

2011

The Yale Endowment



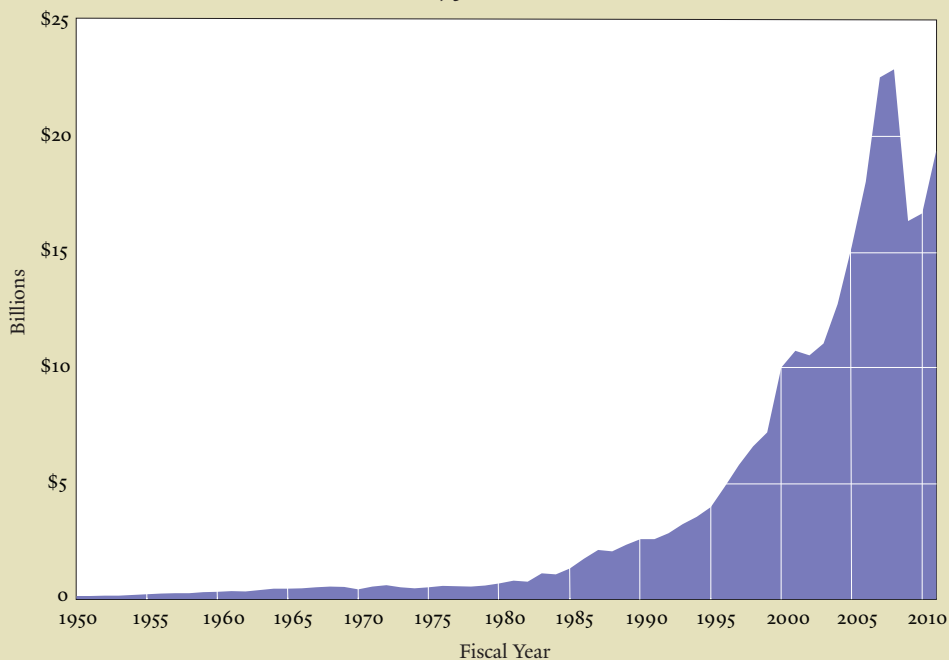
Endowment Highlights

	Fiscal Year				
	2011	2010	2009	2008	2007
Market Value (in millions)	\$19,374.4	\$16,652.1	\$16,326.6	\$22,869.7	\$22,530.2
Return	21.9%	8.9%	-24.6%	4.5%	28.0%
Spending (in millions)	\$ 986.8	\$ 1,108.4	\$ 1,175.2	\$ 849.9	\$ 684.0
Operating Budget Revenues (in millions)	\$ 2,734.2	2,681.3	2,559.8	2,280.2	2,075.0
Endowment Percentage	36.1%	41.3%	45.9%	37.3%	33.0%

Asset Allocation (as of June 30)

Absolute Return	17.5%	21.0%	24.3%	25.1%	23.3%
Domestic Equity	6.7	7.0	7.5	10.1	11.0
Fixed Income	3.9	4.0	4.0	4.0	4.0
Foreign Equity	9.0	9.9	9.8	15.2	14.1
Private Equity	35.1	30.3	24.3	20.2	18.7
Real Assets	28.9	27.5	32.0	29.3	27.1
Cash	-1.1	0.4	-1.9	-3.9	1.9

Endowment Market Value 1950–2011



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Front cover:
Window of Sterling Memorial Library, east façade.

Right:
Aerial view of Timothy Dwight College.

Introduction

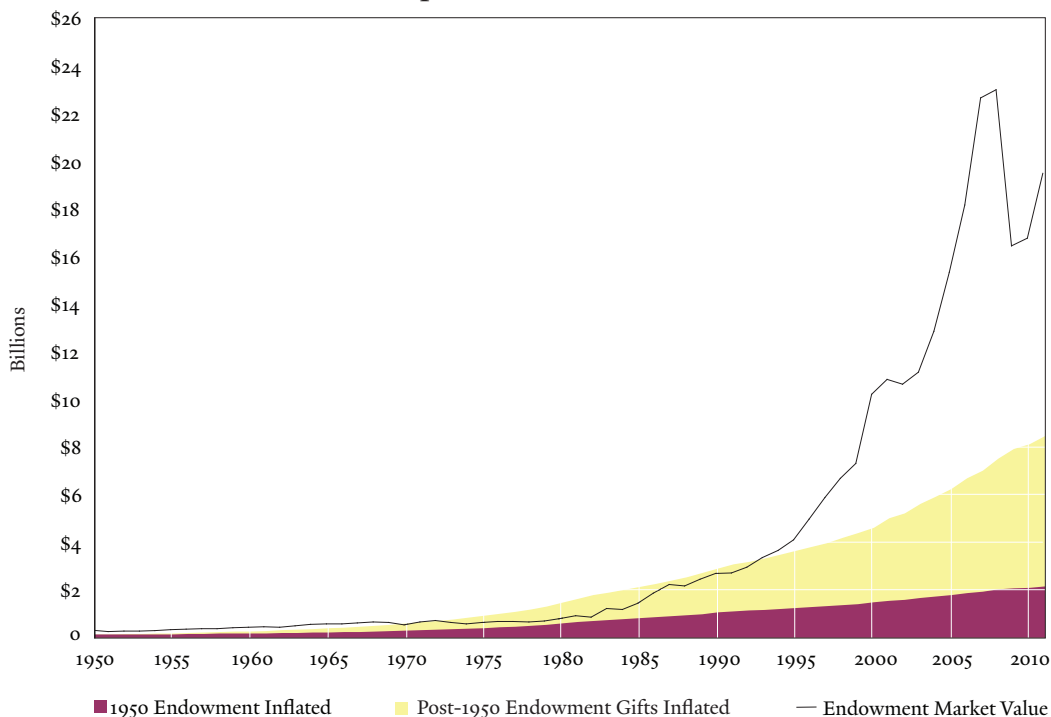
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Yale's Endowment performed strongly in fiscal year 2011, as returns of 21.9 percent produced an investment gain of \$3.6 billion.

Over the past ten years, the Endowment grew from \$10.7 billion to \$19.4 billion. With annual net investment returns of 10.1 percent, the Endowment's performance exceeded its benchmark and outpaced institutional fund indices. The Yale Endowment's twenty-year record of 14.2 percent per annum produced a 2011 Endowment value of more than seven times that of 1991. Yale's long-term record results from disciplined and diversified asset allocation policies and superior active management results.

Spending from the Endowment grew during the last decade from \$338 million to \$987 million, an annual growth rate of approximately 11 percent. On a relative basis, Endowment contributions expanded from 25 percent of total revenues in fiscal 2001 to 36 percent in fiscal 2011. Next year, spending will amount to \$992 million, or 37 percent of projected revenues. Yale's spending and investment policies have provided substantial levels of cash flow to the operating budget for current scholars while preserving Endowment purchasing power for future generations.

Endowment Growth Outpaces Inflation 1950–2011



Separation of Real Assets into Natural Resources and Real Estate

In June 2011, Yale separated its real assets portfolio into the component parts of natural resources and real estate, establishing each as a separate asset class. The change acknowledges some fundamental differences between the asset classes' underlying characteristics and highlights natural resources' growing importance in the portfolio.

For over a decade, the Endowment classified real estate, timberland, and oil and gas as subsets of its real assets portfolio because all three share important underlying characteristics. In particular, each asset type consists mostly of investments in illiquid physical assets that provide claims on future income streams that tend to track inflation.

Despite important similarities, the components of real assets are not homogeneous. Indeed, the heterogeneity within real assets provided important diversification as the asset class grew to more than 30 percent of the Endowment. The two new asset classes resulting from the split of real assets reflect important differences in inflation sensitivity and asset price drivers.

While both real estate and natural resources provide inflation protection, the mechanisms and effectiveness with which they accomplish this may differ. In the case of real estate, replacement cost – and therefore ultimately market values – should increase with inflation. A particular asset's response to a rise in price levels, however, is a function of both its lease structure and the relationship between property supply and demand in the relevant local market. When a market's supply and demand are in equilibrium, lease structures determine how quickly assets respond to inflationary pressure. Properties with shorter-term leases exhibit greater sensitivity to inflation. In cases where supply and demand are in disequilibrium, prices do not necessarily follow the expected relationship between changes in replacement cost and inflation. In a supply-constrained market, rents may rise faster than inflation, while in an overbuilt market, rents may decline in spite of inflation.

In contrast, oil, gas, metals, and minerals are more directly exposed to global supply and demand dynamics. Oil demand, for example, is increasingly a function of emerging markets' growth as they consume an ever larger percentage of the world's energy. Going forward, the rate of demand growth in emerging economies will be a crucial determinant of petroleum price levels. Timber and natural gas likewise

provide greater global exposure than does real estate, although they are somewhat less globally driven than oil. North American natural gas, for example, is essentially a regional commodity, with processing and regulatory hurdles limiting its export potential.

Natural resources investments provide inflation protection to Yale, but with transmission dynamics somewhat different from those in real estate. Dollar-denominated natural resources provide direct protection against unanticipated inflation, as their

prices should rise when the U.S. dollar depreciates relative to other currencies. Moreover, because Yale consumes some commodities directly – energy and construction materials, for example – University inflation increases as energy and other commodity prices rise. Endowment natural resource investments mitigate the effects of that inflation. Furthermore, exposure to commodities provides some protection against raw materials inflation that Yale experiences through the importation of finished goods.



Real estate, previously part of the Yale real assets portfolio along with timberland and oil and gas, became a separate asset class for the University in 2011.



Yale has been investing in North American timber for over fifteen years.

