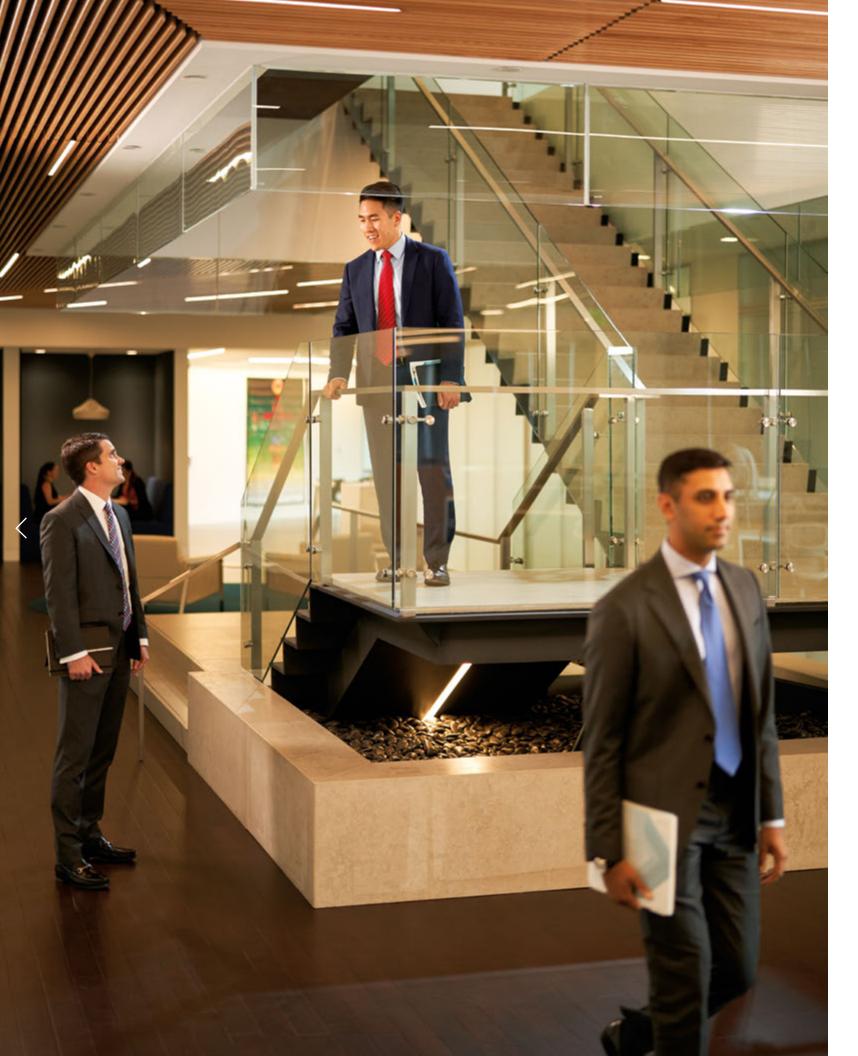


INSIDE DIMENSIONAL 2020

INSIDE DIMENSIONAL 2020



Welcome to Inside Dimensional. Since 1981,
Dimensional has focused on bringing the great
ideas in finance to life for investors. Within, you'll
find a behind-the-scenes look at the people of the
firm, who work hard every day to give our clients
an outstanding investment experience.

LETTER FROM THE CO-CEOS	>	IN THE MEDIA	>
BY THE NUMBERS	>	CHARLOTTE SPOTLIGHT	>
OUR PEOPLE		FROM THE CHAIRMAN	
Board of Directors	>	Changing the Way You	
Global Leadership	>	Think About Investing	>
Portfolio Management Trading	>	Moulaye Niang Savina Rizova Andrew Webb	
Research	>		>
Investment Solutions Global Client Group	> >		>
Technology	>	INVESTMENT SPOTLIGHT	
Investment Operations	>	The Art and Science	
Finance and Accounting	>	of Financial Research	>
Marketing Corporate Services Human Resources Legal Compliance	> > > >	AROUND THE GLOBE  Australia  Japan  Asia ex Japan	> > >
		EMEA	>
		Canada	>

<sup>&</sup>quot;Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

<sup>&</sup>quot;Our People" pages as of December 31, 2019.

### LETTER FROM THE CO-CEOS



Left to right: GERARD O'REILLY, DAVE BUTLER

For nearly 40 years, Dimensional has put the interests of clients at the center of everything we do. Our unique view of markets and approach to investing are grounded in rigorous academic research and expert implementation. We help clients pursue higher expected returns without having to worry about the latest headlines. Our track record is a testament to the impressive body of work our people have helped us achieve.

As a company, we continue to attract many of the most talented professionals in the industry. Our people bring our culture of excellence, collaboration, and innovation to life. The investments we make in people create better opportunities for them and better experiences for our clients.

*Inside Dimensional* showcases the teams and individuals who are driving our company forward. We invite you to learn more.

