## **RONEN ISRAEL**

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#### **EXPERIENCE**

BioConvergent Health	Founder	2021-
Yale School of Management	Lecturer in the Practice of Management	2021-
AQR Capital Management	Senior Advisor	2022-
AQR Capital Management	Principal	2007-2021
NYU Leonard N. Stern School of Business	Adjunct Professor of Finance	2014-2021
AQR Capital Management	Vice President	2004-2007
AQR Capital Management	Associate	1999-2004
Quantiative Financial Strategies, Inc.	Senior Analyst	1996-1999
PriceWaterhouse	Consultant	1995-1996

Areas of focus: research and portfolio management of stock selection and fixed income strategies, hedge fund strategies and alternative risk premia; algorithmic trading and transaction costs analysis; taxes

## **EDUCATION**

Columbia University	M.A. Mathematics (mathematical finance)	1999-2000
University of Pennsylvania, Wharton School *	B.S. Economics	1991-1995
University of Pennsylvania, School of Engineering *	B.A.S. Biomedical Science	1991-1995

<sup>\*</sup> Management and Technology (dual degree) program

### **PUBLISHED PAPERS**

"The Role of Shorting, Firm Size, and Time on Market Anomalies", 2013, (with Tobias J. Moskowitz), *Journal of Financial Economics*, Volume 108, Issue 2, 275–301 (lead paper).

"Fact, Fiction and Momentum Investing", 2014, (with Cliff Asness, Andrea Frazzini, and Tobias J. Moskowitz), *Journal of Portfolio Management*, 40th Anniversary Issue.

"Understanding Style Premia", 2014, (with Thomas Maloney), Journal of Investing, Winter 2014.

"Style Investing: The Long and the Long/Short of It", 2014, (with Antti Ilmanen and Dan Villalon), *IPE* (Investment & Pensions Europe) Magazine.

"Investing with Style", 2015, (with Cliff Asness, Antti Ilmanen, and Tobias J. Moskowitz), *Journal of Investment Management*, Volume 13, No. 1, 27–63.

"Fact, Fiction and Value Investing", 2015, (with Cliff Asness, Andrea Frazzini, and Tobias J. Moskowitz), *Journal of Portfolio Management*, Fall Issue, Volume 42, Number 1.

"Measuring Portfolio Factor Exposures – A Practical Guide", 2016, (with Adrienne Ross), *Investor Insight*, An Institutional Investor Sponsored Report on Smart Beta.

"Measuring Factor Exposures: Uses and Abuses", 2015, (with Adrienne Ross), *The Journal of Alternative Investments*, Summer 2017, Vol. 20, No. 1: pp. 10-25.

- "Contrarian Factor Timing is Deceptively Difficult", 2017, (with Cliff Asness, Swati Chandra, and Antti Ilmanen), *Journal of Portfolio Management*, Special Issue 2017.
- "Craftsmanship Alpha: An Application to Style Investing", 2017, (with Sarah Jiang and Adrienne Ross), *Journal of Portfolio Management*.
- "Common Factors in Corporate Bond and Bond Fund Returns", 2018, (with Scott Richardson and Diogo Palhares), *Journal of Investment Management*, 16 (2). ISSN 1545-9144.
- "Size Matters, if You Control Your Junk", 2018, (with Cliff Asness, Andrea Frazzini, Tobias J. Moskowitz and Lasse H. Pedersen), *Journal of Financial Economics*, Volume 129, Issue 3, Pages 479-509.
- "Fact, Fiction, and the Size Effect", 2018, (with Ron Alquist and Tobias J. Moskowitz), *Journal of Portfolio Management*, Fall 2018, Vol. 45, Issue 1.
- "Long Horizon Predictability: A Cautionary Tale", 2018, (with Jacob Boudoukh and Matthew Richardson), *Financial Analysts Journal*, 75:1, 17-30, DOI: 10.1080/0015198X.2018.1547056.
- "Overview: From Research to Implementation", 2018, (with Antti Ilmanen, Tobias J. Moskowitz and Lasse H. Pedersen), 20 for Twenty.
- "Should Taxable Investors Shun Dividends?", 2019, (with Joseph Liberman, Nathan Sosner and Lixin Wang), *Journal of Wealth Management*, Winter 2019.
- "Can Machines "Learn" Finance?", 2020, (with Bryan Kelly and Tobias Moskowitz), *Journal of Investment Management*, 18 (2).
- "Is (Systematic) Value Investing Dead?", 2021, (with Kristoffer Laursen and Scott Richardson), *Journal of Portfolio Management*, Quantitative Special Issue, jpm.2020.1.194.
- "How Do Factor Premia Vary Over Time? A Century of Evidence", 2021, (with Antti Ilmanen, Rachel Lee, Tobias Moskowitz, and Ashwin Thapar), *Journal of Investment Management*, Vol. 19, No. 4, (2021), pp. 15–57.
- "Biases in Long-Horizon Predictive Regressions", 2021, (with Jacob Boudoukh and Matthew Richardson), *Journal of Financial Economics*.

