COMPTROLLER'S INVESTMENT ADVISORY BOARD MEETING Friday, July 28, 2017 Minutes

The Comptroller's Investment Advisory Board (the "Board") met at 10 a.m. on Friday, July 28, 2017 at the LBJ State Office Building, 111 E. 17th Street, Room 114, Austin, Texas.

Board Members ("The Board") Present

Comptroller Glenn Hegar, Laurie Dotter, Jim Hille, Steve Strake, Adolpho Telles and Scott Wise.

Board Members Absent

Tucker Bridwell.

Comptroller of Public Accounts Staff Present

Mike Reissig, Deputy Comptroller.

Texas Treasury Safekeeping Trust Company ("Trust Company") Staff Present

Danny Sachnowitz, Deputy Director and Deputy Chief Investment Officer; Frank Zahn, Chief Financial Officer; Gena Minjares, Deputy Chief Financial Officer; Mike Samples, Director of Internal Investments; Marianne S. Dwight, General Counsel; Laura Montoya, Chief Operating Officer; Michael Anderson, Compliance Officer; John Wright, Deputy General Counsel; Byron Beasley, Portfolio Manager; Lalo Torres, Portfolio Manager; Michael Leifeste, Portfolio Manager; Ruchit Shah, Portfolio Manager; Jyoti Gupta, Portfolio Manager; Jorge de Lafuente, Director of Operational Due Diligence; Adam Levine, Chief Strategist; Anca Ion, Deputy Director of Internal Investments; Patrick Jue, Investment Analyst; Nora Arredondo, Special Projects Coordinator; Brandy Bianco, Graphic Designer; Chad Turner, Risk Manager; Yunke Yu, Quantitative Data Analyst; and Yunjing An, Quantitative Data Analyst.

Additional Participants

Lori Mills and Tom Janisch, Asset Consulting Group ("ACG").

Call to Order

Comptroller Glenn Hegar declared that a quorum was present and called the meeting to order at 10:01 a.m.

Approval of Minutes of April 12, 2017 Meeting (Tab 1)

Mr. Jim Hille made a motion to accept and approve the minutes of the April 12, 2017 Comptroller's Investment Advisory Board meeting. The motion was seconded by Mr. Steve Strake and unanimously approved by the Board.

Annual Review of Comptroller's Investment Policy (Tab 2)

Mr. Danny Sachnowitz reported that there were no recommended revisions to the Comptroller's Investment Policy at this time. Mr. Adolpho Telles asked how policies are generally monitored for compliance. Mr. Sachnowitz explained that the Trust Company reviews investment policies annually and has a compliance officer who monitors and oversees said policies.

Annual Review of Texas Economic Stabilization Investment Fund Investment Policy ("TESTIF") (Tab 3)

Mr. Sachnowitz reviewed the recommended revisions to the TESTIF Investment Policy as presented in the draft behind Tab 3. The changes are minor and are as follows: 1) defining the term "fund" consistently throughout the document; 2) the benchmark is now weighted by how the portfolio is actually allocated rather than by its target weight (the "dynamic" benchmark); and, 3) clarifies that Treasury Pool investments within the TESTIF are included in calculation of the state's required sufficient balance as set forth in the Texas Government Code.

Ms. Laurie Dotter made a motion to recommend approval of the proposed changes to the TESTIF Investment Policy to Comptroller Glenn Hegar, as described in the draft behind Tab 3. The motion was seconded by Mr. Adolpho Telles and unanimously approved by the Board.

Economic Outlook, Investment and Review of Treasury Pool (Tab 4)

Mr. Mike Samples reported that the Treasury Pool yield for the quarter ending June 30, 2017 was 1.30%, up .85% from its low. The portfolio had a market value of approximately \$27.5 billion and continued to maintain a AAA rating by Standard & Poor's. The portfolio was able to capture 85% of the Federal Reserve (the "Fed") interest rate increase. He explained that the portfolio is positioned to capture those rate increases relatively quickly when the Fed raises rates. At this point, the Fed is gradually increasing interest rates, as expected.

Mr. Samples summarized the portfolio composition as of June 30, 2017. He explained that the largest position in the portfolio was commercial paper, which accounted for approximately 30%. There was not a distinct advantage in buying agencies versus treasuries, and those positions made up 13% and 15% respectively of the portfolio. Mr. Samples believes it is wise to have less interest rate risk in the portfolio at this time. Although it contained less risk, the Treasury Pool outperformed its benchmark.

