” standard. Section 825.301, Government Code, provides that Section 117.004(b), Property Code, applies to TRS investment decisions. Section 117.004(b) generally states that the determination of the prudence of a single investment decision will be made taking into consideration the investment of all of the assets of the trust, or the assets of the collective investment vehicle, as the case may be, rather than a consideration as to the prudence of the single investment of the trust, or the single investment of the collective investment vehicle, as the case may be.

All investments made by the Total Fund must be in “securities” as defined in Government Code Section 825.301(a), except that TRS may buy and sell those instruments set forth in Section 825.301(a-1), Government Code, to efficiently manage and reduce the risk of the overall investment portfolio only until September 1, 2019.

The Board and the Investment Division may obtain the assistance and advice of external investment consultants, including external managers operating under investment management agreements (“IMAs”) as needed.

1.6. Total Fund Asset Mix and Benchmarks

The Investment Division will assist the Board in engaging in an asset-liability study for the pension plan at least once every five (5) years to review asset classes, return-risk assumptions, and correlation of returns with applicable benchmarks and across asset classes. A key objective of the asset-liability study shall be the development through statistical modeling techniques of a diversified portfolio that specifies ranges of prudent portfolio exposures and a “long-term target” position for each asset class. The normal portfolio mix will represent the portfolio that is expected to meet the Board's actuarial return objectives for the pension plan within the risk tolerances specified herein.

Each asset class allocation percentage has a “long-term target” position within the overall portfolio and a maximum and minimum range around that target allocation. All percentages refer to market value.

Each asset class is described by an associated benchmark that describes, in general terms, the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes the benchmark serves as a proxy for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio. Those benchmarks, along with the allocation ranges, are identified in the table on the following page, and are referred to as the Policy Benchmarks.

[Table appears on following page]

Asset Class	Benchmark	Bloomberg Ticker	Minimum Range ^{1,2}	Maximum Range ^{1,2}	Target ²
Global Equity:					
USA	MSCI USA Investible Market	MIMUUSAG	13%	23%	18%
Non-US Developed	MSCI EAFE and Canada	NDDUEC	8%	18%	13%
Emerging Markets	MSCI EM	NDUEEGF	4%	14%	9%
Directional Hedge Funds	HFRI Fund of Funds Composite	HFRIFOF	0%	10%	4%
<i>Total Public Equity</i>	<i>Target-weighted Blend</i>		<i>39%</i>	<i>49%</i>	<i>44%</i>
Private Equity	Customized State Street Private Equity Index – lagged one quarter ³		8%	18%	13%
Total Global Equity	Target-weighted Blend		50%	64%	57%
Stable Value:					
US Treasuries ⁴	Barclays Capital (BarCap) Long Treasury Index	LUTLTRUU	0%	20%	11%
Absolute Return (Including Credit Sensitive Investments) ⁵	3 Month LIBOR + 2%	USC0TR03 (plus 2%)	0%	20%	0%
Stable Value Hedge Funds	HFRI Fund of Funds Conservative	HFRIFOFC	0%	10%	4%
Cash	Citigroup 90-day US Treasury	SBMMTB3	0%	5%	1%
Total Stable Value	Target-weighted Blend		11%	21%	16%
Real Return:					
Global Inflation Linked Bonds	BarCap US Treasury TIPS index	LBUTTRUU	0%	8%	3%
Real Assets	NCREIF ODCE – lagged one quarter		9%	19%	14%
Energy, Natural Resources and Infrastructure	40% Cambridge Associates Natural Resources/40% Cambridge Associates Infrastructure/ 20% quarterly Consumer Price Index – lagged one quarter	CPI (for CPI)	0%	10%	5%
Commodities	Goldman Sachs Commodity Index	SPGCCITR	0%	5%	0%
Total Real Return	Target-weighted Blend		17%	27%	22%
Risk Parity:					
Risk Parity	Risk Parity Benchmark ⁶		0%	10%	5%
TOTAL FUND	Target-weighted Blend				100%

¹ With respect to the maximum range and minimum range, the CIO may increase any maximum range by 5% or decrease any minimum range by 5% (but may not decrease a minimum range below zero) if the CIO concludes in a writing delivered to the Executive Director and to the Board of Trustees stating the action taken and the reasons why the CIO believes that such increase or decrease would be in the best interests of TRS; provided, the maximum range for Total Global Equity may not be increased above 68%. Before taking action, the CIO must request comments from the Chairman of the appropriate Board Committee and TRS consultants and advisors. The Board, at the next succeeding Board meeting, must authorize the increase or decrease if the CIO proposes that the changes continue in effect after such Board meeting. The CIO will notify the Chief Compliance Officer of any such change to a maximum or minimum range. If the Board does not authorize the continuation of the change to a maximum or minimum range after the next succeeding Board meeting, the Investment Division shall use best efforts to rebalance the portfolio to bring the asset classes within the ranges in the table above within 90 days.

² To calculate the Total Fund benchmark, the benchmark weight of each of Private Equity, Real Assets, and Energy, Natural Resources and Infrastructure, will be set each quarter as the ending actual weight from the prior quarter. Any difference in the calculated Private Equity, Real Assets and Energy, Natural Resources, and Infrastructure benchmark weights from the target benchmark weights will be offset using other asset classes with 20% of such difference applied to USA, 20% to Non-US Developed, 20% Emerging Markets, 20% to US Treasuries and 20% to Global Inflation Linked Bonds.

The Investment Division does not normally manage the allocations to Private Equity, Real Assets and Energy, Natural Resources and Infrastructure on a tactical basis and will use its best efforts to achieve the Target allocation for these assets classes; provided, with notification to and comment sought from the Chairman of the appropriate Board Committee, the Investment Division may seek to achieve a higher or lower Target so long as such Target is within the Minimum Range and the Maximum Range.

- ³ The Customized State Street Private Equity Index is composed of the quarterly reported SSPEI, one quarter lagged and adjusted for the most recent quarter-end currency spot prices. Quarterly returns are geometrically linked for longer return horizons.
- ⁴ Non-US developed sovereign bonds with a net short market value may be held in the US Treasury portfolio. The absolute value of the market value of the bonds so held may not exceed 2% of the Total Trust.
- ⁵ Absolute Return is a broad category that includes all assets that have a high probability of generating a positive absolute return regardless of market conditions over a one to three year period.
- ⁶ The Risk Parity Benchmark will be calculated using a group of risk parity managers. Annually, the CIO, in consultation with the Board Investment Consultant and with comment sought from the Chairman of the appropriate Board Committee, will from time to time revise the list of risk parity managers comprising the benchmark. If the benchmark is not provided by a third party, the benchmark will be calculated monthly using an equal weighting of the listed risk parity managers. Any resulting changes to the composition of the benchmark will be presented for Board consideration prior to October 1 for the year commencing on such date.

1.7. Total Fund Measurement and Reporting Criteria

The Investment Division will deliver reports to the Board (and the appropriate Board committee, as applicable) adequate to indicate whether the Total Fund is meeting its objectives and that will permit the Board to monitor each portfolio for compliance with this Policy. The Board will establish performance and risk measurement and attribution standards for the Total Fund, each asset class, and component portfolios.

The following comparisons and reviews will be performed quarterly (unless otherwise noted) and presented to the Board:

- a. **Investment Performance** – Investment performance for the Total Fund and each component portfolio, net of external management fees (if applicable); will be compared with their respective benchmark indices. Fund performance will be judged primarily by comparisons to long-term (3, 5 and 10 year) Policy Benchmark returns.
- b. **Monitoring of compliance with Policy** – Portfolios will be reviewed for compliance with the requirements set forth in this Policy. The Chief Compliance Officer will have overall responsibility for compliance monitoring. However, if considered necessary, TRS will hire external parties to obtain assistance regarding compliance monitoring. To ensure independence in compliance monitoring the Chief Compliance Officer or external parties hired will not be given the authority to trade securities. To ensure ongoing compliance with this Policy and completeness of disclosures to the Board regarding compliance, the Chief Compliance Officer has authority to require certifications from applicable IIC members or Managing Directors disclosing known compliance violations. The Chief Compliance Officer reports all known compliance exceptions to the Board at the next meeting of the Board. The Chief Compliance Officer is authorized to execute and deliver compliance-related disclosures, reports, filings and certifications on behalf of TRS. The Chief Compliance Officer, with the CIO and Executive Director’s approval, is also authorized to develop, disseminate and collect disclosure forms to monitor the requirements of this Policy.
- c. **Asset class exposures and weightings** – The exposure of cash and derivative instruments to each asset class will be aggregated and compared with their respective benchmarks and with the authorized ranges around those benchmarks. Hedge Fund exposure will be reported relative to its statutory limit, if applicable.
- d. **External investments under consideration** – For any external investment under consideration by the Investment Division (including Hedge Funds, external managers, and private markets investments), the Investment Division will provide the Board the following information prior to the date of the applicable IIC meeting:
 - i. Name of the investment vehicle and investment manager;
 - ii. Total fund or strategy size;
 - iii. TRS investment amount under consideration;
 - iv. Investment strategy;
 - v. Names of the external manager or fund principals;
 - vi. Projected TRS commitment or funding date;
 - vii. Placement agent or firm sponsoring the offering or engagement, if any;
 - viii. Prospective fees;
 - ix. Other TRS investments with the firm;
 - x. Historical fund or manager performance; and

- xi. Type of investment representation contemplated and proposed individual to serve, if any.
- e. **External investments activities** – The Investment Division will provide the Board with a list of all external investments, including any additions, withdrawals, transfers or terminations, on at least a semi-annual basis.
- f. **Derivatives** – The Investment Division shall provide a comprehensive report of all outstanding derivative applications (including derivative types, counterparties, notional amounts, and fair values) used by internal managers and external managers under IMAs on at least a semi-annual basis.
- g. **Risk limit** – The Investment Division will report at least semi-annually the Total Fund and benchmark total estimated risk relative to the upper and lower bounds corresponding to the maximum and minimum downside risk measures that could be achieved through the asset allocation limits in this Policy.
- h. **Liquidity** – The Investment Division will report at least semi-annually to the Board the use of external liquidity funding mechanisms.
- i. **Leverage** – The Investment Division will report the Gross and Net Leverage derived from internal derivative use, internal short sales, external managers, Hedge Funds, and leverage resulting from use of external liquidity funding mechanisms as outlined in the Liquidity Policy on at least a semi-annual basis.
- j. **Transparency report** – The Investment Division will provide a transparency report to the Board that may be used to disclose any of the required information described herein. This report may be delivered in electronic or physical formats.
- k. **Private Markets Long-Term Strategy** – The Investment Division will review with the Board its long-term strategy for each Private Markets Portfolio at least every three years. This review will include information on target sub-strategy allocation, return, risk and liquidity expectations. Tactical deviations from this long-term strategy will be reviewed on an annual basis.
- l. **Staffing** – The Investment Division will provide an update no less than annually reporting on key positions in the division, including turnover, transfers and the creation or elimination of key positions.
- m. **Placement Agent Disclosures** – The Investment Division shall compile all responses to the placement agent questionnaire (Appendix F) for the purposes of Article 12 and report the results to the Board at least semi-annually. Each response shall include the questionnaire information as of the date the IIC approved the investment. Reports shall include the amounts and recipients of any political contribution or Placement Fee and the relationship of the recipients to the Placement Agent or Texas Elected Official or Candidate, as applicable.
- n. **Participation as Board Observers or on Governing Boards** – The Investment Division shall provide the Board with an annual report on all board observer positions and positions held by employees or third party representatives serving on the governing body of a business entity in which TRS holds a direct or indirect investment interest.
- o. **Consultant Engagements**– The Investment Division shall provide the Board a list of consultants engaged to assist or advise the Investment Division with respect to investment opportunities and portfolio management with notice in advance of any engagement.
- p. **Other information** – Any other information or reports as the Board may request or require from time to time.

1.8. Total Fund Portfolio Implementation and Design; Restrictions

- a. The Total Fund investment portfolio is characterized by the following functional portfolios that are charged with the implementation of day-to-day portfolio investment and management activity:
 - i. Internal Public Markets (“IPM”) Portfolios;
 - ii. External Public Markets (“EPM”) Portfolios
 - iii. Private Markets Portfolios;

- iv. Overlay Portfolios; and
- v. Risk Management and Oversight.

The objectives, authority and limitations of each of these portfolios, and the authorized uses of derivatives, are described throughout the remainder of this Policy.

- b. The CIO will determine the proper mix of assets allocated for internal management under the parameters of the IPM Portfolio and those to be allocated to the External Manager Portfolio component of the EPM Portfolio. In no event shall the aggregate allocation to external managers pursuant to investment management agreements (“IMAs”) exceed 30 percent (or a different percentage of, not more than 50 percent, if a greater percentage is specified in the Government Code) of the Total Fund at the time of investment, as specified in Section 825.301 (a-2), Government Code. For avoidance of doubt, this restriction does not apply to assets held by funds (including Hedge Funds) which limit the liability of TRS to the capital contributed and any distributions that TRS might be legally obligated to contribute or repay to the fund.

The preceding paragraph does not affect the target allocation and the range of allocation for the Hedge Fund Portfolio, which shall not exceed 10% (unless extended by law, this authority reverts to 5% on September 1, 2019) of the Total Fund in Hedge Funds as defined in Section 2.5. Compliance with the statutory limit is to be determined at the time TRS executes the investment documents for each Hedge Fund investment or additional investment.

- c. Subject to Appendix G, the Investment Division is authorized to represent TRS on:
 - i. Advisory committees or boards and as board observers in investments in which TRS has an investment interest
 - ii. After evaluation of the net benefit to TRS, employees in the Investment Division are authorized to represent TRS or to nominate or appoint third-party independent non-employees to represent TRS on the governing body of a non-public (private) or a publicly-traded business entity in which TRS holds a direct or indirect investment interest.
- d. Except as required by fiduciary duties created by the Texas Constitution or applicable law, each TRS investment portfolio, including separate account investments, will comply with Chapters 806 and 807 of the Government Code relating to prohibitions on investments in Sudan and Iran, respectively. Additionally, TRS may avail itself of the protection afforded by applicable federal law.
- e. TRS will not invest directly in securities of any company that derives a significant portion of its revenues from products or services intended exclusively to appeal to a prurient interest in sex through explicit depictions of sexual activity. These include sexually explicit films, videos, publications, and software; topless bars and strip clubs; and explicit sexually-oriented telephone and Internet services. The restriction does not apply to pooled investment vehicles, provided that the Investment Division shall engage with the managers of such vehicles and use commercially reasonable efforts during due diligence to determine whether such vehicles invest in any company that would not be eligible for direct investment by TRS.
- f. The General Authority Resolution adopted by the Board designating those officers authorized to execute documents and attached as Appendix E is incorporated in this Investment Policy. Should the Board supersede such resolution, such superseding resolution shall be incorporated in this Investment Policy and replace the superseded resolution as Appendix E as of the effective date of the superseding resolution.

ARTICLE 2 – PUBLIC MARKETS PORTFOLIOS

2.1. Public Markets Portfolios Objectives

The Public Markets Portfolios include the IPM Portfolios and the EPM Portfolios (exclusive of the portfolios described in Articles 3 through 7). The objectives of the Public Markets Portfolios are to invest in publicly traded and restricted securities to meet or exceed the performance of the relevant Policy Benchmarks or to manage the asset allocation and risk of the Trust.

2.2. Public Markets Portfolios Authorized Investments

The Public Markets Portfolios are authorized to invest in the following:

- a. All securities in a Policy Benchmark, all securities that trade publicly (whether on an exchange or over the counter) or pursuant to SEC Rule 144A, and securities issued in underwritten initial public offerings (“IPOs”);
- b. Fixed income securities, whether publicly traded or restricted;
- c. Restricted Securities which are expected to become public or otherwise freely marketable within three years after the initial investment date pursuant to registration or an exemption from registration;
- d. Derivatives in accordance with Article 9; and,
- e. Cash and cash equivalents.

Investments in securities authorized in this Section 2.2 may also be made through IMAs and securities issued by Private Investment Funds that predominantly invest in securities authorized above in accordance with asset allocation parameters and restrictions of this Policy and subject to the IIC approval process in Section 1.3 and Appendix B.

2.3. Internal Public Markets Portfolios Restrictions

- a. Not more than 20% of the outstanding equity securities of a single class of any company may be purchased. Securities which are deemed to be beneficially held by TRS for purposes of Section 13 of the Securities Exchange Act of 1934 (including equity securities held in an IMA or a Private Fund in which TRS is deemed to be the beneficial owner for purposes of Section 13), shall be counted against the 20% limit.
- b. The IPM Portfolios shall conform to the tracking error targets prescribed in Appendix A.
- c. The IPM Portfolios may hold short positions in securities listed in Section 2.2. The aggregate short positions exposure excluding derivatives of the IPM Portfolios may not exceed 25% of the market value of the internal equity portfolios of the Trust, nor may any short sale or position violate the laws or rules of any jurisdiction or exchange in or on which the applicable securities are traded or listed.

2.4. External Public Markets Portfolio

The primary objective of the EPM Portfolio is to invest directly or indirectly in securities authorized in Section 2.2 and related instruments to meet or exceed the performance of the Policy Benchmarks over a 5 to 10 year market cycle. The EPM Portfolio will employ a wide variety of investment and trading strategies with varying levels of liquidity and leverage. It is expected that some strategies will involve more concentrated, shorter term investments as well as those that are longer term in nature and thus will generally have more tracking error than expected within the IPM Portfolios, while other investments will have less correlation, beta and volatility and thus will offset the overall volatility of the EPM Portfolio and the Total Fund. The External Public Markets Portfolios (the “EPM Portfolio”) are:

- a. The External Manager Portfolio, which consists of:
 - i. Private Funds that are determined not to be Hedge Funds as defined by Section 2.5 of this Policy, and
 - ii. Separate accounts managed or advised by External Managers under an IMA with TRS.
- b. The Hedge Fund Portfolio.
- c. The Absolute Return Portfolio including Credit Sensitive Investments.

