

WhoCarey

AUTUMN 2018

SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY



The insider's guide to

money

Earn it, invest it, spend it

Plus: The future of cryptocurrency



A blue-toned photograph of a mosaic floor. The mosaic features a large circular pattern in the center, surrounded by various geometric and organic shapes. Several gold coins are scattered on the right side of the image. The overall composition is abstract and artistic.

“Being good in business is the most fascinating kind of art. Making money is art and working is art and good business is the best art.”

– Andy Warhol

Dear W. P. Carey family and friends,



I'm delighted to share with you our 11th issue of *W. P. Carey* magazine. Some of you may wonder why it took us this long to focus on the subject of money; after all, we're a business school and finance is critical.

But if I have to hear one more critic say that the misdeeds done by corporate thieves are because they went to business school, I'll probably scream.

You know by now that we believe "business is personal." While the motto may be uniquely the W. P. Carey School's, we're not the only business school that focuses on stakeholder value creation and distribution in all that we teach. Stakeholders include shareholders,

but perhaps more critically, customers and employees, not to mention suppliers, the community, and the environment.

If we consider money or financial performance to be an overall goal of for-profit businesses, then that profit must be distributed to all stakeholders. Customers won't buy from the organization if they don't perceive value for the price. Employees want to be recognized with both tangible and intangible rewards for the value they create. Suppliers won't supply without compensation for their inputs. Shareholders won't invest if they do not receive an adequate return on their investment, et cetera. So yes, what we teach focuses on not only value creation but also value distribution to stakeholders, as well as value capture for the organization to reinvest.

In my experience, few of our harshest critics ever attended business school. And corporate thieves? They weren't trained to be evil by educators. We believe in integrity, respect, community, excellence, impact, and accountability.

But, enough of my soapbox and back to money. I heard someone say you can judge whether someone is old when they pay in cash and wear a wristwatch that isn't a smart device. I am guilty of both. I've managed to understand Bitcoin, although I don't own any and I still haven't used my WeChat in China to buy anything. The bright minds in this issue have helped me understand what the future of money is likely to be and I hope you'll benefit from these ideas as well.

Speaking of what you value, we're launching an alumni survey to find out what you think about *W. P. Carey* magazine. Knowing what you like, what you don't, and what you'd like to see more of will help us create the best experience we can for you and the rest of our community. I hope you'll take some time to share your thoughts:

wpcarey.asu.edu/survey

Amy Hillman

amy.hillman@asu.edu
@WPCdean



Update: The printed version of a profile in our Spring 2018 issue referred to **Bill Post** (page 11) as a founder of the Julie Ann Wrigley Global Institute of Sustainability. Post is an original member of the Julie Ann Wrigley Global Institute of Sustainability board of directors.

Thank you isn't that hard to say

We can all do better through the application of what we learned from our parents and what has been passed down since the original communication of humans. In the business world, we say thank you to each other less than you may think. I know from experience.

Backtrack to when it was review time for my direct subordinates, and after privately addressing each individual on their ups and downs, I asked each of them what they had observed that I could do better. I was completely shocked by nine out of 10 relaying to me that they loved that I would thank them each for doing their job, informing me no one had done this in the past.

Fast forward to a class my peers and I were mandated to attend taught by an outside consulting firm. The instructor asked us what we have done that had an unexpected response from our employees. I relayed my thank you story and was shocked again when my peers argued, "No!

We do not thank our employees unless they accomplish a task above and beyond what is required." I said, "I hope they thank service professionals for: holding doors, directing them to a table, and the like." My peers responded, "Our employees are well-reimbursed monetarily for their efforts and that should be enough." I replied, "What does it cost us, as a company, for the common thank you, and since when should this courtesy be placed in a budget?"

I was reminded of this upon reading Dean Amy Hillman's letter in the Spring 2018 issue and wish to thank her for so eloquently pointing out this very subject and lost tool taught by our parents.

Thomas Duffy (BS Operations/Production Management '92)

Your two cents matters. And we love to get your questions. We're here and we're listening, so drop us a note: editor.wpcmagazine@asu.edu

Overheard on social media

1 **Maddie Redmond (BS Marketing/Business, Sports & Media Studies '18)**
Partner Service and Activation Intern at Arizona Cardinals Football Club
In the 2018 NFL Draft, the Arizona Cardinals have elected me! I am beyond excited for my new role as a Partner Service and Activation Coordinator! Cheers to this new chapter!



2 **Cynthia Wilson (MBA '17)**
MBA/Data-driven Marketer
Storyteller/Marketing Operations at Dell
One year ago, I was graduating with my MBA from the **W. P. Carey School of Business**, excited but very anxious about my new career at **Dell**. Sitting at my desk this morning prepping for presentations, I can't help but be so thankful for a challenging but flexible environment that has helped me grow so much in the past few months. While it wasn't easy to navigate my new role at first, I have been very fortunate to have been given the team and the opportunities that have nurtured me both professionally and personally. I couldn't have made a wiser decision than picking Dell. Here's to more learnings, more challenges, and more growth in the future.



3 **Christos A. Makridis (BS Economics '12)**
One of the massive accomplishments **@WPCareySchool** has done with **@WPCdean** and others' leadership is enabling **#students** to be at home in a huge campus. That sense of community



and common purpose is often at odds with scale; not at **@ASU!**
#education @michaelcrow

4 **Cesar Padilla (MBA '18)**
MBA candidate at W. P. Carey School of Business
Final presentation as a W. P. Carey MBA student! This was a wonderful



consulting project where we were able to apply all we have learned at the **W. P. Carey School of Business** to develop market-driven growth solutions for **Televerde**. Our team had a great experience over the last 6 months working with the talented Televerde staff, with a special thanks to our mentor **Nathan Perry!**

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Amy Hillman
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Kim Steinmetz
- Director of Alumni Relations
Brennan Forss
- Manager of Alumni Relations
Theresa Shaw
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On the cover: Collage made of currency from around the world



ALL THINGS **WPC**

**“W. P. Carey
influenced me to
go out and do.
Encouraged me
to take the risk.”**

Aaron Pool (*BS
Management '09*),
owner of Gadzooks
Enchiladas & Soup in
Phoenix, and his family
will support future
Sun Devils with a new
scholarship fund.

The whole enchilada

Aaron Pool (*BS Management '09*) is a college graduate. He's an entrepreneur with a thriving business. He's a two-time Sun Devil 100 winner. And now, he and his family will support future Sun Devils with a new scholarship fund. Talk about a big win for a passionate Sun Devil family.

"The Pool Family Endowment is a scholarship fund that will support Sun Devil student-athletes," he says. "Four of us being alumni of the university, it is a point of pride that our family has the opportunity to support future Sun Devil students."

For Pool, giving back to ASU acknowledges the power of his college education and experience, while supporting increased access to the same for future students. "We never thought we would have an opportunity, especially this early on in our lives, to give back to ASU," he says. "Giving back is important because W. P. Carey had a direct impact on my success in life."

While Pool is psyched about the financial investment he's been able to make in the university and the business school, he sees that money as part of a much bigger picture. "Monetary giving back doesn't solve all issues. We also need creative thinking and just putting in actual hourly work," he says, reflecting on his decision to join the W. P. Carey School of Business Alumni Council. "I wanted to get involved, in any way that I could help advance both ASU and the W. P. Carey School."

Serving on the W. P. Carey Alumni Council has allowed him to add value wherever possible, as well as play a role in shaping the future of the school where he got his start. "I've learned and enjoyed how well W. P. Carey is organized and their passion for this university," Aaron says. "I have to pinch myself sometimes because I am so proud of the creativity, open-mindedness, quality, support, and transparency at W. P. Carey."

"It is, what I believe, all universities want to become," he says.

Pool regards the experience and education he received at W. P. Carey as invaluable to his development, both personally and as an entrepreneur. First and foremost, it helped him understand himself. "W. P. Carey provided the structure for me to identify what I wanted to become," he says. "As lame as it sounds, I learned that I wanted to make the decisions."

According to Pool, entrepreneurship is incredible because you create your path in your vision. "Growing up, I found myself wanting to make the decision or create things with a certain

quality," he says. "Some places may say 'That's wrong, you need to do it this way.' I was fortunate to have attended a university that led me to understand those tendencies as having an entrepreneurial spirit."

As a kid, his trademark "what do you want to be when you grow up" response was, well, different than most. "I would always say that I wanted to own an airline," he says with a laugh. "I would get the 'Oh that's cute, not going to happen' response in return."

He got similar feedback while building what is now Gadzooks Enchiladas & Soup. "An enchilada shop isn't anywhere close to an airline, but I dealt with the same response from people when I said I wanted to open an enchilada shop," Pool says. "You learn that you shouldn't feel ashamed of having big, unique ideas as long as you have the support system, like W. P. Carey was for me."



He also learned that profits will come as long as you are passionate and believe in what you do. "I've been in love with Mexican food since the days I was riding my big wheel around the neighborhood block," he says. "W. P. Carey influenced me to go out and do. Encouraged me to take the risk ... I wouldn't be here without the encouragement and support."



Gage Schrantz
(BS Finance '19)

Learn more:
wpcarey.asu.edu/sim-fund

The school of stocks

MBA candidates present their initial portfolio recommendations to investment professionals — including experts in the community, members of the ASU Enterprise Partners Investment Committee, and representatives from its outsourced chief investment officer, BlackRock Inc.

“The level of sophistication students bring to security analysis and portfolio construction is phenomenal. It reflects the investment depth of the SIM Fund program,” says Suzanne Peck, head of endowments and foundations at BlackRock. The firm provides portfolio insights to students in the program as part of its partnership with ASU. “The other thing that stands out is the quality of the oral presentations — in addition to portfolio management skills, it’s clear they’re gaining marketing skills, too.”

Established by the W. P. Carey Department of Finance in 1996, the program has evolved to meet industry demands ever since. After returning to ASU from two years navigating the financial crisis at Dimensional Fund Advisors, SIM Fund Director and Jack D. Furst Professor of Finance **Sunil Wahal** recognized the need for experts who, in his words, “understand financial markets in a quantitative, sensible way, guided by science.”

Wahal wanted to deliver students a structured experience in portfolio management and securities analysis while they earned credit toward their degrees — not merely a club or extracurricular activity in the field. Though most of the 200 or so student-run funds in the country operate on stock-picker models, in which analysts forecast how a company will perform and buy or sell accordingly, SIM Fund participants build quantitative portfolios that require thorough understanding of academic theories applied to large groups of securities.

“You can think of the investment management process — the process of building portfolios themselves — as sort of an engineering problem,” says Wahal, who created a new portfolio engineering course for SIM Fund students. “The analogy holds reasonably well: You cannot engineer a product unless you understand the science behind it. If I told you, ‘Here, go build a car,’ you wouldn’t know how to build a car unless you understand the basics of propulsion, friction, motion, etc. So, to me, it didn’t make sense that we have students build the equivalent of a car without understanding the science behind it.”

In the course, students learn about financial markets, asset allocation, portfolio chance, and drivers of risk and return. From there, they evaluate original, published, academic research on market anomalies. These theories, such as the use of profitability, volatility, or insider trading, have been shown to generate higher (and riskier) returns. In addition to reviewing literature, students in the program must identify and scrape their own data, transform signals into an optimized portfolio, and, ultimately, automate each step.

“When you initially create an investment strategy, it is impossible to know all the problems that you will face,” says **Gage Schrantz**, a finance student who was a SIM Fund analyst in the spring. “Throughout the process, we learned how to adjust to certain problems and roll with the punches, like adjusting, so we could minimize our initially high portfolio turnover. This is a valuable skill because you can’t account for everything that is going to happen in the market, regardless of how good your investment strategy is.”

SIM Fund grows endowment and the students it serves

Endowed funds are an important source of revenue for the long-term health of ASU’s research, teaching, and learning activities, but their returns are not just monetary. Each year, about 30 students gain rigorous, hands-on experience analyzing and managing a small percentage of the university’s endowment assets as part of the Student Investment Management Fund (SIM Fund).

Each December, undergraduates and

Calendar



OCTOBER

2 Economic Club of Phoenix Luncheon and Spirit of Enterprise Award

The Scottsdale Resort at McCormick Ranch

11:30 a.m. to 1:30 p.m.

Kick off the Economic Club of Phoenix season with Tomas Gorny, CEO of telecommunications service provider Nextiva, and the winner of our 22nd Spirit of Enterprise Award — an annual honor recognizing excellence in entrepreneurship.

RSVP: wpcarey.asu.edu/economic-club

Learn more: wpcarey.asu.edu/spirit

16 Lawrence R. Klein Award for Blue Chip Forecast Accuracy reception and program

University Club, New York City

6 to 8 p.m.

The annual Lawrence R. Klein Award is one of the longest-standing and well-known honors in the economics profession. Named for the late Nobel Prize winner Dr. Lawrence Klein, the award recognizes the individual or team with the most accurate economic forecast among the Blue Chip Economic Indicators survey participants for a four-year period.

RSVP: wpcarey.asu.edu/alumni/klein-award

New student-run real estate investment fund

This fall, the school's new student-run real estate investment fund will challenge participants to step into the role of portfolio manager. Students enrolled in the real estate investment trust (REIT) portfolio practicum will initially invest \$500,000 of endowment funds, contributed specifically for this program.

The course follows a similar format to the SIM Fund, wherein students invest throughout the academic year. However, a diversified portfolio of investments is a crucial attribute in the SIM Fund. The REIT Fund concentrates in the one industry — real estate — giving students a different understanding of analyses, buy and sell positions, and more.

In September 2016, Standard & Poor's created the 11th GICS (Global Industry Classification Standard) sector of tracked investments called Real Estate. This classification took real estate out of the Financials sector and validated it in a class of its own. Like the SIM Fund, diversification is a necessary underwriting criterion for the REIT Fund. So, students will achieve diversification as allocations are made to various real estate sectors within the fund.

Working in teams, students will be mentored by Finance Instructor **Blair Koblenz** along with industry executives who will facilitate research and sit on the investment committee to promote a well-balanced, diversified portfolio of REITs.

Blockchain comes to campus



ASU's Blockchain Research Laboratory is an interdisciplinary initiative that includes faculty from the Ira A. Fulton Schools of Engineering, the W. P. Carey School of Business, the W. P. Carey Department of Information Systems, and the Sandra Day O'Connor College of Law. The lab and its digital cash partner, Dash, are located at ASU's SkySong. Learn more: blockchain.asu.edu

Arizona State University and Dash, a top digital currency for payments, have partnered to accelerate research, development, and education in ways that advance the speed, efficiency, and security of blockchain transactions while also expanding its uses. The partnership began after Dash contributed \$50,000 in startup funding to ASU's Blockchain Research Laboratory.

The latest contribution of \$350,000 will spark additional growth, with specific support for:

- The Dash Scholars Program, offering \$100,000 in scholarships for undergraduate and graduate research fellowships
- Research lab and industry open-source projects, providing an additional \$100,000 in funding for ASU's Blockchain Research Lab and \$50,000 for The Luminosity Lab

- Blockchain course development, including \$100,000 that supported the development of a new online course for graduate students, first available this fall

"This is a remarkable partnership precisely because both sides will benefit greatly from tight collaboration," says Dash CEO **Ryan Taylor** (*BS Management '99*). "Dash benefits from gaining valuable independent insights into how we can improve our plans for scaling to massively large numbers of transactions. ASU will benefit from gaining access to one of the most innovative teams in the digital currency industry. The entire blockchain industry will benefit from the best practices that will emerge from the research, and the creation of a graduate course is a tremendous leap in blockchain's path toward rapid, mainstream adoption."

For more on cryptocurrency, flip to page 18.

NOVEMBER

1 2018 Alumni Hall of Fame induction celebration

McCord Hall Plaza, ASU's Tempe campus

5:30 p.m.

Join us in honoring alumni who have made significant contributions to their professions, communities, and alma mater. RSVP: wpcarey.asu.edu/fame

2 W. P. Carey Alumni Council fall meeting 9 a.m. to 4 p.m.

Stay engaged with W. P. Carey through volunteer

opportunities like mentorship, guest speaking, and events. Learn more: wpcareyalumni@asu.edu

3 ASU Homecoming Block Party and Parade

Old Main lawn, ASU's Tempe campus

Time: TBD, four hours prior to kickoff

Join fellow alumni and friends for food and fun in the W. P. Carey tent at ASU's Homecoming Block Party. Learn more: homecoming.asu.edu

15 Economic Club of Phoenix Luncheon

Camelback Golf Club

11:30 a.m. to 1:30 p.m.

Hear from keynote speaker Jim Fish, CEO of Waste Management.

RSVP: wpcarey.asu.edu/economic-club

28 55th Annual ASU Economic Forecast Luncheon

Phoenix Convention Center, North Ballroom

11:15 a.m. to 1:15 p.m.

Derive value from economic forecasts and advice, presented by top national and regional experts.

