

STANFORD MANAGEMENT COMPANY

# Stanford University Investment Report



2018







Dear Friends,

Stanford's financial resources are put to work every day in committed service of our academic mission. The University's \$28.7 billion Merged Pool contains endowment and other long-term funds that support more than 16,500 students and 2,200 faculty and academic staff as they pursue research and scholarship across a wide range of disciplines. In the current fiscal year alone, the Endowment will disburse \$1.3 billion in support of this academic work, educating students and advancing human knowledge in the sciences and humanities.

This past year, the University commenced work on a new Long-Range Vision that will set key priorities for Stanford's future so that we remain a purposeful institution capable of exploring new areas, confronting new challenges, and educating new generations of students. Many of the priorities will inevitably draw on endowment resources for support. In recent months, the Board of Trustees unveiled an updated approach to investment responsibility, an effort that included a statement from Stanford Management Company on how ethical investment principles apply to day-to-day investment decisions. These two important initiatives, undertaken at an exciting but complex time for Stanford and the world, highlight both the importance of the University's endowed funds and their proper stewardship through a careful and deliberate investment program.

Sincerely,

Marc Tessier-Lavigne  
*President*  
*Stanford University*

Jeffrey S. Raikes  
*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,

In this brochure, we report investment results through June 30, 2018.

During the twelve months ending June 30, 2018, we continued to concentrate and upgrade our investment portfolio, work that will strengthen our active management capability and reduce risk. Early results from this effort are positive, but significant further work remains, particularly in illiquid holdings such as private equity, real estate, and natural resources, where decisions can take many years to flow through to actual exposure.

Stanford recently published a new Long-Range Vision that articulates educational and research priorities for the University in the coming decade and beyond. The Endowment, Stanford's largest financial resource, will necessarily provide core support for these priorities, a fact that motivates all of us at Stanford Management Company.

During the year, we released a statement on how we incorporate ethical, social, and governance issues into our investment work. The statement, which was approved by the University Trustees, is reproduced in this brochure.

Sincerely,

A handwritten signature in blue ink that reads "Robert F. Wallace".

Robert F. Wallace  
Chief Executive Officer  
Stanford Management Company





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# Stanford Management Company



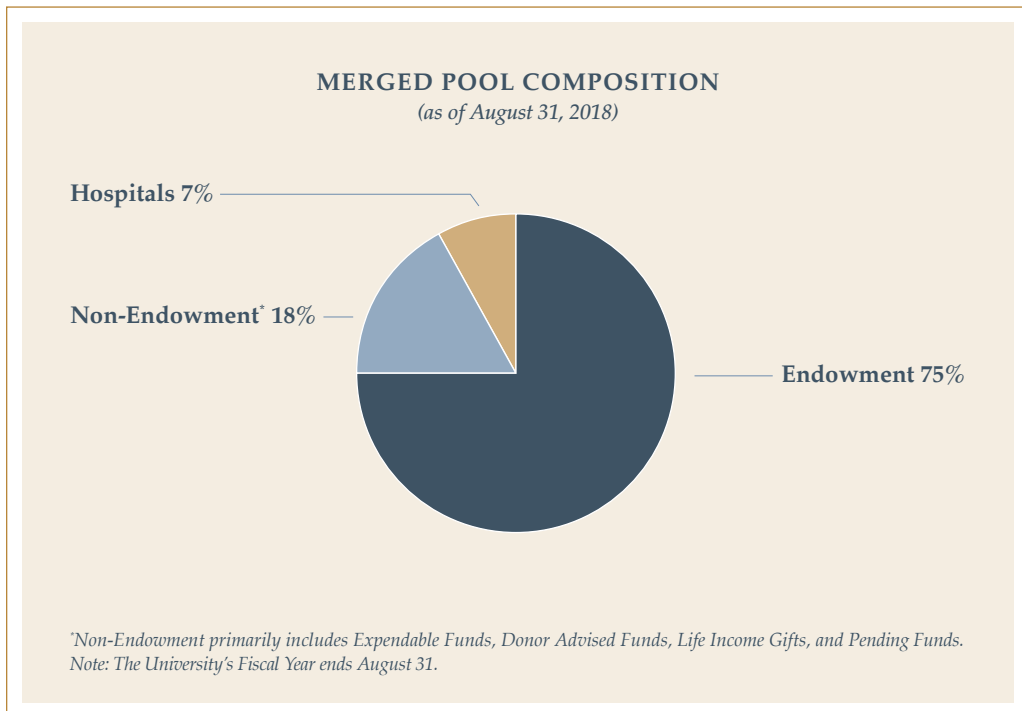
## INTRODUCTION

Stanford University established Stanford Management Company (SMC) in 1991 to manage the University's endowed funds. Today, SMC remains a key part of the University community and is the fiduciary for the \$28.7 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 23-person investment team and 52-person total staff are led by Robert Wallace.