Mr. Samples reviewed the changes in federal receipts from 2006-2016, as illustrated on pages 10-11 behind Tab 4. He explained that total expenditures continue to increase over total receipts. He believes this is a serious issue and if nothing is done, entitlements will consume all revenues. Mr. Samples doesn't believe there will be another interest rate increase in December; however, the possibility does exist. He is concerned that the U.S. is not going to realize satisfactory economic growth. He expects economic growth to continue at a pace of 1.0%-2.0% annually. With this expectation, he and his team are maintaining an average maturity neutral to the benchmark for the Treasury Pool.

Capital Markets Outlook and Investment Performance for the Quarter Ending March 31, 2017 (Tab 5)

Ms. Lori Mills of Asset Consulting Group provided a review of the capital markets. For the period ending June 30, 2017, she reported that there were a few trends that continued from the first quarter ending March 31, 2017. Equities performed better than bonds. Global equities posted strong absolute returns with non-U.S. markets outperforming domestic stocks. Global fixed income produced marginally positive returns. She reported that commodities continued to struggle and were down approximately 5.0% partly due to the uncertainty surrounding OPEC's production cuts.

Ms. Mills explained that economic growth was continuing at a modest rate of 2.0%-2.50%. ACG believes inflation will hover at 1.5% - 2.0% and likely approach the Fed 2.0% target. She reported that the labor market continued to show signs of tightening and real wage increases (net of inflation) were lagging expectations. ACG expects future Fed interest rate hikes are likely to remain at a gradual pace. ACG believes the economic theme continues to be muted returns with low inflation and low interest rates. ACG prefers equity and real assets over fixed income (non-U.S equities preferred to U.S. equities). She explained that active management strategies in less efficient asset classes were favored while still utilizing more opportunistic managers when appropriate and that hedged strategies in the portfolio were still essential for downside protection. Ms. Mills reported that ACG and Trust Company staff continually monitor and evaluate the portfolio for compliance with strategic objectives.

Next, Mr. Tom Janisch of ACG reviewed the total portfolio summary for the period ending March 31, 2017. He reported that relative to broad market benchmarks, the total portfolio had generated 103% of the return with 50% of the risk. The portfolio generated a higher return with similar risk relative to the endowment policy over the last five years. In short, it produced a better risk-adjusted return than the benchmark. More specifically, Mr. Janisch reported that with the exception of one quarter, the portfolio contributed positively and outperformed the benchmarks in the first quarter, and the trailing one, three, and five year periods. He reported that for the quarter ending March 31, 2017, the portfolio had produced a return of 3.50% compared to 2.74% for the policy benchmark, and an annualized rate of return of approximately 5.93% over the previous five-years, compared to 5.11% for the policy benchmark. He explained that each broad asset class (fixed income, equity and real assets) had contributed positively over the first quarter and trailing one, three and five year periods. Equities have been the best performing portion of the portfolio over each of the trailing periods.

Mr. Janisch reported that the State Water Implementation Fund for Texas ("SWIFT") portfolio produced higher returns and lower risk than the policy and dynamic benchmarks since inception. The portfolio posted a 2.45% return for the quarter ending March 31, 2017, outperforming its policy benchmark by 0.35% and outperforming its dynamic benchmark by 0.48%. Performance for the broad asset classes of fixed income, equity and real assets all exceeded their benchmarks for the quarter and have significantly outperformed their benchmarks since inception. Overall, the portfolio has generated higher returns as expected with lower risk than either the policy or dynamic benchmarks.

Endowment, SWIFT and TESTIF Portfolio Updates and Related Matters (Tab 7)

Mr. Danny Sachnowitz presented the Board an overview of the endowment portfolio and reported that it was in compliance with its investment policy. He reported that as of March 31, 2017, the portfolio value was approximately \$3.99 billion. He recapped the executive summary pages and reported that the portfolio was performing as expected. The best performing sectors were global public equity, hedged equity, and real estate. For the quarter, the natural resources sector was the only negative performer, declining 1.60%. As previously reported, all asset strategies were exceeding their respective benchmarks for the trailing one year period. Only global fixed income, at 7.20%, and commodities, at 9.80%, returned less than 10%. Mr. Sachnowitz reviewed the asset allocation summary, which demonstrates where the asset classes are over or under-weight. He explained that cash had been built up in anticipation of the Tobacco Endowment distribution. He reviewed the asset allocation sand chart which demonstrates the evolution of the portfolio and shows that endowment assets are at a new peak of \$3.99 billion.

Mr. Lalo Torres reported on global fixed income. He explained that the portfolio's relative outperformance was driven primarily by its higher exposure to credit securities as corporate spreads tightened and investor demand continued to increase. He reported that the global fixed income portfolio added two new enhanced cash vehicles which invest in very short-term corporate debt with a shorter duration profile, making them less subject to risk from rising interest rates.