RSVP: wpcarey.asu.edu/efl

Wall Street smarts

Morgan Stanley. JPMorgan Chase. Goldman Sachs. Perella Weinberg. Moelis. BlackRock. Those are just a few of the firms at which students in the Investment Banking Industry Scholars (IBIS) program intern and are employed.

“Well over 90 percent of permanent jobs on Wall Street are offered to those who went through a summer internship the previous year or two.”

— Werner Bonadurer
Clinical Professor of Finance

“IBIS supports students who are considering an investment banking career,” says Clinical Professor of Finance **Werner Bonadurer**, faculty director for the program. “It’s their stepping stone from ASU onto Wall Street.”

The one-year, credit-eligible course is a targeted career program, which offers multiple dimensions to qualified undergrads. Students gain technical skills: arranging mergers and acquisitions, analyzing debt and equity capital markets, and advising on corporate finance, to name a few. Interacting on Wall Street, and exploring investment banking relationships with corporate and institutional clients, for instance,

help build soft skills.

“Most of those things are not covered in regular coursework,” Bonadurer says. “IBIS fills the gap.”

“Investment banking is a very competitive business to get into,” he continues, “with Wall Street companies receiving up to 15,000 applications just for internships, and there are few spots. Well over 90 percent of permanent jobs on Wall Street are offered to those who went through a summer internship the previous year or two.”

Advice for students who want to apply for the highly competitive IBIS program which accepts about 15 percent of students who apply? **Eli Schifman** (*BS Finance/ Economics '19*), a 2016 cohort member and student co-leader for the 2018 program says, “Prepare early and have a compelling reason why you are interested in it. Most people say they are interested but don’t put the time in to prepare technically, which is one way to demonstrate interest. Also, reach out to alumni of the program.”

Learn more: wpcarey.asu.edu/finance-degrees/investment-banking



W. P. Carey in the news

Dean Amy Hillman was honored with the 2018 Award for Distinguished Educator by the Academy of Management. This lifetime career achievement award recognizes long-term, significant contributions in one or more of the following areas: developing doctoral students; teaching effectively; fostering pedagogical innovations; and developing effective methods, structure, and designs. Nominators shared their thoughts on what makes her such an outstanding educator:

- “Amy’s performance as a classroom instructor was consistently outstanding [starting with her very first teaching experiences when she was a doctoral student].”
- “Amy’s mentoring and guidance shaped me into the researcher that I am. When I first started working with her, she was taking on a number of new roles at both ASU and within the Academy journals. Yet she always made time for me.”
- “Those of us fortunate enough to be doctoral students of Amy Hillman’s have benefited not only from her incredible training and insight, but from her influence across the career.”

The **W. P. Carey Executive MBA** was recently ranked No. 12 in the world by *The Economist*. The ranking represents a dramatic increase since 2015, when W. P. Carey held the No. 39 spot worldwide. The 27-point jump was the largest among ranked schools.

The Defense Advanced Research Projects Agency (DARPA) has awarded Assistant Professor of Supply Chain Management **Mahyar Eftekhari** the 2018 Young Faculty Award. Recognizing rising research stars in U.S. academic institutions, the award will support Eftekhari’s supply chain management research.

Denis Sosyura recently added the MBA Teaching Award: The Most Impactful Finance Professor to his already stellar resume. The associate professor of finance has published papers in the *The Journal of Finance*, *Journal of Financial Economics*, and *Review of Financial Studies* (which also gave him its Distinguished Referee Award). He’s won seven best paper awards, and many more for teaching. Space is limited so take our word for it — these accolades are well-deserved.



CHINA IS an economic and political power that must be part of the plan for any business school with global aspirations. The W. P. Carey School of Business understood that early on, launching its first academic program — a custom MBA for Motorola — in 1998. In the years since, the W. P. Carey School has been directly involved in the development of top leadership in China since launching our Executive MBA in Shanghai in 2003.

Our programs have grown in size and stature but our goal remains the same: cultivating world-class leaders to advance China's enterprises through innovative, transformative education.

Executive MBA in Shanghai

Ranked among the top 40 executive MBA programs in the world by *Financial Times*, the W. P. Carey EMBA in Shanghai is delivered in collaboration with Shanghai National Accounting Institute (SNAI). The first program of its kind offered through an American university with a permanent campus in China, this program has educated top leadership since 2003.

Doctor in Business Education (DBA)

To accelerate China's pace of global integration, the W. P. Carey School and Shanghai Advanced Institute of Finance (SAIF) developed a DBA in global financial management in China. Senior corporate and government leaders who emerge from this program are prepared to transform China's economic structure and financial markets.

University partnerships across China

Partner programs provide students with exciting new opportunities and perspectives; faculty and researchers deepen their understanding through information exchanges; and schools, colleges, and institutes engage with each other to build lasting pathways to greater understanding.

- Harbin Institute of Technology
- Huazhong University of Science & Technology
- Nanjing University
- Renmin University of China
- Shanghai Advanced Institute of Finance (SAIF)
- Shanghai National Accounting Institute (SNAI)
- Shanghai University of Finance and Economics
- Sichuan University
- Tongji University
- Wuhan University
- Xi'an Jiaotong University

Our students and alumni

- 1,250 alumni of W. P. Carey China Programs
- More than 3,000 W. P. Carey alumni living in China

Together, we are redefining global business.

Global business. Redefined.

ASU W.P. Carey
School of Business
Arizona State University

wpcarey.asu.edu/china

The brass ring:

What does it take to tackle the tenure-track hurdle?

It's referred to as chasing the brass ring because dreaming about obtaining academic tenure is much easier than actually doing so. That's because of the trifecta of work: research, teaching, and service. None are easy to come by, but all three are necessary to become a tenured professor.

What does it mean to be a tenured professor? Exclusive to higher education, tenure is a permanent job contract typically offered with advancement to associate professor. It is awarded after serving in a six-year probationary period as an assistant professor.

Is there a set of rules to become a tenured professor? Or are there exceptions?

"We deal with every tenure case individually because each one has many nuances and complexities," explains **Mike Goul**, professor of information systems and associate dean for faculty and research.

The paper pipeline

The nuances and complexities include the status of assistant professors' research: Has it been submitted to a journal for review? Has a journal accepted it? Has it been accepted upon revision? Has it been published in a journal? "We try to look at assistant professors' pipeline of work," Goul explains. "It doesn't look good for tenure if they've never done anything to get their research published."

It also depends on which journals are valued by the professors' academic discipline. There's a set of widely cited journals for every W. P. Carey academic department, and they're chosen based on consensus in their respective fields. Some departments take a vote among faculty to decide which journals to focus on, as well. It can even count toward a tenure decision if assistant professors get their work published in other academic departments' premier journals.

Additionally, "We rely heavily on impact factor," says Department

of Finance Chair **Tom Bates**, "which is driven by the number of citations that an article receives. The more papers cited in a journal by researchers to help motivate or explain something in their own paper tells us which journals will affect future literature, and therefore are the journals to target."

Equally valuable, but not directly counted toward tenure, is having an international presence. Being engaged at that level improves one's opportunity to gain the support of colleagues. Each academic department aligns with a national association, many of which are also aligned with top-tier journals. While assistant professors aren't expected to play top service roles, "It's important for our faculty to travel to their discipline's conferences and meet peers who can serve as references for their tenure review, a process where top scholars are asked to critique a candidate's body of work. Often, these references are the ones who manage the journals as editor in chief or who serve on journals' editorial boards," says Goul.

Teaching on the tenure track

As a research-intensive school, ASU tenure-track evaluations focus on research and teaching more than service. "Research is especially vital during the tenure-track appointment," Goul says. "Teaching is usually limited to three courses an academic year because we want professors to focus on research to make progress toward tenure."

Even so, the quality of teaching counts toward tenure. Senior faculty members observe professors' teaching skills and students complete surveys. Some courses are more difficult to teach, so the review committee also

considers class size, level, and degree of difficulty. "A department chair may assign a course that's always had consistently low ratings from students because of the complexity of the content, for example," Goul says. "We assess course evaluations in the context of what the assistant professor has been asked to teach."

Pre-tenure service success

Just as teaching is limited to make the most room for research, scaling back service obligations is necessary. There's also a saying in the academic profession that "no one ever gets tenure for doing service." Goul cautions that contingent faculty must prioritize, otherwise "service activities can take over their research time." He suggests professors align service commitments with their research.

For instance, reviewing papers for their field's national association helps them develop their expertise and make names for themselves. Presenting their papers to others garners feedback to improve their work. Other service activities can include serving on department and university committees, administering university programs, mentoring PhD students, and advising student groups. But the other service opportunities are better reserved for tenured faculty who have more time to devote to these activities.

The tenure-track roadmap

While the tenure track doesn't come with a detailed roadmap, Goul says there are some metrics that "help guide us, so we can tell assistant professors what they need to be doing and whether they're making progress toward tenure along the way."

During the six-year probationary period, every assistant professor gets a yearly



“progress toward tenure” evaluation from their department chair in addition to their annual performance evaluation. The third-year review is the most critical hurdle, and it’s where the rubber meets the road for assistant professors. “They must be producing peer-reviewed journal articles in their field and receiving good teaching evaluations to continue on the tenure track,” says Goul.

The academic unit personnel committee, academic chair or director, college personnel committee, and supervising dean review the professor’s trifecta of work, submitted with their application for third-year review. At each level, a recommendation is determined and then forwarded to the next level. The dean makes a school-level recommendation to the provost, and ultimately each case makes its way to the president.

“As a unit chair, you have an independent voice,” says **Raghu Santanam**, chair of the Department of Information Systems. “I may agree with 100 percent, 80 percent, or none of the unit committee’s report. In those cases, I have to identify the portions of the report I disagree with and provide evidence to show how and why my opinion differs from the committee’s.”

The timing of when professors’ papers publish, whether they receive awards or grants for their papers, whether journals cite the papers, and more can affect professors’ tenure track.

“You don’t have to aspire to be a research professor anymore — there are more tracks than just the one leading to the tenure hurdle. We have clinical professors who are scholars of teaching,” says Goul. Clinical assistants and associates have promotion milestones similar to tenure-track assistant and associate professors, he says, but the criteria on teaching performance, innovation, and scholarship related to advancing teaching become more important than research. “Clinical professors are integral to our teaching mission.”

For those who get tenure, it is the culmination of many tough assignments. It includes published research, high teaching evaluation scores, and service to the university — all balanced appropriately during the same six-year probationary period. But the advantages of tenure include more than job security and sabbatical leave.

Seen as the brass ring of their academic career, tenure conveys professors’ expertise in the field to the benefit of the university. Peers see them as having “earned their stripes.” Perhaps most important, in freeing them from any internal or external pressure or punishment, it gives professors the space and right

to explore new ideas in their area of research. Imagine if stakeholders inside or outside the university could influence professors’ creation of new knowledge. ■

The ABCs of tenure and titles

Whether you’re a scholar considering an academic career or just curious about a professor’s work, we’ve got you covered. Here is the timeline to tackle the tenure track, plus a rundown of academic titles (and what they mean) within the university.

TENURE TIMELINE

- **PhD** Four to six years of advanced graduate school, including a dissertation
- **Probationary period as an assistant professor** Typically six years on faculty
- **Academic tenure as an associate professor** Usually six years plus on faculty
- **Full professor** Highest tenured appointment

WHAT’S IN AN ACADEMIC TITLE?

Dean: Distinguished head of a college or university faculty or department; usually tenured, PhD

Associate/assistant dean: Oversees and coordinates faculty affairs or research and all or some part of the programs and activities that support student recruitment, education, and retention

Department chair: Appointed by the dean to manage an academic department; usually tenured, PhD

Assistant department chair: Appointed by the department chair to provide support to the department team and chair

Regents’ professor: Faculty who have made pioneering contributions in their areas of expertise, achieved a sustained level of distinction, and earned national and international recognition for their accomplishments; usually tenured, PhD

Professor emeritus: Retired but retains an honorary title; usually tenured, PhD

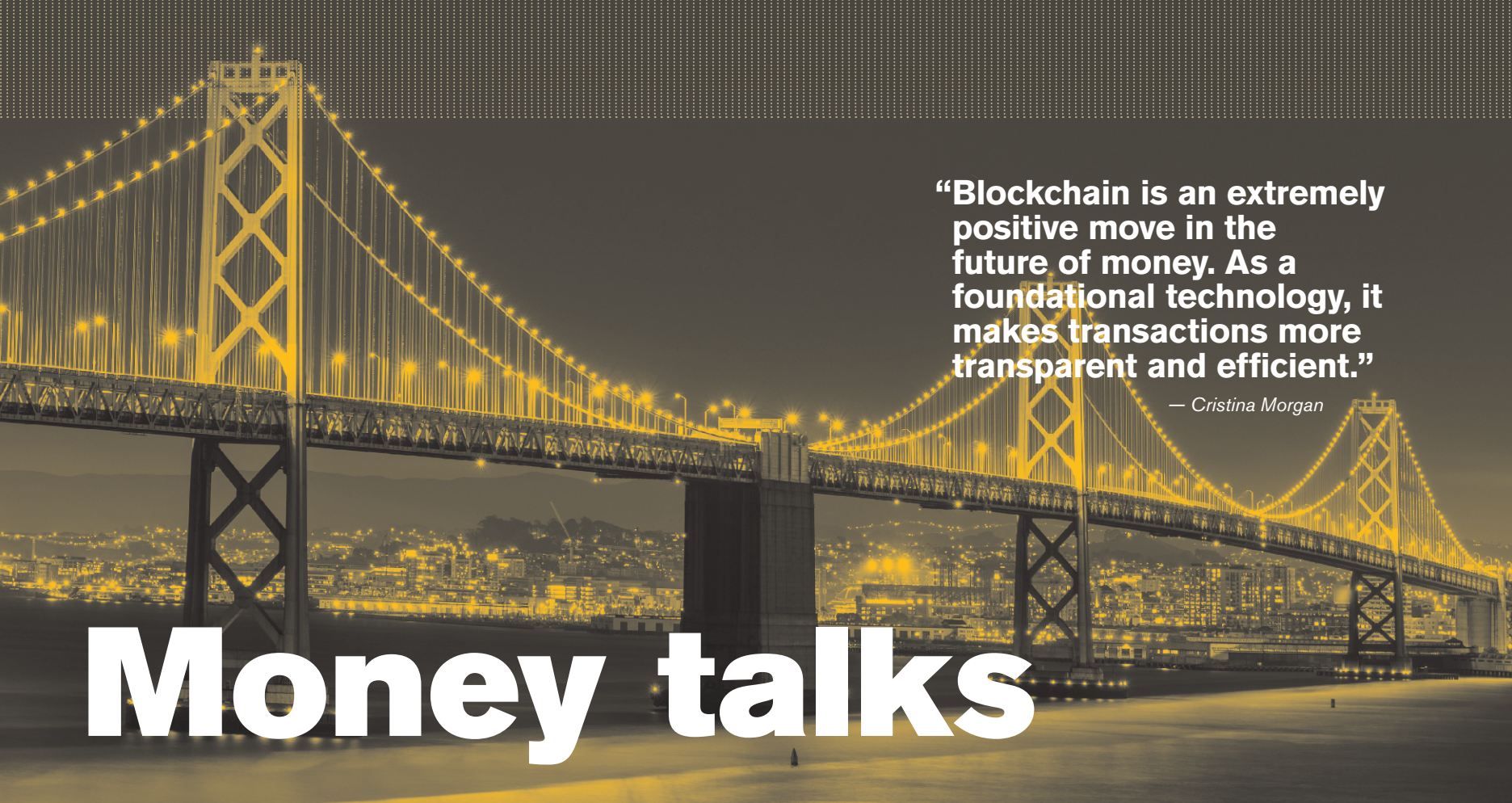
Clinical assistant and associate professor, clinical professor: Scholars of teaching; non-tenured, PhD

Faculty associate: Non-tenure track, part-time professor; master’s degree or higher

Lecturer, senior lecturer, principal lecturer, instructor: Non-tenure track, typically teach undergraduate courses; master’s degree or higher

Professor of practice: A non-tenure track distinguished professional who may have a full-time job outside the university or is retired and typically doesn’t have a traditional academic background; master’s degree or higher

Visiting professor: Teaches at the university on a short-term contract; non-ASU tenured, PhD



“Blockchain is an extremely positive move in the future of money. As a foundational technology, it makes transactions more transparent and efficient.”

— Cristina Morgan

Money talks

Although the world of assets, liabilities, margins, and dividends can seem impersonal, there are real people making the money world go 'round. We asked two successful W. P. Carey alumni to trace their rise in the world of finance — including the ways in which ASU influenced their careers — and share their predictions for the future of money.

Cristina Morgan

(BS Management '75, MBA '77)

The truth is, **Cristina Morgan** enrolled at ASU because she had to.

Her father's position with the U.S. Air Force moved the family all over, eventually landing them in Arizona. Then they relocated again, this time to Saudi Arabia when her father took a job with Northrop Corp. Morgan and her brother were attending college in Beirut, Lebanon, when “the Syrians rolled into Beirut one fine day, and the embassy and the corporation took a dim view of having dependents of an executive with Northrop in what they were thinking of as a war zone,” Morgan says. It was time to look elsewhere to finish their degrees. Because of the many moves, they had no real home base in the United States, so they made the most economical choice.