2.5. Hedge Fund Defined

In this Policy, “Hedge Fund” means a private investment fund with the following general characteristics, as set forth in Section 825.3012, Government Code:

- a. Is not registered as an investment company;

- b. Issues securities only to accredited investors or qualified purchasers under an exemption from registration; and
- c. Engages primarily in strategic trading of securities and other financial instruments.

“Hedge Fund” includes a private investment fund of funds or similar vehicle that itself invests in Hedge Funds. An investment in a Hedge Fund does not involve a delegation of investment discretion to an external manager for purposes of the statutory limit on delegation to External Managers.

For the purposes of complying with Section 825.3012, Government Code, the Investment Division shall use the following criteria to analyze and determine whether a private investment fund is “primarily engaged in strategic trading” and should be classified as a hedge fund:

Criteria “Strategic Trading of Securities”	Characteristics Non-Hedge Fund	Characteristics Potential Hedge Fund
1. Variability in Asset Class Concentration	Asset allocation typically stays the same throughout a market cycle, as shown by historical practice	Unconstrained; asset class mix can change dynamically in response to market conditions or as opportunities arise
2. Beta to underlying index specified for the particular mandate	Generally higher levels of beta (e.g., 0.75+)	Often less beta (e.g., <0.75)
3. Securities Traded	Primarily publicly-traded securities	Typically public or private instruments, and often with some illiquid (e.g., “side pockets”) investments segregated for accounting and incentive fee purposes
4. Leverage	Gross leverage less than 250% <i>and</i> net leverage 75% to 125%	Unconstrained by policy and practice – managers often unwilling to commit to constraints
5. Short sales of company-specific securities (i.e., non-derivatives)	Typically <50% gross short	Shorting of company-specific securities is integral to investment strategy or process, with gross short positions exceeding 50%
6. Use of Derivatives	Limited use of derivatives (notional value excluding derivatives used to hedge currency risk is less than 100% of net asset value)	Derivatives are integral to strategy or process (notional value excluding derivatives used to hedge currency risk is greater than 100% of net asset value)
7. Transparency	Generally position-level transparency for investor	Risk-level transparency, but little or no position-level transparency
8. Liquidity	Limited use of lock-ups, short or no notice period; frequent (e.g., monthly) or no redemption windows	Often lock-ups, withdrawal fees, notice periods exceeding 30 days and/or less frequent redemption windows than monthly; gates and ability to suspend redemptions can extend redemption for years or frustrate liquidity goals
9. Performance Fees	May charge performance fees, but often over asset class hurdle	Generally, manager charges management and performance or incentive fees, or both, but usually with no asset class hurdle

In this Section 2.6:

Beta is a measure of an asset's volatility in relation to a specific market or risk factor, as observed over a market cycle; the measure of an asset's risk in relation to the market (for example, the S&P500) or to an alternative benchmark or factors. Generally, the return of a security with a beta of 1.5 will be, on average, 1.5 times the market return.

Leverage is a condition in which the net potential monetary exposure of an obligation exceeds the value of the underlying assets supporting the obligation. **Net Leverage** is calculated as the difference between (A) the sum of (i) the market value of all long cash market positions, (ii) the notional value of all long derivative positions, and (B) the sum of (i) the absolute market value of all short cash market positions, and (ii) the absolute notional value of all short derivative positions divided by (C) the net market value of the fund. **Gross Leverage** is the total of (A) the sum of (i) the market value of all long cash market positions, (ii) the notional value of all long derivative positions, (iii) the absolute market value of all short cash market positions, and (iv) the absolute notional value of all short derivative positions divided by (B) the net market value of the fund. For option based instruments, notional value may be calculated using hedge ratios to derive a delta-equivalent exposure.

Proposed investments in funds classified as Hedge Funds will be reported to the Board of Trustees (and appropriate Board committee, as applicable) quarterly. If the criteria examined do not clearly indicate, based on at least a preponderance of criteria, how a fund should be classified for statutory purposes, Investment Division may elect to present the pertinent information to the IIC for consideration of classification. Further, if the application of any one or more of the criteria for leverage, short sales, and derivatives, standing alone, would classify the fund as a Hedge Fund, but the preponderance of criteria would classify the fund as a non-Hedge Fund, the Investment Division may either decline to authorize the investment or may elect to present the pertinent information to the IIC for consideration of the classification of the fund and, if applicable, authorization for investment.

Prior to investment, the CIO will determine whether each Hedge Fund is a Stable Value Hedge Fund or a Directional Hedge Fund by reference to factors such as investment strategy, underlying investments, correlation, beta, leverage, expected return and expected risk.

2.6. External Public Markets Portfolio Authorization

- a. **Approval Authority – Hedge Fund, External Manager and Absolute Return Portfolios** – The IIC is hereby authorized to approve investments as defined and set forth in Appendix B of this Policy.

The Investment Division may authorize an allocation to an External Manager even if the manager will invest a portion of the assets in a private investment fund or funds or a tax-qualified collective trust managed by an Affiliate of the external manager, except that the Investment Division shall determine whether any such fund should be classified as a Hedge Fund for purposes of Section 825.3012, Government Code.

- b. **Allocation measurement** – Only the net long position of each External Manager, fund vehicle, separate account, or Hedge Fund will be counted against the asset allocation policy; however, both long and short positions will be modeled (through proxies if necessary) to calculate Total Fund risk.
- c. **Short positions limit** – The EPM Portfolios may hold short positions in securities authorized under Section 2.2. The aggregate short positions exposure of the External Manager Portfolio may not exceed 25% of the market value of the External Manager Portfolio without the prior written consent of the CIO. In no event may the aggregate short positions exposure of the External Manager Portfolio exceed 50% of the market value of the External Manager Portfolio, nor may any short sale or position violate the laws or rules of any jurisdiction or exchange in or on which the applicable Securities are traded or listed.
- d. **Rebalancing Authority** – Subject to the limits set forth in this Policy, the CIO, Deputy CIO or the head of EPM may add to previously approved funds or investments for the purposes of rebalancing or adjusting risks. Such additional investments or allocations shall not, on a monthly basis, exceed 2% of the Hedge Fund Portfolio, External Manager Portfolio, or Absolute Return Portfolio (as appropriate) per investment. This subsection does not affect or limit the authority of the Investment Division to withdraw funds from approved investments.
- e. **Termination Authority** – The CIO, Deputy CIO or the head of EPM may transfer, withdraw or terminate interests in the EPM Portfolio, provided that the action does not result in a material, un-waived breach of the terms and conditions of the applicable investment agreements.

2.7. External Public Markets Portfolio Restrictions

- a. IMAs, considered in the aggregate, may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls otherwise established by this Policy, including the provisions of Section 2.2.
- b. The EPM Portfolios are subject to the size limitations in Section 1.8b.
- c. Each IMA with an External Manager shall specify the applicable policies, risk controls, portfolio characteristics, reporting requirements, requirements or restrictions, including criteria for determining quality of investments or the use of standard debt rating services.
- d. Each IMA with an External Manager shall terminate on or before September 1, 2019; except that an IMA may include provisions for optional renewal or extension of the agreement by the Investment Division beyond September 1, 2019 that are contingent on amendment of TRS statutes to authorize such agreements after that date.

2.8. External Public Markets Portfolio Conflicts of Interest

Conflicts of interest, including the appearance of conflicts, in the selection and engagement of external investment managers will be avoided at all times. Potential or actual conflicts of interest must be evaluated during due diligence and after engagement under applicable ethics policies and statutory provisions, including without limitation Section 825.212, Government Code, which does not apply to Hedge Fund managers in that capacity. The Investment Division will develop guidelines and procedures to identify actual or potential conflicts of interest affecting external managers to be engaged pursuant to IMAs. The Investment Division shall employ reasonable diligence to identify conflicts of interest affecting TRS trustees, employees and advisors with respect to all private investments.

2.9. Risk Parity Portfolios

Risk Parity is an asset allocation strategy that focuses upon equalizing the risk contributions of the asset classes or risk factors comprising the portfolio. Risk Parity then uses leverage to scale the resulting portfolio to target a stated level of portfolio risk or return comparable to typical pension fund unleveraged asset allocation strategies.

2.10. Public Markets Portfolios Restrictions

- a. The market value of Restricted Securities purchased in Public Markets Portfolios pursuant to 2.2c will not exceed 2% of the market value of the Total Fund at time of investment; except that prior to October 1, 2017, this limit will be 1% of the market value of the Total Fund at time of investment.

ARTICLE 3 – PRIVATE MARKETS PORTFOLIOS

3.1. Private Markets Portfolios

The Private Markets Portfolios are (1) the Private Equity Portfolio (the “PE Portfolio”), (2) the Real Assets Portfolio (the “RA Portfolio”) and (3) the Energy, Natural Resources and Infrastructure Portfolio (the “ENRI Portfolio”).

Private markets opportunities that will be considered for investment include the following: investments in securities of any legally permissible investment vehicle, including Private Investment Funds, co-investments, secondary investments, externally managed separate accounts investing in securities, hybrid securities with characteristics of equity or debt, joint ventures, secondary market transactions, entity-level investing or other off-market investments, new and emerging managers, and opportunistic investments (e.g., investments in the management entity of a private investment firm or sponsor, public-to-private transactions, and the acquisition of business development company or investment trust assets).

3.2. Private Markets Portfolios Authorization

The Private Markets Portfolios are authorized to invest in the asset classes specified in this Policy and may hold and exercise rights, options and warrants attached to securities relating to an investment by the Private Markets Portfolios.

Funding of committed capital in Private Markets Portfolios will occur over an extended time period and may take several years before the total allocation to each asset class is fully invested. Because an individual investment may begin to return capital to the investor prior to the full funding of the investor's commitment, the outstanding invested capital of the investment might at times be substantially less than the total commitment. In recognition of the above characteristics unique to the Private Markets Portfolios, a "committed" allocation to an investment may exceed the respective allocation targets authorized. It will not be a violation of this Policy if changes in the market values of the public assets portfolios or the Private Markets Portfolios cause the market value of the Private Markets Portfolios to exceed the upper limit of the allocation ranges established in this Policy.

Investment Authority. The limits defined and set forth in Appendix B apply to allocations and commitments by the Private Markets Portfolios.

If, after due diligence by either of the Advisor and the Investment Division, the Advisor and the Investment Division do not concur on whether a private markets investment within the Investment Division's discretion should be made, the Investment Division may elect to present the opportunity to the appropriate Board committee for consideration of a recommendation to the Board to authorize the investment. Unless the Board authorizes an investment, a proposed investment may not be made without the concurrence of both the Investment Division and the Advisor.

Termination Authority. The CIO, Deputy CIO or, as applicable, the head of Private Markets, the head of Private Equity, the head of Real Assets, or the head of Energy, Natural Resources and Infrastructure (as applicable) may transfer, withdraw or terminate interests in the Private Markets Portfolios in accordance with the investment documents, provided that the action does not breach any agreement to which TRS is legally bound.

Commitment Authorization. Each investment must be authorized as required by the provisions, guidelines, and limitations established in this Policy. Any structure in which TRS invests shall meet established legal requirements.

Rebalancing Authority. Subject to the limits set forth in this Policy, the CIO, Deputy CIO or, as applicable, the head of Private Markets, the head of Private Equity, the head of Real Assets or the head of Energy, Natural Resources and Infrastructure may add funds to previously approved investments for the purposes of rebalancing or adjusting risks. Such additional investments or allocations shall not exceed, on a monthly basis, 2% of each of the Private Equity Portfolio, the Real Assets Portfolio or the ENRI Portfolio (respectively, as appropriate) per investment. This subsection does not affect or limit the authority of the Investment Division to withdraw funds from approved investments; provided, the withdrawal does not breach any agreement by which TRS is legally bound.

ARTICLE 4 – PRIVATE EQUITY PORTFOLIO

4.1. Private Equity Portfolio Objectives

Diversification

The primary long-term objective of the PE Portfolio is to develop a prudently diversified portfolio of investments that is expected to enhance the overall risk-return profile of the Total Fund and to reduce risk within the PE Portfolio.

The following attributes will be considered in constructing a diversified PE Portfolio: strategy, geography, industry sectors, size of investment, and vintage year.

4.2. Private Equity Portfolio Authorized Investments

Private equity funds build portfolios of private investments in the equity or debt of operating companies. Private equity funds may acquire investments in debt obligations, public or private common and preferred stocks, convertible securities, and any warrants, rights, or options attached to any of the foregoing that relate to equity ownership in an issuer. Privately-acquired securities usually have transfer restrictions and are not as liquid as publicly-traded securities. Private equity funds are often classified by strategy, including: buyouts, credit, special situations and venture capital/growth equity.

4.3 Private Equity Portfolio Restrictions

The Private Equity Portfolio is authorized by and is subject to the terms and conditions described in Article 3.

ARTICLE 5 – REAL ASSETS PORTFOLIO

5.1. Real Assets Portfolio Objectives

The RA Portfolio will be structured to achieve the following investment objectives:

- a. As the primary focus, contribute favorably to diversification of the Total Fund through exposure to real assets' low or negative correlation to the Public Markets portfolios.
- b. Provide competitive returns through capital appreciation.
- c. The following attributes will be considered in constructing a diversified RA Portfolio: strategy, geography, property types, size of investment, vintage year, and the number of funds or investment managers represented in the portfolio. No specific geographic diversification or leverage targets are required.

5.2. Real Assets Portfolio Authorized Investments

The RA Portfolio will focus on private or public real estate equity securities investments, private or public real estate debt, real asset mezzanine debt or equity, mortgage-related investments, entity-level investments, private or public real estate investment trusts ("REITs"), private or public master limited partnerships ("MLPs"), and other opportunistic investments in real assets. Real estate investments are often classified by strategy, including: core, core-plus, value-added, opportunistic and special situations.

5.3. Real Assets Portfolio Restrictions

The RA Portfolio is authorized by and is subject to the terms and conditions described in Article 3.

ARTICLE 6 – ENERGY, NATURAL RESOURCES AND INFRASTRUCTURE PORTFOLIO

6.1. Energy, Natural Resources and Infrastructure Portfolio

The ENRI Portfolio will be structured to achieve the following investment objectives:

- a. Contribute favorably to diversification of the Total Fund by increasing exposure to assets with a higher degree of inflation sensitivity.
- b. Provide competitive returns through capital appreciation.
- c. The following attributes will be considered in constructing a diversified ENRI Portfolio: general inflation sensitivity, expected return, strategy, geography, resource exposure, size of investment, vintage year, where investment is in the resources value chain (upstream, midstream or downstream) or infrastructure type, and the number of funds or investment managers represented in the portfolio. No specific geographic diversification or leverage targets are required.

6.2. Energy Natural Resources and Infrastructure Portfolio Authorized Investments

The ENRI Portfolio may invest in private and public energy or natural resource or infrastructure related securities either directly or through funds which may include investments in public or private equity, equity-linked investments including options, warrants, preferred equity, and structured equity, private or public debt, entity-level investments, master limited partnerships, commodity futures, natural resources interests (mineral, royalty or working interests), timber and agricultural property, water, power generation, renewable energy, and associated infrastructure, services and technology. Energy and natural resource investments are often classified by resource type and where the investment is in the resource value chain (upstream, midstream or downstream). Infrastructure assets are classified as core, value-add and opportunistic. Direct investments in physical commodities are prohibited.

6.3. Energy, Natural Resources and Infrastructure Portfolio Restrictions

The ENRI Portfolio is authorized by and is subject to the terms and conditions described in Article 3.

ARTICLE 7 – EMERGING MANAGERS PROGRAM

TRS shall make a good-faith effort to invest with qualified emerging managers for the External Public Markets Portfolios and the Private Markets Portfolios. For the avoidance of doubt, these portfolios may also include investments in energy, natural resources and infrastructure. The Investment Division is authorized to invest with qualified funds-of-funds managers skilled at identifying small and emerging managers in the private equity, real asset and public equity markets. The target dollar allocation is outlined for this program in Appendix C.

Emerging managers can include, but are not limited to, minority, women, and disabled veteran-owned or -controlled organizations. Conversely, not all minority, women, and disabled veteran-owned or -controlled organizations are necessarily considered emerging managers for the purposes of this program. Whether a management firm is an “emerging manager” depends on all of the facts and circumstances. In general, emerging managers are defined as newer, independent private investment management firms that manage less than \$2 billion, or have a performance track record as a firm shorter than five years, or both.

All investments with emerging managers will be subject to due diligence by an independent qualified external Advisor. The Investment Division may appoint Emerging Managers Program consultants without a requirement for approval from the Board. The Advisor will present each investment recommendation to the IIC for its approval. In general, an emerging manager should be registered with the appropriate authorities if such registration would be consistent with industry practices. Each investment will have a minimum size of \$5 million. With respect to the EPM Portfolio, the total investment by TRS with each emerging manager may not exceed 40% of such emerging manager’s assets under management at the time of IIC approval. With respect to the Private Equity Portfolio and the Real Assets Portfolio, the total investment by TRS into each fund raised by an emerging manager may not exceed 40% of the size of such fund at the time of IIC approval. This paragraph does not apply to investments executed as part of a fund-of-funds mandate.

The Investment Division shall document its efforts to identify and expand its investments with qualified emerging managers for the purpose of board and legislative reporting on the methods and results, including data disaggregated by race, ethnicity, gender, and fund size. All investments under the emerging manager program must be made prudently and in accordance with fiduciary and ethical standards.

ARTICLE 8 – OVERLAY PORTFOLIOS

8.1. Overlay Portfolios Objectives

Overlay Portfolios are designed to manage risk, asset allocation, and market exposures through futures, options, swap contracts, or forward agreements. Overlay Portfolios may be implemented in connection with the Total Fund or with any investment or portfolio within the Total Fund.

8.2. Overlay Portfolios Authorized Investments

Overlay Portfolios may contract for, buy, sell, and hold the following contracts and derivative instruments in accordance with this Policy:

- a. Exchange-traded futures contracts;
- b. Options on exchange-traded futures contracts;
- c. Over-the-counter or exchange-traded swap contracts;
- d. Over-the-counter or exchange-traded option contracts; and
- e. Forward contracts.