2

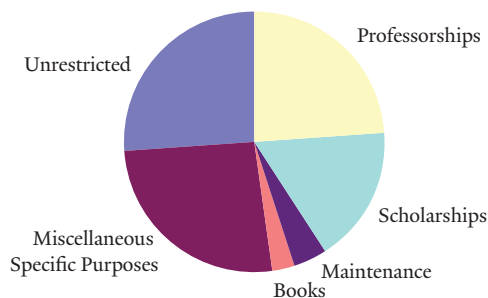
Totaling \$19.4 billion on June 30, 2011, the Yale Endowment contains thousands of funds with a variety of designated purposes and restrictions. Approximately three-quarters of funds constitute true endowment, gifts restricted by donors to provide long-term funding for designated purposes. The remaining one-quarter represent quasi-endowment, monies that the Yale Corporation chooses to invest and treat as endowment.

Donors frequently specify a particular purpose for gifts, creating endowments to fund professorships, teaching, and lectureships (24 percent), scholarships, fellowships, and prizes (17 percent), maintenance (4 percent), books (3 percent), and miscellaneous specific purposes (26 percent). Twenty-six percent of funds are unrestricted. Twenty-three percent of the Endowment benefits the overall University, with remaining funds focused on specific units, including the Faculty of Arts and Sciences (37 percent), the professional schools (26 percent), the library (7 percent), and other entities (7 percent).

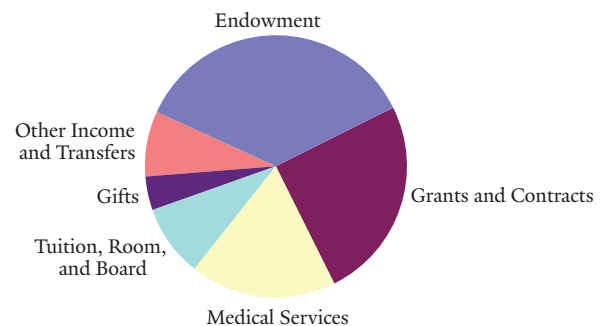
Although distinct in purpose or restriction, Endowment funds are commingled in an investment pool and tracked with unit accounting much like a large mutual fund. Endowment gifts of cash, securities, or property are valued and exchanged for units that represent a claim on a portion of the whole investment portfolio.

In fiscal 2011 the Endowment provided \$987 million, or 36 percent, of the University's \$2.734 billion operating income. Other major sources of revenues were grants and contracts of \$684 million (25 percent), medical services of \$493 million (18 percent), net tuition, room, and board of \$243 million (9 percent), gifts of \$110 million (4 percent), and other income and transfers of \$217 million (8 percent).

Endowment Fund Allocation
Fiscal Year 2011



Operating Budget Revenue
Fiscal Year 2011



3

Yale's portfolio is structured using a combination of academic theory and informed market judgment. The theoretical framework relies on mean-variance analysis, an approach developed by Nobel laureates James Tobin and Harry Markowitz, both of whom conducted work on this important portfolio management tool at Yale's Cowles Foundation. Using statistical techniques to combine expected returns, variances, and covariances of investment assets, Yale employs mean-variance analysis to estimate expected risk and return profiles of various asset allocation alternatives and to test sensitivity of results to changes in input assumptions.

Because investment management involves as much art as science, qualitative considerations play an extremely important role in portfolio decisions. The definition of an asset class is quite subjective, requiring precise distinctions where none exist. Returns and correlations are difficult to forecast. Historical data provide a guide, but must be modified to recognize structural changes and compensate for anomalous periods. Quantitative measures have difficulty incorporating factors such as market liquidity or the influence of significant, low-probability events. In spite of the operational challenges, the rigor required in conducting mean-variance analysis brings an important perspective to the asset allocation process.

The combination of quantitative analysis and market judgment employed by Yale and the creation of a new asset class produces the following portfolio:

Asset Class	June 2011 Actual	June 2011 Target
Absolute Return	17.5%	17.0%
Domestic Equity	6.7	7.0
Fixed Income	3.9	4.0
Foreign Equity	9.0	9.0
Natural Resources*	8.7	9.0
Private Equity	35.1	34.0
Real Estate	20.2	20.0
Cash	-1.1	0.0

*The natural resources asset class was created on June 30, 2011.

The target mix of assets produces an expected real (after inflation) long-term growth rate of 6.2 percent with a risk (standard deviation of returns) of 15.2 percent. Because actual holdings differ from target levels, the actual allocation produces a portfolio expected to grow at 6.3 percent with a risk of 15.4 percent. The University's measure of inflation is based on a basket of goods and services specific to higher education that tends to exceed the Consumer Price Index by approximately one percentage point.

At its June 2011 meeting, Yale's Investment Committee adopted a number of changes to the University's policy portfolio allocations. The Committee approved a modest increase in the private equity target from 33 percent to 34 percent. The Committee approved a similar increase of the total real assets target from 28 percent to 29 percent, and separated real assets into real estate (20 percent) and natural resources (9 percent). The increases in the illiquid asset classes were funded by a 2 percentage point decrease in the absolute return target allocation to 17 percent.

The need to provide resources for current operations as well as preserve purchasing power of assets dictates investing for high returns, causing the Endowment to be biased toward equity. In addition, the University's vulnerability to inflation further directs the Endowment away from fixed income and toward equity instruments. Hence, more than 95 percent of the Endowment is targeted for investment in assets expected to produce equity-like returns, through holdings of domestic and international securities, real estate, natural resources, and private equity.

Over the past two decades, Yale reduced dramatically the Endowment's dependence on domestic marketable securities by reallocating assets to nontraditional asset classes. In 1991, 53 percent of the Endowment was committed to U.S. stocks, bonds, and cash. Today, target allocations call for 11 percent in domestic marketable securities, while the diversifying assets of foreign equity, natural resources, private equity, absolute return strategies, and real estate dominate the Endowment, representing 89 percent of the target portfolio.

The heavy allocation to nontraditional asset classes stems from their return potential and diversifying power. Today's actual and target portfolios have significantly higher expected returns and lower volatility than the 1991 portfolio. Alternative assets, by their very nature, tend to be less efficiently priced than traditional marketable securities, providing an opportunity to exploit market inefficiencies through active management. The Endowment's long time horizon is well suited to exploit illiquid, less efficient markets such as venture capital, leveraged buyouts, oil and gas, timber, and real estate.

Philanthropists among Our Managers

Yale hires external managers with an eye toward creating long-lasting partnerships with outstanding individuals. In addition to managing the University's assets, many of Yale's managers invest their time and money to make the world a better place. Below is a sample of six such managers who have done a remarkable job of not only creating value for Yale, but also leading the way in the philanthropic world.



Josh Bekenstein – Bain Capital
Dana-Farber Cancer Institute

“My partners and I are pleased that we can actively support many great philanthropic organizations that do so much to improve our world.”

Dana-Farber Cancer Institute provides expert, compassionate care to children and adults with cancer while advancing the understanding, diagnosis, treatment, cure, and prevention of cancer and related diseases. As an affiliate of Harvard Medical School and a Comprehensive Cancer Center designated by the National Cancer Institute, Dana-Farber provides training for new generations of physicians and scientists, designs programs that promote public health among high-risk and underserved populations, and disseminates innovative patient therapies and scientific discoveries.

Josh Bekenstein's work helps advance the battle against cancer. He is chairman of the Institute's board of trustees, and he co-chaired Mission Possible, the Institute's recent campaign that raised \$1.18 billion, making the institute the first hospital in New England to complete a \$1 billion capital campaign. In addition, Josh has completed the Pan-Mass Challenge, a 200-mile

bikeathon to raise money for Dana-Farber, for nineteen consecutive years, and in so doing he has helped to raise over \$8 million for Dana-Farber.

In 2010, Josh was honored as the National Association of Corporate Directors (NACD) Nonprofit Director of the Year, in recognition of his commitment and service to Dana-Farber as well as his contributions as a director of New Profit, City Year, Horizons for Homeless Children, and New Leaders for New Schools.

Josh has served Yale as a member of the University's Investment Committee since 2000. He co-chaired the \$3.5 billion Yale Tomorrow Campaign and was a major donor for renovations of Saybrook College, for construction of the School of Management campus, for Yale athletics, and for financial aid.

Bill Helman – Greylock Partners
Global Health

“It takes the active engagement of multiple organizations to make this global health endeavor successful, and Daisy and I truly support the breaking down of traditional barriers in cooperative pursuit of a common goal, to bring quality health care to the world's poorest places.”

Global health, a relatively new health care field, focuses on providing quality health care in the world's poorest places. The goal is to improve the health of the poor and marginalized, build local capacity, and improve communities through the alleviation of poverty. Bill and his family have traveled extensively, witnessing firsthand the work of three organizations through which they support global health: Partners In Health, the Harvard Medical School Department of Global Health and Social Justice, and the Brigham and Women's Hospital Division of Global Health Equity.



Bill approaches his philanthropy in the same way he approaches venture capital: he backs people he calls “founders,” individuals who change our world, who add value, who lead, inspire, and influence, all done with passion, determination, and persistence. Bill supports a number of early pioneers in the global health field, including Paul Farmer, Jim Yong Kim, and Ophelia Dahl.

Bill's other charitable activities include work on the boards of The Steppingstone Foundation, the Isabella Stewart Gardner Museum, the Broad Institute, the Damon Runyon Cancer Research Foundation, the Dartmouth-Hitchcock Medical Center, the Harvard Management Company, and Harvard Medical School. Bill serves as a trustee of Dartmouth College, where he chairs the investment committee.



