COMMENT FROM THE CIO

In a near repeat of 2013, the United States continued its economic recovery during the fiscal year that ended September 30, 2014, while the rest of the world, with few exceptions, showed anemic or decelerating growth. With mixed signals of positive news in the U.S. (the winding down of the Federal Reserve’s bond-buying program, low interest rates around the world, and the deflationary effects of free-falling oil prices), 10-year interest rates fell slightly during the fiscal year. Subsequently, interest rates fell dramatically between October 2014 and the end of January 2015 to a near historic low of 1.6 percent for 10-year U.S. Treasuries. We did not expect the S&P 500 to repeat its 19 percent return in FY 2014, and we did not expect U.S. interest rates to continue their decline. Despite these unexpected factors, Caltech’s endowment investment pool generated a 10.1 percent return during FY 2014, outperforming our policy benchmark by 30 basis points and handily beating the generic 60/40 global equities/U.S. Bond index by 120 basis points.

As with the prior year, the various components of our return provided highly disparate results. For FY 2014, the S&P 500 had a total return of more than 19.7 percent and the NASDAQ Index had a total return of 20.7 percent, both near repeats of FY 2013. On the other side of the performance spectrum, the global developed ex-U.S. equity markets (primarily Europe, Japan, and Australia) generated a 5.6 percent total return while the MSCI Emerging Markets Index return was just 4.6 percent, both driven by economic weakness and low to no growth. Results like these are why Caltech has a diversified portfolio that holds assets beyond public equities and bonds. For example, this year we had strong contributions from our private equity portfolio, which provided a 22 percent return. Despite a lower absolute performance, our large alternative securities portfolio showed much lower volatility than equities and generated a solid 10.7 percent return, beating its benchmark of 7.3 percent by 340 basis points.

Looking forward to FY 2015, we find ourselves in a challenging investment environment. Currently, the bond market provides little room for error, and even a small mistake by global policymakers could cause turmoil in both the debt and equity markets. Europe continues its slump, and rekindled speculation about a Greek exit from the euro is causing market jitters. Most emerging markets appear relatively weak, particularly Brazil and Russia, with Russia’s economy currently in disarray. The U.S. dollar has strengthened, making imports less expensive; interest rates are extremely low; and oil prices have dropped. All of this should be a boon to most U.S. consumers, yet it appears factory orders are declining due to slow overseas economies and the strength of the U.S. dollar, and consumers are not spending as much as expected. As some commentators note, the U.S. markets may just be the best of the poor choices.

The recent volatility in energy merits some explanation: On one hand, the fall in oil prices will adversely affect our investment pool in FY 2015. Caltech has investments related to exploration and production projects that are proving uneconomic as oil declines to $45–$50 per barrel. On the other hand, energy-market dislocation creates opportunities for our energy, distressed debt, and other hedge fund managers to identify energy-related investments that have intrinsic value well above their current market values. Overall, this should benefit the portfolio in years to come.

We continue to have a long-term investment horizon and do not currently plan to change materially the investment pool’s asset allocation; i.e., chasing returns would be a mistake. Caltech intends to maintain a globally diversified portfolio focused on generating relatively consistent long-term returns that provide for the endowment payout plus inflation, plus at least a little extra for good measure. With a five-year track record of compounding returns at 9.3 percent annually, we have more than achieved our goal.

Thank you for your continued support of Caltech and its endowment.

Scott H. Richland
Chief Investment Officer
May 2015
Caltech students and faculty work at the forefront of science and technology. One of our most powerful financial tools for promoting their learning and discovery is our endowment—nearly all of which is an investment pool that includes more than 1,100 privately donated endowed funds that support research, scholarships, fellowships, professorships, and much more. The Institute uses part of the endowment payouts to support our students’ and faculty’s most innovative ideas.

Thanks to a 10.1 percent return on investment and $163.5 million in new gifts and other additions, the total market value of Caltech’s investment pool rose by more than 11.8 percent (from $2.03 billion to $2.27 billion) in FY 2014, net of payout and other withdrawals.