8.3. Overlay Portfolios Restrictions

Overlay Portfolios may not be used to circumvent the asset allocation parameters, risk guidelines, or any other controls or restrictions otherwise established by this Policy or applicable law.

When engaging in currency overlay strategies, the Overlay Portfolio may not increase or decrease the net notional exposure of the Total Fund:

- a. To all non-dollar currencies in aggregate by more than 5% of the market value of the Total Fund;
- b. To any single developed market currency (except for the U.S. Dollar) by more than 2% of the market value of the Total Fund; and
- c. To any single emerging market currency by more than 1% of the market value of the Total Fund.

The foregoing percentage limit restrictions do not apply to currency derivatives used (i) as part of the non-discretionary foreign exchange risk management policy described in Section 10.2, (ii) to settle security transactions denominated in those foreign currencies and any authorized instrument or contract intended to manage transaction or currency exchange risk in purchasing and selling investments and (iii) for hedging the characteristics of an individual investment to align it with the characteristics of such investment's benchmark.

ARTICLE 9 – AUTHORIZED USES OF DERIVATIVES

This Article enumerates the applications, documentation and limitations for the use of derivatives as permitted under Section 825.301, Government Code.

9.1. Derivatives Objective and Investment Standard

The Board's objectives for using derivatives are to efficiently manage and reduce the risk of the overall investment portfolio. Through the use of derivatives, the risks that are bound together in traditional cash market investments can be separated and managed independently.

Derivatives authorized by this Policy may only be used to efficiently manage and reduce the risk of the overall investment portfolio in accordance with applicable law. In addition, all uses of derivatives must comply with the fiduciary standard of prudence set forth in Article XVI, Section 67(a)(3), Texas Constitution, which requires that all TRS investments must be made using the judgment and care under the circumstances then prevailing that persons of ordinary prudence, discretion, and intelligence exercise in the management of their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income there from as well as the probable safety of their capital.

9.2. Derivatives Policy Scope

Except where specifically noted, this Policy applies to all derivatives transactions executed by the Investment Division and by External Managers operating under an IMA. This Policy does not apply to registered or Private Investment Funds issuing securities to TRS.

This Policy applies to all exchange-traded derivatives and over the counter ("OTC") derivative instruments authorized by law. This Policy does not apply to the use of derivatives by Private Investment Funds unless TRS in fact controls and has a legal right to approve the investment policy or guidelines of such funds.

9.3. Derivatives Use by External Managers and Private Investment Funds (Hedge Funds)

The Total Fund may have external exposure to derivatives in two ways.

- a. First, the Total Fund will invest as a passive investor in Hedge Funds organized as limited-liability entities, which limits potential losses to the capital contributed to the entity. TRS is not a party to the management agreement between the Hedge Fund and its investment manager. Hedge Fund and other fund managers owe the same legal duties to all investors.

- i. The Investment Division must exercise thorough due diligence in assessing the scope of the Hedge Fund manager's uses of derivatives, their purpose, experience of the fund manager's staff in managing these positions, inherent leverage, and the manager's systems, controls and operations in determining suitability of these entities for TRS investment.
- b. Second, TRS may delegate discretion, through IMAs, to External Managers who act as a TRS agent with respect to Total Fund assets and who are authorized to enter into specified contracts and commitments that will be legally binding on TRS. External managers are TRS fiduciaries.
 - i. For External Managers engaged pursuant to IMAs, Investment Division must view the External Manager as an extension of the internal Investment Division's investment management processes and must require External Managers to comply with this Policy and applicable guidelines and law on the use of derivatives to the same extent as Investment Division. Guidelines for the scope and use of derivatives will be established on a case-by-case basis with each External Manager in the applicable IMA. An External Manager of publicly-traded investments engaged by TRS under an IMA may engage in derivatives transactions only if expressly authorized by, and the transactions are consistent with, the overall investment objectives and restrictions established in the IMA, this Policy, and applicable law. Each IMA must be consistent with applicable law, this Policy, and other TRS policies. An IMA may only authorize such uses of derivative instruments when the Investment Division reasonably concludes after due diligence that the External Manager possesses the experience, expertise, and qualifications to prudently use derivatives, and has appropriate operational, compliance, and risk management personnel, policies, and procedures to effectively monitor and control their use, including the use of leverage.
 - ii. Selection, engagement, and monitoring of External Managers engaged through an IMA requires a clear understanding of the managers' uses of derivatives, particularly as it relates to various risk controls, compliance functions, and leverage. Investment Division will monitor risk exposures and leverage on both an individual entity and aggregate basis. The permitted uses of derivatives and leverage by each External Manager must be fully documented in each IMA.

9.4. Derivatives Definition; Authorization

Derivatives are financial instruments the value of which are derived, in whole or part, from the value of any one or more underlying securities or assets, or index of securities or assets (such as a bonds, stocks, financial commodities, and currencies). For the purposes of this Policy, derivatives include, without limitation, futures contracts; options; options on futures contracts; forward contracts; swap agreements, including swap contracts with embedded options; any instrument or contract intended to manage transaction or currency exchange risk in purchasing, selling or holding investments; and any other instrument commonly used by institutional investors to manage institutional investment portfolios. Derivatives, for purposes of this policy, do not include currency forwards with a tenor of 30 days or less if such forwards do not require upfront amounts to be paid or received.

Derivatives may be exchange traded or "over the counter" (OTC). Exchange traded derivatives are listed and traded on a national exchange. Fulfillment of the contract is generally guaranteed by the exchange on which the instruments are traded. OTC derivatives are negotiated transaction between a buyer and a counterparty, which may result in non-standard terms.

9.5. Derivatives Applications Permitted

Consistent with the objectives set out in Section 9.1, derivative applications may be used by Investment Division and external managers engaged through IMAs to:

- a. Implement investment strategies in a lower cost and efficient manner;
- b. Efficiently manage the Total Fund portfolio by altering the portfolio's market (systematic) exposure in lieu of trading the underlying cash market securities through purchases or short sales, or both, of appropriate derivatives;
- c. Construct portfolios with risk and return characteristics that could not be efficiently created with cash market securities consistently with the objectives in this Policy and in compliance with applicable law;

- d. Hedge and control risks so that the Total Fund's risk-return profile is more closely aligned with the Total Fund's targeted risk-return profile through purchases or short sales, or both, of appropriate derivatives; and
- e. Facilitate transition trading when holdings must be rebalanced or reallocated among permissible investments as a result of changes to applicable benchmark indexes or policy changes.

The only authorized uses of derivative transactions are efficient portfolio management and reduction of risk in portfolios and to implement investment strategies authorized by this Policy more effectively and at a lower cost than would be possible in the cash market. External managers may not engage in derivative applications that are inconsistent with the applicable IMA, this Policy and applicable law, unless specifically authorized by the TRS Board and the IMA has been amended accordingly.

9.6. Derivatives Applications Not Permitted

- a. Derivatives may not be used for any activity a primary purpose of which is speculation or to profit while materially increasing risk to TRS. Derivatives are considered speculative if their uses have no material relation to objectives and strategies specified by this Policy or any related policies or resolutions of the Board, and their use is not reasonably and substantially intended to produce efficiency in portfolio management and reduce market, credit, or liquidity risks applicable to the portfolio. Derivatives may not be used for circumventing limitations or restrictions imposed by this Policy or applicable regulatory requirements. Derivative applications may only be used to invest in asset classes that are consistent with TRS's legally permissible policy asset categories (including currencies), implementation strategies, and risk-return characteristics.
- b. Investments in derivatives underlain by physical commodities are prohibited unless such derivatives are cash-settled whether by its contract terms, by rolling the position, or by trading out of the position before a delivery obligation can arise. Standing orders or instructions for rolling or trading out of positions may be used to prevent delivery obligations from arising under commodities derivatives contracts.
- c. The Policy does not apply to, or authorize, any use of derivatives underlain by single-asset real estate mortgages, or title to real estate or property affixed to real estate.

9.7. Derivatives Documentation and Controls

Prior to the implementation of a new internal derivative instrument type or application, Investment Division shall document the purpose, justification, baseline portfolio, derivative application portfolio, risks (including, at a minimum, market, modeling, pricing, liquidity, and legal risks), the expected increase or reduction in systematic and idiosyncratic risk resulting from the application, the amount of leverage employed under the strategy, the prudent reasons for employing leverage, and the procedures in place to monitor and manage the derivative exposure. The documentation will be approved by the CIO and reported to the IIC and the Board (or appropriate Board committee, as applicable) at their next regularly-scheduled quarterly meetings. The Investment Division shall adopt fully documented control procedures to properly account and value the Total Fund's exposure to each derivatives application, whether internal or external under an IMA. The Investment Division shall establish an appropriate risk management procedure to monitor compliance both internally and by External Managers and will take corrective action if necessary. The Investment Division shall have due regard for operational risks associated with various derivatives strategies, including risk management, accounting systems, liquidity needs, adequate staffing, and staff qualifications.

9.8. Derivatives Limitations

Counterparty Risks: In order to limit the financial risks associated with derivative applications, guidelines for rigorous counterparty selection criteria and ISDA agreements shall be created by the Investment Division to reduce counterparty risk for over-the-counter ("OTC") derivatives. Any counterparty in an OTC derivative transaction with TRS must have a credit rating (which may be a counterparty risk assessment) of at least A- (Standard & Poor's or Fitch) or A3 (Moody's). All OTC derivative transactions, including those managed through IMAs, must be subject to established ISDA Master Agreements or, if centrally cleared, clearing agreements and have full documentation of all legal obligations of both parties to each transaction. All ISDA Master Agreements entered into by or on behalf of TRS by the Investment Division or an External Manager engaged pursuant to an IMA (if applicable) shall provide for netting of obligations. The Investment Division and External Managers may also use collateral arrangements to mitigate counterparty credit or performance risk. The net market value of all OTC derivative positions, including those managed through IMAs, less collateral posted, for any individual counterparty may not exceed \$500 million. The net market value of all OTC derivative positions for any individual counterparty, without

consideration of collateral, may not exceed 5% of the total market value of the Fund. If these market-value limits are exceeded, the Investment Division will inform the CIO, Executive Director, and Chairman of the appropriate Board committee as soon as practicable and take appropriate corrective action within a 90-day period or develop a corrective action plan that will be presented to the Board at its next regularly scheduled meeting at which investment matters will be discussed following the initial 90-day corrective action period.

Global Risk Limitations: Notwithstanding other limitations in this Policy, transactions that would cause the aggregate risk exposure of the Total Fund, including externally-managed portfolios, to exceed the aggregate risk limits established by the current asset allocation policies of the Board are not permitted. On a Total Fund basis, the combined economic exposure introduced through both cash and derivative market positions is subject to the asset allocation ranges, risk limits, and other portfolio parameters described in this Policy.

Position Limits: For futures and options positions TRS will comply with all position and aggregate limits established by the applicable regulatory and legal organizations and authorities within each jurisdiction.

9.9. Derivatives Risk Management and Compliance

To ensure compliance with this Article 9, all internally- and externally-managed derivatives (other than derivatives held in Hedge Funds) must be marked to market on a daily basis by the Fund's external custodian(s), and such daily reports will be reviewed for accuracy by the TRS Risk Management staff and Investment Administration Center personnel. Compliance with the requirements of this Policy will be monitored by the Chief Compliance Officer using information systems and data from internal and external sources. Any violations of this Article 9 will be reported immediately to the Executive Director and to the Chief Investment Officer, who will determine, if considered material as determined by Chief Compliance Officer, Chief Investment Officer, and Executive Director, the appropriate remedy and report promptly to the Board (and the appropriate Board committee, as applicable).

ARTICLE 10 – RISK MANAGEMENT AND OVERSIGHT

10.1. Market Risk Management

The Investment Division will establish a framework for measuring enterprise-level risk for both the Total Fund Portfolio and the established benchmark, including any transition benchmarks employed during asset allocation shifts. At a minimum, this framework must include a quantified estimate of downside risk (e.g., value-at-risk (“VaR”), estimated shortfall, or various parametric and non-parametric statistics). The Investment Division will monitor the relative positioning of the Total Fund Portfolio vis-à-vis the benchmark no less frequently than monthly.

- a. **Asset allocation limits** – In addition to the Total Fund Portfolio level risk limits, the portfolio will be constrained to the asset allocation percentages and ranges prescribed by this Policy. Accordingly, the total exposure to each asset class must be based on the individual exposures of each cash security and each outstanding derivative contract.
- b. **Risk limit** – The Investment Division will model and monitor the Total Fund Portfolio and benchmark to ensure that the total estimated risk for the Public Markets portion of the Portfolio is within the upper and lower bounds corresponding to the maximum and minimum downside risk measures that could be achieved through the asset allocation limits in this Policy.
- c. **Proxy securities and indices** – If necessary and prudent, the Investment Division will employ proxies to approximate the economic characteristics of actual investments if the terms and conditions of the actual investments or the underlying holdings are not readily available or where the complexity of the underlying investment renders a deterministic model impractical.
- d. **Private market assets holdings** – The Investment Division may include private investments in this analysis either by proxy or by actually modeling the terms and conditions of the underlying exposures; however, if the inclusion of these investments is deemed to distort the true risk characteristics of the portfolio, the Board may approve the use of an alternative methodology for analyzing the risk characteristics of those investments.
- e. **Active risk limits** – In addition to the portfolio-level risk statistics described above, a target tracking error will be imposed on each asset class mandate. Additionally, a target tracking error will be imposed on the entire portfolio that

takes into account both internally and externally managed portfolios and private funds as well as both asset allocation and security selection decisions. These limits are specified in Appendix A.

10.2. Foreign-Exchange Risk Management

The objective of the Foreign-Exchange (“F/X”) policy is to effectively manage portfolio return volatility associated with foreign currency risk. F/X risk is the possibility of a negative currency return as a result of adverse movements in foreign exchange rates. The F/X policy sets forth a structure and implementation plan to determine the level of strategic currency risk that the Fund is willing to tolerate.

Currency hedge ratios will be separately applied to the Fund’s public-markets and private-markets non-dollar exposures. Each currency hedge ratio is the percentage of aggregate, non-dollar currency exposure to be passively hedged. The hedging horizon is intermediate (one to three years). The results of the currency hedge ratio decisions will be presented to the Board (or the appropriate Board committee, as applicable) for approval by the Board and incorporated into the benchmark as prescribed in Appendix D.

From an implementation perspective, an F/X overlay manager would have responsibility for implementing the currency hedge ratio decisions and would not exercise delegated investment discretion. The F/X overlay may be implemented internally or externally. If external, the non-discretionary F/X overlay manager would not fall under the definition of either an External Manager or a Hedge Fund. A non-discretionary external F/X overlay manager would merely implement the investment decision that has already been made by the IIC.

10.3. Credit Risk Management

- a. **Counterparty exposures** – The maximum allowable unsecured counterparty exposure for OTC derivative transactions is \$500 million, based on the total net market value of all OTC positions held with each counterparty. The total counterparty exposure for each counterparty, including the collateralized portions of these agreements, may not exceed 5% of the market value of the Total Fund. The minimum credit rating, based on a nationally recognized statistical rating organization (“NRSRO”), must be at least A- or better at the inception of the contract. For any counterparty that experiences deterioration in credit quality that results in a NRSRO rating below the A- level, subsequent to the inception of transaction, additional eligible collateral may be posted, or the transaction may be terminated.
- b. All OTC derivatives must be governed by an ISDA Master Agreement and Credit Support Annex or, if centrally cleared, by clearing agreements, and must include both close-out netting provisions and collateralization provisions.
- c. **Repurchase agreements** – The counterparty limits for repurchase transactions and tri-party repurchase transactions may not exceed 5% of the market value of the Total Fund unless those transactions are covered by a third-party indemnification agreement by an organization that bears a long-term NRSRO credit rating of A- or better and is enhanced by acceptable collateral. Each repurchase agreement will be entered into under the PSA/ISMA Global Master Repurchase Agreement.

Each ISDA Master Agreement must also include a table that delineates the excess purchased securities margin (haircut) required, based on the collateral type, duration, and credit quality.

- d. **Securities lending** – When securities lending activity is performed by an external, third party lending agent, Investment Division will examine the credit underwriting practices of the lending agent, including enforcement of collateral requirements, counterparty analysis, and surveillance. Additionally, Investment Division will periodically review the securities lending lines by counterparty. A securities lending agent must be an organization rated A- or better by a NRSRO. More detailed information about TRS securities lending activities is specified in the separate Securities Lending Policy.

10.4. Liquidity Risk Management

The objective of the Liquidity Risk Management policy is to ensure that the Fund maintains ample liquidity to meet its funding commitments. The two kinds of commitments which necessitate a prudent liquidity policy are:

- a. Disbursements of benefits and related obligations to plan participants, including retirement, death, health, and disability benefits payments.
- b. TRS investment activities: These are mainly associated with risk management and funding of External Managers and Private Funds. Some examples include:
 - i. TRS engages in derivatives to efficiently manage and reduce risk of the overall investment portfolio. Use of these instruments requires liquidity for collateral, margin and payment obligations at the time of a reset, call or maturity;
 - ii. TRS funds accounts managed by External Managers; and
 - iii. TRS manages unfunded capital commitments that the Fund is legally obligated to fund when called by general partners.

External Funding Authority

The Investment Division is authorized to establish external funding mechanisms (such as master repurchase agreements with one or more counterparties) and the flexibility to operate in all types of market liquidity environments to allow prudent management of these commitments while achieving a long-term rate of return and adhering to the asset allocation limits outlined in this Policy. In addition to these external funding mechanisms, TRS will maintain adequate funds in its custodial account to cover investment-related obligations. Finally, the Board authorizes the Investment Division to access the cash holdings backing the OTC swaps to manage its commitments.