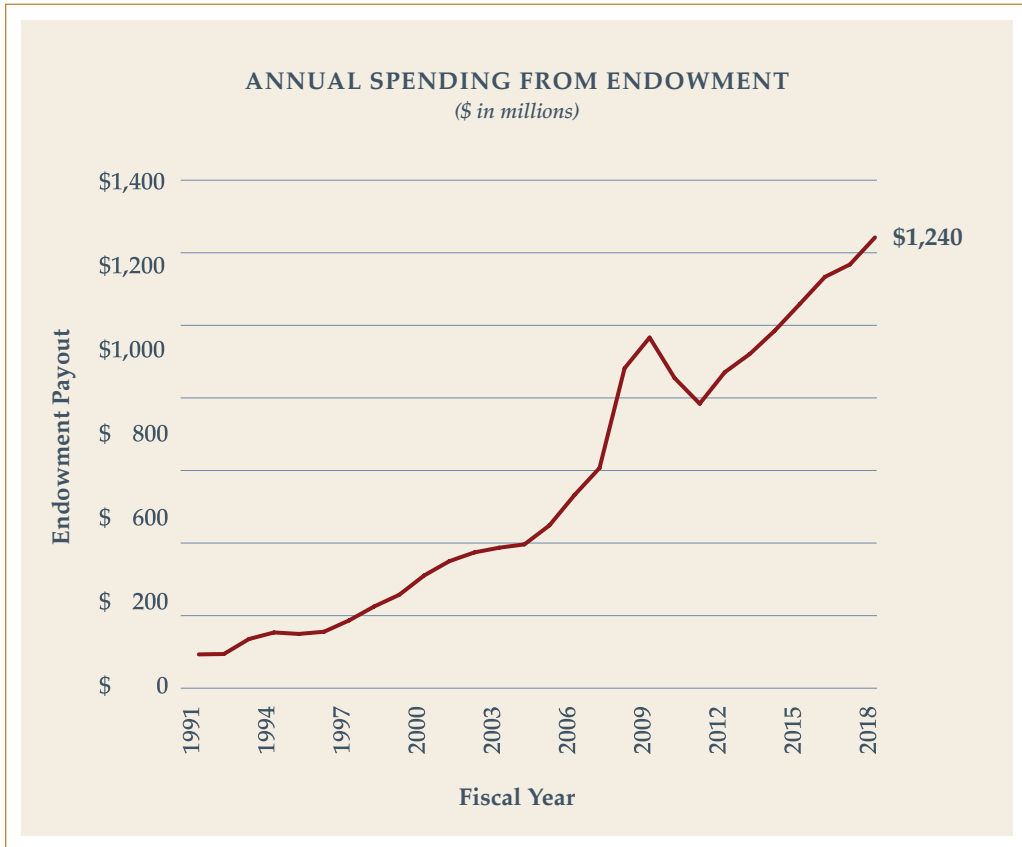
## MERGED POOL

As of June 30, 2018, the Merged Pool was valued at \$28.7 billion. The majority of the Merged Pool is endowment, with the balance comprised of 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 2018, the Endowment disbursed \$1.2 billion in financial aid, support for academic programs, and other current operations. This amount represented 22% of the University’s Fiscal Year 2018 operating expenses. Annual spending from the Endowment has increased more than twelve-fold since SMC was established in 1991.

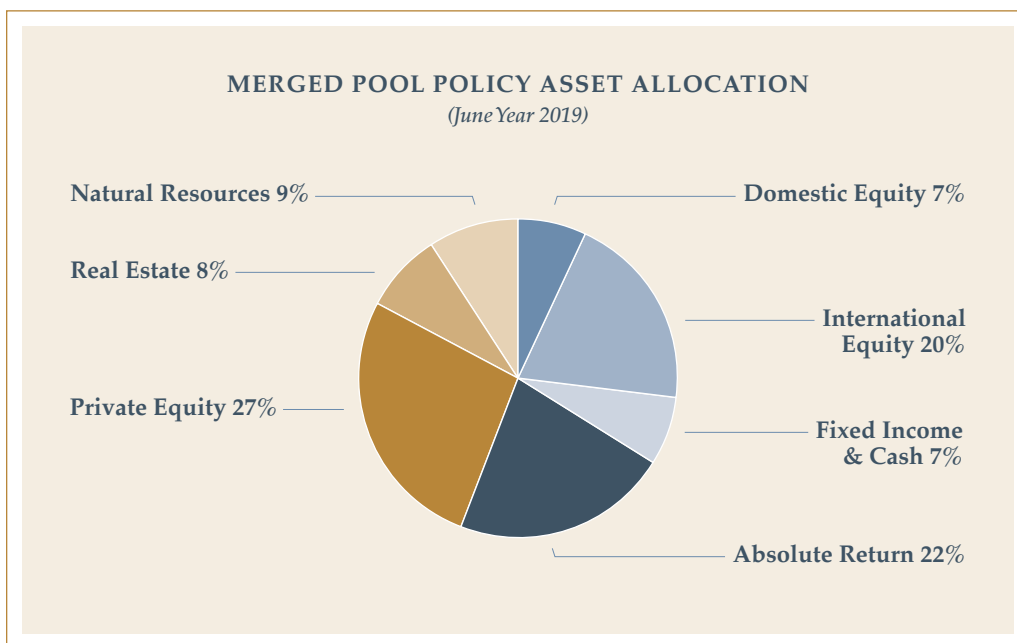




## INVESTMENT STRATEGY

SMC's investment strategy is designed to provide material support to annual University operations 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 volatility and mitigate the risk of permanent loss of capital.

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, 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 7.6% real arithmetic annual return (after the impact of higher education inflation and all costs and fees) with annualized volatility of 13.8%, which translate to an expected compound real return of 6.6%. 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 maintain 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. While policy targets are revisited only once per year, changes to exposures within asset classes occur more frequently as market opportunities evolve. In this manner, we hope to take advantage of an ever-evolving bottom-up opportunity set while remaining faithful to important overall risk-return parameters.