DAVE BUTLER

Co-Chief Executive Officer

GERARD K. O'REILLY

Co-Chief Executive Officer and Chief Investment Officer

Geord o Rully



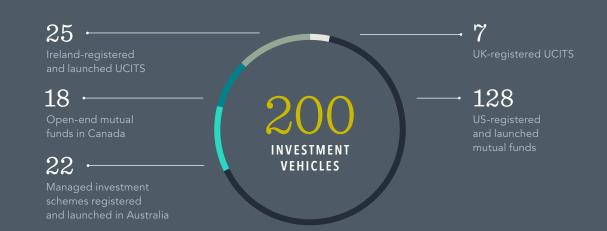
BY THE NUMBERS as of December 31, 2019

YEARS SINCE FOUNDING

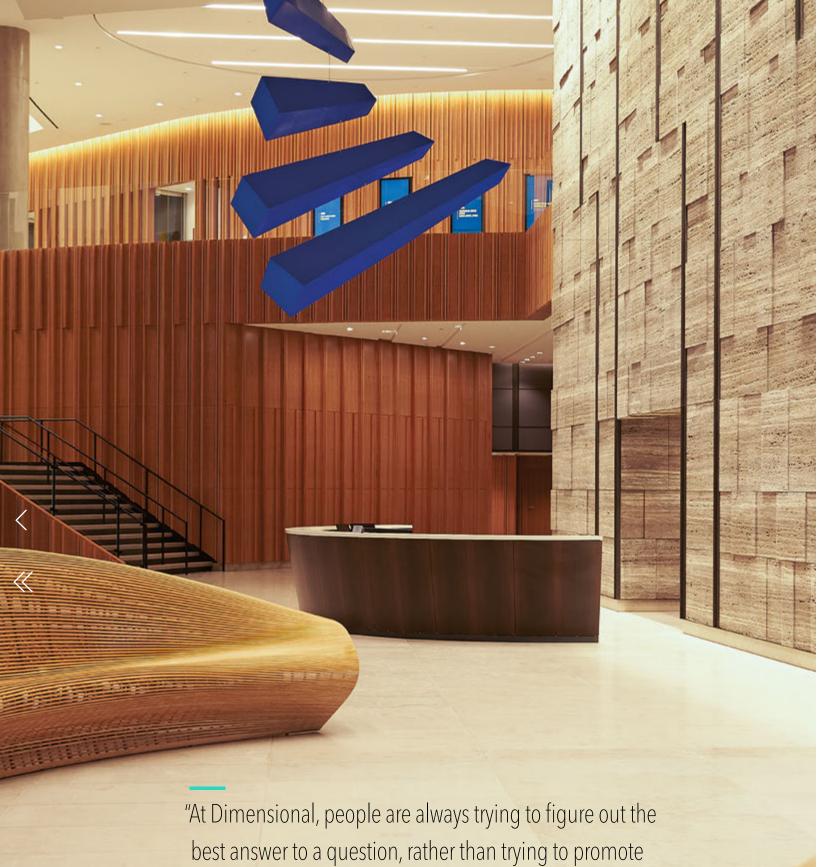
\$609B

ASSETS UNDER MANAGEMENT

1,400+
EMPLOYEES







their answer. The result is better solutions than any one

of us could have arrived at by ourselves."

PROFESSOR KENNETH FRENCH Director, Consultant, and Co-Chair of the Investment Research Committee

# BOARD OF DIRECTORS



Left to right:

JOHN "MAC

KENNETH FRENCH
Director, Consultant, and
Co-Chair of the Investment
Research Committee

EUGENE FAMA

Nobel laureate, Director,
and Consultant

AVE BUTLER

DAVID BOOTH
Chairman

O'REILLY

Director

# MEDIA HIGHLIGHTS FROM 2019

# Co-CEO O'Reilly's Path to Dimensional

The *Financial Times* profiled Dimensional Co-CEO and CIO Gerard O'Reilly and his path from aeronautics to asset management.

"You do not have to be a rocket scientist to work at Dimensional Fund Advisors but Gerard O'Reilly finds it helps. The Irishman is co-chief executive of one of the fastest growing US investment businesses. ... He was attracted to Dimensional because of its bookish culture and the chance to learn from famous economists at the company, including Nobel Prize winners."

FINANCIAL TIMES MARCH 30, 2019

# Robert Merton and the Effect of Time on Portfolio Choice

The **Economist** profiled Nobel laureate, Dimensional Resident Scientist, and retirement-planning specialist Robert Merton.

"Finance theorists are, as everybody knows, unworldly people who can scarcely tie their shoelaces, still less change a car tyre. Robert Merton confounds this stereotype. ... You sense that here is a man who could fix a flat in no time."

"The best lifetime strategy
is a complex problem to solve...
[But Mr. Merton] hopes that,
with the passage of time, the
pension industry will create
more user-friendly products.
Cars are easy for their users;
the complex work is done
by designers and engineers.
Pensions should be the same.
Needs drive innovation, says
Mr. Merton. 'That is why I'm
an optimist.'"

THE ECONOMIST JUNE 13, 2019

# For Young Savers Facing Subpar Returns, Think Long Term

The Wall Street Journal
examined approaches
to retirement saving for
those who are just beginning
the process. Age and
expectations for returns play
a part, and Dimensional's
Marlena Lee weighed in
on another factor.

"Marlena Lee, head of investment solutions at fund company Dimensional Fund Advisors LP, said the recommended savings rate also varies by income. For those with higher incomes, saving a higher percentage of pay is usually required to maintain the same standard of living." And with more time in front of younger investors to recoup potential losses, "they can afford to take more risk' than older investors, said Ms. Lee."

THE WALL STREET JOURNAL SEPTEMBER 30, 2019

# Dimensional and 'Systematic Alpha'

Barron's explored the innovative partnership between Dimensional and Betterment, an automated online investing service. Bryce Skaff, Co-Head of Dimensional's Global Client Group, was asked about how Dimensional invests.

"DFA's performance gives credence to its approach. ...
The firm has grown without traditional advertising and at a time when the firm's preferred vehicle, mutual funds, have been steadily losing assets to ETFs.

I think of it as the evolution of both active and passive,'
Skaff says. 'You take the good attributes of passive,' he says, listing qualities such as transparency, tax efficiency, and process-driven investing. And take the best of active to enhance returns in what he calls 'systematic alpha.'"

BARRON'S OCTOBER 11, 2019

## How to Apply an Academic Theory in the Real World

As part of **Bloomberg Opinion**'s "Masters in
Business" program, David
Booth and Professor Eugene
Fama discussed the role
academic research has played
in Dimensional's success.

"How do you take an innovative academic theory and apply it in the world of investing? That was the challenge confronting David Booth, the co-founder of Dimensional Fund Advisors. Booth was a student of University of Chicago economist and future Nobel laureate Gene Fama, whose ideas about efficient markets and factor-based investing revolutionized finance."

BLOOMBERG OPINION NOVEMBER 11, 2019

## Forget Stock Market Forecasts. They're Less Than Worthless.

.....

The **New York Times** wrote about the folly of stock predictions and the value of an investing approach based on patience and diversification. It cited Jack Bogle, Warren Buffett, and David Booth as adherents.

"Mr. Booth doesn't make market forecasts, nor does his company. ...

'We don't try to forecast the future,' Mr. Booth [said]. 'We have no ability to do it. Nor does anyone else.'...

Keep it simple, he said, and don't try to outsmart the market. Take on only as much risk as you can handle. ... 'Find a stock-bond mix that you are comfortable with. And if you realize you're not comfortable, change it until you are—and then stick with it for years, and do better things with your life than worrying about where the market is going.'"

THE NEW YORK TIMES
DECEMBER 23, 2019

250 EMPLOYEES

280K



2019 LEED GOLD CERTIFICATION

LEED (Leadership in Energy and Environmental Design) is a widely used green building rating system sponsored by the US Green

# DIMENSIONAL CELEBRATES OPENING OF CHARLOTTE OFFICE



Leaders from the Charlotte area join executives from Dimensional to mark the opening of the firm's stateof-the-art office.