Limitations Applicable to External Funding Authority

Liquidity provided from these external funding mechanisms may not exceed 2% of the market value of the Total Fund. The expectation is that the liquidity funded through external funding mechanisms will be short-term (less than 30 days). The Investment Division must seek approval from the CIO for extended use of external funding sources. The Investment Division shall report such approvals for extended use to the Board not later than the next regular quarterly meeting.

10.5. Operations Risk Management

- a. **Overdrafts** – The Investment Division will monitor the frequency and costs associated with all overdraft activity.
- b. **Custodial Bank(s)** – The Investment Division will conduct on-site due diligence to review the operational controls set in place by all custodial banks. The Investment Division will also consider the extent of remedies provided by the custodian and its overall ability to fulfill its commitments should operational failures occur.

10.6. Settlement Risk Management

The Investment Division will monitor unsettled trade activity by counterparty and instrument type.

10.7. Legal Risk Management

Legal documentation for all accounts, investment subscriptions, External Managers, investments in Private Investment Funds, and derivatives will be reviewed, negotiated and approved for TRS execution by internal or external legal counsel, or both. The Investment Division, in consultation with the Office of the General Counsel, will exercise diligence to ensure that all contracts are legally binding and enforceable in a suitable venue. The Investment Division will seek the assistance, review, and advice of legal counsel whenever it is prudent to do so. The Office of the General Counsel has primary responsibility for the engagement of outside legal counsel for investment matters, subject to applicable statutes and rules adopted by the Office of the Attorney General.

10.8. Risk Management Compliance Cure Periods and Remedies

- a. **Passive violations** – A passive violation occurs when the portfolio breaches a prescribed policy limit as the result of changing market or credit conditions. The Investment Division will report the violation to the Board and will remedy the violation within 90 days of the violation or prepare a written action plan that must be approved by Board resolution to extend the cure period beyond 90 days.

- b. **Active violations** – An active violation is caused by entering into an agreement or investment that breaches a policy limit at inception or thereafter through failure to monitor. In this case, a thorough analysis of controls will ensue and be reported to the Chief Investment Officer, the Executive Director and the Chairman of the appropriate Board committee, as soon as practical, and to the full Board at its next regularly scheduled meeting at which investment matters will be discussed. The Investment Division will seek to remedy the violation when possible. In instances where the costs of immediate remedies are prohibitive, the Investment Division will develop a corrective action plan that will be submitted to the CIO within a reasonable time after the violation occurs, not to exceed 15 days, depending on the nature and complexity of the investment holding and transactions needed to remedy the violation. The Board will be apprised of the violation at its next regularly scheduled meeting along with the corrective action plan.

10.9. Permitted Uses of Leverage

The Investment Division is authorized to use the following types of leverage:

- a. Derivative strategies in accordance with the risk parameters established by the asset allocation ranges of this Policy and applicable legal restrictions;
- b. Short sales in accordance with this Policy;
- c. F/X hedging in accordance with this Policy;
- d. Risk Parity investments in accordance with this Policy;
- e. Embedded leverage within the Total Fund's limited partnership investments; and
- f. Collateralized fundings including securities lending activities, pledges, repurchase and reverse repurchase agreements and other external funding mechanisms.

Leverage will not be used to exceed the risk parameters established by the asset allocation ranges of this Policy.

ARTICLE 11 – HEALTH INSURANCE PROGRAM PORTFOLIO

11.1 Health Insurance Program Portfolio Objective

The primary objective of the Health Insurance Program Portfolio is to preserve capital through investment in conservative, short-term securities.

11.2 Authorized Investments for the Health Insurance Program Portfolio

Section 404.024, Government Code describes the Authorized Investments employed by the comptroller when he or she invests state funds. The Investment Division shall employ this list of Authorized Investments when the Investment Division invests the Health Insurance Program Portfolio.

ARTICLE 12 – POLITICAL CONTRIBUTIONS; IMPROPER INFLUENCE; PLACEMENT AGENTS AND FINDERS

12.1 Scope

The policy in this Article 12 applies to all TRS investment transactions other than direct investments in registered and freely marketable securities, including without limitation new agreements (including follow-on and co-investments), sales or transfers of investment interests, increases in funding or capital commitment to an existing relationship or fund, or an amendment that increases management fees or compensation under an agreement.

This policy also applies to attempts to influence TRS investment decisions through contacts with TRS trustees, or contacts with, or political contributions made for the benefit of, one or more Texas Candidates or Elected Officials, and also applies to contacts with persons employed by any such candidate or official.

If any provision of this policy conflicts with a provision of another policy adopted by the TRS board (the “Board”), the stricter provision shall apply.

12.2 Purpose

The purpose of this policy is to ensure the integrity of all TRS investment transactions and decisions and conformity with the highest fiduciary, ethical, and legal standards by all parties involved. All investment decisions made by the Board and the Investment Division must be based solely on the merits in conformity with fiduciary standards and applicable law. All advice and investment recommendations made by consultants must be based solely on the merits after the necessary due diligence. All investment decisions and recommendations must be free of impropriety or improper influence and the appearance of either.

12.3 Philosophy

The Board desires that the Investment Division obtain full disclosure of all matters having the potential to harm TRS’s reputation or the integrity of TRS’s investment processes, or that could constitute unethical or unlawful conduct during the investment due diligence process.

12.4 Required Disclosures and Questionnaire

At a minimum, all external Fund or Manager Parties and if applicable, all Placement Agents that will receive a Placement Fee with respect to an investment or commitment by TRS shall provide detailed written responses to the questionnaire attached hereto as Appendix F as early as reasonably possible in the due diligence process for a TRS investment transaction. The Executive Director is authorized to approve such revisions to Appendix F from time to time as he deems to be in the best interest of TRS and consistent with this policy.

In addition, all Fund or Manager Parties who disclose the involvement of a Placement Agent shall provide a detailed description of the services to be performed by the Placement Agent and how the Placement Agent is used (e.g., with all prospects, or only with a subset of prospects). The Investment Division shall obtain a copy or summary of the terms of an agreement to compensate a Placement Agent for the due diligence file. The Investment Division shall provide all prospective Fund or Manager Parties with a copy of this policy and the Appendix F questionnaire upon commencement of due diligence.

12.5 Contractual Representations, Warranties and Covenants

Each Fund or Manager Party shall represent and warrant to TRS in the executed closing documents for the transaction that its responses to Appendix F to this policy and any supplemental inquiries are true, correct, and complete in all material respects, and shall also covenant to update any such information within 10 business days of any change in the information in the responses.

In addition, each Placement Agent shall fully disclose the terms of its arrangements with a Fund or Manager Party for payment of a Placement Fee and any political contributions by the Placement Agent to any Texas Candidates or Elected Officials, and shall certify as to the matters addressed in Appendix F, as applicable, to TRS in a writing executed by an authorized officer that the disclosures required by this policy are true and complete in all material respects.

A Placement Agent must agree in writing to pay to TRS a sum equal to its Placement Fees relating to TRS’s investment if the Placement Agent’s certifications, representations, warranties, or questionnaire responses are untrue or misleading.

A Fund or Manager Party using a Placement Agent must agree in writing to pay to, credit to TRS’s capital account, or offset TRS’s management fees or outstanding funding commitment with, a sum equal to the Placement Fees due to the Placement Agent with respect to TRS’s investment agreement or commitment if the Fund or Manager Party’s certifications, representations, warranties, or questionnaire responses are untrue or misleading.

12.6 Prohibitions

Neither TRS nor any TRS investment shall be burdened with or liable for any Placement Fee. No TRS investment may be made if the transaction involves either (a) a Placement Agent who is not registered with either of the Securities and Exchange Commission or the Financial Industry Regulatory Authority (“FINRA”), or (b) the sharing of a Placement Fee with a non-registered person or entity. No TRS investment may be made if an authorized officer or the board, in consultation with legal counsel, determines that a disclosed contact with a TRS board member or Texas Candidate or Elected Official, or a contribution to a Texas Candidate or Elected Official, has created an unacceptable risk to the integrity and reputation of the TRS investment program or has been made in violation of a TRS policy or applicable law. A contact-based referral, without more, by a trustee of either an investment opportunity or a Manager or Fund Party contact to the Executive Director, Chief Investment Officer, or Deputy Chief Investment Officer does not constitute such a risk or a violation of this policy.

12.7 Reporting

The investment staff shall compile all responses to the questionnaire and report the results to the Board at least semi-annually. Reports shall include the amounts and recipients of any political contribution or Placement Fee and the relationship of the recipients to the Placement Agent or Texas Candidate or Elected Official, as applicable.

12.7 Definitions

Affiliate – means a person or entity controlled by or under common control with another person or entity.

Fund or Manager Party – includes, (a) as to a private investment fund, a fund sponsor, the general partner, managing member, or its equivalent with respect to a fund, fund sponsor, or fund management firm, (b) as to an external, separate account under an investment manager, the asset management agreement, the investment management entity and the parent of such asset management entity, and (c) as to any other investment transaction, an issuer, company, holder, sponsor, underwriter, investment banker, or other party sponsoring, issuing or soliciting a counterparty to a transaction, investment, agreement, or commitment from TRS and (d) as to (a), (b) and (c), any Affiliate, principal, owner, agent, officer, shareholder, director, managing member, or employee having authority to act on behalf of such person, fund, or firm.

Placement Agent – includes any third party, whether or not affiliated with a Fund or Manager Party, that is a party to an agreement or arrangement (whether oral or written) with a Fund or Manager Party for the direct or indirect payment of a Placement Fee in connection with a TRS investment. Any other person or entity who claims a Placement Fee or who by agreement with a Placement Agent will share in a Placement Agent’s Placement Fee is also deemed to be a Placement Agent whether or not the person or entity is an Affiliate, principal, agent, owner, officer, shareholder, director, managing member, or employee of the first Placement Agent. For purposes of this policy, a “finder.” For the avoidance of doubt, a finder, broker-dealer, originator, fundraiser, financing arranger, underwriter, or investment bank receiving a Placement Fee is a Placement Agent.

Placement Fee – includes any compensation or payment, directly or indirectly, of a commission, finder’s fee, or any other consideration or benefit to be paid to a party other than the relevant Fund or Manager Party in connection with a TRS investment, agreement or commitment.

Relative – means a spouse (including an ex-spouse), parent, child (including adopted), sibling, niece, nephew, aunt, or uncle.

Texas Candidate or Elected Official – includes any candidate for a state office or an elected official of the State of Texas, including but not limited to the governor, lieutenant governor, comptroller of public accounts, attorney general, and any member of the Texas Legislature, and also includes a campaign fund or political action committee, or PAC for an elected official, and any Relative of a Texas candidate or elected official.

TRS Person – means any person listed on Exhibit A attached to Appendix F to this Policy or to any other due diligence document, and includes without limitation any current or former TRS board member, Executive Director, Deputy Director, Chief Financial Officer, Investment Division or Office of the General Counsel employee, any investment consultant or actuary, any outside counsel engaged by TRS, and any Relative of a TRS Person, whether or not listed on an Exhibit A, TRS Persons.

**APPENDIX A – TRACKING ERROR NEUTRAL
(IN ANNUALIZED BASIS POINTS)¹**

Internal	Neutral
Equity (Global Best)	100
External	
Equity (USA)	300
Equity (International; Developed, EAFE)	300
Equity (International; Emerging Markets)	300
Equity (World Equity)	300
Stable Value Hedge Funds	400
Directional Hedge Funds	400

	Neutral	Maximum
Total Global Inflation Linked		200
Total Public Fund Tracking Error	100	300

¹ Tracking error will be measured on a realized basis over a three year period.

APPENDIX B – IIC APPROVAL AUTHORITY AND MANAGER ORGANIZATION ALLOCATION LIMITS

Allocations to a single manager organization may only exceed the limits specified in this Appendix B with the prior authorization of the Board.

Article Affected	Portfolio	Initial Allocation or Commitment with Manager Organization, by Portfolio	Additional or Follow-On Allocation or Commitment with the same Manager Organization, by Portfolio	Total Manager Organization Limits, by Portfolio
2.7	External Public Markets Portfolios	0.5%	1%	3%
4.2	Private Equity Portfolio	0.5%	1%	3%
5.2	Real Assets Portfolio	0.5%	1%	3%
6.2	Energy, Natural Resources and Infrastructure Portfolio	0.5%	1%	3%
Total IIC Approval Authority, each Manager Organization				6%

All allocation or commitment limits are expressed as a percentage of the Total Fund value and are to be calculated as of the date the applicable investment is approved by the IIC.

“Affiliate” means any person directly or indirectly controlling, controlled by, or under common control with, another person. A “manager organization” includes its Affiliates without regard to the names of the entities.

The percentage limit for additional or follow-on allocations or commitments applies to each additional or follow-on allocation or commitment by a listed portfolio to a manager organization and is in addition to, and not cumulative of, the limit specified for initial allocations or commitments. By way of example, if a portfolio initially allocates 0.2% of the Total Fund to a manager organization, the portfolio may thereafter allocate or commit up to 1.0% in a single additional or follow-on allocation or commitment to the same manager organization for a total of 1.2% allocated or committed to the same manager organization (0.2%+1.0%). If a portfolio initially allocates 0.2%, then makes an additional allocation or commitment of 0.8%, and desires to make a further additional or follow-on allocation to the same manager organization, the applicable limit for the further additional or follow-on allocation is 1.0% of the Total Fund, for a total of 2.0% allocated or committed to the manager organization (0.2%+0.8%+1.0%). All investments occurring in the six months prior to the follow-on investment, co-investment or additional investment shall be included in the calculation of the percentage limits. If the initial investment occurred less than six months prior to the current investment, the initial allocation limit of 0.5% rather than the follow-on allocation limit of 1.0% will apply.

In calculating the available limits, returned capital is excluded from the sum of existing total allocations or commitments. Committed capital is included during the applicable investment period of a fund without regard to whether the commitment amount is funded or unfunded or the fund is open-ended. After the investment period, committed but unfunded capital is not included in the calculation of outstanding commitments for the purposes of this Appendix B. Capital that has been returned but that is subject to recall by a private investment fund is considered to be committed or allocated for the purposes of the limits in this Appendix B.

Authority for Special Investment Opportunities. Notwithstanding the limits set forth in this Appendix B, the CIO may designate an investment opportunity as a “Special Investment Opportunity” if the circumstances indicate a reasonable probability that a rapid investment response will be required in order for TRS to acquire the investment in excess of the limits on Investment Division authority set forth in this Appendix B. Circumstances requiring a rapid response may include, but are not limited to, distressed situations or market dislocations creating opportunities to acquire interests or assets at pricing that indicates a reasonable probability that the interests or assets are undervalued or will increase in value. The CIO shall notify the Executive Director as promptly as possible of the Special Investment Opportunity. The CIO and the Executive Director shall consult with the Chairman of the Board and the Chairman of the Investment Management Committee and determine if it is not practicable to present the opportunity for consideration by the Board. If the opportunity will not be added to an agenda, and the

CIO and the Executive Director conclude that the investment would be in the best interests of TRS, the CIO and the Executive Director may authorize and conclude an investment up to \$1 billion in that Special Investment Opportunity.

After one investment in a Special Investment Opportunity has been made, no further investment in a Special Investment Opportunity may be made until the Board has reauthorized the CIO's authority to designate a Special Investment Opportunity. Such reauthorization shall renew the CIO's and the Executive Director's authority to invest up to \$1 billion in a Special Investment Opportunity under this provision.

APPENDIX C – EMERGING MANAGERS

Articles Affected:	Portfolio	Target Allocation (in millions)
2.7	External Public Markets Portfolios ²	250
4.2	Private Equity Portfolio ^{1,3}	950
5.2	Real Assets Portfolio ^{1,2}	450
	Total	1,650

For the avoidance of doubt, these portfolios may also include investments in energy, natural resources and infrastructure.

² The CIO may increase or decrease each portfolio Target Allocation by \$200 million; provided, the total Target Allocation must remain unchanged as a result of such increase or decrease.

³ Target Allocation based on net market value.

APPENDIX D – CURRENCY HEDGE RATIOS

Portfolio	Currency Hedge Ratio
Public Markets Portfolios	0%
Private Markets Portfolios	0%

APPENDIX E – GENERAL AUTHORITY RESOLUTION

Board of Trustees
General Authority Resolutions Adopted Effective as of September XX, 2016

Investment Group

Resolved, That Investment Division employees holding the following TRS working titles are members of the “**Investment Group**”:

Chief Investment Officer
Senior Managing Director
Senior Director
Senior Investment Manager

Deputy Chief Investment Officer
Managing Director
Director

Resolved further, That the Executive Director is authorized and directed to designate in writing those individual members of the **Investment Group** who are authorized within the investment areas designated by the Executive Director, in addition to the Chief Investment Officer and the Deputy Chief Investment Officer, to take any one or more of the following actions authorized below in accordance with these resolutions until the authority is revoked.

Resolved further, That the Executive Director is authorized and directed to designate in writing, by investment area and category or item designation, the specific authorities granted to each authorized member of the **Investment Group**, until the authority is revoked.

A. General Authority for Investment Matters other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- A.1 Buy, sell, or give orders or instructions for transactions in currencies and securities, and any amendments or modifications of such orders or instructions.
- A.2 Direct Investment Operations personnel to deliver, pay, expend, or receive cash, currencies, monies, securities (including restricted or Rule 144A securities) in connection with a contract to buy or sell securities.
- A.3 Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of securities transactions.
- A.4 Direct Investment Operations personnel to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract; and to instruct other cash movements, including movements of cash to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Notwithstanding any provision of this Section A, authority granted under this Section A does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

B. Investment Contracting Authority other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- B.1 Make, execute, deliver, waive, modify, amend, renew, extend, assign, terminate, or transfer, in each case in writing, investment-related documents, including without limitation, written contracts, investment management agreements, subscription agreements, capital commitments, account agreements, consents, certificates, powers of attorney, notes, deeds, security agreements, pledges, mortgages, endorsements, directions and instructions to amend, modify, fix, and

execute written investment guidelines in investment management agreements with external managers and fund managers, and any and all documents necessary or proper to effectuate the authority granted in this Section B.1.