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 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.

Beginning in mid-2015, SMC initiated an effort to consolidate and upgrade its external partner roster to enhance performance relative to benchmark results. Our efforts include building fewer, more substantial positions with partners that demonstrate superior investment judgment, thorough processes, sound ethics, and a strong alignment of interests with the University. A concentrated set of investment partners brings the additional benefit of more frequent communication, leading to more fruitful and trustful partnerships. A better understanding of our partners' work allows us to invest with conviction and contrarianism.

Early performance associated with these changes has been strong, in both marketable and non-marketable asset classes, generating significant added value above benchmarks. Progress in reallocating capital has naturally been more material in the portions of the portfolio that are liquid, and less pronounced in the illiquid asset classes. Our efforts to concentrate the overall portfolio will require a number of further years to complete. Of course, such work is never actually complete; SMC will continually strive to refine and improve its portfolio.

During Fiscal Year 2018, public equity markets continued their decade-long recovery from the 2008 financial crisis, rising strongly for another year. Results in high-quality fixed income markets were more muted. The Merged Pool's 11.3% performance for the year exceeded a traditional "70/30" portfolio of equities and bonds by nearly 4.0%, adding material resources to the University.

After a long bull market and years of accommodative monetary policy, pockets of overvaluation not surprisingly exist in financial markets. We continue to manage the portfolio with discipline and an awareness that, while valuation is a poor predictor of short-term capital market performance, it is usually a strong predictor of performance over the medium and long term.



## ASSET CLASS

**DOMESTIC EQUITY** Domestic Equity gives Stanford exposure to corporate activity in the United States through publicly-traded companies. The asset class has a long-term expected return of 7.0% after accounting for the impact of the Higher Education Price Index ("HEPI") and expected annual volatility of 20.0%. These long-term expectations assume equilibrium starting valuations, a condition which only periodically holds, and returns over shorter periods can deviate substantially from these baseline assumptions.

SMC invests in domestic equity both through active and passive strategies. Active approaches are implemented through external partners who employ comprehensive, fundamental research to identify holdings that are attractively priced over a medium-term horizon. Passive investments reflect broad parts of the U.S. equity market and are generally implemented using low-cost index instruments.

Domestic Equity is currently targeted to be 7.0% of the Merged Pool, a modest exposure that reflects several factors, including the historically high valuations of the broad U.S. market.



**INTERNATIONAL EQUITY** Comprising publicly-traded companies outside the U.S., International Equity provides exposure to foreign economic activity across both developed and emerging markets. Developed foreign equities have a long-term expected return of 6.5% net of HEPI, with expected annual volatility of 20.0%. Emerging market equities have an expected real return of 9.0%, with expected annual volatility of 27.0%.

The asset class primarily includes active management strategies implemented by external partners. The inefficiency of many international equity markets provides talented stock pickers with a fruitful hunting ground to pursue their work. The University's international equity partners perform rigorous, fundamental analysis to identify attractive public holdings over a medium-term horizon. Because a holistic understanding of a country's legal, social, and cultural norms underpins accurate assessment of corporate activity within the country, our partners tend to be based in the region or country in which they invest. We hold passive international equity exposure when we have no suitable active management solution.

International Equity currently comprises 20.0% of the Merged Pool at its policy target, reflecting attractive opportunities in certain foreign markets.

**ABSOLUTE RETURN** Absolute Return is a collection of value-driven and event-driven strategies meant to provide attractive returns with low correlation to traditional equity and fixed income markets. Core strategies in the asset class include long/short equity, relative-value fixed income arbitrage, distressed investment, and special situation investment. The diversifying characteristics of the asset class can provide significant benefit to the Merged Pool as a whole. Absolute Return is expected to generate a 4.75% annual return net of HEPI over the long term, with expected annual volatility of 11.0%.

The University's approach to absolute return is based on security-specific microeconomic analysis. Our partners perform exhaustive quantitative and qualitative research on equity and fixed income instruments to identify undervalued and overvalued assets that can be owned long or sold short. When coupled with disciplined portfolio management, long and short positions can drive returns that are independent from broader market movements. This diversification is critically important. We expect the trailing monthly "beta" of the asset class to equity markets to be at or below 0.3 over most trailing five-year periods, levels far less than what would result from a simple cross-section of the hedge fund industry.

Stanford's focus on rigorous, bottom-up security selection with disciplined portfolio management precludes investments in the portions of the hedge fund complex that rely on top-down, speculative, or technical analysis. We view strategies requiring material amounts of leverage, or that possess significant market exposure, with great caution. Absolute Return is currently targeted to be 22.0% of the Merged Pool.

**FIXED INCOME** Fixed Income is a relatively low return asset class meant to provide stable, liquid exposure to assets likely to hold their value in stressful or deflationary periods. For this reason, the asset class is comprised of U.S. Treasuries, which enjoy the full faith and credit of the U.S. Government. Assuming equilibrium starting valuations, we expect these high-quality fixed income assets to generate a 2.5% annual return net of HEPI, with annualized volatility of 10.0%. Fixed Income and Cash have a combined policy target of 7.0% of the Merged Pool.

**REAL ESTATE** The Merged Pool's Real Estate asset class is an important diversifying asset class that can help protect the University in inflationary environments. The asset class is expected to return 5.5% per year net of HEPI in the long term, with annualized volatility of 15.0%.