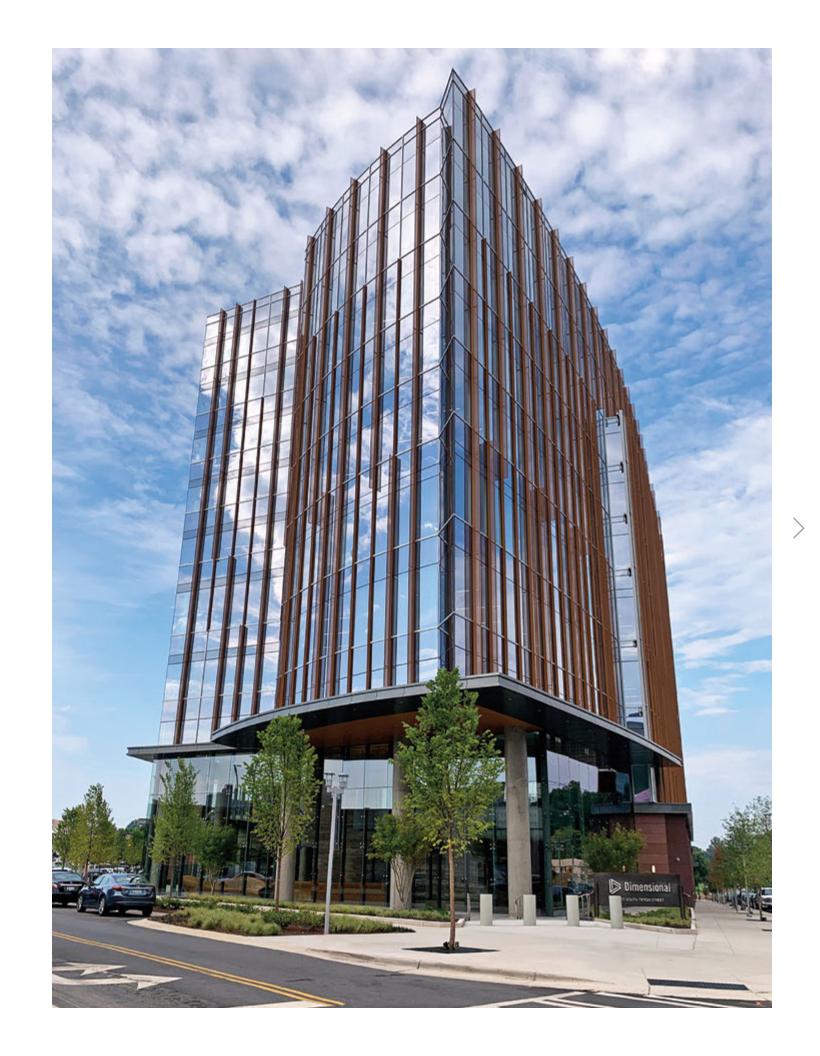
Dimensional officially opened its East Coast office in May 2019 at a ribbon-cutting ceremony led by Executive Chairman David Booth and Co-CEOs Dave Butler and Gerard O'Reilly. The event, which also included local officials, marked the culmination of a four-year journey and kicked off the next stage in Dimensional's growth.

In April 2015, the firm announced it would build a nine-story, state-of-the-art building in the South End neighborhood of the city, designed to accommodate around 750 employees and serve clients up and down the East Coast.

Dimensional selected Charlotte for a number of reasons. The Queen City is a growing, dynamic financial-services hub. Having a full-service presence there—featuring research, portfolio management, trading, investment operations, sales, and marketing—enables us to enhance the services we offer to clients and provide world-class facilities for conferences and meetings. Charlotte also offers an attractive living environment for employees, from its sports teams to museums to outdoor activities, and it is easy to access domestically and internationally.

Today, 250 Dimensional employees call Charlotte home, including new hires from the area, workers who relocated from our Santa Monica and Austin offices, and employees who came to North Carolina from other parts of the US and around the globe.

In its first year, we hosted 169 events for clients in Charlotte, and we expect that number to climb in 2020. As the firm embarks on a new decade, we look forward to welcoming clients and others to our latest home. "We are energized by Charlotte's vibrancy," says David, "and believe our business is well matched for the community."



DAVID BOOTH

DAVE BUTLER Co-Chief Executive Officer

GERARD K. O'REILLY Co-Chief Executive Officer and Chief Investment Officer

STEVE CLARK

CHRISTOPHER CROSSAN Global Chief Compliance Officer

LISA DALLMER PETE DILLARD Chief Operating Officer Chief Data Officer and Head of Investment Analytics and Data





