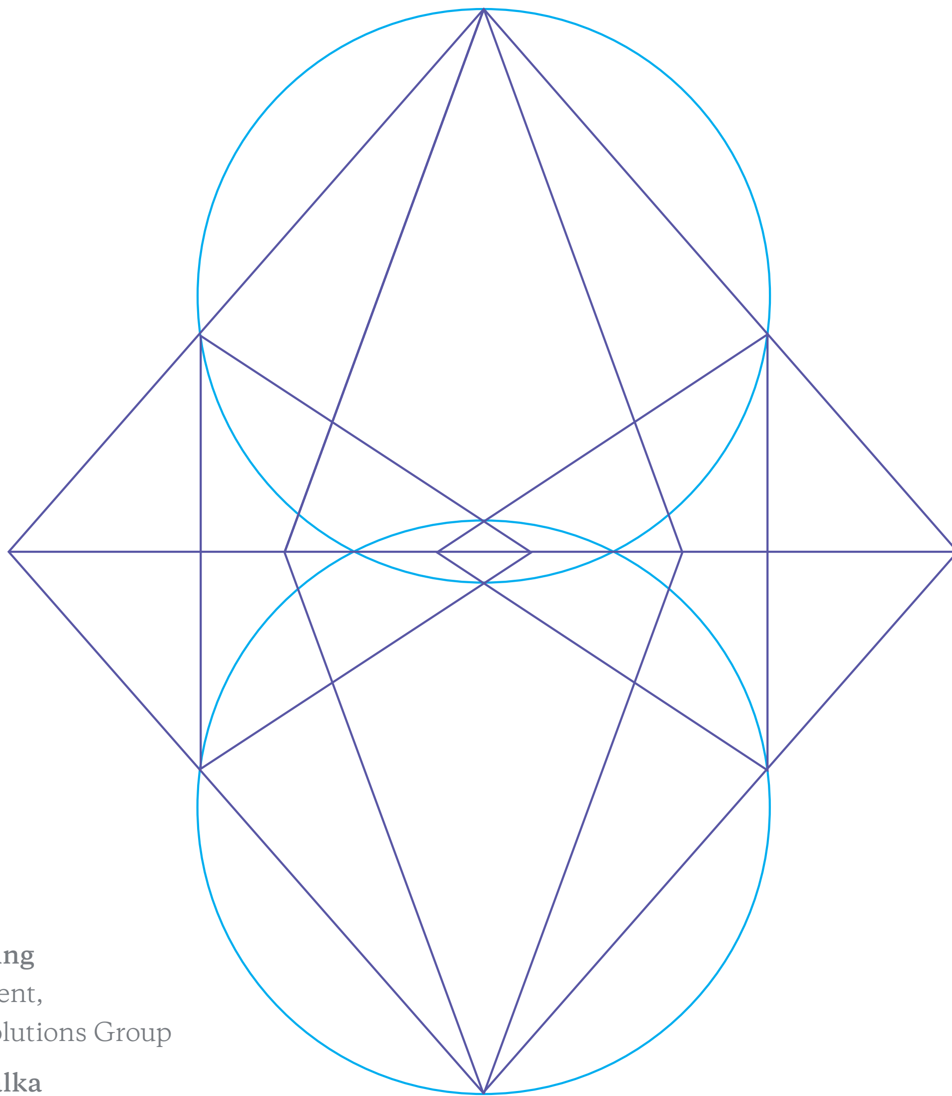
February 2017

Understanding Relaxed Constraint Equity Strategies



Ing-Chea Ang
Vice President,
Portfolio Solutions Group

Alex Michalka
Vice President,
Global Stock Selection

Adrienne Ross
Vice President,
Global Stock Selection

Contents

Introduction 03

How Relaxed Constraint Works 04

Different Approaches to Active Equity Investing 05

Benefits of a Relaxed Constraint Portfolio 06

Relaxed Constraint vs. Long/Short Equity 08

Why the 30% in the 130/30? 09

Considerations in Evaluating a RC Manager 10

Conclusion 11

References 12

Disclosures 13

In a prospectively low-return environment, equity investors seeking potential outperformance over benchmark returns should consider Relaxed Constraint ("RC") strategies (also popularly known as 130/30 strategies). RC portfolios are benchmark-relative strategies that allow a pre-determined fraction of shorts. There are two key benefits of RC over comparable long-only portfolios: 1) more flexibility for active stock selection, which creates the potential for higher returns; and 2) the potential for greater tax efficiency. From a portfolio perspective, RC strategies typically have net exposures of around one — that is, they move with equity markets, exhibit similar volatility, and therefore could be used in an equity allocation.