The asset class is primarily focused on office, retail, residential, industrial, and leisure assets in the United States. Through external partners, we pursue value-added strategies in private real estate that attempt to drive incremental returns through superior deal sourcing and asset management. We will hold publicly-traded real estate when valuations are attractive. We endeavor to maintain a quality bias and to ensure an adequate degree of cash flow from our real estate holdings.

The asset class, a notably poor long-term performer for the University, is being transitioned from numerous legacy holdings to a focused group of disciplined partners that own higher quality assets with moderate financial leverage.

Real Estate is targeted to be 8.0% of the Merged Pool. The University also has significant real estate holdings outside of the Merged Pool.



**NATURAL RESOURCES** Like Real Estate, Natural Resources provides important diversifying benefits to the Merged Pool, particularly in inflationary environments. The University's resource holdings span timber, metals, conventional and renewable energy, and agriculture. The asset class is expected to generate a 6.0% annual return net of HEPI in the long run, with annual volatility of 18.0%.

Stanford's natural resource holdings focus primarily on private producers of resources, rather than outright holdings of commodities themselves. In this way, we hope to earn an incremental return through superior selection and asset management above and beyond the commodity price movement. The natural resource portfolio principally focuses on the U.S. and other jurisdictions where the rule of law and property rights are respected.

We invest in resources with an awareness of climate change and the impact of carbon on the risk profile of resource investments. The University's Trustees elected to divest from direct thermal coal holdings in 2014. Natural Resources is targeted to be 9.0% of the Merged Pool.



**PRIVATE EQUITY** Private Equity provides illiquid exposure to corporate activity in the U.S. and abroad. Both early-stage investments, in the form of venture capital, and later-stage investments, in the form of growth equity and leveraged buyouts, are included in the asset class. In the long run, expected annualized returns net of HEPI range from 11.5% for leveraged buyouts to 14.0% for venture capital. Annualized volatility is expected to range from 25.0% for leveraged buyouts to 30.0% for venture capital.

Simultaneously offering the highest return and highest risk of any asset class in the Merged Pool, Private Equity demands superior execution. Implemented through carefully selected external partners, we strive to drive value through careful asset selection, price discipline, and strategic and operational initiatives. We strive to work with partners that make the businesses they own more valuable from a fundamental perspective, rather than by relying purely on financial engineering. Liquidity is monitored closely to ensure the University can meet its liabilities in stressful periods.

We are in the early stages of upgrading and concentrating the Private Equity asset class, which had become overly diversified, to drive higher levels of return above its benchmark. This work will take several years due to the illiquidity of the asset class. Private Equity is targeted to be 27.0% of the Merged Pool.

# Stanford Management Company

## Ethical Investment Framework



Stanford University's endowment provides a vital source of financial support to sustain the University's educational and research mission. The University's Board of Trustees bears ultimate responsibility for the stewardship of the endowment. The Trustees have charged Stanford Management Company ("SMC") with the task to design and execute an investment strategy that maximizes risk-adjusted investment returns over long periods of time. Achieving this goal will allow the University to fulfill its legal obligations to endowment donors and support the educational and research needs of present and future generations of students and scholars.

Ethical and social considerations play a central role in SMC's work, beginning with our asset allocation decisions. SMC's asset allocation reflects the risk and return characteristics of major categories of investment. In determining these characteristics, SMC strives to understand the medium and long-term prospects for each asset class and their relationship to each other. Ethical and social factors can alter these prospects, particularly if they involve a public good, such as clean air or water. For example, climate change alters the risk and return characteristics of conventional energy holdings. As a prudent fiduciary, SMC incorporates the risks associated with carbon when considering conventional energy holdings. In economic terms, we try to account for the externalities associated with burning hydrocarbons, which helps us invest sensibly in a sector undergoing significant change.

While certain ethical and social risks rise to the broad level of asset allocation, many risks are best analyzed at the level of specific businesses. Businesses that consistently and willfully mistreat stakeholders usually make poor long-term investments, as stakeholder dissatisfaction, and perhaps even legal sanction, erode the value of the business. We believe the University has more productive places to invest its capital. Indeed, the businesses in our portfolio provide highly valuable goods and services to the world. While our primary mission is to support Stanford, we believe that well-run companies responding to genuine customer needs in a responsible fashion have a beneficial impact on society.

In our investment approach, investment decisions about specific securities are primarily made by carefully selected external partners. We choose these partners for their skill, judgment, and alignment of interests with the University. We also choose them for their ability to underwrite risk comprehensively. Our partners understand that the businesses in their portfolios are far more likely to endure, and to generate sustainable returns on investor capital, when they behave with due regard for the welfare of their stakeholders and the communities in which they operate. Our partners are engaged shareholders in the businesses in which they invest. They strive to exercise shareholder governance in a way that makes the businesses they own more productive and valuable—work that clearly includes ethical considerations.



Through close dialogue with our external investment partners, SMC reinforces attention to ethical and social factors that impact security-level investments. We also spend significant time and effort to understand the character and sensibilities of potential partners when first evaluating a new relationship. We consider a strong moral framework to be an important aspect of an alignment of interests with the University. Nevertheless, while we ask our partners to demonstrate strong moral sensibility, it would not be appropriate to insist they advance a particular social or political agenda for its own sake. Such insistence would contravene a guiding tenet of Stanford as an educational institution to avoid taking political and ideological stances. It would also likely lead to material adverse selection in our external partners.