KAREN DOLAN Head of Global Marketing

**((** 

RICHARD EUSTICE
Head of Global

JED FOGDALL Head of Global Portfolio Management

MARK GOCHNOUR Head of Global Client Services

MICHAEL HOLMES Chief Technology Officer

STEPHEN JONES Head of Global Corporate Services



MARLENA LEE Head of Investment Solutions

AARON M. MARCUS CATHERINE NEWELL SAVINA RIZOVA Head of Global Human Resources

Head of Research

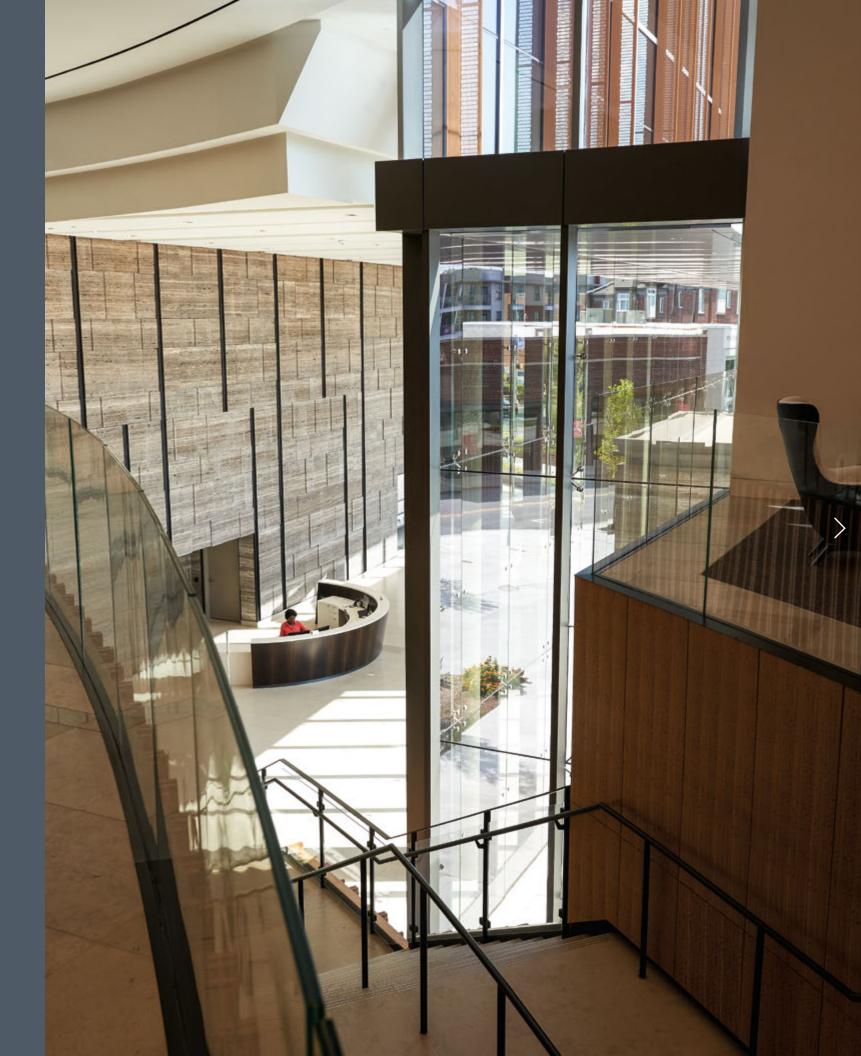
BRYCE SKAFF

Co-Head of Global Client Group

CARLO VENES Co-Head of Global Client Group

RYAN WILEY Head of Global Equity Trading





# PORTFOLIO MANAGEMENT



JED FOGDALL Head of Global Portfolio Management





MARY PHILLIPS Deputy Head of Portfolio Management,  $North\,America$ 

DAVE PLECHA Global Head of Fixed Income





ALLEN PU Deputy Head of Portfolio Management, North America

NATHAN LACAZE Head of Portfolio EMEA, and Co-CEO, Dimensional Fund  $Advisors\ Ltd.$ 





JOEL SCHNEIDER Deputy Head of Portfolio Management, North America

BHANU SINGH Head of Portfolio Management, Asia Pacific



### Global Leadership

JOSEPH CHI  $Head\ of\ Responsible$ Investment

SANTA MONICA

ROBERT DEERE Senior Investment Director SANTA MONICA

ASHISH BHAGWANJEE Senior Portfolio Manager

**ALAN HUTCHISON** Senior Portfolio Manager JOSEPH HOHN Senior Portfolio Manager AUSTIN

ARUN KESWANI Senior Portfolio Manager AUSTIN

JOSEPH KOLERICH Head of Fixed Income, AmericasAUSTIN

MARC LEBLOND Senior Portfolio Manager AUSTIN

ANTHONY POMPA Head of Portfolio  $Management\ Operations$ 

AUSTIN

AUSTIN

LUKAS SMART Senior Portfolio Manager

AUSTIN

ETHAN WREN Senior Portfolio Manager WILL COLLINS-DEAN Senior Portfolio Manager CHARLOTTE

KRISTIN DRAKE Head of Corporate Governance CHARLOTTE

TRAVIS MELDAU Senior Portfolio Manager

PAUL FOLEY Senior Portfolio Manager LONDON

CHARLOTTE

JOEL KIM Head of Fixed Income, International

KOTARO HAMA Senior Portfolio Manager токуо

LONDON

ROB NESS Senior Portfolio Manager SYDNEY







# TRADING







JASON LAPPING Head of International Equity Trading



## Global Leadership

CLAUDETTE HIGDON Senior Trader SANTA MONICA

LE TRAN
Senior Trader
SANTA MONICA

CHRISTIAN GUNTHER Senior Trader DAVID LARUSSO Senior Trader

ROBERT RICHARDSON Senior Trader AUSTIN SCOTT
VAN PELT
Senior Trader

CHRISTOPHER

 $Senior\ Trader$ 

RINK

AUSTIN

CHRISTINE IVANICK Senior Trader CHARLOTTE POLLY
WEISS
Senior Trader
CHARLOTTE

MARK BUTTERWORTH Head of EMEA Equity Trading

LONDON

WILL LETHEREN Senior Trader LONDON JAMES SIMPSON Senior Trader LONDON JONATHAN SMITH Senior Trader

SINGAPORE

DAVID VROLYK Senior Trader

SYDNEY

SAM WILLIS Senior Trader SYDNEY





11 PhDs



SAVINA RIZOVA, PhD Head of Research



PETE DILLARD

Chief Data Officer and Head of
Investment Analytics and Data



## Global Leadership

JACOBO RODRIGUEZ Head of Research Operations SANTA MONICA

NAMIKO SAITO, PhD Strategy and Investment Research SANTA MONICA STACY BARTLE Investment Analytics and Data AUSTIN STANLEY BLACK, PhD Strategy and Investment Research AUSTIN JOSEPH

RUZICKA

Investment

AUSTIN

 $Analytics\ and\ Data$ 

KAITLIN SIMPSON Strategy and Investment Research AUSTIN SAMUEL WANG, PhD Strategy and Investment Research AUSTIN BLAKE TATSUTA Investment Analytics and Data AUSTIN MARK KRASNIEWSKI Investment Analytics and Data CHARLOTTE THI SUA TRAN Investment Analytics and Data LONDON

WEI DAI, PhD Strategy and Investment Research SINGAPORE ANGELIQUE PALUMBO Investment Analytics and Data SYDNEY







MARLENA LEE, PhD Head of Investment Solutions



## Global Leadership

GRADY SMITH

Senior Investment DirectorSANTA MONICA

KAREN UMLAND

Senior Investment Director SANTA MONICA

JUSTINE ZAMMIT Senior Manager

SANTA MONICA

WES CRILL, PHD Senior Researcher DOUG LONGO Senior Investment Strategist AUSTIN

TIM LUYET  $Head\ of\ Investment$ Solutions Operations AUSTIN



PHILIPP

AUSTIN

MEYER-BRAUNS, PhD

Senior Researcher

SUNIL SHAH Senior Investment Strategist

AUSTIN

THORNTON Senior Investment Strategist AUSTIN

JEROMEY

ALTHEA TREVOR Senior Investment Strategist AUSTIN

NIGEL WALKER Senior Investment Strategist AUSTIN

WARWICK SCHNELLER, PhD Senior Researcher SYDNEY







From the CHAIRMAN



DAVID BOOTH

Executive Chairman

Changing the Way
You Think About Investing

"The set of ideas around which we built the firm are bigger than the firm itself."

DAVID BOOTH

Executive Chairman and Founde.



# CHANGING THE WAY YOU THINK ABOUT INVESTING

It's easy to feel anxious about investing. Commentators claiming they can foresee market moves appear on screen after screen, citing trade wars, yield curves, job figures, and various other signals as evidence stocks will soon go up or down.