We thank Michele Aghassi, Marco Hanig, Antti Ilmanen, Bryan Johnson, Nick McQuinn, Maston O'Neil, Dan Villalon for helpful comments and suggestions.

Introduction

Historically low global yields and generally elevated asset valuations have led many investors to expect lower returns going forward. As such, the ability to generate active, above benchmark returns, has become even more important to meet performance hurdles. RC equity strategies — also known as equity extension, active extension, 130/30 (or 140/40, 150/50) strategies — are one solution that may interest investors.

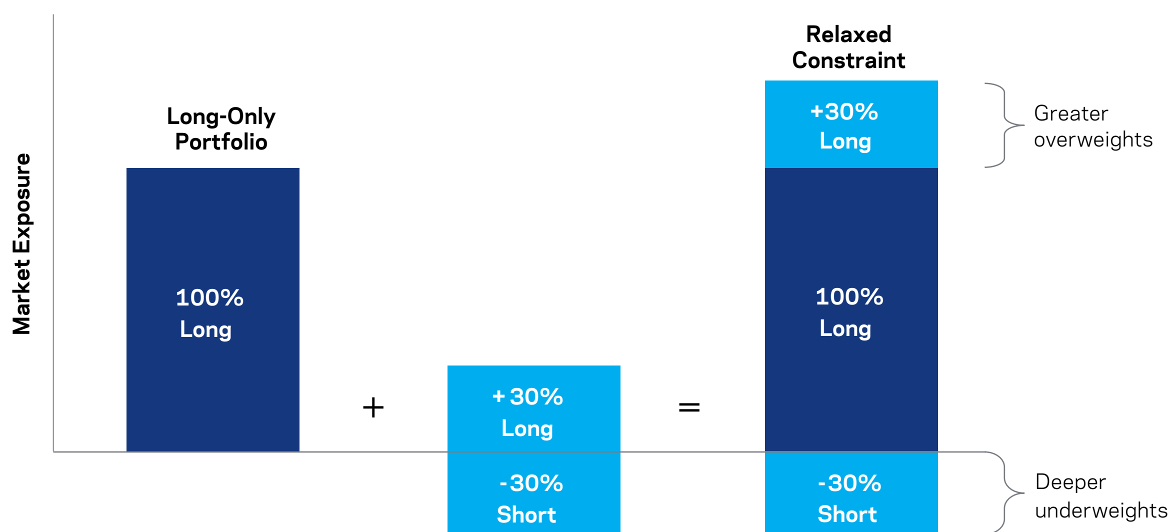
RC strategies are benchmark-relative solutions that incorporate, in small doses, techniques from alternative investments such as the use of shorting and leverage. The goal of these strategies is to outperform their benchmarks through active risk-taking — and to do so in a way that allows for greater exposure to a manager's views, relative to a traditional long-only setting.

How Relaxed Constraint Works

For an active equity manager seeking to outperform a benchmark, the term 'Relaxed Constraint' means relaxing the limitation of only being able to go long stocks, by allowing a pre-determined fraction of shorts in the portfolio. In the specific case of a 130/30 RC strategy, the portfolio has aggregate long exposure of 130% and total short exposure of 30% (as a percent of Net Asset Value). One can think of this as a combination of a long-only portfolio that is 100% invested plus an additional component, which is 30% long and 30% short (see **Exhibit 1**). The resulting portfolio has gross exposure of 160% (sum of longs and shorts) implying some gross leverage. However, we stress the portfolio is not *net leveraged* (i.e., not economically leveraged), given the total net market exposure is 100%.