SMC's approach to social and ethical matters is strongly supported by state and federal laws governing trust fiduciaries, under which SMC is bound. Popularly known as the "prudent investor" rules, this legislation requires trustees of financial assets to consider any factors as may affect the long-term economic interests of their beneficiaries. Therefore, in managing Stanford's endowment, which is capital held in trust for the benefit of current and future generations of Stanford students and scholars, SMC is obliged to place proper weight on ethical issues that can have a bearing on economic results, but not to use the endowment to pursue other agendas.

In rare instances, the University's Board of Trustees may elect to divest specific companies or categories of investment that are deemed abhorrent and ethically unjustifiable. Such divestment decisions are only reached after careful deliberation by the Trustees, who apply consistent principles and a thorough process. When so instructed by the Trustees, SMC implements divestment decisions with discipline. Please see Stanford's Statement on Investment Responsibility for further information on the University's divestment policy.\*

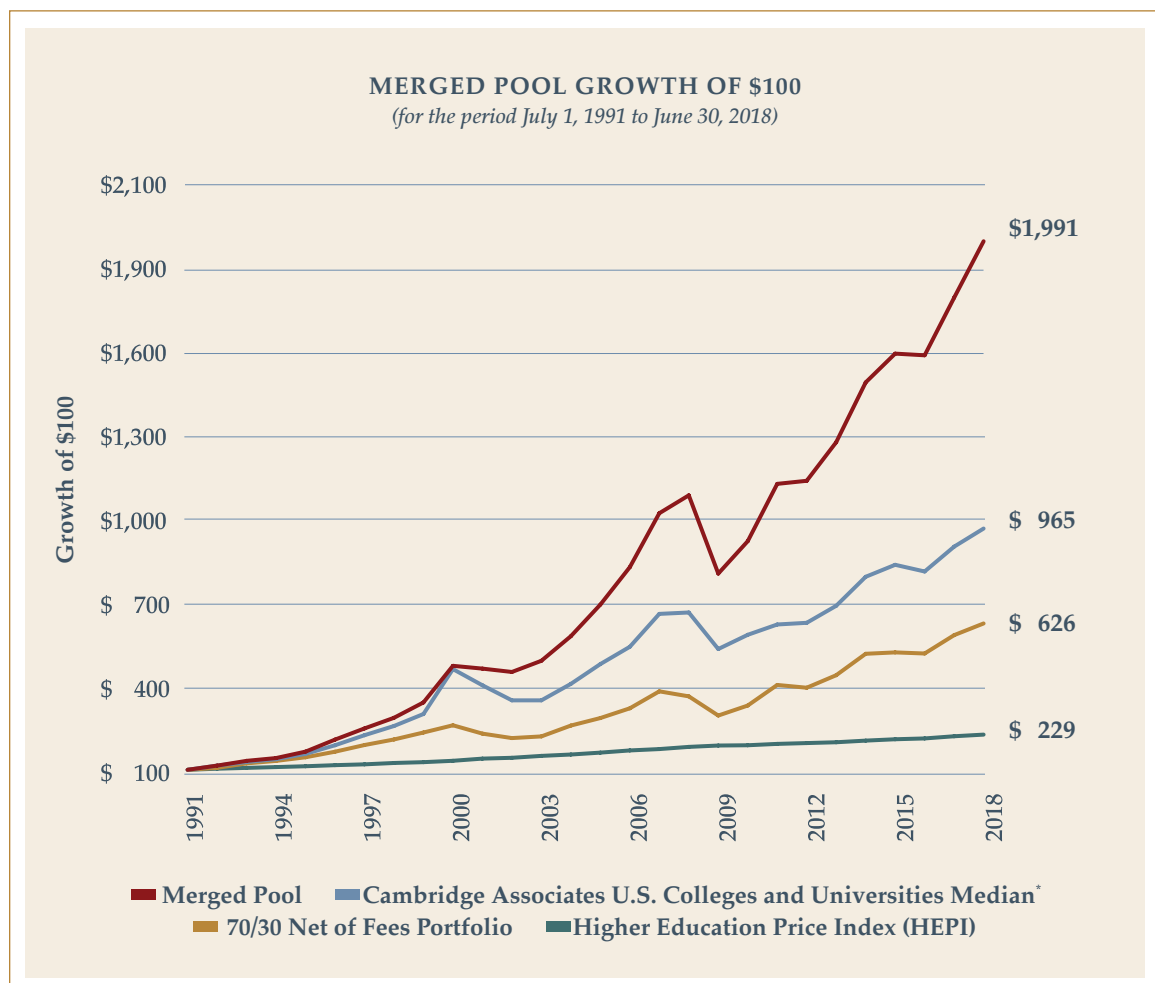


## Investment Performance



For the 12 months ending June 30, 2018, the Merged Pool generated an 11.3% net return, exceeding the 9.0% median return for U.S. colleges and universities\* and outperforming the 7.6% return for a traditional “70/30” portfolio of equities and bonds.

Since Stanford Management Company’s inception in 1991, the Merged Pool has delivered impressive results. Over the 27-year period, the Merged Pool has earned an annualized net return of 11.7%, exceeding the median of a broad group of colleges and universities by 2.8% annually, and exceeding a passive 70/30 portfolio by 4.7% annually.



\*As reported by Cambridge Associates.

