



# Alternative Thinking

## Ideas for a Low Expected Return World

Investors today face a challenging world of low expected returns and high risks. The forward-looking real yield of the 60/40 U.S. stock/bond portfolio is at 2.6%, its lowest level in 112 years.

We think that risk-balanced diversification across well-chosen return sources is the most reliable strategic approach to achieving ambitious real return targets.

**First Quarter 2012**

**AQR Capital Management, LLC**  
One Greenwich Plaza  
Greenwich, CT 06830

p: +1.203.742.3600  
f: +1.203.742.3100  
w: aqr.com



## Ideas for a Low-Expected Return World

### Executive Summary

- Investors today face a challenging world of low expected returns and high risks.
- In this environment, the #1 challenge for investors is how to achieve 4-5% medium-term real return targets (or 7-8% nominal) if the expected return of a 60/40 portfolio is below 3%.
- We think that risk-balanced diversification across well-chosen return sources is the most reliable strategic approach to achieving ambitious real return targets.

### Forward-Looking Returns

Investors today face a challenging world of low expected returns and high risks. As shown in **Exhibit 1**, the forward-looking real yield of the 60/40 U.S. stock/bond portfolio is at 2.6%, its lowest level in 112 years.

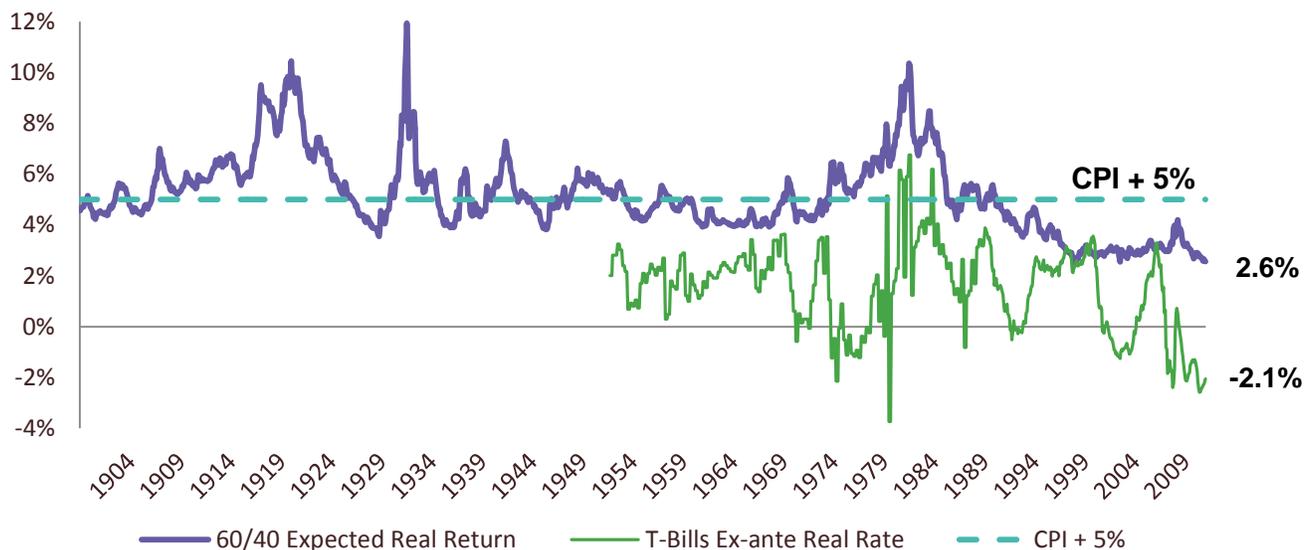
Until the 1990s it was relatively easy to achieve 5%

long-run real returns. The long-run average real yield since 1900 is 5%, and reality matched the promise as the 60/40 portfolio delivered roughly 5% real annual return. However, since 1998 the ex-ante real yield has been below 3% most of the time, making investors' task that much harder.

It may seem surprising that forward-looking real yields do not look attractive even after a decade of poor returns. The reason is that the overall valuation outlook did not become much better: equity dividend yields doubled from near 1% in 2000 to near 2%, but real Treasury yields fell from near 4% to near zero.

