our character

2016 Annual & Endowment Report

THE UNIVERSITY OF ARIZONA
Foundation
About the University of Arizona Jack Sinclair Letterpress Studio

Many of the photos in this report showcase the UA’s home of letterpress and book arts facilities. The oldest traditional printing technique, letterpress dominated the field from the 15th century until late in the 18th. In recent decades, letterpress has seen a resurgence and is often used in combination with new digital technologies.

The contents of the School of Art’s Jack Sinclair Letterpress Studio provide a fitting illustration of individual characters combining to create meaning. They also demonstrate the generosity of UA donors, a central element of our collective character.

Like so many campus gems, the letterpress and book arts studio would not exist without private gifts. Nancy Sinclair established it in 2011 by donating 15 tons of her late husband’s equipment. Since then, many donors have added to the collection.
Whether you’re considering a person, a set of traits, or even a letter, a character can signify a universe of meaning. A certain letter proves it; it’s a bold block A, representing a living monument to the ingenuity of Arizonans and a relentless force for good across the globe: the University of Arizona.

The story of who we are is composed of characters, each with limitless consequence. Because the people of the UA form our collective character, and it’s still evolving. Every time we transcend a barrier, we learn more about what we can achieve together.

You’re invited to meet a few of the people whose character compels them, and all of us, to forge new paths, keep our promises, never leave our UA pride behind, redefine what land grant means today, catalyze success by trusting in our abilities, and recognize that we learn more through collaboration.
Thanks to the generous support of people like you, the UA is better able to take on the grand challenges of our day, and from the UA Department of Astronomy and Steward Observatory to Biosphere 2, many of the University of Arizona’s research and teaching endeavors are creating insight into questions central to the human experience and existence. Now, energized by the launch of the NASA-funded OSIRIS-REx mission, the UA community is ready to take research and teaching to new heights, and your continuing partnership will help make our goals possible.

Fiscal year 2016 marks the third consecutive year in which your gifts and commitments have totaled more than $200 million, and through the support of friends and alumni like Helen Wertheim, the UA is a world-renowned leader. As a successful businesswoman, recognizing hard work as the catalyst for unlimited possibility is part of her character.

Driven by a desire to make a positive difference in the lives of others and gratitude for the education she received at the UA, she established four new endowments in the form of a planned gift this year. With grand projects like OSIRIS-REx and amazing opportunities for students, the UA demonstrated to Helen and all of our supporters that your generosity will create enduring impact on the University and set the stage for innovative new ways of learning and discovery.

We are fulfilling our promise to graduate students who are real-world ready, to serve the people of Arizona and the citizens of our world, and to share new knowledge to answer humanity’s most fundamental questions.

And it’s all happening now.

Through Arizona NOW, the largest campaign undertaken by the UA to date, $1.46 billion of a $1.5 billion goal has been raised as of June 30, 2016. At this point, we are approximately a year and a half ahead of schedule to meeting this unprecedented fundraising achievement.

As you read this year’s annual and endowment report, you will see how the smallest of contributions can lead to transformative outcomes. You will discover how your gifts can foster the opportunities, relationships and unique experiences that can only be created here. Together, we are making the UA the premier academic and research institution of the Southwest.

Please accept our sincerest gratitude for your investment in the UA. We hope the information contained within this report is useful as you continue your partnerships with this world-class institution.

Ann Weaver Hart
President
The University of Arizona

John-Paul Roczniak
President & CEO
The University of Arizona Foundation

Richard Silverman
Chair
The University of Arizona Foundation Board of Trustees
Bob and Esther Berger were determined to continue the promise of Brenna’s life. When their daughter died in 2010 at age 41, they asked Brenna’s sister Melany how to do it. Melany, a University of Arizona alumna like Brenna, said the family should help UA students surmount obstacles to completing their education.

“It’s what Brenna wanted in her life. She was a school counselor, and she helped as many people as she could.” — Bob Berger.

So the Bergers established a generous scholarship for students majoring in communication, the discipline shared by Brenna and Melany. The Brenna Ilana Berger Memorial Scholarship’s current amount, awarded to a male and a female student each year, is $25,000.

“You have to be very loving to want to help someone in that magnitude. I can tell they’re excited to give because it’s in Brenna’s honor,” said Cicely White-Lee, who was selected to receive the scholarship for the 2016 academic year.

When the Berger family came into White-Lee’s life, she was doing her best to honor her own commitments. Before his death in 2015, her son Kemaury had asked her to promise she would finish the degree she’d begun with a decision to invest in herself.

Kemaury required a high level of care throughout his 19 years of life, due to a congenital heart condition. For this reason and others, White-Lee had traveled a difficult path to graduation, and she was one year away from completing her goal.

“The scholarship was a complete blessing, and it really helped me push through that last year,” she said.

With the support of the Bergers and that of her own family and friends, White-Lee graduated this May. Her perseverance was remarkable, said Chris Segrin, professor and head of the communication department.

“Cicely’s tenacious grip on her academic goals had the power to crush concrete and steel. She provides a shining example of what can be accomplished and what can be overcome when one has the motivation and the dedication,” Segrin said.

The Jack Sinclair Letterpress Studio boasts five Vandercook printing presses, three of which were donated by Sinclair’s estate. Fewer than 2,000 are believed to be in operation.
Nestled among the Tucson Mountains, the Cooper Center for Environmental Learning, or Camp Cooper as it’s affectionately known, has introduced the beauty of the Sonoran Desert to Tucson children since 1964.

A partnership between the Tucson Unified School District and the University of Arizona’s College of Education, the Cooper Center is the only organization to provide overnight camping experiences to students who might not otherwise be exposed to the desert’s ecological wonders.