## **WORKING PAPERS**

- "Trading Costs of Asset Pricing Anomalies", 2012, (with Andrea Frazzini and Tobias J. Moskowitz), University of Chicago working paper.
- "How Tax Efficient Are Equity Styles?", 2012, (with Tobias J. Moskowitz), University of Chicago working paper.
- "Implementing Momentum: What Have We Learned?", 2017, (with Tobias Moskowitz, Adrienne Ross and Laura Serban), AQR working paper.
- "Trading Costs", 2018, (with Andrea Frazzini and Tobias J. Moskowitz), University of Chicago working paper.

# WHITE PAPERS

- "The Case for Momentum Investing", 2009, (with Adam Berger and Tobias J. Moskowitz), AQR Capital Management white paper.
- "Building a Better Alternatives Portfolio: The AQR Multi-Strategy Approach", 2011, (with Adam Berger and Mark McLennan), AQR Capital Management white paper.
- "Building a Better Alternatives Portfolio: The AQR Global Relative Value Approach", 2011, (with Adam Berger and Mark McLennan), AQR Capital Management white paper.

"Is Alpha Just Beta Waiting To Be Discovered?", 2012, (with Adam Berger, Brian Crowell and David G. Kabiller), AQR Capital Management white paper.

"Momentum Investing – A Three Year Review", 2012, (with Andrea Frazzini and Bryan Johnson), AQR Capital Management white paper.

"Investing with Style: The Case for Style Investing", 2012, (with Antti Ilmanen and Tobias J. Moskowitz), AQR Capital Management white paper.

"A New Core Equity Paradigm: Using Value, Momentum, and Quality to Outperform Markets", 2013, (with Andrea Frazzini, Tobias J. Moskowitz, and Robert Novy-Marx), AQR Capital Management white paper.

"Building a Better Core Equity Portfolio: A New Paradigm for Core Equity Investing", 2013, (with Dan Villalon), AQR Capital Management white paper.

"A Better Approach to Alternative Investing: AQR's Multi-Strategy Solution for Australian Investors", 2013, (with Michael Angwin and Dan Villalon), AQR Capital Management white paper.

#### **PAPER PRIZES**

Journal of Investment Management (JOIM), 2015 Special Distinction Award ("Investing with Style", 2015, (with Cliff Asness, Antti Ilmanen, and Tobias J. Moskowitz), *Journal of Investment Management*, Volume 13, No. 1, 27–63.)

The Journal of Portfolio Management, 17th Annual Bernstein Fabozzi/Jacobs Levy Awards for Outstanding Article ("Fact, Fiction and Value Investing", 2015, (with Cliff Asness, Andrea Frazzini, and Tobias J. Moskowitz), *Journal of Portfolio Management*, Fall Issue, Volume 42, Number 1.)

Savvy Investor Awards – Best Factor Investing Paper 2018, for "Fact, Fiction, and the Size Effect", 2018, (with Ron Alquist and Tobias J. Moskowitz), *Journal of Portfolio Management*, Fall 2018, Vol. 45, Issue 1.

