

A photograph of a long, covered walkway at Stanford University, known as the redwood walkway. The walkway is flanked by a wall of stone on the left and a series of columns on the right. The ceiling is dark with several large, white, teardrop-shaped pendant lights hanging from it. The floor is a light-colored concrete. In the foreground, a man with a backpack is walking away from the camera. In the middle ground, three women are walking towards the camera. The walkway leads to a series of arches in the distance, where more people can be seen. The lighting is warm and natural, suggesting it's daytime.

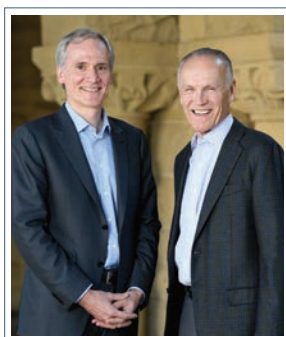
STANFORD MANAGEMENT COMPANY

# Stanford University Investment Report



2016





Dear Friends,

One hundred and twenty-five years ago, Leland and Jane Stanford envisioned a University committed to excellence, accessibility, and public service. The University's mission is firmly rooted in the Stanfords' belief that education and research can — and should — benefit society while furthering our understanding of ourselves and our world.

Today, Stanford carries out its mission across seven schools with more than 16,000 students and 2,100 faculty members. Stanford has educated multiple generations of students and scholars, with alumni who are pioneers and leaders in the fields of education, engineering, business, law, medicine, science, and the humanities.

Since the initial endowment gift from Leland and Jane Stanford in 1885, the University has relied upon the generosity of donors who have established endowed funds for scholarships, fellowships, professorships, and other purposes. Stanford's \$22.4 billion Endowment is the University's largest financial asset, comprising more than 7,000 individual funds, each one used in accordance with the donor's wishes. Through careful investment management by Stanford Management Company, these funds are intended to benefit present and future generations alike, enabling Stanford to carry out its mission by providing critical long-term financial support and stability.

In an increasingly complex and interdependent world, Stanford continually strives to expand knowledge, stimulate our students to think both broadly and deeply, and thoughtfully contribute through research to our country and humanity.

Sincerely,

Marc Tessier-Lavigne  
*President*  
*Stanford University*

Steven A. Denning  
*Chair, Board of Trustees*  
*Stanford University*



*Stanford Management Company manages Stanford University's Merged Pool with the dual goals of preserving the purchasing power of the Endowment for future generations of students and scholars and enabling a robust annual disbursement to the current operating budget.*



Dear Friends and Colleagues,

As the University's investments office, Stanford Management Company plays a critical role in stewarding Stanford's financial assets for present and future generations of students and scholars. In this brochure, we report investment results through June 30, 2016, and we outline the work of our office and its direct connection to Stanford's commitment to education and research, accessibility, and public service.

Indeed, it is vital that we place our investment efforts in the broader context of the University's work. Informed and inspired by Stanford's mission, the investments office staff strives for excellence and is committed to continuous improvement. Importantly, in all our work and at every juncture, we try to make decisions that are in Stanford's long-term interests, even when they are difficult in the short run. In this way, we hope to succeed over time through discipline, careful process, high conviction, and intellectual integrity. We believe these characteristics underpin successful investment management and form the bedrock of a truly fiduciary approach.

Having joined Stanford Management Company in July 2015, I am a relative newcomer to the University. However, my time at Stanford has already confirmed to me that it is a special place, filled with great inspiration and talent, and that we at Stanford Management Company are incredibly fortunate to be entrusted with the stewardship of the University's investment program.

Sincerely,

A handwritten signature in blue ink that reads "Robert F. Wallace". The signature is fluid and cursive, with a long, sweeping underline.

Robert F. Wallace  
*Chief Executive Officer*  
*Stanford Management Company*



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# Stanford Management Company



