

In collaboration with

WELLS FARGO

ADVISORS

THE WELLS FARGO ADVISORS CENTER FOR FINANCE AND ACCOUNTING RESEARCH

ANNUAL REPORT 2019-20









MISSION

WFA-CFAR is a catalyst for enhancing and disseminating cutting-edge finance and accounting research. The center acts as a learning laboratory, facilitating interaction among Olin faculty, Olin students, and business partners to identify real-world business problems and develop practical, effective solutions.

VISION

To be a premier research center that promotes and supports the most innovative finance and accounting research at Olin, and connects students to businesses in order to transform business practice and education.

OBJECTIVES

- Specialized Masters programs in finance (MSF) and accounting (MACC), which provide rigorous curricula and industry-specific knowledge to students through a 10- or 17-month format.
- The Corporate Finance and Investments platform, which realigns our BSBA and MBA curricula to provide students with industry-specific knowledge and experiential learning opportunities, while also ensuring that these students receive a broad business education.
- Sponsored research, which includes company-specific projects as well as research on broader topics, to ensure that Olin faculty remain at the forefront of research excellence.
- Conferences and seminars, which bring together scholars from all over the world to share the latest ideas in finance and accounting.

CONTACT INFORMATION

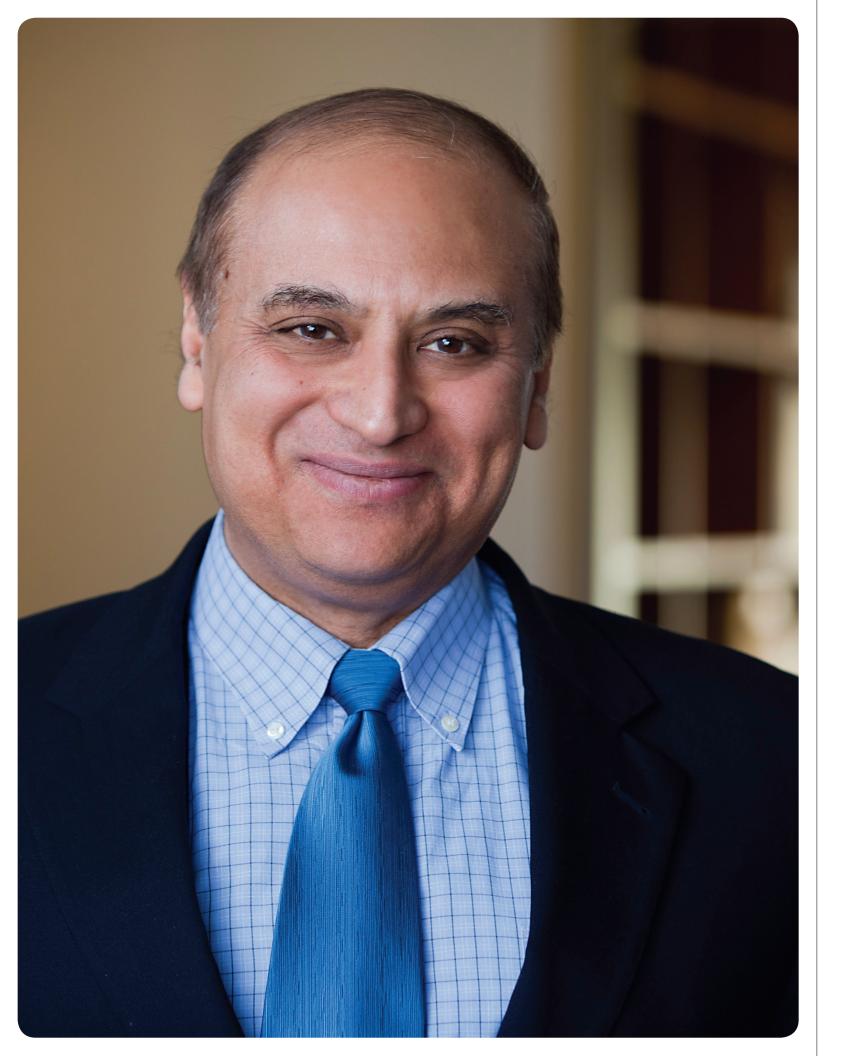
Anjan Thakor
Director, Wells Fargo Advisors Center
for Finance and Accounting Research;
Director of Doctoral Programs;
John E. Simon Professor of Finance
Olin Business School
Washington University in St. Louis
Campus Box 1133
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St. Louis, MO 63130-4899
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If you are interested in receiving a copy of any paper listed in this Annual Report, please email alutes@wustl.edu.

TABLE OF CONTENTS



A Message from the Director	
WFA-CFAR Advisory Board Members	i
CURRICULUM PROGRAMS	
Bachelor of Science in Business Administration	
MBA & MSF Corporate Finance and Investment Platforms	
Master of Science in Finance	
Global Master of Finance	
Master of Accounting	
Doctoral Programs	6-
CFAR PRACTICUM	8-
WFA-CFAR PRACTICUM SHOWCASE	1
WEALTH AND ASSET MANAGEMENT CONFERENCE	11-1
CORPORATE FINANCE CONFERENCE	12-1
NICK DOPUCH ACCOUNTING CONFERENCE	1
FINANCE AND ACCOUNTING SEMINARS	15-1
SEE FAR EXECUTIVE SUMMARIES	17-1
PERSONAL AND ORGANIZATIONAL HIGHER PURPOSE: SURVEY RESULTS	2



A MESSAGE FROM THE DIRECTOR

Welcome to the Wells Fargo Advisors Center for Finance and Accounting Research (WFA-CFAR). WFA-CFAR is dedicated to the dissemination of cutting-edge research in finance and accounting by encouraging Olin Business School faculty and students to work more closely with companies. We do this through the creative design of courses in our degree programs, executive education courses, research white papers, conferences, and connecting students and business through projects that the students do for these companies.

The WFA-CFAR team works closely with our advisory board to make sure our efforts stay focused on meeting the needs of business. Through our Specialized Masters programs—Master of Accounting, Master of Science in Finance, and Global Master of Finance—as well as the research of our faculty, WFA-CFAR will bring the most exciting research being conducted in finance and accounting into the domain of industry practitioners.

Last year we launched the WFA-CFAR Mentorship Program, which provided a special opportunity for our MACC and MSF students and local business partners to connect in a positive, one-on-one mentoring relationship. We also hosted the 16th Annual Corporate Finance Conference (CFC) and the Nick Dopuch Accounting Conference. In October 2019 we organized a one-day, high-impact conference on personal and organizational higher purpose jointly with the Bauer Leadership Center and Barry-Wehmiller Companies that brought organizational leaders, consultants and researchers together on the issue of higher purpose. In the audience were about 75 CEOs and other organizational leaders who wanted to learn more about how to undertake the higher purpose journey in their own organizations. The center also publishes SEE FAR, a research magazine that features faculty research in a form accessible to practitioners. We would also like to further acknowledge Wells Fargo Advisors for their continued support. As a result of this partnership, I look forward to continued success and new endeavors this academic year.

Anjan Thakor

Director, WFA-CFAR; Director of Doctoral Programs; and John E. Simon Professor of Finance; Olin Business School "The work done in CFAR plays a key role in the production of new knowledge in and the application of that knowledge in key areas of Accounting and Finance. It provides far-sighted thought leadership that forms an integral part of our mission at Olin Business School to produce and disseminate research that is world-changing and of the highest quality."

Dean Mark P. Taylor

ADVISORY BOARD MEMBERS

2019-20 WFA-CFAR BOARD MEMBERS



Jim Bullard
Federal Reserve Bank of St. Louis



Spencer Burke
The St. Louis Trust Company



Ken Cella Edward Jones



Tom Chulick St. Louis Regional Chamber



Rock Foster Nestlé Purina PetCare



Randall Harwood Graybar



Marcela Hawn Centene



Robert Holmes Commerce Bank



Rick Holton, Jr. Fintop Capital



Wes Jones Sage Capital



Atul Kamra SixThirty



Mark Lewis LockerDome



Joe Nadreau Wells Fargo



Rich Ryffel First Bank



Voin Todorovic Build-A-Bear Workshop, Inc.



Chris VarvaresMacroeconomic Advisers





"Our WFA-CFAR board is composed of high-caliber corporate partners who challenge us to stretch our minds and create value for both themselves and Olin Business School. We are very appreciative that they have elected to generously give their time and expertise."

Dorothy Kittner

Dorothy Kittner
Assistant Dean and Director
Office of Corporate Relations
Olin Business School

FACULTY BOARD MEMBERS

Tim Solberg Anjan Thakor

EXECUTIVE IN RESIDENCE

Stuart Zimmerman

PROGRAM MANAGER

Amber Lutes



PLACEMENT

Of the BSBA Class of 2018 seeking employment, 99% had jobs by 90 days post-graduation.