Be wary of predictions on how markets will behave. It's a losing game. The results of money managers who try to time markets or pick winners have been studied extensively, and there is no compelling evidence they do better than you would expect by chance.

The good news is you can have a rewarding investment experience without trying to outguess the market. But you may need to change the way you think about investing.



A bastion of free-market thinking, the University of Chicago proved fertile ground for efficient market proponents, such as Professor **Eugene Fama**.

David Booth was Professor Eugene Fama's teaching assistant at the University of Chicago, and Professor Fama was the first person David called when he had the idea for Dimensional. Fifty years later, Gene remains a vital contributor to the firm through his work as a Director and consultant.

I learned about this different way of investing when I took Gene Fama's economics class at the University of Chicago 50 years ago. Professor Fama went on to become a Nobel laureate and remains my close friend and colleague today. One of Gene's many breakthroughs was the efficient markets hypothesis, which implied that speculation and stockpicking were a waste of time. Market prices reflect all available information—in real time, all the time—by bringing together buyers and sellers who voluntarily agree to transact.





\$443 Billion 2019 average daily trading volume in world equities Prices That Reflect Fair Value

In USD. Source: Dimensional, using data from Bloomberg LP. Includes primary and secondary exchange trading volume globally for equities. ETFs and funds are excluded. Daily averages were computed by calculating the trading volume of each stock daily as the closing price multiplied by shares traded that day. All such trading volume is summed up and divided by 252 as an approximate number of annual trading days.

If markets do a good job incorporating information into prices, what does that mean for investors? Answering this question has shaped both my professional and personal journey. In the early 1970s, it led to the development of index funds by my collaborators Mac McQuown and Rex Sinquefield. Jack Bogle later went on to make index investing available to all investors.

► "I take the market efficiency hypothesis to be the simple statement that security prices fully reflect all available information."
PROFESSOR EUGENE FAMA

When starting Dimensional in 1981, we wanted to make it possible for investors to choose a path rooted in science and fueled by the power of markets. We were met with skepticism, but we persevered in pursuit of what we saw as a better approach than what was available. We now have nearly four decades of live results. We build strategies drawing insights from research and the academic community about what drives expected returns and then focus on implementing those insights well—balancing expected returns against costs and diversification every day.



David Booth recruited the Independent
Directors of the US Mutual Fund Board
largely by walking the halls of the University
of Chicago, ending up with an impressive
roster that included Myron Scholes (center)
and Merton Miller (right), who would both
go on to be recognized with Nobel Prizes

in Economic Sciences.



David Booth's Brooklyn, New York, brownstone apartment doubled as Dimensional's first office.



Dartmouth Professor **Kenneth French** and longtime research partner Eugene Fama are known for their research into the value effect and the three-factor model. Ken started working with Dimensional in the 1980s as a consultant and then as a Director on the board. He was instrumental in building the firm's Research team in the early 2000s.



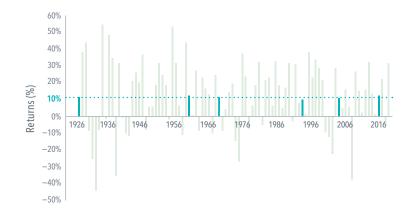
The University of Chicago's business school was renamed the Booth School of Business in November 2008 in honor of the Booth family's gift to the university, made in appreciation of the school's contributions to academia, the industry, and the firm.

The power of markets is still not broadly accepted. People continue to make rash decisions in times of volatility instead of waiting things out. The industry has advanced with science, but not enough. Even index funds, which were designed to deliver market returns, are now being used to try to time the markets.

Yet, over the long haul, markets have behaved the way we hoped they would. In the nearly 100 years of data we have, for example, the US stock market has returned 10% per year on average, though it has rarely returned that in any individual year. Think of the market's force as a raging river. Any experienced rafting guide will tell you not to fight the rapids. You're better off charting your course, adapting incrementally, and not oversteering.

## Understanding the Range of Results

Since 1926, the US stock market has returned 10% per year on average, as measured by the total return of the S&P 500. **But only six times has the return been within two percentage points of that mark in any calendar year.** 



Past performance is no guarantee of future results. In USD. S&P data © 2020 S&P Dow Jones Indices LLC, a division of S&P Global. Indices are not available for direct investment. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. Actual returns may be lower.

If you're living in fear of the next downturn, consider shifting your thinking instead of your investments. Focus on controlling what you can control, such as how much you save, or finding the right stock/bond mix. As famous basketball coach John Wooden once said, "Never mistake activity for achievement." Not doing anything is doing something—think of all those people who sold out of the market in 2008 and missed the great years for equities that followed.

# ► "Never mistake activity for achievement."

BASKETBALL COACH JOHN WOODEN

The field of professionals fueled by science, not speculation, is growing. We can improve people's lives with better and safer financial services—that was true 50 years ago, and it will still be true 50 years from now. If you accept a different view of markets, the benefits can go far beyond just investing money. Trust the science and live your life differently. One bonus may be a portfolio that stays on track even if we do experience another financial crisis. But it's the secondary benefit that really matters: less time worrying about things you can't control.



Merton Miller (right), Dimensional founding US mutual fund Independent Director, received the 1990 Nobel Prize in Economic Sciences for his contributions in the field of corporate finance.



•

Dimensional Resident Scientist **Robert Merton** (left) and Dimensional founding US mutual fund Independent Director **Myron Scholes** accepted the 1997 Nobel Prize in Economic Sciences for their role in developing the Black-Scholes-Merton options pricing formula, a new method for determining the value of derivatives.



•

**Eugene Fama** (left) received the 2013 Nobel Prize in Economic Sciences for his work on the empirical analysis of asset prices.

# GLOBAL CLIENT GROUP



BRYCE SKAFF Co-Head of Global Client Group



CARLO VENES

Co-Head of Global Client Group



MARK GOCHNOUR Head of Global Client Services

"Providing great client experiences has always been, and will continue to be, why we do what we do."