Current low real yields partly reflect unprecedented monetary stimulus. The Federal Reserve and other major central banks hope that negative real policy rates make investors flee from money markets to riskier assets, ultimately stimulating economic growth. Such growth ambitions have not been met, but central bank policies - near-zero rates, large asset purchases - arguably have succeeded in

**Exhibit 1 | Ex-Ante Real Yields of the 60/40 Stocks/Bonds and T-Bills Are Near Record Lows, 1900-2011**



Source: AQR. Data description: The real equity yield is an average of two plausible approaches - the Shiller earnings yield (using 10-year smoothed earnings) and dividend yield plus 1.5% (roughly the long-run real growth of dividends-per-share and earnings-per-share). The real bond yield is long-term Treasury yield minus long-term expected inflation. Before survey data became available in 1978, expected long-term inflation is partly based on statistical estimates, partly on 1-year ahead Livingston inflation forecasts. The real T-Bill rate is short-term Treasury yield minus one-year expected inflation (using Livingston surveys since 1950s, later combined with Survey of Professional Forecasters and Blue Chip Economic Indicators; since 1990 only use Consensus Economics surveys). This is one set of estimates of ex-ante real yields for equities and bonds, but other reasonable specifications should tell broadly the same story.



making lower-risk assets expensive. The high valuations imply low forward-looking returns; thus, these policies can be viewed as financial repression, whereby savers are forced to share the costs of global debt and deleveraging problems.<sup>1</sup>

In this environment, the #1 challenge for investors is: **How can we achieve 4-5% medium-term real return targets (or 7-8% nominal) if the expected return of a 60/40 portfolio is below 3%?**

Investors' responses vary. Wishful thinking has been one approach (witness nominal return assumptions still near 8% for many pension funds), and increasing allocations to equities another. However, poor results and growing awareness of forward-looking valuations - their relevance in predicting returns and their still-uninspiring message about prospective returns - have led investors to look

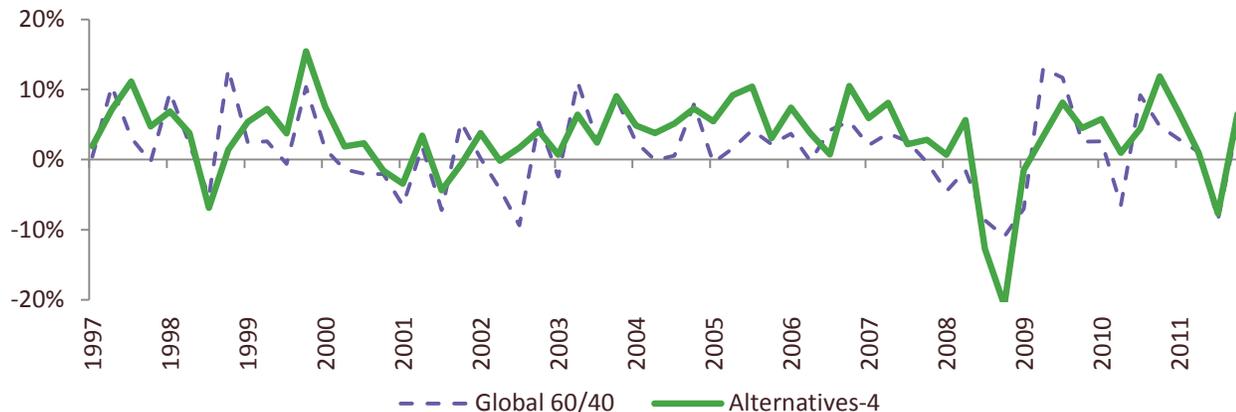
elsewhere.<sup>2</sup>

Over the past decade, many investors adopted the "endowment model" and diversified into various alternative asset classes, combining reliance on the equity premium with faith in an illiquidity premium and in hedge fund alpha. The experience has been mixed. There were some successes but many investors were disappointed in both their return and diversification realizations, as alternative investments moved in synch with the 60/40 portfolio (see **Exhibit 2**) and the true costs of private equity investments were revealed as commitments paralyzed many investors and forced them to sell liquid holdings.