“When you're an expat, the rules about paying in-state tuition are wherever you last paid taxes in the U.S.,” Morgan says. “So that made ASU the cheapest solution for a guy who had two children in college at the same



time. And back to Arizona we went.”

It might not have been her first choice, but Morgan did end up getting solid advice from a professor assigned to help her transfer the credits she had already earned overseas.

“At one point he asked me why I didn't switch my major to business and get an MBA,” Morgan recalls. “I was

stubborn and asked, ‘Why would I do that?’ and he said, ‘Because you might want to get a job.’”

After careful thought, she made the switch from psychology to business and earned both her bachelor's in management and MBA from the W. P. Carey School of Business. “I truly wish I could remember his name,” Morgan says. “But I have to admit that it was excellent advice.”

After graduating, she found a job in financial planning and analysis with Memorex, then moved on to work with other technology companies in a similar capacity. In 1982, her career began to shift. She joined Hambrecht & Quist, an investment bank, as an associate in

W. P. Carey alumna Cristina Morgan (*BS Management '75, MBA '77*) is the vice chairman of technology investment banking at JPMorgan Chase in San Francisco.

the research department. After two years there, she moved into investment banking. Morgan became managing director, then co-director of global technology investment banking, staying on through Chase Manhattan Bank's acquisition of the company, and the merger with J.P. Morgan in 2001. She serves today as vice chairman, technology investment banking at JPMorgan Chase & Co. in San Francisco.

Throughout her investment banking career, Morgan has received accolades — including a spot on *Fortune* magazine's "America's 50 Most Powerful Women" list, and induction into the W. P. Carey Alumni Hall of Fame. When pressed, Morgan allows that the recognition is "terrific," but is more likely "recognition of a certain amount of tenacity," given her more than 35-year tenure in a notoriously demanding profession.

Morgan credits her upbringing for her stick-to-itiveness. "Being raised in a military family, I always answered, 'Yes, sir, of course, I can,'" she says. "When I started at Memorex right out of business school, it was a company coming out of bankruptcy. Most people were quitting, so every day somebody would walk into my office with a stack of folders, slam them on my desk, and ask me to take over the work. I kept plowing through all of the projects that everybody else

had left behind, and I got a well-deserved reputation for working very hard. Even if you're in a difficult situation, you can always be part of the solution and not part of the problem."

Her military upbringing also likely shaped her disciplined approach to personal finances. She believes in paying cash for toys, not incurring debt, and living within your means. "The old values of prudence and saving and investing early, all of the things that sound so boring, are true," she says. "I think a lot of young people think that the old rules don't apply. But they very much apply."

That said, Morgan sees firsthand that money and financial transactions are changing. "Blockchain is an extremely positive move in the future of money," she says. "As a foundational technology, it makes transactions more transparent and efficient. And we already do things on our phones that none of us ever dreamed of being able to do. All of that will keep moving forward, the speed will pick up, and security and convenience will get better. The companies we finance in the technology practice at JPMorgan come up with innovation in these areas every single day. The progress never ceases to amaze me. So, no matter how good it gets, it can always seemingly get better."

Kerry Williams (MBA '87)

Perspective. That was one of **Kerry Williams'** most enduring lessons from his time at ASU.

"What has stuck with me from that time is taking classes with people who were working full-time jobs during the day, had families, and were working toward their MBAs at night," Williams recalls. "I remember thinking, 'Don't ever think what you're doing is all that hard, because there's somebody else who has it harder.'"

Even now, 31 years after earning his MBA from the W. P. Carey School of Business, it's a philosophy he upholds as chief operating officer of credit reporting agency Experian. During a recent weeklong series of meetings in Spain, for example, he says he anticipated a certain degree of burnout as the group headed into the final two days.

"I opened up those meetings by saying that things can be tough, but we're not going to coast into the gate. We're going to finish strong," Williams says. "You look at some of the other issues in the world, (*Continued on p. 14*)



“We work in countries across the globe transacting money and granting credit in milliseconds without a physical or personal face-to-face connection made ... I see that continuing to accelerate.”

— Kerry Williams

W. P. Carey alumnus Kerry Williams (MBA '87) is the chief operating officer of Experian in Costa Mesa, Calif.

(Continued from p. 13) and you need to keep things in perspective. We're very fortunate. We get to work for a great company; we get to do a lot of innovative things. Business people, in general, are very fortunate with what they get to do in this world.”

Williams helps spread that good fortune through a program he started some 10 years ago that recruits new MBAs into Experian. Several of these hires, he says, are graduates of W. P. Carey and are still with the company.

But regardless of where they went to school, all of these new grads prioritize career advancement, and all of them ask him for tips on how to move up the ladder.

“I can't think of one meeting with an MBA we've hired over the years where they haven't asked for career advice,” Williams says. “What I tell them is that, early in their career, it's helpful to have a breadth of experiences versus to be a deep subject matter expert. Maybe it's a good idea, for example, to be a financial analyst in the first year, then maybe go into sales, and after that go into operations. A breadth of experiences indicates a diverse person with lots of

capabilities and intellectual horsepower. Experiences make you more valuable, and the more valuable you are, the more opportunities you'll have to advance.”

On that, he speaks from experience. After graduate school, Williams took a job with Wells Fargo in San Francisco. During his eight years there, he worked in a variety of positions, including consumer credit, mortgages, consumer checking, and commercial cash management. Williams then moved to Scottsdale, Arizona, to build and lead the commercial credit card business at Bank of America. Five years later, in 2000, he moved across the country to New York City to run a startup.

Then Experian called. “That was not too long after the 9/11 attacks, and we had just had our first child, so we wanted to get back out west,” Williams says. “So, we joined Experian in 2003, and I've been here ever since.”

With three decades of experience across the financial industry, Williams has rare insight into the future of money. For starters, he thinks real money will cease to exist at some point, and most currency will be digital.

“Blockchain encryption capabilities that

enable the movement of digital currencies are going to continue to proliferate,” he says. “And I think the instant access to money, or to credit so to speak, is going to continue to expand. We work in countries across the globe transacting money and granting credit in milliseconds without a physical or personal face-to-face connection made. Nor is there any physical money generated to support those transactions. I see that continuing to accelerate across the globe, with the emerging markets very much leading the charge on those types of capabilities.”

But even as money itself changes, his views on personal finance are tried-and-true. He tells his three teenage sons to save, to live within their means, and to prepare for unexpected expenses.

“And I say that from personal history. When I came out of grad school, I had \$2,000 in my checking account and owed \$10,000 in loans, and it's just miserable to have to pay off those loans. It took me a few years to get ahead of everything, and it's just not a whole lot of fun. I'm not sure if they're listening to my advice yet, but I hope they do. I don't want them to have to go through that.” ■

A lot has changed around here.
What's new with you?



With more than 100,000 graduates in your W. P. Carey network, you're part of one of the largest and most active alumni groups in the country. Log in and update your contact information so we can keep you informed. And while you're there, tell us what's new with you.

wpcarey.asu.edu/classnotes

ASU W. P. Carey
School of Business
Arizona State University



The insider's guide to
money

Earn it, invest it, spend it

Plus: The future of cryptocurrency



John Hamby
(*BS Business Administration/ Finance '05*) is the regional manager of community engagement at Uber.

We spend much of our lives thinking about money. Do we have enough cash in our pockets to buy a snack from the vending machine? When will that paycheck hit our bank account? What's "the number" for a great retirement?

There are plenty of bigger questions, too. How do we spend money to improve communities or countries? How do we invest it to nurture big ideas or the next great technology?

For this story, we spoke to people who have spent their careers and lives thinking about how we can best earn, invest, and spend our money — for ourselves, and for the betterment of the world. They shared what they've learned, the principles they believe in, and the time-tested truths they think every reader should understand.

We hope you find their stories and ideas surprising, useful, and hopeful.

Earn ... a community's goodwill

In late 2015, when Uber's then-CEO Travis Kalanick announced on a global all-hands company call that they planned to make Uber the biggest revenue-generating company on the planet, **John Hamby** (*BS Business Administration/Finance '05*) was dazzled not by Kalanick's boundless ambition, but by the opportunities such massive scale would open up.

"My first thought was: If we're going to be the biggest revenue generator in the world, then we also have to be the biggest giver in the world," he recalls.

Indeed, for a company that has been beset by problems in recent years, Hamby's work to build meaningful partnerships with the communities Uber serves has been an unequivocal bright spot.

Great companies, says Hamby, understand that giving back to a community isn't just the right thing to do — it ultimately smooths the way to make strong company growth possible. During his tenure, Hamby has helped orchestrate numerous pilot programs that make the most of Uber's capabilities. For example, he's worked with the governor of Arizona to help ex-offenders get free rides for job interviews.

(Continued on p. 18)



(Continued from p. 17)

He's also created a partnership with Meals on Wheels to help deliver food to local seniors in need. Such programs, launched in his home region of Phoenix, now serve as a template for other cities worldwide.

As Uber seeks to find more ways to move people and goods from point A to point B, Hamby expects his own work will expand as well. "How can we give back when we're working with freight, for example? What about aviation? There are so many avenues where we can be globally impactful," he says.

Earn ... the invisible markers of financial success

In his wildly popular personal finance courses, **David Hoffman** asks his students to imagine going on a blind date: The object of their potential affection arrives at dinner and glances at his or her Rolex, mentioning that traffic from Paradise Valley, Arizona, the nearby neighborhood, was a nightmare. The blind date sets down car keys emblazoned with a Mercedes logo.

"You might think," he tells his students, "that you're on a pretty good blind date."

But not so fast: You have no idea why that person was in

Cryptocurrency: The future of money?

Last year — and the year before that — Bitcoin outperformed gold. This year, it's still the largest player in the cryptocurrency universe, but its value has plunged nearly 70 percent, dropping from a December 2017 high of \$19,511 to a mid-June 2018 value of \$6,238.

Is it a goner? Or is this a short-term plunge?

Only time will tell, but **Geoffrey Smith**, clinical associate professor of finance, likens digital money to the internet. "People are going to find lots of uses for it," he says. "I think we are at the very beginning of this."

It doesn't grow on trees

What are cryptocurrencies? They're payment methods that leverage encryption techniques and a computer-based, distributed ledger system called blockchain to regulate the production of tender and validate the transfer of funds. "If you do a transaction on the distributed ledger, it's recorded all over the world. The record keeping is close to perfect,

and it's also anonymous," Smith explains.

Another benefit is the currency's global footprint. "Cryptocurrencies are highly transportable. They can be sent around the world in an instant," says **Ryan Taylor** (*BS Management '99*), the chief executive officer of Dash, one of the top 20 cryptocurrencies among more than 1,000 players. Cryptocurrencies also escape transaction fees and exchange-rate vagaries for those shuffling money between borders.

In addition, cryptos are inflation-proof. "Governments like to create money to fund government programs and activities, and that's inflationary," says Smith. Cryptocurrencies are created in a fixed supply, he explains, adding that there are only going to be 21 million Bitcoins. "Once they reach that point, the value of Bitcoin won't be subject to inflation. That's a huge advantage over the U.S. dollar."

Finally, cryptocurrencies are counterfeit-proof. "Not counterfeit-resistant. They are counterfeit-proof," Taylor says. "You can audit

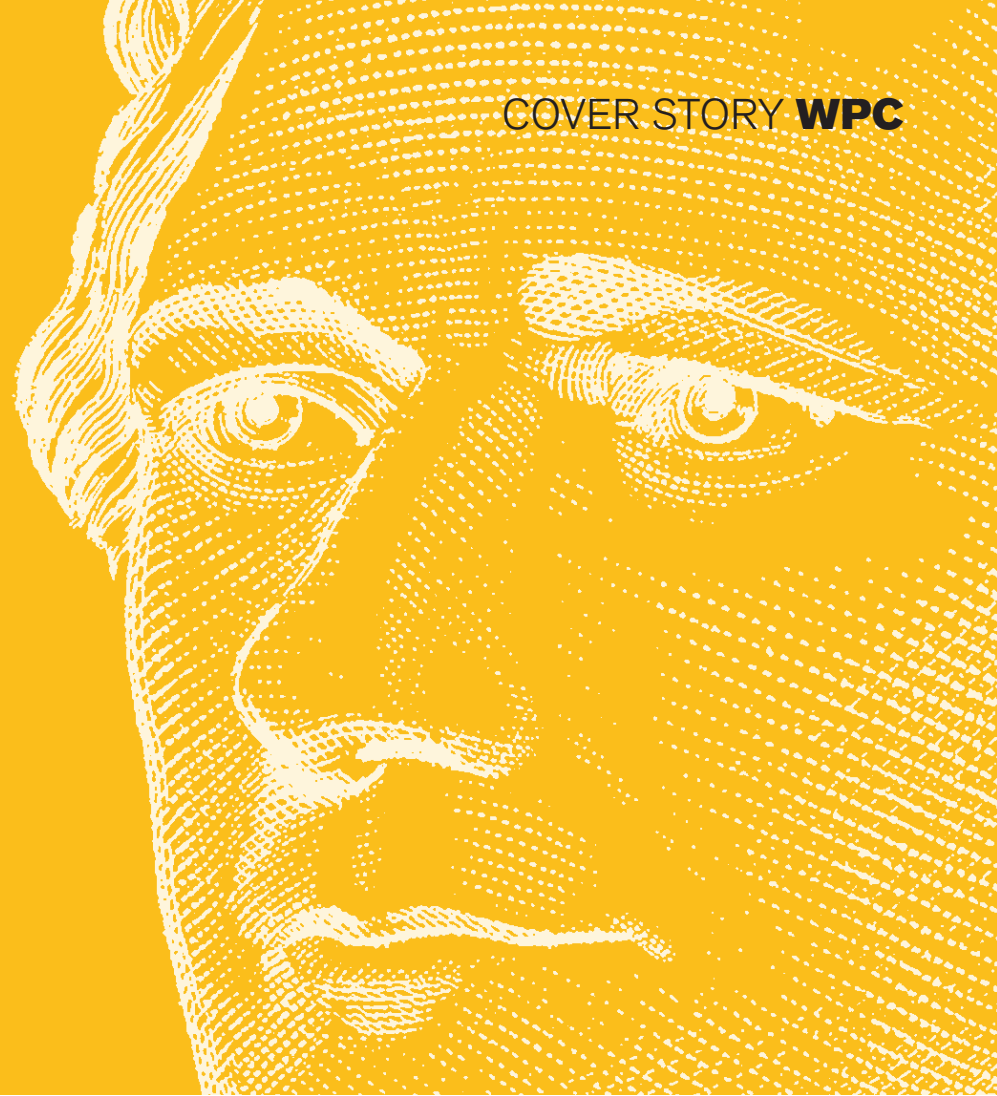
the blockchain and see with 100 percent certainty that you are receiving an authentic Bitcoin. That's not true with fiat currencies" issued by governments.

So why haven't cryptos taken off? Why is their value so volatile? "People argue that cryptocurrencies are not backed by anything," Taylor notes. "So are a lot of the things that we use to facilitate transactions, including fiat money."

"The value of any currency — even U.S. dollars — is what it can be used to buy," Smith explains. "The U.S. dollar has value because you can buy everything with it. If the number of uses for cryptocurrency goes up — if Amazon or Walmart start taking it — then it will have more value."

He adds that the uncertainty surrounding cryptocurrency usage creates more volatility, and the volatility itself makes the currencies' value less predictable, thereby making them less useful as legal tender. Still, the number of uses for cryptocurrencies is growing. Already,





Paradise Valley, whether or not that Rolex is real, or if that Mercedes is brand new or decades old. And can your date really afford all those status symbols, anyway?

If you want to know the true financial state of the man or woman across the table, you'll have to go beyond external markers of success and focus on what you can't see: a credit score, for example, which tells you if they're responsible enough to pay their bills on time and that they don't take on excessive amounts of debt. The trajectory of their net worth — is it making a steady upward climb? — can also serve as an indicator of a person's financial realities. "These are things you can't see, but they're things we should be asking about," says Hoffman, who is a lecturer senior in the Department of Finance. "Maybe not on a first date, but by the time you're going to get married? Of course!"

Perhaps it seems heartless, but these financial indicators can help us go into lifelong relationships with our eyes wide open. And the larger truth is hard to deny: We often judge people on glossy exteriors, but really getting to know someone requires that we go beneath the surface.

(Continued on p. 20)

many companies accept them, including Microsoft, Expedia, Tesla, Overstock.com, and Subway sandwich shops.

Cash flows, streams, and dribbles

Taylor says his company is seeing "incredible adoption" in places like Venezuela, where as of October 2016, hyperinflation had knocked the value of the country's largest bill, the 100-bolivar note, to less than a dime. There, bakers don't count the bills customers use to buy bread. They weigh them.

Like Smith, Taylor thinks cryptocurrencies are comparable to the early internet — a technology waiting for new business models and uses to come.