Journal of Investment Management (JOIM), 2020 Harry M. Markowitz Award for Best Paper Published ("Can Machines "Learn" Finance?", 2020, (with Bryan Kelly and Tobias Moskowitz), *Journal of Investment Management*, 18 (2).)

Journal of Investment Management (JOIM), 2021 Special Distinction Award ("How Do Factor Premia Vary Over Time? A Century of Evidence", 2021, (with Antti Ilmanen, Rachel Lee, Tobias Moskowitz, and Ashwin Thapar), *Journal of Investment Management*, Vol. 19, No. 4, (2021), pp. 15–57.)

The Journal of Portfolio Management, 23rd Annual Bernstein Fabozzi/Jacobs Levy Awards for Outstanding Article ("Is (Systematic) Value Investing Dead?", 2021, (with Kristoffer Laursen and Scott Richardson), *Journal of Portfolio Management*, Quantitative Special Issue, jpm.2020.1.194.)

### **PRESENTATIONS**

Wharton MBA Lecture, November 13, 2018, Philadelphia, PA

Wharton Undergraduate Lecture, November 13, 2018, Philadelphia, PA

Albourne Conference, October 16, 2018, London, England

AQR Master Class, September 5, 2018, London, England

MFA Network 2018 Conference, January 22, 2018, Miami, FL

MPT Forum, December 1, 2017, Tokyo, Japan

Nippon Finance Association, November 30, 2017, Tokyo, Japan

AQR Master Class, July 19, 2017, Greenwich, CT

J.P. Morgan Conference - In Search of Alpha (Navigating the Rise of Quantitative Strategies), July 12, 2017, New York, NY

AQR Master Class, June 15, 2017, London, England

Northwestern University Lecture, April 27 2017, Evanston, IL

Wharton MBA Lecture, December 5, 2016, Philadelphia, PA

Inside Smart Beta, September 22, 2016, New York, NY

P&I Smart Beta Summit Panel, September 15, 2016, New York, NY

AQR Master Class, September 14, 2016, Greenwich, CT

Morningstar ETF Conference, September 8, 2016, Chicago, IL

AQR University, May 25, 2016, Chicago, IL

Institutional Investor Journals Theory Meets Practice Research Summit, April 5, 2016, Boston, MA

AQR / ML Investing Symposium, March 29, 2016, Greenwich, CT

JP Morgan Cap Intro Demystifying Alternative Premia Conference Panel, March 22, 2016, New York, NY

Deutsche Bank Bridging the Gap Conference 2016 Keynote Address, March 8, 2016, Washington, D.C.

AQR / UBS Investing Symposium, February 2, 2016, Greenwich, CT

AQR University, October 15, 2015, San Francisco, CA

Bernstein Quant Conference, October 7, 2015, New York, NY

AQR Style Investing Symposium, October 1, 2015, Sydney, Australia

AQR Style Investing Symposium, September 29, 2015, Melbourne, Australia

Morningstar Alternatives Panel, June, 2015, Chicago, IL

AQR University, May 20, 2015, Chicago, IL (University of Chicago)

University of Pennsylvania, Wharton Business School, Lecture, April 21, 2015, Philadelphia, PA

AQR / ML Investing Symposium, March 31, 2015, Greenwich, CT

AQR / MS Investing Symposium, November 18, 2014, Greenwich, CT

AQR Style Investing Symposium, October 28, 2014, Greenwich, CT

Morningstar ETF Conference, September 18, 2014, Chicago, IL

AQR / BAML Investing Symposium, September 16, 2014, Greenwich, CT

AQR University, June 24-25, 2014, Chicago, IL (University of Chicago).

