ENDOWMENT REPORT

FISCAL YEAR 2013

Caltech
During 2013, due to continuing accommodative fiscal and monetary policy and recovery in corporate earnings and prospects, investors in U.S. equities enjoyed returns that were double the most optimistic forecasts. During our fiscal year ending September 30, 2013, the S&P 500 had a total return of over 19 percent, while the NASDAQ Index total return was over 23 percent. At the same time, bond yields approached all-time lows, sending bond prices skyward as well. On the other side of the performance spectrum, the MSCI Emerging Markets Index had a total return of 1.3 percent, driven by a perceived slowdown in growth in China and deteriorating economic and political conditions in places like Brazil. However, this is exactly why Caltech has a broadly diversified portfolio exposed to various global geographies, investment types, asset classes, and managers, which allows us to benefit from strong returns in different markets from year to year. Importantly, we have identified and hired a strong group of investment managers whose performance allowed us to beat our policy index by 3.2 percentage points. As an example, the managers in our alternative securities portfolio, consisting primarily of hedge funds and other specialized asset managers with much less volatility than public equities, provided a 13.3 percent return, beating the HFRI Fund Weighted Index by 6.9 percentage points.

Looking forward to 2014, we find ourselves in a challenging investment environment. U.S. and European equities appear to be fairly valued (with the United States on the high end of fair) and not likely to repeat 2013’s spectacular performance. Emerging markets, although relatively less expensive than their developed counterparts, have political, economic, and social headwinds—particularly those markets that have large fiscal deficits and had been dependent upon providing natural resources and other commodities to accommodate China’s explosive growth. With both U.S. equities and fixed income appearing expensive, we remain concerned that a reversion to more typical historic interest rates and equity multiples would cause a sharp correction in securities prices. As a result, we have continued our position of relatively low exposure to U.S. equities and long-duration fixed income to protect the endowment, while investing in other asset classes that have allowed us to generate healthy returns to support our payout. Areas where we continue to see some interesting opportunities include value-added/opportunistic real estate and mortgages; energy; nimble, multi-strategy hedge fund managers; and equities in certain emerging markets.

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

Scott H. Richland
Chief Investment Officer
June 2014
FISCAL YEAR 2013* ENDOWMENT REPORT

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—part of 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 endowment payouts to support our students’ and faculty’s most innovative, time-sensitive ideas.

Thanks to an 11.5 percent return on investment and $62 million in new gifts and other additions, the total market value of Caltech’s investment pool rose from $1.87 billion to $2.03 billion in fiscal year 2013, net of payout and other withdrawals.

Approximately $102 million in endowment payout in fiscal year 2013 significantly advanced Caltech’s research and education in key areas and supported 16.8 percent of the campus operating budget.

*October 1, 2012, through September 30, 2013

THE CALTECH INVESTMENT OFFICE

The Caltech Investment Office manages the Institute’s endowment 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, the ultimate 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.
ENDOWMENT INVESTMENT POOL PERFORMANCE
Benchmark comparisons for endowment investment portfolio returns for periods ending September 30, 2013

<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 investment</td>
<td>11.5%</td>
<td>8.9%</td>
<td>5.5%</td>
<td>7.3%</td>
</tr>
<tr>
<td>portfolio annualized return</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy portfolio annualized</td>
<td>8.3%</td>
<td>7.3%</td>
<td>5.5%</td>
<td>7.6%</td>
</tr>
<tr>
<td>return</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambridge College and University Average</td>
<td>11.9%</td>
<td>8.9%</td>
<td>6.9%</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

During fiscal year 2013, the Caltech endowment investment portfolio generated an 11.5 percent return, beating the benchmark policy portfolio by 3.2 percentage points and narrowly trailing the broad College and University Average return as compiled by Cambridge Associates for the same period. Similarly, for the three-year period ended September 30, 2013, the investment portfolio generated an 8.9 percent annualized return, beating the benchmark policy portfolio by 1.6 percentage points and in line with the Cambridge Associates College and University Average return of 8.9 percent. For the five-year period, the endowment matched the benchmark policy portfolio but lagged the Cambridge Associates College and University Average. The small underperformance compared to peers during the year can be attributed to a comparative underweighting to U.S. equities, an overweighting to poorly performing emerging markets equities, and an overweighting to hedge funds that could not keep up with the economically stimulated U.S. equity markets but still delivered a return of 13.3 percent with much lower volatility than equities. Much of the underperformance for the five-year period can be attributed to the investment pool taking a conservative stance during the financial crisis of 2008, raising cash levels to over 20 percent of the portfolio during the crisis. While this action preserved liquidity and avoided the need to borrow and/or liquidate investments at distressed prices to meet the endowment’s obligations (by contrast with many other large endowments), the endowment investment portfolio then missed some of the financial markets’ recovery during 2009 and 2010.