Seth Klarman – Baupost
Facing History and Ourselves

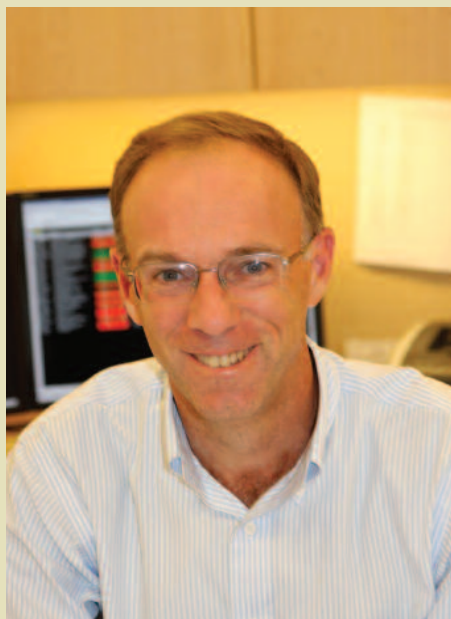
“The leverage of Facing History is phenomenal. By training approximately 3,000 teachers each year, most of whom will still be in the classroom ten to twenty years from now, Facing History is able to reach an estimated 1.5 million adolescents each year with its vitally important curriculum.”

Facing History and Ourselves, an international educational and professional development organization, engages students of diverse backgrounds in an examination of racism, prejudice, and anti-Semitism in order to promote the development of a more humane and informed citizenry. The organization helps young people understand the sources of hatred and take responsibility for change by looking back at historical events. Facing History organizes

workshops and seminars for teachers to learn the most current tools and resources available to teach students history.

Seth Klarman served as the chair of the board of directors for Facing History and Ourselves for the past sixteen years, stepping down in November 2011. He currently serves as co-chair of the board of trustees. In these roles, Seth has worked on fund raising, the challenges and opportunities related to organizational growth, and development of new resource materials for educators.

Seth is chairman of the Klarman Family Foundation, on the board of directors of the Broad Institute, chairman of the board of directors for The David Project (Center for Jewish Leadership), a vice chair of Beth Israel Hospital's board of managers, a member of the board of directors of The Israel Project, and a member of the Board of Dean's Advisors at Harvard Business School.



Steve Mandel—Lone Pine Capital
Teach for America

“The future of our society and our global competitiveness depends on a much better K-12 public education system. The disparity in educational opportunity between rich and poor in this country is shameful and is the civil rights issue of the twenty-first century. It will take many years, but Teach for America is the human capital engine that is recruiting, training, and inspiring thousands of this country’s most talented and relentless young leaders to eliminate this inequity, not just during

their two-year teaching commitment, but over the rest of their lives.”

Teach for America (TFA) strives to eradicate educational inequity by recruiting a diverse selection of America’s brightest college graduates to teach for two years in urban or rural communities within the United States. Founded in 1990, TFA recruited, trained, and placed 500 teachers in its first year. Last year, the program received more than 48,000 applicants to fill 5,200 spots in the corps, attracting interest from 12 percent of all Ivy League seniors. In 2010, Yale was recognized by TFA as a top contributor of TFA members, placing third in the medium-school category. Over the past three years, 129 Yale College seniors accepted full-time employment offers from TFA.

Yale, together with the Community Foundation for Greater New Haven, pledged financial support to TFA that allowed the organization to start operations in New Haven and in Connecticut. Since TFA came to Connecticut, the University has given the organization more than \$700,000.

Steve Mandel has served on the national board of directors of Teach for America since 2005. Steve is one of the organization’s most dedicated advocates, joining the Walton Family Foundation as one of two benefactors contributing over \$50 million in support of the program’s educational mission. Aside from his work on the national board, Steve founded and serves on the Regional Advisory Board for Connecticut, helping to address educational inequity in urban communities such as Bridgeport, Hartford, New Haven, and Stamford.

In addition to his work with TFA, Steve is the chair of the trustees of Dartmouth College, and served previously as a trustee of Phillips Exeter Academy and The Children’s School in Stamford, Connecticut. In 2001 he founded the Lone Pine Foundation, an organization that aims to use education to break the cycle of poverty by offering grants to educational programs based in Connecticut, New York City, London, and Hong Kong.

Tom Steyer—Farallon
Energy Sciences Institute at Yale

“For me, figuring out what you care about most and pursuing it passionately is not a choice; it is life itself.”

Tom Steyer is a passionate advocate of environmental protection and clean energy.



In September 2011, Yale announced that Tom and his wife Kat Taylor donated \$25 million to launch the Energy Sciences Institute at the University’s West Campus.

The institute will bring together physicists, chemists, geologists, biologists, and engineers to develop solutions to the world’s energy challenges. Previously, Tom and Kat created and funded the TomKat Center for Sustainable Energy at Stanford University, which looks for ways to make renewable energy technologies more affordable and accessible.

Tom recently partnered with former Reagan administration Secretary of State George Schultz to lead the opposition to Proposition 23, a November 2011 ballot measure that would have suspended California’s landmark climate change law. Tom pledged \$5 million to the effort and joined Schultz as co-chair of Californians for Clean Energy and Jobs.

Tom and Kat are co-founders of One PacificCoast Bank (formerly OneCalifornia Bank), which pursues the vision of creating a sustainable, meaningful community development bank.

Tom and Kat’s support of Yale includes funds for the Pierson College renovation and for the William C. Brainard Professorship in Economics. In 2010, Tom and his wife joined Bill and Melinda Gates and Warren Buffett in the Giving Pledge, a commitment by some of the wealthiest American families to donate more than half of their wealth to charity during their lifetimes or after their deaths.

Philanthropists (*continued*)

Lei Zhang – Hillhouse Capital

Yale University and Renmin University

**“Peaches and plums do not have to talk,
yet the world beats a path to them.”**

– *The Records of the Grand Historian*
(by Sima Qian)

Lei Zhang contributed an auspicious \$8,888,888 to the Yale School of Management in 2010. The gift, which was the largest that SOM has received from a graduate of the school, will be used to support construction of the school’s new campus as well as to provide China-related scholarships. In addition, Lei’s generosity benefited the Yale China and World Fellows programs. Lei made the gift with hopes of strengthening ties between Yale and China, which he believes will benefit students from all backgrounds.

Also in 2010, Lei provided funds for twenty students from his undergraduate alma mater, Renmin University of China, to study for a summer at Yale University. Renmin University acquired its current



name in 1950, making it the first university established by the People’s Republic of China. Renmin holds a place as one of the most prominent research institutions in China, with a special emphasis on humanities and social sciences. Lei donated 10 million RMB to set up the Hillhouse (Gaoli) Academy at Renmin University.

Lei serves on the board of BN Vocational School, China’s first tuition-free, non-profit vocational school designed for underprivileged children. The school designs courses based on market demand and aims to equip students with both cultural and practical capabilities to be top-tier skilled workers. Lei and his wife also donate money for other educational purposes, including scholarships in high schools and elementary schools.

Lei was a founding member of the United World College of Southeast Asia (UWCSEA) Foundation and helped to form the investment committee of the first high school endowment in Singapore.

Manager Characteristics

The Yale Investments Office’s single most important function is to develop investment partnerships with extraordinary investors. As a result, nothing matters more than finding and working with high-quality partners. The Investments Office staff meets with countless prospective investment managers each year. It then narrows in on particularly compelling candidates, meeting with those managers several times and conducting numerous layers of due diligence as it evaluates each manager’s potential. One successful manager joked that the Investments Office dug so deep into his background that it interviewed his third-grade teacher.

Yale chooses to partner with managers with whom the University can develop long-lasting relationships. The average manager tenure in Yale’s portfolio is ten years, a period reflecting a suitable long-term orientation as well as responsiveness to inevitable changes in manager character-

istics. Several manager relationships span decades. For example, one of Yale’s private equity managers has been a close partner for thirty years.

Active managers worth hiring possess personal attributes that create reasonable expectations of superior performance. Key manager characteristics include a high level of integrity, a passion for investing, and an entrepreneurial orientation. Employing investment managers with high moral standards reduces the likelihood of conflicts of interest, as ethical managers seriously consider the goals of Yale when resolving conflicts. Top-notch managers invest with passion, working to beat the market with a nearly obsessive focus. They limit assets under management and make aggressive, unconventional security choices, assuming substantial risks with the hope of generating superior investment returns. Entrepreneurial firms provide the greatest likelihood of dealing successfully

with ever-changing market dynamics, ultimately increasing the chances of delivering superior investment returns by putting people ahead of bureaucracy and structure.

Aligning Incentives

The Investments Office looks for ways to mitigate the principal-agent conflicts inherent in external manager relationships. Partnering with ethical individuals is part of the solution, but ensuring that people operate within properly constructed organizations is equally important. Structural characteristics that play an important role in aligning incentives include the level of management fees, form of incentive compensation, and size of manager co-investment. Yale prefers managers who are paid for superior performance, not for accumulating large amounts of assets under management, and managers who invest meaningful amounts of their personal net worth alongside Yale’s capital.

Asset Class Characteristics

Yale's seven asset classes are defined by differences in their expected response to economic conditions, such as price inflation or changes in interest rates, and are weighted in the Endowment portfolio by considering risk-adjusted returns and correlations. The University combines the asset classes in such a way as to provide the highest expected return for a given level of risk.

Absolute Return

In July 1990, Yale became the first institutional investor to pursue absolute return strategies as a distinct asset class, beginning with a target allocation of 15.0 percent. Designed to provide significant diversification to the Endowment, absolute return investments seek to generate high long-term real returns by exploiting market inefficiencies. Approximately half of the portfolio is dedicated to event-driven strategies, which rely on a very specific corporate event, such as a merger, spin-off, or bankruptcy restructuring to achieve a target price. The other half of the portfolio contains value-driven strategies, which involve hedged positions in assets or securities that diverge from underlying economic value. Today, the absolute return portfolio is targeted to be 17.0 percent of the Endowment, below the average educational institution's allocation of 23.7 percent to such strategies. Absolute return strategies are expected to generate real returns of 6.0 percent with risk levels of 10.0 percent for event-driven strategies and 15.0 percent for value-driven strategies.

Unlike traditional marketable securities, absolute return investments have historically provided returns largely independent of overall market moves. Over the past ten years, the portfolio exceeded expectations, returning 10.2 percent per year with low correlation to domestic stock and bond markets.