In part, this is because cryptocurrencies can be split into very small values. Already, they are getting divided out to eight decimal points. "I don't think we know yet what the fractions-of-a-penny transactions that cryptocurrencies enable will lead to, but I think there are some exciting things to come."

Among them, he points to:

- Publication subscriptions in which you can pay per article instead of per issue.
- A streaming service now available on Dash that pays musicians the moment a piece is streamed.
- Cell phone service that grabs the best rates via minute-by-minute carrier switching.
- Technology to help neighbors buy and sell excess power from rooftop solar generators. Dash is working on this with the U.S. Department of Energy.

Some of these examples reflect money flowing between devices, not just between people. That means cryptocurrencies could be the money that underpins the internet of things.

On the human front, however, the currencies need to become easier to use. Dash is trying to simplify its currency and create a

payment mechanism that works as easily as Venmo, the mobile payment service owned by PayPal.

Ultimately, it is features like this that Smith thinks will help whittle down the more than 1,000 currencies into a few big players — much the way credit cards work. He points to speed, anonymity, contract enforcement, and other features now being offered and says those garnering the most popularity will determine which cryptocurrencies will survive.

But, survive they will, Smith thinks, and others agree.

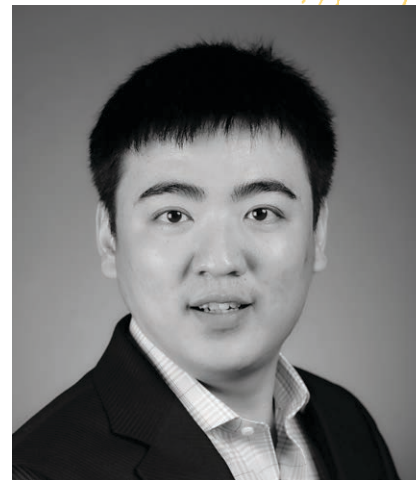
Cryptocurrencies are definitely a new asset class," says Taylor.

"They're here to stay."





Ambar Renova Amleh
(BS Marketing '03) is a
co-founder of the Ibtikar
Fund, a venture capital firm
in Tel Aviv, Israel.



**Kevin (Yili)
Hong** is an
associate
professor of
information
systems and
co-director
of the Digital
Society Initiative
research lab.

(Continued from p. 19)

Earn ... your way through hard times

The so-called “gig economy” — the idea that workers go from one short-term project to the next, rather than spend years or decades in a permanent job — has inspired plenty of opinions on its overall value. Do platforms like Uber and Upwork represent transformational new models that open up greater freedom and flexibility for workers? Or a devastating shift that’s providing less security than a traditional job?

The answers to both, according to **Kevin Hong**, may be “yes.” In research conducted with colleagues Nina Huang (ASU), Gord Burtch (University of Minnesota), and Paul Pavlou (Temple University), Hong found that the popularity of gig work rises and falls with the economy. For example, during the financial crisis a decade ago, the hardest-hit states saw the biggest spikes in new-worker signups on gig-work platforms. But as the economy picked up, that trend reversed.

While people choose gig work for many reasons, Hong believes that the larger lesson in the trends his research found is heartening. “In some ways, [gig work] can be a type of ‘unemployment insurance,’” he says, keeping people above water and stable while they look for permanent



Gabriel Shahin (*BS Business Administration '06*) is the founder of **Falcon Wealth Planning**, a fee-only financial firm based in Ontario, Calif.

jobs. “[These platforms] allow people to find jobs without relocating — it’s more of a digital migration.”

Invest ... in the idea of innovative entrepreneurship

Building a business from scratch in the United States is tough, but compared to the challenges entrepreneurs in Palestine face, it seems like a veritable cakewalk.

“Because Palestine is politically occupied, the economy is largely dependent on Israel,” says **Ambar Renova Amleh** (*BS Marketing '03*). “Palestinians don’t have control of their borders, the resources in the ground, the people coming in and out, or the movement of goods, so any business that requires imports and exports is extremely difficult.” In Gaza, occupied by Hamas, the limitations are even more punishing: The territory often has electricity for just a handful of hours each day.

Palestinians are known for their business acumen throughout the Arab region and entrepreneurs have always seen opportunity where others see only obstacles, which is what drove Amleh to co-found the Ibtikar Fund in 2015. The venture capital firm invests in early stage Palestinian technology startups.

Among the 20 or so companies in Ibtikar’s portfolio,

several have already seen significant traction. Mashvisor, a real estate analytics company, has experienced triple-digit annual growth and has grown from a pair of founders to a team of 17. Other companies include Rocab, an Uber-like startup for taxis, and Play 3arabi, a mobile games publisher.

While not every venture that Ibtikar backs is destined to rocket into the stratosphere, even companies that eventually disband impart startup-style energy and innovative ways of thinking that employees can apply wherever they work next.

For Amleh, the fund isn’t just about giving the right companies the resources that they need to succeed on an international stage. It’s about creating much-needed jobs and economic opportunities, and placing Palestine on the global startup map. “Through technology, our startups can grow beyond Palestine, to the Arab region, or the world, and that can change everything.”

Invest ... in people who want you to succeed

Over the course of his career, **Gabriel Shahin** (*BS Business Administration '06*) has burrowed deep into the financial weeds for commission-based financial advisory firms,

(Continued on p. 23)

Kevin Kelly (*BS Finance '08*) is the founder of **Benchmark Investments**, an investment intelligence firm based in New York.



Cash on hand

Professor of Finance Thomas Bates researches the rationale behind the rise in the value of corporate financial holdings

IN SUNNY ARIZONA, no one thinks much about rainy days.

But it turns out preparing for rainy days is one of the key factors behind the economic puzzle of why companies' cash holdings have increased to record levels over the past 30 years and why that cash is worth more than it used to be.

In their research paper, "Why Has the Value of Cash Increased Over Time?" published in the April 2018 issue of the *Journal of Financial and Quantitative Analysis*, ASU Professor of Finance **Thomas Bates**, along with collaborators Ching-Hung Chang and Jianxin Daniel Chi, looked to find the why behind this phenomenon.

"A lot of pundits in the media were saying firms were making a mistake by hoarding cash just before the great recession," Bates says. In his 2009 research, "Why Do Firms Hold So Much More Cash Than They Used To?"

Bates and his collaborators wanted to find out if this cash "hoarding" behavior, which looks unusual, could be explained by economically rational corporate decision-making. This follow-up research looks at how investors value hoarding behavior.

Cash and competition

Researchers found two fundamental forces at work over the past 30 years affecting corporate liquidity. As the U.S. economy underwent dramatic changes, U.S. manufacturing companies responded with changes in their liquidity policies.

1. Traditional vs. tech — The nature of the average company has changed dramatically. "In the 1970s, companies made things: cars, turbines, washing machines," Bates says. "The bank made a loan to a simple firm: one that generated a cash flow and repaid the interest."

Companies today are more heavily weighted toward technology, so they rely more on research and development (R&D) to continuously innovate. "You really can't stop making R&D expenditures without losing the benefits of innovation," he says. If they take out bank debt, making the interest payment might make them forgo essential R&D.

2. Emergency funds — "A lot of people underestimate the extent to which the U.S. economy has become much more competitive over the past 30 years, even for traditional manufacturing firms," Bates says. These companies need to be financially prepared when what they thought was going to happen doesn't materialize because of competition. Companies prepare for potential rainy days by storing cash on the balance sheet so they can make critical investments in case of a shortfall.

(Continued from p. 21)

discount brokers, and registered investment advisory firms.

But the lesson he took away from those experiences when he started his own financial firm in 2014 had nothing to do with balance sheets or bottom lines: It was about relationships. He was ready to move away from pushing products to his clients in favor of creating a true partnership with them, which included a fiduciary responsibility to them. “Our clients are the coaches, and we’re the quarterbacks,” he says. “It’s our job to win the game for them.”

That shift meant that he had to look up from performance charts to dig deeply into the lives of the men and women who hired him. “We’ll ask questions like: ‘How’s your health? How old were your parents or grandparents when they passed?’ That can affect how we plan for things like Social Security benefits, for example.”

While clients may hire him for his financial acumen, Shahin is also often privy to more details about his clients’ lives than their best friends and family members, and it’s a responsibility he takes seriously. “Personal finance is often more ‘personal’ than ‘finance,’” he says.

Invest ... now, in what you know

Kevin Kelly (*BS Finance '08*) knows that even for business school alumni, investing can be intimidating. “There’s a lot of jargon, and it’s easy to get lost in the minutiae,” he says. “But there’s never been a better time to start investing.”

He’s not just talking about the old saw that the best time to invest was 20 years ago, but the second-best time is today. He means that in recent years, costs have plummeted, choices have skyrocketed, and it’s possible to build a balanced portfolio with just a few thousand dollars, and often even less.

Kelly’s been part of the revolution, developing exchange-traded funds (ETFs) for specific real estate classes including hotels, retail, and health care, which can be purchased for as little as \$25.

Thanks to minuscule initial costs, almost anyone can set up a just-for-fun investment account based on their specific interests. Like green energy? Social media? Politics? China? You can easily find ETFs or other investments that allow

(Continued on p. 24)

Building a rainy-day fund

These two factors affect how easy it is for firms to access affordable external financing when they need it — and that changes the average value of each dollar on their balance sheet.

Think of it this way: Your average 1970s company was like a factory worker with a pension. He didn’t need tons of savings. His income was steady and getting a mortgage loan was pretty easy. The companies that started to grow in the 1990s and today are more entrepreneurial. Their outlay for innovation is higher; their income isn’t guaranteed, and, as a result, getting financing can be difficult.

The savvy entrepreneur overcomes that funding challenge by building up a rainy-day fund. R&D-reliant firms that don’t have easy, cheap access to external financing, hold onto cash because they need to.

“The sophistication and breadth of U.S. financial markets would seem to suggest that, on average, firms would have an easier time accessing cheaper capital,” Bates says. “What we documented is the opposite.”

From an investor perspective, he says, it changes the way we think about the value of companies that have real liquidity shortfalls. “The temptation for a lot of investors is to push companies to divest. But we don’t want to punish companies or pay less for stock because they’re holding cash. It’s the right economic choice for the company that’s trying to save for the rainy day.”


That savings trend has affected the value of cash. In the 1980s, the marginal value of a dollar was around \$0.70. “Companies saving money then were probably wasting it,” Bates says, on bad acquisitions and empire building — getting bigger but not better. Since the dramatic shifts in the 1990s, the

marginal value of that dollar has gone from \$0.70 to more than \$1.20 due to the riskier competitive landscape. “The average firm couldn’t go out and borrow, so marginal value of those savings was more valuable.”

Access to capital

For the average investor, Bates’ research explains a phenomenon that looked puzzling. “Our evidence suggests these companies are building up a large surplus of what looks like excess cash,” Bates says. “But they’re doing it for completely economically rational reasons.”

He says there’s still a lot of work to do to make it easier for companies to access sources of capital. “If there is a systematic decline in liquidity for the average company, it means they are underinvesting in capital projects,” he says. “Ultimately, that’s a negative drain on our economy.”



Manpreet Singh
(BS Accountancy '97), is
co-founder and president
of Payscale, a payment
innovations company.

(Continued from p. 23)

you to use your own insight to make bets on specific areas. "There are so many different things for people to invest in and be excited about. There are great opportunities for them to put their capital to work and make their money work for them," says Kelly.

Spend on ... the next big thing

When Jeff Bezos founded a little book-selling website called Amazon in 1994, he was prescient enough to see that someday, almost all of us would be happy to put credit card information online to buy ... well, just about anything. Long before retail behemoths including Walmart saw the trend, Bezos understood where our spending was headed.

A quarter-century later, Payscale's co-founder and president **Manpreet Singh** (BS Accountancy '97) is placing his bets on what he believes will be the next wave: virtual reality commerce. If his predictions are right, Payscale — a company that drives the authorization, approval, funding, and security that happens after you swipe your credit card at a face-to-face transaction — is poised to win big. Global giants such as Oracle and

Accenture are also strong believers in a virtual-reality future.

He paints a vivid picture. "Imagine a virtual reality movie where you see something that you want — a car, a dress, anything — and all you have to do is blink your eyes to make a payment and buy it," he says. "You don't have to reach for your wallet or your phone."

Of course, such purchases aren't limited to physical items: Watch a compelling ad about the Humane Society or the Red Cross, and you'll be able to blink to donate. We can quickly and seamlessly act on our very best intentions. Companies like Payscale will invisibly transform our desires into action.

Early research suggests that we're more than three times as likely to buy in these virtual reality experiences, and Singh is confident that today's tech is just scratching the surface. "It's time for companies to embrace virtual reality commerce and become the kinds of early visionary thought leaders Jeff Bezos was 25 years ago," he says.

Spend on ... a financial roadmap

As someone who made the transition from being a NASA engineer to the owner of an accounting firm for small

The promise of tomorrow

Every time we invest, we place a bet on the promise of tomorrow — when that sure thing pays off and our future selves cash in. Precisely what we “cash in” on, or the form of the payoff we receive, however, is entirely in the eye of the investor. From **Trish Stark's** (*BS Marketing '78, MBA '79*) perspective, charitable gifts to higher education are an investment in us all.

“For me, giving to the university means investing in our children’s future, and that of our community,” she says. “A highly educated community is critical to our future.

“To have this resource in our state is just priceless,” she adds. “I want to make sure that can continue long into the future.”

businesses (yes, really!), **Deirdre Morhet** (*MBA '07*), knows that life can take any number of unpredictable twists. But that doesn’t mean you shouldn’t try to plan for them.

While she’s seen plenty of people launch diverse businesses based on their passions, from construction companies to mom-and-pop retail shops, the owners who succeed over the long term are the ones who underpin that passion with planning.


“Business owners might go into a car dealership and buy a new truck because they think it’s cool and they can write it off,” she says. “But if they do that, what are they taking money away from?”

Illuminating those opportunity costs and helping business owners plan for the best use of every dollar that comes into their lives is how Morhet helps them transform their businesses from so-so to spectacular.

Everyone can benefit, she says, by moving from a reactive approach to finances to a reflective and planful one. “If the only time you pay attention to your finances is when you get your tax bill, that’s not enough,” she says. “A great plan can help you move forward productively.” ■



Deirdre Morhet (*MBA '07*) is the founder of Gilbert, Arizona-based **BASC Expertise**, an accounting and financial planning company for small businesses.

A photograph of two young adults, Justin and Holly Hillsten, smiling and standing in front of large industrial metal tanks. Justin is on the left, wearing a dark grey button-down shirt. Holly is on the right, wearing a black blazer over a white t-shirt with a black graphic. The background features a pink mesh fence at the top and large metal tanks with wooden handles.

Students and
siblings Justin
and Holly Hillsten
at the National
Bank of Arizona
headquarters in
Phoenix.



Best. Advice. Ever.

We asked members of the W. P. Carey School of Business community to open up about financial wisdom they've received — along with the stories that led them to appreciate these truths

By *Marla Holt* and *Helsey Schagemann*

Buy low, sell high. Pay yourself first. Know what you owe. Pithy money advice abounds in our culture, but how does it look in practice? Great advice rarely involves a hot stock tip or new cryptocurrency buying strategy — instead, it's about the habits and mindsets that lead to improvement. For many, even seemingly simple pieces of advice have led to transformational experiences.

We hope these stories remind you of the people and places that shaped your financial intelligence, and inspire you to pay it forward in the future. >>

Choose quality

Siblings **Holly** and **Justin Hillsten** are the long-haired duo behind DrainFunnel, a product designed to eliminate the buildup of hair in bathroom drains. Holly, a senior studying economics, runs the marketing side of the business, while Justin, who majored in chemistry and returned to ASU for computer science courses, handles the product development. In April, they received \$8,500 from the Edson Student Entrepreneur Initiative, won through Venture Devils Demo Days.

Holly: The best money advice I've received came from our parents. They taught us that investing in items that are higher quality pays off in the long run.

Justin: A few years ago, when gas was cheap, and people were buying SUVs, my parents thought that wasn't the wisest thing to do. Instead, they bought a Prius because they knew gas prices were unpredictable.

Holly: Priuses aren't cheap, but they're reliable, and our parents saved on gas costs over time.

Justin: Clothing is another example. Our mom would take us to Goodwill because you could find older pieces of clothing that were inexpensive but high quality, like Levi jeans.

Holly: Some of my favorite tops and skirts are my mom's from when she was my age. They still look new and are timeless styles. I'd rather have three tops that last a long time than 10 trendy tops that are of lower quality.

Justin: I can elaborate on this with DrainFunnel. One of the

first things we did was buy a 3D printer for \$350, which was on the low end of those available at the time. It worked for about a month and then it started failing halfway through a print. When we got money from Venture Devils the first time, I invested in a high-quality 3D printer. Since buying this printer, we've had no problems. Not only has it increased prototyping speeds, but it has also given us more time to focus on other aspects of the business.

Holly: Our goal is for DrainFunnel to be a high-quality, long-lasting solution for clog prevention.