Students return from Cooper Center with memorable experiences and a real connection to the natural environment that surrounds them, said Jennifer Spohn, a teacher from Lineweaver Elementary School.

“If you ask any of our fourth-graders, they’ll tell you the highlight of their elementary experience is Camp Cooper. Going out there, staying several nights, and learning in a fun, hands-on, and personal way — it’s an experience that outranks everything else we do,” Spohn said.

Erik Radack, a fifth-grader at Lineweaver Elementary School, visited the Cooper Center last year and remembers how fun it was to learn about the food chain and how to be environmentally responsible.

“I turn the lights off every time I leave the room now,” he said.

Director Colin Waite leads the center, managing a small but passionate staff that provides immersive programming, teaches basic ecological concepts and promotes responsible living in the face of a changing environment.

“Most kids who visit are from low socio-economic areas, and many have never ventured outside their neighborhoods,” Waite said. “We teach kids about how everything is connected in nature and how important it is for all of us to take care of the environment.”

Last year, despite losing more than half of its operational funding, the center remained in operation, thanks to an effort Waite led to raise $80,000 in four months through crowdfunding and local grants. This year, crowdfunding and grants amounted to more than $125,000. A Cooper Center Endowment Fund also was established, and Waite hopes the endowment will continue to grow so they can move from fundraising every year to a future that is financially stable.

“Over 130,000 Southern Arizonans have experienced the Cooper Center over its history. They have fond memories of the center, and their support is key in our success,” Waite said.
The Abiding Power of UA Pride

“Do you know how fortunate you were to have them as parents?” former University of Arizona President Henry Koffler asked Ann Buxie this spring after the memorial service for Buxie’s mother, Lou Edith “Luda” Soldwedel.

Buxie has always known: “I learned a lot from them about the momentum of generosity and the importance of friendships. It was just wonderful to grow up with that.”

Luda and her late husband Donald Soldwedel (left) became legendary friends to the University in the decades following their 1946 graduations. They moved to Yuma, but didn’t leave their alma mater behind, consistently giving to the UA financially and through volunteer leadership. The couple established the UA Writing Center through a grant, and Donald, who was president and later chairman of Western Newspapers, Inc., is credited as a dominant force in saving the journalism program from closure in the 1990s.

“They set an example for all of us about the power of thoughtful giving,” said Jacqueline Sharkey, former director of the School of Journalism.

Buxie and her brother Joseph Soldwedel are responding to that example by carrying on their parents’ tradition of UA support. Buxie donates to journalism and the UA Poetry Center because she believes stories have the power to connect humanity.

“In these times, we have to start understanding each other, and listening to people’s stories is really the only way our compassion can be aroused,” Buxie said, adding that momentum is created when even one person reaches out in kindness.

“It makes a difference. That’s what I really saw with both Dad and Mom,” Buxie said.

Thanks to the Soldwedels’ giving plan, the difference they made at the UA will extend to countless future generations. Five endowments named for them will permanently support programs — the College of Humanities Writing Skills Improvement Program, School of Journalism, Eller College of Management and Arizona Health Sciences — and students, through an Arizona Athletics scholarship.

“I learned a lot from them about the momentum of generosity and the importance of friendships. It was just wonderful to grow up with that.”

—Ann Buxie
Collaborative learning spaces are catching on in a big way at the University of Arizona. The movement began two years ago with a pilot classroom in the Science-Engineering Library. Now, nine collaborative spaces are strategically positioned across campus.

"It's all part of a University-wide effort to develop classroom environments that encourage students to play a more active role in the learning process," said Robyn Huff-Eibl, head of Access & Information Services for UA Libraries.

In these classrooms, students explain concepts to their peers and solve problems in small groups, and instructors strive to act as orchestrators of learning rather than deliverers of knowledge. Faculty members who teach in the collaborative spaces — outfitted with movable furniture, robust Wi-Fi, numerous projectors and screens, and sliding whiteboards — report better student comprehension and retention, Huff-Eibl said.

This growing community of instructors also is learning from each other, said University Distinguished Professor of chemical and environmental engineering Paul Blowers.

"To have engineers talking with English faculty who are talking with physicists who are talking with business faculty is amazing. We are piggybacking on each other's ideas," he said.

Now, Research Corporation for Science Advancement has joined and strengthened the partnership by investing in an additional space solely for faculty who teach in collaborative learning classrooms. A $90,000 grant from the foundation created the Research Corporation for Science Advancement Collaborative Faculty Room to facilitate sharing of best practices, development of interactive curriculum content and mastery of the technology used in the classrooms. It opened this fall in the Science-Engineering Library, where the experiment in collaborative learning spaces began.

Because of Research Corporation for Science Advancement's gift, more instructors will add their ideas and results to the UA's rapidly developing knowledge base on how to optimize collaborative classrooms for student engagement, Blowers believes.

"Having a space where those discussions can happen that is dedicated and available will only accelerate the change of teaching practice at the UA," he said.
When Alex Zhao began interning with filmmaker and associate professor Lisanne Skyler (left) as a University of Arizona freshman, he was itching to gain creative experience outside the classroom. A year later, Zhao’s resume boasts a stint as promotion assistant on a documentary that’s screened at prestigious festivals, including New York Film Festival, and will premiere on HBO in 2017.

May graduate Angélique Fustukjian is planning a move to Los Angeles, and she expects her year assisting Skyler on “Brillo Box (3¢ Off)” to make a difference in her search for work in the entertainment industry.

Zhao, Fustukjian and 32 more students and recent alumni nabbed significant roles on Skyler’s film about an Andy Warhol sculpture, which her parents bought for $1,000 in 1969 and traded soon after. Brillo Box had changed hands again many times by 2010, when it was slated for auction with the promise to fetch millions.