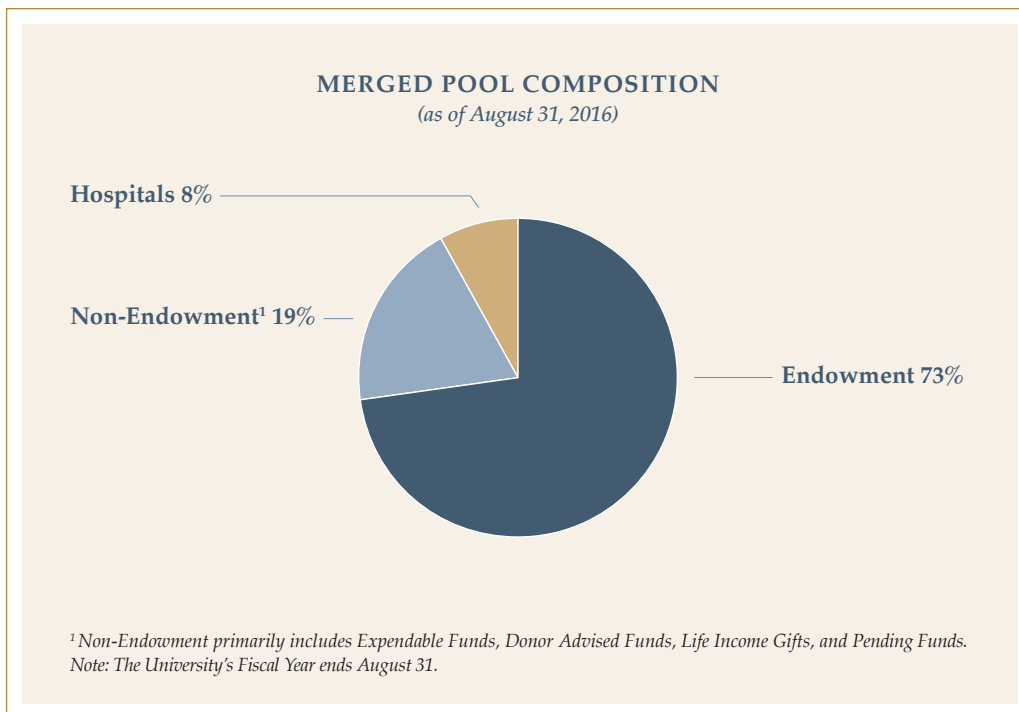
## INTRODUCTION

Stanford University established Stanford Management Company (SMC) in 1991 to manage the University's endowment funds. Today, SMC remains a key part of the University community and is the fiduciary for the \$24.8 billion Merged Pool, which comprises the substantial majority of Stanford's investable assets.

SMC is overseen by a board of directors appointed by the University's Trustees. The firm's 17-person investment team and 52-person total staff are led by Robert Wallace.

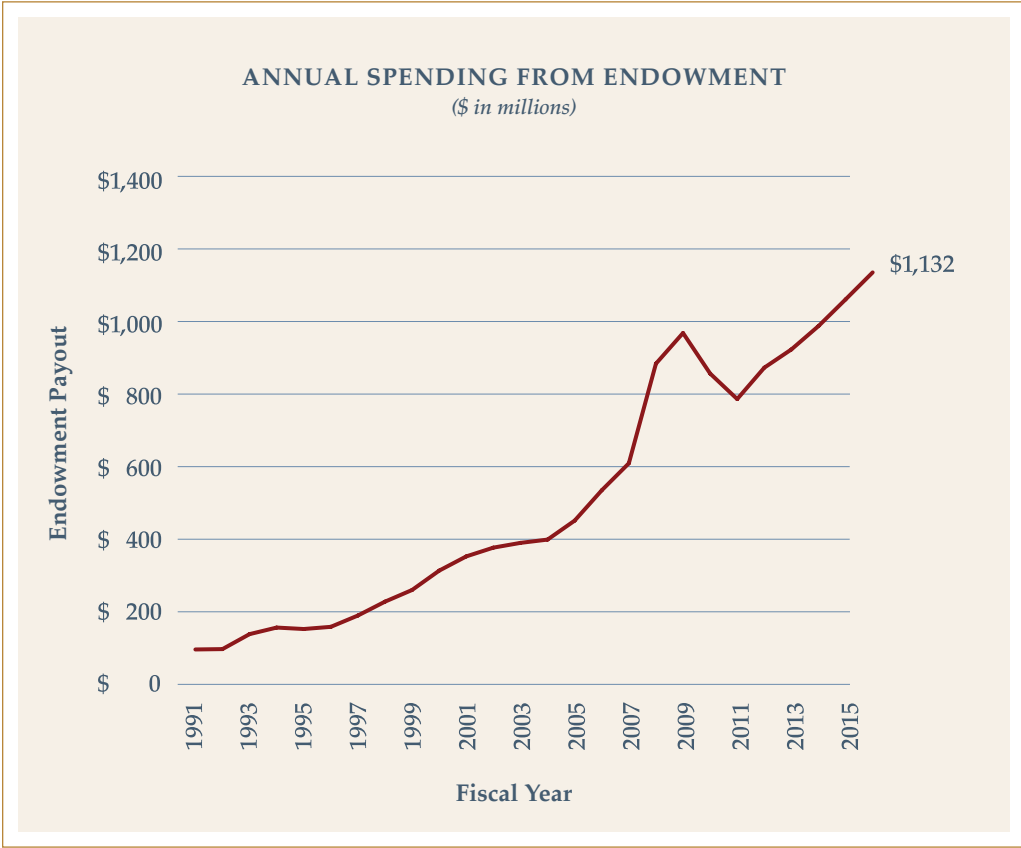
## MERGED POOL

As of June 30, 2016, the Merged Pool was valued at \$24.8 billion, the majority of which represents endowment funds. The balance of the Merged Pool is other capital the University chooses to invest as long-term funds. The resources of the Endowment and Merged Pool support financial aid and a wide array of important academic programs. Stanford's significant financial aid is enabled by the generosity of donors and the success of its investment program.