DAVE BUTLER
Co-Chief Executive Officer



Advisor Group

ERIK TOTTEN

JAY TOTTEN

Enterprise Group
SCOTT BOSWORTH

Bank Trust Group
PAUL LEHMAN

Broker-Dealer Advisor Group MITCHELL SCHORR

> National Relationship Group JOEL HEFNER

Consultant
Relations Group
SUSAN SMALL
Financial
Institutions Group

**ED FOLEY** 

Institutional Group
DOUG BYRKIT
JIM CHARLES

Subadvisory Group
ROSE COOKE

Retirement Services Group
TIM KOHN
AUSTIN ROSENTHAL
ASHISH SHRESTHA

Client Relationship Group
BEN WALKER
GRIFFIN WATKINS







# GLOBAL CLIENT GROUP





### Global ex US Client Groups

BRADLEY STEIMAN Wealth Management, Canada

MARTYN CHAPPELL Wealth Management, UK DAVID JONES

Advisor Group, UK and Ireland

ERIK VAN HOUWELINGEN
European Client Group

JOEL TEASDEL

Wealth Management, Asia ex Japan

ABHI SHROFF

Institutions, Asia ex Japan

KEVIN KANDASAMY

JOHN ALKIRE

Japan Client Group

Institutions, Australia and New Zealand

NATHAN KRIEGER

Wealth Management, Australia and New Zealand Global Client Services

JAKE DEKINDER
Client Communications

KAHNE KRAUSE Client Communities AARON ALLEY
Conference Strategy

CATHERINE WILLIAMS

Practice Management

DAVID KAVANAUGH
Client Group Operations

ERIC GORDON
Client Group Operations

CECELIA KHOR WONG
Client Reporting







# Having a Coach

MOULAYE NIANG Global Client Group, Charlotte

When people come up to me, they want to know two things: how tall I am and if I play basketball. Before we know it, we're 15 minutes deep in conversation. Connecting with people is at the heart of my job with the Global Client Group. Once you connect with people, everything else becomes a lot easier.

I grew up in Senegal, the youngest of eight siblings. The first year I played basketball, I almost quit because I had no shoes—I played barefoot. The

biggest size I could find was 11, and I was a size 14. I had a neighbor who said, "I think we wear the same size. Stop by the house. I'll give you a pair." And he gave me these brand-new, white Nikes. It was unbelievable. Without those shoes, I don't think I would have stuck with the game long enough to make the connections that led to an opportunity to play basketball in the States.

I enrolled at the University of Kansas and had the privilege of playing basketball for two Hall of Fame coaches—Roy Williams and Bill Self. To me, coaching is beyond athletics, because at some point, we can all use help overcoming obstacles. Having a coach helps us tune out the noise. Truly, at Dimensional, that's the case. We want to help investors focus on the big picture, and we work closely with our clients to achieve that goal.



MICHAEL HOLMES Chief Technology Officer

### GLOBAL LEADERSHIP TEAM

LEE ESKRIDGE

SANDEEP GONSALVES

PETE LUBAN
Information
Security

JON NELSON

JULIE SAFT Technology Planning and Strategy

GARRET JONES Architecture and Infrastructure



RICHARD EUSTICE Head of Global Investment Operations

SCOTT KAUP Investment Operati North America

FRANK LAO Investment Operatio North America

BRUCE SIMMONS Global Middle Office

TINA WILLIAMS

Investment Operatio

North America

### RHODA LAWRENCE

Investment Operations, EMEA

CAROLIN GHALI Investment Operation Australia





The Art and Science of Financial Research





GERARD K. O'REILLY, Phi Co-Chief Executive Officer and Chief Investment Office



MARLENA LEE, Phi Head of

# THE ART AND SCIENCE OF FINANCIAL RESEARCH

What drives returns? While this question is simple, the answer is complex and requires a deep understanding of the drivers of expected returns. Researchers harness a wealth of data, pose economic theories, and apply statistical tools to try to better understand returns. Crunching and interpreting the numbers is a science. Gaining the insight to implement investment solutions is as much art as science. Different researchers can look at the same datasets, read the same academic studies, yet come to very different conclusions about the right way to implement those ideas.

Dimensional's goal is to provide clients with solutions that add value over the market or benchmarks. That means we need to form expectations about the future, not just understand the past. The data provides evidence supporting an expectation, but it cannot prove something to be true. So we need good frameworks for evaluating the data to help us draw insights that are useful for managing real-world portfolios. This approach helps us make sound decisions for our investors.

SPOTLIGHT

### The Art and Science of Financial Research

# Surrounding the problem

Most researchers can find patterns in any dataset. But how can we gain confidence that the pattern will appear in the future? We look at every question through a variety of lenses, starting with the theoretical basis, which can help identify variables worth exploring. A multifaceted analysis of the data helps us understand how a premium behaves, informing efficient portfolio design and expectations about the range of potential outcomes.

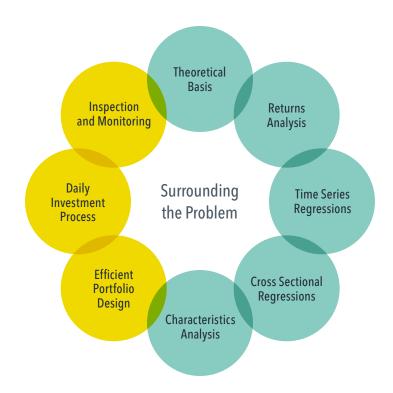
Dimensional uses a variety of statistical tools to determine whether a pattern occurs by more than chance and is therefore more likely to persist. For example, firms with higher profitability have had higher returns. A positive correlation exists between profitability on a given day and stock returns the following month. Applying statistical tools to the data, both across time and across markets, suggests the relation between profitability and future returns is much too strong to have happened by chance. That leads us to expect the relation to continue in the future. This is one type of analysis that forms the basis for an expected premium. In this case, it's the basis for a profitability premium: we expect firms with higher profitability to outperform those with lower profitability.

# A robust approach to research on expected returns helps to:

- Avoid data-mined results
- Identify variables that provide additional and reliable information about expected returns

# Research on efficient implementation practices helps to:

- Determine if a premium is worth pursuing in real-world portfolios
- Minimize the opportunity costs of deviating from the market in pursuit of higher expected returns



While theory and empirical evidence support several variables that produce positive premiums over the long run, all premiums are volatile and go through periods of underperformance. Analyzing historical returns is useful for understanding the range of possible outcomes. For instance, how unusual is it to observe a 10-year run where the premium does not appear? We believe setting appropriate expectations is a prerequisite for a disciplined, long-term approach to investing.

Evaluating characteristics and different portfolio sorts allows us to identify how returns behave across different market segments. Information about returns in a small segment of the market should be pursued differently than a variable that appears consistently across the whole market.

Once we have several variables that contain reliable information about expected returns, it's important to understand the time scale of the information in order to be able to combine the variables in low-turnover and well-diversified portfolios. Some variables, such as market capitalization, the ratio of price to book value, and profitability, are long-term drivers of returns. A stock with a low price-to-book ratio is expected to earn the value premium for multiple years. We build low-turnover portfolios by combining long-term drivers of returns when determining long-term asset allocation.