Morgan Stanley National Alternative Investments University, June 5, 2014, New York, NY

NYU MBA Lecture, May 5, 2014, New York, NY (NYU)

Institutional Investor Forums 3<sup>rd</sup> Annual Risk & Liquidity, January 14, 2014, New York, NY

AQR University, November 18-19, 2013, Santa Barbara, CA (University of California, Santa Barbara)

UVA MBA Lecture, October 23, 2013, Charlottesville, VA (University of Virginia)

AQR Forum, October 24, 2013, New York, NY (Yale Club)

JOIM Conference Series, September 10, 2013, San Francisco, CA

University of Chicago MBA Lecture, May 30, 2013, Chicago, IL (University of Chicago)

AQR University, May 21-22, 2013, Chicago, IL (University of Chicago)

NYU MBA Lecture, May 6, 2013, New York, NY (NYU)

Towers Watson's Hedge Fund Conference - An Ideas Exchange Initiative, November 1, 2012, Sydney, Australia

Towers Watson's Hedge Fund Conference - An Ideas Exchange Initiative, October 31, 2012, Melbourne, Australia

Barron's Winners Circle - Top Advisory Teams Summit, August 2, 2012, Washington, DC

AQR University, June 12, 2012, Boston, MA (Harvard University)

IMCA 2012 New York Consultants Conference, January 30, 2012, New York, NY

Commonwealth National Conference, November 5, 2011, Orlando, FL

Schwab IMPACT 2011, November 3, 2011, San Francisco, CA

Forward Management - Modernizing Portfolio Construction in a Post Style-Box World: Multi-Strategy Alternatives Panel, October 25, 2011, Atlanta, GA

Forward Management - Modernizing Portfolio Construction in a Post Style-Box World: Multi-Strategy Alternatives Panel, October 18, 2011, Washington, DC

Forward Management - Modernizing Portfolio Construction in a Post Style-Box World: Multi-Strategy Alternatives Panel, October 11, 2011, Los Angeles, CA

FA Mag - Multi-Strategy Alternatives Panel, September 27, 2011, Boston, MA

Forward Management - Modernizing Portfolio Construction in a Post Style-Box World: Multi-Strategy Alternatives Panel, September 26, 2011, Boston, MA

Forward Management - Modernizing Portfolio Construction in a Post Style-Box World: Multi-Strategy Alternatives Panel, September 20, 2011, Minneapolis, MN

Forward Management - Modernizing Portfolio Construction in a Post Style-Box World: Multi-Strategy Alternatives Panel, September 13, 2011, Houston, TX

AQR University, June 28, 2011, Palo Alto, CA (Stanford University)

AQR University, May 11, 2010, Chicago, IL (University of Chicago)

NYU MBA Lecture, April 11, 2007, New York, NY (NYU)

Columbia Graduate School Lecture, March 25, 2004, New York, NY (Columbia University)

## **INTERVIEWS/WEBCASTS**

Strongin Dodds, Lynn. (May 2020). Strategy: Factor investing: Keeping a distance from single factors. IPE Magazine.

AssetTV: Factors Roundtable: Evolution, Innovation and Outlook. (June 11, 2019). <a href="https://www.tfaforms.com/4744851?chid=35746">https://www.tfaforms.com/4744851?chid=35746</a>

Bryan, Alex. (April 27, 2017). Value Investing (video interview: http://news.morningstar.com/cover/videocenter.aspx?id=805645). Morningstar.

Institutional Investor Journals Factor Perspectives: Separating Factors from Fiction. (April 26, 2017). (https://www.webcaster4.com/Webcast/Page/43/20325?utm\_source=BM\_MJN\_FactorInvesting\_Blackrock\_Webcast&utm\_medium=email%20marketing&utm\_content=Nurturing&utm\_campaign=C7B0034E0006&utm\_term=Register%20)

Bryan, Alex. (September 2014). Craftsmanship Needed for These Investment Styles (video interview: http://www.morningstar.com/cover/videocenter.aspx?id=665894). Morningstar.

Scott, Cathy. (September 2014). Understanding Style Premia (video interview: http://www.iijournals.com/page/JOI\_StylePremia?mobileUi=0). Institutional Investor Journals - The Voice of Influence.

## **MEDIA**

Johnson, Steve. (November 4, 2019). Mystery is part and particle of smart beta. The Financial Times.

Gordon, Amanda (October 29, 2019). AQR's Israel Joins with Holocaust Museum to Fight Global Hate. Bloomberg.