In Fiscal Year 2016, the Endowment disbursed \$1.1 billion in financial aid, support for academic programs, and current operations. This amount represented 23% of the University's Fiscal Year 2016 operating expenses. Annual spending from the Endowment has increased more than eleven-fold since SMC was established in 1991.

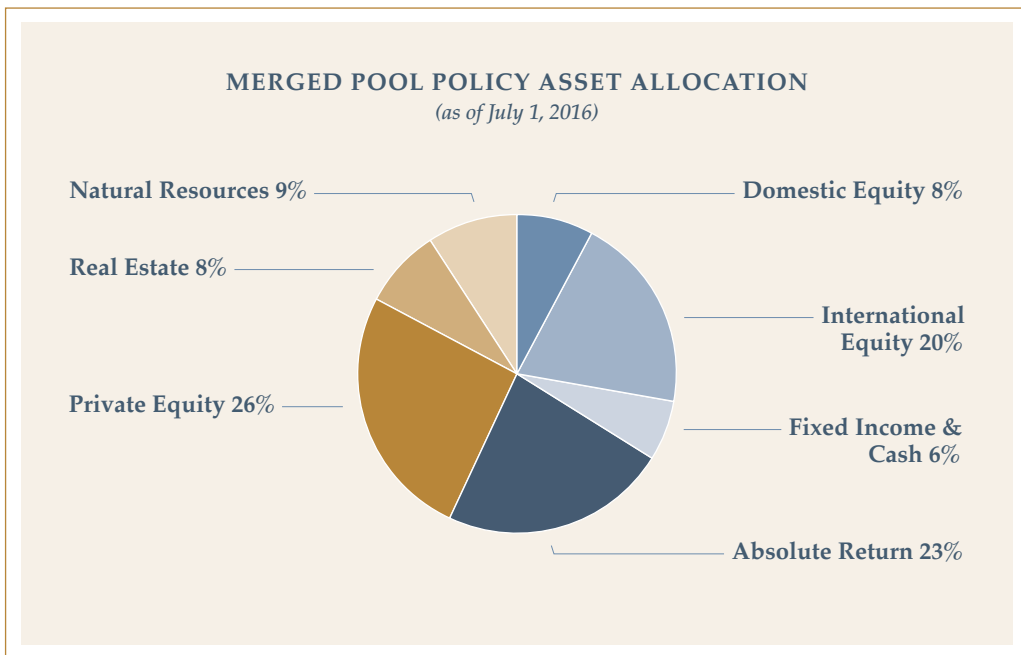




## INVESTMENT STRATEGY

SMC's investment strategy is designed to provide material support to University operations every year while preserving the purchasing power of the Endowment for future generations of students and scholars. These dual goals dictate an investment program that is equity-oriented to generate sufficiently high long-term real returns, and well-diversified to dampen annual volatility and mitigate the risk of principal loss.

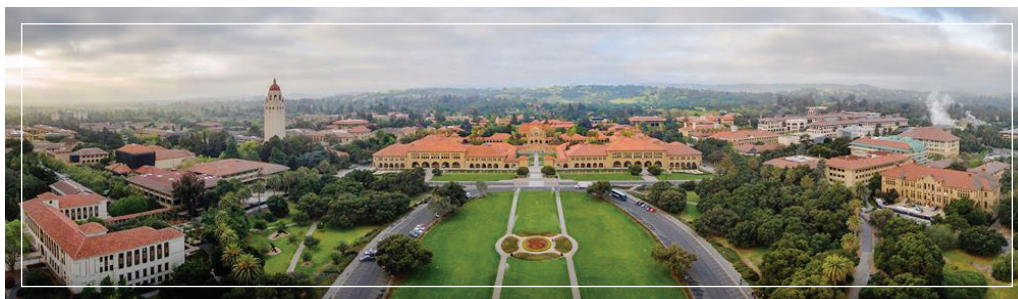
The Merged Pool contains a variety of equity-oriented strategies, including domestic and foreign public equities, real estate, natural resources, and private equity. While the portfolio is primarily exposed to equity positions, certain absolute return strategies that have low correlation to broader markets contribute to diversification. Acknowledging the University's long time horizon, the investment program is designed to accept a responsible degree of illiquidity to drive incremental returns. A small portion of the Merged Pool is held in high-quality fixed income and cash for liquidity purposes. SMC's Policy Asset Allocation codifies its strategy with exposure targets to each major asset class, shown below.