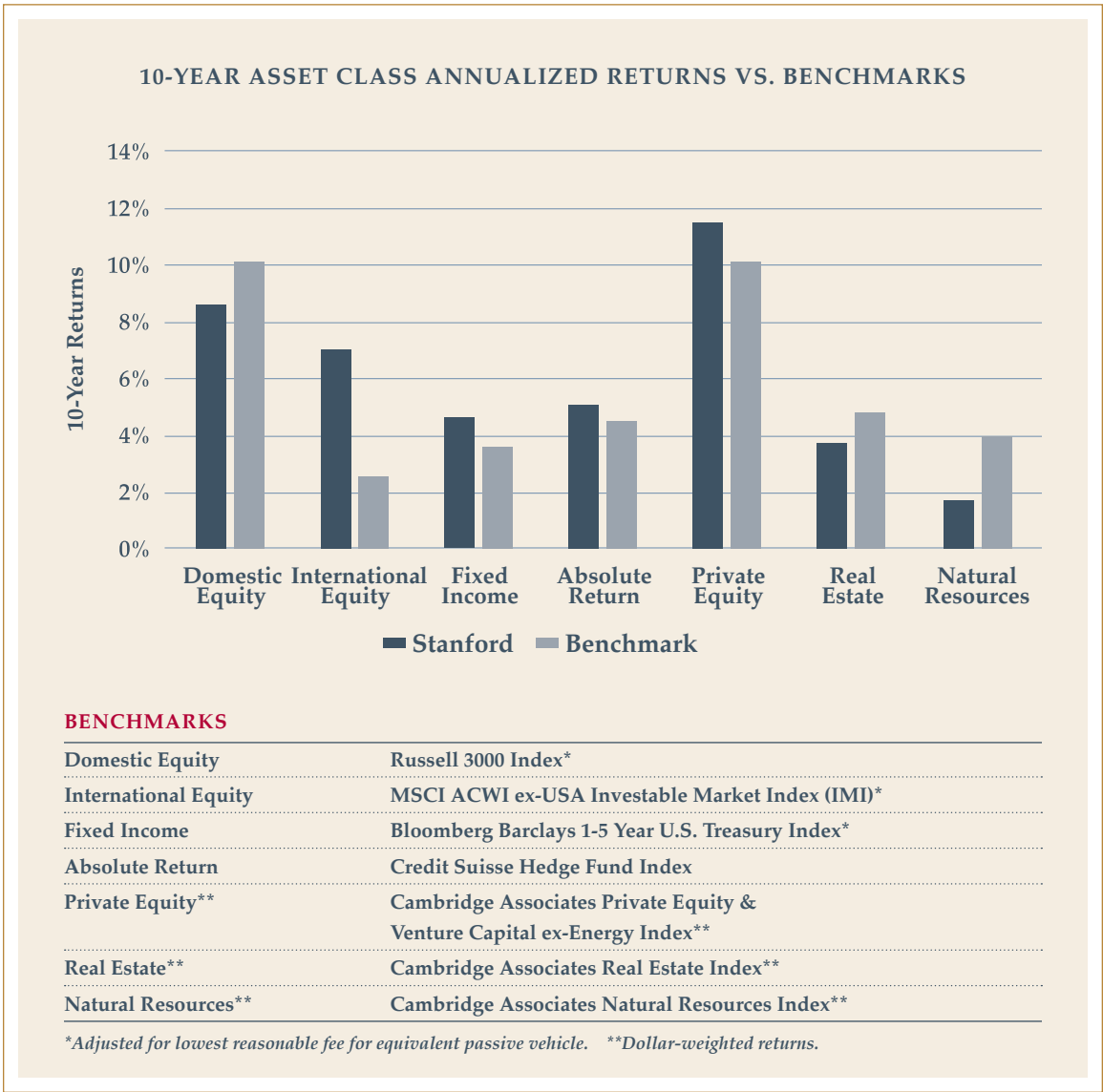
SMC’s long-term performance has generated substantial resources for the University and added billions of dollars to its Endowment versus the results of peers and the traditional passive portfolio of equities and bonds, as shown in the dollar-value-added analysis below.

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

Stanford’s Merged Pool	
vs. Cambridge Associates U.S. Colleges and Universities Median	\$19.1
vs. 70% Equities / 30% Bonds	\$25.4

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

Several asset classes have generated outperformance relative to benchmarks over the last 10 years, with notable outperformance in International Equity. More muted relative results in other asset classes suggest room for improvement, our approach to which we outline elsewhere in this report.

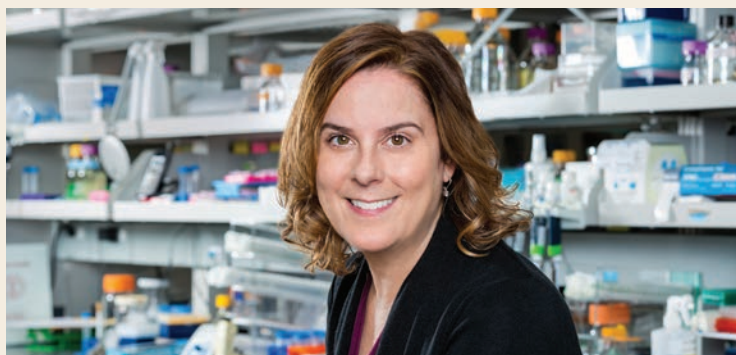




## Spotlight On Biotechnology and Healthcare at Stanford Supporting Life-Changing Research



Each year, this report highlights an area of the University's education and research that is supported by endowed funds. One such area is biotechnology, where Stanford researchers pursue new solutions to today's most vexing medical challenges. To propel these efforts, the endowment supports state-of-the-art equipment, lab space, research grants, professorships, scholarships, fellowships, and interdisciplinary programs across the entire Stanford community. This robust biotech ecosystem leads to innovation that saves lives and advances human welfare, as shown in the examples below.