An important attribute of Yale's investment strategy concerns the alignment of interests between investors and investment managers. To that end, absolute return accounts are structured with performance-related incentive fees, hurdle rates, and clawback provisions. In addition, managers invest significant sums alongside Yale, enabling the University to avoid many of the pitfalls of the principal-agent relationship.

Domestic Equity

Financial theory predicts that equity holdings will generate returns superior to those of less risky assets such as bonds and cash. The predominant asset class in most U.S. institutional portfolios, domestic equity represents a large, liquid, and heavily researched market. While the average educational institution invests 18.0 percent of assets in domestic equities, Yale's target allocation to this asset class is only 7.0 percent. The domestic equity portfolio has an expected real return of 6.0 percent with a standard deviation of 20.0 percent. The Wilshire 5000 Index serves as the portfolio benchmark.

Despite recognizing that the U.S. equity market is highly efficient, Yale elects to pursue active management strategies, aspiring to outperform the market index by a few percentage points annually. Because superior stock selection provides the most consistent and reliable opportunity for generating excess returns, the University favors managers with exceptional bottom-up fundamental research capabilities. Managers searching for out-of-favor securities often find stocks that are cheap in relation to current fundamental measures such as book value, earnings, or cash flow.

Fixed Income

Fixed income assets generate stable flows of income, providing greater certainty of nominal cash flow than any other Endowment asset class. The bond portfolio exhibits a low covariance with other asset classes and serves as a hedge against financial accidents or periods of unanticipated deflation. While educational institutions maintain a substantial allocation to fixed income instruments and cash, averaging 12.4 percent, Yale's target allocation to fixed income and cash constitutes only 4.0 percent of the Endowment. Bonds have an expected real return of 2.0 percent with risk of 10.0 percent. The Barclays Capital 1-5 Year U.S. Treasury Index serves as the portfolio benchmark.

Yale is not particularly attracted to fixed income assets, as they have the lowest historical expected returns of the seven asset classes that make up the Endowment. In addition, the government bond market is arguably the most efficiently priced asset class, offering few opportunities to add significant value through active management. Based on skepticism of active fixed income strategies and belief in the efficacy of a highly structured approach to bond portfolio management, the Investments Office chooses to manage Endowment bonds internally. In spite of an aversion to market timing strategies, credit risk, and call options, Yale manages to add value consistently in its management of the bond portfolio.



Night view of Ingalls Rink, home of Yale hockey.

Foreign Equity

Foreign equity investments give the Endowment exposure to the global economy, providing diversification and the opportunity to earn outsized returns through active management. Yale allocates 4.0 percent of its portfolio to foreign developed markets and 2.5 percent of its portfolio to emerging markets. In addition, Yale dedicates 2.5 percent of the portfolio to opportunistic foreign positions, with the expectation that holdings will be concentrated in markets that offer the most compelling long-term opportunities, particularly China and India. Yale's foreign equity target allocation of 9.0 percent stands below the average endowment's allocation of 19.5 percent. Expected real returns for emerging equities are 7.0 percent with a risk level of 22.5 percent, while developed equities are expected to return 6.0 percent with risk of 20.0 percent. The portfolio is measured against a composite benchmark of (a) developed markets, measured by the Morgan Stanley Capital International (MSCI) Europe, Australasia, and Far East Index; (b) emerging markets, measured by the MSCI Emerging Markets Index; and, (c) opportunistic investments, measured by a custom blended index.

Yale's investment approach to foreign equities emphasizes active management designed to uncover attractive opportunities and exploit market inefficiencies. As in the domestic equity portfolio, Yale favors managers with strong bottom-up fundamental research capabilities. Capital allocation to individual managers takes into consideration the country allocation of the foreign equity portfolio, the degree of confidence Yale possesses in a manager, and the appropriate asset size for a particular strategy. In addition, Yale attempts to exploit compelling undervaluations in countries, sectors, and styles by allocating additional capital and, perhaps, by hiring new managers to take advantage of the opportunities.



Silliman College courtyard.

Natural Resources

Equity investments in natural resources – oil and gas, timberland, and metals and mining – share common risk and return characteristics: protection against unanticipated inflation, high and visible current cash flow, and opportunities to exploit inefficiencies. At the portfolio level, natural resource investments provide attractive return prospects and significant diversification. Yale has a 9.0 percent long-term policy allocation to natural resources with expected real returns of 6.0 percent and risk of 13.6 percent.

The natural resources portfolio – created by the split of the real assets portfolio at the June 2011 Investment Committee meeting – is a fundamental component of the Endowment, as it offers powerful diversification and promises strong returns. Pricing inefficiencies in the asset class and opportunities to add value allow superior managers to generate excess returns over a market cycle. The inception-to-date return of Yale's oil and gas (1986) and timber (1996) portfolio clocks in at an impressive 16.9 percent per annum.

Private Equity

Private equity offers extremely attractive long-term risk-adjusted return characteristics, stemming from the University's strong stable of value-adding managers that exploit market inefficiencies. Yale's private equity portfolio includes investments in venture capital and leveraged buyout partnerships. The University's target allocation to private equity of 34.0 percent far exceeds the 10.7 percent actual allocation of the average educational institution. In aggregate, the private equity portfolio is expected to generate real returns of 10.5 percent with risk of 27.7 percent.

Yale's private equity program, one of the first of its kind, is regarded as among the best in the institutional investment community, and the University is frequently cited as a role model by other investors. Since inception, private equity investments have generated a 30.3 percent annualized return to the University. The success of Yale's program led to a 1995 Harvard Business School case study – "Yale University Investments Office" – by Professors Josh Lerner and Jay Light. The popular case study was updated numerous times, most recently in 2011.

Yale's private equity assets concentrate on partnerships with firms that emphasize a value-added approach to investing. Such firms work closely with portfolio companies to create fundamentally more valuable entities, relying only secondarily on financial engineering to generate returns. Investments are made with an eye toward long-term relationships – generally, a commitment is expected to be the first of several – and toward the close alignment of the interests of general and limited partners. Yale avoids funds sponsored by financial institutions because of the conflicts of interest and staff instability inherent in such situations.

Real Estate

Investments in real estate provide meaningful diversification to the Endowment. A steady flow of income with equity upside creates a natural hedge against unanticipated inflation without a sacrifice of expected return. Yale's 20.0 percent long-term policy allocation significantly exceeds the average endowment's commitment of 4.4 percent. Expected real returns are 6.0 percent with risk of 17.5 percent.

The real estate portfolio plays a meaningful role in the Endowment as a powerful diversifying tool and a generator of strong returns. While real estate markets provide dramatically cyclical returns, pricing inefficiencies in the asset class and opportunities to add value allow superior managers to generate excess returns over longer time horizons. Since inception in 1978 the portfolio has returned 12.0 percent per annum.

The illiquid nature of private real estate combined with the expensive and time-consuming process of completing transactions creates a high hurdle for casual investors. Real estate provides talented investment groups with the opportunity to generate strong returns through savvy acquisitions and managerial expertise. A critical component of Yale's investment strategy is to create strong, long-term partnerships between the Investments Office and its investment managers. In the last decade, Yale played a critical role in the development and growth of several organizations involved in the management of real estate.

Asset Allocations

	Yale University	Educational Institution Mean
Absolute Return	17.5%	23.7%
Domestic Equity	6.7	18.0
Fixed Income	3.9	12.4
Foreign Equity	9.0	19.5
Natural Resources	8.7	8.6
Private Equity	35.1	10.7
Real Estate	20.2	4.4
Cash	-1.1	2.4

Data as of June 30, 2011

Investments Office Alumni

Yale Investments Office alumni have gone on to pursue careers in fields ranging from investment management to business to government to law. Over the past twenty-five years, forty-one men and women have joined and left the Endowment, after working for an average of 4.1 years. Roughly 66 percent started work at the Investments Office right out of college. Of those who left, about 33 percent went to business school, predominantly at Harvard or Stanford, 25 percent joined money management firms, 20 percent attended law or graduate school, and 10 percent took leadership positions at endowments or foundations. In the past year, three YIO financial analysts moved on to new challenges: Jon Rhinesmith left to pursue a Ph.D. in economics at Harvard, Mike Schmidt went to work at the Treasury Department in support of the Financial Stability Oversight Council, and Tess Dearing departed to pursue an M.B.A. at Harvard Business School.

Today, about 33 percent of YIO alumni hold leadership positions at endowments or foundations; half of them hold the title of chief investment officer. In the foundation world, Investments Office alums manage investment operations at Rockefeller Foundation, Carnegie Corporation, and Conrad H. Hilton Foundation. In higher education, endowments overseen by YIO

alumni include those at MIT, Princeton, Bowdoin, and Wesleyan. YIO alumni have a passion to work in the non-profit world and serve their communities, a reflection of the kind of people that the YIO seeks to hire. Below we provide brief profiles of some of the Investments Office's alumni.

Seth Alexander: *President, MIT Investment Management Company*

“I cannot imagine a better place to have learned the investment business than the Yale Investments Office with its exceptional leadership, fabulous team, and standard-setting investment thinking.”

Seth Alexander joined the Investments Office after graduating from Yale College in 1995 with a degree in biology. During his nearly eleven-year tenure at the YIO, Seth focused on the Endowment's asset allocation policies, as well as investments in timber and foreign and domestic marketable securities. He co-authored the paper “Illiquid Alternative Asset Fund Modeling” with Dean Takahashi, which presents a financial model that projects future asset values and cash flows of illiquid alternative investments. In May 2006, Seth left Yale to manage MIT's endowment. In that capacity he has pursued a strategy focused on developing a diversified invest-



ment base with a strong equity bias and fostering long-term partnerships with exceptional investment managers.

Andrew Golden: *President, Princeton University Investment Company*

“I often describe my time at the YIO as being the equivalent of a medical internship and residency—it had that much impact on my professional and, indeed, intellectual development.”