Based on mean-variance modeling, the current asset allocation is expected to generate a 7.1% real annual return (after inflation and all costs) with annualized volatility of 13.8%. We believe these are reasonable risk-return assumptions when considering sufficiently long periods of time, but naturally expect material deviations over shorter time frames. We employ additional scenario analysis to forecast potential returns, volatility, and liquidity in stressful times.

In order to preserve desired risk-return characteristics as market conditions change, SMC exercises discipline in managing asset class exposures and frequently rebalances the portfolio back to its policy targets. Policy targets are revisited only once per year, though changes to exposures within asset classes occur more frequently as market opportunities evolve. By marrying disciplined portfolio management with an appreciation of the changing bottom-up opportunity set, we hope to generate attractive risk-adjusted returns.

SMC primarily relies on carefully chosen external partners to select individual securities, allowing Stanford to benefit from specialized knowledge in asset classes that reward superior active management. While our partners pursue a range of investment strategies, all share a common belief in fundamental investment that incorporates exhaustive quantitative and qualitative research on specific and analyzable opportunities. This discipline fosters a value-sensitive and often contrarian approach, which aligns well with Stanford's long-term focus. Our partners appreciate the importance of Stanford's mission, demonstrate a clear fiduciary mindset, and exercise consideration for human and environmental welfare.



SMC is currently striving to consolidate its external partner roster to enhance performance relative to benchmark results. Our efforts include building fewer, more substantial positions with partners demonstrating superior investment judgment, thorough processes, sound ethics, and a strong alignment of interests with the University. Due to the highly illiquid nature of parts of the portfolio, this effort will take a number of years to complete. Nevertheless, early results are encouraging, and we believe our partners rank among the finest investment firms in public and private markets.

From the perspective of valuation, the current market environment is challenging. Interest rates are near historical lows across the world. As a direct consequence, the valuations of fixed income securities, which are priced inversely to interest rates, are near historical highs. As long-duration assets, equities also greatly benefit from low interest rates and, not surprisingly, the valuations of certain equity markets are correspondingly elevated. These problematic starting valuations are, at least to some extent, exacerbated by high debt burdens globally and relatively low growth in many countries. While it is always unwise to attempt to predict near-term market movements, this combination of factors suggests that prospective capital market returns may be lower than normal over the medium term. If so, disciplined portfolio management and successful security selection are likely to be even more important than usual.

## Stanford's Endowment: 125 Years



Thanks to Leland and Jane Stanford's generosity, Stanford University has always possessed the financial resources to ensure its place as a world-class educational and research institution.

The Founding Grant of Stanford University, adopted in 1885, makes clear the importance of a solid endowment to provide support for the scholars at the University. Leland and Jane Stanford gave the land for the University and future gifts "upon the trust that the principal thereof shall forever remain intact, and that the rents, issues, and profits thereof shall be devoted to the foundation and maintenance of the University hereby founded and endowed." Committed to affordability, Leland and Jane Stanford stipulated that the University charge students nothing more than a registration fee during its first decade.

Jane Stanford personally managed the Endowment in the University's difficult early years following Leland Stanford's death in 1893. Under her leadership, the Stanford estate (and thus the majority of the University's Endowment) survived a series of legal challenges and adverse economic conditions. When the courts temporarily restricted the University's spending, Jane Stanford creatively listed the faculty of the University as household staff to ensure that they could be paid and the University could continue to operate.

Jane Stanford formally transferred the Endowment to the University in 1903. Worth \$24.2 million (nearly \$600 million in current dollars), the portfolio included 26 railroad bonds, title to the Stanford Farm, educational buildings, and other lands in Palo Alto. The University's Trustees took over management of the Endowment with a mandate to only invest in "seasoned bonds and first mortgages."

The Endowment remained 70% invested in long-dated railroad bonds through 1920. Railroad bonds were relatively low-yielding, and to meet the University's growing need for income, the Trustees



*"...upon the trust that the principal thereof shall forever remain intact, and that the rents, issues, and profits thereof shall be devoted to the foundation and maintenance of the University hereby founded and endowed."*

voted to diversify into other types of bonds. By 1927, the Trustees had sold down the railroad bonds to 42% of the Endowment and increased yields on its bond portfolio from 4.5% to 4.8%.

With a portfolio of bonds and real estate, the Endowment avoided the worst effects of the stock market crash of 1929, although the University was not immune to cutbacks in the coming lean years. During the Great Depression, the defaults on interest payments paired with lower student enrollments forced the University to cut salaries by 10%, a relatively modest amount given the severity and length of the crisis.