Exhibit 1

Relaxed Constraint Allows Managers Greater Flexibility[1]



	Long-Only	Relaxed Constraint
Gross Leverage	100%	160%
Net Leverage	100%	100%

Source: AQR. For illustrative purposes only.

1 A RC manager's 100% long "building block" will likely have a different composition than if that manager were disallowed from shorting (i.e., than if the 100% long building block were the only positions she held).

Different Approaches to Active Equity Investing

There are many different ways a manager can outperform a benchmark. Ultimately, the goal is to generate excess returns through active risk taking, but the way in which a manager does so can be quite different. These differences can relate to the manager's underlying investment philosophy (i.e., what they look for when picking stocks) and/or how they construct portfolios (i.e., whether they build concentrated or diversified portfolios).

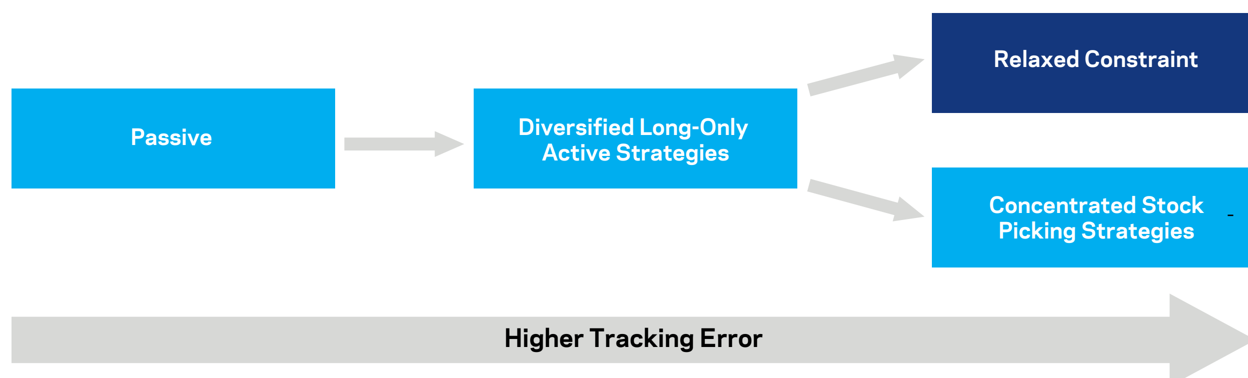
Concentrated managers typically select a small number of companies that can generate returns from company-specific idiosyncratic risk. In contrast, many RC strategies, particularly quantitative ones, seek to diversify away idiosyncratic risks and generate returns through hundreds of small bets comprising "tilts" based on certain characteristics (e.g., companies that are cheap and/or have strong price momentum).

These types of strategies generally target specific active risk or tracking error levels (a measure of the typical variation in the difference between portfolio and benchmark returns), and may also be able to explicitly control and target industry over- and underweights.

Exhibit 2 summarizes a few of these options available to investors looking for active returns, ranging from passive investments (with zero tracking error) to concentrated stock-pickers and RC strategies (with higher tracking error). Both the concentrated portfolio and RC approaches offer the potential for higher returns through higher active risk, and, as mentioned, the way they do so can be quite different. Assuming one is able to find skilled managers of both types, these two approaches may in fact be complementary, especially if their excess returns are lowly correlated.

Exhibit 2

Investors Face Many Choices in the Pursuit of Active Returns



Source: AQR. For illustrative purposes only.

Benefits of a Relaxed Constraint Portfolio

Better Expression of Active Views

A primary benefit of RC strategies is the ability for a manager to better express her views. To the extent the manager can identify both ‘winners’ (stocks to overweight) and ‘losers’ (stocks to underweight or short), this approach can lead to better expected outcomes. This is especially important when a manager highly dislikes a stock which represents only a small weight in the index. In a long-only portfolio, the most bearish position the manager can take is to simply not hold the stock. Consider the fact that 78% of stocks in the Russell 1000 Index have a weight of less than 0.1%.[2] In a long-only portfolio, such stocks can be underweighted by at most 10 basis points, no matter how bearish the manager's view — a potentially severe constraint if the manager has strong negative opinions about these stocks.