Andy Golden started at the Investments Office as an intern while he was a student at the Yale School of Management, and joined as a full-time member after graduating in 1989 with a master's degree in public



The YIO offices now occupy the fifth floor of this Yale-owned building in downtown New Haven.

Alumni (continued)

and private management. In 1993 he left the YIO for the Duke Management Company and since 1995 has headed Princeton's endowment, presiding over the Princeton University Investment Company (PRINCO). Under Andy's stewardship, PRINCO's assets have grown almost five-fold to more than \$17 billion, net of \$6 billion in distributions to university operations. In 2007 the U.S. Treasury appointed Andy to the Investors' Committee of the President's Working Group on Financial Markets. In addition to his position at PRINCO, Andy serves on the advisory boards of a number of private equity and venture capital firms, including Bain Capital, Greylock Partners, General Catalyst Partners, SAIF Partners, and Northern Light Venture Capital.



Randy Kim: *Vice President and Chief Investment Officer, Conrad N. Hilton Foundation*

"I will forever be grateful to David, Dean, and the rest of my former YIO colleagues for ten years of invaluable investment training and personal mentorship. I am blessed for the opportunity to have made so many great friends, and I wish my colleagues at Yale every future success."

Randy Kim joined the Investments Office after graduating from Yale College in 1998 with degrees in economics and political science. During his ten years at the YIO, Randy worked on the Endowment's absolute return, domestic equity, and foreign equity portfolios. While working nearly full-time for the YIO, he earned an M.B.A. from the Yale School of Management in 2004. Randy left the Investments Office

in 2008 to head the Hilton Foundation's investment portfolio, where he works with Director of Investments Jay Kang, class of 2002, another YIO alum. In addition to his work with the foundation, Randy serves on the board of directors of the UCLA Investment Company.



Anne Martin: *Chief Investments Officer, Wesleyan University*

"I can't imagine a better place than the Yale Investments Office to learn the art and science of investment management. I'll always be thankful that David Swensen and Dean Takahashi took a leap of faith to bring me into the fold. It's hard to imagine an environment that provides greater breadth in intellectual challenges, cutting-edge thinking, and exposure to the smartest people in the investing world, a group that includes not only Yale's investment managers but my colleagues within the Yale Investments Office."

Anne Martin joined the Investments Office in 2005. During her tenure at the YIO, Anne worked primarily on the natural resources portfolio, helping the Endowment identify new opportunities in the oil and gas space. She also worked on the private equity portfolio, specifically focusing on venture capital.

Prior to joining Yale, Anne worked as a general partner of private equity firm Rosewood Capital, where she focused on Internet, software, and business service investments. Previously she was a managing director at Alex. Brown in its technology practice, where she worked on corpo-

rate finance and mergers and acquisitions with clients such as Amazon.com, eBay, and AOL. She is a graduate of Smith College, cum laude, Phi Beta Kappa, and holds an M.B.A. from Stanford Business School.

Anne was a co-founder, board member, and board chair of the Packard Center for ALS Research at Johns Hopkins, an innovative non-profit organization dedicated to finding therapies for amyotrophic lateral sclerosis. In addition, Anne serves on the investment committee of Smith College. She is currently co-chair of the National Rowing Foundation, a non-profit organization devoted to preparing the next generation of world-class rowers for international competition.

Anne rowed for the U.S. National Team, won a gold medal in the 1986 World Championships, and was a member of the 1988 Olympic team.

In 2010 she left the Endowment to become Wesleyan University's chief investment officer.



Lauren Meserve: *Deputy Chief Investment Officer, Metropolitan Museum of Art*

"I view my time at the Yale Investments Office as a continuation of my undergraduate education. Working with David and Dean, I learned something new every day."

Lauren Meserve joined the Investments Office after graduating from Yale College in 1993 with a degree in anthropology. She left the Endowment in 1996 to join the Andrew W. Mellon Foundation, where she collaborated on *The Shape of the River*:

Long-Term Consequences of Considering Race in College and University Admissions (Bowen and Bok) and *The Game of Life: College Sports and Educational Values* (Bowen and Shulman). After her work at Mellon, she pursued a master's degree at Princeton University's Woodrow Wilson School of Public and International Affairs. Since 2002, Lauren has worked in the investments office of the Metropolitan Museum of Art, and since 2007 she has served as deputy chief investment officer. In addition to her work at the Met, Lauren serves on the boards of the Wenner-Gren Foundation for Anthropological Research and the American Friends of the National Gallery, London.

Jonathan Rhinesmith: *PH.D. Candidate, Harvard Economics Department*

“YIO’s relentless efforts to fully understand investment issues, and at times even to develop novel solutions to them, created a thriving, collegial environment that made the office an excellent place at which to learn about how financial markets interact.”

Jonathan Rhinesmith joined the Investments Office after graduating from Yale College in 2008 with a double degree in physics and in economics and mathematics. As an undergraduate, Jon had a strong interest in economics, serving as the editor-in-chief of the *Yale Economic Review* and interning at Ellington, a hedge fund that boasts a relationship with Yale economics



professor John Geanakoplos. Jon started at the YIO focusing on overall Endowment performance and absolute return. After three years with the Investments Office, he matriculated at Harvard University to pursue a PH.D. in economics.



Kimberly Sargent: *Managing Director for Marketable Securities, David and Lucile Packard Foundation*

“It was a great honor to be a small part of a team of such talented investment professionals at the Yale Investments Office for three years. As a recent college graduate, I benefited from an intense lesson in all aspects of the world of investment management. As a lover of learning, I was in an environment in which intellectual honesty and rigor were applied toward the challenge of earning superior returns. And as someone who cared about doing good in the world, I was thrilled to see the results of our work go to benefit the University and the globe.”

Kimberly Sargent came to the Investments Office in 2001 from New York-based Morrison Cohen Singer & Weinstein, a commercial law firm. During her three years at the Endowment, Kimberly focused on capital markets and international equities. Kimberly, a Yale College history major, earned her CFA charter and, while at the Office, helped Chief Investment Officer David Swensen with his second book, *Unconventional Success: A Fundamental Approach to Personal Investment*.

Kimberly left the YIO in 2004 to pursue an M.B.A. at Stanford Business School. After consulting for financial institutions

at McKinsey, Kimberly joined the Packard Foundation in 2008 as it was starting to expand its investment team. She is currently the foundation's managing director for marketable securities.

Xiaoning Wu: *Senior Associate, Hillhouse Capital Management*

“The Investments Office gave me an opportunity to interact with the smartest investors in the world. I couldn’t have had a more memorable learning experience.”

Xiaoning Wu first joined the Investments Office as an intern during her undergraduate years at Yale College. An East Asian studies and economics double major, Xiaoning supplemented her academic endeavors by working at the Endowment, researching investment opportunities in Chinese equities. Following graduation, Xiaoning postponed full-time employment at the Office for one year and went to Beijing to study Chinese.

At the YIO, Xiaoning focused on Yale's absolute return and emerging markets portfolios. In that capacity she worked closely with the University's China-focused public equities fund, Hillhouse Capital Management, ultimately doing two internships with the fund, the first while at the Investments Office and the second while at Stanford Business School. Xiaoning credits her time at the Investments Office with her development of a broad-based foundation in finance and familiarity with a comprehensive spectrum of investment strategies.



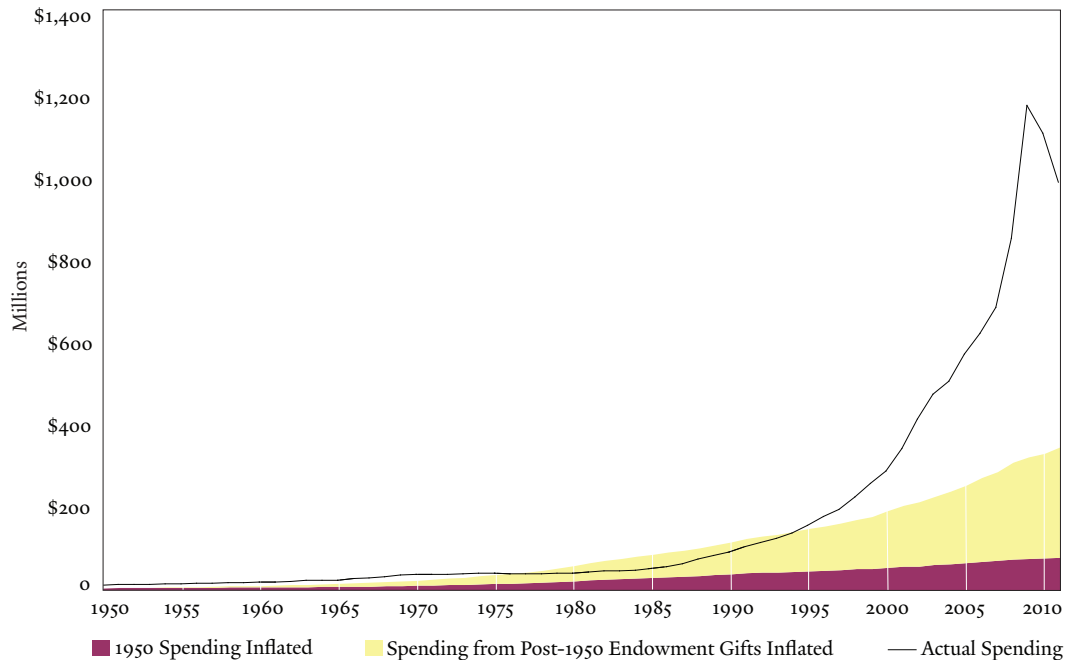
4

The spending rule is at the heart of fiscal discipline for an endowed institution. Spending policies define an institution’s compromise between the conflicting goals of providing substantial support for current operations and preserving purchasing power of endowment assets. The spending rule must be clearly defined and consistently applied for the concept of budget balance to have meaning.