2Novas AB InBev Accenture Adidas AGC Partners AlphaSiahts Amazon.com, Inc. Ampush Media Analysis Group Inc. Andersen Tax Asana Avascent Bain & Company Bank of America Merrill Lynch Barclays Beam Suntory Belvedere Trading

Belvedere Trading
BlackRock, Inc.
Bloomberg L.P.
Bloomingdale's
BNP Paribas
Boom Lab
Booz Allen Hamilton Inc.
Boston Consulting Group, The
BounceX
Bridging Digital

Brookside Artist Management Brown Brothers Harriman Bully Pulpit Interactive Cain Brothers Capgemini Capital One Financial Corp Cardinal Health CBRE Centerview Partners Charles Schwab CiBO Technologies Cigna Corporation Citigroup Inc. CJ Affiliate Collaborative Solutions Cornerstone Research Cowen and Company Credit Karma Crowe Horwath DCS Advisory Deloitte DePuy Orthopaedics Deutsche Bank AG

Dimensional Fund Advisors

Dominium

E15 Group Edward D. Jones & Co., L.P. Enfusion Express Scripts EY (Ernst & Young) Facebook Federal Deposit Insurance Corporation (FDIC) Financial Technology Partners, LP Fingerlakes Musical Theatre Festival First Tennessee Bank Fitch Ratings Frontier Airlines Gap Inc. Garmin Goldman Sachs Google Inc. Guggenheim Partners Hallmark Hartford Investment Management Co. (HIMCO) HCSS Houlihan Lokey, Inc. Houston Trust Company HSBC Holdings Hub Group HubSpot iHeartMedia IMC Financial Markets

IRI Jefferies & Co. Jet.com Jones Lang LaSalle JORD JPMorgan Chase & Co. Keefe, Bruyette, and Woods KP Development KPMG Kraft Heinz Company L'Oréal Lazard Lazard Middle Market Lincoln International LinkedIn Macy's Maanolia Capital Maryville Consulting Group Maryville Technologies Mastercard McAfee McCann Worldgroup McKinsey & Company MealPal Mercer Mercy Health Microsoft MidCap Financial Moelis and Company Morgan Stanley Mount Sinai Hospital

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION



Steve Malter, Associate Dean and Director for Undergraduate Programs

Pursuing a career in business today means preparing students for an ever-changing world, reaching into new markets, adopting new technologies, and crossing the boundaries among traditional disciplines. Olin's BSBA program lays the foundation

for students to build successful academic and professional careers. During the first year, a required freshman course features senior faculty members who lead discussions on current and cutting-edge business topics and has the students applying them immediately to their team start-up idea. Themes include case analysis, effective communication, team development and ethical decision making. In addition, the first year focuses on resources and tools students will need to succeed in the workplace.

System NASDAO National Geospatial-Intelligence Agency Navigant Consulting, Inc. Netsuite Nielsen NIO Nisa Investment Advisors Nomura Holdings, Inc. Northern Trust Corp. Nuveen OC&C Strategy Consultants Office of the Director of National Intelligence Ogilvy and Mather Panera Bread PepsiCo Performance Trust Capital Partners PIMCO Pinterest Plante Moran

PricewaterhouseCoopers (PwC) Procter & Gamble Protiviti RBC Capital Markets Red Ventures Reinsurance Group of America Renewable Energy Group Rise Interactive RubinBrown Sagent Advisors San Diego Padres SapientRazorfish SeatGeek SelfMade Silicon Valley Bank Societe Generale Sonenshine Partners St. Louis Sports Commission Stanton & Co LLC Starcom Target Teach For America

APPLIED LEARNING

Hands-on courses and projects encourage the exploration of career options and help students gain industry and functional expertise, increasing their value to prospective employers. Opportunities include consulting team projects for corporations and nonprofit agencies, participation in managing a portion of the school's endowment fund, and multiple entrepreneurship experiences ranging from business plan development to working with startups in the St. Louis community.

KEY TAKEAWAYS

- Required freshman course taught by senior faculty focuses on current and cuttingedge business topics with themes including case analysis, effective communication, and ethical decision making.
- Hands-on courses and projects encourage the exploration of career options and help students gain industry and functional expertise.
- Business courses in all the major disciplines—with their emphasis on rigorous critical thinking—teach students to approach management problems analytically and strategically.
- Multi-disciplinary approach to education with at least 40% of degree coursework taken in other areas of the university.

Tencent
The Boeing Company
The Lightstone Group
The Resource Group
The Travelers Companies Inc.
Thorne Research
Topps Sports and
Entertainment
UBS UnitedHealth Group
Vanguard
Varsity Tutors
Volkswagen Group

of America
Voya Financial
W2O
Wal-Mart Stores, Inc.
Washington Nationals
Whalar
William Blair
Willis Towers Watson
Yelp
Zhuiyi Technologies
ZS Associates

MBA & MSF CORPORATE FINANCE AND INVESTMENT PLATFORMS



Tim Solberg, Director of the MBA Corporate Finance and Investments Platform

MMBA students
can pursue a career
in finance through
many paths. Finance
professionals are
needed in institutions
and firms that provide
capital to financial
markets. They are
also needed within
the companies and
businesses that use
capital. Finance
professionals are

necessary to mediate between the providers and users of capital. The Corporate Finance and Investments platform is designed to effectively steer MBA students toward ca, investment banker–corporate finance, private equity or venture capital positions, investment banker–capital markets and trading, and asset or portfolio manager.

FALL 2019 GUEST SPEAKER LIST

TOPIC: "Private Wealth and Middle Market Commercial Banking"

SPEAKERS: Blake Emerson, J.P. Morgan Private Bank

Richard Ryffel, J.P. Morgan Private Bank

Kia Henderson, J.P. Morgan Chase Donald Carver, J.P. Morgan Private Bank

Don Tulloch, J.P. Morgan Chase

TOPIC: "Corporate Finance and Treasury"

SPEAKER: David Levy, ExxonMobil Corporation

TOPIC: "High Net Worth Investing in Energy" SPEAKER: Dan Smith, Neuberger Berman

TOPIC: "Investment Strategies Over A Lifetime"

SPEAKER: Kirk McDonald, Argent Capital
TOPIC: "Quantitative Investment Strategies"

SPEAKER: David Levy, ExxonMobil Corporation

TOPIC: "Family Wealth Offices"

SPEAKER: John Jennings, St. Louis Trust Company

TOPIC: "Commercial Real Estate and Private Real Estate Investment Trusts"

SPEAKERS: Jeffrey Rombach, Stifel Bank Eric Goettelmann, Midas Hospitality TOPIC: "Commodities, Foreign Exchange and Derivatives Management"

SPEAKER: Burton Sheaffer, HSBC

TOPIC: "Reinsurance, Hedging and

Portfolio Management"

SPEAKER: Andrew Jacobson, Global Financial Solutions, RGA

TOPIC: "Corporate Finance and Treasury Equity Research and Portfolio Management"

SPEAKERS: Kimberly Walker, Amazon
Jean Barnard, Kennedy Capital Management

TOPIC: "Asset Allocation and Global

Wealth Management"

SPEAKER: Robert Mooney III, UBS

TOPIC: "Large Brokerage Firm Panel Fee Based Products, Financial Advisory & Investment Research"

SPEAKERS: Steven Harris, Edward Jones Vanessa Owkruwaiwe, Edward Jones

TOPIC: "Consulting and Advisory Services for Institutional Investments, Pensions, Endowments, Foundations and Healthcare"

SPEAKER: K.C. Connors, NEPC, LLC

TOPIC: "ETF Funds & Strategic Allocation for Investors"

SPEAKERS: Al Sears, Dimensional Fund Advisors

Jaiden Bonaparte, Dimensional Fund Advisors

TOPIC: "Fin Technology and Financial Services Panel" SPEAKER: Jonathon Gais, Partner, E&Y

TOPIC: "Experiences Investing in Public Firms

in China"

SPEAKERS: Mitchell Kopin, Cranbrook Keith Shapiro, Cranbrook

KEY TAKEAWAYS

- Career-focused concentration classes begin during second semester. Students can identify the applied-learning courses and types of summer internships that will give them targeted, on-the-job experience.
- Nearly two dozen working professionals served as Corporate Finance and Investments platform speakers to impart real-world knowledge and expertise to our students.

MASTER OF SCIENCE IN FINANCE

Both the Corporate Finance and Quantitative Finance tracks fuse financial tools with a strategic understanding of business decision making. The rigor of Washington University's Master of Science in Finance (MSF) program attracts applicants with excellent quantitative skills and a broad range of academic experience in finance, economics, engineering, and mathematics. Prior work experience is recommended, though not required, for admission to the program. For students who do not have any prior experience or training in the subjects, the program offers concentrated "foundation" courses in finance and accounting.



Mark Leary, Academic Director MSFC & MSFWAM

MASTER OF SCIENCE IN FINANCE: CORPORATE FINANCE AND INVESTMENTS (MSFC)

Students in the Corporate Finance track take a significant amount of coursework alongside finance oriented MBA students, such as data analysis for

investments, advanced corporate finance, mergers and acquisitions, and options and futures. Students also gain hands-on industry experience through intensive practicum projects arranged by WFA-CFAR in the fall semester.

MASTER OF SCIENCE IN FINANCE: WEALTH AND ASSET MANAGEMENT (MSFWAM)

The Wealth and Asset Management track is designed to prepare students for the growing wealth management industry—advising individuals, institutions, and firms. Coursework focuses on financial markets and portfolio construction, financial scenarios modeling, and the understanding and interpretation of financial plans, market ratios, and investment ratings. As of Fall 2020, this program is now STEM-designated, with the addition of analytics and programming courses to prepare students for the increasingly data-driven nature of asset management.

"The small program and class size make for a collaborative classroom experience and close interaction between students and faculty."

Radhakrishnan Gopalan Professor of Finance

KEY TAKEAWAYS

- The MSF program integrates cutting-edge finance curriculum with real-world project experience to make students ready to deliver from day one.
- MSFC is a finishing school in finance that trains non-finance majors for careers in finance.
- MSFQ is a more technical program that trains students for careers in quantitative analysis and financial engineering.
- MSFWAM builds the set of skills and knowledge to prepare students for successful careers in wealth and asset management.