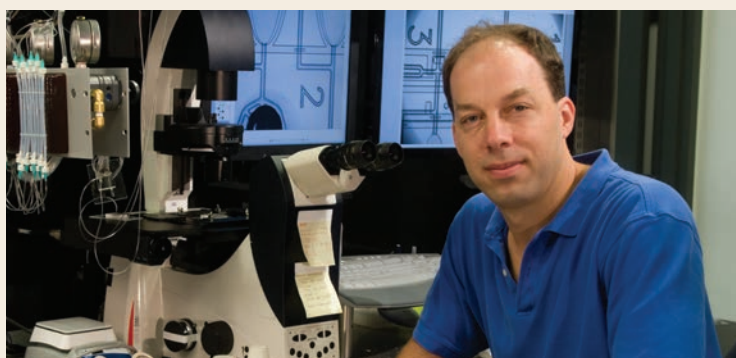
JENNIFER COCHRAN

*Shriram Chair of Bioengineering,  
Professor of Bioengineering and,  
by courtesy, of Chemical Engineering*

*photo / Diana Barbatti*

**THE COCHRAN LAB** The Cochran Lab uses interdisciplinary approaches in chemistry, engineering, and biophysics to study and manipulate complex biological systems, with a focus on new technologies for basic science and biomedical applications. The lab concentrates on protein-based drug discovery for applications in oncology and regenerative medicine, and the development of new technologies for high-throughput protein analysis and engineering.

As one example, Professor Jennifer Cochran and her colleagues engineered a protein that disrupts the process that causes cancer cells to break away from original tumor sites and travel through the bloodstream to start aggressive new growths elsewhere in the body. This process is known as metastasis, which can cause cancer to spread with deadly effect. To stop this process, the Cochran Lab used protein engineering technology known as “directed evolution” to create a harmless version of a tumor receptor that acts like a decoy. It works by latching tightly onto a cell signaling protein in the bloodstream, preventing it from linking with and activating a version of the receptor present on cancer cells. Mice with ovarian cancer had a 95 percent reduction in metastatic nodules when treated with the engineered decoy protein, and these effects increased to greater than 99 percent when the decoy was co-administered with chemotherapy. The therapy also showed marked effects in mouse models of breast and pancreatic cancers. The engineered decoy protein is currently entering a Phase Ib/II trial for ovarian cancer, after gaining fast-track designation from the FDA from a positive Phase I trial that demonstrated safety and proof-of-mechanism in humans.



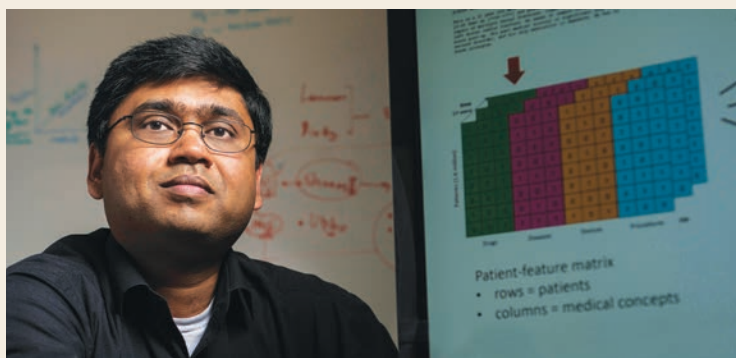
## STEPHEN QUAKE

*Lee Otterson Professor in the School of Engineering and Professor of Bioengineering, of Applied Physics and, by courtesy, of Physics*

*photo / Norbert von der Groeben / Stanford School of Engineering*

**THE QUAKE LAB** As part of the University's Long-Range Vision, Stanford's "Precision and Population Health" initiative empowers researchers to work with partners to develop transportable, preventative, and population health solutions in the Bay Area and beyond in pursuit of the University's foundational intention to promote the public welfare. The Quake Lab is a recent example of innovation in population health. Professor Stephen Quake and colleagues developed a non-invasive blood test that can accurately and inexpensively predict gestational age and preterm delivery. Preterm delivery affects approximately 15 million women a year and is the largest cause of infant mortality in the United States.

Quake's test monitors RNA changes in seven genes in a pregnant woman's blood to predict preterm delivery with 75-80% accuracy. The test can also predict gestational age with 50% accuracy, which is comparable to ultrasound in the first trimester yet cheaper and easier to transport. Quake's method has broader applicability and can be used as a complement to or substitute for ultrasound in low-resource settings. The test must undergo additional clinical trials, but one day, Quake's research could be used to improve the lives of millions of women and infants around the globe.



## NIGAM SHAH

*Associate Professor of Medicine (Biomedical Informatics) and Biomedical Data Science, Assistant Director of the Center for Biomedical Informatics Research*

*photo / Steve Fisch / Stanford School of Medicine*

**THE GREEN BUTTON** Originally envisioned in 2014, the "Green Button" idea was inspired by the case of a young girl with lupus admitted to Lucile Packard Children's Hospital at Stanford in 2010 with kidney and pancreatic inflammation, which put her at risk of potentially fatal blood clots. Her doctor, Dr. Jennifer Frankovich, had access to Stanford's electronic health record ("EHR") database, which allowed her to study outcomes of almost 100 children with similar conditions to inform her patient's care. For many patients, treatment guidelines for their unique health situations can be fuzzy at best, and at worst nonexistent, often requiring educated guesswork on behalf of the clinician. What if there were a search engine that doctors could use to inform decisions about their patients, based on the outcomes of hundreds, if not thousands, of similar cases?