The long-only constraint also goes beyond limiting a manager’s expression of negative views on unattractive stocks. Because all overweights must be balanced by underweights (to maintain a fully invested portfolio without net leverage), the inability to meaningfully underweight unattractive stocks also restricts the ability to overweight attractive ones. By allowing some shorting, the manager has more freedom to express her active views — both positive *and* negative ones. This allows the manager to target greater tracking error relative to the benchmark — potentially increasing active returns — without sacrificing diversification in the portfolio.

Tax Efficiency

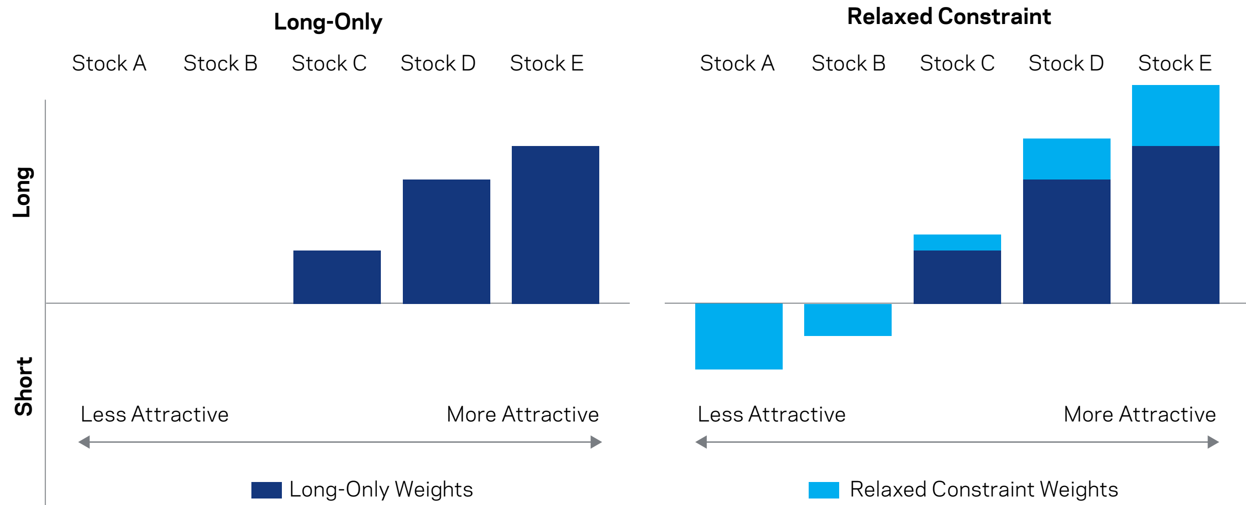
Another benefit of RC strategies is the potential for greater tax efficiency. As shown in **Exhibit 4**, both long-only and RC strategies may have opportunities to realize losses in a falling market. However, markets generally rise over time. And in a rising market, a long-only portfolio may have only unrealized gains. In contrast, the short positions of a RC portfolio would likely have embedded losses that could be realized if desired. Thus RC strategies may offer better potential for tax-efficiency in *both* rising and falling markets than long-only strategies.[3]

2 Source: FTSE Russell. As of November 30, 2016.

3 For more discussion on the tax efficiencies afforded by short positions, see Sialm and Sosner, 2017, “Taxes, Shorting, and Active Management”. This information does not constitute legal, tax or accounting advice or investment advice and is solely based on the opinion of AQR of which no expectation of compensation will be derived. The recipient should conduct his or her own analysis and consult with professional advisors prior to making any investment decisions. Any investment made will be in the sole discretion of the reader.