Hong Liu, Academic Director

MASTER OF SCIENCE IN FINANCE QUANTITATIVE FINANCE (MSFQ)

The STEM-designated
Quantitative
Finance track is
specifically designed
to provide MSF
students with a
skill set similar to a

financial engineering program while still including coursework in corporate finance, investments, and financial markets. Examples of the highly technical courses in the quantitative track include Advanced Derivative Securities, Mathematical Finance, and Topics in Quantitative Finance.

GLOBAL MASTER OF FINANCE



Todd Gormley, Academic Director

financial expertise
in our increasingly
global markets
and develop a
singular educational
paradigm for highreaching students,
Olin Business School
at Washington

To meet the

demand for

University in St. Louis has partnered with Lee Kong Chian School of Business at Singapore Management University (SMU), Yonsei University School of Business (YSB) in South Korea, IDC Herzliya – Arison School of Business in Israel, WHU Otto Beisheim School of Management in Germany, and Universitat Pompeu Fabra Barcelona School of Management (UPF) in Spain to offer the Global Master of Finance (GMF) program. Graduates of this unique program receive two degrees: a Master of Science in Finance (MSF) degree from Washington University as well as a Master of Science in Applied Finance (MAF) from Singapore Management University, a Global MBA from Yonsei University, a Certificate in Innovation and Entrepreneurship from IDC Herzliya, a Master in Finance degree from WHU Otto Beisheim School of Management, or a Master of Science in Finance and Banking degree from Universitat Pompeu Fabra.

Program distinctions include cross-continent exposure to a variety of cultures and financial

"The Global Master of Finance program provides valuable exposure to both US and non-US financial markets through students' courses at Olin and our international partners. Students also partake in unique immersion courses in both New York and Washington, DC, where they learn first-hand about U.S. financial markets, the regulatory process, and how firms are adapting to the ever-changing global economy."

Todd Gormley Associate Professor of Finance markets, which equip students with the knowledge and skills required to make an impact on businesses globally. Upon completion of the program, students earn either 45 credits for the 14-month Singapore Management University option, 54 credits for the 14-month Yonsei University option, 40 credits for the 11-month IDC option, 25 US credits and 90 ECTS credits for the 22-month WHU option, or 24 US credits and 56-68 ECTS credits for the 20-month UPF option.

Additionally, our program offers students the best of both academic worlds:

- Top-tier education from Olin Business School, a leading US management institution
- World-class instruction from faculty at one of our partner institutions
- Training and job placement services targeted to students' specific marketplace
- Access to both U.S. and international professional networks
- Immersion courses in New York City and at the Brookings Institution in Washington, DC, that familiarize students with US financial markets, policy making, and financial rules and regulations

KEY TAKEAWAYS

- Partnership between Olin and other highcaliber universities allows students greater opportunity to enhance international vision and broaden networks while obtaining two different degrees that help differentiate students in increasingly global and competitive markets.
- Curriculum includes immersion courses in New York and Washington, DC, exploring US financial markets, policy making, legislative processes, enforcement agencies, and the Federal Reserve.

MASTER OF ACCOUNTING



Mark Soczek, Academic Director

Olin's Master of
Accounting (MACC)
program was
designed with two
goals in mind: first,
to provide students
from a wide range
of backgrounds
the opportunity to
complete relevant
coursework
necessary to become

eligible to sit for the CPA exam; second, to develop skills that will foster career success, regardless of whether a student pursues a career in public accounting or if their career path takes a different trajectory. In addition to traditional accounting coursework in financial reporting, assurance, and taxation, students may take elective coursework in other business disciplines, such as finance and supply chain management, or even in other schools on campus, such as the School of Law.

A distinctive feature of Olin's MACC curriculum is our capstone course, *Accounting Policy and*Research. Students acquire a big-picture understanding of accounting trends and regulatory issues, along with the critical-thinking skills to evaluate and debate them. Students

KEY TAKEAWAYS

- The MACC program was designed to provide students from a wide range of backgrounds the opportunity to complete relevant coursework necessary to become eligible to sit for the CPA exam.
- The program helps students develop skills that will foster career success, regardless of whether a student pursues a career in public accounting or his or her career path takes a different trajectory.

"In 2014, 325 GECC volunteers prepared nearly 8,000 federal tax returns for lowand moderate-income families in the St. Louis region as part of the VITA program. Those families received more than \$9.5 million in federal refunds, a return on investment of more than \$70 for each dollar spent."

Russ Signorino
Gateway EITC Community Coalition (GECC)

review a number of academic studies and learn research methodologies that are also applicable in nonacademic settings. Employers consistently emphasize the importance of communication skills and experience, and the MACC program helps cultivate these through the WFA-CFAR Mentorship Program, experiential learning opportunities, and student organizations such as Beta Alpha Psi.

VITA PROGRAM

Nearly 50 Olin students contributed more than 500 hours during the spring semester to the Volunteer Income Tax Assistance (VITA) program, preparing tax returns for local, low-income individuals. Through Olin's network of corporate business partners and campus resources, students have many opportunities to turn what they learn in the classroom into real-world, practical experience.

BETA ALPHA PSI

Every semester, Beta Alpha Psi hosts a large number of speakers and professional events covering a wide variety of topics in the areas of accounting and broader business applications. Topics include tax code challenges, business ethics, diversity in the workplace, non-profit accounting, and corporate accounting.

DOCTORAL PROGRAMS

DOCTOR OF BUSINESS ADMINISTRATION

The Olin Doctor of Business Administration (DBA) degree program is a 72-credit-hour doctoral degree designed for individuals with a serious interest in research who want to pursue graduate study on a part-time or full-time basis. A doctor in business administration is an advanced graduate degree that extends beyond the fundamental foundation of a master's degree to develop the necessary skills to conduct applied research. The DBA differs from a master's degree and a PhD in a number of ways, including the scope of study, the approach to research, and, essentially, the definitive outcome.

The Olin DBA offers a collaborative atmosphere centered on pursuing industry-relevant applied research. The program crosses traditional boundaries and provides opportunities, under the guidance of Washington University faculty, for structured coursework along with focused, independent scholarly reading and research on important issues relating to business. A practitioner's doctoral degree, it is designed to



"I am certain that obtaining a DBA in Finance from Olin will take my career to the next level. The level of learning I have experienced and will continue to experience at Olin will allow me to fulfill all short-term and long-term goals in the area of finance and corporate strategy, and approach them with more acuity and confidence."

Danielle McPherson DBA '15



Anjan Thakor, chair for all doctoral programs

meet the needs of the researching professional, rather than the professional researcher. While a PhD is intended for those who wish to pursue research careers in academia, the DBA is extended graduate study for those who wish to pursue careers in corporations, consulting firms, or government agencies that can benefit from advanced research skills in analyzing business problems. The research capabilities developed in the DBA program offer more immediate real-world applicability than typical research pursued in the PhD program.

DBA IN FINANCE STUDENTS

Muna Alsheikh Shu Li David Baines Xuan Li Danielle McPherson Kijun Bin Juan Pablo Espinosa Whan Kyu Shin Andrew Fish Pornteera Tungtrakul James Horn Aadhaar Verma Hailong Hu Liyang Wang Jiaqin Hu Peng Wang Christal Zhu

DOCTOR OF PHILOSOPHY

Olin currently offers Doctor of Philosophy (PhD) degrees in accounting, business economics, finance, marketing, operations and manufacturing management, organizational behavior, and strategy. Olin PhD students make up a diverse

and interesting group. They come from many different parts of the world with widely different backgrounds.

Some have enrolled directly from undergraduate programs; others hold advanced degrees or have worked for several years. Some are new to business, coming from academic majors ranging from engineering to biology. This diversity enhances the learning experience for all.

FINANCE PHD

Olin's PhD program in finance emphasizes rigorous analytical training and prepares students to pursue careers in research and teaching at leading academic institutions across the globe. Our students have a strong quantitative background; most typically they have undergraduate training in economics, mathematics, engineering, or other quantitative disciplines.

Our research-active faculty members are easily accessible to students. Collaboration is encouraged early in the program. Faculty and student joint research results in coauthored papers published in important journals. Much of the research is based on economic models to address problems such as the allocation of capital, risk, and rewards in the economy.

ACCOUNTING PHD

Olin's PhD program in accounting focuses on infusing students with a broad base of knowledge as well as the research skills necessary to enjoy a robust career as a university educator and researcher. Training is rigorous, as competition for faculty positions at top research universities is intense. Students study issues in two areas: the role of financial information in facilitating the operations of capital markets and assistance for managers planning and controlling the way institutions operate. WFA-CFAR provides accounting doctoral students with the opportunity to work on groundbreaking research for Center members' company-specific challenges and projects.

PHD CANDIDATES IN FINANCE

Swaminathan Balasubramaniam

Yakshup Chopra

John Dooley

Lina Han

Jonathan Hsu

Manish Jha

Rodrigo Moser

Vasudha Nukala

Avantica Pal

Landon Ross

Tatiana Vdovina

Kingsley Wabara

Chung Ming Jimmy Wu

Leifu Zhang

PHD CANDIDATES IN ACCOUNTING

Chihoon Cho

Sichong Roger Han

Yanrong Jia

Gang Ernest Pan

Hangmeng Ivy Wang

Yifang Xie-On Market

Xin Sheryl Zhang

"Olin's PhD program combines the rigorous curriculum of a top-ranked university with the individual attention made possible by our limited enrollment. The program provides a strong background in basic disciplines and research methodologies, giving you the tools you will need to pursue a productive and engaging academic career."

Anjan Thakor, Director

PROGRAM OVERVIEW

CFAR Practicum

The creative application of advanced analytical tools.