Concerned about preserving the Endowment's purchasing power, Trustee Herbert Hoover pushed Stanford to diversify into equities, arguing "while common stocks, real estate, and other equities are subject to risk, yet this may be the lesser risk than bonds and mortgages." In 1936, Stanford received approval from the Superior Court of Santa Clara County to invest in dividend-paying stocks. Over the next decade, the University gradually sold its remaining railroad bonds, and by 1949, the Endowment was 40% invested in common equities.

Stanford first put portions of its land to commercial use in the 1950s. The University helped create a technology-focused office park and invested \$4.5 million (over \$40 million in current dollars) to develop the Stanford Shopping Center. The office park—today called Stanford Research Park—became an engine for Silicon Valley. From early technology pioneers like Varian Associates and Hewlett-Packard to more recent tenants Google and Tesla, many leading technology companies set up shop at Stanford Research Park. Stanford Shopping Center and Stanford Research Park remain some of the University's most valuable investments to this day.

The passage of the California Uniform Management of Institutional Funds Act in 1973 permitted the Endowment to invest in a wider range of asset classes, treat appreciation of principal as income, and start incorporating modern portfolio theory. Seeking to take advantage of the innovation surrounding the University, Stanford invested in its first venture capital fund in 1979. Over the next two decades, the University further expanded its investment portfolio to include international equities, leveraged buyout funds, natural resources, and hedge funds.

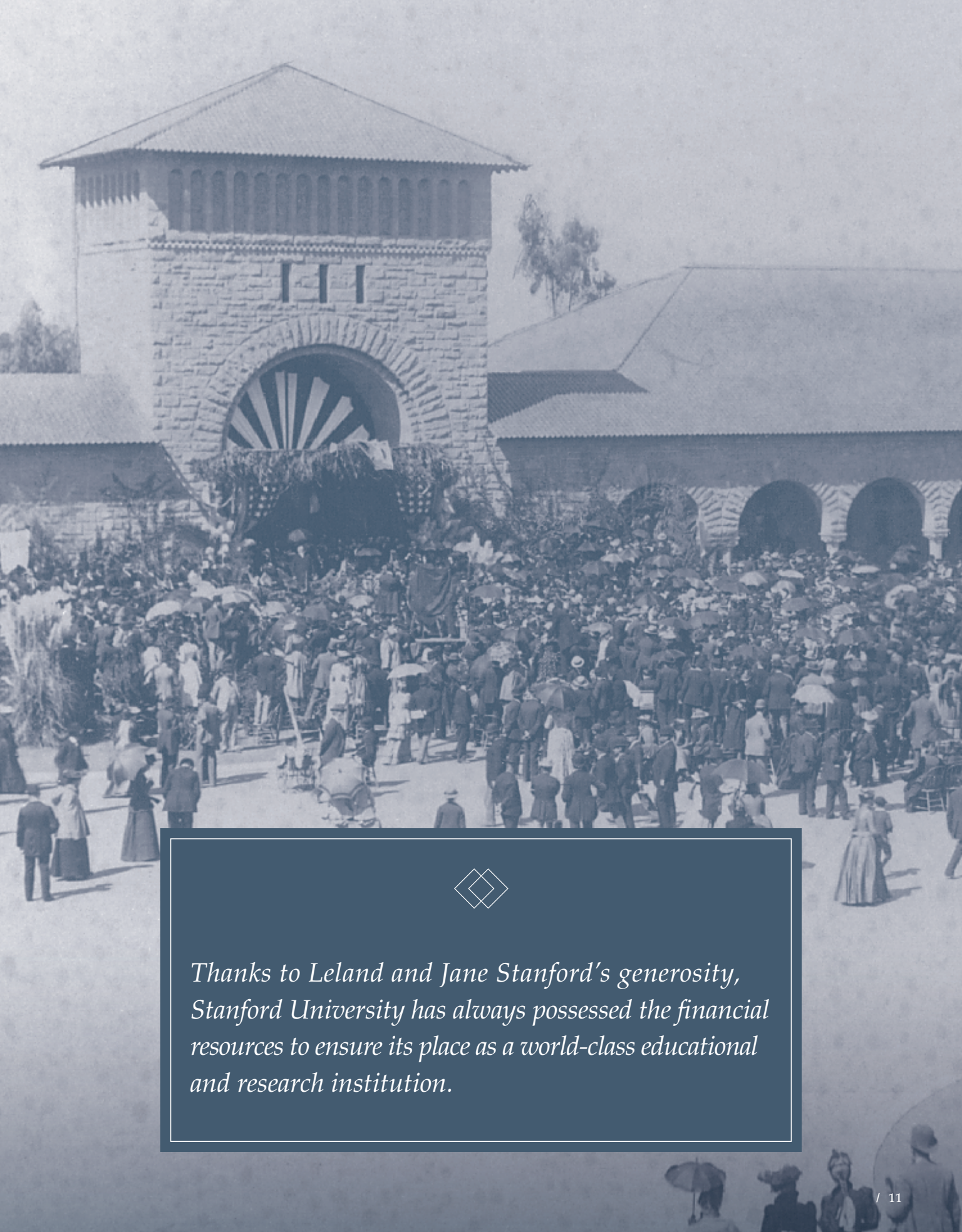
In 1956, the University created the Merged Pool, a combination of several University funds which is still the operational form of the Endowment today. The Board of Trustees and Treasurer's Office managed the Merged Pool until 1990. By this point, the Endowment had become too large and complex for a part-time committee, and the Trustees approved the creation of a separate office within the University to manage the Endowment. Stanford Management Company started operations in 1991.