Exhibit 3

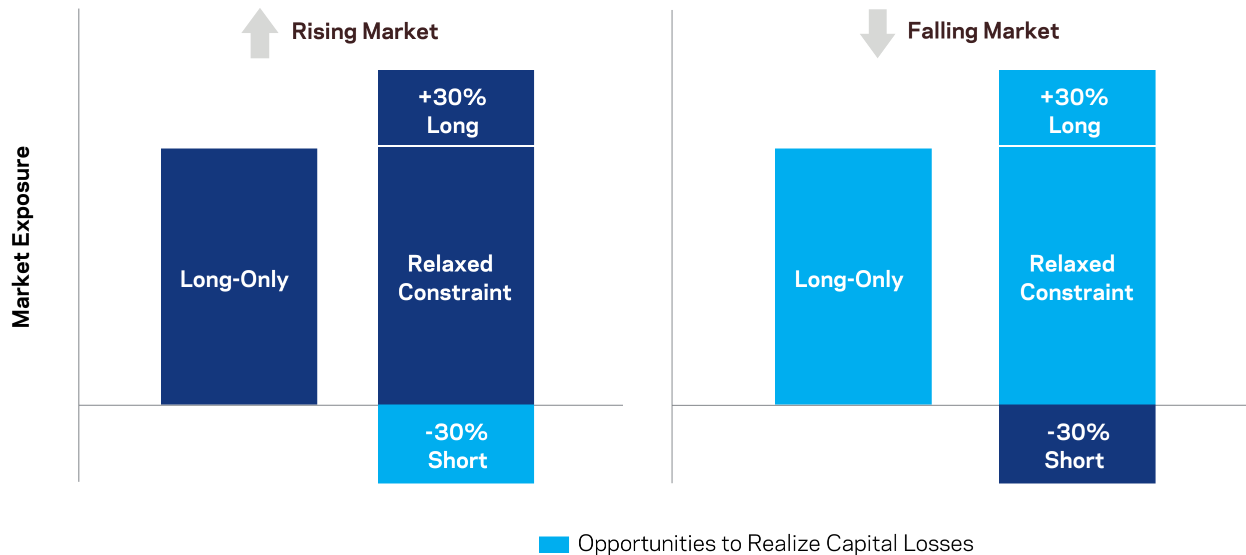
Relaxing the Long-Only Constraint Provides Better Capture of Positive and Negative Stock Views



Source: AQR. For illustrative purposes only. Not to be construed as a recommendation or investment advice.

Exhibit 4

RC Strategies Provide the Potential for Greater Tax Efficiency in Rising and Falling Markets



Source: AQR. For illustrative purposes only. Not to be construed as a recommendation or investment advice.

Relaxed Constraint vs. Long/Short Equity

RC strategies are often compared to Long/Short Equity strategies as both use some degree of shorting and gross leverage. However, there are key differences between the two approaches, which we highlight in **Exhibit 5**.

RC strategies are benchmark-oriented portfolios (typically to indices such as the MSCI World or the Russell 1000) that generally target net exposures of one. Like most active equity strategies, they derive their returns from market exposure (beta), but seek to generate outperformance (alpha) relative to their benchmarks. Because they have the same objective and similar equity market sensitivity as their long-only equity counterparts, RC strategies tend to fall into the "long-only" equity category.[4]

In contrast, Long/Short Equity strategies belong in the "alternatives" category because they have absolute return objectives, generally lower (and varying) equity betas and lower volatility than traditional equity funds.[5]

On a related note, there is often a misconception that shorts in a RC portfolio are designed to protect the portfolio from market drawdowns, which we believe contributed to disappointment in the strategy during the Global Financial Crisis in 2008-09.[6] Recall that the shorts in RC strategies are offset by additional long positions, and net exposure to the market is still 100%. The short positions are not intended to provide protection in market downturns, but rather to provide greater flexibility for active stock selection.

Exhibit 5

Relaxed Constraint Strategies Belong to the Long-Only Equity Category

	Long-Only	Relaxed Constraint	Long/Short Equity
Return Objective	Benchmark-relative	Benchmark-relative	Absolute return; capital appreciation with reduced equity exposure
Volatility	Similar to benchmark	Similar to benchmark	Varies, but generally lower than equities
Market Beta	0.9 - 1.1	0.9 - 1.1	0.2 - 0.8
Shorting	No	Yes	Yes

Source: AQR. For illustrative purposes only.