That’s when Skyler decided to investigate and document the sculpture’s journey, and she intended to involve her fellow UA faculty and students from the beginning. “I had absolute confidence in their skills, talent and professionalism,” she said.

Her belief in the UA community was mutual. When Brillo Box sold for $3 million, Skyler was there to film it, thanks to a small award from the Student-Faculty Interaction Grant program. With two more grants, from the College of Fine Arts Small Grants and Faculty Seed Grant Programs, Skyler and her UA crew shot and edited a trailer.

In total, $11,573 in UA grants from public and private sources gave Skyler the funds to create a work sample that earned a spot at Independent Film Week, a key marketplace for filmmakers and backers. Then, Skyler’s dream came true — the film was selected by HBO Documentary Films.

HBO collaborated with Skyler on the film’s direction, funded the remainder of its production and began planning its U.S. broadcast and international distribution. A highlight in Skyler’s 20-year filmmaking career, working with HBO allowed her to fully realize her creative vision and offer promising professional starts to dozens of UA students.

“I’ll always remember the people who took chances on me. To be that person for my students is very special.” - Lisanne Skyler

In total, $11,573 in UA grants from public and private sources gave Skyler the funds to create a work sample that earned a spot at Independent Film Week, a key marketplace for filmmakers and backers. Then, Skyler’s dream came true — the film was selected by HBO Documentary Films.
Forging a Path to Holistic Healing

"This is the beginning of transforming nursing curriculum here at the University of Arizona," said Mary Koithan, director of the first-of-its-kind Integrative Nursing Faculty Fellowship.

Koithan, who is also the College of Nursing’s associate dean of professional and community engagement, is excited about the change for a few reasons. First, she knows complementary and alternative therapies work, often without the side effects conventional interventions can cause. Second, she wants to see nurses play expert roles in educating and serving a patient population that’s increasingly adopting new ways of healing.

“We’re clever in figuring out how to piece things together to help people live healthier and more fulfilling lives — that’s what nurses do.” -Mary Koithan

The David and Lura Lovell Foundation established the UA as a pioneer in integrative nursing by granting the UA as a pioneer in integrative nursing by granting the funds in 2015 to design the fellowship and again in 2016 to carry out the first year of instruction. Now, 11 UA nursing faculty members are delving deeply into this whole-person framework that equips nurses to customize combinations of therapies.

A few months into the fellowship, assistant professor Michelle Kahn-John is already infusing her teaching and clinical nursing practice with new knowledge, building on the similar wellness philosophy of her Navajo culture, Hózhó.

Like Hózhó, integrative nursing invites practitioners to look beyond a purely physical approach to healing.

“You have to look at a person’s beliefs, their environment, all their points of connection in the world. Integrative nursing is an awareness of all these opportunities for health,” said Kahn-John.

When the program’s first cohort graduates in May 2017, each fellow will have a thorough grounding in the entirety of treatment approaches and a plan for sharing what she’s learned with students. Augmenting their courses is the first step to adopting integrative nursing principles across all programs college-wide, said Koithan.

Koithan plans to expand the program by including nursing educators from outside the UA in the second cohort, and her ambitions for integrative nursing go far beyond academia.

“When we teach our nurses, they teach patients, who in turn teach their children. And so it spreads,” she said.
ENDOWMENT
 REPORT
 2016
### University of Arizona Endowment Market Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash &amp; Cash Equivalent Gifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$200,316,727</td>
</tr>
<tr>
<td>2013</td>
<td>$293,505,878</td>
</tr>
<tr>
<td>2014</td>
<td>$243,954,753</td>
</tr>
<tr>
<td>2015</td>
<td>$192,504,842</td>
</tr>
<tr>
<td>2016</td>
<td>$211,666,096</td>
</tr>
</tbody>
</table>

### Purpose of Gifts | FY 2016 Cash & Cash Equivalents

- **Research (28%)** $52,231,285
- **Endowments (15%)** $28,008,578
- **Academic Divisions (12%)** $23,115,215
- **Faculty and Staff Compensation (11%)** $19,535,315
- **Public Service and Extension (9%)** $16,817,599
- **Capital Improvements (8%)** $15,755,211
- **Other Restricted Purposes (7%)** $13,695,285
- **Student Financial Aid (5%)** $8,900,291
- **Athletics (4%)** $7,146,064
- **Library (1%)** $999,153
- **Unrestricted (1%)** $626,242
- **Operations and Maintenance (1%)** $40,195

### Gift Source | FY 2016 Cash & Cash Equivalents | $186,870,433 Total

- **Other Organizations** 28% | $52,665,987
- **Corporations** 24% | $44,975,937
- **Foundations** 23% | $42,977,144
- **Other Individuals** 15% | $28,524,498
- **Alumni** 9% | $17,036,867
- **Parents** 1% | $1,040,000

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University of Arizona

Endowment Market Value

- **2012**: $27,654,091
- **2013**: $57,500,169
- **2014**: $655,399,504
- **2015**: $673,312,944
- **2016**: $660,664,491
The year just completed marks our 13th managing the endowment using a “model” portfolio. Under this approach, our Investment Committee dedicates the first meeting of each fiscal year to consider the target allocations for each asset class. These recommended targets are then presented to our Board of Trustees for approval; approved targets are published in Exhibit B to our Investment Policy Statement, which you can find at uafoundation.org/investmentpolicy. The Committee works throughout the year to maintain and/or reach our target allocations. The Investment Committee and Board first engaged an independent investment consultant in 2006 to serve as an extension of our staff. Since July 1, 2013, we have worked with the Fund Evaluation Group (FEG). FEG provides services to institutions with approximately $50 billion in assets and has significant expertise in serving university endowments and deep expertise and research teams in alternative asset classes.