Cutting-edge business strategy. State-of-the-art analytical tools. Intellectual property rights. Access to future talent. Washington University's student consulting teams—the next generation of finance and accounting experts—are ready to apply advanced analytics and actionable insights to your business challenges. Conducted through Olin Business School's Wells Fargo Advisors Center for Finance and Accounting Research, Practicum projects are customized, hands-on, student led and faculty guided.



5 to 10 students per team

14-week projects



project time frames

fall and spring

Areas of expertise

fintech, accounting, corporate finance, quantitative finance, and wealth and asset management issues

3 STEM-designated programs

Master of Science in Finance—Quantitative Master of Science in Finance—Wealth and Asset Management Master of Science in Business Analytics—FinTech Analytics

Intellectual property belongs to your organization

\$12,000

standard consulting fee



Recent Clients

Advisory Research Investment Management CoverCress Detalus **Edward Jones** Neocova **NuPeak Therapeutics** Opera Theatre of Saint Louis **RGA International Corporation** St. Louis Symphony Orchestra St. Louis Trust Company

Confront challenge, create change.

Our students are informed by numbers, driven by principle. We challenge them to look beyond the bottom line and carefully consider what will make the biggest impact and do the most good.

Your Practicum project will combine the analytical perspective of talented students in our Master of Science in Finance program with the expertise of our world-renowned finance faculty. Students will closely study your situation and employ a variety of analytical tools to offer solutions to your business challenge.



WFA-CFAR finance consulting projects bring together some of America's most distinguished finance research faculty and gifted graduate students to collaborate with business partners to solve complex problems facing organizations."

ANJAN THAKOR, DIRECTOR OF DOCTORAL PROGRAMS & CFAR, JOHN E. SIMON PROFESSOR OF FINANCE, WASHINGTON UNIVERSITY

How it works

Step 1: Scope problems

A client liaison faculty member will manage scoping your project, maintaining a high level of client service and ensuring your student team communicates effectively and meets all project deadlines.

Step 2: Collect data

You will share appropriate data with your faculty-supervised team of students who sign a nondisclosure agreement to protect your confidentiality. They will then apply theory-based models to your business problems.

Step 3: Analyze information/data

Your student team will study the data, analyze the situation and draw conclusions to formulate recommendations to combat your business challenge.

Step 4: Report results

Students will share their insights and recommendations with you through video conference calls. You will own the intellectual property resulting from your Practicum project.



Find out more.

olin.wustl.edu/cfar

Timothy G. Solberg, CFA Professor of Practice in Finance 314-935-7270 solbergtg@wustl.edu



WFA-CFAR PRACTICUM SHOWCASE

FEATURES THE TOP PRACTICUM CONSULTING PROJECTS EXECUTED

In December 2019, CFAR launched the First Annual Practicum Showcase event. At this competitive event, selected project teams had a chance to present their practicum project to a panel of judges. The panel of judges were comprised of advisory board members, faculty, department chairs, and executives. Each year, CFAR will host two showcase, one in the winter and one in the spring.

Every judge received a scorecard for each team. The teams were scored on the following categories: purpose, project, presentation, knowledge, problem-solving, communication, overall presentation and overall project. Each category was graded 0-5, with 5 being excellent.



First Place Winners Washington University Investment Management Company Project

Lead by Faculty Advisor Professor Phil Dybvig and presented by Ziqi Tan and Sunny Deng



3rd Place, Honorable Mention Edward Jones Project Lead by faculty advisor Ilias Filippou and presented by Miguel Ferrerya, John Noel, Allen Stuhr, Yuwen Wang and Jerry He



2nd Place, Honorable Mention
Neocova Fintech Artifical Intelligence for
Community Banks Project
Lead by Faculty Advisor Professor Jian Cai and

presented by Tim Segrist, Jeffers Yin and Leo Xing

WEALTH AND ASSET MANAGEMENT CONFERENCE

WEALTH MANAGEMENT LEADERSHIP PANEL

Stifel, Ron Kruszewski, CEO Wells Fargo Advisors, John Alexander, Senior Managing Director Edward Jones, Penny Pennington, Managing Partner TD Ameritrade, Peter deSilva, President–Retail Moderator: J.P. Morgan Private Bank, Rich Ryffel, Market Manager

PASSIVE INVESTING, ACTIVISM AND GOVERNANCE PANEL

Olin Business School, Professor Todd Gormley Marathon Partners, Mario Cibelli, Managing Partner BlackRock, Jessica McDougall, Vice President **Moderator:** Wells Fargo Asset Management, Michael Alderson, Portfolio Analyst

THE ROLE AND EFFECTIVENESS OF PRIVATE EQUITY IN PORTFOLIO CONSTRUCTION PANEL

Harvard Business School, Professor Erik Stafford
Ascension Investments, Vince Stegman, Managing Director
Washington University Investment Management Company, Mike Stohler, Managing Director
Warburg Pincus, Dr. Rudiger Stucke, Director
Moderator: Charles Stucke, Private Value Investor

TRENDS IN ENVIRONMENTAL. SOCIAL AND GOVERNANCE INVESTING PANEL

Breckinridge Capital Advisors, Tim Coffin, Senior Vice President Vert Asset Management, Sam Adams, Co-Founder & CEO Highpoint Capital, Gautam Dhingra, Founder & CEO Moderator: Sunpointe Investments, Jack Dwyer, Managing Director

CAPITAL INTRODUCTION SESSIONS

Alpha Simplex: "Dynamic Strategy Migration and the Evolution of Risk Premia," David Kuenzi, (Emerson Auditorium)

Breckinridge Capital Advisors: Tim Coffin (Bauer Hall Rm 230)
Efficient Capital Management: "The Efficient Approach: Maximizing the Power of Diversification,"
Chad Martinson, (Bauer Hall Rm 240)

CAPITAL INTRODUCTION SESSIONS

SummerHaven Investment Management: "Replicating Private Equity," Erik Stafford, Marathon Partners Off the Chain Capital: "Blockchain and Digital Currency Investing," Brian Estes "Preparing the Private Wealth Manager of the Future"

Panelist: Bob Dannhauser, CFA Institute, Head of Global Private Wealth Management

SECURITY ANALYSIS: AN INVESTMENT PERSPECTIVE

Researcher: Ohio State University, Professor Lu Zhang Discussant: Oak Summit Capital, Hans Fredrikson, CIO

WOMEN IN INVESTING

Panelists: Mercy, Elizabeth Jourdan, Deputy Chief Investment Officer DSM Capital Partners, Hannah Chiang, Portfolio Manager

Edward Jones, Kate Warne, Investment Strategist

Moderator: J.P. Morgan, Wendy Hershey, Executive Director & Client Advisor

CLIMATE CHANGE AND ASSET PRICES: A REVIEW OF THE LITERATURE

Discussant: Saint Louis University, Marcus Painter, Assistant Professor

FIRESIDE CHAT WITH DAVID BOOTH, FOUNDER, DIMENSIONAL FUND ADVISORS

Interlocutor: Olin Business School, Mark Taylor, Dean

VENTURE CAPITAL UPDATE: NATIONALLY AND IN ST. LOUIS

Presenter: Cultivation Capital, Cliff Holekamp, Co-Founder and General Partner

WEALTH & HEALTH - HOW DATA AND TECHNOLOGY ARE CHANGING ADVICE PANEL

Panelists: RGAX, Dennis Barnes, CEO

Lapetus, Jay Olshansky, Co-Founder and Chief Science Officer Synergy Wealth Solution, Nick Dragan, Financial Planner **Moderator:** SixThirty, Atul Kamra, Managing Partner

CORPORATE FINANCE CONFERENCE

Each autumn, the finance faculty at Olin Business School host a conference during which guests and academics gather to discuss and debate issues related to corporate finance. Below find the agenda for the 16th Annual Corporate Finance Conference, held November 22-23, 2019.

SESSION 1: TANGIBLE AND INTANGIBLE CAPITAL Session Chair: ADRIANO RAMPINI, DUKE UNIVERSITY

"Measuring Intangible Capital with Market Prices"

(Ewens, Peters, Wang)

Presenter: Michael Ewens, California Institute of Technology Discussant: Dimitris Papanikolaou, Northwestern University

"Young Firms, Old Capital"

(Ma, Murfin, Pratt)

Presenter: Song Ma, Yale University

Discussant: Liu Yang, University of Maryland

SESSION 2: BANKING AND REGULATION

Session Chair: ANDREW WINTON, UNIVERSITY OF MINNESOTA

"Interbank Trading, Collusion, and Financial Regulation"

(Corbae, Gofman)

Presenter: Michael Gofman, University of Rochester Discussant: Selman Erol, Carnegie Mellon University

"The Anatomy of the Transmission of Macroprudential Policies"

(Acharya, Bergant, Crosignani, Eisert, McCann) Presenter: Matteo Crosignani, University of Michigan Discussant: Anthony DeFusco, Northwestern University

Panel Discussion on "Debt Structure: The Role of Covenants and Collateral"

Speaker #1: Patrick Bolton, Columbia University

Speaker #2: Michael Roberts, University of Pennsylvania

SESSION 3: DEBT STRUCTURE

Session Chair: MICHAEL ROBERTS, UNIVERSITY OF PENNSYLVANIA

"How Collateral Affects Borrowing: Evidence from U.S. Micro-Level Data"

(Campello, Connolly, Kankanhalli, Steiner)
Presenter: Murillo Campello, Cornell University
Discussant: Effi Benmelech, Northwestern University

"Losing Control: The 20-Year Decline in Loan Covenant Restrictions"

Griffin, Nini, Smith)

Presenter: Greg Nini, Drexel University

Discussant: Chris James, University of Florida

Discussant: Jules van Binsbergen (Wharton School, University of Pennsylvania)