- B.2 Jointly with a member of the **Financial Group** or the **Executive Group**, execute investment fund redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash or securities to a TRS account by a third-party fund, external manager, account, debtor, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements, side letter agreements, or other investment-related documents executed by TRS in connection with a new investment, and any amendments or modifications to such documents and agreements other than redemption and withdrawal notices and corresponding instructions for the transfer or delivery by wire or physical transfer of cash or securities.

Notwithstanding any provision of this Section B, the authority granted under this Section B does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

C. Derivatives Authority

Resolved further, That the Chief Investment Officer or the Deputy Chief Investment Officer and any member of the **Investment Group** who is designated by the Executive Director as a member of the derivatives team, in addition to any authority expressly designated by the Executive Director under these resolutions is authorized may act on behalf of TRS to:

- C.1 Negotiate, make, fix, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, documents related to derivatives transactions, including without limitation, master agreements, schedules, credit support annexes, collateral-management agreements, transaction confirmations, account agreements, and clearing agreements, and deliverables relating to such documents and agreements.
- C.2 Make, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, disclosures, questionnaires, elections, certifications, or other administrative documents and deliverables related to derivatives accounts or transactions.
- C.3 Jointly with a member of the **Financial Group** or the **Executive Group**, execute, amend, modify, or terminate documents, directions, and instructions to deliver and pay cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.4 Direct Investment Operations personnel to receive cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.5 Buy, sell, or give orders or instructions for transactions in derivatives, and any amendments or modifications of such orders or instructions.
- C.6 Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of derivatives transactions.

Financial Group

Resolved further, That the “**Financial Group**” comprises employees holding the following TRS working titles:

Chief Financial Officer	Director of Investment and Benefit Accounting
Director of General Accounting and Budgeting	Team Leader of Investment Accounting
Manager of Financial Reporting	Assistant Director of General Accounting and Budgeting

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, jointly with an authorized member of the **Investment Group** or the **Executive Group**, to execute redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash, collateral, margin, or securities to a TRS account by a third-party fund, account, debtor, or derivatives counterparty, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements and side letter agreements and any amendments to subscription agreements or side letter agreements.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, to execute authorizations to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract;

instruct other cash movements, including movements of assets to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS to authorize and direct members of the Investment Accounting team to verify or confirm to a custodian or prime broker any order for the transfer or delivery of currencies, monies, securities, or contracts to any other person.

Executive Group

Resolved further, That the “**Executive Group**” comprises employees holding the TRS working titles of Executive Director and Deputy Director, and each member of the **Executive Group** is authorized and empowered to perform, with respect to a particular matter or transaction, any and all of the acts that any and all employees in the **Investment Group** or the **Financial Group** are authorized to perform, except that when joint action by a member of the **Investment Group** and a member of the **Financial Group** is required, only one member of the **Executive Group** may act jointly with a member of either of the **Investment Group** or the **Financial Group**.

Trading Group

Resolved further, That the “**Trading Group**” comprises the employees holding the following TRS working titles: Managing Director, Director, and Trader. Each member of the **Trading Group** is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix, and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell securities, derivatives, forward contracts, or currency.

Fixed Income, Currency, and Commodities (“FICC”) Trading Group

Resolved further, That the **Fixed Income, Currency, and Commodities (“FICC”) Trading Group** comprises the employees holding the following TRS working titles: FICC Trader. Each member of the **FICC Trading Group** is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell fixed income securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix, and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell fixed income securities, derivatives, forward contracts, or currency.

Chief Compliance Officer

Resolved further, That the Chief Compliance Officer is authorized and empowered on behalf of TRS to take the following actions: to execute and deliver compliance-related disclosures, reports, filings, and certifications and, with the Chief Investment Officer and Executive Director’s approval, to develop, disseminate and collect disclosure forms to monitor the requirements of the Investment Policy Statement.

APPENDIX F – POLITICAL CONTRIBUTIONS; IMPROPER INFLUENCE; PLACEMENT AGENTS AND FINDERS QUESTIONNAIRE

Date: _____

Fund, Manager Party or Placement Agent: * _____

Investment Name: _____

Completed by: _____

Date submitted: _____

Note: TRS may require completion of a new questionnaire or updating of responses at any time, including as of the closing date for any transaction investment or additional funding. All questions must be answered.

** All capitalized terms have the meaning set forth in Article 12 of the Investment Policy Statement, which is available at: http://www.trs.texas.gov/investments/documents/investment_policy_statement.pdf*

- A) Contacts with State Officials; Political Contributions. Has any person lobbied, communicated with, or made political contributions during the past three years on behalf of the Fund or Manager Party to a Texas Elected Official in connection with a prospective investment transaction with a Texas state investment entity, including TRS?
- 1) If the answer is “yes,” please provide a complete list of the name(s) of the entities and individual(s) involved, the approximate dates of the contributions, the amounts of the contributions, a summary of the contacts or communications, and the nature of the discussion in regards to the investment with any Texas state investment entity, including TRS. If the answer is no, please respond with “NA.”
- B) Contacts with TRS Board Members. Has any person lobbied or otherwise communicated on behalf of one or more of the Fund, the Manager Party, or, if applicable, the Placement Agent with a current or former member of the TRS Board of Trustees during the past two years for the purpose of asking the current or former member to seek to influence a decision by the TRS investment staff or a TRS advisor or consultant to recommend that TRS invest?
- 1) If the answer is “yes,” please provide a complete listing of the name(s) of the entities and individual(s) involved, the approximate dates of the contacts or communications, and the nature of the discussion in regards to this investment. If the answer is no, please respond with “NA.”
- C) Placement Agents and Placement Fees. Is or was the Fund, the Manager Party, or if applicable, the Placement Agent a party to any agreement or arrangement (whether oral or written) to pay a Placement Fee to or for the benefit of any Placement Agent (or any other Placement Agent) in connection with TRS’s prospective investment agreement or commitment?
- 1) If the answer to C) is “yes,” please provide a copy of the written agreement or agreements creating the obligation to pay a Placement Fee. If the agreement is not written, please provide a written summary of the agreement. Additionally, please state the amount of the Placement Fee (or the formula for its determination if the amount is not yet determined) and the date of its payment or anticipated payment. If the answer to C) is no, please respond with “NA.”
- 2) If the answer is “yes,” please list the name(s) of the person or entity. If the party to the agreement is an entity, please also list the names of the principal owners, officers, directors, or managing members of the Placement Agent and provide a resume for each such person. If the answer to C) is no, please respond with “NA.”

- 3) If the answer is “yes,” state whether the Placement Agent, or any of its Affiliates, is registered as a lobbyist with any state government or the federal government and identify the registrants and the applicable jurisdictions where registered. If the answer to C) is no, please respond with “NA.”
- 4) Will or did any TRS Person or any Relative of a TRS Person receive, has any such person received, or might any such person receive, any compensation or payment, directly or indirectly, of a commission, finder’s fee, or any other consideration or benefit to be paid to a Placement Agent (a “Placement Fee”) in connection with TRS’s investment? If the answer is “yes,” please list the name or names of the TRS Person or Relative of a TRS Person and provide details about the terms of the Placement Fee. If the answer to C) is no, please respond with “NA.”
- 5) Will or did any Texas Elected Official or a Relative of a Texas Elected Official receive a Placement Fee in connection with TRS’s investment? If the answer is “yes,” please list the name or names of the official and provide details about the terms of the Placement Fee, including the amounts and timing of payments. If the answer to C) is no, please respond with “NA.”
- 6) Did (or will) any third party person or entity who is not employed or otherwise affiliated with a Placement Agent, including a current or former TRS Person, either (a) recommend the Placement Agent or (b) receive a share of a Placement fee or any other economic benefit in connection with TRS’s investment, whether directly or indirectly through a Placement Agent engaged by you? If the answer to C) is no, please respond with “NA.”
- 7) If the answer to 6) is “yes,” please list the name of the person or entity, the relationship of the person or entity to the Placement Agent and your firm, and provide a description of the arrangement and the reason for the payment. If the answer to C) is no, please respond with “NA.”
- 8) State whether the Placement Agent or any of its Affiliates is registered as an investment advisor with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or a similar agency outside the United States. Provide details about each such registration or explain why registration is not required. If there is no Placement Agent, please respond with “NA.”

The undersigned certifies, represents and warrants on behalf of the Fund, the Manager Party, or Placement Agent(s), as applicable, that (a) it has reviewed and understands Article 12 of the TRS Investment Policy Statement (“Article 12”) received with this Questionnaire, and agrees to abide by Article 12’s requirements, (b) to the best of its knowledge after due inquiry, its responses to this questionnaire are true and complete and do not omit any statement or fact necessary to make any statement made not misleading in any material respect, and (c) no other statements or representations, if any, whether oral or written, made by or on behalf of the Fund, the Manager Party, or Placement Agent(s), as applicable, relating to Article 12 and this Questionnaire in connection with TRS’s due diligence inquiries, the subject investment transaction were untrue or misleading in any material respect when they were made. The undersigned acknowledges and agrees that in addition to the express remedies required in Article 12 and the transaction documents, which are not intended to be exclusive, TRS reserves all other remedies available to it in law and equity with respect to any untrue or misleading statement. The undersigned must update any such information within 10 business days of any change in the information in the responses.

[Signature block for Placement Agent or Fund or Manager Party]

Date: _____

Attachment: Exhibit A, TRS Persons

APPENDIX G - EXTERNAL ADVISORY COMMITTEES OR BOARDS, BOARD OBSERVERS, AND BOARD REPRESENTATION

- (A) **External Advisory Committees or Boards and Board Observers.** A TRS investment-related agreement may provide that an Investment Division employee may represent TRS by serving:
1. On an advisory committee, advisory board, or similar advisory body to a TRS investment vehicle, whether the position is voting or non-voting; or
 2. As a non-voting TRS observer at meetings of the governing body of an investment vehicle, including a business entity, in which TRS has an interest.
- (B) **Board Representation by a TRS Employee.** A TRS investment-related agreement may provide for TRS representation on the governing body of a non-public (private) or a publicly-traded business entity in which TRS holds a direct or indirect investment interest.
1. **Requirements:**
 - a. The TRS employee representative may not serve in a position that under applicable law has general liability to third parties, such as a general partnership position.
 - b. An agreement for TRS representation on an external governing body must be in writing and, to the extent possible, address limitations on capacity and fiduciary duties, liability insurance, indemnification, travel payments or reimbursements, and perquisites provided to persons on the governing body in the entity's ordinary course of business.
 - c. Duties that an employee owes to TRS must be primary.
 - d. The external entity's insurance and indemnification will be primary relative to any available TRS liability and indemnification coverage.
 - e. If compensation or reimbursement of expenses will be paid, the agreement must require payment of any compensation or reimbursement directly to TRS.
 2. **Qualification:** A TRS employee representative must hold one of the following TRS titles to be eligible to serve: Senior Investment Manager, Director, Senior Director, Managing Director, Senior Managing Director, Deputy CIO, or CIO.
 3. **Authorization:**
 - a. For a non-public (private) entity, either of the CIO or the Deputy CIO, in consultation with the Office of the General Counsel, must authorize an employee to serve.
 - b. For an entity that has issued publicly-traded securities, the CIO and the Executive Director, in consultation with the Office of the General Counsel, must authorize an employee to serve.
 - c. The CIO and Deputy CIO may not serve on an external governing body without prior authorization from the Executive Director.
- (C) **Board Representation by a Non-Employee Independent Third Party.** A TRS investment-related agreement may grant TRS a contractual right or option to appoint, nominate, remove, or replace a non-employee independent third party to serve on the governing body of a business entity in which TRS has or will have an investment interest.
1. **Requirements:**
 - a. A third-party may not be TRS's agent and shall have full discretion when voting as a member of the governing body.
 - b. TRS will not insure or indemnify any third party representative.
 2. **Qualification:** The third party must clear a conflict check.
 3. **Authorization:** The third party must be approved by the head of the applicable investment area and either of the Deputy CIO or the CIO, in consultation with the Executive Director.

DEFINITIONS

In this Policy,

Advisor is a consultant that must be approved by the Board and the CIO. An Advisor issues investment recommendations or prudent investment letters in connection with investment opportunities presented to the IIC, Board, or both.

Consultant means a person or entity engaged to provide research, studies and investment advice to the Board, the Investment Division, or both. An Advisor is a consultant that requires Board approval. This definition does not affect any definitions in the Code of Ethics for Contractors.

Custom benchmark means a benchmark created for or specified in an investment vehicle or IMA that is not a Policy Benchmark. Investment guidelines for a vehicle or IMA may include one or more custom benchmarks. Inclusion of a custom benchmark in an IMA does not modify the investments authorized in this Policy.

External Manager means an investment adviser engaged pursuant to an investment agreement to invest TRS assets on a discretionary basis pursuant to contractual guidelines negotiated, prescribed or controlled by TRS. A manager or general partner of a private fund is not an External Manager.

Trust or Fund means the overall investment portfolio, including cash and cash equivalents.

Fund Policy Benchmark is a target allocation-weighted aggregation of the individual Policy Benchmarks according to Section 1.6.

Investment Management Agreement or IMA means a contract between TRS and an External Manager for the discretionary investment of TRS assets in securities according to specified guidelines. The account managed by an External Manager is sometimes referred to as a separate account.

Manager Organization means any group of entities that are affiliated by reason of (1) interlocking ownership (which need not be total or by majority in interest), (2) power to control one or more of the other entities, or (3) common control by a third entity or being associated with others under common ownership or control. Control includes the power to make policies for an entity. Parents, subsidiaries, and affiliates having interlocking ownership or control arrangement with at least one other entity in the group are typical of manager organizations.

Policy Benchmark means the relevant benchmark for an asset class listed in the allocation table in Section 1.6.

Private investment fund or private fund means any non-publicly traded limited liability investment vehicle aggregating investment capital for reinvestment, including without limitation reinvestment of capital in private companies, other investment funds, real assets, debt instruments, derivatives, commodities, or publicly traded securities. Private funds generally issue Restricted Securities to investors through private placements.

Publicly traded securities means securities that trade on a national securities exchange or in an over-the-counter market through broker-dealers who make a market in securities.

Restricted Securities means securities acquired under an exemption from registration under the securities laws, such as through private placements, 144A offerings, or Regulation D offerings. Restricted securities may not be transferred unless they are registered or are exempt from the registration requirements. SEC Rule 144(a)(3) lists types of transactions in which restricted securities occur. Privately offered limited partnership and limited liability company interests are usually restricted securities.

Securities has the meaning assigned in Section 825.301(a). Whether notes, local access products, warrants or other financial instruments or contracts are securities requires legal analysis.

Tab 4



Memorandum

To: Board of Trustees

From: Sylvia Bell, Investment Operations
Heather Traeger, Chief Compliance Officer

CC: Carolina De Onis, General Counsel
Brian Guthrie, Executive Director
Britt Harris, Chief Investment Officer

Date: September 8, 2016

Subject: Revisions to TRS General Authority Resolutions

The TRS General Authority Resolutions (“GAR”) evidence the Board's delegation of approval authority to certain TRS employees with respect to investment and related matters. The GAR is also the framework from which we build a detailed series of transaction approvals, workflows and controls in order to effect investment purchases and sales as well as other investment related matters such as contracts. Finally, the GAR is the document that external parties (such as custody banks, counterparties, external managers and brokers) use in order to authenticate TRS transactions. The current GAR defines the following groups:

Investment Group
Financial Group
Executive Group
Trading Group

As part of the required update to the GAR, we are proposing three changes: (1) adding a new trading group classification to clarify roles and responsibilities among types of traders, some of whom engage only in certain limited-purpose trading activities; (2) memorializing a proposed Investment Policy Statement (“IPS”) revision delegating certain authority to the Chief Compliance Officer (“CCO”); and (3) changing a title within the Trading Group.

First, we are proposing to add a new classification of traders to the GAR: the Fixed Income, Currency, and Commodities (“FICC”) Trading Group. Currently, all traders are listed under one category in the GAR and the affiliated Incumbency Certificate. However, there are two groups of traders – “all-purpose” traders and the limited-purpose FICC traders. While some of their trading functions overlap, the two groups of traders report to different investment areas (i.e.,

Trading versus Asset Allocation and Risk Management) and have different limitations on their trading (e.g., the proposed FICC Trading Group may not trade equities on behalf of TRS). The proposed change to the GAR would create the FICC Trading Group to clearly delineate to external parties the specific authority delegated to each set of traders.

Second, we are proposing to memorialize the proposed IPS revision delegating certain authority to the CCO. Specifically, the delegation would authorize the CCO to execute, deliver, create and disseminate compliance-related disclosures and certifications, as well as to develop, disseminate and collect disclosure forms, with the Chief Investment Officer and Executive Director's approval, to monitor the requirements of the IPS. Currently, for certain external parties, the Executive Director has been required to make one-off delegations of authority to the CCO to sign compliance-related documents or other GAR authorized employees have to sign such documents. The proposed change to the GAR would automatically authenticate to external parties the CCO's authority regarding compliance-related disclosures, certifications, and forms without any need to involve the Executive Director or other GAR authorities.

Third, the proposed changes would add "Managing Director" to the list of working titles in the Trading Group to reflect the current title of the head of Trading. Currently, there is a footnote in the Incumbency Certificate to address this issue. The footnote would be removed upon approval of the proposed change in the GAR.



Board of Trustees

General Authority Resolutions Adopted ~~May 1, 2015~~ September xx, 2016

Investment Group

Resolved, That Investment Division employees holding the following TRS working titles are members of the “**Investment Group**”:

**Chief Investment Officer
Senior Managing Director
Senior Director
Senior Investment Manager**

**Deputy Chief Investment Officer
Managing Director
Director**

Resolved further, That the Executive Director is authorized and directed to designate in writing those individual members of the **Investment Group** who are authorized within the investment areas designated by the Executive Director, in addition to the Chief Investment Officer and the Deputy Chief Investment Officer, to take any one or more of the following actions authorized below in accordance with these resolutions until the authority is revoked.