The Endowment spending policy, which allocates Endowment earnings to operations, balances the competing objectives of providing a stable flow of income to the operating budget and protecting the real value of the Endowment over time. The spending policy manages the trade-off between these two objectives by using a long-term spending rate target combined with a smoothing rule, which adjusts spending in any given year gradually in response to changes in Endowment market value.

The target spending rate approved by the Yale Corporation currently stands at 5.25 percent. According to the smoothing rule, Endowment spending in a given year sums to 80 percent of the previous year’s spending and 20 percent of the targeted long-term spending rate applied to the market value two years prior. The spending amount determined by the formula is adjusted for inflation and constrained so that the calculated rate is at least 4.5 percent, and not more than 6.0 percent, of the Endowment’s inflation-adjusted market value two years prior. The smoothing rule and the diversified nature of the Endowment are designed to mitigate the impact of short-term market volatility on the flow of funds to support Yale’s operations.

Spending Growth Surpasses Inflation 1950–2011



The spending rule has two implications. First, by incorporating the previous year's spending, the rule eliminates large fluctuations, enabling the University to plan for its operating budget needs. Over the last twenty years, the standard deviation of annual changes in spending has been less than three-quarters that of annual changes in Endowment value. Second, by adjusting spending toward the long-term target spending level, the rule ensures that spending will be sensitive to fluctuating Endowment market values, providing stability in long-term purchasing power.

Despite the conservative nature of Yale's spending policy, distributions to the operating budget rose from \$338 million in fiscal 2001 to \$987 million in fiscal 2011. The University projects spending of \$992 million from the Endowment in fiscal 2012, representing about 37 percent of revenues.



Kline Biology Tower, atop Science Hill. At left is a partial view of Kroon Hall, the home of Forestry & Environmental Studies, completed in 2009.

Yale Investments Office Staff

The Endowment is managed by a team of investment professionals at the Yale Investments Office. To keep pace with the growing Endowment value, the investment team has grown over the past quarter-century and today consists of twenty-four professionals, including a team of junior analysts and an experienced senior staff. Each year, the Office hires student interns, who number among the most impressive Yale College students.

Senior Staff

The senior staff at the Yale Investments Office drive the decisions and overall direction of the University's Endowment. Led by David Swensen, senior staff members focus their attention on key endowment management issues including setting asset allocation and conducting deep portfolio reviews as well as on special topics like assessing the implications of fraud in managers' portfolio companies. In addition to leading internal projects, senior staff members serve as the important link between Yale and its external managers; they work on evaluating, selecting, and monitoring funds, they negotiate with managers on issues such as fund raising and fee structures, and they collaborate on discussions regarding organizational development.

Consistent with the Office's emphasis on teamwork and mentorship, senior staff members actively involved their junior colleagues in research, analysis, and portfolio management. Such sharing breeds a culture of spirited, intellectual discussions and encourages junior staff to engage in the decision-making process early in their careers. Early responsibility prepares junior staff to take on larger roles, enabling the Investments Office to promote from within. One former financial analyst has remained with the Office for the past two and a half decades and currently serves at the director level.

Financial Analysts

Financial analysts perform much of the Endowment's essential analysis. Yale's financial analysts come from a variety of academic backgrounds, ranging from students who majored in history and biology to those with degrees in economics. The common thread among all analysts is an interest in Yale, a curiosity about investing, and the desire to explore those interests in an entrepreneurial, hands-on organization.

The Investments Office's financial analysts generally begin working for the



Alexander C. Banker, a Director (right), and Senior Financial Analyst Cain P. Soltoff, during an Investments Office meeting.

Endowment with little or no portfolio management experience. Focused mentorships and extensive on-the-job training develop the analysts' investment abilities. The collaborative, flat structure of the Investments Office exposes analysts to the philosophy and thought process of Chief Investment Officer David Swensen, Senior Director Dean Takahashi, and the rest of the team starting from day one. In their early years, analysts develop quantitative skills, qualitative skills, and investment instincts. In addition, all analysts at the Investments Office prepare and sit for the

Chartered Financial Analyst (CFA) examination.

Once financial analysts develop their financial literacy and analytical tools, they receive broad exposure to the investment process and various facets of Yale's portfolio. Analyst functions include assessing investment performance, examining the allocation of funds across different asset classes and investment strategies, and implementing the University's ethical investing policy. They assist in the screening, selection, and monitoring of money managers through background research, manager meetings, and portfolio analysis. In line with Yale's belief in the centrality of external managers to the investment management process, analysts travel the world to meet managers in person to build and strengthen long-standing investment relationships.

Interns

The Yale Investments Office hires student interns during the academic term and summer. Interns add horsepower to the Office's capacity and strengthen the connection between the Office staff and the University. At the Investments Office, interns gain exposure to a wide range of asset classes and investment strategies, assisting in the screening and monitoring of funds through research, performance evaluation, and participation in manager meetings. They work on a wide variety of strategic projects, such as analyzing asset liquidity, industry benchmarks, and new investment opportunities.



A lively exchange during a meeting in the Yale Investments Office.

Office Culture

In October 1987, Treasury Secretary Henry Paulson, then senior executive at Goldman Sachs, spoke at Yale's School of Management and articulated a compelling case for the ideal work environment. Paulson said that high-quality individuals gravitate toward entities that operate on the cutting edge, that embrace a global strategy, that provide opportunities to benefit from focused mentorship, and that encourage early acceptance of significant responsibility. The Yale Investments Office has worked to create such an environment over the past quarter-century.

After taking the helm of the Yale Endowment in 1985, David Swensen pioneered a move away from traditional stock and bond investments and toward an illiquid, equity-biased portfolio. Since then, Yale has continued to innovate in the field of endowment management, identifying new opportunities, like timber investments, before they become mainstream. Under David Swensen's and Dean Takahashi's stewardship, the Endowment has taken a more global view; over the past twenty-seven years, Yale's allocation to domestic equity declined from over 60 percent to 7 percent today, an acknowledgment of the abundance of attractive security mispricings outside of U.S. borders.

The driver behind the Endowment's cutting-edge, global work is its people. The rigorous nature of the work at the Investments Office attracts people who are intellectually curious. Investments Office employees enjoy digging deep into their research and developing unconventional approaches to the problems they face. In addition to an academic interest in their work, staff share an interest in Yale and in doing meaningful work. The combination of those factors creates a strong culture in which people love what they do. That passion attracts people who share the same values to join the Office, creating a virtuous feedback loop.

The Office is a collaborative, team-oriented workplace. Every Monday, the entire staff meets to present and challenge ideas in a group setting. The meetings are comprehensive and allow staff members to participate in the Endowment's investment process. In addition, the Office's team-oriented work environment fosters mentorship as new hires learn the requisite skills and strategies by working side-by-side with more experienced members of the Office.

Outside of the office, the staff members organize and participate in a wide range of

activities that promote a collegial culture. Every summer, the Investments Office organizes a golf and tennis fundraiser to support New Haven youth and education. For the past six years, the event (which was the brainchild of President Richard Levin and benefits from his consistent participation) raised in excess of \$1 million each year to support Yale's activities in the New Haven community. The Office participates in the University's intramural sports

league, fielding full softball and basketball teams. The teams create a sense of unity and pride among the staff members as they compete against other departments. Reflecting a strong competitive spirit, the Investments Office teams have won two championships in as many years. In the office, staff members eat lunch together, and during late work nights they share family-style dinners.



Yale Investments Office staff pictured during a summer 2011 retreat at a wind power project site. Social gatherings like this play an important role in the life of the Office and its collegial working climate.



Softball provides the Investments Office staff a welcome break. The team, made up of full-time Office staff, interns, and family and friends, goes up against other Yale units in friendly competition.

5

Performance by Asset Class

Yale has produced excellent long-term investment returns. Over the ten-year period ending June 30, 2011, the Endowment earned an annualized 10.1 percent return, net of fees, surpassing annual results for domestic stocks of 3.7 percent and domestic bonds of 5.2 percent, and placing it in the top one percent of large institutional investors. Endowment outperformance stems from sound asset allocation policy and superior active management.

Yale's long-term superior performance relative to its peers and benchmarks has created substantial wealth for the University. Over the ten years ending June 30, 2011, Yale added \$7.6 billion relative to its composite benchmark and \$7.4 billion relative to the average return of a broad universe of college and university endowments.

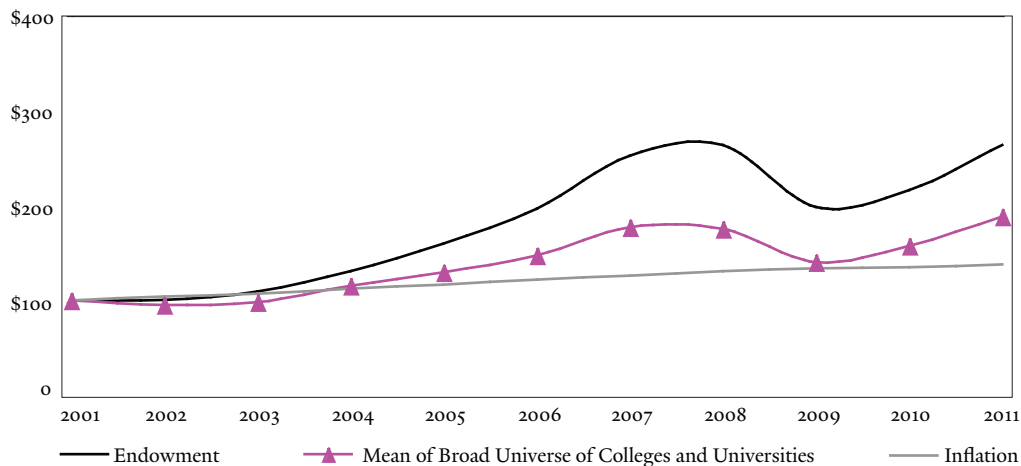
Yale's long-term asset class performance continues to be outstanding. In the past ten years, every asset class posted superior returns, significantly outperforming benchmark levels.