Shorter-term drivers of returns, such as asset growth, momentum, and securities lending fees, contain information about returns over the next few months or days. A deep understanding of market microstructures, plus flexibility to participate in but not initiate market liquidity, helps improve expected returns over the next few seconds. Using short-term return drivers to determine asset allocation can result in high turnover. Instead, we account for short-term drivers in our daily process to ensure our trades have attractive expected return profiles across multiple time scales. On any given day, there may be a short list of securities with good expected returns over the next second, the next month, and the next five years. That list changes daily. Broad diversification enables us to trade where opportunity arises. By trading daily in a changing subset of the market, we can effectively pursue the long-term asset allocation goals of the portfolio.

"Providing rigorous and intellectually honest answers to questions from our clients helps them make educated decisions."

MARLENA LEE

Head of Investment Solutions

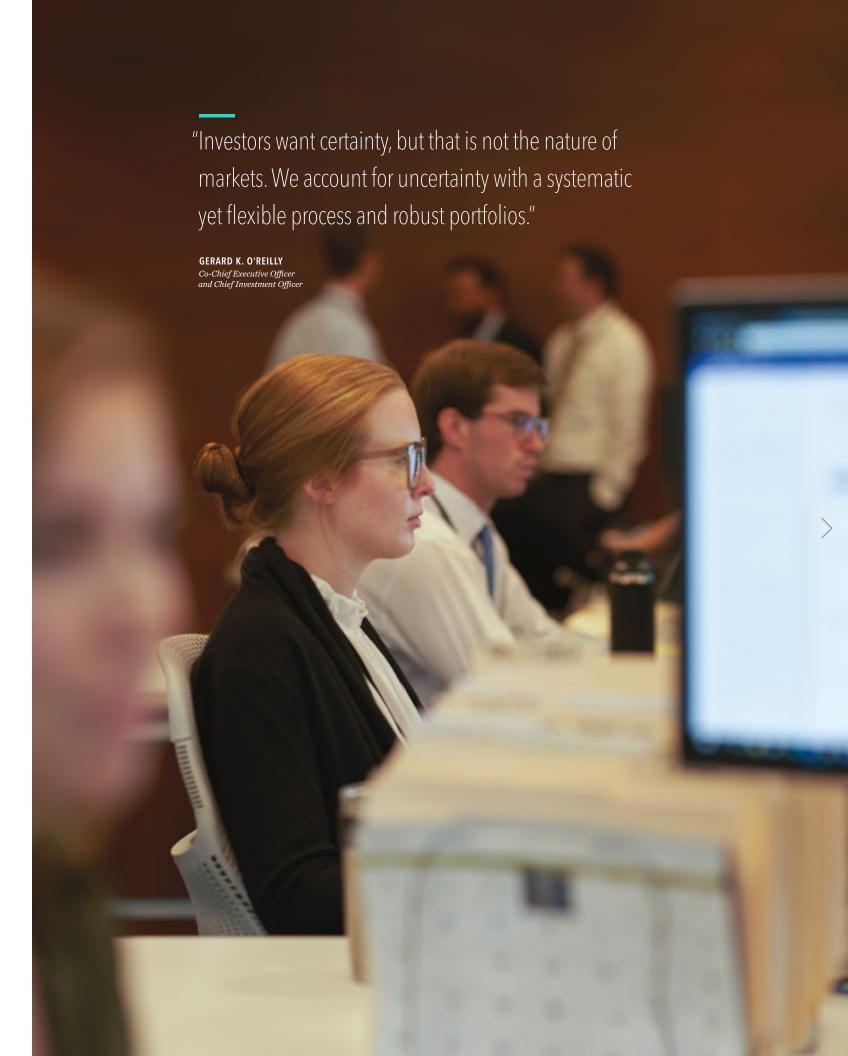
# The path not taken

No matter how comprehensive the empirical analysis, the data cannot offer proof. There is no bulletproof way to beat the market. Because of the uncertainty inherent in investing, it is important to understand how to use information about expected returns in portfolios that are low cost and well diversified while minimizing unnecessary turnover. These ingredients help reduce the opportunity costs of pursuing premiums.

Opportunity costs in investing are easy to measure because the market portfolio is a reasonable alternative. It has delivered long-run returns that many managers find difficult to beat. A portfolio designed to be well diversified with low costs and minimal turnover is likely to be a good portfolio even if the premiums do not materialize. Our goal is to deliver outperformance when the premiums show up and marketlike returns if they don't. Our long-term track record reflects our ability to meet this goal.

# If we can do things better, we will

Since 1981, we have been refining our process of inspection and reflection. We are investing on behalf of clients, and we always keep that obligation in center focus as we conduct research and translate insights into solutions. We're not going to do something just because it has a good marketing spin to it. We're going to do something when we're confident it can improve the expected outcome. We are continually probing, examining, and learning. And if we find we can do things better, we will.







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ROBERT DINTZNER Channel Marketing

Corporate Communications

ANDREW WEBB





# Doing Work That Matters

Research, Santa Monica

I was born in Bulgaria and grew up under communism. The transition to capitalism was very difficult. Suddenly, a lot of things disappeared from the supermarket. People lost their jobs. We had to learn to live with little and to rely on ourselves to get ahead.

> In the ninth grade, I won a scholarship to summer school in the US. I took a class in economics that was phenomenal, and it inspired me to apply for college

in the States. I got into Dartmouth with full financial aid and in my junior year became a research assistant for Ken French, one of the most well-known professors in finance.

While I was a student, I spent a summer doing a Wall Street internship, but I didn't find it rewarding intellectually. A lot of number crunching, but very little in terms of analysis. I wanted to work on topics that had important, real-world implications. I told Ken, and he recommended Dimensional.

When I saw the rigor and the academic basis of the work, I decided Dimensional was the place for me. Now, as Head of Research, it's exciting to discover answers to unanswered questions and in the process help improve the investment solutions we create for clients.

Growing up in Bulgaria taught me to work hard and be appreciative of what I have. When I go to bed, I'm thankful and proud to know we're doing work that helps people.