Approximately $115 million in endowment payout in FY 2014 significantly advanced Caltech’s research and education missions in key areas and supported 18.2 percent of the campus operating budget.

*October 1, 2013, through September 30, 2014

The Caltech Investment Office manages the Institute’s investment pool and other invested assets under the direction of the Investment Committee of the Board of Trustees. The Investment Office develops recommendations on investment policies, strategies, and asset allocation for review and approval by the Investment Committee. With the general guidelines in place, the Investment Office then identifies what it considers to be best-in-class asset managers around the world who can effectively implement the adopted investment strategies.

The Investment Office focuses on medium- to long-term performance—identifying global trends and investment opportunities that may develop over many years. While quarter-to-quarter performance is closely monitored and appropriate portfolio adjustments are made from time to time, ultimately the primary goal is to earn long-term rates of return that support the annual endowment payout and maintain the inflation-adjusted purchasing power of the endowment, allowing it to support the Institute’s activities for generations to come.

*October 1, 2013, through September 30, 2014

Walter and Leonore Annenberg Center for Information Science and Technology PHOTO: SETH HANSEN
ENDOWMENT INVESTMENT POOL PERFORMANCE
Benchmark comparisons for endowment investment pool returns for periods ending September 30, 2014

<table>
<thead>
<tr>
<th></th>
<th>1 YEAR</th>
<th>3 YEARS</th>
<th>5 YEARS</th>
<th>10 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caltech endowment</td>
<td>10.1%</td>
<td>11.9%</td>
<td>9.3%</td>
<td>7.2%</td>
</tr>
<tr>
<td>pool annualized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>return</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benchmark policy</td>
<td>9.8%</td>
<td>9.4%</td>
<td>8.2%</td>
<td>7.4%</td>
</tr>
<tr>
<td>portfolio annualized</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>return</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in the table above, for FY 2014 the Caltech endowment investment pool generated a 10.1 percent return, exceeding the benchmark policy portfolio by 0.3 percentage points. Similarly, for the three-year period ended September 30, 2014, the investment pool generated an 11.9 percent annualized return, beating the benchmark policy portfolio by 2.5 percentage points. For the five-year period, the investment portfolio generated a 9.3 percent annualized return, beating the benchmark portfolio by 1.1 percentage points. Performing particularly well, our hedge fund portfolio delivered a 10.7 percent return for the one-year period, beating its benchmark by 3.4 percentage points. While some of our managers and the hedge fund industry overall had a challenging year, we were fortunate to have several managers who took advantage of unique opportunities in the credit and distressed markets, resulting in returns that helped us beat our benchmark. Our private equity funds also did well during the year, with a 22 percent return, beating the benchmark by 1.5 percentage points.

ANNUAL FISCAL YEAR RETURN

In FY 2014, the total market value of the endowment investment portfolio rose by almost 12 percent (from $2.03 billion on September 30, 2013, to $2.27 billion on September 30, 2014) including investment gains, new gifts, deposits, and transfers in; offset by endowment payout, transfers out, and endowment investment-management expenses. Over the last 10 years, the total endowment balance has grown at a compound annual rate of more than 6 percent, net of endowment payout to the Institute and other withdrawals. In the same period, payout to the Institute from the endowment investment pool has totaled nearly $950 million.
Endowment payout helps Caltech attract promising and accomplished faculty and students; promote high-risk, high-reward research; and admit students based entirely on their academic and personal strengths. Because of the freedom, flexibility, and stability this long-term funding provides, endowment funds are one of Caltech’s essential financial tools.

Caltech deposits the funds from each new endowment gift into the endowment investment pool for investment. Payouts from these investments support research centers; scholarship, fellowship, professorship, and discovery funds; the general operating budget; and other activities designated by individual donors. Caltech endeavors to preserve the original gift amounts prudently to help each endowed fund support its purpose for future generations.

Because Caltech students and faculty work at the forefront of science and technology, endowed funds at Caltech contribute to major, long-term advances. These funds promote discovery in such areas as clean energy, biosciences, global environment, advanced materials, information science and technology, and exploration of the universe, as well as many others.