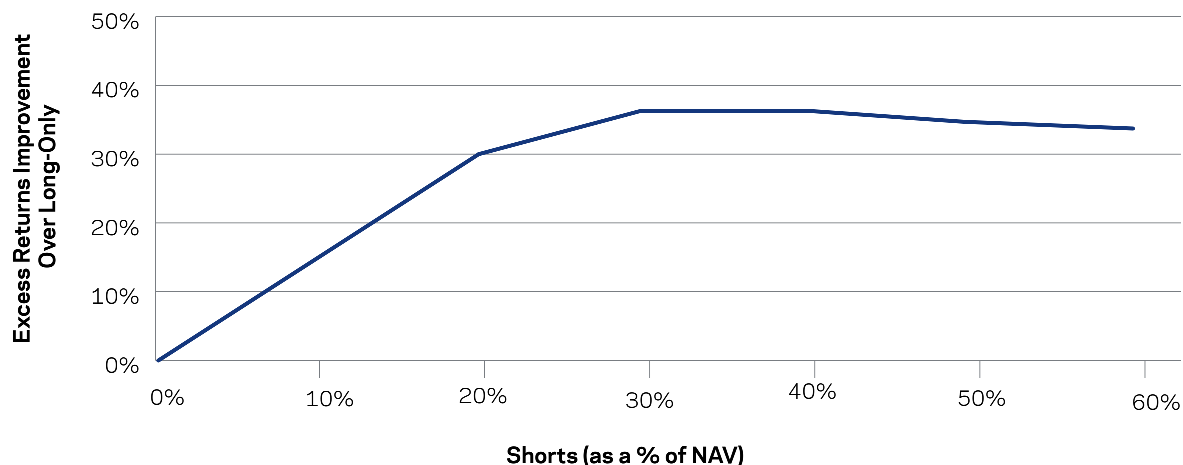
4 This is consistent with how investment research firms such as Morningstar categorize these strategies.
5 Of the 66 mutual funds classified as Long/Short Equity by Morningstar, 82% have betas between 0.2 and 0.8, and 89% have volatility less than the S&P 500 Index over two full years ending 12/31/2016. Source: Morningstar data, AQR analysis.
6 Alternative Thinking, Second Quarter 2016, "Relaxed Constraint Portfolios: Ignored but Not Forgotten", AQR quarterly whitepaper.

Why the 30% in the 130/30?

For a RC portfolio, an important parameter that can affect a portfolio's return is the level of shorting allowed in a portfolio. To illustrate, we construct two hypothetical portfolios — long-only and RC — using well-known styles of value and momentum[7] (as in Asness et al. 2015), over the MSCI Global universe from 1995 to 2015. Given a fixed tracking error of 3.5%, we can see how excess returns vary with increasing amounts of shorts. Our results in **Exhibit 6** indicate that the largest marginal improvements in excess returns come with small amounts of shorting, up until around 30%. Beyond 30% shorting, the associated costs from shorting and turnover begin to outweigh the benefits, and the curve plateaus. As such, we find that the 130/30 implementation tends to offer a good trade-off between improved returns before and after costs.

Exhibit 6

Hypothetical – RC Strategies can Potentially Deliver Higher Excess Returns over Comparable Long-Only Strategies



Source: Xpressfeed, AQR. Returns shown are in excess of the MSCI World Index, net of estimated transaction costs but gross of management fees. Please see the disclosures for an explanation of the construction of this dataset. Hypothetical performance results have certain inherent limitations, some of which are disclosed in the back.

7 We use book-to-market for value and prior year's returns, skipping the most recent month, for momentum.

Considerations in Evaluating a RC Manager

On a theoretical basis, the promise of higher returns in RC appears quite compelling. However, we believe a strategy's success is also highly dependent on good implementation. There are a few key points investors should pay attention to in evaluating RC strategies.

First, we think a RC manager should have expertise in generating a diverse set of short ideas, in addition to long ones. Long-only managers may be accustomed to finding stocks they like, but unaccustomed to finding ones they dislike. In addition, the costs and availability of shorting a stock may vary over time, and a manager needs experience to dynamically handle such changing conditions.