### "The Best Game in Town"

We think that risk-balanced diversification across well-chosen return sources is the most reliable strategic approach to achieving ambitious real

**Exhibit 2 | The Endowment Model Is Not a "Silver Bullet": Quarterly Returns of 60/40 and Alternatives, 1997-2011**



Source: AQR. Data description: The 60/40 portfolio consists of 60% MSCI World (developed equity markets) index, 20% Barclays US Aggregate fixed-income index, 20% Citigroup World Government Bond Index ex-U.S., currency-hedged. The Alternatives-4 is a composite of direct real estate (NCREIF transaction-based index), commodity futures (SP GSCI index), hedge funds (DJ CS index), and private equity (Cambridge Associates private equity index). To give the four constituents roughly equal long-run volatilities, the nominal weight of real estate is 28%, hedge funds 38%, commodities 14%, and private equity 20%. The last-quarter observations for real estate and private equity are not yet available; beta-based proxies are used instead.

<sup>1</sup> Although G4 government bonds are record-expensive by almost any metric, we appreciate that they have a role in most investors' portfolios. You do not have to like Treasuries to want to hold them, if you view them as the only asset that can save you in the one tail scenario that would push your institution over the brink. A deflationary "Global Japan" scenario is the nightmare for many institutions, given its triple-whammy of ills: asset values going down, liability values going up, and sponsors in trouble. (However, if fiscal challenges become sufficiently ugly, Treasuries will lose even this safe-haven characteristic. Then the voluntary repression through safe-haven demand may need to be replaced by capital controls and further regulations.)

return targets. Investors who confidently hold

<sup>2</sup> See CFA Institute Research Foundation monograph *Rethinking the Equity Risk Premium*, edited by Hammond, Leibowitz, and Siegel (2011). Incidentally, valuation measures do have some predictive ability; for example, the ex-ante real yield of 60/40 in the first chart has almost 30% (50%) correlation with the realized return over the next year (five years).



special insights on tactical opportunities can deviate from a risk-balanced portfolio to add value.

In addition, this approach aids in the second major challenge many investors face: How can we mitigate our portfolio's pervasive market-directionality? The 60/40 portfolio and a typical endowment portfolio may seem diversified beyond equities, but their performance is predominantly driven by equities – over 90% of the volatility has been due to stock market gyrations. When equities become riskier, these portfolios become riskier; and when equities suffer, these portfolios suffer, recently forcing many “long term investors” to sell when equities were cheap.<sup>3</sup>

It is true that diversification is more difficult during bad times and especially amidst a global systemic crisis like we have been in since 2008, but we argue that “diversification is the best game in town”.<sup>4</sup>

### Capturing the Value of Diversification

Risk parity investing is one way to improve a portfolio's risk balance.<sup>5</sup> It also enables converting diversification benefits into higher expected returns.<sup>6</sup> Risk parity portfolios hold many of the

same assets as traditional portfolios but allocate more evenly across them in risk space to deliver more consistent performance across a range of economic environments. For example, traditional portfolios are generally not well-positioned for increases in inflation, whereas a risk parity portfolio that includes inflation-sensitive assets like commodities may help ensure stronger performance in inflationary regimes.<sup>7</sup> The risk parity framework for constructing a portfolio can be extended beyond traditional asset classes to include dynamic trading strategies, such as hedge fund risk premiums. Such return sources may provide more effective diversification than asset class premiums, but like hedge fund styles, they have capacity constraints.

Long-term investment success requires three pillars, which could be dubbed the “Three R's”:

- Risk Premium: identifying attractive return sources and harvesting them cost-effectively
- Risk Allocation: diversifying among them aggressively in a risk-balanced fashion
- Risk Control: ensuring long-run survival with risk management

Many investors focus only on the first activity, and underutilize portfolio construction, risk management, and cost control as sources of outperformance. Alternative Thinking will highlight the value in, and application of, these less covered but equally important steps in the investment process.

<sup>3</sup> The two main challenges we highlight are related. One could reach any return target by sufficiently leveraging up any return source with a positive expected excess return. However, relying on a single return source is dangerous, whether it is equity premium, value premium, or a thematic view such as sustained outperformance of emerging markets. Diversification across ideas (return sources) improves the consistency and thus the quality of risk-taking.