Matt Reiner
BS Finance '09

Balance saving with experiences

As the CEO and co-founder of Wela, a financial technology company, **Matt Reiner** (*BS Finance '09*) has money on his mind 24/7. So, it's surprising that one of his favorite pieces of advice is the classic adage "money can't buy you happiness."

That said, being financially prudent can help you create the life you want. "It's important to learn how to balance saving with the experiential aspects of life," Reiner says.

For Reiner, that means

applying behavioral economics to his spending habits. "If I don't see it, I can't spend it," Reiner explains. In addition to using online tools to set aside part of his paycheck automatically, Reiner swears by a daily spend limit. When Reiner and his wife want to take a vacation, for example, they lower the amount they can spend each day. Over time, the extra funds add up. "If you focus on spending less for a few weeks, it becomes normal," he notes. "You don't even realize you're spending less and saving more."

The Reiners first implemented this strategy when they decided to build their own house. Impressively, they initially stuck to a daily spend limit for two and a half months. "During that period, we had the lowest credit card bills we've ever had," Reiner says. "We were able to save money and build our beautiful house, which will hopefully be our lifelong home."

Reiner introduced the daily spend limit to Wela users once he saw its usefulness in his own life. "By putting a course of action in place, you're able to start saving for things you want to experience," Reiner says. "The great thing about a daily spend limit is that you can start and stop it whenever you need to, depending on your current goals."



Kelvin Wong
Clinical Assistant Professor of Economics

Maximize happiness

"The best piece of money advice I've received was from a mentor of mine, who said, 'Use the money to love people; do not use people to love money,'" says **Kelvin Wong**, clinical assistant professor of economics.

"As an economist, I focus on how people maximize their utility (happiness) when they face a constraint on their budget," he says. "In today's world, it seems natural to focus exclusively on ourselves. We buy things for our enjoyment and save money for our future self. While there is nothing wrong with caring for ourselves, it is easy to forget that our ultimate goal is to maximize utility and that the happiness of others often plays an important part in achieving this. Happiness could mean that spending money on others or giving to causes and charities we care for can be equally (or even more) satisfying as other ways we choose to use (or save) money."



Jacob Gold
BA Interdisciplinary Studies '02
Faculty Associate of Finance

Follow the rule of 72

Jacob Gold (*BA Interdisciplinary Studies '02*) grew up discussing money management around the family dinner table.

“Some families talk about religion or politics,” Gold says. “Mine talked about managing debt, dollar cost averaging, and investing in the stock market.”

As a third-generation wealth manager mentored by his father and grandfather, Gold got lots of advice, notably to keep debt low, follow the rule of 72, and diversify investments — wisdom he now imparts as an ASU faculty associate teaching personal financial management. He also is president of a private investment firm, Jacob Gold & Associates Inc.

“The rule of 72 stood out to me as a simple mathematical compounding trick,” Gold says. It’s simple: Divide 72 by the fixed annual rate of return to get a rough estimate of how many years it will take for an investment to double itself. “Diversifying my investments to maximize that annual rate of return just naturally made sense,” says Gold, who compares smart investing to making great salsa.

“You’ve got tomatoes, onions, jalapenos, cilantro,” he says. “You don’t want too much of anything, or the flavor is off. It’s the same in a well-diversified portfolio, which should have a variety of stocks, bonds, cash, and maybe real estate.”

Gold follows the rule of 72 in both his personal and business investments. For example, at age 14, after earning the rank of Eagle Scout, he invested the money he received as a gift from his father. He didn’t touch it until years later to purchase his wife’s engagement ring. The rule also helps him control the number of assets he manages at his investment firm to maximize earnings for his clients.

“My father and grandfather taught me to see the magic of compound interest,” Gold says.



Victoria Crynes
BA Global Politics '18

Have short-term goals with long-term vision

When **Victoria Crynes** (*BA Global Politics '18*) wanted to go to Paris during fourth grade, her parents insisted she’d have to pay for half the trip herself, teaching her a valuable lesson about money: Set short, manageable goals to earn what you need for something you want. She set up shop at craft shows, selling chalkboards and tote bags, during the two-year process to make that trip to France happen.

“That advice helped me develop a big-picture attitude toward money,” Crynes says. “What do I want in the long run? What am I willing to sacrifice to get there?”

With a long-term vision of graduating from ASU debt-free, Crynes applied for as many scholarships and fellowships she could find without letting rejection letters deter her from her goal. “I focused on paying for school one semester at a time,” she says.

The payoff was huge: Crynes earned \$62,672 in scholarship money for her senior year at ASU, more than enough to cover her college fees. Each year, she has used excess funds from scholarship awards (last year, more than \$20,000) to contribute to endowments for

underrepresented students. All told, Crynes has helped 10 other students attend college due to her efforts to fund her education.

Crynes is currently attending the Hansen Summer Institute for International Leadership and Cooperation at the University of San Diego before attending graduate school at the University of Cambridge. She has returned to crafting to raise funds, repurposing and selling old windows, cabinets, and drawers as home décor.

“Setting manageable goals that help me achieve my long-term vision has taught me to work toward what I want, while also saving along the way so that I can finally reach that goal,” she says.



Gail Sharps Myers
MBA '10

Understand your priorities

The first money advice **Gail Sharps Myers** (*MBA '10*) recalls receiving is a reminder to save, save, save. “I heard that as a mantra growing up and into my young adult life, as my parents encouraged me to put some money away with every bit of income I received,” says Myers, who is general counsel for American Tire Distributors in Huntersville, North Carolina. Adding money to her savings account wasn’t easy, though. “There was always a reason to take it out.”

Then came expenses beyond childhood wants, like paying for college and law school, buying a house, having children and planning for their educations, as well as for retirement. “Life got expensive,” Myers says, and just saving a bit out of each paycheck wasn’t enough to cover it all. A good friend and mentor advised her to invest to reach her financial goals.


“My mentor is a stakeholder in my success,” Myers says. “She helps me navigate my professional life and, naturally, the best money advice I received came from her.”

Myers’s investments are helping her meet her financial priorities: paying for her two children to attend college and planning to retire by age 55. College tuition is covered for her daughter — still two years away — and she is now focused on investing in her son’s education and finalizing her retirement funds.

“You have to prioritize what’s important to you, and for me, that’s seeing my kids through college and planning to retire early,” she says. “Investing toward my goals has been key in meeting them.”

>> Call for cash pointers

What brilliant money advice have you received? Email editor.wpcareymagazine@asu.edu or tweet us @ [WPCareySchool](https://twitter.com/WPCareySchool) to share the wisdom your family, friends, and mentors imparted — and the impact it’s made on your life today. We’ll choose 10 respondents on Oct. 1 to win a W. P. Carey clear stadium bag filled with goodies.



“Startups can benefit from enhanced performance evaluation. If they are evaluated like typical organizations, they may starve. But if investors are committed to them, and perceive them as atypical, or disruptive, they’ll be more likely to back them through the difficult early stages.”

Research by
Heewon Chae
*Assistant Professor
of Management and
Entrepreneurship*

How ambiguity can serve atypical organizations

Is it better to stand out or fit in? It's a question we face all our lives, from our first day of school through our entire professional careers. It's also a critical question for businesses of virtually every ilk as they approach their audiences. The conventional wisdom among organizational theorists seems to match the instinct of most kids, which is that belonging is a better bet for success than being different. But recent research by Assistant Professor of Management and Entrepreneurship Heewon Chae suggests that it's not quite so black and white. In fact, the ambiguity created by atypical organizations — the fact that they don't fit in — can sometimes cause evaluators to be less critically objective of their performance, providing an advantage for which conforming organizations miss out.

The disadvantage of difference

"There is a lot of research about whether atypicality is good or bad," says Chae. "Overall, the conclusion seems to be mostly negative." She explains the idea that atypical organizations are at an innate disadvantage is founded on the assumption that by differing from others in their category, they render themselves confusing to various important audiences including potential investors, employees, customers, and partners. A corollary to this argument is that atypicality further hurts by creating the perception that the organization is in some sense less credible and less legitimate than its more typical counterparts.

On one level, this is just common sense. If you walk into a bank and it looks like a bagel shop, you're likely to turn right back around and look for something, well, more like a bank. On the other hand, if all the banks in the world look just like one another, how can they stand out and win more

attention and support? Where is the line between benefit and harm when it comes to nonconformance?

It's questions like these that have motivated Chae to challenge assumptions about atypical organizations by examining ways they may gain advantages over their more typical counterparts. In a recently published study in *Organization Science*, "The Effect of Organizational Atypicality on Reference Selection and Performance Evaluation," Chae and her co-author, Edward Bishop Smith at the Kellogg School of Management, sought to engage with these issues by zeroing in on how we tend to evaluate atypical organizations.

Gaining the benefit of the doubt

Chae and Smith focused on investment behavior in hedge funds and studied not just which type of fund was chosen, but also how people arrived at their determinations. "Typically, when assessing an organization such as a hedge fund, people will measure it against a reference group, like a hedge fund index," Chae says. "Reference group selection has been assumed to be stable and objective, but we found out it isn't. The ambiguity of atypical organizations can provide investors with the flexibility to choose their own reference group."

This can play out in favor of the non-conforming funds because when investors are committed, they resist assessing atypical organizations against typical standards. The study found that driven by the sense that it's not an "apples to apples" comparison, investors sometimes avoided using the standard referent. This allowed them to be more forgiving of poor performance and more rewarding of good performance than investors in typical funds.

Chae explains this phenomenon in the everyday terms of selecting a restaurant

for dinner.

"Let's say you want to go out to eat and choose a standard Italian restaurant, but the food sucks," Chae says. "It's tough to justify it, even if you want to be right about your choice, because it's so standard. But if the food is unusual, you might be less likely to compare it to standard Italian food, and even if it's not good, give it a pass."

Good news for startups

Chae points out that this dynamic, known as enhanced performance evaluation, can play out in many ways in the business world. One clear beneficiary may be startups, which tend to be atypical by nature because they are new and unfamiliar. "Startups can benefit from enhanced performance evaluation," she says. "If they are evaluated like typical organizations, they may starve. But if investors are committed to them, and perceive them as atypical, or disruptive, they'll be more likely to back them through the difficult early stages."

One key, according to this research, is that investors must have the freedom to gather their own reference groupings. When investors weren't given any indexes against which to evaluate an atypical fund, they tended to not extend to it the same forgiving attitude. As Chae puts it: "They may have had the will to enhance the evaluation, but they didn't have the way."

The study also found that this enhanced evaluation was most evident when the atypical fund's performance was either particularly weak or strong. Apparently, middle-of-the-road performance didn't get the same kind of favorable evaluation. This may further support the "go for broke" startup mentality. If you want investors to give you the benefit of the doubt, this finding suggests, be great or be horrible. Just don't be mediocre. ■ — Joe Bardin

Calculating returns on futures contracts: What's right, what's not

Hendrik Bessembinder has no problem setting people straight about the stock market or busting myths about futures investing. One of his most attention-getting papers showed how the conventional wisdom that stocks outperform Treasury bills was incomplete because in truth only a few stocks were responsible for the market's overall gains (see infographic on page 36).

"That [stock market] paper had the flavor of 'keep what you thought you knew, but here are some additional things you should also know,'" he says. "This [futures market paper] has the flavor of, 'some people need to forget what they know — because it's wrong.'"

In his latest research paper into futures contracts, the professor of finance and Francis J. and Mary B. Labriola Endowed Chair in Competitive Business tackles what he calls the "roll yield myth." Investors who regularly trade in futures contracts understand what determines their gains and losses, he says, but some financial journalists, market commentators, and investment advisors inaccurately explain the nature of yields on a series of such contracts.

Whether the contracts involve future prices of corn or soybeans, crude oil, or the Dow Jones Industrial Average, investors who wish to maintain a long-term position in futures contracts must sell, or exit, the contracts before they expire and "roll" their position into new contracts with later expiration dates. The myth is that this rolling activity generates a cash flow or yield.

Why the contract confusion?

Confusion over calculating investors' returns on futures contracts appears to be

widespread, Bessembinder says. Among the examples he cites are a 2014 *Wall Street Journal* story on commodity trading that said "the investor sells the contract, buys a cheaper one for delivery at a later date, and pockets the difference," and a 2010 *Bloomberg* column on rising futures prices that said when commodity fund managers sell expiring contracts and "buy the more expensive contracts ... they lose money for their investors."

Bessembinder says confused observers mistakenly focus on the point in the process when investors exit one contract and enter another one. They think that when investors "roll" from one contract to another, they have a gain, or "yield," based on the difference in the contracts' prices on the "roll" date. For example, these observers presume that if investors sell a contract for a commodity to be delivered in October with a futures price of \$82, and then buy a contract with a futures price of \$81 for the same product to be delivered in November, they've made a profit of \$1.

"That's the myth, that you pocket or pay that difference in prices," he says. "There's a presumption that you sell the expiring contract, receive the futures price, purchase the next contract, pay the futures price, and you either pocket or pay the difference in the two prices. In fact, what they refer to as the the roll yield will never be debited or credited to your margin account."

The concept is comparable to thinking that just because a company books goodwill or depreciation on its financial statements, those items flow as cash into or out of investors' accounts.

The truth about futures

Instead, Bessembinder says, people need to understand that what futures investors

gain or lose is based on the change in the contract's price during the time their position is open — that is, from the time of purchase to the time of sale. An investor who buys a contract at a specific price will gain if the price rises over time and lose if the price falls over time. For example, investors who bought that October contract with a futures price of \$75 and sold it later when the futures price was \$82 turned a profit of \$7. If they then buy the November contract with a futures price of \$81 and sell it when the futures price is \$83, they turn a profit of \$2, bringing the gain for those two contracts to \$9.

The \$7 and \$2 changes over time in futures prices for those contracts create real gains, but the apparent \$1 gain, or yield, on the roll date, does not, Bessembinder says. "What does matter for a futures investor is the change in the price of the contract while you have a position," he explains. "That's the only thing that matters."

Bessembinder says he wrote the paper to educate potential futures investors and their advisors, and he submitted it to *Financial Analysis Journal* because of the publication's broad reach. He hopes it will stop investors from entering futures contracts on the belief they will earn a periodic cash flow from "roll yields." He also hopes it will curb investment advisers and the financial press from suggesting that roll yields are amounts that investors receive or pay.

Most of the reaction he's received so far to his myth-busting has been positive, with readers thanking him for clarifying the issue. As to the handful of readers who resist letting go of their myth, Bessembinder stands firm. "There are very few places where I dig in my heels," he says, "and this is one of them." ■ — Jane Larson

Research by
Hendrik Bessembinder
*Professor of Finance and
Francis J. and Mary B. Labriola
Endowed Chair in
Competitive Business*

What's holding agricultural workers back?

No matter where in the world they live — in a rich, middle-income, or a developing country — agricultural workers make less money than those in any other sector. So why don't they quit their low-wage jobs and switch to something better?

Previous economic research has suggested that structural barriers keep them in place. Laws or rigid, deeply ingrained social structures, such as the caste system in India or the Hukou system in China, discourage farm workers from pursuing other types of work, even though wages are higher outside of agriculture.

But most countries don't have a caste system like India's or a harsh government policy like China's Hukou system, which cuts people off from education and health services if they move from farm to city without authorization. That raises many questions.

For agricultural workers in places that lack apparent restrictions, where are the barriers that economists imply are standing in their way? Is there even proof that they exist at all? And if not, what is holding agricultural workers back?

Questions like these led Professor of Economics Berthold Herrendorf to research the subject, along with colleague Todd Schoellman, formerly an assistant professor of economics at W. P. Carey and now a senior research economist at the Federal Reserve Bank of Minneapolis.

Those who switched

For their paper, "Wages, Human Capital, and Barriers to Structural Transformation," published by the *American Economic Journal: Macroeconomics*, Herrendorf and Schoellman studied data for U.S. workers who switched from agriculture to different careers. They also examined the work of other researchers who studied the same thing in countries across the world's economic spectrum. Their full sample included about a third of the world population in 2010,

including people from four of the five most populous countries: India, the U.S., Indonesia, and Brazil.

Their research focused on the question of whether agricultural workers who did manage to transition to a different type of work received a bump in wages. If an artificial legal or social barrier had been the only thing holding them back, then you would expect to see their wages increase once they transcended it.

But that's not what happened. Across the board, the farm workers who moved into different jobs continued to make wages similar to those they had before.

The role of human capital

The finding suggests that other factors play a role in switching sectors. Individual characteristics such as education, skill, talent, drive, and personality, which economists subsume under the term "human capital," could account for workers' success or failure in making a transition to higher paying work.

Human capital, however, is not an easy area to study. Though it plays a vital role in the economy, its components aren't always visible to researchers. They can see some statistics, like education levels, but not others, like motivation or unique skills.

"If you gave me the CV of Michael Jordan, I couldn't infer his huge material success as an athlete from that. The reason he made so much money is not captured by how long or where he went to school," Herrendorf says.