Second, the use of gross leverage adds another dimension of complexity to the portfolio construction and risk management process. A good RC manager needs to balance the competing demands of generating alpha, while potentially adhering to risk limits (e.g., tracking error, sizing, beta, concentration) and managing the challenges of leverage and shorting.

Finally, if a RC strategy takes greater tracking error than a long-only one, it may require higher turnover (as a percentage of NAV). Therefore, the ability to trade efficiently and cheaply can have a material impact on a strategy's returns, as transaction costs can erode excess returns.

Conclusion

We believe RC strategies represent an attractive solution to investors seeking greater active returns, particularly in a prospectively low-return environment. RC strategies allow managers to more faithfully reflect their views in a portfolio, potentially generating higher returns, and in some cases, greater tax efficiency.

From a portfolio strategy perspective, we reiterate that RC strategies generally target net exposures of one and should not be expected to perform like long/short equity strategies. However, with the right expectations and manager to implement the strategy, we believe RC strategies can be highly additive to a traditional equity portfolio.

References

Alternative Thinking, Second Quarter 2016, “Relaxed Constraint Portfolios: Ignored but Not Forgotten,” AQR quarterly whitepaper

Aghassi, M., Feghali G., McQuinn N., Villalon D., 2016, “Ugly Duckling No Longer: A Decade of Relaxed Constraint Strategies,” AQR Reflections whitepaper

Asness, C., Ilmanen A., Israel R., Moskowitz T., 2015, “Investing With Style,” *Journal of Investment Management*, 13:1

Asness, C., Moskowitz, T., Pedersen, L., 2012, “Value and Momentum Everywhere,” *Journal of Finance*, June 2013, Vol. 68, 929-985

Sialm, C., Sosner, N., 2017, “Taxes, Shorting, and Active Management,” working paper

Disclosures

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.

HYPOTHETICAL PERFORMANCE RESULTS HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH, BUT NOT ALL, ARE DESCRIBED HEREIN. NO REPRESENTATION IS BEING MADE THAT ANY FUND OR ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN HEREIN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCES BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND THE ACTUAL RESULTS SUBSEQUENTLY REALIZED BY ANY PARTICULAR TRADING PROGRAM. ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK, AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING. FOR EXAMPLE, THE ABILITY TO WITHSTAND LOSSES OR TO ADHERE TO A PARTICULAR TRADING PROGRAM IN SPITE OF TRADING LOSSES ARE MATERIAL POINTS THAT CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS. THERE ARE NUMEROUS OTHER FACTORS RELATED TO THE MARKETS IN GENERAL OR TO THE IMPLEMENTATION OF ANY SPECIFIC TRADING PROGRAM WHICH CANNOT BE FULLY ACCOUNTED FOR IN THE PREPARATION OF HYPOTHETICAL PERFORMANCE RESULTS, ALL OF WHICH CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS.

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.

Explanation of Exhibit 6: Returns shown are in excess of the MSCI World Index, net of estimated costs but gross of management fees. Liquid tradable universe equivalent to the MSCI World Index. Monthly rebalancing frequency for the backtesting period of January 1995 to December 2015. Optimizations trade off expected return with estimated costs of trading and portfolio financing, with constraints placed on turnover, tracking error, industry/sector/country exposures, market exposure, as well as sizes of individual weight deviations and trades. For constraints, Barra Global Equity Model (GEM) from 1995 to 1998; Barra BIMDEV301L from 1999 to present, were used. We account for the estimated transaction costs using AQR's transaction costs model. We also account for the cost of shorting as well as the funding costs for the long extension (the additional 30% of long exposure).

The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The MSCI World Index consists of the following 23 developed market country indexes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Note to readers in 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 mmission ("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.
Note to readers in 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.
Note to readers in 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.
Note to readers in 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.

www.aqr.com

AQR Capital Management, LLC Two Greenwich Plaza, Greenwich, CT 06830 **P** +1.203.742.3600 **F** +1.203.742.3100