Although there has been nearly a hundred-fold increase in the Endowment since the Founding Grant, Stanford Management Company carries on the original mission that Leland and Jane Stanford set into motion 125 years ago to create a University of the "highest grade" to "qualify its students for personal success and direct usefulness in life."

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#### SOURCES

Robert Augsburg, "Evolution of an Endowment—100 Years of Trusteeship," May 2003, unpublished.  
Roxanne Nilan, "The Tenacious and Courageous Jane L. Stanford," *Sandstone and Tile*, Volume 9, No. 2, Winter 1985.  
The Founding Grant of Stanford University.



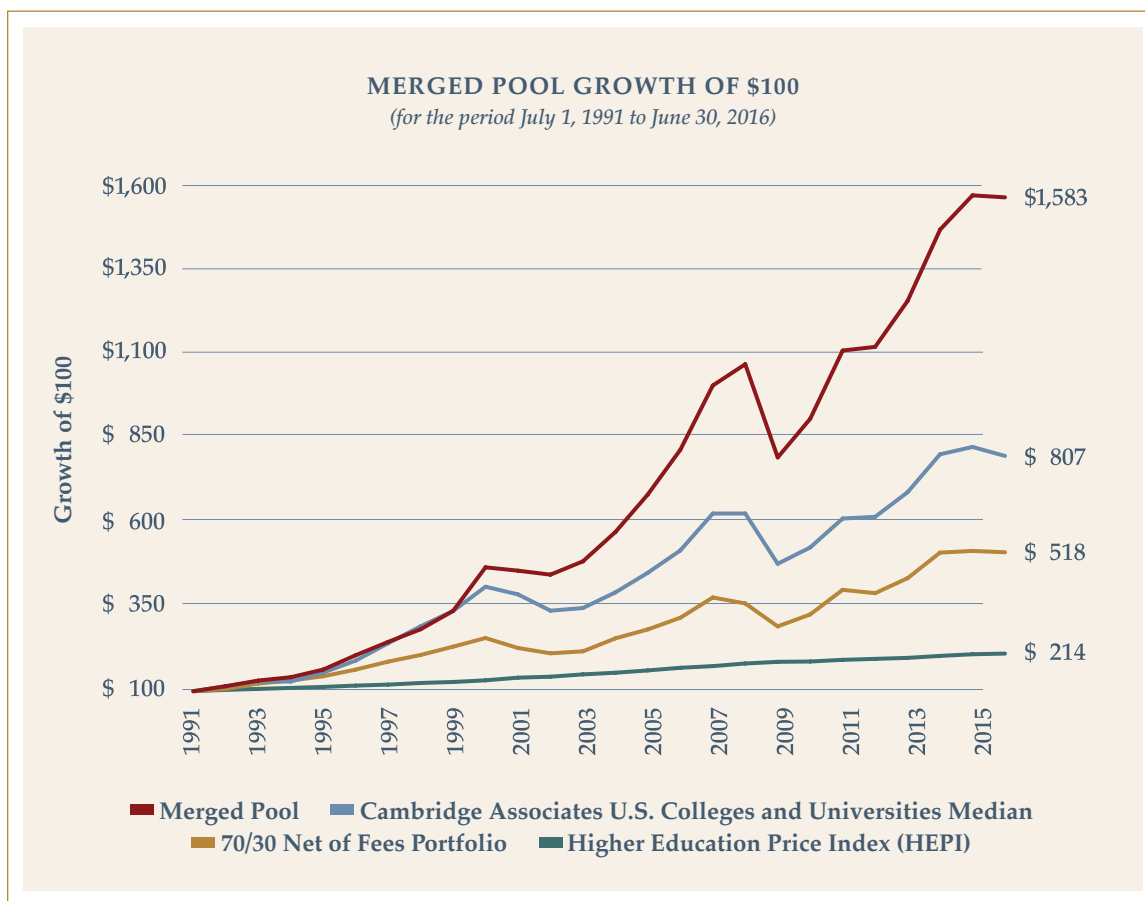
*Thanks to Leland and Jane Stanford's generosity, Stanford University has always possessed the financial resources to ensure its place as a world-class educational and research institution.*

## Investment Performance



Performance for the 12 months ending June 30, 2016 was slightly negative in absolute terms, though it exceeded most peer and benchmark results. The Merged Pool’s -0.4% net return outperformed the -2.6% median return for U.S. colleges and universities<sup>1</sup> and the -0.9% return for a traditional “70/30” portfolio of equities and bonds. During the year, SMC initiated a substantial effort to concentrate the number of investment managers in the Merged Pool and enhance its active management capability. This initiative, which will take some time to complete due to the illiquid nature of the portfolio, will help Stanford drive attractive investment results in an increasingly competitive environment.

