Targeting absolute returns through systematic style investing

For professional investors only

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BMO Global Asset Management

Agenda

Introduction

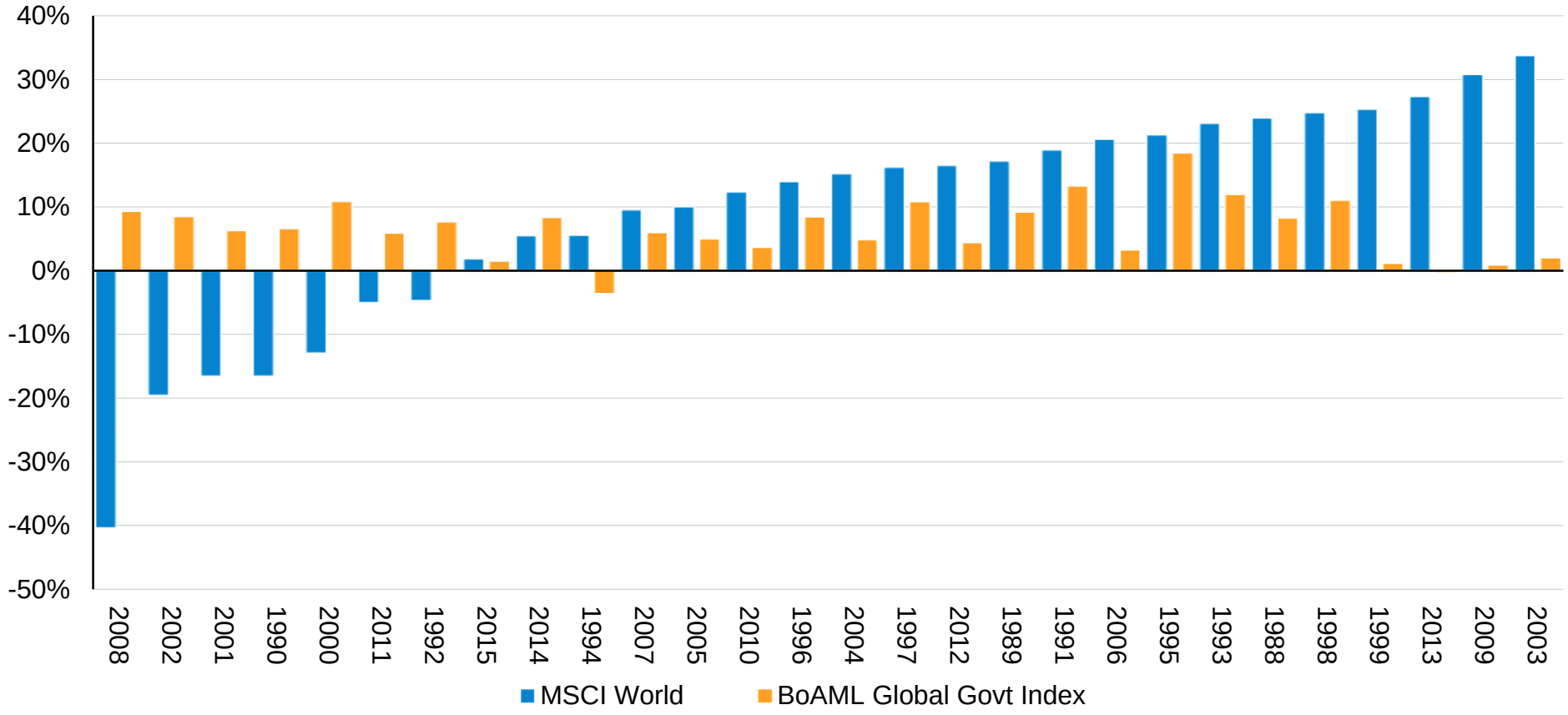
Style premia

From ‘styles’ to ‘true styles’

Putting it all together

F&C Global Equity Market Neutral Strategy

Annual Equity and Bond returns



Source: BMO Global Asset Management, Bank of America Merrill Lynch, MSCI, © 2016 MSCI Inc. Reproduction by permission.

What should an alternative strategy offer the investor?

- Genuine alternative
- Style driven performance
- Daily liquidity
- Diversifier
- Competitive fee

What are style premia?

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Source: BMO Global Asset Management. For illustrative purposes only.