<sup>4</sup> Although critics focus on short-term “failings” of diversification, we find that diversification works well over longer horizons, generating substantial benefits over the medium and long-term; see “International Diversification Works (Eventually)” by Asness, Israelov and Liew in the Financial Analysts Journal (June 2011). Moreover, the other major ways to reduce risk -- purchasing tail insurance and de-risking into cash -- currently offer negative expected real returns.

<sup>5</sup> Risk parity allocations typically imply greater bond weight than in a 60/40 portfolio. It may seem surprising that we endorse raising bond weights despite the historical richness of government bonds. There are several answers. First, risk parity is mainly about smart long-run diversification. More effective diversification allows us to pursue more of everything; not just bonds but also other market exposures (such as commodities which help in rising inflation scenarios) and alternative betas. Second, risk parity is view-neutral in trying to achieve reasonable returns in all major scenarios, both inflationary and deflationary ones. Finally, we have several tactical components that allow the underweighting of bonds from our long-run norm, but our non-valuation signals do not yet support a bond-bearish stance.

<sup>6</sup> Diversification reduces portfolio volatility and raises its Sharpe ratio.

Investors can use leverage to convert the higher risk-adjusted returns into higher expected returns; we will return to the topic of leverage in the coming issues of Alternative Thinking. Even without leverage, a combination of diversification and rebalancing can enhance portfolio return: Thanks to lower volatility, a portfolio's compound return may be higher than the weighted average compound return among its constituents (and this gap is greater for more diversified portfolios).

<sup>7</sup> Please see “Understanding Risk Parity” for more information on risk parity. Also see “Leverage Aversion and Risk Parity” by Asness, Frazzini and Pedersen in the forthcoming Financial Analysts Journal.



**This page intentionally left blank**



This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed by the author and AQR Capital Management, LLC ("AQR") to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is intended exclusively for the use of the person to whom it has been delivered by AQR, and it is not to be reproduced or redistributed to any other person. The information set forth herein has been provided to you as secondary information and should not be the primary source for any investment or allocation decision. Past performance is not a guarantee of future performance.

This material is not research and should not be treated as research. This paper does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR. The views expressed reflect the current views as of the date hereof and neither the author nor AQR undertakes to advise you of any changes in the views expressed herein.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the author guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision. There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such.

The information in this paper may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this document, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

Performance of all cited indices is calculated on a total return basis with dividends reinvested. Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. The VIX Index is a financial benchmark designed to be an up-to-the-minute market estimate of the expected volatility of the S&P 500® Index.

#### Asia

Hong Kong: This presentation may not be copied, reproduced, republished, posted, transmitted, disclosed, distributed or disseminated, in whole or in part, in any way without the prior written consent of AQR Capital Management (Asia) Limited (together with its affiliates, "AQR") or as required by applicable law. This presentation and the information contained herein are for educational and informational purposes only and do not constitute and should not be construed as an offering of advisory services or as an invitation, inducement or offer to sell or solicitation of an offer to buy any securities, related financial instruments or financial products in any jurisdiction. Investments described herein will involve significant risk factors which will be set out in the offering documents for such investments and are not described in this presentation. The information in this presentation is general only and you should refer to the final private information memorandum for complete information. To the extent of any conflict between this presentation and the private information memorandum, the private information memorandum shall prevail. The contents of this presentation have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution and if you are in any doubt about any of the contents of this presentation, you should obtain independent professional advice.

AQR Capital Management (Asia) Limited is licensed by the Securities and Futures Commission ("SFC") in the Hong Kong Special Administrative Region of the People's Republic of China ("Hong Kong") pursuant to the Securities and Futures Ordinance (Cap 571) (CE no: BHD676).

AQR Capital Management (Asia) Limited Unit 2023, 20/F, One IFC, 1 Harbour View Street, Central Hong Kong, Hong Kong. Licensed and regulated by the Securities and Futures Commission of Hong Kong (CE no: BHD676).

**China:** This document does not constitute a public offer of any fund which AQR Capital Management, LLC ("AQR") manages, whether by sale or subscription, in the People's Republic of China (the "PRC"). Any fund that this document may relate to is not being offered or sold directly or indirectly in the PRC to or for the benefit of, legal or natural persons of the PRC.