In addition to the Committee members, various Trustees will from time to time participate in the Committee Process. We would like to thank Karl Eller (Chairman & CEO, the Eller Company) for his continuing participation during fiscal year 2016.

Investment Committee

Craig Barker
Sr. VP Financial Services, CFO, CIO
University of Arizona Foundation

Gregg Goldman
Sr. VP Business Affairs & CFO
University of Arizona

Thomas Keating
Chairman
Trailhead Ventures LLC

Steve Kelly
Assistant Director Investments
University of Arizona

Allan Norville
President & CEO
Financial Associates Inc.

John Payne
President & Chief Investment Officer
Sterling Investment Management

Peter W. Salter
Salter Labs (Retired)

Sarah Smallhouse
President
Thomas R. Brown Foundations

Joan Sweeney
Chair, Investment Committee
Retired

Kerry Tyler
Managing Director & Chief Operating Officer
Lone Pine Capital

Investment Goal

Our goal in managing the endowment is straightforward:

To manage the assets such that the return exceeds the “Hurdle Rate” (the sum of the Payout and the Endowment Fee) so the endowment principal is able to grow and fund in perpetuity the activities our donors envisioned when they made their gifts. In establishing this goal, our Investment Committee defines the primary risks to the endowment as (i) the failure to achieve our goal over a full market cycle; (ii) volatility of returns; and (iii) permanent loss of capital.

The Payout is the annual distribution from the endowment for the account’s purpose and is equal to 4% of the average fair value of the endowment principal at the three prior calendar year-ends. The Endowment Fee is the amount reimbursed to the Foundation for administering and providing stewardship to the endowment; the Endowment Fee was 1.35% of the fair value of the endowment principal in fiscal year 2016. Our Investment Committee and Board of Trustees set the Payout and Endowment Fee each year after considering a number of important factors. We invite you to review these factors, as well as all other aspects of our policies and practices, in our Investment Policy Statement. One other important term: Historic Dollar Value, which is the sum of all gifts received into an endowment fund since its creation.
As endowment investing is a perpetual endeavor, it is best to measure the success of such a program over the very long-term. The combination of a long time horizon and high return target translates into a portfolio that requires a greater allocation to risk assets to meet its long-term objectives. We balance this need with investment tools designed to help protect capital in down markets.

This approach has served the Foundation well; our performance for the 13 years ending June 30, 2016 is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Return Before Hurdle Rate</th>
<th>Return After Hurdle Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>14.62%</td>
<td>8.85%</td>
</tr>
<tr>
<td>2005</td>
<td>12.49%</td>
<td>7.18%</td>
</tr>
<tr>
<td>2006</td>
<td>12.31%</td>
<td>7.23%</td>
</tr>
<tr>
<td>2007</td>
<td>15.53%</td>
<td>10.61%</td>
</tr>
<tr>
<td>2008</td>
<td>1.60%</td>
<td>(3.52%)</td>
</tr>
<tr>
<td>2009</td>
<td>(17.68%)</td>
<td>(23.21%)</td>
</tr>
<tr>
<td>2010</td>
<td>9.10%</td>
<td>3.44%</td>
</tr>
<tr>
<td>2011</td>
<td>16.27%</td>
<td>11.01%</td>
</tr>
<tr>
<td>2012</td>
<td>(0.30%)</td>
<td>(5.33%)</td>
</tr>
<tr>
<td>2013</td>
<td>10.30%</td>
<td>5.23%</td>
</tr>
<tr>
<td>2014</td>
<td>14.50%</td>
<td>9.90%</td>
</tr>
<tr>
<td>2015</td>
<td>0.80%</td>
<td>(3.60%)</td>
</tr>
<tr>
<td>2016</td>
<td>(3.00%)</td>
<td>(7.74%)</td>
</tr>
</tbody>
</table>

Our return before the Hurdle Rate in fiscal year 2016 was -3.00%. Context is provided by the performance of a number of important benchmarks in fiscal year 2016.

Our average return for the 13 years ending June 30, 2016 before the Hurdle Rate was 6.7%, while the average return after the Hurdle Rate for the same period was 1.5%. This means that our model portfolio was able to achieve our goal of beating the Hurdle Rate and providing a level of inflation protection to the endowment corpus during the 13-year period.

We believe it is important to maintain a highly diversified portfolio, tilting toward opportunities as they present themselves. The period since March 2009 has been a very difficult one for a diversified approach, as the unconventional monetary policies of the Federal Reserve have continued to drive U.S. equity markets, U.S. Treasury markets and the U.S. dollar ever higher and made investments outside of these three asset classes appear unwise. To provide additional background on how we have positioned the portfolio, see the sections in this report entitled “Our Portfolio” and “Asset Class Review.”

Important Benchmarks FY 2016

- **10.5%** → FTSE NAREIT Global Index
  A global real estate equity index

- **6.0%** → Barclays Ag. Bond Index
  Core U.S. Bond Index

- **4.4%** → Barclays U.S. TIPS Index
  U.S. Inflation protected bond index

- **4.0%** → S&P 500 Index
  U.S. Large Company Equity index

- **-4.8%** → HFRI Equity Hedge Index
  Long Short Equity Hedge Fund index

- **-6.7%** → Russell 2000 Index
  U.S. Small Company Equity index

- **-10.2%** → MSCI ACWI ex-U.S. Index
  International Equity Index

- **-12.1%** → MSCI Emerging Markets Index
  Emerging Markets Equity Index

- **-13.3%** → Bloomberg Commodities Index
  Commodity Futures Index
Top Performing Allocations (>1% of fair value) in Fiscal Year 2016

**Constellation:** Constellation, a Brazilian long-only equity manager, was added to our emerging markets allocation as of October 1, 2015 to exploit what the Committee perceived as a significant opportunity. Our entry point was near the point of maximum pessimism on the Brazilian stock market, currency and government. We believe additional opportunity remains, and we believe portfolio manager Florian Bartunek and his investment team are well positioned to capture it. Constellation outperformed the MSCI Brazil index by 270 basis points in the period.