Williamson, Christine and James Comtois. (May 13, 2019). Managers pointing to main factors that failed them in 2018. Pensions & Investments.

Zweig, Jason. (May 2019). What Warren Buffett's Teacher Would Make of Today's Market. The Wall Street Journal.

Strongin Dodds, Lynn. (April 2019). Strategy: Factor rotation hits record pace. IPE Magazine.

Burger, Dani. (November 2018). Quants Are Facing a Crisis of Confidence. Bloomberg.

Mannix, Rob. (November 2018). What's in the box? Bad year reveals alt premia's gaps. Risk.net.

Strongin Dodds, Lynn. (September 2018). Multi-Factor Investing: An overcrowding problem? Funds Europe.

Strongin Dodds, Lynn. (September 2018). Smarter than the average bull or bear. Funds Europe.

Kapadia, Reshma. (April 2018). Are Value Stocks Ready To Grow Again? Barron's.

O'Dea, Christopher. (April 2018). The Momentous Challenge. Investments & Pensions Europe.

Natarajan, Niki. (January 2018). Alternative beta: Rational enthusiasm. Investments & Pensions Europe.

Segal, Julie. (September 2017). AQR: Smart Beta Investments Leave Alpha on the Table. Institutional Investor.

Zweig, Jason. (June 2017). Small Companies Are Gone, but Should They be Forgotten? The Wall Street Journal.

Amery, Paul. (May 2017). Getting the blend right. IPE Investments & Pensions Europe.

Amery, Paul. (May 2017). Crowding concerns. IPE Investments & Pensions Europe.

Cusworth, Emma. (November 2016). Is alpha just a new beta waiting to be discovered? Portfolio Institutional.

Tirbutt, Edmund. (September 2016). Identifying the crucial factors. European Pensions.

Moore, Howard. (September 2016). Smart Beta: Getting to Know You. Institutional Investor (An Institutional Investor Sponsored Report on Smart Beta).

Elliott, Maggie. (September 2016). Ploughing a New Furrow. Pensions & Investments Smart Beta Supplement.

Elliott, Maggie. (September 2016). Factor Investing Comes to Fixed Income. Pensions & Investments Smart Beta Supplement.

Elliott, Maggie. (September 2016). Measuring Success. Pensions & Investments Smart Beta Supplement.

Elliott, Maggie. (September 2016). Not All Smart Beta Strategies Are Created Equal. Pensions & Investments Smart Beta Supplement.

Elliott, Maggie. (September 2016). The Final Frontier. Pensions & Investments Smart Beta Supplement.

Elliott, Maggie. (September 2016). Factors Are Not a New Idea. Pensions & Investments Smart Beta Supplement.

Uhlfelder, Eric. (June 18, 2016). Our Top 100 Hedge Funds. Barron's.

Ezran, Eren. (June 13, 2016). The Smart Investment Approach That Takes It Up A Notch And Consolidates It All Into One Integrated Basket. TheMarker Haaretz.

Braham, Lewis. (April 23, 2016). The Real Alternative in Multi-Alts. Barron's.

Picchi, Aimee. (March 2016). Practical Applications of Fact, Fiction and Value Investing. Institutional Investor Journals.

Krouse, Sarah. (February 2016). Lessons From the Downturn of 'Hedge Lite'. The Wall Street Journal.

Stein, Charles. (January 2016). Cliff Asness's Alternative Funds Top Rivals With 17% Returns. The Wall Street Journal.

Krouse, Sarah. (December 2015). The Year the Hedge-Fund Model Stalled on Main Street. The Wall Street Journal.

Moore, Howard. (September 2015). From Theory to Practice. Investor Insight (An Institutional Investor Sponsored Report on Smart Beta).

Braham, Lewis. (September 19, 2015). A New Strategy for Small Stocks. Barron's.

Wang, Lu. (July 20, 2015). Momentum Rules in U.S. Stocks Stuck in Worst Rut on Record. Bloomberg.

Williamson, Christine and James Comtois. (May 4, 2015). Forget asset allocation, it's all risk. Pensions & Investments.

Kilroy, Meaghan. (September 2014). Risk-factor exposures need better scrutiny — survey. Pensions & Investments.