SESSION 4: CORPORATE GOVERNANCE

Session Chair: YANIV GRINSTEIN. CORNELL UNIVERSITY

"The Economics of Deferral and Clawback Requirements: An Indirect Tax Approach to Compensation Regulation"

(Opp, Hoffman, Inderst)

Presenter: Marcus Opp, Stockholm School of Economics Discussant: Mark Westerfield, University of Washington

"The Costs and Benefits of Shareholder Democracy"

(Gantchev, Giannetti)

Presenter: Nickolay Gantchev, Southern Methodist University

Discussant: Bilge Yilmaz, University of Pennsylvania

SESSION 5: HOUSEHOLDS AND LABOR

Session Chair: : JANIS SKRASTINS, WASHINGTON UNIVERSITY IN ST. LOUIS

"Shielding Firm Value: Employment Protection and Process Innovation"

(Bena)

Presenter: Jan Bena, University of British Columbia Discussant: Jessica Jeffers, University of Chicago

"Shale Shocked: The Long-Run Effect of Wealth on Household Debt"

(Cookson, Gilje, Heimer)

Presenter: Erik Gilje, University of Pennsylvania

Discussant: Julie Fonseca, University of Illinois Urbana-Champaign

NICK DOPUCH ACCOUNTING CONFERENCE

Since 1988 the accounting faculty at Olin Business School have hosted a two-day annual accounting conference, renamed in 2006 by Washington University and Olin to honor Professor Nick Dopuch. Below find the agenda for the 31st Annual Dopuch Accounting Conference, held October 10-11, 2019.

"Non-Answers During Conference Calls"

Presented by Anastasia Zakolyukina, University of Chicago Discussion led by Stan Markov, University of Texas, Dallas



"Political Information Flow and Management Guidance"

Presented by Laura Wellman, Pennsylvania State University Discussion led by Vishal Baloria, Boston College

"Public Firm Presence, Financial Reporting, and the Decline of U.S. Manufacturing"

Presented by Stephen Glaeser, The University of North Carolina at Chapel Hill Discussion led by Phil Berger, University of Chicago

"Dynamic Adjustment of CEO Incentives and Firm Performance"

Presented by Zhonglan Dai, University of Texas, Dallas Discussion led by Andrea Pawliczek, University of Missouri

"Fragmented Securities Regulation: Neglected Insider Trading in Stand-alone Banks"

Presented by Sehwa Kim, Columbia Business School Discussion led by Yadav Gopalan, Indiana University

"Attention to Dividends, Inattention to Earnings?"

Presented by Zach Kaplan, Washington University in St. Louis Discussion led by Andy Leone, Northwestern University

FINANCE AND ACCOUNTING SEMINARS

2019–20 FINANCE SEMINARS

Financial scholars from within and outside the Olin community take part in this recurring seminar series. Topics covered include the housing debt crisis, asset pricing, liquidity risk, and retail short selling. Participating speakers come to the event from respected institutions, including Georgia State, MIT, New York University, University of California, Stanford University, University of Chicago, and Notre Dame. Below find a list of Finance Seminars hosted at Olin Business School during the 2019–20 academic year.

09/13/19

Samuel Hartzmark, University of Chicago, Booth School of Business

"Ownership, Learning, and Beliefs"

09/20/19

Peter DeMarzo, Stanford Graduate School of Business

"Leverage Dynamics without Commitment"
"Presidential Address: Collateral and Commitment"

09/27/19

Erik Gilji, Wharton School, University of Pennsylvania

"Personal Wealth and Self-Employment"

10/04/19

Timothy McQuade, Stanford Graduate School of Business

"The Contribution of High-Skilled Immigrants to Innovation in the United States"

10/11/19

Scott R. Baker, Kellogg School of Management, Northwestern University

"The Riskiness of Owning Versus Renting Housing"

10/18/19

Xavier Giroud, Columbia Business School

"Firms Internal Networks and Local Economic Shocks"



10/25/19

Holger Mueller, NYU, Stern School of Business "Reducing Barriers to Enrollment in Federal Student Loan Repayment Plans: Evidence from the Navient Field Experiment"

11/1/19

Amir Kermani, University of California, Berkeley-Haas

"Two Tales of Debt"

11/8/19

Anastassia Fedyk, University of California, Berkeley-Haas

"Trading On Talent: Human Capital and Firm Performance"

11/15/19

Philip Bond, University of Washington, Foster School of Business

"Silence is Safest: Non-Disclosure when the Audience's Preferences Are Uncertain"

12/6/19

Gregor Matvos, Kellogg School of Management, Northwestern University

"Banking Without Deposits: Evidence from Shadow Bank Call Reports"

12/13/19

Doron Levit, Wharton School, University of Pennsylvania "Trading and Shareholder Voting"

01/08/20 Andreas Neuhierl, Notre Dame, Mendoza College of Business

"Arbitrage Portfolios"

01/10/20

Steven Riddiough, University of Melbourne "Foreign Exchange Volume"

02/21/20

David Malacrino, International Monetary Fund "Who Creates New Firms When Local **Opportunities Arise?**"

02/28/20

Linda Schilling, Ecole Polytechnique

"Optimal Forebearance of Bank Resolution"



2018-19 ACCOUNTING SEMINARS

This recurring series brings the latest academic accounting thinking and theories to Olin. The series allows the field's premier academics to examine topics such as bank transparency, private equity, fair value accounting, and trade credit policy. Upcoming and past speakers include faculty from Columbia Business School, New York University, Boston University, Rice University, MIT, University of Chicago, and London Business School. Below find a list of Accounting Seminars hosted at Olin Business School during the 2019–20 academic year.

09/27/19

TJ Wong, University of Southern California "Does Social Media Moderate Information Bias in China? Evidence from the Tone of Social and Traditional Media"

10/04/19

Eric Weisbrod, University of Miami

"The Dissemination and Pricing of Street Earnings"

10/25/19

Jacob Thomas, Yale School of Management

"Measuring the Information Content of **Accounting Disclosures**"

11/22/19

Urooj Khan, Columbia Business School

"Earnings Quality on the Street"

Nathan Marshall, University of Colorado Boulder

"Who's on the Hot Seat for an SEC Investigation"

01/17/20

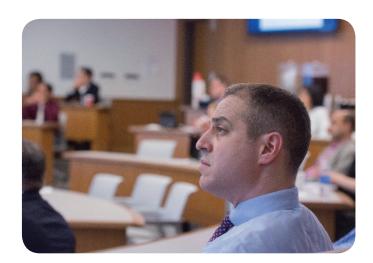
Dangi Hu, Northwestern University, Kellogg School of Management

"Persistence of Activist Short-Sellers' Performance: The Effect of Past Success"

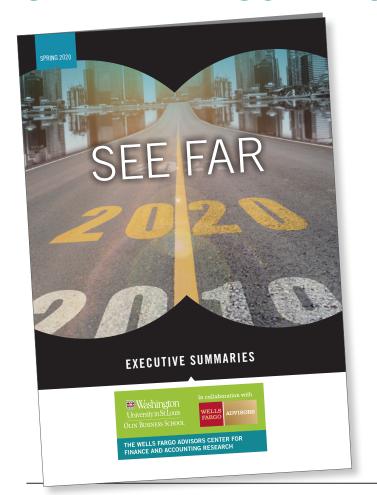
02/28/20

Daniele Macchiocchi, University of Utah David Eccles School of Business

"Financial Shocks to Lenders and the Composition of Financial Covenants in Debt Contracts"



SEE FAR EXECUTIVE SUMMARIES



This year, WFA-CFAR presents the sixth edition of SEE FAR, a collection of executive summaries of financial and accounting research produced at Washington University's Olin Business School. The publication name not only capitalizes on the center name, but it also captures the essence of our research: looking to the future rather than concentrating exclusively on current events and thinking, and focusing on big-picture issues that have far-reaching consequences. All the articles in SEE FAR are based on research that has been previously published in an academic journal, or as a monograph, or is currently a working paper that will be published in the future. The executive summaries are written so that they are accessible to a broad audience, rather than solely to those in academia. The goals are twofold: We want to build a bridge between the research of Olin Business School faculty and those in the world of practice. Additionally, we believe this research will add to the knowledge people use on a daily basis.

Mobility Constraints and Labor Market Outcomes: Evidence from Credit Lotteries

BERNARDUS VAN DOORNIK, Banco Central do Brasil ARMANDO GOMES, Olin School of Business, Washington University in St. Louis DAVID SCHOENHERR, Princeton University JANIS SKRASTINS, Olin School of Business, Washington University in St. Louis

In this paper, we examine the effect of individual mobility on labor market outcomes. We exploit exogenous time-series variation in Individual mobility through credit lotteries that randomly allocate credit designated for motorcycle purchase to participants of a financial product in Brazil. We find that upon access to a motorcycle, individuals exhibit higher employment rates and earnings, and are more likely to start a new business. Consistent with an underlying mobility channel, we observe that individuals move to jobs further apart from their home and harder to reach by public transportation. These effects are strongest for individuals residing in areas with less developed public transportation and sparse local labor markets.