Since Stanford Management Company’s inception in 1991, the Merged Pool has generated impressive results relative to a number of benchmarks. Over the 25-year period, the Merged Pool earned an annualized net return of 11.7%, exceeding the median of a broad group of colleges and universities by 3.0% annually and a passive portfolio of public equities and bonds by nearly 5.0% annually.



<sup>1</sup> As reported by Cambridge Associates.

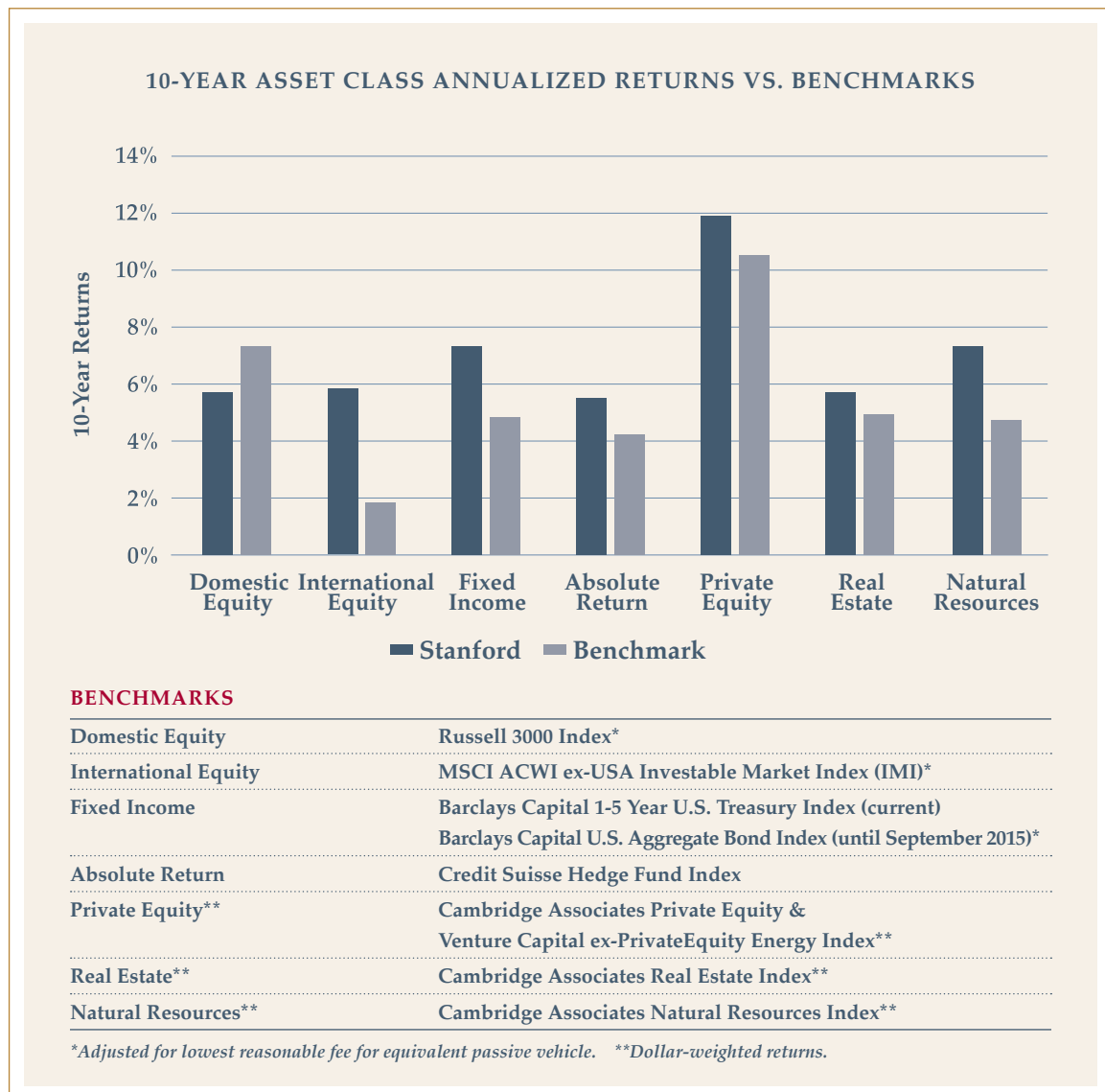
SMC's long-term performance has generated substantial resources for the University and added billions of dollars to its Endowment versus the results of peers and the traditional passive portfolio of equities and bonds, as shown in the dollar-value-added analysis below.