**First Eagle Gold:** We believe that gold should be a part of any well-diversified portfolio as it provides important insurance against a number of events. We selected First Eagle in 2004 as they hold a mix of mining shares (80%) and physical gold and silver (20%). First Eagle was the No. 2 performer in the portfolio in both 2010 and 2008 and the No. 1 performer in 2006. While First Eagle lagged the FTSE Gold Mines Index in 2016 due to their focus on high quality miners, they have outperformed the index by 490 basis points per year since inception.

**Cohen & Steers Global Realty:** Our relationship with Cohen & Steers is the oldest in our Endowment, dating back to August 2002, and we view them as the original and best REIT manager. Our investment was first made in their domestic fund and then converted to the Global Fund soon after it was created. This fund was the No. 4 performer in 2011 and the No. 3 performer in 2010. The Global Realty Fund lagged the FTSE NAREIT Global index by 30 basis points in the year.

**GMO Quality Equity:** We added this fund to the portfolio in January 2011; it was the No. 1 performer in 2012. Our relationship with GMO was the first strategic partnership we formed when we moved to the model portfolio approach in August 2003. GMO is the largest manager in the fund with 15% of the endowment in six different strategies. The Quality Equity Fund outperformed the S&P 500 index by 530 basis points in the year.

**DFA Inflation Protected Securities:** We have been invested in TIPS since December 2003, and in November 2015 we replaced our TIPS manager with Dimensional Fund Advisers, a firm with a quantitative approach informed by the work of leading academics such as Nobel Laureate Eugene Fama and Ken French. DFA outperformed the U.S. TIPS index by 10 basis points during the period. In November 2015, we also added the DFA Short Term Extended Quality Fund to our Rate-Sensitive allocation, which when added to our positions in the DFA One-Year Fixed Income Fund (cash allocation) and Emerging Markets Small Cap strategy places DFA as the third largest manager in our Endowment with a 10% allocation.

**PIMCO RAE U.S. Large:** Formerly known as the Research Affiliates Enhanced U.S. Large Fund and added to the portfolio in 2008. The fund was the No. 6 performer in 2014 and 2011 and the No. 4 performer in 2013. Our relationship with Research Affiliates, which began in October 2004 with our investment in the PIMCO All Asset Fund which they sub-advice, was the second strategic partnership we formed. The fund underperformed the S&P 500 index by 70 basis points in the year.
Significant Actions
Taken in 2016

Continued moving toward a “flatter” portfolio. Since hiring FEG as of July 1, 2013 we have been moving our model portfolio targets toward FEG’s “flattened” portfolio targets. Such a portfolio maintains an equity bias, but recognizes the fact that exceptional US equity returns have significantly reduced the likelihood of such returns going forward. Accordingly, it is important to spread our risks more equally across the four major asset categories: (1) Global Equity (US and International equity, long-short equity, and private equity); (2) Global Fixed Income/Credit (US Rate Sensitive investments, U.S. Credit Sensitive investments, and International Fixed Income); (3) Real Assets (public and private real estate, TIPS, Gold, Timber/Agriculture, and Commodities/Energy); and (4) Diversifying Strategies (Mean Reversion, Tactical Asset Allocation, and Low Volatility Hedge). Steps taken toward the “flatter” portfolio in fiscal year 2016:

- **Equities:** Reduced our targets for U.S. (by 2%) and international developed (by 1%) equities and increased our target for private equity by 3%.
- **Global Fixed Income/Credit:** Increased our target for Credit Sensitive investments by 1% and reduced our target for international fixed income by 2%.
- **Real Assets:** Increased our target for both Private Real Estate and Private Energy by 1%.

Repositioned our International Large Cap Equity exposure. During the year we undertook a comprehensive study of this allocation, with a view toward adding two new managers who (a) run concentrated portfolios, (b) hedge currency exposures and (c) have a track record of outperforming their index. The study resulted in adding on May 1st a $10 million investment in Lancaster LEI run by portfolio manager Matthew Wood and on June 19th a $10 million investment in The Children’s Investment Fund run by portfolio manager Christopher Hohn.

These two managers join the PMI RAE International Fund, which has outperformed the MSCI EAFE index by 70 basis points per year since being added to our portfolio in September 2008.

Added a new Emerging Equities manager. On October 1st the Committee added a Brazilian long-only equity manager to further complement our exposure to emerging market equities. We continue to believe emerging equities offer the most compelling future returns, and we believe that a top manager can add tremendous value in Brazil which was extremely out-of-favor at the time of our investment.

Added new US small to middle market buyout managers. In September we committed $6.5 million to Mason Wells IV. Mason Wells is an independently owned firm that targets control investments in lower middle-market businesses in the manufacturing and packaging industries. In February, we committed $6.5 million to Silver Oak Services III. Silver Oak is an independently owned firm that invests in lower middle-market business, consumer and healthcare services companies.

Expanded our commitments to venture capital and added our first growth equity manager. In January we committed $6.5 million to DFJ Venture XII. This is our third investment in DFJ Venture (the first two were made in the growth equity space) led by John Fisher, Mark Bailey, Randy Glein, Barry Schuler and Sam Fort. This is our first growth equity investment, and this style of investing can provide venture-like returns with lower risk and shorter holding periods.