SEE FAR EXECUTIVE SUMMARIES



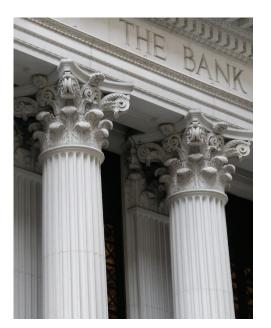
Organizational Higher Purpose

STUART BUNDERSON, George & Carol Bauer Professor of Organizational Ethics & Governance, Olin School of Business, Washington University in St. Louis ROBERT QUINN, Margaret Elliot Tracey Collegiate Professor Emeritus, University of Michigan at Ross Business School

ANJAN THAKOR, John E. Simon Professor of Finance, Olin School of Business, Washington University in St. Louis

BRIAN WELLINGHOFF, Director of Strategy at Barry-Wehmiller

On November 8th, 2019, there was a conference titled, "Organizational Higher Purpose," on the campus of Washington University in St. Louis. It was an inspiring event in which academic researchers, consultants and leaders of various types of organizations shared their insights on issues related to personal and organizational higher purpose. The purpose of this paper is to summarize the key insights that emerged during the conference. The discussion is organized in three parts. In Section Two, we summarize the key ideas on the issues of personal higher purpose. Section Three takes up organizational higher purpose interact. Section Five concludes. The conference program is included.



Design of Compensation Packages for Bank Executives

BENJAMIN BENNETT, Olin School of Business, Washington University in St. Louis

GOPALAN RADHAKRISHNAN, Olin School of Business, Washington University in St. Louis

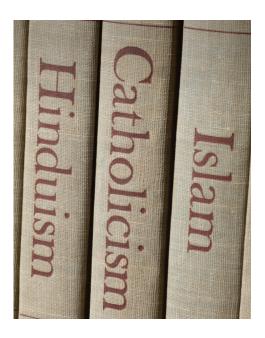
ANJAN V. THAKOR, Olin School of Business, Washington University in St. Louis

The issue of how banks behave and what this implies for bank fragility and systematic risk has taken center stage since the 2007–2009 financial crisis. There is also recognition that bank behavior is influenced by the manner in which bank executives are compensated. Indeed, the Dodd-Frank Act created oversight of executive compensation in banking based on the belief that regulating compensation is a key to regulating risk taking behavior and hence bank stability. Despite this, our knowledge of the structure of executive compensation in banks and other financial firms is rather limited. Executive compensation research typically does not distinguish between banks and

Impact of Riot Experience on Loan Quantity

JANIS SKRASTINS, Olin School of Business, Washington University in St. Louis

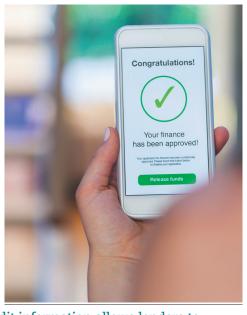
We provide microeconomic evidence on the link between ethnic frictions and market efficiency, using dyadic data on managers and borrowers from a large Indian bank. We conjecture that, if exposure to religionbased communal violence intensifies intergroup animosity, riot exposure will lead to lending decisions that are more sensitive to a borrower's religion. In our sample of Hindu branch managers, we find that those with substantial riot exposure prior to joining the bank lend relatively less to Muslim borrowers. Riot-exposed officers' loans to Muslims are less likely to default, suggesting that the lower lending rate for Muslims is driven by taste-based discrimination. This bias persists across a bank officer's tenure, suggesting that the economic costs of ethnic conflict are long-lasting, potentially spanning across generations.



Awareness of Credit Information Sharing: Two Natural Field Experiments

LI LIAO, Tsinghua University
XIUMIN MARTIN, Olin School of Business,
Washington University in St. Louis
NI WANG, Quant Group
ZHENGWEI WANG, Tsinghua University
JUN YANG, Indiana University

A well-functioning consumer credit market is important for household consumption and economic growth. Various informational problems and moral hazard impede efficient credit allocation. For example, Jappelli and Pagano (2002) show that bank lending to the private sector relative to GDP is about half as large in countries without credit information sharing (30% vs. 60%). Lender information sharing has been proposed as a way to reduce information asymmetry between borrowers and lenders (Pagano and Jappelli, 1993) and thereby improve borrower repayment effort (Paddilla and Pagano, 1997; Padilla and



Pagno, 2000). The rationale is threefold. First, knowledge of borrowers' credit information allows lenders to conduct effective screening. Thus, lenders are more willing to lend. Second, knowing that other lenders also have the borrower's credit information makes the credit market more competitive for the borrower in the sense that current lenders are likely to offer a lower interest rate on the borrower's future loans. In other words, information sharing increases competition among lenders and reduces the borrower's financing cost, and thus improves its repayment likelihood. Third, knowing that their repayment information will be shared with other lenders, borrowers are likely to try harder to avoid default. Using a pair of randomized field experiments, we study how the awareness of lender information sharing affects borrowers' loan take-up decision and default decision.

To obtain copies of the papers featured here, please email Amber Lutes at alutes@wustl.edu.

PERSONAL AND ORGANIZATIONAL HIGHER PURPOSE: SURVEY RESULTS

Olin School of Business, Washington University in St. Louis

Stuart Bunderson, George and Carol Bauer Professor of Organizational Ethics and Governance and Co-Director of the Bauer Leadership Center

Anjan V. Thakor, John E. Simon Professor of Finance, Director of the WFA-CFAR, research associate ECGI, FTG Fellow and MIT-LFE Affiliate

ABSTRACT

This paper reports the findings of a recent survey of 1019 individuals to learn about their commitment to and perceived value from a personal and organizational higher purpose. We found that personal higher purpose promotes personal well-being, including greater happiness and lower stress from COVID-19, and this effect was stronger when the purpose statement was written down. This notwithstanding, while many individuals stated that they have a personal higher purpose, very few had a written statement of purpose. The incidence of written higher purpose statements is higher among organizations than among individuals. Employees of organizations with higher purpose statements were happier and prouder of their organizations. These effects were stronger when the purpose statement was written down and tied to society, employees, and customers, rather than shareholders.

INTRODUCTION

In the Fall of 2019 we organized a conference on personal and organizational higher purpose on the campus of Washington University in St. Louis. It was a spectacular event that brought together academic researchers, consultants and organizational leaders to share their research findings and experiences. We were particularly struck by a presentation by Vic Strecher from The University of Michigan who observed how stress levels and general dissatisfaction were rising even as economic conditions were improving and that suicidal ideation had doubled on U.S. college campuses in the past decade. He stressed the importance of personal higher purpose in coping with these stresses, noting that someone who does not "repurpose their life" at retirement is 2.4 times more likely to have Alzheimer's than someone who adopts an authentic (revised) higher purpose.

Bob Chapman, CEO of Barry Wehmiller, also spoke at the conference and emphasized the importance of organizational higher purpose. He mentioned that 65% of people would give up a salary increase if they could fire their boss, and that the person an employee reports to at work is more important to an employee's health than the family doctor.

These remarks and other discussions at the conference made us curious to know more. What does personal higher purpose really do for people? How do individuals perceive the value of personal purpose in their lives? What is the role of an organization's higher purpose in the lives of its employees? Are there any connections between personal and organizational higher purpose?

These questions speak to "Finding the Why in What You Do," as stated by the Harvard Business Review editors in the Spring 2020 issue of The Best of HBR, titled, "How to Lead With Purpose." To learn about these questions, we conducted a survey of 1,019 individuals in May 2020, all of whom were employed and were selected to be generally representative of the gender, racial, and geographic diversity of the American population. The purpose of this paper is to present our findings from that survey and discuss how these findings speak to the questions listed in the previous page.

BROADLY SPEAKING, OUR SURVEY REVEALED THAT:

- A majority of those surveyed had a personal higher purpose, but most had not written it down.
- Having a written personal statement of purpose helped individuals in various ways, including coping with stress and finding happiness.
- Curiously, those with a written higher purpose statement also reported higher levels of anxiety.
- The incidence of written statements of higher purpose was higher among organizations than among individuals.
- Employees of organizations with higher purpose statements were more proud of working for their organizations and happier.
- Organizational higher purpose statements were more effective when written down and
 when they emphasized society, customers, employees, and stakeholders other than shareholders,
 reflecting a potential challenge for the explicit articulation of shareholder value
 maximization goals.
- Employees of organizations with higher purpose statements are more likely to have personal statements of higher purpose, suggesting either a sorting effect or an influence effect.

In what follows, we present a granular look at our findings and discuss their implications for organizations and individuals. In addition, we discuss how we have used our findings to construct a personal higher purpose index and an organizational higher purpose index, which will enable us to examine how personal and organizational higher purpose and their perceived outcomes change over time.

Section II describes the sample and our findings on personal higher purpose. Section III describes the findings on organizational higher purpose. Section IV introduces our personal and organizational higher purpose indices. Section V discusses the connections between the findings in Sections II and III and concludes.

¹ For a detailed description of the conference, see Bunderson, Quinn, Thakor and Wellinghoff (2020).

² See Strecher (2016). Vic's comments were consistent with the large sample of empirical evidence discussed in Danner, Snowden and Frisen (2001), for example.

II. PERSONAL HIGHER PURPOSE

The sample of respondents for this survey was deliberately designed to capture a broad and representative cross-section of the American working population. We worked with an external polling organization to specifically recruit a balanced sample of respondents in terms of gender, ethnicity, income, and geography. Respondents also varied broadly in terms of education, work experience, managerial experience, and industry. The following table summarizes key sample demographics.