Though the researchers couldn't evaluate every aspect of human capital for agricultural wage-earners, they did document that education levels were consistently lower than they were in other fields. This holds broadly for the aforementioned sample from four of the five most populous countries.

Productivity problems

In comparing the productivity of agricultural workers to those in other fields, other researchers found gaps even broader than

the wage gap. Part of the reason could be that measuring the value of agricultural work is notoriously difficult.

In another research paper, published in the *Review of Economic Dynamics*, Herrendorf and Schoellman discovered that in the U.S., agricultural productivity measurements are often done poorly, resulting in inaccurate figures. It isn't just a matter of sloppy work. Their research suggests deliberate manipulation of the data. "Proprietors lie because they don't want to pay taxes, at least in the U.S. As a result, productivity in U.S. agriculture can be underestimated by as much as a factor of two," Herrendorf explains.

In other parts of the world, low productivity in agriculture is likely the result of low human capital. "To do anything even slightly sophisticated in farming, you need to read. If you use fertilizer, you need to read the package to know how to apply it."

In many countries, workers can't do that. The large-scale result of low skill levels is economies in which 50 to 90 percent of the working population is engaged in a low-wage, unproductive activity, because that is the only way of producing the food required for survival.

It may not be that way forever. In the 1800s, the U.S. economy was in a similar situation. Herrendorf refers to several statistics that prove it, and he sometimes shows them to surprised undergraduates.

A new focus

Trying to determine whether or how third-world countries will evolve beyond low-functioning agricultural economies is outside the scope of Herrendorf's work. Next, he intends to focus on the decline of manufacturing and the rise of the service sector in the U.S. economy, and the implications of that trend for productivity. ▣

— Teresa Meek

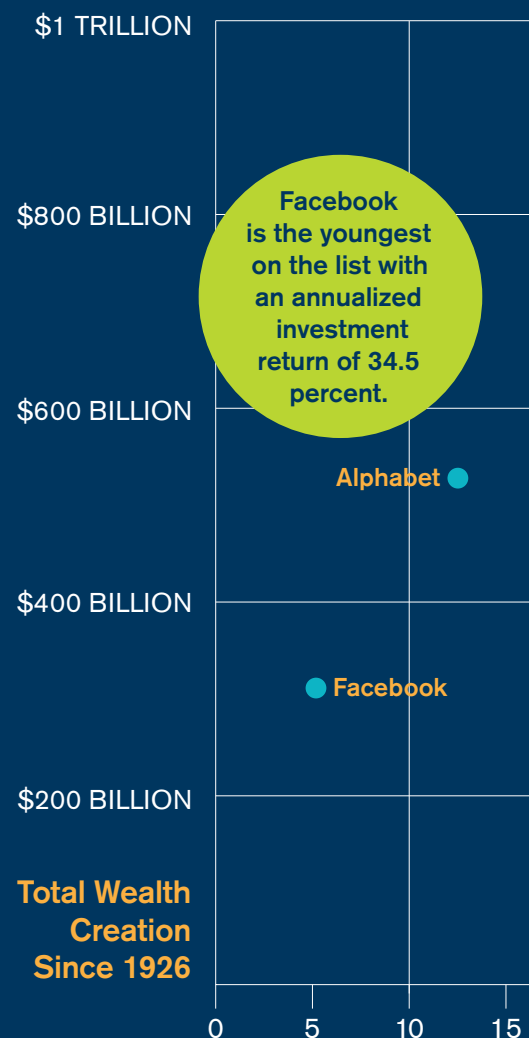
“If you gave me the CV of Michael Jordan, I couldn’t infer his huge material success as an athlete from that. The reason he made so much money is not captured by how long or where he went to school.”

Research by
**Berthold
Herrendorf**
*Professor of
Economics*

Do stocks outperform Treasury bills?

Research by Hendrik Bessembinder, finance professor and Francis J. and Mary B. Labriola Endowed Chair in Competitive Business, evaluated lifetime returns to every U.S. common stock traded on the New York and American stock exchanges and the Nasdaq since 1926.

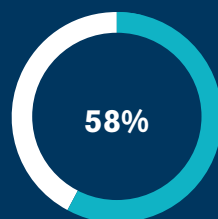
Top 20 Wealth Creators from 1926 to 2017



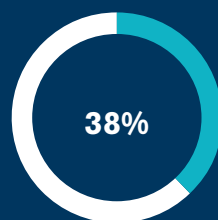
What compelled him to do this?

Bessembinder got into the stocks-versus-Treasury-bills question accidentally. He was looking at data on continuously compounded returns for stocks, and noticed that the average was negative, meaning a lot of stocks were losing money. He didn't understand how that could be, given the fact that the overall stock market does make money in the long run, and he wanted to know why.

His investigation ended up documenting the importance of the statistical concept "skewness" for stock market investing. In particular, he found that returns from long-term stock investing are positively skewed, meaning that very large returns to a few stocks pull up the average, while most stocks post modest or negative returns. Because of skewness, he found that:



of stocks failed to beat Treasury bill returns over their lives.



of stocks beat Treasury bill returns by just moderate amounts.

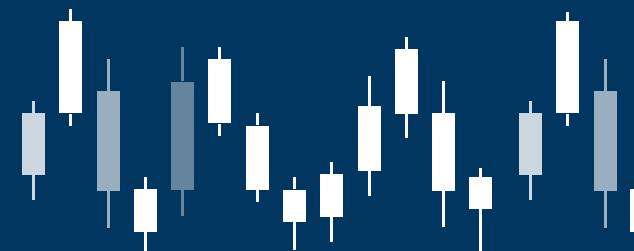


of stocks are responsible for boosting the market's overall returns higher than those on Treasury bills.



Bessembinder found that all of the \$35 trillion in wealth that stocks created over and above Treasury bills returns between 1926 and 2016 could be attributed to just 1,092 companies, or 4.3 percent of the nearly 26,000 stocks that have been traded in the markets. More than half of the \$35 trillion came from just 90 companies, or less than one-third of 1 percent.

To realize outside gains, however, investors would have to have been lucky or savvy enough to pick those and other winners out of the nearly 26,000 stocks, buy them when they first went public, and hold the stocks for the long run.



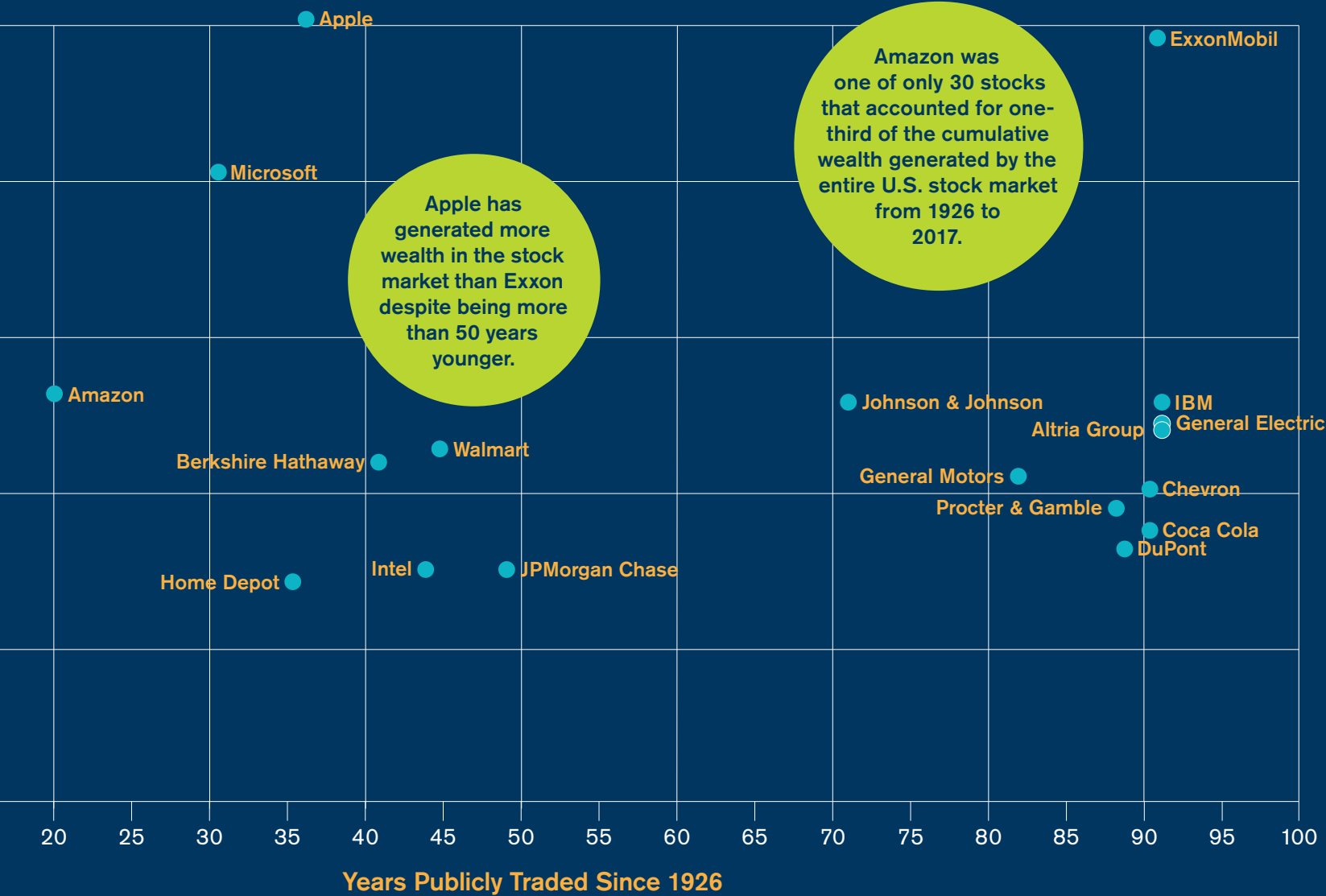
The bottom line

The results reinforce the desirability of having a well-diversified portfolio, which increases the chances that some of your stocks will become big performers, and of the buy-and-hold strategy.

For most individual investors

The odds are that picking just a few stocks will lead to underperformance. But, if you are lucky or sufficiently skilled, a handful of picks can have the potential for very big payoffs.

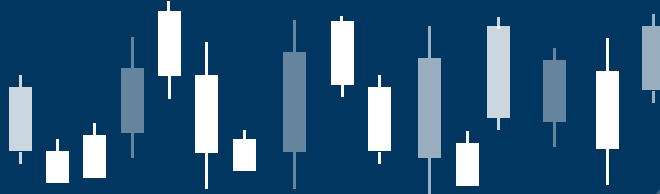
For risk-taking investors



Apple has generated more wealth in the stock market than Exxon despite being more than 50 years younger.

Amazon was one of only 30 stocks that accounted for one-third of the cumulative wealth generated by the entire U.S. stock market from 1926 to 2017.

“The results help to explain why active strategies, which tend to be poorly diversified, most often underperform.” — Bessembinder



Get the spreadsheet containing lifetime stock market wealth creation data for each U.S. common stock since 1926, as well as the SAS computer program that generates the data:

wpcarey.asu.edu/86stocks

He found that the largest returns come from very few stocks overall — just 86 stocks have accounted for \$16 trillion in wealth creation, half of the stock market total, over the past 90 years. All of the wealth creation can be attributed to the 1,092 top-performing stocks, while the remaining 96 percent of stocks collectively matched one-month Treasury bills.

Active managers need to be able to make the case to investors that they have a reasonable chance of picking big winners in advance. Passive managers now have more ammunition to show investors that diverse investments held for the long run will most reliably create wealth.

For fund managers

The median length of time a stock appears in the CRSP database is 7.5 years, so take that as a reminder of how dynamic the U.S. economy has become.

For managers of publicly traded companies

CLASS NO



Such great heights

It's hard to resist the whole "ascend to new heights" thing with regard to **Sebastian Navarro** (*BS Supply Chain Management '15*), who has done so — both figuratively and literally — from the moment he entered the W. P. Carey family.

Navarro first arrived on ASU's Tempe campus the summer before his senior year in high school. A participant in the inaugural Fleischer Scholars program in 2010, he began to see college as not just a possibility, but a real opportunity to forever change his life. Navarro went on to become a first-generation college student. He got excited about and made a point of seeking opportunities

university-wide. He built a thriving network of motivated peers, tackled and excelled in leadership positions, learned all that he could on campus and abroad, and graduated ready to achieve at the highest level — time and time again.

Most recently, this already impressive alum has ascended to new heights in the literal sense, and for a laudable cause.

Kidneys meet Kilimanjaro

In January 2018, Navarro and his colleague Andrew Morrison embarked on a six-day expedition to summit Mount Kilimanjaro, one of the world's seven peaks and the highest point in Africa. Honoring his father's near-death fight with kidney disease the year prior, Navarro launched Kidneys and Kilimanjaro in partnership with the American Kidney Fund (AKF).

"After going through this experience with my father, I knew that I wanted to do something to

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help people like him," he says. "I wanted to raise awareness about the importance of kidney health, as well as the crippling effects of kidney disease."

The more Navarro learned, the more motivated he became. According to the American Kidney Fund, approximately 96 percent of people with early kidney disease are unaware that they have it — when simple adjustments to their lifestyles, like routine exercise and mindful eating, could prevent it altogether. That's a big deal for a disease known as a silent killer.

"It's a deadly disease that most people don't know they have until it's too late," Navarro adds, further noting the disproportionate prevalence of the disease among minority communities. According to AKF, 15 percent of Hispanics in the U.S. are estimated to have kidney disease, with an overall likelihood of diagnosis 1.5 times higher than that of Caucasians. African-Americans are three times more likely to be diagnosed, respectively, and account for 30 percent of Americans with kidney disease — a startling figure, considering the same group represents 13 percent of the total U.S. population.

The high-risk nature of kidney disease, its different

effects on minority communities, and the lack of awareness surrounding all of it stood out as major problems to Navarro. He wondered whether that lack of knowledge was something he could improve.

Challenge accepted

Kidneys and Kilimanjaro was a short-term campaign with long-term reach, and by design. Up front, it would engage and educate individuals unaware of the disease, its risks, or their potential predisposition. The trek itself would provide an immediate cause to rally around, as well as a framework for ongoing conversation. After the fact, funds raised would provide direct support to those in the most need — a stipulation Navarro was understandably unwilling to budge on.

"My father was lucky enough to have insurance and a strong support network," he says. "However, there are so many individuals all over the U.S. that not only have to deal with the stress of this horrible disease, but also wrestle with the financial burden that comes along with it."

Partnering with AKF would give him the best chance at doing the most good. "The American Kidney Fund is one of the top nonprofits in the U.S.," Navarro says. "Their fundraising platform, Kidney Nation, donates 97 cents per dollar raised, which is incredible compared to other crowdsourcing websites that sometimes take up to 20 percent of each donation."

Achievement unlocked

Navarro showed that much like Mount Kilimanjaro, kidney disease is a challenge that can be overcome. That hard work and sweat create a world of difference. And that is getting much easier with help from your friends. "Many of my donors were people that I met during my time at ASU," he says. "My

college experience gave me the toolkit and network to confidently take on new challenges in both my career and personal life."

Following Kidneys and Kilimanjaro, the more than \$9,200 Navarro raised was donated to support kidney disease patients and awareness programs in the U.S. Having climbed a peak that soars 19,340 feet was all the more reason to celebrate.

"I sacrificed time, money, effort, and three months of my life to Kidneys and Kilimanjaro," he says. "Reaching the top, after days of a seemingly never-ending walk through jungles, rocks, clouds, hills, hot, cold, and everything in between, I knew it had all been worth it."

The American Kidney Fund recently invited Navarro to a legislative fly-in event in Washington, D.C., where he joined 20 kidney-disease patients, their families, and supporters to discuss pending kidney-related legislation with congressional representatives. Moving forward, he's excited to expand his involvement.

Spend just five minutes with Navarro and you will understand why all of the above is as impressive as it is unsurprising. And while it's hard to tell his story without resorting to metaphor, doing so seems appropriate as he continues to rise to the occasion, ascend to new heights, raise the bar, push the envelope, show us the way, and show us up — all at once and all in the best way possible.

Sun Devil **100** CLASS OF 2018

Sun Devil 100 celebrates the achievements of businesses owned and led by Sun Devils across the globe. Continuing an incredible legacy of entrepreneurship and leadership, the majority of alums selected for this honor are graduates of the W. P. Carey School of Business. Join us in congratulating our Class of 2018 winners, many of whom are repeat Sun Devil 100 honorees — we can't wait to see what they do next!

Learn more: alumni.asu.edu/events/sun-devil-100

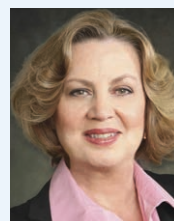
100 — Indicates membership in the Sun Devil 100 Class of 2018.

1970s

Fred Deleeuw (BS Finance '72, MBA '74) joined the executive team of MNX Global Logistics in Orange County, Calif. As the chief financial officer (CFO) of the expedited transportation and logistics company, he contributes to MNX's growth initiatives given his experience leading high-performing teams and in mergers and acquisitions.