Resolved further, That the Executive Director is authorized and directed to designate in writing, by investment area and category or item designation, the specific authorities granted to each authorized member of the **Investment Group**, until the authority is revoked.

A. General Authority for Investment Matters other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- A.1** Buy, sell, or give orders or instructions for transactions in currencies and securities, and any amendments or modifications of such orders or instructions.
- A.2** Direct Investment Operations personnel to deliver, pay, expend, or receive cash, currencies, monies, securities (including restricted or Rule 144A securities) in connection with a contract to buy or sell securities.
- A.3** Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of securities transactions.
- A.4** Direct Investment Operations personnel to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract; and to instruct other cash movements, including movements of cash to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Notwithstanding any provision of this Section A, authority granted under this Section A does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

B. Investment Contracting Authority other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- B.1** Make, execute, deliver, waive, modify, amend, renew, extend, assign, terminate, or transfer, in each case in writing, investment-related documents, including without limitation, written contracts, investment management agreements, subscription agreements, capital commitments, account agreements, consents, certificates, powers of attorney, notes, deeds, security agreements, pledges, mortgages, endorsements, directions and instructions to amend, modify, fix, and execute written investment guidelines in investment management agreements with external managers and fund managers, and any and all documents necessary or proper to effectuate the authority granted in this Section B.1.

B.2 Jointly with a member of the **Financial Group** or the **Executive Group**, execute investment fund redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash or securities to a TRS account by a third-party fund, external manager, account, debtor, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements, side letter agreements, or other investment-related documents executed by TRS in connection with a new investment, and any amendments or modifications to such documents and agreements other than redemption and withdrawal notices and corresponding instructions for the transfer or delivery by wire or physical transfer of cash or securities.

Notwithstanding any provision of this Section B, the authority granted under this Section B does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

C. Derivatives Authority

Resolved further, That the Chief Investment Officer or the Deputy Chief Investment Officer and any member of the **Investment Group** who is designated by the Executive Director as a member of the derivatives team, in addition to any authority expressly designated by the Executive Director under these resolutions is authorized may act on behalf of TRS to:

- C.1** Negotiate, make, fix, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, documents related to derivatives transactions, including without limitation, master agreements, schedules, credit support annexes, collateral-management agreements, transaction confirmations, account agreements, and clearing agreements, and deliverables relating to such documents and agreements.
- C.2** Make, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, disclosures, questionnaires, elections, certifications, or other administrative documents and deliverables related to derivatives accounts or transactions.
- C.3** Jointly with a member of the **Financial Group** or the **Executive Group**, execute, amend, modify, or terminate documents, directions, and instructions to deliver and pay cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.4** Direct Investment Operations personnel to receive cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.5** Buy, sell, or give orders or instructions for transactions in derivatives, and any amendments or modifications of such orders or instructions.
- C.6** Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of derivatives transactions.

Financial Group

Resolved further, That the “**Financial Group**” comprises employees holding the following TRS working titles:

Chief Financial Officer
Director of General Accounting and Budget
Manager of Financial Reporting

Director of Investment Accounting
Team Leader of Investment Accounting
Assistant Director of General Accounting and Budget

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, jointly with an authorized member of the **Investment Group** or the **Executive Group**, to execute redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash, collateral, margin, or securities to a TRS account by a third-party fund, account, debtor, or derivatives counterparty, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements and side letter agreements and any amendments to subscription agreements or side letter agreements.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, to execute authorizations to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract; instruct other cash movements, including movements of assets to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS to authorize and direct members of the Investment Accounting team to verify or confirm to a custodian or prime broker any order for the transfer or delivery of currencies, monies, securities, or contracts to any other person.

Executive Group

Resolved further, That the “**Executive Group**” comprises employees holding the TRS working titles of Executive Director and Deputy Director, and each member of the **Executive Group** is authorized and empowered to perform, with respect to a particular matter or transaction, any and all of the acts that any and all employees in the **Investment Group** or the **Financial Group** are authorized to perform, except that when joint action by a member of the **Investment Group** and a member of the **Financial Group** is required, only one member of the **Executive Group** may act jointly with a member of either of the **Investment Group** or the **Financial Group**.

Trading Group

Resolved further, That the “**Trading Group**” comprises the employees holding the following TRS working titles: Managing Director, Director—~~Trading Center~~, and Trader. Each member of the **Trading Group** is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix, and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell securities, derivatives, forward contracts, or currency.

Fixed Income, Currency, and Commodities Trading Group

Resolved further, That the “**Fixed Income, Currency, and Commodities (“FICC”) Trading Group**” comprises the employees holding the following TRS working titles: FICC Trader. Each member of the FICC Trading Group is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell fixed income securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell fixed income securities, derivatives, forward contracts, or currency.

Chief Compliance Officer

Resolved further, That the “**Chief Compliance Officer**” is authorized and empowered on behalf of TRS to take the following actions: to execute and deliver compliance-related disclosures, reports, filings, and certifications and, with the Chief Investment Officer and Executive Director’s approval, to develop, disseminate and collect disclosure forms to monitor the requirements of the Investment Policy Statement.



Board of Trustees

General Authority Resolutions Adopted September xx, 2016

Investment Group

Resolved, That Investment Division employees holding the following TRS working titles are members of the “**Investment Group**”:

Chief Investment Officer
Senior Managing Director
Senior Director
Senior Investment Manager

Deputy Chief Investment Officer
Managing Director
Director

Resolved further, That the Executive Director is authorized and directed to designate in writing those individual members of the **Investment Group** who are authorized within the investment areas designated by the Executive Director, in addition to the Chief Investment Officer and the Deputy Chief Investment Officer, to take any one or more of the following actions authorized below in accordance with these resolutions until the authority is revoked.

Resolved further, That the Executive Director is authorized and directed to designate in writing, by investment area and category or item designation, the specific authorities granted to each authorized member of the **Investment Group**, until the authority is revoked.

A. General Authority for Investment Matters other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- A.1** Buy, sell, or give orders or instructions for transactions in currencies and securities, and any amendments or modifications of such orders or instructions.
- A.2** Direct Investment Operations personnel to deliver, pay, expend, or receive cash, currencies, monies, securities (including restricted or Rule 144A securities) in connection with a contract to buy or sell securities.
- A.3** Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of securities transactions.
- A.4** Direct Investment Operations personnel to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract; and to instruct other cash movements, including movements of cash to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Notwithstanding any provision of this Section A, authority granted under this Section A does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

B. Investment Contracting Authority other than Derivatives

Resolved further, That the Chief Investment Officer, Deputy Chief Investment Officer, and any other member of the **Investment Group** designated by the Executive Director as having such authority, in addition to any other authority expressly designated by the Executive Director under these resolutions, may act on behalf of TRS to:

- B.1** Make, execute, deliver, waive, modify, amend, renew, extend, assign, terminate, or transfer, in each case in writing, investment-related documents, including without limitation, written contracts, investment management agreements, subscription agreements, capital commitments, account agreements, consents, certificates, powers of attorney, notes, deeds, security agreements, pledges, mortgages, endorsements, directions and instructions to amend, modify, fix, and execute written investment guidelines in investment management agreements with external managers and fund managers, and any and all documents necessary or proper to effectuate the authority granted in this Section B.1.

B.2 Jointly with a member of the **Financial Group** or the **Executive Group**, execute investment fund redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash or securities to a TRS account by a third-party fund, external manager, account, debtor, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements, side letter agreements, or other investment-related documents executed by TRS in connection with a new investment, and any amendments or modifications to such documents and agreements other than redemption and withdrawal notices and corresponding instructions for the transfer or delivery by wire or physical transfer of cash or securities.

Notwithstanding any provision of this Section B, the authority granted under this Section B does not extend to transactions in derivatives, which are governed exclusively by Section C of these resolutions.

C. Derivatives Authority

Resolved further, That the Chief Investment Officer or the Deputy Chief Investment Officer and any member of the **Investment Group** who is designated by the Executive Director as a member of the derivatives team, in addition to any authority expressly designated by the Executive Director under these resolutions is authorized may act on behalf of TRS to:

- C.1** Negotiate, make, fix, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, documents related to derivatives transactions, including without limitation, master agreements, schedules, credit support annexes, collateral-management agreements, transaction confirmations, account agreements, and clearing agreements, and deliverables relating to such documents and agreements.
- C.2** Make, execute, waive, amend, modify, renew, extend, transfer, assign, endorse, or terminate, in each case in writing, disclosures, questionnaires, elections, certifications, or other administrative documents and deliverables related to derivatives accounts or transactions.
- C.3** Jointly with a member of the **Financial Group** or the **Executive Group**, execute, amend, modify, or terminate documents, directions, and instructions to deliver and pay cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.4** Direct Investment Operations personnel to receive cash, currencies, monies, or securities, to margin, collateralize, or settle derivatives transactions.
- C.5** Buy, sell, or give orders or instructions for transactions in derivatives, and any amendments or modifications of such orders or instructions.
- C.6** Give directions and instructions to members of the **Trading Group** or external managers relating to execution, brokerage, clearing or settlement of derivatives transactions.

Financial Group

Resolved further, That the “**Financial Group**” comprises employees holding the following TRS working titles:

Chief Financial Officer
Director of General Accounting and Budget
Manager of Financial Reporting

Director of Investment Accounting
Team Leader of Investment Accounting
Assistant Director of General Accounting and Budget

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, jointly with an authorized member of the **Investment Group** or the **Executive Group**, to execute redemption and withdrawal notices and instructions for the transfer or delivery by wire or physical transfer of cash, collateral, margin, or securities to a TRS account by a third-party fund, account, debtor, or derivatives counterparty, except that an authorized member of the **Investment Group** may be the sole TRS signatory on subscription agreements and side letter agreements and any amendments to subscription agreements or side letter agreements.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS, to execute authorizations to fund subscribed investment funds or capital called by investment funds; transfer funds or assets between custodial accounts, including external manager separate accounts; transfer funds to pay fees under an investment contract; instruct other cash movements, including movements of assets to and from custodial accounts held by the Comptroller of Public Accounts and transfers of assets in kind for investment under an investment contract.

Resolved further, That each member of the **Financial Group** is authorized and empowered on behalf of TRS to authorize and direct members of the Investment Accounting team to verify or confirm to a custodian or prime broker any order for the transfer or delivery of currencies, monies, securities, or contracts to any other person.

Executive Group

Resolved further, That the “**Executive Group**” comprises employees holding the TRS working titles of Executive Director and Deputy Director, and each member of the **Executive Group** is authorized and empowered to perform, with respect to a particular matter or transaction, any and all of the acts that any and all employees in the **Investment Group** or the **Financial Group** are authorized to perform, except that when joint action by a member of the **Investment Group** and a member of the **Financial Group** is required, only one member of the **Executive Group** may act jointly with a member of either of the **Investment Group** or the **Financial Group**.

Trading Group

Resolved further, That the “**Trading Group**” comprises the employees holding the following TRS working titles: Managing Director, Director, and Trader. Each member of the **Trading Group** is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix, and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell securities, derivatives, forward contracts, or currency.

Fixed Income, Currency, and Commodities Trading Group

Resolved further, That the “**Fixed Income, Currency, and Commodities (“FICC”) Trading Group**” comprises the employees holding the following TRS working titles: FICC Trader. Each member of the FICC Trading Group is authorized and empowered on behalf of TRS to take the following actions: to place orders or agree with brokers, dealers and market-makers to purchase or sell fixed income securities, derivatives, forward contracts, or currency; to monitor and supervise execution and settlement of such orders or agreements; and to negotiate, fix and vary the commissions, spreads, or discounts for individual orders or agreements to purchase or sell fixed income securities, derivatives, forward contracts, or currency.

Chief Compliance Officer

Resolved further, That the “**Chief Compliance Officer**” is authorized and empowered on behalf of TRS to take the following actions: to execute and deliver compliance-related disclosures, reports, filings, and certifications and, with the Chief Investment Officer and Executive Director’s approval, to develop, disseminate and collect disclosure forms to monitor the requirements of the Investment Policy Statement.

Tab 5



Legal Services

Memorandum

TO: Policy Committee and Board of Trustees

FROM: Wm. Clarke Howard, Assistant General Counsel

COPY: Brian Guthrie, Executive Director
Ken Welch, Deputy Director
Katrina Daniel, Chief Health Care Officer
Carolina de Onís, General Counsel

DATE: September 8, 2016

RE: Adoption of Proposed Amendments to TRS-ActiveCare Rule § 41.36, relating to Enrollment Periods for TRS-ActiveCare

REQUESTED ACTION

Proposed amendments to TRS rule 34 Tex. Admin. Code § 41.36, relating to Enrollment Periods for TRS-ActiveCare, were recommended by staff and submitted for publication for public comment by the Executive Director as provided in Section 5.7 of the Bylaws of the Board of Trustees of the Teacher Retirement System of Texas. The proposed amendments will have been published for public comment in the *Texas Register* for at least 30 days before the Policy Committee (the “Committee”) and the Board of Trustees (the “Board”) consider their adoption. Specifically, the proposed amendments to § 41.36 were published in the August 19, 2016 issue of the *Texas Register* (41 TexReg 6185).

To date, TRS has not received any written comments regarding the proposed amendments. Any written comments that TRS receives after the date of this memorandum will be addressed at the September 2016 meeting.

Staff requests that the Committee recommend that the Board adopt the proposed amendments to TRS-ActiveCare rule § 41.36, as described in this memorandum and the attached, marked rule text.

BACKGROUND OF THE REQUESTED ACTION

The proposed amendments to § 41.36(a) simplify the wording of the initial enrollment opportunity afforded therein to an individual who becomes an eligible full-time or eligible part-time employee and

clarify that this enrollment opportunity also applies to the eligible dependents of the employee. However, due to the existing definitions of a full-time and part-time employee found in TRS rule § 41.33, these changes do not make any substantive changes to this enrollment opportunity.

Contained in a new subsection (b), the main proposed change to § 41.36 creates an additional enrollment opportunity for a part-time employee¹ eligible for TRS-ActiveCare who later becomes a full-time employee² eligible for TRS-ActiveCare during the current plan year. This enrollment opportunity also applies to the employee's eligible dependents. This enrollment opportunity exists even if this employee previously declined enrollment in TRS-ActiveCare during the current plan year. An eligible part-time employee who later becomes a full-time employee eligible for TRS-ActiveCare during the current plan year may also become eligible for employer mandated coverage³ under the Patient Protection and Affordable Care Act (aka the "PPACA"). This additional enrollment opportunity will allow participating entities to offer TRS-ActiveCare coverage to such individuals and will thereby allow the participating entities to avoid a penalty that they may otherwise incur under the PPACA.

The proposed amendments to current § 41.36(b), which will be relettered to become § 41.36(c), clarify that the initial enrollment period for an eligible full-time or part-time employee whose employer becomes a participating entity applies equally to the employee's eligible dependents.

Current § 41.36(d), which will become the new § 41.36(e), addresses special enrollment events associated with TRS-ActiveCare that arise under the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") on or after September 1, 2011. Current § 41.36(e) addresses special enrollment events associated with TRS-ActiveCare that arose on or before August 31, 2011, as defined by TRS-ActiveCare itself. With the passage of time and for the sake of clarity, the introductory language in current § 41.36(d) and the entire current § 41.36(e) are no longer necessary and should be deleted.

REQUESTED COMMITTEE ACTION

Staff requests that the Committee recommend that the Board adopt the proposed amendments to TRS rule 34 Tex. Admin. Code § 41.36, as described in this memorandum and the attached marked rule text, as published in the August 19, 2016 issue of the *Texas Register* (41 TexReg 6185).

¹ An eligible part-time employee under TRS-ActiveCare is an individual who is employed by a participating entity for 10 or more regularly scheduled hours each week but for less than 15 to 20 regularly scheduled hours each week.

² An eligible full-time employee under TRS-ActiveCare is generally an individual that is employed by a participating entity for between 15 to 20 or more regularly scheduled hours each week.

³ Generally speaking, employer mandated coverage is established under the PPACA for individuals who are employed on average at least 30 hours or more each week.

Texas Administrative Code

<u>TITLE 34</u>	PUBLIC FINANCE
<u>PART 3</u>	TEACHER RETIREMENT SYSTEM OF TEXAS
<u>CHAPTER 41</u>	HEALTH CARE AND INSURANCE PROGRAMS
<u>SUBCHAPTER C</u>	TEXAS SCHOOL EMPLOYEES GROUP HEALTH (TRS-ACTIVECARE)
RULE §41.36	Enrollment Periods for TRS-ActiveCare

(a) ~~An individual who becomes an eligible [A] full-time or eligible part-time employee [who becomes employed in an eligible capacity with a participating entity]~~ has an initial enrollment period, ~~for both himself or herself as well as for his or her eligible dependents, [of 31 days,]~~ beginning on the first day that the individual becomes an eligible [full-time or part-time] employee [becomes employed in an eligible capacity with a participating entity] and ending at 11:59:59 p.m. Austin Time on the 31st day thereafter.

(b) If a current employee of a participating entity was an eligible part-time employee during an enrollment opportunity for the current plan year, and, later during the current plan year, this employee becomes an eligible full-time employee, then this employee has an enrollment period, for both himself or herself as well as for his or her eligible dependents, beginning on the first day that this individual becomes an eligible full-time employee and ending at 11:59:59 p.m. Austin Time on the 31st day thereafter. This enrollment opportunity exists even if this employee previously declined enrollment in TRS-ActiveCare during the current plan year.

~~(c) [(b)]~~ An eligible [A] full-time or part-time employee whose employer becomes a participating entity has an initial enrollment period, for both himself or herself as well as for his or her eligible dependents, beginning no later than 31 days prior to the date on which the employer becomes a participating entity and ending on the last calendar day of the month immediately preceding the date on which the employer becomes a participating entity ("end date"). Notwithstanding the preceding sentence, a large school district, as defined hereafter, that becomes a participating entity after September 1, 2003, may recommend an initial enrollment period of not less than 31 days that closes before the end date. A recommended initial enrollment period that closes before the end date is subject to approval by TRS. As used in this section, a large school district shall mean a school district that had 1001 or more employees at any time during the 2001 school year, as reflected on any report received by TRS from that school district for a reporting period in that school year.