Table 1: Demographics of Respondents

Age	Median: 35 to 44. Distribution: 18 to 24 = 7.4%; 25 to 34 = 21.1%; 35 to 44 = 23.5%; 45 to 54 = 19.1%; 55 to 64 = 23.3%; 65 or older = 5.7%.
Education Level	Median: Bachelor's degree. Distribution: Some High School = 0.7%; High School or Equivalent = 12.0%; Trade School = 2.5%; Some college = 15.6%; Associate's = 11.8%; Bachelor's = 33.9%; Master's = 17.7%; Doctorate = 5.5%.
Years of Work Experience	Median: 10-15 years. Distribution: <5 = 15.4%; 5-10 = 23.1%; 10-15 = 19.6%; 15-20 = 13.2%; >20 = 28.8%
Title	Median: Associate Distribution: Intern = 1.5%; Entry Level = 17.2%; Analyst/Associate = 33.0%; Manager = 24.2%; Senior Manager = 6.3%; Director = 5.7%; VP = 1.8%; SVP = 1.2%; C-Level = 2.4%; President or CEO = 2.4%; Owner = 4.5%
Years of Management	Median: 5-10 years Distribution: None = 27.8%; <5 = 25.5%; 5-10 = 18.5%; 10-15 = 11.2%; 15-20 = 7.9%; >20 = 9.1%
Salary	Median: \$50,000 to \$100,000 Distribution: <\$25K = 9.0%; \$25K to \$50K = 30.9%; \$50K to \$100K = 32.6%; \$100K to \$200K = 15.1%; >\$200K = 7.8%
Gender	Distribution: 48.7% male, 51.3% female
Race	Distribution: 71% White; 17% Hispanic; 13% Black; 3% Asian; 1% American Indian
Organizational Type	Distribution: For profit = 49.9%; Non-profit = 8.1%; Government = 10.1%; Health Care = 12.2%; Education = 12.2%
Organization Size	Median: 500-999 employees Distribution: 1 = 4.1%; 2-9 = 6.9%; 10-24 = 8.5%; 25-99 = 13.6%; 100-499 = 16.2%; 500-999 = 10.9%; 1000-4,999 = 14.2%; 5,000+ = 25.5%

We made sure that every respondent had a job, so they could respond to questions about both personal and organizational higher purpose. Our respondents on average have a college education, are in managerial positions, are middle-income individuals split almost evenly between being employed by for-profit and other types of organizations, and roughly representative of the racial composition of the U.S. population.

The table below summarizes responses to questions about personal higher purpose. All of the differences in percentages across the three groups (no personal higher purpose, personal higher purpose not written down, and personal higher purpose written down) are statistically significant.

Table 2: Responses on Personal Higher Purpose

	A	В	C (All differences between B and C statistically significant)
1. Do you have a statement of personal higher purpose, and is it	No	Yes but not written down	Yes and written down
written down?	41.5%	44%	14.5%
2. Are you totally committed to your higher purpose?		18% of those in 1B above said yes.	33% of those in 1C above said yes.
3. Does your higher purpose help you cope with the Covid-19 global health crisis and its requirement for social isolation and remote work?		16% of those in 1B said that it has been an invaluable anchor.	30% of those in 1C said that it has been an invaluable anchor.
4. How would you describe your state of personal happiness and well being?	7% of those in 1A said they were extremely happy.	10% of those in 1B said they were extremely happy.	35% of those in 1C said they were extremely happy.
5. What is your level of anxiety about the future?	5% of those in 1A said they were extremely anxious.	6% of those in 1B said they were extremely anxious.	16% of those in 1C said they were extremely anxious.

The findings summarized in *Table 2* provide a number of insights. Compared to those with no personal higher purpose statement, those with a purpose statement are happier and better able to cope with the Covid-19 crisis. Among those with a personal higher purpose, those with a written purpose statement show a stronger commitment to their purpose, are better able to cope with the Covid-19 crisis and are happier. Surprisingly, those who have a written purpose statement are also more anxious about the future. We now consider each of these findings in more detail.

A WRITTEN STATEMENT OF PURPOSE:

Our findings that a written statement of personal higher purpose helps individuals in many ways raises an important question: why do only 14.5% of our respondents have such a statement? While a definitive answer to that question will require follow-up research, here are a few possible answer³:

- (i) LACK OF BELIEF AND PERSONAL DOUBT: There are people who simply do not believe that a written higher purpose statement will benefit them in any way. And even when they believe in the power of purpose, they may doubt their own ability to live a life of purpose.
- (ii) THE TYRANNY OF THE HERE AND NOW: The pressure of time and managing daily schedules are challenges that most people face. There are many for whom the introspection to create a written personal higher purpose statement is a luxury they do not perceive they have the time for.
- (iii) OVERCONFIDENCE: Some people may believe that their personal higher purpose is clearly written in their hearts and minds and that writing it down on paper is therefore redundant. Paradoxically those who are highly successful in their professional lives may be particularly likely to assume that a written statement is unnecessary for them.

COMMITMENT TO PURPOSE: It was not surprising to us that the percentage of those who said they were committed to their personal higher purpose was almost twice as large in the group that had a written purpose statement compared to the group without a written statement. The mere act of writing a personal purpose statement is a reflection of commitment. It may also lead to more frequent reading and reflection on one's higher purpose, further reinforcing commitment (although the direction of causality probably runs from commitment to writing down the purpose statement).

PURPOSE AND COPING WITH STRESS LIKE THE COVID-19 CRISIS: Our findings also confirm the findings of previous research that having a higher purpose helps individuals cope with stress. Here again the effect is almost twice as strong (30%) among those who had a written purpose statement compared to those who did not (16%). These findings are consistent with Strecher's work cited above, which suggests that clarity around one's higher purpose can serve as an anchor during periods of uncertainty, adversity, and stress.

PERSONAL HAPPINESS AND WELL BEING: Our findings indicate that people who have a personal higher purpose are happier than those who do not. Only 7% of those without a personal higher purpose statement reported that they were extremely happy. Those who had a personal statement of higher purpose that was not written down were only slightly happier, with 10% of them reporting that they were "extremely happy." In contrast, 35% of respondents who had a written higher purpose reported being "extremely happy" – five times the percentage of those without a higher purpose statement and over three times the percentage of those with an unwritten higher purpose statement.

ANXIETY ABOUT THE FUTURE: We were surprised to find that those with a written higher purpose statement were more anxious about the future than those without. This may be related to the fact that those who introspect about higher purpose may also introspect more about all of the uncertainties associated with the future. It is worth noting that having a higher purpose does not necessarily reduce the incidence of stressful situations one encounters, it simply increases one's capacity to cope with those situations⁴.

DEMOGRAPHIC DIFFERENCES: Compared to those who stated they had no higher purpose, those with a higher purpose are:

- younger;
- more educated;
- more senior in managerial positions;
- earning higher salaries.

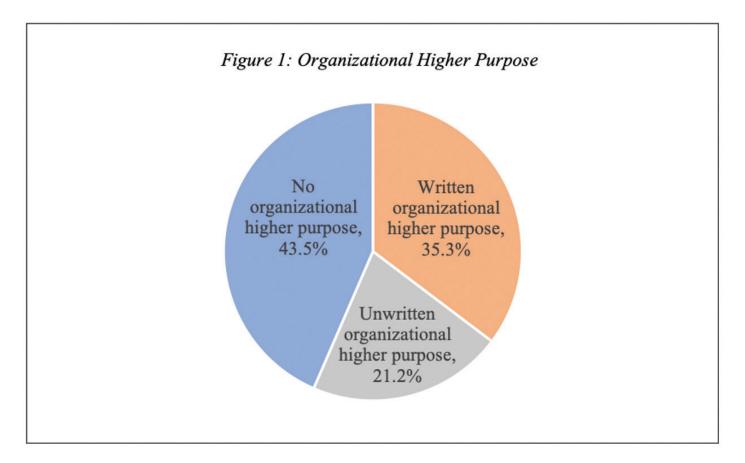
All of the differences between the two groups are statistically significant. Moreover, compared to those with no personal purpose statement, those with a personal purpose statement are more likely to be male, minority (Black or Hispanic), and less likely to be employed by a forprofit organization.

III. ORGANIZATIONAL HIGHER PURPOSE

In our survey, we defined organizational higher purpose as a prosocial goal that intersects with the organization's business goals and guides day-to-day decision-making. As the pie chart on the next page shows, the majority of firms that our respondents work at have a statement of purpose (56.5%), but only about 35% of the firms had a written statement of higher purpose.

³ Some of these are discussed in Quinn and Thakor (2019).

⁴ This is consistent with Bunderson & Thompson (2009) and Baumeister, Vohs, Aaker, & Garbinsky (2013). Consistent with Quinn and Thakor (2018, 2019).



Because organizational higher purpose statements are prosocial in nature, they typically articulate ways in which the work of an organization benefits particular organizational stakeholders. We therefore asked our respondents to tell is which stakeholders are explicitly mentioned in their organization's statement of higher purpose. *Table 3* summarizes their responses.

Table 3: Elements of Organizational Higher Purpose

	A	В	С
Element	Percentage of Organizations With Unwritten Higher Purpose Stating This as an Element of their Higher Purpose	Percentage of Organizations With Written Higher Purpose Stating this as an Element of their Higher Purpose	Statistical Significance of Difference Between A & B *** significant at ** significant at * significant at
Shareholders Employees Customers Community	22%	27%	not significant
	60%	62%	not significant
	51%	60%	*
	34%	54%	***
Society	18%	32%	***
Environment	20%	20%	not significant

We see from *Table 3* that employees, customers and community are the top three elements of organizational higher purpose statements, both written and unwritten. This is consistent with prior research which emphasizes that while organizational higher purpose initiatives are a subset of corporate social responsibility (CSR) initiatives, they are distinguished from general CSR initiatives by virtue of being linked to the firm's day-to-day decision-making. This kind of linkage is most evident when the elements of the organizational higher purpose deal with stakeholder groups that are likely to be included in the firm's day-to-day decisions—employees, customers and the community in which the firm operates.

It is interesting that the focus of higher purpose statements on stakeholders outside the organization (customers, community, society) is significantly higher in organizations that have a written higher purpose than in those in which the higher purpose statement is unwritten. One possible explanation for this finding is that organizations that include external stakeholders in their statement of higher purpose may opt to write that statement down so that it can be shared with those external stakeholders, both for external relations and accountability reasons.