Moore, Howard. (September 2014). Using Smart Beta to Outsmart the Market. Investor Insight (An Institutional Investor Sponsored Report on Smart Beta).

Zweig, Jason. (April 2014). Don't Get Dazzled by Glittering Growth. The Wall Street Journal.

White, Amanda. (April 2014). The power of innovation. top  $1000 \mathrm{funds.com}$ .

Steward, Martin. (March 2014). Smart investing or smart trading? IPE (Investment & Pensions Europe) Magazine.

DeMuth, Phil. (December 9, 2013). New Alternative Mutual Fund Channels Antti Ilmanen's 'Expected Returns'. Forbes.

Hulbert, Mark. (October 11, 2013). A Simple Method to Pick a Winning Stock. The Wall Street Journal.

Xu, Raymond. (September 11, 2013). An Interview with Ronen Israel, M&T Class of 1995, M&T for Life.

Moore, Charlotte. (September 5, 2013). Where should multi-asset managers invest? Professional Pensions.

Fixsen, Rachel. (June 13, 2013). Taming alpha, harnessing beta. IPE (Investment & Pensions Europe) Magazine.

Maton, Brendan. (June 13, 2013). Revenge of the quants. IPE (Investment & Pensions Europe) Magazine.

Christine Williamson. (October 15, 2012). Hedge fund replication strategies offer cheaper investing alternative. Pensions & Investments.

Sullivan, Aline. (Summer 2012). Independent Thinking. Evercore Wealth Management.

Pak, Esther. (October 7, 2011). A Nine-Strategy Approach to Alternatives. Morningstar.

Espinoza, Javier. (October 5, 2011). Easing the Sting of Falling Stock Prices. The Wall Street Journal.

Angus Foote. (October 2011). AQR puts the hedge back into hedge fund investing. Citywire.

Luxenberg, Stan. (April 1, 2011) Mighty "Mo" is Back. Registered Rep.

Hogan, Mike. (March 21, 2011) Where to Gather Momentum. Barron's.

Luxenberg, Stan. (September 24, 2010). Momentum Funds Are Out of Favor: Buy! TheStreet.com.

Steward, Martin. (July 1, 2010). Fiduciary/Delegation: Hedge fund beta: a cheap core portfolio? IPE (Investment & Pensions Europe) Magazine.

Heins, John. (June 30, 2010). Trend as Friend. Value Investor Insight

Curran, Rob. (May 3, 2010). Maybe the Rearview Mirror is Right. The Wall Street Journal.

Picerno, James. (May 2010). A fresh look at an old idea: momentum investing. Financial Advisor Magazine.

Laise, Eleanor. (January 6, 2010). Hedge Fund AQR Goes 'Mom & Pop'. The Wall Street Journal.

Maxey, Daisy. (July 14, 2009). Momentum Funds For Small Investors --- AQR Expands Its Mutual-Fund Lineup. The Wall Street Journal.

Gural, Natasha. (July 13, 2009). Momentum Investing Gains Momentum. MarketsMedia Online.

Mazzilli, Meredith. (July 10, 2009). AQR Puts Momentum Theory Into Practice with Three New Funds. TheMutualFundWire.com.

Maxey, Daisy. (July 10, 2009). Getting Personal: Hedge Fund Firm AQR Expands Mutual Fund Line. Dow Jones Newswires.

# **COURSES**

Hedge Fund Strategies (MBA), NYU Stern, Spring 2015, 2016, 2017, 2018, and 2019.

Hedge Fund Strategies (Masters), Yale SOM, Spring 2022, 2023, and 2024.

## **BOARD AFFILIATIONS**

Executive Board of the University of Pennsylvania's Jerome Fisher Program in Management and Technology, 2010-

Advisor Board of The Rodney L. White Center for Financial Research, Wharton School, University of Pennsylvania 2017-

Advisor Board of Center for Innovation & Precision Dentistry (CIPD), University of Pennsylvania, 2022-

Board of Trustees, The Masters School, Dobbs Ferry, NY, 2022-