Over the past decade, the absolute return portfolio produced an annualized 10.2 percent, exceeding the passive benchmark of the One-Year Constant Maturity Treasury plus 6 percent by 1.2 percent per year and besting its active benchmark of hedge fund manager returns by 3.8 percent per year. For the ten-year period, absolute return results exhibited close to no correlation to traditional marketable securities.

For the ten years ending June 30, 2011, the domestic equity portfolio returned an annualized 7.6 percent, outperforming the Wilshire 5000 by 3.7 percent per year and the Russell Median Manager return by 4.3 percent per year. Yale's active managers have added value to benchmark returns primarily through stock selection.

Yale's internally managed fixed income portfolio earned an annualized 5.2 percent over the past decade, staying in line with the Barclays Capital Treasury Index and exceeding the Russell Median Manager return by 0.4 percent per year. By making astute security selection decisions and accepting a moderate degree of illiquidity, the Endowment benefited from excess returns without incurring material credit or option risk.

Yale's Performance Exceeds Peer Results
2001 to 2011, 2001=\$100

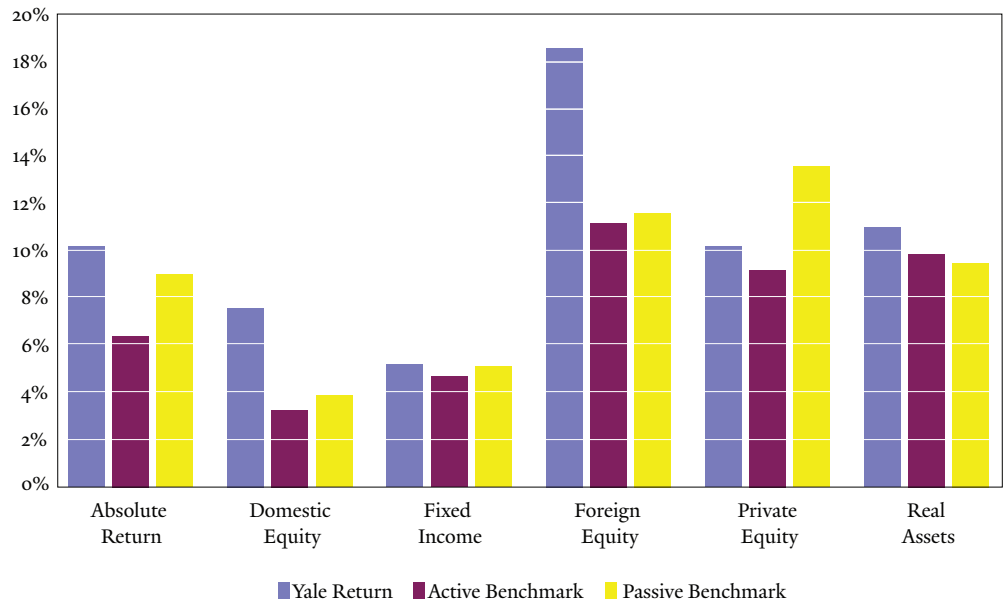


The foreign equity portfolio generated an annual return of 18.6 percent over the ten-year period, outperforming its composite benchmark by 7.0 percent per year and the Russell Median Manager return by 7.4 percent per year. The portfolio's excess return is due to astute country allocation and effective security selection by active managers.

Private equity earned 10.2 percent annually over the last ten years, underperforming the passive benchmark of University inflation plus 10 percent by 3.1 percent per year and outperforming the return of a pool of private equity managers compiled by Cambridge Associates by 1.0 percent per year. Since inception in 1973, the private equity program has earned an astounding 30.3 percent per annum.

Real assets generated a 11.0 percent annualized return over the ten-year period, outperforming the passive benchmark of University inflation plus 6.0 percent by 2.5 percent per year and an active benchmark of real assets manager returns by 2.3 percent per year. Yale's outperformance is due to successful exploitation of market inefficiencies and timely pursuit of contrarian investment strategies.

Yale Asset Class Results Beat Benchmarks 2001–2011



Active Benchmarks

Absolute Return: CSFB/Tremont Composite
Domestic Equity: Frank Russell Median Manager, U.S. Equity
Fixed Income: Frank Russell Median Manager, Fixed Income
Foreign Equity: Frank Russell Median Manager Composite, Foreign Equity
Private Equity: Cambridge Associates Composite
Real Assets: NCREIF and Cambridge Associates Composite

Passive Benchmarks

Absolute Return: 1-year Constant Maturity Treasury + 6%
Domestic Equity: Wilshire 5000
Fixed Income: BarCap 1-5 Yr Treasury
Foreign Equity: Blend of MSCI EAFE Index, MSCI EM Index, Custom Opportunistic Blended Index
Private Equity: University Inflation + 10%
Real Assets: University Inflation + 6%

Management and Oversight

6

Since 1975, the Yale Corporation Investment Committee has been responsible for oversight of the Endowment, incorporating senior-level investment experience into portfolio policy formulation. The Investment Committee consists of at least three Fellows of the Corporation and other persons who have particular investment expertise. The Committee meets quarterly, at which time members review asset allocation policies, Endowment performance, and strategies proposed by Investments Office staff. The Committee approves guidelines for investment of the Endowment portfolio, specifying investment objectives, spending policy, and approaches for the investment of each asset category.

Investment Committee

Douglas A. Warner, III '68
Chairman
Former Chairman
J.P. Morgan Chase & Co.

G. Leonard Baker '64
Managing Director
Sutter Hill Ventures

Joshua Bekenstein '80
Managing Director
Bain Capital

Ben Inker '92
Director of Asset Allocation
GMO

Paul Joskow '72 PH.D.
President
Alfred P. Sloan Foundation

Stefan Kaluzny '88
Managing Director
Sycamore Partners

Richard C. Levin '74 PH.D.
President
Yale University

Ranji Nagaswami '86 M.B.A.
Chief Investment Officer
City of New York

Carter Simonds '99
Managing Director
Blue Ridge Capital

Dinakar Singh '90
CEO and Founding Partner
TPG-Axon Capital

Fareed Zakaria '86
Editor-at-Large
TIME Magazine

David Swensen and President's Economic Recovery Advisory Board (PERAB)

In February 2009, with the country mired in the depths of the financial crisis, U.S. President Barack Obama issued an executive order to establish the President's Economic Recovery Advisory Board (PERAB). The purpose of the board was to provide independent, nonpartisan analysis and advice to President Obama as he and his staff developed plans for America's economic recovery.

The members of the board, charged with being "candid and unsparing in their assessment," reflected a diverse collection of perspectives from a variety of sectors of the economy. With regard to his selections, President Obama said, "I created this board to enlist voices that come from beyond the echo chamber of Washington, D.C., and to ensure that no stone is unturned as we work to put people back to work and to get our economy moving."

President Obama tapped David Swensen, Yale's Chief Investment Officer, to serve on PERAB. The nomination recognized David's unusual set of experiences and contributions to the world of finance throughout his career, during which he earned a Ph.D. in economics from Yale, worked six years on Wall Street, led the Yale Endowment to robust returns for nearly two and a half decades, and advised on the finances of numerous entities ranging from The Brookings Institution and the University of Cambridge to the New York Stock Exchange and TIAA. Paul Volcker, former Chairman of the Federal Reserve, was named Chairman of PERAB and Austan Goolsbee ('91) took the role of Staff Director and Chief Economist. David had a number of opportunities to meet with the President in the Oval Office to discuss financial issues, including the Volker Rule, the overall structure of financial regulatory reform, the regulation of derivatives markets, and the appropriate role of the government in the mortgage finance industry.

After working with David for two years, Mr. Goolsbee said, "Dave Swensen set the standard for seriousness and good judgment as a member of PERAB. President Obama respected and sought out David's advice. And whether it was about financial markets and regulation, housing and mortgage finance, small business credit or many other subjects, he was always willing to study and analyze issues if the President needed it."

In turn, Mr. Volcker said, "David Swensen was a valuable member of PERAB, bringing dedication and years of practical experience to the table. He was particularly helpful to me as we crafted our advice to the White House concerning financial

regulatory reform, and to the Treasury concerning housing and the mortgage market. I hope this or any future administration will call on David's insight and experience when needed."



U.S. President Barack Obama talks with Yale Chief Investment Officer David F. Swensen during a meeting of the President's Economic Recovery Advisory Board (PERAB) in the State Dining Room at the White House on October 4, 2010 in Washington, D.C.

Photographer: Chip Somodevilla. Collection: Getty Images News

The Investments Office manages the Endowment and other University financial assets, and defines and implements the University's borrowing strategies. Headed by the Chief Investment Officer, the Office currently consists of twenty-four professionals.

Investments Office

David F. Swensen '80 PH.D.
Chief Investment Officer

Lisa M. Howie '00, '08 M.B.A.
Associate Director

Dean J. Takahashi '80, '83 MPPM
Senior Director

Celeste P. Benson
Senior Portfolio Manager

Peter H. Ammon '05 M.B.A., '05 M.A.
Director

R. Alexander Hetherington '06
Senior Associate

Alexander C. Banker
Director

Matthew S. T. Mendelsohn '07
Senior Associate

Alan S. Forman
Director

John V. Ricotta '08
Senior Financial Analyst

Timothy R. Sullivan '86
Director

Cain P. Soltoff '08
Senior Financial Analyst

Stephanie S. Chan '97
Associate General Counsel

Nilesh V. Vashee '09
Senior Financial Analyst

Deborah S. Chung
Associate General Counsel

Xinchen Wang '09
Senior Financial Analyst

Kenneth R. Miller '71
Associate General Counsel

Florence R. Dethy '11
Financial Analyst

J. Colin Sullivan
Associate General Counsel

David S. Katzman '10
Financial Analyst

Carrie A. Abildgaard
Associate Director

Sebastian K. Serra '11
Financial Analyst

Michael E. Finnerty
Associate Director

Kaiyuan Wang '11
Financial Analyst

Investment Committee

A strong investment committee brings discipline to the endowment management process. By thoroughly and thoughtfully vetting investment recommendations, the committee inspires staff to produce ever more carefully considered proposals. Ideally, committees rarely exercise the power to reject staff recommendations. If a committee frequently turns down or revises investment proposals, the staff encounters difficulty in managing the portfolio. Investment opportunities often require negotiation of commitments subject to board approval. If the board withholds approval with any degree of regularity, staff loses credibility in the eyes of the investment management community. That said, the committee must provide more than a rubber stamp for staff recommendations. In a well-run organization, committee discussion of investment proposals influences the direction and nature of future staff initiatives. Effective portfolio management requires striking a balance between respect for the ultimate authority of the investment committee and delegation of reasonable responsibility to the investment staff.