Table 4 summarizes the relationship between organizational higher purpose and employee attitudes and behaviors.

Table 4: Impact of Organizational Higher Purpose

	A	В	С
Effect	Percentage of Organizations With Unwritten Higher Purpose in Which Employees Strongly Agreed With the Statement	Percentage of Organizations With Written Higher Purpose in Which Employees Strongly Agreed With the Statement	Statistical Significance of Difference Between A & B
Is your organization's higher purpose inspiring and meaningful to you personally?	14%	26%	**
2) To what extent does your organization's purpose influence the decisions you make as a member of the organization?	17% said "extremely meaningful"	26% said "extremely meaningful"	**
3) Has Covid-19 made you more or less committed to your organization's higher purpose?	20% said "much more committed"	27% said "much more committed"	not significant

⁴ See, for example, Gartenberg, Pratt and Serafeim (2019), Quinn and Thakor (2018, 2019) and Thakor and Quinn (2020).

4) To what extent has your organization's statement of higher purpose served as a compass during Covid-19?	20% said "to a great extent"	28% said "to a great extent"	*
5) My organization is profitable	17%	29%	**
I am proud to work for my employing organization	31%	41%	***
7) To what extent do you trust your organization's top leaders to make intelligent and well-informed business decisions?	20% said "to a great extent"	26% said "to a great extent"	**
8) To what extent do you trust your organization to make socially-responsible business decisions?	24% said "to a great extent"	29% said "to a great extent"	***

We also compared the attitudes of employees in organizations without a stated higher purpose to those in organizations with a stated higher purpose. These results are shown in *Table 5* below.

Table 5: Employee Attitudes in Organizations Without a Stated Higher Purpose Versus Those in Organizations With a Stated Higher Purpose

Effect	Percentage of Organizations Without Organizational Higher Purpose in Which Employees Strongly Agree With the Statement	Percentage of Organizations With Unwritten Higher Purpose in Which Employees Strongly Agreed with the Statement	Percentage of Organizations With Written Higher Purpose in Which Employees Strongly Agreed with the Statement
I am proud to work for my organization	19%	31%	41%
2) To what extent do you trust your organization's top leaders to make intelligent and well-informed business decisions?	16% said "to a great extent"	20% said "to a great extent"	26% said "to a great extent"
3) To what extent do you trust your organization to make socially-responsible business decisions?	15% said "to a great extent"	24% said "to a great extent"	29% said "to a great extent"

Tables 4 and 5 provide some interesting takeaways. First, organizational higher purpose appears to create greater pride in employees and also greater trust in leaders. As per *Table* 5, a significantly higher percentage of employees who work in purpose-driven organizations say they are proud to work for their organizations compared to employees in organizations that do not have a stated higher purpose, and this effect is stronger in organizations with a written statement of higher purpose. Interestingly, employees in purpose-driven organizations also trust their leaders to make both better business decisions and more socially-responsible decisions, compared to employees in organizations without a stated higher purpose. The effect is stronger when the organizational higher purpose statement is written down.

Second, *Table 4* provides a strong indication that organizational higher purpose has a stronger influence on employees when it is written down. It is statistically significantly more inspiring and meaningful to employees, influences their decisions more and also increases their commitment to the purpose of the organization during a crisis like Covid-19, serving as a compass for a greater percentage of employees in organizations with written higher purpose statements. It is also interesting that we found a positive correlation between organization profitability and a written higher purpose statement. Although we cannot determine the direction of causality here—it may just be that more profitable organizations are more likely to have written higher purpose statements—it is nonetheless possible theoretically for the causality to run from purpose to profits⁸.

Finally, our research also uncovered an interesting correlation between personal higher purpose and organizational higher purpose. Seventy percent of those individuals with a written personal higher purpose statement work for organizations with a written organizational higher purpose statement. This relationship may be due to one of two—not necessarily mutually exclusive—reasons. It may reflect the influence of the organization on the individual. If an employee has experienced organizational higher purpose, it may encourage him or her to develop their own personal higher purpose statements. It may also reflect a sorting or selection effect. Organizations with a higher purpose may tend to attract or consciously select individuals with higher purpose to work for them⁹.

Although our research suggested that personal higher purpose and organizational higher purpose are connected, we also found that personal and organizational higher purpose had independent and cumulative effects on an individual's personal happiness. That is, happiness was higher for those individuals who had a personal higher purpose statement and was higher yet if that individual also worked for an organization that had an organizational higher purpose statement. Moreover, personal and organizational higher purpose contributed to personal happiness over and above the effects of salary and title. In other words, personal happiness is enhanced not only when we feel that we as individuals have a clear "why," but also when we feel that the employing organizations within which we live out a large portion of our lives have a clear "why." We are both individual and social creatures.

⁸ See Thakor and Quinn (2020) for example.

⁹This need not be an explicit question like, "Do you have personal higher purpose?" Rather, an individual with a personal higher purpose may provide subtle cues in the interview process that the organization finds attractive.

IV. A HIGHER PURPOSE INDEX

Building on the above analyses and results, we developed two indices to capture the extent to which the individuals in our sample of respondents expressed 1) a sense of personal higher purpose, and 2) a sense of organizational higher purpose. Our objective in developing these indices was to capture the extent to which the 1019 individuals who responded to our survey —individuals who represent the diversity of the United States population in terms of gender, ethnicity, age, and geographic location—felt guided by personal and organizational higher purpose. By measuring these indices over time, our intention is to document the prevalence of personal and organizational higher purpose in the broader U.S. population, and changes in higher purpose over time.

We first developed an index to measure the extent to which the 1019 individuals who responded to our survey reported that they had and were anchored by a personal sense of purpose. We measured personal higher purpose using the following index:

 $\underline{H_1 \text{ Index}} = 0.25x1 + 0.25x2 + 0.25x3 + 0.25x4$

where,

 x_1 = percentage of individuals stating they have a personal higher purpose

 x_2 = percentage of individuals stating that they have a written higher purpose

 x_3 = percentage of individuals stating that they are strongly committed to their personal purpose

 x_4 = percentage of people stating that their purpose statement helps them cope with stress Given the pattern of results that we observed among the 1,019 individuals who responded to this survey, the value of H_1 in May 2020 is:

 $H_1 = 0.25[58.5\%] + 0.25[14.5\%] + 0.25[51\%] + 0.25[46\%] = 42.5\%$

We developed a second index to measure the extent to which an individual feels that their employing organization provides them with an inspiring and meaningful organizational higher purpose. Our organizational higher purpose index (H2) was constructed as follows:

 $\underline{\text{H}_2 \text{ Index}} = 0.25\text{y}1 + 0.25\text{y}2 + 0.25\text{y}3 + 0.25\text{y}4$

where,

 y_1 = percentage of individuals stating that their employing organization has a statement of higher purpose

 y_2 = percentage of individuals stating that their employing organization has a written statement of higher purpose

 y_3 = percentage of individuals stating that they are strongly inspired by their higher purpose y_4 = percentage of individuals stating that they are strongly influenced by their higher purpose in making decisions

Given the pattern of results that we observed among the 1,019 individuals who responded to this survey, the value of H₂ in May 2020 is:

 $H_2 = 0.25[56.5\%] + 0.25[35.3\%] + 0.25[40\%] + 0.25[43\%] = 43.7\%$

V. CONCLUSION

In conclusion, our research suggests that "why" matters. We as human beings need and want to know that our lives have purpose and meaning—both as individuals and as contributing members of the work organizations where we spend a significant portion of our lives. In our research, a statement of personal higher purpose was associated with greater personal happiness and better stress management. A statement of organizational higher purpose further enhanced happiness, and created a deep connection between an individual and his or her employing organization and its leaders. The results of this survey suggest that to the extent we as individuals and as organizational leaders can release the power of purpose, we will create more meaningful lives and more motivating workplaces¹⁰.

REFERENCES

Baumeister, R.F., Vohs, K.D., Aaker, J., & Garbinsky, E.N., "Some Key Differences between a Happy Life and a Meaningful Life," *Journal of Positive Psychology*, 2013, Vol. 8, Issue 6, Pages 505-516.

Bunderson, J.S. and J.S. Thompson, "The Call of the Wild: Zookeepers, Callings, and the Double-Edged Sword of Deeply Meaningful Work," Administrative Science Quarterly, 2009.

Bunderson, Stuart, Robert Quinn, Anjan Thakor and Brian Wellinghoff, "Organizational Higher Purpose," See Far Executive Summaries, Spring 2020, 12-23.

Danner, D., D. Snowden, and W. Friesen, "Positive Emotions in Early Life and Longevity: Findings from the 'Nun Study," *Journal of Personality and Social Psychology*, 2001.

Gartenberg, Claudine, Andrea Pratt and George Serafeim, "Corporate Purpose and Financial Performance," *Organization Science* 30(1), January-February 2019, 1-18.

Quinn, Robert E. and Anjan V. Thakor, "Creating a Purpose-Driven Organization," *Harvard Business Review*, July-August 2018, 78-85 (reprinted in *Harvard Business Review Special Issue: How to Lead With Purpose*, The Best of HBR, Spring 2020).

Quinn, Robert E. and Anjan V. Thakor, "The Economics of Higher Purpose," Barret-Koehler Press, 2019.

Strecher, Victor J., Life on Purpose, Harper Collins Publishers, 2016.

Thakor, Anjan and Robert E. Quinn, "Higher Purpose, Incentives, and Economic Performance," working paper, Washington University in St. Louis, May 2020.

¹⁰See Thakor and Quinn (2020).





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