Calvin C. Goode (BS Business Administration '72) celebrated his 90th birthday in January while working to preserve and restore the Carver Museum and Cultural Center in Phoenix, site of his alma mater, Phoenix Union Color High School. Elected to the Phoenix City Council in 1972, Goode served for 22 years, longer than any other council member in history.

Steven E. Adams (BS Accountancy '74) has been selected Mesa, Ariz., "Man of the Year" by the Mesa Citizen of the Year Association. A well-known civic leader, community volunteer, and businessman, he has served on a wide variety of community nonprofit boards, assuming leadership roles and helping to raise hundreds of thousands of dollars in scholarship and facilities support at Mesa Community College.



100 Susan Bitter-Smith (BS Business Administration '77, MBA '82) is vice president of family-based public affairs firm Technical Solutions in Phoenix.

100 Michael Hawksworth (BS Computer Information Systems '79) is president and CEO of management consulting firm MSS Technologies in Phoenix.

1980s

Drew Donnelly (BS Business Administration '80) is the president and CEO of the State Bank of Wheaton in Wheaton, Minn. He's also celebrating his 30th anniversary of becoming the owner, president, and CEO of Donnelly Insurance Agency. More important, he says, "I'm extremely proud to have my son, Max, follow in my footsteps, as he is a Sun Devil!"

James Woys (BS Accountancy '80) is the executive vice president of health plan services at Molina Healthcare in Long Beach, Calif. The *Fortune* 500 company provides managed health care services under the Medicaid and Medicare programs and through the state insurance marketplaces.

100 John Gray (BS Management '81) is the owner of Arizona highway contractor Five G Inc., which specializes in freeway guard rail, interstate signs, safety systems, and all-steel fencing.



Trish Gulbranson (BS Accountancy '88) and her sister **Lisa VanBockern** (BS Accountancy/Computer Information Systems '98) pose with Sparky at the Sun Devil 100 Class of 2018 event at Old Main on ASU's Tempe campus.

Sister act

Graduating from Arizona State University with degrees in accounting isn't the only thing **Trish Gulbranson** (BS Accountancy '88) and her sister **Lisa VanBockern** (BS Accountancy/Computer Information Systems '98) have in common. Both women took a leap of faith and left their corporate careers to pursue a shared passion for health and beauty. Each has since launched her own skin care company, successes that have earned these entrepreneurs elite recognition as Sun Devil 100 winners for three years apiece.

VanBockern attributes the life-changing opportunities that have forged her professional path to her sister who pioneered their journey out of the corporate arena and into two new business ventures.

"She is very inspirational and a great mentor to me," VanBockern says.

When she graduated from

ASU, Gulbranson was recruited by PricewaterhouseCoopers (PwC) and worked in public accounting for a decade before she accepted an offer to be the chief financial officer of a growing software company.

"It was the ride of a lifetime," she says. "It was when the internet first came out and it was like the wild, wild west." Inspired by the rapid growth of the business, Gulbranson rose to eventually become the president and CEO of the software company.

Meanwhile, her sister put her newly earned accounting degree to work as a consultant at Ernst & Young where she created software databases. After a few years, however, she realized it might not be the right fit.

"I wasn't crazy about programming databases," VanBockern says. "It was so much fun in school, but when I got into the real world, I realized it wasn't what I thought it would be."

While her corporate background from

100 Rick Dircks (*BS Accountancy '82*) is vice president of Dircks Moving & Logistics in Phoenix.

Todd Ibe (*BS Business Administration '82*) is managing partner at property development firm The Paragon Group in Boise, Idaho.

Kirk Meighan (*BS Finance '82*) recently joined Barclays Investment Bank as a managing director in the Global Industrials Group in Boise, Idaho. He is responsible for raising capital and providing strategic advice to clients in the capital goods sector. He also serves on the W. P. Carey Department of Finance Advisory Board.

Timothy VanHecke (*BS Insurance '82*) retired from State Farm after a 32-year career in homeowner, business, and farm field claims.

Denny Shupe (*MBA '83*) has been selected to receive the Jeffrey A. Ernico

Award of the Pennsylvania Bar Association. He's being recognized for his service as an excellent model for leadership in pro bono and public interest legal service.

Mike Vaughn (*BS Accountancy '83*) is mayor of the city of Rancho Santa Margarita, Calif. He's been practicing law as a business and corporate transactional attorney in Orange County since 1987.



100 Mark Feldman (*BS Accountancy '84*) is CEO and managing partner of investment advisor firm MRA Associates in Phoenix.

100 Thomas Connelly (*MBA '85*) is president and chief investment officer of Versant Capital Management in Phoenix.

100 Greg McMillan (*BS Finance '85*) is founder and president of Armstrong

McCall (DGM Ventures Inc.), which provides beauty supplies to licensed professionals in the salon and spa industry. His business advice: "Don't get caught up in trying to invent the next great product. Find a proven industry where demand exists and outperform the competition."

Mitch Polon (*MBA '85*) serves on the advisory board of Encore Cardservice, an integrated provider of merchant payment processing services and a provider of various digital marketing solutions.

100 Leroy Breinholt (*BS Finance '86*) is president and designated broker at J & J Commercial Properties in Tempe, Ariz. He says, "Work as smart as you work hard. Wake up every morning and ask yourself how you can create more powerfully than you already do in the processes, products, and people you surround yourself with. Be around people just as good, if not better than you, and success will follow."

100 Kathleen Culver (*BS General Business Administration '87*) is secretary and treasurer of Phoenix-based Culver Equipment, a full-service warehouse equipment supplier in Phoenix.

Scott Powers (*BS Finance '87, MBA '93*) is the new president and chief operations officer of Alignment Healthcare, a population health management company in Orange, Calif.

100 Trish Gulbranson (*BS Accountancy '88*) is president and CEO of Derma Health Institute. See her story below.

1990s

Bill Karnes (*BS Finance '90*) was appointed chairman of the board for Boise, Idaho-based Kordata, the leading platform for intelligent and secure mobile forms and flexible data collection workflow.

PwC sharpened her financial skills, Gulbranson credits the owner of the software company as a mentor who sparked her entrepreneurial spirit. "She was spending money and going into new markets and I was like, 'You can't do this!' She taught me to take risks. That's what it takes. You have to go for it."

And that's exactly what she did. When the company was sold and she was riding out her final contract, Gulbranson began digging deeply to figure out the best industry in which to launch a future venture.

"One of my passions has always been health and fitness," she says, an interest that her mother encouraged in the siblings, always emphasizing good nutrition and health.

"I live in Phoenix and everyone's moving here to retire. This is an aging demographic. What do they want?"

She began researching industries and then one day, she saw a presentation about med spa franchises and knew it was the perfect match.

She asked her sister if she wanted to jump aboard. Ready for a change, VanBockern happily accepted the

invitation. She even went to school to become a certified aesthetician so she could work directly with clients, providing skincare treatments.

The sisters worked closely building the med spa business from the ground up. As a treatment specialist, VanBockern took a keen interest in the makings of skincare products.

"I got passionate about the ingredients I was using on people to change their skin to work on pigmentation, acne, and aging," she says. She started experimenting with lemon zest enzyme and other natural blends. A chemist helped her develop a new and natural skincare line that would best meet the needs of her clients and the demands of the med spa business. Recognizing that it would streamline operations, Gulbranson supported the endeavor along with VanBockern's idea to market it nationally later on.

What started with a dream and a single med spa franchise eventually led Gulbranson to open the doors to Derma Health Institute, a thriving business that, 14 years later, has expanded to include five clinic

locations throughout the Phoenix metropolitan area and a corporate office, all run by 59 employees. Her sister's skincare line, Skin Script, was so well-received that VanBockern built it into a separate business.

"I dreamed of having fun with some great skincare products," VanBockern says, "but I never dreamed of growing it into something so big I have to hire executives to help manage it."

Though their businesses operate independently, Gulbranson continues to carry the Skin Script line in her clinics. The sisters also share the same corporate address in Tempe, Arizona, each business occupying separate floors. Both remain committed to good health and the industry they invested in as fledgling entrepreneurs.

"People want to age gracefully, they want natural medicine, not drugs, and they want to enjoy their life," Gulbranson says. "Beauty starts from the inside out. That's what our mission is: to uplift, inspire, and encourage people to be healthier."

The sisters agree that their experiences in the corporate world provided the foundations for where

their careers have taken them and credit their education at ASU for instilling discipline, hard work, and confidence. As for their entrepreneurial spirit, VanBockern points to her older sister whose footsteps she has followed all her life.

"We drove matching cars since high school," VanBockern says, laughing. "She moved to Arizona, so I moved to Arizona. She went to ASU and got an accounting degree, so I went to ASU and got an accounting degree. She got into the med spa industry, and I followed along. We've always been pretty close."

Originally from South Dakota, Gulbranson and VanBockern are two of seven siblings. Gulbranson says their older brother — a CPA-turned-cable-company executive who is now retired — was her inspiration, along with their father, who owned a department store and a farm.

"People sometimes can't believe that siblings can get along so well and help each other," VanBockern says. "But families can work together. I always thank Trish for letting me come along on her journey."

A mouthguard that measures the impact of sports

As public concern about sports-related head injuries mounts, two ASU graduates have developed a product that could help athletes and their coaches spot potential problems sooner.

Double Devils **Anthony Gonzales** (BS Management '11, MBA '14) and **Bob Merriman** (BS Communication '02, MBA '12) have created the FITGuard, a mouthguard that measures the severity of an impact to the head and uses LED sensors embedded in the device to display its intensity.

The LED lights cast a green glow over the mouthpiece if the hit is low-impact. The glow turns blue if there's a moderate injury risk and red if the hit is serious enough that the player should be removed from the field. The Bluetooth-enabled device can send real-time information via a mobile app to the player's smartphone, the coach, the player's parents, or anyone else added to the network. Doctors can review the information later to get a history of head injuries or blows.

The app takes into account information about the athlete's weight, gender, and age to determine the impact's severity. The mouthguard does not attempt to diagnose concussions. Instead, it calls attention to hard impacts for coaches.

Serious problem

Sports-related head injury is a widespread and longstanding problem, but it has only begun to get serious attention in the past decade. Between 1.6 and 3.8 million sports-related concussions occur in the U.S. each year, according to the Brain Research Institute. Sixty-five percent of traumatic brain injuries occur among children ages 5 to 18, according to the Centers for Disease Control. Though fatalities are rare, they are the No. 1 cause of death in children and young adults.

While football accounts for a majority, players of soccer, baseball, and other contact sports are also affected. In fact, almost 50 percent of sports-related head injuries are sustained during recreational activities like bicycling, skateboarding, and skating, according to Stanford Children's Health hospital.

Many concussions go unreported, leaving coaches unaware of a problem that could get worse if athletes aren't careful. People who have had one concussion are at greater risk for suffering additional ones. Almost 20 percent of teens said they have been diagnosed with at

least one concussion and nearly 6 percent said they've been diagnosed with more than one, according to a research letter published in the *Journal of the American Medical Association*.

From class assignment to real-life business

Gonzales and Merriman, who met in an off-campus jiu-jitsu class, began working on the product after Gonzales received a W. P. Carey business class assignment to tackle a real-world problem. "I got beat up all the time in rugby, so that was a problem," he says. Using electronics in a mouthguard to measure impact seemed like a good idea to both of them.

In 2013, after testing prototypes on themselves in jiu-jitsu practice, they decided to launch a company, Force Impact Technologies, to develop the product commercially. The company now includes doctors, medical advisors, and an engineer, as well as angel investors, including Richard Sherman, the former Seattle Seahawks player who recently signed with the San Francisco 49ers.

The knowledge Gonzales and Merriman gained at W. P. Carey was instrumental to their success in starting the company and keeping it going during funding challenges, the two say.

"The MBA program exposed us to opportunities we never would have had otherwise," Gonzales says. The students took advantage of startup competitions and grants, but perhaps their most valuable experience was discussing strategy with faculty and getting free and unbiased advice. "In the real world, if you talk to someone, it's, 'I'll help you if you pay me,'" Gonzales says.

The pair is currently testing their product at ASU. So far, the response has been overwhelmingly positive. They are collecting data that they plan to eventually share with the FDA. But they can launch the product without FDA approval as long as they don't make medical claims.

"We plan to release it to consumers and call it what it is: a product that measures how hard you get hit," Gonzales says.

The company's long-term goals include supporting a better understanding of traumatic brain injury and developing other products for sports injuries. "We hope to come up with products to address shoulder problems, runner's ankle, and other conditions," Merriman says.



R. Craig Coppola (MBA '92) is founding principal of Lee & Associates Arizona commercial real estate brokerage in Phoenix.

Kevin Kujawski (BS Finance '93) is celebrating his seven-year anniversary with Menlo Equities. He directs the operations of the firm's \$2.4 billion real estate portfolio, which includes asset management alongside sourcing and arranging debt financing. He also oversees the investor relations, finance, accounting, and treasury groups, and is responsible for financial reporting, risk management, information technology systems, and human resources.

Jeffrey Pruitt (BS Accountancy '94) is founder and CEO of business design and innovation company Tallwave in Scottsdale, Ariz. He is also general manager of Arizona venture capital firm Tallwave Capital.

Grant Rowe (MBA '95) is chairman and CEO of Valor HospiceCare and The Valor Institute for Palliative Medicine in Tucson, Ariz.

Rodney Peter Hu (BS Finance '96) is owner and CEO of Yucca Tap Room and Huniversity Properties Inc. in Tempe, Ariz.



Max Anthony Janda was born Feb. 6, 2018, to **Brianna Janda** (BS Supply Chain Management '06, MBA '12) and **Dale Janda** (BS Communication '10).

Join the discussion.



The W. P. Carey Book Club is a real page-turner.

Learn, have fun, and grow your network by joining our online book club for alumni and friends. Books will be chosen to help you become a more effective communicator and leader, and you'll get to build relationships with fellow W. P. Carey graduates as you discuss the topics and takeaways in each book.

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Sign up today and learn more: pbc.guru/wpcarey

Mike Hummel (MBA '96) succeeded a 41-year veteran of Phoenix's largest utility to become the new CEO of Salt River Project. With 36 years of service at SRP, Hummel most recently served as deputy general manager of resources and finance.

100 Michael Grosso (BS Finance/Marketing '97) is a shareholder and advisor of TCI Wealth Advisors in Scottsdale, Ariz.

100 Eric Olsen (BS Marketing '97) is founder and CEO of marketing firm Fasturtle Digital.

100 Manpreet Singh (BS Accountancy '97) is co-founder and president of Payscale. Learn more about him on page 24.

Renee Krug (MBA '98) is CFO of GlobalTranz Enterprises, a leading technology-driving freight management solution provider. She was named 2017 CFO of the Year Arizona by *CV Magazine* for leading GlobalTranz to achieve record-setting financial growth and profitability in 2016 and 2017, completing four acquisitions in 2017, and effectively preparing the company for future growth.

100 Lisa VanBockern (BS Accountancy/Computer Information Systems '98) is the owner of Skin Script. Learn the story behind her business on page 40.



Kira Isabelle Buciak was born July 18, 2018, to Kristin Buciak (MBA '11) and Brian Buciak.