Committee members often provide

assistance between meetings, providing feedback on past actions and suggesting strategies for the future. Informed give-and-take elevates the investment dialogue, challenging staff and committee to improve the quality of investment decision making.

Investment committee members should be selected primarily for having good judgment. While no particular background qualifies an individual to serve on the committee, broad understanding of financial markets proves useful in overseeing the investment process. Aggregating a collection of investment specialists occasionally poses dangers, particularly when committee members attempt to manage the portfolio, not the process. Successful executives bring a valuable perspective to the table provided they suspend their natural inclination to reward success and punish failure. The sometimes deep-rooted corporate instinct to pursue winners and avoid losers pushes portfolios toward fundamentally risky momentum-driven strategies and away from potentially profitable contrarian opportunities. The most effective investment committee members understand the responsibility to oversee the investment

process and to provide support for the investment staff, while avoiding actual management of the portfolio.

Yale's Investment Committee has existed since 1975. The Committee has included leaders in a number of fields, including finance, business, academia, government, media, and the non-profit world, all of whom share a passion for Yale. Below are profiles of the Chairmen of Yale's Investment Committee since its founding along with the dates of their tenure.



University President Richard C. Levin '74 PH.D. (right), with Investment Committee Chair Douglas A. Warner, III '68 (left) and Chief Investment Officer David F. Swensen '80 PH.D.

Investment Committee Chairmen



John Madden

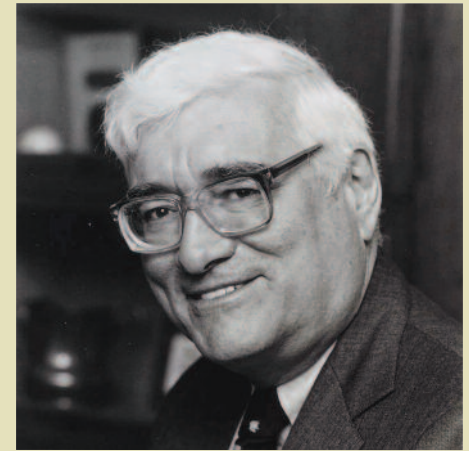
John Beckwith Madden (1975-1987)

John Beckwith Madden graduated from Yale College in 1941. During his time at Yale, he was a member of the varsity wrestling team. After graduating, he served in the Army during World War II, rising to the rank of captain. Madden joined the credit department of Brown Brothers Harriman in 1946 and was made a general partner in 1955, one of the youngest in the

firm's history. He was managing partner from 1968 to 1983 and resumed his general partnership at that time, a role he held until he passed away in 1988. Madden was a trustee of The Boys' Club of New York for over thirty-five years. He also served on the boards of The New York Community Trust, the James Foundation, the Maine Community Foundation, the Packer Collegiate Institute, the Visiting Nurse Association of Brooklyn, and the Brooklyn Hospital. Madden was a generous supporter of residential colleges at Yale, and the endowment for the Berkeley College Mastership is named in his honor.

Harold Edward Woodsum, Jr. (1987-1988)

Harold Edward Woodsum, Jr. graduated from Yale College in 1953. During his time at Yale, he majored in history and was a star wide receiver for the Yale football team. Woodsum's record of fifteen career touchdown receptions, which he set in three years of play, stood for twenty-seven years. Even today, he is tied for fourth on the all-time list. He went on to obtain a Bachelor of Laws from Yale in 1958. After



Harold Woodsum

six years at White & Case in New York City, in 1965 Woodsum left to co-found the Portland, Maine law firm Drummond Woodsum and remained a partner in the firm for twenty-three years. In 1988, at the request of President Benno Schmidt, Woodsum took a leave of absence and came back to Yale to take on the role of Director of Athletics, a position he held until 1994. In addition to this service to the

Investment Committee (continued)

University, Woodsum has donated generously to Yale athletics. An advocate of environmental concerns, Woodsum joined the board of directors of the National Audubon Society in 1981 and became chairman of the board in 1988. Woodsum also served as a trustee and chairman of the University of New England.



Joseph Williams

Joseph H. Williams (1988-1989)

Joseph H. Williams graduated from Yale College in 1956. During his time at Yale, Williams was a member of the Army ROTC and, after graduation, went to Fort Sill, Oklahoma to complete his training. He joined Williams Brothers, his family's business, in 1959 and in 1968 became executive vice president. Williams was elected a member of the board in 1969 and named president and chief operating officer in 1971. He succeeded his cousin as chief executive officer in 1979, a role he kept until his retirement in 1993. Williams has served on the boards of The Williams Companies, Orvis, AEA Investors, American Express, and Prudential Insurance. He is also former chairman of the Federal Reserve Bank of Kansas City. Williams has been a generous supporter of Yale University's School of Forestry & Environmental Studies.

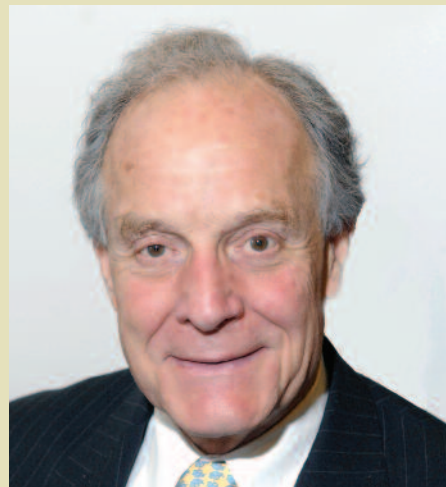
Richard J. Franke (1989-1999)

Richard J. Franke graduated from Yale College in 1953. After graduation, he served in the Army as an artillery officer. Following two years in the Army as a First Lieutenant, Franke went to Harvard Business School. He became vice president of The John Nuveen Company in 1965 and rose to become chief executive officer in 1974, a



Richard Franke

role he held until 1996. Franke is founding chairman and director emeritus of the Chicago Humanities Festival, life trustee of the Chicago Symphony Orchestra, and founder of the University of Chicago Franke Institute for the Humanities. He received the National Humanities Medal in 1997. Franke has been a generous supporter of Yale University's Sterling Memorial Library, the Graduate School of Arts and Sciences, and the Whitney Humanities Center.



Charles Ellis

Charles D. Ellis (1999-2008)

Charles D. Ellis graduated from Yale College in 1959 before going on to Harvard Business School to earn an M.B.A. and New York University to complete a Ph.D. His professional career centered on three decades with Greenwich Associates, the international strategy consulting firm he founded and led. An avid participant in the study of finance, he served in the leader-

ship of the CFA Institute and as an associate editor of *The Journal of Portfolio Management* and *The Financial Analysts Journal*. He authored sixteen books on business and finance, including the classic *Winning the Loser's Game*. Ellis held faculty appointments at Harvard Business School, the Yale School of Management, and the Investment Workshop at Princeton. Ellis currently serves as the managing partner of The Partners of '63, a pro bono partnership of Harvard Business School classmates and friends who support entrepreneurial, change-oriented ventures in education, particularly those focused on underprivileged children. Ellis has been a generous supporter of Yale facilities, providing funding for the new School of Management campus, and of Yale faculty positions.



Douglas Warner

Douglas A. Warner, III (2008-present)

During his thirty-three-year career in banking and financial services, Douglas A. Warner, III rose to lead J.P. Morgan Chase & Co., having begun his career at J.P. Morgan upon graduating from Yale College in 1968. In 1995, he was named the youngest chief executive officer in J.P. Morgan's history and was chairman and chief executive officer until J.P. Morgan merged with Chase Manhattan in 2000. Following the merger, Warner served as chairman of the board of the combined enterprise until his retirement in 2001. Since 1998 he has been chairman of the board of Memorial Sloan-Kettering Cancer Center. He is a director of Motorola and General Electric. Warner has been a generous supporter of Yale facilities, providing funding for the Warner House, and of Yale faculty positions.

Sources

Financial and Investment Information

Educational institution asset allocations and returns from Cambridge Associates.

Much of the material in this publication is drawn from memoranda produced by the Investments Office for the Yale Corporation Investment Committee. Other material comes from Yale's financial records, Reports of the Treasurer, and Reports of the President.

Pages 9, 29-30

The sections on Manager Characteristics and Investment Committee draw on David Swensen's *Pioneering Portfolio Management* (Simon and Schuster, 2009).

Pages 10-14

Educational institution asset allocations and returns from Cambridge Associates.

Page 25:

Quotation from President's Executive Order creating the President's Economic Recovery Advisory Board (PERAB) from Executive Order 13501 of February 6, 2009.

<http://www.whitehouse.gov/sites/default/files/microsites/perab-exec-order.pdf>

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Stone inscription from Berkeley College North, in honor of Henry Parks Wright, first Dean of Yale College. To commemorate Dean Wright's twenty-five-year tenure, an Old Campus freshman residence (now known as Lanman-Wright Hall) was named for him in 1909.