~~(d) [(e)]~~ A full-time or part-time employee's eligible dependents, if covered, must be enrolled in the same coverage plan as the full-time or part-time employee under whom they qualify as a dependent. Except as otherwise provided under applicable state or federal law, an eligible full-

time or part-time employee may not change coverage plans or add dependents during a plan year.

(e) ~~[(d)]~~ ~~The [On or after September 1, 2011, the]~~ enrollment period for an individual who becomes eligible for coverage due to a special enrollment event, as described in §41.34(8) of this chapter (relating to Eligibility for Coverage under the Texas School Employees Uniform Group Health Coverage Program), shall be the 31 calendar days immediately after the date of the special enrollment event. To make an effective election, a completed enrollment form must be received by a participating entity or the health plan administrator of TRS-ActiveCare within this 31-day period.

~~[(e) On or before August 31, 2011, the enrollment period for an individual who becomes eligible for coverage due to a special enrollment provision of TRS-ActiveCare, as described in §41.34(9) of this chapter, shall be the 31 calendar days immediately after the date of the special enrollment event. To make an effective election, a completed enrollment form must be received by a participating entity or the health plan administrator of TRS-ActiveCare within this 31-day period.]~~

(f) Eligible full-time and part-time employees and their eligible dependents who are enrolled in an HMO with a TRS contract that is not renewed for the next plan year may make one of the elections provided under this subsection. To make an effective election, a completed enrollment form must be received by a participating entity or the health plan administrator of TRS-ActiveCare during the plan enrollment period. Coverage under the elected option becomes effective on September 1 of the next plan year. One of the following elections may be made under this subsection:

- (1) change to another approved HMO for which the full-time or part-time employee is eligible; or
- (2) enroll in the TRS-ActiveCare preferred provider organization coverage plan, without preexisting condition exclusions.

(g) Eligible full-time or part-time employees and their eligible dependents who are enrolled in an HMO with a TRS contract that is terminated during the plan year may make one of the elections provided under this subsection. To make an effective election, a completed enrollment form must be received by a participating entity or the health plan administrator of TRS-ActiveCare within 31 calendar days after notice of the contract termination is sent to the eligible full-time or part-time employee by TRS or its designee. Coverage under the elected option becomes effective on a date determined by TRS. One of the following elections may be made under this subsection:

- (1) change to another approved HMO for which the full-time or part-time employees and their eligible dependents are eligible; or

(2) enroll in the TRS-ActiveCare preferred provider organization coverage plan, without preexisting condition exclusions.

(h) Eligible full-time or part-time employees and their eligible dependents enrolled in an approved HMO whose eligibility status changes because the eligible full-time or part-time employee no longer resides, lives, or works in the HMO service area may make one of the elections provided under this subsection. To make an effective election, a completed enrollment form must be received by a participating entity or the health plan administrator of TRS-ActiveCare within 31 calendar days after the employee's change in eligibility status. Coverage under the elected option becomes effective on the first day of the month following the date the employee's eligibility status changed. One of the following elections may be made under this subsection:

(1) enroll in another approved HMO for which the full-time or part-time employee is eligible; or

(2) enroll in the TRS-ActiveCare preferred provider organization coverage plan, subject to applicable preexisting condition limitations.

(i) On behalf of the trustee, the executive director or a designee may prescribe open-enrollment periods and the conditions under which an eligible full-time or part-time employee and his eligible dependents may enroll during an open-enrollment period.

Tab 6 A



Memorandum

To: Policy Committee of the Board of Trustees

From: Heather Traeger, Chief Compliance Officer

Copy: Brian Guthrie, Executive Director
Ken Welch, Deputy Director
Carolina De Onis, General Counsel

Date: September 8, 2016

Re: Proposed Amendments to TRS Code of Ethics Rules 23.7 & 23.8

We are requesting that the Policy Committee authorize publication of proposed amendments to the two TRS ethics rules for contractors — Rule 23.7, relating to the Code of Ethics for Contractors (“Code”), and Rule 23.8, relating to expenditure reporting by contractors. The proposed amendments would be published for public comment in the *Texas Register* for at least 30 days before the Committee and Board of Trustees consider their adoption. The proposed amendments would update the rules to reflect the current versions of the Code adopted by the Board and the related memorandum from the executive director to contractors explaining reporting requirements under the Code.

BACKGROUND

Rule 23.7. Government Code § 825.212 requires the Board to adopt by rule standards of conduct applicable to certain TRS contractors. Rule 23.7 adopts the Code by reference. In June 2016, the Board adopted a revised Code. The proposed rule amendments update Rule 23.7 to reflect the current version of the Code.

Rule 23.8. Texas Government Code § 2263.004 requires the Board by rule to require certain contractors, financial advisors and service providers to the retirement system to file with the system a report detailing any expenditure of more than \$50 made on behalf of a trustee or employee of the system. The Board adopts the form used by contractors to report such expenditures. The executive director provides an explanatory memorandum addressed to contractors to accompany the reporting form. Rule 23.8 adopts by reference the Board's reporting form, the Expenditure Reporting Form for Contractors, and the executive director's memorandum, the Expenditure Reporting Memorandum. In June 2016, the Board adopted a

revised reporting form. In January 2015, the executive director approved a revised memorandum. The proposed amendments to Rule 23.8 would adopt by reference the latest version of the executive director's memorandum and would reflect the current version of the Code.

PROPOSED RULE TEXTS (showing changes)

§23.7. Code of Ethics for Contractors.

The Code of Ethics for Contractors (the Code) sets forth the ethical responsibilities and requirements of Contractors, as that term is defined in the Code, in performing services for the Teacher Retirement System of Texas (TRS). The Board of Trustees of TRS adopts by reference the Code as most recently revised and adopted to be effective ~~June 16, 2016~~ April 20, 2012. A copy of the most recently revised Code has been filed with the Office of the Secretary of State in Austin. Copies of the Code are available from TRS at 1000 Red River Street, Austin, Texas 78701-2698, (512) 542-6400. Also, a copy of the Code can be found on and printed from the TRS website, www.trstexas.govstate.tx.us, in the information regarding TRS Ethics.

§23.8. Expenditure Reporting by Certain Contractors.

Under § 23.7 of this title (relating to the Code of Ethics for Contractors) and the Code of Ethics for Contractors (the Code) adopted by the Board of Trustees of the Teacher Retirement System of Texas (TRS), each Contractor, as that term is defined in the Code, must annually file an expenditure report on the prescribed TRS form. The Contractor must include in the report itemized, reasonably detailed lists of expenditures of more than \$50 per day made by or on behalf of the Contractor with respect to or for the benefit of each TRS Trustee or Employee. Each Contractor must comply with TRS rules governing the filing of and requirements for the expenditure reporting form promulgated by TRS, including the Code, Expenditure Reporting Memorandum (reporting memorandum), and the Expenditure Reporting Form for Contractors (reporting form) as promulgated and applicable under the Code and revised from time to time. TRS adopts by reference the reporting memorandum as most recently revised ~~January 30, 2015~~ December 15, 2012 and the reporting form as most recently revised ~~June 16, 2016~~ September 17, 2010. Capitalized words appearing in this section have the same meaning assigned to them in the Code, as revised from time to time. Copies of the most recently revised reporting memorandum and reporting form have been filed with the Office of the Secretary of State in Austin. Copies of the reporting memorandum and the reporting form are available from TRS at 1000 Red River Street, Austin, Texas 78701-2698, (512) 542-6400. Also, copies of the reporting memorandum and the reporting form can be found on and printed from the TRS website, www.trstexas.govstate.tx.us, in the information regarding TRS Ethics.

Tab 6 C



Legal Services

Memorandum

DATE: September 6, 2016

TO: Policy Committee of the Board of Trustees

FROM: Rebecca M. Smith, Assistant General Counsel

COPY: Brian Guthrie, Executive Director
Ken Welch, Deputy Director
Carolina de Onís, General Counsel

RE: Proposed Amendments to Chapter 25, relating to Membership Credit and Chapter 29, relating to Benefits

REQUESTED ACTION

Staff asks the Policy Committee to authorize publication of proposed amendments to three rules in Chapter 25, relating to Membership Credit and a proposed new rule in Chapter 29, relating to Benefits. Specifically, staff proposes amendments to §25.24, relating to Performance Pay; §25.31, relating to Percentage Limits on Compensation Increases; and §25.303 relating to Calculation of Actuarial Cost for Purchase of Compensation Credit. The proposed new rule is §29.83, relating to Calculation of Amount of Retirement Benefit. The proposed amendments and new rule would be published for public comment in the Texas *Register* for at least 30 days before the committee and board consider their adoption.

BACKGROUND OF THE REQUESTED ACTION

§25.24

The proposed changes to §25.24 regard the crediting of performance pay that was earned prior to the 2011-2012 school year but paid in the 2011-2012 school year. The changes are needed to clarify that performance pay earned prior to the 2011-2012 school year but paid in the 2011-2012 school year will be credited in the school year in which the standards establishing the right to the performance pay are met or in which the service occurred, whichever is earlier. Although the current language indicates that beginning with the 2011-2012 school year, performance pay will be credited in the school year in which it is paid, it does not clearly address how amounts earned prior to that school year will be credited. The proposed amendments are consistent with staff's interpretation and application of the rule since it was amended in April 2011.

§25.31

The proposed changes to §25.31 regard the application of the percentage limit on compensation increases in the last school years prior to retirement. Currently, the rule limits increases in compensation in the

final three or five school years prior to retirement, depending on the member's grandfathered status. The increases are limited to the greater of \$10,000 or 10 percent of the allowed compensation for the previous year.

Under the current rule, for members who are grandfathered to use a three year salary average when calculating retirement benefits, the base line amount used to determine the amount of allowable compensation in the third school year prior to retirement is the greater of either the amount of the compensation for the fourth or the fifth school year prior to retirement. If there is no compensation in the fourth or fifth school year prior to retirement, the base amount is the earliest salary credited in the three school years prior to retirement. If the member does not have compensation credited in at least three of the last five school years prior to retirement, the limit on increases does not apply.

For members who are not grandfathered to use a three year salary average but must use a five year salary average when calculating retirement benefits, the base line amount currently used to determine the amount of allowable compensation in the fifth school year prior to retirement is the greater of either the amount of the compensation for the sixth or the seventh school year prior to retirement. If there is no compensation in the sixth or seventh school year prior to retirement, the base amount is the earliest salary credited in the five school years prior to retirement. If the member does not have compensation credited in at least five of the last seven school years prior to retirement, the limit on increases does not apply to these members.

Staff proposes changes to §25.31 to address the harsh cut-back suffered by some members whose pay in the base year does not reflect a full school year of pay or even a school year in which service credit was given. The proposed amendments require that the base year must be a school year in which service credit was given. This change will minimize the cut-back in compensation experienced by a member who received only a month or two of compensation in the base year and did not receive service credit for that year. Also, the proposed amendments require that a grandfathered member must have service credit rather than simply compensation credit in at least three of the last five school years in order for the compensation limit to apply. This change eliminates the compensation limit for members who did not receive service credit in at least three of the last five school years. Similarly, a member who is not grandfathered must have received service credit in at least five of the last seven school years prior to retirement in order for the compensation limit to apply.

§25.303

The changes proposed by staff to §25.303 regard how the actuarial cost of compensation credit is calculated. The content of §25.303 was moved from §25.302 which relates to the calculation of the actuarial cost for service credit, during the recent rule review to separate the requirements for calculating the cost of service credit from those for calculating the cost of compensation credit. However, after working with the rule relating to the purchase of compensation credit, staff identified an ambiguity in the wording of subsection (b). Although staff has consistently applied the correct formula, the proposed changes make it clear that the cost of the increased compensation credit is determined by dividing the increased compensation by three or five (depending on the member's grandfathered status) and then dividing that quotient by 1,000. The resulting quotient is then multiplied by the appropriate cost factor from the table to determine the cost of the compensation credit.

Staff also recommends proposed changes in subsection (a) of §25.303 to provide that a member's age and years of service credit used to determine the appropriate cost factor will be based on the member's age and years of service credit on September 1 of the year the cost is established. The proposed amendment regarding the member's age and years of service credit on September 1 of the year the cost is established is consistent with language in §25.302 regarding the calculation of the cost to purchase service credit.

RULE §25.24 Performance Pay

(a) Annual compensation includes performance pay earned under a total compensation plan specifically approved by vote of the governing board of an employer. Such approval must be reflected in the minutes of the governing board. Any employer reporting to the retirement system is considered a school district for the purposes of this section.

(b) For purposes of including performance pay as a part of annual compensation under this rule, a total compensation plan must describe all elements of compensation received by all employees of the employer.

(c) Performance pay is compensation for service as an employee in a Texas public educational institution that is paid under a valid employment agreement based upon a performance standard published in written documents adopted by the employer. The performance standard may be based on evaluations or goal achievement of the individual employee or of the group in which the individual belongs. Beginning on the first day of the 2011-2012 school year and thereafter, specific amounts of performance pay will be credited to the year in which the performance pay is paid. For school years prior to the 2011-2012 school year, specific amounts of performance pay will be credited to the year in which the standards establishing the right to the performance pay are met or in which the service occurred, whichever is earlier. Performance pay paid in the 2011-2012 school year that is based on service rendered prior to the 2011-2012 school year will be credited to the school year in which the standards establishing the right to the performance pay are met or the school year in which the service occurred, whichever is earlier.

(d) An employer shall certify each year to the retirement system, by a date specified by the system on a form prescribed by TRS, whether it is providing performance pay under this section. A district that has properly made this certification shall report all qualifying performance pay as compensation and make appropriate deductions for member contributions unless the retirement system advises the employer that such pay does not qualify as performance pay under this rule. Employer shall maintain records that show it provides such pay for a period not less than 7 years after such pay is reported to the retirement system.

(e) Beginning on the first day of the 2011-2012 school year and thereafter, performance pay earned during the school year in which the member retires or any previous school year and paid after the member has begun receiving retirement benefits is not creditable by TRS and will not be used in any benefit calculation. For school years prior to the 2011-2012 school year, if performance pay earned during the school year in which the member retires is paid after the member has begun receiving retirement benefits, any benefit adjustment needed will be made effective the month following the month in which TRS receives the deposits for the performance pay, subject to any applicable limits under 26 United States Code §415.

§29.83

The new rule proposed by staff regards how service credit maintained in another retirement system participating in the Proportionate Retirement Program will be used in determining the early age reduction applied to a member's service retirement benefit. Although the statutes establishing the Proportionate Retirement Program provide that combined service credit must be considered in determining eligibility for service retirement, the statutes do not distinguish between normal age and early age retirement. However, the law provides that with regard to "length-of-service" requirements for service retirement, the combined service credit is to be considered as if it were all credited in one system.

There are currently 6 tiers of TRS membership with different eligibility requirements for normal age retirement and different reduction factors and percentage reductions for early age retirement. However, length of service (amount of service credit) is used in determining eligibility for normal age and the reductions for early age service retirement in each tier. The calculation of a normal age service retirement annuity using combined service credit is addressed in §29.80 which authorizes the calculation of an unreduced benefit once eligibility for normal age retirement is established using the combined service credit. Using the combined service credit as proposed in the new rule to determine the applicable reduction for an early age service retirement annuity is consistent with §29.80, statutory requirements and the intent of the law. By using the combined service credit to determine the applicable early age reduction, the amount of the reduction for early age will be less.

RECOMMENDATION

Staff recommends that the Policy Committee authorize publication of the proposed amendments and the new rule for public comment in the *Texas Register*.

Tab 6 D

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- (a) For members who on or before August 31, 2005 had attained the age of 50, had at least 25 years of service credit, or whose combined age and service credit equals 70 or greater, the amount of compensation credited by TRS in each of the last three school years prior to retirement may not exceed the amount of compensation allowed for the preceding school year by more than 10% or \$10,000, whichever is greater.
- (b) For members who on or before August 31, 2005 did not meet requirements of subsection (a) of this section, the amount of compensation credited by TRS in each of the last five school years prior to retirement may not exceed the amount of compensation allowed for the preceding school year by more than 10% or \$10,000, whichever is greater.
- (c) For members meeting the requirements of subsection (a) of this section, the base line amount used to determine the amount of allowable compensation in the third school year prior to retirement is the greater of either the amount of compensation for the fourth school year prior to retirement or the amount of compensation for the fifth school year prior to retirement, provided the member received service credit in the base year. ~~If there is no compensation for either the fourth or fifth school year prior to retirement, the member did not receive service credit in either the fourth or fifth school year prior to retirement,~~ the base amount is the earliest salary credited in the three school years prior to retirement, provided the member received service credit in the base year. If the member does not have ~~credited compensation~~service credit in at least three school years during the last five school years prior to retirement, the limit in subsection (a) of this section does not apply.
- (d) For members who do not meet the requirements of subsection (a) of this section and who are subject to the restriction in subsection (b) of this section, the base line amount used to determine the amount of allowable compensation in the fifth school year prior to retirement is the greater of either the amount of compensation for the sixth school year prior to retirement or the amount of compensation for the seventh school year prior to retirement, provided the member received service credit in the base year. ~~If there is no compensation for either the sixth or seventh school year prior to retirement the member did not receive service credit in either the sixth or seventh school year prior to retirement,~~ the base amount is the earliest salary credited in the five school years prior to retirement, provided the member received service credit in the base year. If the member does not have ~~credited compensation~~service credit in at least five school years during the last seven school years prior to retirement, the limit in subsection (b) of this section does not apply.
- (e) The amount of allowable compensation is the greater of 110% of the base line amount or the amount of compensation in the base year plus \$10,000. The amount of allowable compensation for each subsequent year is the greater of 110% of the allowable amount for the previous year or the allowable amount for the previous year plus \$10,000.
- (f) For school years prior to the 2011-2012 school year, increases in compensation due to a change in employers, a change in duties, additional duties or work, legislation, or federal or state law are not subject to the limits in subsections (a) and (b) of this section and the allowable amount of compensation for the remaining years prior to retirement is calculated using the increased amount.
- (g) Beginning on the first day of the 2011-2012 school year and thereafter, all increases in compensation without regard to the reason for the increase, are subject to the limits in subsections (a) and (b) of this section.