STEPHEN JONES

Head of Global

Corporate Services

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SCOTT HESS

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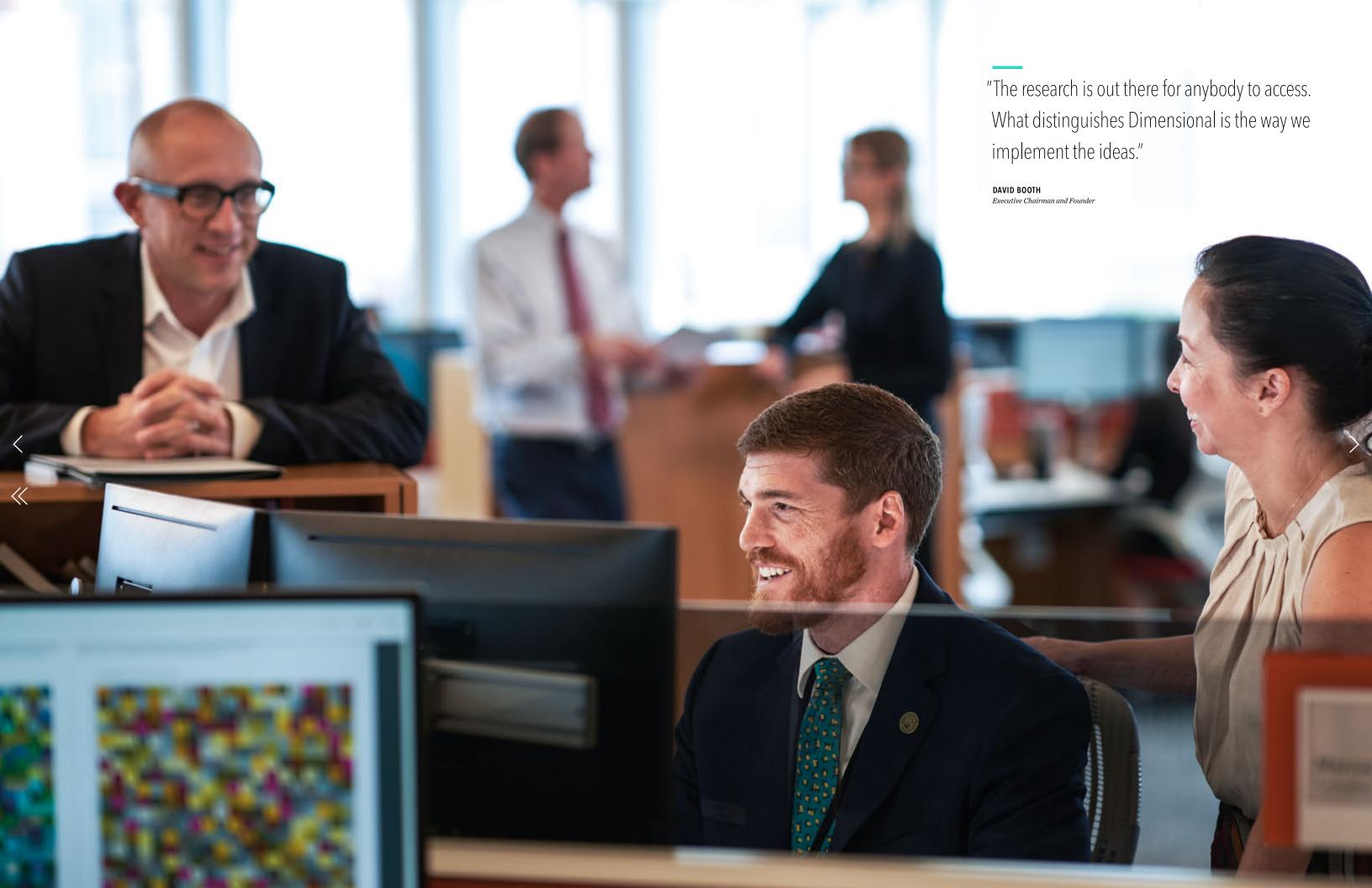
Global Employee Relations

# DEL VENTO Global Human











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Head of Complia Asia ex Japan

RODNEY MAIR

Head of Compliant

Australia





# Saving for the Future

ANDREW WEBB Marketing, London

When I think about how important it is to save for the future, I think about my father, a mechanical engineer who worked in the same shop for most of his career. I'd say we were comfortable as a family—never wealthy but also never concerned about making the mortgage payment. We had a color TV with a remote control, and when I reached my teens, we had a microwave.

After I graduated,
like a lot of people,
I had no idea what
I wanted to do, so I
drifted into a job in
a call center. Around
the same time, my
father took early

retirement, and he told me his final salary.
I couldn't believe my ears: after 40 years, he was earning almost exactly the same as I was in my mid-20s with no experience of any value—just answering the phone.

That was almost 20 years ago, and my father is still enjoying his retirement. This has shown me careful financial planning isn't just for the wealthy—it's for everyone. What I like about Dimensional is that everybody understands the work they do impacts other people's financial futures. We're not shouting from the rooftops about how we'll make people rich. We're busy helping people like my dad do the things they like to do when they have earned the time to do them.





"Through our offices around the world, Dimensional serves a diverse group of clients. Whether the client is a small institution, advisory firm, or large asset owner, our focus is the same—to understand our clients' needs and deliver an outstanding investment experience."

STEVE CLARK

President, Dimensional International



# Around the Globe

# AUSTRALIA

At a time of rapid change in wealth management, we help clients solve complex investment challenges for Australians and New Zealanders.



GLENN CRANE Chief Executive Officer and Chairman, DFA Australia Limited

### REGIONAL LEADERSHIP



Institutions, Australia and New Zealand



JASON LAPPING

Head of International

Equity Trading



BHANU SINGH
Head of Portfolio
Management,
Asia Pacific



Wealth Management, Australia and New Zealand



Senior Portfolio Manager



# JAPAN

As Japan's approach to building long-term wealth evolves, market participants are looking to Dimensional's research focus and consultative style to help generate better investment outcomes.



JOHN ALKIRE

Chief Executive Officer,

Dimensional Japan Ltd.

### REGIONAL LEADERSHIP



Senior Portfolio Manager



Institutions,
Japan



KAZUYO KAWABATA Institutions, Japan



Institutions,
Japan



# ASIA EX JAPAN

In this dynamic and diverse region, we are working to foster strong client relationships to help develop and deliver first-class investment solutions.



STEVE CLARK

Interim Chief Executive
Officer, Dimensional
Fund Advisors Pte. Ltd.

### REGIONAL LEADERSHIP



Institutions,
Asia ex Japan



Wealth Management Asia ex Japan



# EMEA

With many languages, cultures, currencies, and regulators, the EMEA market is complex and requires a thoughtful strategy to best serve those investors.









### REGIONAL LEADERSHIP







DAVID JONES



ERIK VAN HOUWELINGEN



# CANADA

Dimensional is a leader in the movement to combine systematic investing and independent, objective, conflict-free advice in Canada.





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Head of Wealth
Management Group,
Dimensional Fund
Advisors Canada ULC
(Dimensional Canada,

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Wealth Management





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