Added an international private equity manager. In June we committed $5 million to OpCapita Consumer Opportunities Fund II. This London-based manager is an independently owned firm that targets control investments in underperforming European consumer and retail businesses.

Added an international private real estate manager. In September we committed $5 million to Harbert European Real Estate Fund IV. The Harbert team, led by portfolio manager Scott O’Donnell, invests primarily in the United Kingdom, France, and Spain. Harbert provides geographic diversification to our private real estate allocation.

Diversified our private equity allocation. In January we committed $6.5 million to Pelican Energy Partners II, our first investment in the oilfield services sector. Mike Scott and Bill Chiles of Pelican have extensive experience in this sector, which is currently in distress and which we believe will provide attractive investment opportunities. In May we expanded our relationship with Scout Energy Partners, committing $6.5 million to Fund III, as we believe the current environment provides opportunity for skilled investors like John Baschab, Jon Piet and Todd Plot. This is our second commitment to Scout.

Added New Credit-Sensitive investments. In January we expanded our relationship with Rimrock Capital Management by investing $10 million in the Rimrock Structured Products Fund which invests in the most attractive sectors of the structured products universe, an area we believe provides some of the best opportunity in the US fixed income markets today. In February, we expanded our relationship with Oak Hill Capital by committing $10 million to the Oak Hill Strategic Credit II Fund. Oak Hill will invest in stressed/distressed investments in North America and Europe, but will not begin calling capital absent certain specified “triggering” events which will indicate it is an opportune time to begin investing in the fund.

Maintained the Payout Rate at 4%. Our Investment Policy Statement and Arizona law require us to specifically address a number of factors each year when setting the Payout Rate. A Payout Rate should not be adjusted each year to reflect the return achieved in the previous year, but should be a rate which provides “intergenerational equity” (the beneficiaries of today should not benefit at the expense of the beneficiaries of tomorrow, and vice-versa). We believe the 4% rate declared for fiscal year 2017 is the rate which gives us the best chance to achieve that equitable result. After considering all the factors required in our Investment Policy Statement, the Endowment Fee was maintained at 1.35% for fiscal year 2017.

Engaged FEG for an additional three years. FEG has exceeded all our expectations since they were hired after a national search in fiscal year 2014. Our initial three-year contract expired; we have extended our relationship with them through fiscal year 2019.

The Investment Committee receives reports from selected managers during its meetings throughout the year. Reporting managers in fiscal year 2016 included:

- **John West** | Research Affiliates, Managing Director
- **Jason Keelman** | GMO, Asset Allocation Team
- **Matt Kadnar** | PIMCO, Executive Vice President
- **Abigail Mason** | Kaspick & Company, CIO
- **Paul Westhead** | Rimrock, Managing Director and CEO
Our Portfolio

Composition: Our $661 million endowment portfolio was composed of the following asset classes at June 30, 2016

This portfolio was constructed using the following investment beliefs:

1. Downside protection matters. Our portfolio must be constructed to protect capital in difficult markets. “It’s more important to ensure survival under negative outcomes than it is to guarantee maximum returns under favorable ones.” Charles Ellis, a well-known financial author and longtime chairman of the Yale Investment Committee, said: “If you avoid large losses with a strong defense, the winnings will have every opportunity to take care of themselves.”

2. There are no cheap asset classes. As a result, it is extremely important for our portfolio to remain highly diversified.

3. We need to make meaningful allocations to private equity, diversifying strategies, and real assets to achieve our goal.

4. We maintain a value orientation in our equity portfolios, as we believe value (quality) will win over the long-term.

5. Harry Markowitz is correct. Portfolio diversification provides investors with a “free lunch” in that a given level of return can be achieved with lower volatility. Moving toward a “flatter” portfolio is a key component of how we are building additional portfolio diversification.

6. It is important to have a meaningful allocation to funds which can quickly move between and within asset classes. As a result, we have designated 10% of our pool for managers in the mean reversion and tactical asset allocation spaces.

We run projections on our model portfolio using two independent tools. The Commonfund Allocation Planning Model showed our 2016 model portfolio was expected to provide a total annual return of 8.5% with a standard deviation of 10.1% over a 20-year period. The Asset Allocation Analysis from FEG showed our 2016 model portfolio was expected to provide a total annual return of 7.5% with a standard deviation of 14.5% over a 10-year period. Standard deviation is a measure of the variability of returns around the mean; the higher the standard deviation (potential variability), the higher the potential risk.

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Asset Class Review

International Equities: Our purpose for holding International equities is to generate growth via total return. We use eight managers in our International Equity allocation: PIMCO Research Affiliates Enhanced, Lancaster Lee, The Children’s Investment Fund, GMO (both International Small and Emerging), DFA Emerging Markets Small Cap, RWC Frontier Markets, Tybourne and Constellation. As discussed earlier in this report, three of these managers are new to the portfolio in 2016.

Investing in international equities has been challenging due both to the strength of the U.S. dollar and in June of this year due to BREXIT (though most of those losses were recovered in July). We believe that international equities today are more attractively priced than their U.S. counterparts, and we maintain our overweight to them and in particular to emerging markets. If you evaluate emerging markets over the short term, currency fluctuations and volatility can overwhelm the true investment potential for this asset class. Our Investment Committee has focused on the long-term valuation fundamentals in emerging equities since September 2003, and we have steadily increased our allocation from 1% at that time to 9% for fiscal year 2016 and also broadened it to include frontier markets and country/region specific managers. We have also expressed this view in our private equity portfolio with commitments to four Asia Alternatives Funds and two Africa Development Partners Funds, in our long/short equity portfolio with our investment in the Emerging Sovereign Group-Domestic Opportunities Fund (ESG-DOF) and in our private real estate portfolio with a commitment to the J.P. Morgan India Property Fund II.