Further, no legal or natural persons of the PRC may directly or indirectly purchase any shares/units of any AQR managed fund without obtaining all prior PRC's governmental approvals that are required, whether statutorily or otherwise. Persons who come into possession of this document are required by the issuer and its representatives to observe these restrictions.



**Singapore:** This document does not constitute an offer of any fund which AQR Capital Management, LLC (“AQR”) manages. Any fund that this document may relate to and any fund related prospectus that this document may relate to has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor pursuant to Section 304 of the Securities and Futures Act, Chapter 289 of Singapore (the “SFA”) or (ii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

**Korea:** Neither AQR Capital Management (Asia) Limited or AQR Capital Management, LLC (collectively “AQR”) is making any representation with respect to the eligibility of any recipients of this document to acquire any interest in a related AQR fund under the laws of Korea, including but without limitation the Foreign Exchange Transaction Act and Regulations thereunder. Any related AQR fund has not been registered under the Financial Investment Services and Capital Markets Act of Korea, and any related fund may not be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to applicable laws and regulations of Korea.

**Japan:** This document does not constitute an offer of any fund which AQR Capital Management, LLC (“AQR”) manages. Any fund that this document may relate to has not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law no. 25 of 1948, as amended) and, accordingly, none of the fund shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit, of any Japanese person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese person except under circumstances which will result in compliance with all applicable laws, regulations and guidelines promulgated by the relevant Japanese governmental and regulatory authorities and in effect at the relevant time. For this purpose, a “Japanese person” means any person resident in Japan, including any corporation or other entity organised under the laws of Japan.

**Australia:** AQR Capital Management, LLC, is exempt from the requirement to hold an Australian Financial Services License under the Corporations Act 2001, pursuant to ASIC Class Order 03/1100 as continued by ASIC Legislative Instrument 2016/396 (as extended by amendment). AQR is regulated by the Securities and Exchange Commission (“SEC”) under United States of America laws and those laws may differ from Australian laws.

**Canada:** This material is being provided to you by AQR Capital Management, LLC, which provides investment advisory and management services in reliance on exemptions from adviser registration requirements to Canadian residents who qualify as “permitted clients” under applicable Canadian securities laws. No securities commission or similar authority in Canada has reviewed this presentation or has in any way passed upon the merits of any securities referenced in this presentation and any representation to the contrary is an offence.