ANNUAL FISCAL YEAR RETURN

In fiscal year 2013, the total market value of the endowment investment portfolio rose by almost 9 percent, from $1.87 billion on September 30, 2012, to $2.03 billion on September 30, 2013, 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 compounded annual rate of about 6 percent.

1 Cambridge Associates Comparative Asset Allocation and Total Return: Colleges and Universities Quarterly Survey for the periods ended September 30, 2013
PURPOSE AND IMPACT

CALTECH ENDOWMENT ENABLES PROGRESS

Endowment payout helps Caltech to attract promising and accomplished faculty and students; to promote high-risk, high-reward research collaborations; to admit students based entirely on their academic and personal strengths; and to provide an education rich in hands-on experience at the forefront of science. Because of the freedom, flexibility, and stability this long-term funding provides, the endowment investment portfolio is one of Caltech’s most powerful financial tools.

Caltech deposits the funds from each new endowment gift into the endowment portfolio for investment. Payouts from these investments support each new research center, scholarship, fellowship, professorship, discovery fund, the general operating budget, or other endowment as intended by the gift. Caltech endeavors to preserve the original gift amounts prudently to help each endowed fund support its purpose for generations to come.

Because Caltech students and faculty focus on the leading edge of science and technology, endowed funds at Caltech contribute to major, long-term advances. These funds promote discovery in areas such as clean energy, biomedicine, global environment, advanced materials, information science and technology, and exploration of the universe.

USE OF ENDOWMENT PAYOUT  FISCAL YEAR 2013

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT AID AND FELLOWSHIRPS</td>
<td>25%</td>
</tr>
<tr>
<td>RESEARCH</td>
<td>26%</td>
</tr>
<tr>
<td>GENERAL SUPPORT/FACILITIES</td>
<td>15%</td>
</tr>
<tr>
<td>INSTRUCTION AND ACADEMIC SUPPORT</td>
<td>16%</td>
</tr>
<tr>
<td>ENDOWED CHAIRS</td>
<td>18%</td>
</tr>
</tbody>
</table>
The asset allocation policy for the endowment investment portfolio emphasizes diversification across geographies and asset classes, endeavoring 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 volatility. Once the strategic asset allocation ranges are established, shorter-term tactical adjustments may be made to reflect current market conditions.

Relative to the target asset allocation of the policy portfolio benchmark, the endowment investment portfolio is underweighted in traditional fixed income (3 percent actual versus 8 percent target). Conversely, the endowment investment portfolio is overweighted in U.S. equities (12 percent actual versus 10 percent target), international developed equities (11 percent actual versus 10 percent target), and emerging market equities (11 percent actual versus 10 percent target).

The underweighted position in fixed income continues to reflect our concern that the eventual end (or tapering) of quantitative easing and fiscal stimulus will eventually lead to a more normalized interest rate environment—and that the rise in interest rates will have an adverse effect on treasuries and low-spread fixed-income instruments. The overweight in U.S. and international developed markets equities was mostly a function of strong performance during the prior year.

In fiscal year 2013, the alternative securities asset class made the largest contribution to Caltech’s 11.5 percent endowment investment portfolio return, driven by timely investments in residential mortgage-backed securities funds and strong performance from several event-driven, long-short equity and multi-strategy hedge funds. The second-largest contributor was our domestic equity portfolio.

The endowment portfolio is closely managed and monitored for liquidity, which is the potential to convert an investment quickly to cash. There are three main reasons for wanting liquidity: first, the portfolio has obligations, including funding endowment payout and investment-fund capital calls, that must be satisfied, sometimes on relatively short notice. Second, from time to time, unusual investment opportunities arise, whether driven by market forces or otherwise, that cannot be exploited without liquidity. Third, in times of economic downturn, the endowment must be prepared for a potential reduction in cash inflows. The Caltech endowment portfolio is quite liquid, with nearly 30 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 Investment Committee is chaired by Joshua S. Friedman, co-founder of Canyon Partners, LLC. The committee currently consists of seven 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 all bring significant experience in both specific asset classes and the investment industry in general.

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photo: Bob Paz

Inside front cover: Scott Richland, Caltech’s chief investment officer
photo: Lisa Vandergriff

Inside front cover: Students working in the Linde + Robinson Laboratory, home of the Ronald and Maxine Linde Center for Global Environmental Science
photo: David Warkely

Page 1: Assistant Professor of Chemistry Theodor Agapie develops chemical processes that promise to provide benefits in fields spanning energy, materials, and health
photo: Lance Hayashida

Page 3: Summer Undergraduate Research Fellowships provide opportunities for students, such as Anna Hiszpanski (pictured here) to gain firsthand research experience
photo: Bob Paz