Our emerging equity managers as a group performed heroically in 2016, returning -0.3% vs. the -12.1% return of the MSCI Emerging Markets Index.

Long Short Equity: The goal of this allocation is to generate at least the market rate of return with significantly lower volatility than a long-only equity allocation over a market cycle. We use two managers in this asset class, Marble Arch and ESG-DOF. Our second best performer in 2015, Marble Arch experienced a challenging 2016 returning -13.3%. From the inception of our relationship in December 2013 through June 30, 2016, Marble Arch has outperformed the HFRI Equity Hedge Index by 280 basis points per year.

Private Equity: Our purpose for holding private equity investments is that top managers, who through exceptional operational and management skill (not simply financial engineering) can generate returns in excess of public equity markets. The goal of our allocation to this segment is to outperform by 300-500 basis points per year the global equity indexes over a market cycle. Our private equity managers as a group over five years have achieved this goal, returning 15.4% vs. 11.3% for the Thomson One All Private Equity Index and 5.4% for the MSCI All Country World Index.

Working with Nolan Bean, our lead consultant at FEG and FEG’s research team leaders in private equity/venture capital, in 2016 we have established relationships with leading firms in three major categories: (1) International (Asia Alternatives, Africa Development Partners, ECI, and OpCapita), (2) U.S. small to middle market buyout (Staple Street, Mason Wells and Silver Oak), and (3) U.S. venture capital/growth equity (BF Venture, Memlo Ventures, Atlas Ventures, and DF Growth). In 2017 we will work to expand the number of relationships, with a longer-term goal of allocating 20% to this asset class. Our returns relative to the larger endowments you read about in the financial press are most negatively impacted by our significant relative underweight to Private Equity. We made our first commitment in 2004, and had a 2016 target of 11%. Many of the larger endowments have allocations of 30%-40% and have been investing for decades. The help of a first-rate consultant is critical to our efforts to grow our allocation to leading managers in this asset class, and we have that with FEG.

Some of the actions in this Global Equity section are noted in a paper dated November 11, 2011 by Andrew Ang and Knut Kjaer (Investing for the Long Run). “Long-horizon investors have an edge. They can ride out short-term fluctuations in risk premiums, protect from periods of elevated risk aversions and short-term mispricing, and they can pursue illiquid investment opportunities.” In 2016, in International Equity we profited from an elevated risk aversion to Rezil. In Private Equity, we are seeking to benefit from the illiquidity premium, but are only doing so with a clear target (300 to 500 basis points per year over global equity markets over a market cycle) for what we expect to be paid for giving up liquidity.

Global Fixed Income/Credit: 15% of the portfolio at June 30, 2016; Fiscal year 2016 return of -0.2% vs. 6.0% for the Barclays US Aggregate Bond Index

Cash: Our purpose for holding cash is two-fold: (1) provide dry powder in a market downturn, and (2) provide liquidity for our commitments to private equity, private real estate, private energy and private credit managers, which in total amount to 17.4% of the fair value of the portfolio.

We use three managers in our cash allocation. Our major position is in the JP Morgan US Government Money Market Fund; we want to take no market risk whatsoever with a portion of our cash reserves. Our remaining allocation is a mix of roughly 80% DFA One-Year Fixed Income and 20% PIMCO Short Term Bond, two high quality bond funds which work well in combination at these levels to exceed the return we earn on the U.S. Government Money Market Fund.

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**Rate Sensitive**: Our purpose for holding US Fixed Income (both Rate Sensitive and Credit Sensitive) is to provide deflation protection and total return.

We believe that U.S. treasury (rate sensitive) securities are significantly overvalued. One data point: annualized global government bond returns are the highest they have been in the last 30 years. Therefore, we only hold a 2.3% position in rate sensitive investments through our holding in the DFA Extended Short Term Quality Fund. This low allocation to rate sensitive securities was a detractor to our performance in 2016, as the prices of these securities drove the Barclay’s Aggregate Bond index to a gain of 6.0%.

**Credit Sensitive**: We believe the better opportunity set in U.S. Fixed Income is in credit sensitive investments, and we hold a mix of private credit funds (where capital is called over time) and credit hedge funds. Our major positions are with Rimrock Capital (both their Low Volatility and Structured Products Funds) and in the Waterfall Eden Fund. These funds primarily hold asset backed securities, which provide a strong current yield and excellent total return prospects. The Rimrock Low Volatility fund returned 0.9% in the period, while the Waterfall Eden Fund (-4.0%) suffered mark to market losses during the year. Our positioning of our Credit Sensitive allocation was a detractor to performance in 2016. Over the long term, our positioning has been rewarded as the Rimrock Low Volatility Fund has outperformed the HFRI Relative Value-Asset Back index by 240 basis points per year since February 2007.

**International Fixed Income**: Our purpose for holding International Fixed Income is to diversify and total return.

We believe the opportunity set for Developed Markets international fixed income is extremely unattractive, as high quality bonds in these markets trade either at all-time low or even negative yields. We will not own these securities in our Endowment at these levels.

**Diversifying Strategies: 21.7% of the portfolio at June 30, 2016; Fiscal year 2016 return -1.7% vs. -2.0% for the HFRI Fund Weighted Composite Index.**

**Tactical Asset Allocation**: Our purpose for holding these assets: to allow us to allocate a portion of our portfolio to top asset allocators using a primary or secondary benchmark (CPI + 5%) which aligns well with our endowment benchmark of inflation plus 3.5%. Our two managers (GMO and PIMCO) tactically invest in areas of the market which their asset class forecast shows are positioned to generate the most attractive return over the next seven to ten years. The PIMCO All Asset Fund returned 0.1% in fiscal year 2016, while the GMO Global Allocation Absolute Return strategy returned +1.5%. Both have significantly outperformed the HFRI Fund Weighted Index (GMO by 190 basis points a year, PIMCO by 140 basis points a year) since inception.