- (h) Only compensation earned after the 2005-2006 school or contract year will be subject to the limit on increases described in this section. Salaries earned during the 2005-2006 school year and after will be used in the calculation of the base amount.
- (i) TRS will adjust a member's annual compensation at the time of retirement to comply with the limit on creditable compensation in subsections (a) or (b) of this section and refund the member contributions on the amount that exceeds the limits described in this section. The refund will be made after the date on which TRS makes the first annuity payment.
- (j) No adjustment in compensation will be made if the limit on compensation increases would not affect the calculation of the member's retirement benefit.
- (k) If compensation is adjusted under this section, the member may provide additional information in the form of written documentation to demonstrate that the compensation should be allowed. TRS makes the final determination regarding whether compensation is allowed in the member's benefit calculation.
- (l) Upon the request of TRS, the employer shall provide documents or records evidencing the amount and nature of the increased compensation reported to TRS.

Tab 6 E

(a) When a member is purchasing TRS compensation credit for which the law requires that the actuarial cost or actuarial present value be deposited and for which the method in this section is referenced by another section of this title, TRS will calculate the cost using the cost factors obtained from the Actuarial Cost Tables adopted and the method described in this section. For purchases in which the cost is established and the purchase is initiated in the 2016-17 school year or after, TRS will use the age of the member and the service credit established by the member on September 1 of the school year in which the cost of the purchase is established.

(b) Each of the tables cross-references the member's age in rows with years of credited service in columns. The intersection of the participant's age and service is the cost factor that shall be applied in determining the cost of the additional compensation credit as described in this subsection. ~~to the additional final average salary that may result from the purchase.~~ TRS will calculate the cost to purchase compensation credit under this section by dividing the additional compensation by three or five years, as determined by the standard annuity calculation applicable to the member, and dividing that quotient by 1,000 and multiplying the resulting quotient by the appropriate cost factor obtained from the table. The eligibility of additional compensation credit available for purchase is determined by the laws and rules applicable to the type of compensation sought to be credited.

(c) For individuals whose membership was established before September 1, 2007 and who have five years of service credit on August 31, 2014 and maintain membership in TRS until the time of purchase, the methodology described in subsection (b) of this section shall be used to determine cost of additional compensation credit, but TRS shall use the factors in the tables adopted as part of this subsection.

[Attached Graphic](#)

(d) For individuals whose membership was established on or after September 1, 2007 and who have five years of service credit on August 31, 2014 and maintain membership in TRS until the time of purchase, the methodology described in subsection (b) of this section shall be used to determine cost of additional compensation credit, but TRS shall use the factors in the tables adopted as part of this subsection.

[Attached Graphic](#)

(e) Effective September 1, 2014, for members who do not have five years of service credit on August 31, 2014 or whose current membership began after August 31, 2014, the methodology described in subsection (b) of this section shall be used to determine the cost of additional compensation credit, but TRS shall use the factors in the tables adopted as a part of this subsection.

[Attached Graphic](#)

Tab 6 F

For retirements after September 1, 2016, when a member is eligible to retire from TRS under the Proportionate Retirement Program but has fewer years of combined service credit than is required for normal age retirement, the years of combined service credit shall be used in determining the applicable reduction for an early age service retirement annuity that is calculated using only actual TRS service credit.

Tab 7



Legal Services

Memorandum

DATE: September 13, 2016

TO: Policy Committee of the TRS Board of Trustees

FROM: Rebecca Merrill, TRS Director of Strategic Initiatives

COPY: Brian Guthrie, TRS Executive Director

RE: Four-year Rule Review of Chapter 53 (403(b) Rules)

Background

Every four years, TRS must review and consider for re adoption each of its rules, as provided by §2001.039 of the Texas Government Code. The rule review must assess whether the reasons for initially adopting the rule continue to exist. TRS must then readopt, readopt with amendments, or repeal a rule because of its review.

TRS must review a rule not later than the fourth anniversary of the date on which the rule takes effect and every four years after that date. The adoption of an amendment to an existing rule does not satisfy rule review requirements, unless the amendment is adopted as a result of the rule review.

TRS completed its last statutory review of the rules for the 403(b) company certification and product registration program in Chapter 53 of TRS' rules on December 18, 2013. Consequently, the next review of Chapter 53 must be completed by December 17, 2017.

Staff recognizes that the rule review deadline is over a year away; however, staff believes it is in TRS' and the public's best interest to begin the rule review now. Over the last six months, TRS staff has been speaking with a variety of certified companies, school districts, third-party administrators, and educators about the 403(b) Program. The discussions have addressed the current structure of the 403(b) market in Texas and the fee caps adopted by the TRS Board of Trustees. Given the market complexities, staff recommends commencing the rule review now in order to have sufficient opportunity to examine the 403(b) market structure and the issue of fee caps well in advance of the rule review completion deadline.



The rule review process comprises three major stages:

- 1. Rule Review Plan:** The Rule Review Plan is a general, informational schedule of activities concerning the rule review that is filed with the *Texas Register*.
- 2. Notice of Intention to Review (Proposed Rule Review Notice):** The Notice of Intention to Review — also referred to as the Proposed Rule Review Notice — legally notifies the public of the commencement and scope of TRS' rule review and invites comments on the rules to be reviewed. The Proposed Rule Review Notice must be published in the *Texas Register* at least 30 days before TRS completes the rule review.
- 3. Notice of Readoption (Adopted Review):** The Notice of Readoption — also referred to as the Adopted Review — legally confirms and notifies the public that TRS has completed its rule review. Filing the Adopted Review with the Secretary of State then restarts the four-year period by the end of which the rules must be reviewed again.

Attached for your consideration are a proposed Rule Review Plan and Proposed Rule Review Notice:

- The **Rule Review Plan** sets out the schedule for the Chapter 53 rule review. The plan explains that the opportunity for public comment on the review is expected to end at the June 1-2, 2017 meeting, when the committee and board will consider adopting the completed rule review, including readopting the 403(b) rules without changes or adopting any new, amended, or repealed rules as result of the review.
- The **Proposed Rule Review Notice** is the legal public notice that TRS is reviewing Chapter 53. The notice invites public comment on the rule chapter under review.

RECOMMENDATION

With regard to Chapter 53 of TRS' rules, the staff recommends that the Policy Committee authorize the Executive Director or his designee to file (1) the Rule Review Plan with the *Texas Register* and (2) the Proposed Rule Review Notice for public comment publication in the *Texas Register*.

Teacher Retirement System of Texas Rule Review Plan

Chapter 53 – 403(b) Program Rules

In accordance with the Texas Government Code § 2001.039, regarding Agency Review of Existing Rules and requiring the Teacher Retirement System of Texas (TRS) and other governmental bodies to review their rules every four years, TRS submits the following Rule Review Plan.

The Policy Committee (committee) of the TRS Board of Trustees (board) has authorized for public comment this Rule Review Plan for the following board rules according to the general schedule set out below:

September 2016 - June 2017:

Title 34, Part 3, Texas Administrative Code:

Chapter 53, Certification by Companies Offering Qualified Investment Products

During the review of board rules relating to TRS' 403(b) company certification and product registration program (403(b) program), the committee and board will consider the readoption, amendment, or repeal of rules in Chapter 53. The committee has also authorized public comment publication of a Notice of Intention to Review (Proposed Rule Review Notice) for Chapter 53, which will appear in an upcoming issue of the *Texas Register*. In response to the Rule Review Plan and Proposed Rule Review Notice, the public will have opportunities to provide comments on the rules in Chapter 53 in writing and by addressing the committee or board at the April 2017 meeting. The Proposed Rule Review Notice to be published in the *Texas Register* will provide further details regarding public comment on the rules under review.

At the April 2017 meeting, the committee or the board or both will consider authorizing for public-comment publication any proposed changes to the 403(b) program rules resulting from the review of Chapter 53.

At the June 2017 meeting, the committee and the board will consider the proposed adoption of the completed rule review and any changes to Chapter 53 as a result of the rule review. The public will have an opportunity then to comment on the proposed completion of the Chapter 53 rule review and any changes to the rules resulting from the review.

Set out below is the detailed Rule Review Plan for Chapter 53, which is subject to change:

September 22, 2016: The TRS review of Chapter 53 begins. The committee considers filing the proposed Rule Review Plan with the Secretary of State and authorizing public-comment publication of the Proposed Rule Review Notice in the *Texas Register*. The public is given the opportunity to comment on the scope and schedule of the proposed rule review.

April 6-7, 2017: The committee considers authorizing public-comment publication of any rule changes needed in Chapter 53 as a result of the rule review. The public is given the opportunity to comment on the rule review and any proposed changes to rules in Chapter 53.

June 1-2, 2017: The committee and the board consider the adoption of the completed rule review of Chapter 53. In connection with completing the rule review, the committee and board consider adopting any changes to rules in Chapter 53 and readopting the remaining ones without changes. The public is given the opportunity to comment on the proposed completion of the rule review, the adoption of any rule changes, and the readoption of 403(b) rules without changes.

Comments regarding the contents of this Rule Review Plan may be submitted in writing to Brian K. Guthrie, Executive Director, Teacher Retirement System of Texas, 1000 Red River Street, Austin, Texas 78701.

The following chapter is available for review at

[http://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=34&pt=3&ch=53&rl=Y](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=34&pt=3&ch=53&rl=Y):

Chapter 53. Certification by Companies Offering Qualified Investment Products.

Teacher Retirement System of Texas

Title 34, Part 3

Proposed Rule Review

The Teacher Retirement System of Texas (TRS) proposes to review Chapter 53 of TRS' rules, which is found in Title 34, Part 3 of the Texas Administrative Code. Chapter 53 concerns certification by companies who offer voluntary 403(b) investment options through salary reduction agreements between public school employees and their local employers.

TRS will review Chapter 53 in accordance with the requirements of section 2001.039 of the Texas Government Code, which concerns the review of existing rules. TRS asserts that the reasons for adopting Chapter 53 continue to exist. TRS will review the chapter to update and improve the rules as needed. TRS will also file a rule review plan for Chapter 53 with the *Texas Register*.

Written comments pertaining to this proposed rule review must be submitted to Brian Guthrie, Executive Director, Teacher Retirement System of Texas, 1000 Red River Street, Austin, Texas 78701. The deadline for written comments is 30 days after publication of this proposed rule review notice in the *Texas Register*. In addition, the public will be given an opportunity to comment on the proposed rule review at a meeting of the TRS Board of Trustees (board) or the Policy Committee of the board or both.

Any changes to these rules proposed because of the rule review will be published in the Proposed Rule section of the *Texas Register*. The proposed rule changes will be open for public comment before final adoption or repeal by TRS in accordance with the requirements of the Administrative Procedure Act, Chapter 2001 of the Texas Government Code.

The following chapter is available for review at

[http://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=34&pt=3&ch=53&rl=Y](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=34&pt=3&ch=53&rl=Y):

Chapter 53. Certification by Companies Offering Qualified Investment Products.

Brian Guthrie
Executive Director
Teacher Retirement System of Texas

Tab 8

September 12, 2016

MEMORANDUM

TO: Board of Trustees
Brian Guthrie, Executive Director

FROM: Rebecca Merrill

TRS Board Bylaws Subsection 3.1.5(c) provides that the Policy Committee (“Committee”) is to adopt and follow a plan of review for each fiscal year to ensure that all written TRS Board policies are reviewed periodically. To accomplish this requirement, the Committee has adopted the Policy Review Schedule (“Schedule”), which provides for the regular review of all written board policies and is to be adopted every September.

Included in your materials are “marked” and “clean” copies of the Schedule. At the Committee meeting, staff will be asking the Committee to adopt the updates to the Schedule.

The Schedule is only adopted at the Policy Committee level. Therefore, at the September meeting, the Policy Committee will consider updating the Schedule but will not make a recommendation on the matter to the full Board.

**TEACHER RETIREMENT SYSTEM OF TEXAS
POLICY REVIEW SCHEDULE
APPROVED BY THE POLICY COMMITTEE SEPTEMBER ~~24~~²², 201~~5~~⁶**

BOARD POLICIES	STAFF SPONSOR	APPROXIMATE INTERVAL BETWEEN COMPREHENSIVE REVIEWS	DATE OF LAST POLICY COMMITTEE COMPREHENSIVE REVIEWⁱ	DATE TO BEGIN NEXT REVIEWⁱⁱ
ADMINISTRATIVE				
Mission Statement	Executive Director; Legal	2 years	December 2013 <u>November 2015</u>	November 201 5 ⁷
Authorization to Approve and Sign Vouchers	Financial; Legal	3 years	April 201 3 ⁶	April 201 9 ⁶
Performance Incentive Pay Plan	Executive Director; <u>Investments;</u> Human Resources; Legal	1 year	September 2015 <u>June 2016</u>	September 2016 <u>June 2017</u>
	<u>Investments;</u> <u>Human Resources;</u> <u>Legal</u>		<u>September 2016</u>	<u>September 2017</u>
Resolution Regarding Correction of Errors and Other Edits	Executive Director	5 years	February 2012	April 2017

BOARD POLICIES	STAFF SPONSOR	APPROXIMATE INTERVAL BETWEEN COMPREHENSIVE REVIEWS		DATE OF LAST POLICY COMMITTEE COMPREHENSIVE REVIEWⁱ	DATE TO BEGIN NEXT REVIEWⁱⁱ
Rules of the Board of Trustees – Rule Review	Legal; Finance; Benefits	4 years ⁱⁱⁱ	Chapter 53	December 2013 ^{iv}	June 2017 ^v
			Chapters 21-51	November 2014 ^{vi}	March 2018 ^{vii}
Litigation Policy	General Counsel	3 years		March 2015	March 2018
Policy on Negotiated Rulemaking and Alternative Dispute Resolution	Executive Director; Legal	5 years		June 2013	June 2018
Procurement Policy	General Counsel	3 years		June 2015	June 2018
At Will Employment	Human Resources; Legal	10 years		September 2013	September 2023
BOARD GOVERNANCE & ETHICS					
Bylaws of the Board of Trustees	Legal	4 years		September 2014	September 2018
Board Training Policy	Executive Director; Human Resources	4 years		November 2014	November 2018

BOARD POLICIES	STAFF SPONSOR	APPROXIMATE INTERVAL BETWEEN COMPREHENSIVE REVIEWS	DATE OF LAST POLICY COMMITTEE COMPREHENSIVE REVIEWⁱ	DATE TO BEGIN NEXT REVIEWⁱⁱ
Trustees External Communication Policy	Communications	5 years	March 2014	March 2019
Trustee Ethics Policy and Position Description	Legal	4 years	December 2013	December 2017 ⁹
EMPLOYEE & VENDOR ETHICS				
Designation of Key Employees	Executive Director	2 years	December 2013 November 2015	November 2015 November 2017
Employee Ethics Policy	Legal	4 years	December 2013	December 2017
Conflict of Interest Disclosure Statement (for use with the Employee Ethics Policy)	Legal	4 years	December 2013	December 2017
Ethics Compliance Statement for Employees (for use with the Employee Ethics Policy)	Legal	4 years	December 2013	December 2017
Disciplinary Action Disclosure Statement (for use with the Employee Ethics Policy)	Legal	4 years	December 2013	December 2017
Code of Ethics for Contractors	Legal	4 years	March 2015	March 2019
Contractor Annual Ethics Compliance Statement	Legal	4 years	March 2015	March 2019

BOARD POLICIES	STAFF SPONSOR	APPROXIMATE INTERVAL BETWEEN COMPREHENSIVE REVIEWS	DATE OF LAST POLICY COMMITTEE COMPREHENSIVE REVIEWⁱ	DATE TO BEGIN NEXT REVIEWⁱⁱ
Expenditure Reporting Memorandum	Legal	4 years	March 2015	March 2019
Expenditure Reporting Form for Contractors	Legal	4 years	March 2015	March 2019
Disclosure Statement for Brokers and Financial Advisors and Financial Providers	Legal	4 years	March 2015	March 2019
INVESTMENTS				
General Authority Resolution (GAR)	Financial; Investments	2 years	September 2014 September 2016	September 2018 6
Investment Policy Statement	Investments	2 years	September 2014 September 2016	September 2018 6
Soft Dollar Policy	Investments	3 years	December 2013	December 2016
Proxy Voting Policy	Investments	3 years	December 2013	December 2016
Securities Lending Policy	Financial; Investments	3 years	December 2013	December 2016

ⁱ Reviews scheduled or rescheduled to begin and to end at the meeting when the current Policy Review Schedule is approved are assumed to have been completed at that meeting, so that date is shown in this column, "Date of Last Policy Committee Comprehensive Review."

ⁱⁱ Initial review and discussion of the applicable policy occurs at the Board committee level on or about the date listed. Reviews may continue throughout one or more subsequent meetings.

ⁱⁱⁱ Government Code § 2001.039 requires a comprehensive rule review every four years. TRS reviews its rules by chapter.

^{iv} The last four-year review of Chapter 53 of TRS' rules was completed on December 18, 2013.

^v The date to begin the next rule review of Chapter 53 is based on the lead time needed to timely complete the review. The next review of Chapter 53 must be completed by December 18, 2017.

^{vi} The last review of the rules in Chapters 21-51 was completed on November 24, 2014.

^{vii} The next review of Chapters 21-51 must be completed by November 24, 2018.

**TEACHER RETIREMENT SYSTEM OF TEXAS
POLICY REVIEW SCHEDULE
APPROVED BY THE POLICY COMMITTEE SEPTEMBER 22, 2016**

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	Investments; Human Resources; Legal		September 2016	September 2017
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