**DOLLAR-VALUE-ADDED SINCE INCEPTION\* (\$ in billions)**

<b>Stanford's Merged Pool</b>	
vs. Cambridge Associates U.S. Colleges and Universities Median	<b>\$14.4</b>
vs. 70% Equities / 30% Bonds	<b>\$19.8</b>

\*Inception date of July 1991. Note: Analysis does not account for gifts and payout.

Most asset classes have generated outperformance relative to benchmarks over the last 10 years, with notable outperformance in international equity and natural resources. More muted relative results in other asset classes suggest some room for improvement, which SMC is pursuing.







## The Endowment and Undergraduate Financial Aid



Stanford's commitment to make the University affordable for all of its students spans its history. From the University's Founding Grant, Stanford has delivered to students and scholars robust financial aid underpinned by the University's Endowment.

Endowment value directly impacts the scope and substance of Stanford's financial aid policy. Nearly \$250 million in payout from restricted Endowment funds went to undergraduate financial aid and graduate student support in Fiscal Year 2016. As the Endowment grows, more resources flow to financial aid. For example, the Endowment payout constitutes 72% of undergraduate financial aid in the current academic year, an increase from 59% in Fiscal Year 2011.

Strong investment results are directly tied to Stanford's ability to provide generous financial aid. If the Endowment had been invested in a passive "70/30" portfolio of equities and bonds over the last 25 years, the University would now only be able to offer less than \$100 million of aid per year instead of the \$250 million.

Due to the generosity of donors and strong investment results, Stanford has continued to expand aid to students from lower- and middle-income families. The most notable developments in recent years include the University's expansion of need-based aid for undergraduates. U.S. resident undergraduates with parents having typical assets and family incomes below \$125,000 receive free tuition. U.S. resident undergraduates with parents having typical assets and family incomes below \$65,000 receive free tuition and room and board. Students receiving need-based aid are expected to contribute at least \$5,000 per year from their earnings during the summer and part-time campus jobs during the school year.

Material assistance is also given to a broader group of students. In total, nearly 3,200 undergraduates received need-based scholarship assistance from the University in 2016. Today, families with incomes less than \$65,000 typically cover less than 7% of the students' total costs, and those with incomes between \$125,000 and \$155,000 typically cover less than 40%. Importantly, these figures underestimate Stanford's true contribution to student support, since they do not include many other forms of spending from the Endowment, such as endowed professorships, which implicitly reduce the effective cost to students of a Stanford education.

Stanford's financial aid program ensures that most undergraduates graduate without debt, which puts students on a strong footing after receiving their degrees. In the graduating class of 2016, nearly 80% of undergraduates left Stanford free of debt. For those 21% of students who did borrow, the median debt amount was \$14,599.

Stanford's ability to maintain and increase financial assistance in the future hinges on generous alumni donations and successful investment execution. Financial aid is at the core of Stanford's mission and informs the daily work of many parts of the University, including Stanford Management Company.

## SMC Investment Team<sup>1</sup>



Robert Wallace  
*Chief Executive Officer*

Greg Milani *M.B.A. 1996, M.A. 1996*  
*Senior Managing Director*

Jay Kang  
*Managing Director*

Mark Shoberg *M.B.A. 2003*  
*Managing Director*

Thomas Lurquin  
*Managing Director*

Joanna Pratt *M.B.A. 2012*  
*Director*

Mary Mei  
*Director*

Michael Lee  
*Director*

Austin Lawrence  
*Associate Director*

Becca Levin *M.B.A. 2012, M.S. 2012, B.A. 2007*  
*Associate Director*

Blair Critchlow *B.A. 2008*  
*Associate Director*

David Captain  
*Associate Director*

Rick Devlin  
*Associate Director*

Steven Wright *B.A. 2008*  
*Associate Director*

Christopher Preston  
*Associate*

Daniel Truong *B.A. 2009*  
*Associate*

Natalie Ferguson  
*Senior Analyst*

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Eric Wright *B.A. 1985*  
*Senior Legal Counsel*

Eunice Kim  
*Legal Counsel*


Kristal Dehnad  
*Chief Operating Officer*

Mark Tannahill  
*Legal Counsel*

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<sup>1</sup>Stanford degrees shown.



  
*“Always be gentle in manner, resolute in purpose,  
and you will develop characters on which others  
can depend.”* JANE STANFORD





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STANFORD MANAGEMENT COMPANY

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