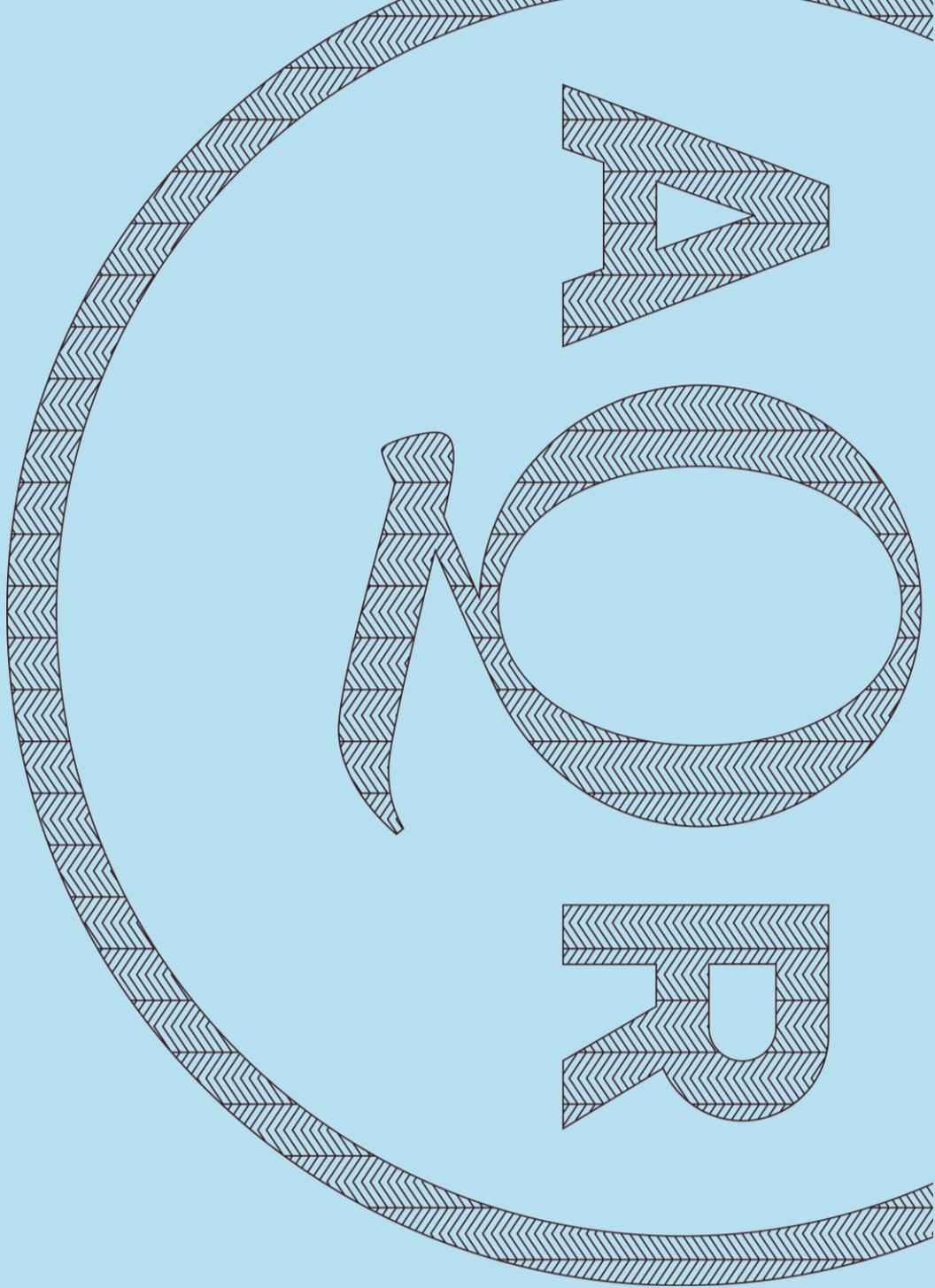
**Middle East:** AQR Capital Management (Europe) LLP (DIFC Representative Office) is regulated by the Dubai Financial Services Authority of the Dubai International Financial Centre as a Representative Office (firm reference number: F007651). Its principal place of business is Gate Village 10, Level 3, Unit 4, DIFC, Dubai, UAE. This marketing communication is distributed on behalf of AQR Capital Management, LLC.

This is a marketing communication in the European Economic Area (“EEA”) and approved as a Financial Promotion in the United Kingdom (“UK”). It is only intended for Professional Clients.

### **Information for Clients in the United Kingdom**

The information set forth herein has been prepared and issued by AQR Capital Management (Europe) LLP, a UK limited liability partnership with its office at Charles House 5-11, Regent St., London, SW1Y 4LR, which is authorised and regulated by the UK Financial Conduct Authority (“FCA”).

**Information for Clients in the EEA:** AQR in the European Economic Area is AQR Capital Management (Germany) GmbH, a German limited liability company (Gesellschaft mit beschränkter Haftung; “GmbH”), with registered offices at Maximilianstrasse 13, 80539 Munich, authorized and regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, „BaFin“), with offices at Marie-Curie-Str. 24-28, 60439, Frankfurt am Main und Graurheindorfer Str. 108, 53117 Bonn, to provide the services of investment advice (Anlageberatung) and investment broking (Anlagevermittlung) pursuant to the German Securities Institutions Act (Wertpapierinstitutsgesetz; “WpIG”). The Complaint Handling Procedure for clients and prospective clients of AQR in the European Economic Area can be found here: <https://ucits.aqr.com/Legal-and-Regulatory>. Subject to applicable local laws and regulations in the European Economic Area (“EEA”), the strategy referred to in this document is available, in whole or in part, to suitable European investors through AQR’s UCITS fund ranges. This document should not be construed as pre-marketing by AQR of any of its other fund ranges.



**AQR Capital Management, LLC**

One Greenwich Plaza, Greenwich, CT 06830  
p: +1.203.742.3600 | f: +1.203.742.3100 | w: aqr.com