**Low Volatility Hedge**: Our purpose for holding Low Volatility Hedge assets is for diversification and total return. We are looking for equity-like returns with bond-like volatility over a full market cycle, and we only invest in funds with an inception to date standard deviation of 6.0 or less.

We use three low volatility hedge managers. King Street Capital is a long/short credit and event driven manager that returned 0.1% in 2016, and has outperformed the HFRI Distressed/Restructuring index by 30 basis points per year since the inception of our relationship in May 2011. HBK is a multi-strategy hedge fund that returned -0.9% in 2016, and has outperformed the GMO Global Allocation Absolute Return strategy returned -1.5%. Both have significantly outperformed the GMO Global Allocation Absolute Return strategy returned +1.5%. Both have significantly outperformed the HFRI Fund Weighted Index (GMO by 190 basis points a year, PIMCO by 140 basis points a year) since inception.

**Real Assets**: 20.2% of the portfolio at June 30, 2016; Fiscal year 2016 return of 5.1% vs. a return of 5.9% for CPI + 5%.
We invest in Real Assets for diversification and total return. We allocate among six different categories:

**Public Real Estate.** This was the first alternative asset class added to our portfolio, and we selected Cohen & Steers as a way to invest in real estate in a liquid manner. This Fund was the No. 3 performer in the pool in 2016.

**Private Real Estate.** We made our first private real estate investment in 2007 with a goal of outperforming our public real estate investments. This allocation has been a detractor on both a relative and absolute basis when comparing our returns with other endowments, due to both vintage year and manager issues (2016 return of 1% vs. 6.5% for the Thomson One Private Real Estate Index). Since engaging FEG, to join JP Morgan India we have invested with Westport, Iron Point, Singerman and Harbert and in August 2016 with Farallon. Our positioning in this asset class has been significantly upgraded, and we anticipate stronger returns going forward.

**Inflation-Protected Securities.** Though it has not yet appeared in size, we believe there is still a real possibility of inflation as a result of actions taken by central banks around the globe. In his December 2013 white paper entitled “No Silver Bullets in Investing” (page 14), James Montier states that “if you are seriously worried about inflation, then this (TIPS) is still insurance that pays you for owning it (as opposed to the expected negative value of most insurance).” The DFA Inflation Protected Securities Fund was the No. 3 performer in the endowment in 2016.

**Gold.** As noted earlier, we hold gold in our portfolio as insurance against deflation or a loss in faith in the financial system (to quote Jim Grant of Grant’s Interest Rate Observer, the value of gold is inversely related to the markets confidence in central bankers). Our Manager First Eagle invests in gold primarily through the stocks of high-quality precious metals miners, which is a leveraged bet (both on the upside and downside) on physical gold. First Eagle Gold was the No. 2 manager in the portfolio in 2016.

**Timber/Agriculture.** We added this asset class to our portfolio in 2004 to allow us to participate in an investment which has a low correlation to equity markets and provides biologic growth in all market cycles. We have three timber investments with GMO Renewable Resources and one Agriculture investment with GMO in their Farmland Opportunity Fund. We have added a second manager (Homestead Capital) to this allocation in August 2016 to achieve our 2% target in 2017.

**Commodities/Energy.** This asset class was added to the portfolio in 2005 to provide inflation protection and returns uncorrelated to the equity markets. We have a broadly diversified allocation which consists of:

- A Commodity ETF (PowerShares DB Commodities Index)
- An MLP Equity Manager (Harvest); a difficult allocation in 2016 returning -17.7% but which has outperformed the Alerian MLP index by 380 basis points per year since our relationship began in September 2013
- A total of $9.5 million in commitments to two funds with Scout Energy Partners. Scout makes direct investments in small-to-mid-sized upstream oil and gas assets in the Continental US
- A $5 million commitment to MAP 2015, a manager that constructs a highly diversified portfolio of natural gas and wind royalty interest investments in the US
- A $5 million commitment to EDGE Natural Resources, focused on small to mid-sized private investments in the North American Energy Sector
- A $6.5 million commitment to Pelican Energy Partners II, our first oilfield services investment
Thank you again for your support of the University of Arizona and the University of Arizona Foundation. Your support of our endowment is critical to the continued excellence at the University of Arizona. Annual giving to the unified University endowment in the last five years has been $77.7 million in 2012, $77.1 million in 2013, $59.4 million in 2014, $29.6 million in 2015 and $27.1 million in 2016. If you have established an endowment, we would ask that you consider adding to your endowment this year. If you have not established an endowment, we ask that you consider doing so this year. We need your help in ensuring that the momentum which began in 2014 will continue between now and the conclusion of the Arizona NOW campaign.

As we hope we have demonstrated to you, we are working hard to generate the best risk-adjusted return possible for our endowment. However, we will not close the gap between our endowment (the ninth largest in the PAC-12) and our academic peers solely through investment returns. The chart below, based on 2015 information, shows the UA's endowment in comparison to a small sample of comparative institutional peers.

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You couldn’t miss it in the triumphant moment when HBO Documentary Films selected the film idea developed by Lisanne Skyler and her students. It’s as evident in our determination to keep our beloved Camp Cooper running as it is in our willingness to explore new ways of teaching and learning. Look just a little closer and you see it in the most difficult moments, when we lose the ones we love and find a way forward that honors their lives.

All this is encompassed in our character, and the bold block A we cherish is an ever-present reminder. Every time you see it, you’re invited to consider what a character can do and to add to the story of who we are.