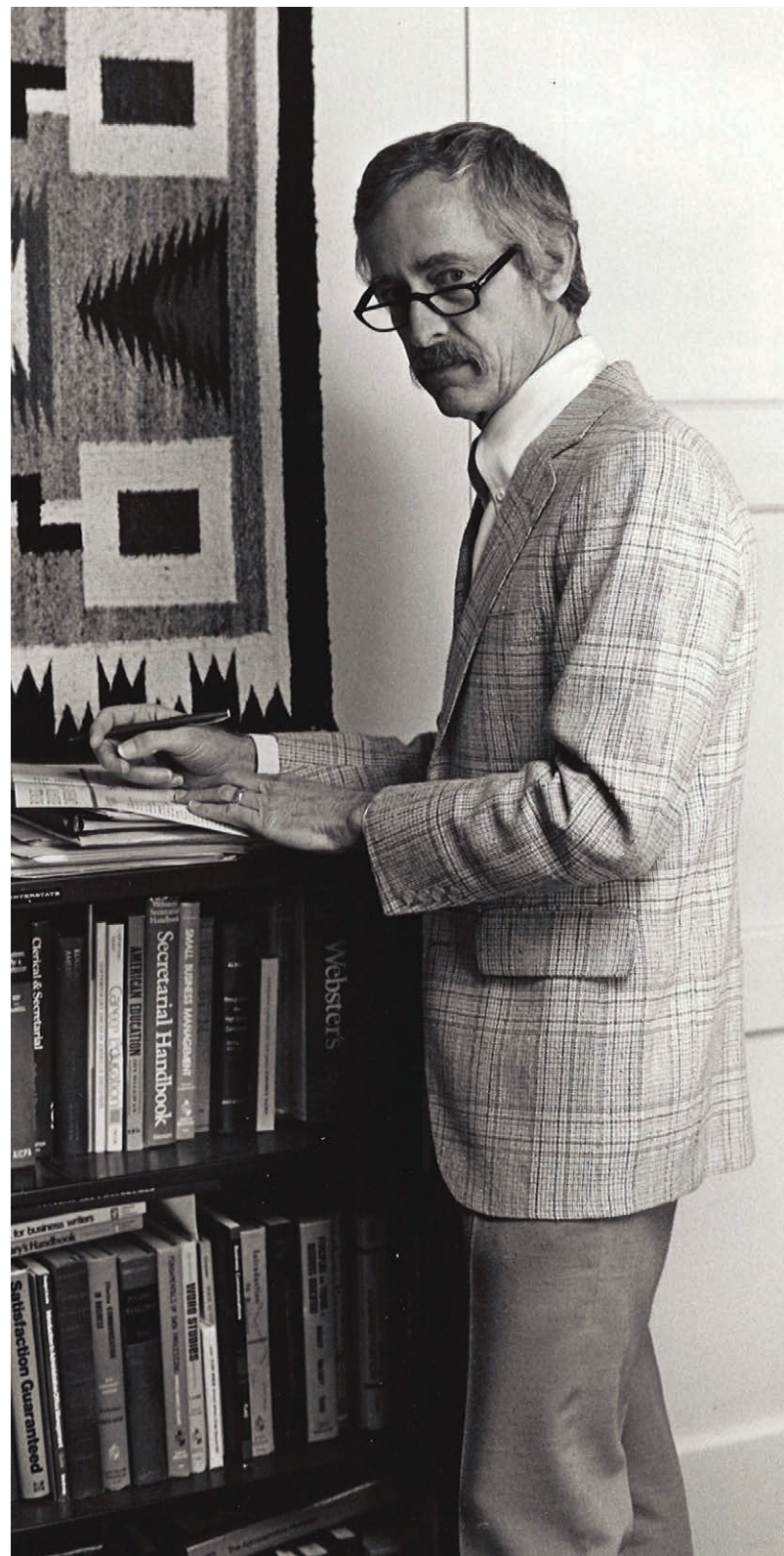
IN MEMORIAM

Gentleman and scholar, Dr. Lohnie Boggs

Dr. Lohnie Boggs began his academic career in 1959 at ASU's College of Business Administration as an associate professor of office administration and business education. In his 27-year tenure, he was promoted to full professor of office administration and business, served as chairman of the department, and chaired the Department of General Business. He died on May 25. He was 93.

"He was a gentleman and a scholar who guided me throughout my career and was always there when I needed advice," says Emeritus Professor of Accountancy **Marianne Jennings**. "He was such a supporter of women back in the 1970s. He fought for the few of us on the basis of our records. He was a mentor to all of our PhD candidates. He was such a professional and good teacher that I still today run into ASU alums who remember their business communications class with Lohnie Boggs. They always say that they still follow the rules of business writing that he taught them and people praise them on their eloquence and professionalism."

"Lohnie Boggs recruited me in 1976 to coordinate and teach in some 20-plus sections of our introductory business course, most of which were covered by doctoral students from the college," says retired Associate Professor of Management **Barry Van Hook**. "He made sure that I had all the resources necessary to do so. Throughout my career he guided my advancement, ever pushing me into new challenges and experiences as the environment of the college changed, making sure I fit and made a contribution. He was a mentor and a good friend."



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Jason Lilly (MBA '99) was recently promoted to chief wealth management services officer at Cape Cod Five Cents Savings Bank in Massachusetts. In his role, Lilly oversees the wealth management group, including trust and asset management, financial planning, and investment advisory services for the bank.

Chris Pace (BS Management '99, MBA '04) is the senior director of digital marketing at Banner Health corporate headquarters in Phoenix.

2000s

Bryan Bunker (BS Accountancy / Computer Information Systems '00) is celebrating 10 years as COO for Menlo Group Commercial Real Estate in Tempe, Ariz.

Michael Leskinen (BS Finance '00) is managing director of investor relations for United Airlines. In his role, he's charged with deepening United's relationships within the financial industry.

Aaron Blau (BS Management '01) is president of tax solution firm The Blau Co. Ltd. in Tempe, Ariz.

Uday Gandhe (MBA '01) is principal of Wilson Engineers, one of Arizona's leading design and construction management firms, specializing in the various engineering disciplines required for water, wastewater, reclaimed water, and electrical infrastructure.

Jacob Greer (BS Finance '01) is co-founder, principal, and portfolio manager at commodity trading advisory firm Camelback Futures in Memphis, Tenn.

Frank Healy (BS Management '01) is CEO of Higher Education Growth, a leading full-service marketing agency specializing in post-secondary education.



Errol Berry (BS Supply Chain Management '02) is founder and CEO of toner cartridge company Print.Save. Repeat in Chandler, Ariz. In 2015, the

company ranked No. 346 on the *Inc.* 500 list of America's fastest-growing private companies, and it's a top-rated toner brand on Amazon serving over 40,000 customers.

Brett Helgeson (MBA '02) is president and managing partner of Adopt Technologies in Phoenix.

Matt McOmber (MBA '02) is senior vice president of corporate services at real estate firm Commercial Properties Inc. in Phoenix.

Elizabeth Scherle (BS Marketing '02) is the co-founder and president of Influenster, the product discovery and reviews platform that enables socially savvy consumers to find new products and get advice to make informed purchases.

Danny Spitz (BS Finance '02) is a partner at Greenstone Partners brokerage firm in Chicago.

Dan Zentgraf (BS Finance '02) is director of analytics at MJ Insurance, a privately held insurance agency in Phoenix.

Kevin McKellar (MBA '03) is managing director and CFO of BHFC Capital LLC (Bottega Louie), a restaurant, gourmet market, patisserie, and café in Los Angeles. He shares this business advice: "You need to have a thick skin and a ton of motivation when you build your own business. Having this allows you to take better risks — which you must do."

Josh Meek (BS Finance '03, MBA '07) is executive director of ultra-high net worth lending for the Pacific coast region of Morgan Stanley private bank.



Cliff Schertz (MBA '03) is CEO and founder of Tiempo Development in Tempe, Ariz., which offers companies nearshore outsourcing options for software engineering services.

Graham Ware (BS Business Administration '03) is vice president of digital strategy at marketing firm Fasturtle Digital.

Kyle Reardon (BS Management / Finance '04, MBA '07) is celebrating more than five years as franchise CFO of full-service global transportation and logistics company Pilot Freight Services in Phoenix.

Martin Ahern (BS Business Administration

IN MEMORIAM

Tariq Jesrai (MBA '91), 2016 Alumni Hall of Fame inductee, passed away in April 2018 at the age of 60. Jesrai served as chairman and CEO of Doncasters Group, a leading international manufacturer of critical engineered components for a variety of end markets. He spent the majority of his career in the aerospace industry, previously serving as the CEO of McKechnie Aerospace Holdings Inc., where he developed and implemented the strategies and management philosophy that enabled each component of the company to leverage strengths from the others.



1982

Linda J. Rawls

1986

Gail A. Andrews-Forman
Van L. Gallegly

1990

Jamie C. Bones
Joyce E. Erickson

1994

Andrea L. Bradbury

1996

Ronald R. McCook Sr.

1999

Tyler N. Brown

'05) was promoted to vice president of investments at London-based 90 North Real Estate Partners.



David Glanzrock (BS Marketing/Supply Chain Management '05) is assistant vice president for Fidelity National Financial in Orange County, Calif.

Greg Bernstein (BS Marketing '06, MBA '09) is a managing partner of appraiser-friendly management company Value Trend Solutions in Phoenix.

Darren Ma (MBA '06) is CFO of Spectra7 Microsystems Inc., a leading provider of high-performance analog semiconductor products for broadband connectivity markets, based in San Jose, Calif.

Joel McFadden (MBA '06) is COO of Fan Interactive Marketing, a firm that helps sports and entertainment clients implement their lead strategy, email marketing campaigns, and manage day-to-day CRM activities.



Nathan Policar (BS Computer Information Systems '06, MBA '09) is president of StatBroadcast Systems, a sports statistics technology and media relations partner for athletic programs and events spanning collegiate, professional, and high school athletics.

Gabriel Shahin (BS Business Administration '06) is principal of Falcon Wealth Planning. Read his money advice on page 21.

Prescott Smith (BS Marketing '06, MBA '12) was welcomed into the Sun Devil 100 Class of 2018 as director of community outreach and public affairs for Technical Solutions, a family-based public affairs firm in Phoenix.

Tanner Milne (MBA '07) is president and designated broker of The Menlo Group commercial real estate firm in Tempe, Ariz.

100 Deirdre Morhet (MBA '07) is principal and founder of BASC Expertise of AZ. See what she has to share in the article, "The insider's guide to money," on page 25.

100 Brian Connolly (MBA '08) is the founder and managing principal of consulting services firm Victus Advisors in Park City, Utah.

Jordan D. Jobe (BS Marketing '08) is celebrating the one-year anniversary of opening his personal wealth management advisory firm, NextGen Advisors, in Scottsdale, Ariz.

Mel Koller (MBA '09) brings 16 years of credit experience to his role as vice president and ADLU unit manager for Farm Credit Bank of Texas in Austin. He joined the bank in 2009 as a senior credit officer, and in 2012 was promoted to vice president and relationship manager in the ADLU.

Bradley Martorana (MBA '09) is partner at full-service business law firm Snell & Wilmer in Phoenix.

100 Matthew Michalowski (BS Finance '09) is president and founder of Los Angeles-based PXL, a full-service

marketing agency specializing in web, mobile, social media, and experiential activation.

100 Aaron Pool (BS Management '09) is owner of Gadzooks Enchiladas & Soups. Read more about him on page 4.

100 Matt Reiner (BS Finance '09) is co-founder and CEO of Atlanta-based Wela Strategies, a tech platform that provides tools for users' financial journey.

2010s

100 Erik Coover (BA Business Communication '10) is owner, board member, and senior vice president of global field development for health and wellness company Isagenix in Gilbert, Ariz.

Jordan Haugan (BS Marketing '11, MBA '17) is director of business development at August United, an influencer marketing agency in Tempe, Ariz.

Stephen Mostrom (BS Finance '12, MBA '15) is a process design consultant at Bank of America Merrill Lynch in Phoenix.

Annelise Dominguez (BA Business Communication '13) is an associate of Gordon & Rees law firm in Phoenix.

Grant Kingdon (BS Marketing '13) is an associate at Lee & Associates Arizona, specializing in the representation of landlords and tenants in the leasing and sales of industrial/flex properties and land in the metropolitan Phoenix real estate market.

Justin Olson (MBA '13) is a commissioner at the Arizona Corporation Commission.

Casey Jones (BS Management '14) is the president of veterinarian-formulated dog product company Primo Pup Vet Health in Phoenix.

Rufat Yusubov (MBA '14) is an inventory project manager at BP in Sunbury-on-Thames, England. Since graduating, he's traveled across the world and welcomed his third child, but he says, "I miss the days in Tempe, the good times with classmates ... I would be happy to come back to Tempe, maybe for a PhD program one day."

A scholarship fund honoring the late **Robert K. Wexler** (BS Accountancy '84) took a W. P. Carey student all the way to Prague this year, thanks to the generosity of Robert's fraternity brothers. Jeff Barnes and Brian Amster joined Robert's sister Beth Wexler in presenting a \$2,500 scholarship check, on behalf of **Mike Rosenthal** (BS Economics '82, MBA '84) and other Sigma Nu alumni involved in the fundraiser. "Robert would've been there raising the money with us if he were here," Amster says. "It's wonderful being able to make an impact, especially in honor of our brother and friend."



100 Carrie Dougher (BS Computer Information Services '15) is COO of device trade-in platform Buyback Boss in Tempe, Ariz.

and supplier of electronic gaming machines and other products and services for the gaming industry.

Shaun Teevens (BS Finance '16) is a financial analyst at London-based global information provider HIS Markit.

Stephanie Bambury (MBA '17) is a marketing manager at Medidata Solutions, a New York-based technology company that develops and markets software-as-a-service solutions for clinical trials.

Moshe Kai Cavalin (MBA '18), who was part of the first Forward Focus Scholarship program, is an incoming sales and marketing rotational at Intel in San Francisco.

Cristina Torres (MBA '18), who was part of the first Forward Focus Scholarship program, is a marketing manager for corporate development at GoDaddy.com.

Eric Berschback (MBA '15) is celebrating three years as a research associate at Center for Student Achievement/Arizona Charter Schools Association in Phoenix.

Doris J. Lynk (BS Marketing '15) is a zone manager for Ford Motor Co. in Houston. She was awarded the 2017 Zone Manager of the Year Award for her outstanding service in her region of Texas.

100 Jack Wight (BS Marketing '15) is founder and CEO of device trade-in platform Buyback Boss in Tempe, Ariz.

Mike McKiski (MBA '16) is vice president of sales for western U.S. and corporate accounts for PlayAGS, a leading designer



Josh Porter (MBA '12) is the senior product manager for the leading global sales and marketing enablement solution Seismic Software in New York City — and the proud papa of Ezra.



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The net proceeds from the luncheon allows the Department of Economics to provide scholarships for outstanding students as well as support other academic and professional activities in the department through the ASU Foundation, a separate non-profit organization that exists to support ASU.

SPEAKERS



John H. Cochrane
*Rose-Marie and
Jack R. Anderson Senior Fellow
Hoover Institution, Stanford*
Keynote address



Bart Hobijn
*Professor of Economics
W. P. Carey School
of Business, ASU
Former Senior Research
Advisor, Federal Reserve
Bank of San Francisco*
**Outlook for the national
and global economy**



Lee R. McPheters
*Research Professor of
Economics and Director
of the JPMorgan Chase
Economic Outlook Center
W. P. Carey School
of Business, ASU*
**Outlook for the metro and
regional economy**

From career changes to new members of the family — let the W. P. Carey community know what's going on in your life: wpcarey.asu.edu/classnotes

FLAG IT The Sun Devils football team charged onto the field during the homecoming game Oct. 28, 2017, with tight end Jay Wilson holding the American flag. Can you find the five differences in these two photos?



PHOTO BY ANYA MAGNUSON/ASU NOW

W. P. WORD SEARCH

Y R G N I T N U O C C A P P
 X P M E T U R N I M L P P T
 U R Y Z A H U K A D T F N L
 K V C V M N T T U L A E E A
 Y H N V L T E K R A M H M T
 K O E H N B R O P T I O N I
 D L R M I E X X S I U J C P
 O A R E O N T E S A L P H A
 Z V U I C I V U E M R A C C
 G A C D T N D N O B U L L G
 Q I D F I N A N C E K M I W
 H R A E B T E P A W S J N T
 H F P E G Y T N L V I U D B
 Z V M L M K V U L O S M K D

- ACCOUNTING
- ALPHA
- AUDIT
- BEAR
- BETA
- BITCOIN
- BOND
- BULL
- CALL
- CAPITAL
- CURRENCY
- FINANCE
- INVESTMENT
- MARKET
- MONEY
- OPTION
- PUT
- RETURN
- SWAP

D K W S O L T U N K L M K W L A Z
 B I A I T N L V F P E G Y T N L V
 I N T S M V B T E P A W S J N T
 M I F N K E C N I N I O D I O
 G A C D T N D N O B U L L G
 C C U I C I V U E M R A C C
 H A L P H A R E O N T E S A L P H A
 P C P D R M I E X X S I U J C P
 I N O I N O B R O P T I O N I
 T M T T E K R A M H M T
 A E A K V C A M T U L A E A
 U R Z A V K A D T F N L
 T X P M E T U R N I M L P P T
 P R G N I T N U O C C A P P

SOLUTIONS

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ASU HOMECOMING 2018

Recapture the Sun Devil Spirit

Homecoming weekend is around the corner, and we want to see you at our signature alumni events this fall. It's a great time to be on campus – and to connect with the W. P. Carey community.

W. P. Carey Alumni Hall of Fame

Thursday, Nov. 1

5:30 p.m.

Honoring W. P. Carey alumni who have demonstrated leadership and achievement in their profession, the community, and the business school.

W. P. Carey Alumni Council fall meeting

Friday, Nov. 2

9 a.m. to 4 p.m.

Stay engaged with W. P. Carey through volunteer opportunities like mentorship, guest speaking, and events. Email wpcareyalumni@asu.edu to find out more.

ASU Homecoming Block Party

Saturday, Nov. 3

Four hours prior to kickoff

Meet fellow business school alumni and friends in the W. P. Carey tent — full of food, beverages, interactive entertainment, and Sun Devil pride! No RSVP required. No cost to attend; \$10 for food and beverage package (cash only).

Arizona State Sun Devils vs. Utah Utes

Saturday, Nov. 3

Kickoff: TBD

Check out the renovated Sun Devil stadium as new coach Herm Edwards and the Sun Devils fork their Pac-12 rivals!

Learn more about

W. P. Carey Homecoming events:

wpcarey.asu.edu/alumni-events

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