Today, a team led by Professor Nigam Shah has created the Green Button project, which analyzes healthcare data from EHRs to enable personalized, informed decisions in the absence of clinical trial data or medical literature. Given a description of a patient case, the search engine can rapidly find similar patients from datasets as large as 200 million patients. A team of informatics professionals then produces a report for the requesting clinician, summarizing what happened to similar patients in terms of the treatment choices made and observed outcomes. To date, more than 100 consults have been performed at Stanford Medicine. By integrating data that already exist, the Green Button can make medicine more personalized and precise, particularly in situations that would otherwise be challenging to manage.

Stanford has been applying artificial intelligence to healthcare for nearly five decades, beginning with the Stanford University Medical Experimental Computer for AI in Medicine project in 1974. Today, the University continues to lead innovation in medical informatics in a uniquely Stanford way.



#### IRVING WEISSMAN

*Director, Stanford Institute for Stem Cell Biology and Regenerative Medicine, Virginia & D.K. Ludwig Professor for Clinical Investigation in Cancer Research, Professor of Developmental Biology and, by courtesy, of Biology*

*photo / Steve Fisch / Stanford School of Medicine*

**THE WEISSMAN LAB** Professor Irving Weissman has been central to Stanford's biotechnology ecosystem through groundbreaking research as well as the cultivation of partnerships spanning the public, private, and non-profit sectors. One notable example of his impact is his immunology research. In 2009, he and colleagues discovered that cancer cells exploit a protein called CD47 that presents "don't eat me" signals to the body's immune system, which would otherwise attack the cancer. Weissman and his team subsequently developed an antibody that blocks CD47 and allows the immune system to more effectively engulf and devour cancer cells, with early successes in previously untreatable lymphomas.

Weissman is also the director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine and the Stanford Ludwig Cancer Center. Weissman was first to isolate blood forming stem cells, and methods to use them, with early success with patients with metastatic breast cancer, and recent success in immune deficient children. The institute, established in 2002, studies stem cell creation, regulation, and specialization. At the same time, it is training the next generation of stem cell researchers within an interdisciplinary environment that brings together faculty, post-doctoral scholars, medical students, and undergrads. The institute contributes to the biotech community at large through collaboration with the Stanford Hospitals and Silicon Valley. Under Professor Weissman's leadership, the institute hopes to create impactful new medical therapies to confront the world's most pressing afflictions.





**TONY WYSS-CORAY**

*D. H. Chen Professor of Neurology  
& Neurological Sciences*

**THE WYSS-CORAY LAB** The Wyss-Coray Lab studies brain aging and neurodegeneration with a focus on age-related cognitive decline. Run by Professor Tony Wyss-Coray, the lab uses genetic and cell biology to understand the molecular basis of systemic communication with the brain. At the core of the lab's research is the notion that aging affects every organ in the body and is fundamental to neurodegeneration and dementia. Wyss-Coray's team believes that aging may be encoded partly in a blood-based signature. Factors in blood circulation have been shown to modulate aging and to rejuvenate numerous organs, including the brain. The lab seeks to discover such factors, identify their origins, and understand their functions to learn about basic mechanisms of aging and neurodegeneration, and develop new therapeutic approaches to Alzheimer's and related diseases.

As humans age, positive immune responses decline while, at the same time, widespread inflammation increases throughout the body. This phenomenon, sometimes called "inflammaging," likely plays a role in cognitive degeneration associated with aging. Through studies in mice, Professor Wyss-Coray and his team have identified specific blood factors that are responsible for some of the harmful neurological effects associated with the aging process. Ultimately, this research could unlock new therapeutic strategies for combatting neurodegeneration. This pioneering work has the potential to benefit the more than 47 million Alzheimer's patients around the world, the nearly 10 million people who suffer from Parkinson's, and countless others affected by age-related diseases.



*photo / Robert Canfield*

*James H. Clark Center*

## Investment Team



Robert Wallace  
*Chief Executive Officer*

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

Jay Kang  
*Managing Director*

Yidi Lu<sup>†</sup>  
*Managing Director*

Thomas Lurquin  
*Managing Director*

Charles Moore *J.D. 1995*  
*Managing Director*

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

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

Michael Lee  
*Director*

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

Mary Mei  
*Director*

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

David Captain  
*Associate Director*

Rick Devlin  
*Associate Director*

Austin Lawrence  
*Associate Director*

Natalie Ferguson  
*Associate*

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

Julian Skotheim  
*Senior Analyst*

Andrew Elott *B.A. 2017*  
*Analyst*

Emma Hardimon *B.A. 2018*  
*Analyst*

Charles Killebrew *B.S. 2018*  
*Analyst*

Jennifer Peterson *B.A. 2018*  
*Analyst*

Federica Roth *B.S. 2018*  
*Analyst*

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

Eunice Kim  
*Legal Counsel*

Kristal Dehnad  
*Chief Operating Officer*

Mark Tannahill  
*Legal Counsel*

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<sup>\*</sup>Stanford degrees shown.

<sup>†</sup>Yidi Lu is a Managing Director of the Stanford (Beijing) Consulting Co., Ltd.





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







STANFORD MANAGEMENT COMPANY



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