**USES OF ENDOWMENT PAYOUT** FISCAL YEAR 2014

- **RESEARCH** 27%
- **STUDENT AID & FELLOWSHIPS** 25%
- **ENDOWED CHAIRS** 18%
- **INSTRUCTION & ACADEMIC SUPPORT** 15%
- **GENERAL SUPPORT, INCLUDING FACILITIES** 15%

*Students process after receiving their degrees at Caltech’s 2014 Commencement. PHOTO: LANCE HAYASHIDA/CALTECH OFFICE OF STRATEGIC COMMUNICATIONS*
The asset allocation policy for Caltech’s endowment investment pool emphasizes diversification across geographies and asset classes, striving to achieve strong long-term investment performance while avoiding concentrated risk in any single asset class, geography, or investment style that could subject the portfolio to outsized permanent losses. Once the strategic asset allocation ranges are established (and adjusted from time to time), shorter-term tactical adjustments may be made to reflect current market conditions.

As of the end of FY 2014, tactical adjustments relative to the target asset allocation of the policy benchmark resulted in the investment portfolio being underweighted in traditional fixed income (4 percent actual versus 7 percent target) and private equity (8 percent actual versus 11 percent target). The endowment investment portfolio was overweighted in global developed markets equities (28 percent actual versus 24 percent target).

The underweighted position in fixed income continues to reflect our concern that the end of quantitative easing and fiscal stimulus will eventually lead to a more normal interest rate environment—and that the rise in interest rates will have an adverse effect on U.S. Treasuries and low-spread fixed-income instruments. The underweight in private equity reflects our continuing efforts to shift the portfolio from lower-performing managers to higher-performing managers. We are still in the early stages of rebuilding the portfolio but are encouraged by the fact that our private equity portfolio outperformed its benchmark for the most recent one-year period. Our overweight in global developed markets equities is helping to offset our underweight in private equity.

### Asset Class Returns and Allocations

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>FY 2014 Asset Class Return</th>
<th>Actual Allocation</th>
<th>Target Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global developed markets equities</td>
<td>11.1%</td>
<td>28%</td>
<td>24%</td>
</tr>
<tr>
<td>Emerging markets equities</td>
<td>2.9%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Alternative securities</td>
<td>10.7%</td>
<td>28%</td>
<td>27%</td>
</tr>
<tr>
<td>Private equity and venture capital</td>
<td>22.0%</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>Real assets</td>
<td>13.0%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Fixed income</td>
<td>4.9%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Cash and other</td>
<td>0.1%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

In FY 2014, the alternative securities asset class made the largest contribution to Caltech’s 10.1 percent investment portfolio return, driven by timely investments in residential mortgage-backed securities funds and distressed credit funds. The second-largest contributor was our global developed markets equity portfolio.

### Endowment Liquidity

Caltech’s endowment investment pool is closely managed and monitored for liquidity. We define liquidity as the ability to realize and access cash from an investment in a timely manner. There are four main reasons for desiring liquidity: First, the portfolio has obligations that must be satisfied, sometimes on relatively short notice, such as investment-fund capital calls. Second, changes in tactical and/or policy allocations require liquidity to implement. Third, from time to time, unusual investment opportunities arise, driven by market or other forces, that cannot be seized without liquidity. Fourth, in times of economic downturn, the endowment investment pool must be prepared for a potential reduction in cash inflows. The Caltech endowment investment pool is quite liquid, with more than 25 percent of the assets currently convertible to cash within one to two weeks under normal circumstances and nearly 40 percent convertible to cash within a calendar quarter under normal circumstances.
The Caltech Investment Office reports jointly to the Board of Trustees’ Investment Committee and the Institute’s president, with the Investment Committee having primary responsibility for setting investment policy and overseeing policy implementation. The committee currently consists of eight voting members and three nonvoting advisers who interact frequently on specific topics and meet at least quarterly to discuss and review asset allocation, investment policies, new investments, and portfolio performance. The committee’s members and advisory participants bring significant experience in both specific asset classes and the investment industry in general.

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Ambassador Ronald P. Spogli, Advisory Participant
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