Mr. Ruchit Shah reported on alternative fixed income and private credit. He reported that the strategies have continued to outperform their benchmarks. The portfolio continued to perform well as credit

positioning in small to mid-cap companies and exposure to Asian credit produced particularly high returns. He explained that the event driven portion of the portfolio had experienced a strong turnaround. Mr. Shah also manages private debt and stated that this sector typically is overweight in distressed debt and has benefited from substantial realizations across many of the distressed strategies.

Lunch Speaker: Todd Bright, Head of Private Infrastructure Americas, Partners Group (Tab 6: biography and handout)

Mr. Bright reviewed the handout regarding "True Infrastructure" as defined by Partners Group ("PG"). He discussed various infrastructure sectors such as communication, transportation, power, energy, water, waste, and social. He explained how geography was important but geography had risks. Risks like currency, political, and regional risks must be taken into account. He stated that construction risk is one of the few risks that can be overpriced by the market. Mr. Bright stated that PG does not invest in coal related investments. They believe if coal plants are still operating, their days are numbered. They are positive on natural gas versus thermal power. PG believes transportation is opportunistic and not very active. In North America, power opportunities are most abundant and communication growth is attractive in select situations. In Latin America, the communications sector represents developing opportunities. In Europe, innovation is key in a competitive environment and PG is fond of the German offshore wind farms. Asia has potential for platform opportunities, but pricing and competition are increasing. He explained that Australia and New Zealand are developed economies with a supportive regulatory environment but sector selection is important.

Endowment, SWIFT and TESTIF Portfolio Updates and Related Matters (Tab 7), Continued

Mr. Adam Levine explained the metrics of how the investment team is capturing the upside and downside relative to the benchmark. He stated that he and his team focus on trend analysis in general rather than point-in-time snapshot data. He reported that he and his team initiated their first S&P 500 futures position in March. The position had a \$1 million notional value, adding the same amount of equity exposure to the portfolio. Since this was the first futures position, reporting systems were evaluated and, once determined to be operating as expected, additional exposure was added to the position. The primary purpose of the program is to make more efficient use of cash and to eliminate cash performance drag in the portfolio.

Ms. Jyoti Gupta discussed the hedge and global public equity portfolios. She reported that nearly all global public equity managers, with the exception of two, produced positive returns. Notable performances came from emerging markets and non U.S. developed market strategies. She explained that other areas of focus will include event driven strategies and strategies in healthcare and she is also beginning a process to identify additional managers located outside of the U.S. and Europe.

Mr. Byron Beasley reviewed the private equity portion of the portfolio. He reported that, as a result of high prices, managers were selling assets and distributions from these realizations were exceeding capital calls to fund new investments. In other words, more money was coming in than going out. This caused the private equity allocation to decline from 10% to 9% of total endowment assets. He stated that he was looking for good entry points for new positions and that co-investment opportunities were being evaluated.

Mr. Mike Leifeste reported that no new commitments were made in the real estate portion of the portfolio during the first quarter. Stable value investments produced a return of over 12% for the year. He explained that retail space demand was changing as people do more shopping via e-commerce rather than going to brick and mortar locations. He added that there was not much surplus in the supply of housing and that the Trust Company was a large investor in single family rentals, senior housing, and apartments.

Mr. Chad Turner discussed the Value at Risk Analysis (VaR) and portfolio risk summary. He reported that the portfolio matched the policy benchmark at a 3.5% VaR. He explained that managers have been

increasing risk exposures in their strategies. The analysis continues to demonstrate that the policy portfolio is expected to protect value better than a traditional 65/35 stock/bond portfolio in times of market drawdowns.

Mr. Sachnowitz reviewed the performance table and reported that the portfolio produced a 1.0% return for the month of April, 1.0% return for the month of May, and 0.1% return for the month of June.

Mr. Torres presented an overview of the SWIFT portfolio. The portfolio value as of March 31, 2017 was approximately \$1.94 billion and remains very liquid. He explained how the SWIFT portfolio had evolved and that approximately \$160 million of the \$183 million that was withdrawn by the Water Development Board in the first two years of the program had been earned back. Mr. Torres commented that the portfolio continues to meet its statutory and performance objectives and thus far its year-to-date return is 2.5%. He reported that approximately \$155 million may be distributed in the October 2017 SWIFT funding cycle.

Mr. Torres summarized the TESTIF portfolio report and stated that it was performing as designed by outperforming the Treasury Pool and preserving its purchasing power. The portfolio remains very liquid.

Legislative Update

No new legislative update.

Discussion of Next Meeting and Agenda Items

Comptroller Hegar announced that the next meeting would be scheduled for some time in October. No future agenda items were suggested.

Public Comment

None.

Adjourn

The meeting adjourned at 1:40 p.m.