Some history

THE JOURNAL OF FINANCE • VOL. XLVII, NO. 2 • JUNE 1992

The Cross-Section of Expected Stock Returns

EUGENE F. FAMA and KENNETH R. FRENCH*

ABSTRACT

Two easily measured variables, size and book-to-market equity, combine to capture the cross-sectional variation in average stock returns associated with market β, size, leverage, book-to-market equity, and earnings-price ratios. Moreover, when the tests allow for variation in β that is unrelated to size, the relation between market β and average return is flat, even when β is the only explanatory variable.

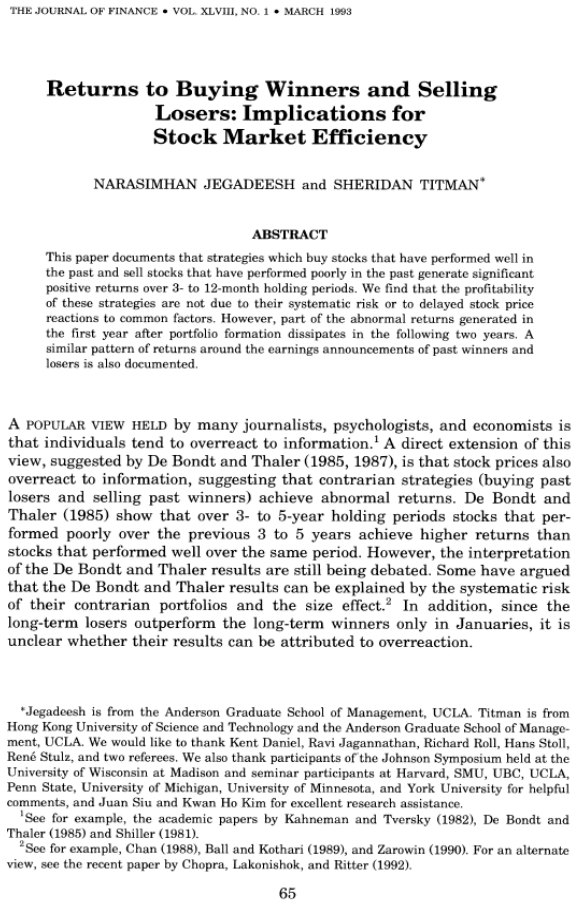
THE ASSET-PRICING MODEL OF Sharpe (1964), Lintner (1965), and Black (1972) has long shaped the way academics and practitioners think about average returns and risk. The central prediction of the model is that the market portfolio of invested wealth is mean-variance efficient in the sense of Markowitz (1959). The efficiency of the market portfolio implies that (a) expected returns on securities are a positive linear function of their market βs (the slope in the regression of a security's return on the market's return), and (b) market βs suffice to describe the cross-section of expected returns.

There are several empirical contradictions of the Sharpe-Lintner-Black (SLB) model. The most prominent is the size effect of Banz (1981). He finds that market equity, ME (a stock's price times shares outstanding), adds to the explanation of the cross-section of average returns provided by market βs. Average returns on small (low ME) stocks are too high given their β estimates, and average returns on large stocks are too low.

Another contradiction of the SLB model is the positive relation between leverage and average return documented by Bhandari (1988). It is plausible that leverage is associated with risk and expected return, but in the SLB model, leverage risk should be captured by market β. Bhandari finds, however, that leverage helps explain the cross-section of average stock returns in tests that include size (ME) as well as β.

Stattman (1980) and Rosenberg, Reid, and Lanstein (1985) find that average returns on U.S. stocks are positively related to the ratio of a firm's book value of common equity, BE, to its market value, ME. Chan, Hamao, and Lakonishok (1991) find that book-to-market equity, BE/ME, also has a strong role in explaining the cross-section of average returns on Japanese stocks.

* Graduate School of Business, University of Chicago, 1101 East 58th Street, Chicago, IL 60637. We acknowledge the helpful comments of David Booth, Nai-fu Chen, George Constantinides, Wayne Ferson, Edward George, Campbell Harvey, Josef Lakonishok, Rex Sinquefield, René Stulz, Mark Zmijewski, and an anonymous referee. This research is supported by the National Science Foundation (Fama) and the Center for Research in Security Prices (French).



THE JOURNAL OF FINANCE • VOL. XLVIII, NO. 1 • MARCH 1993

Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency

NARASIMHAN JEGADEESH and SHERIDAN TITMAN*

ABSTRACT

This paper documents that strategies which buy stocks that have performed well in the past and sell stocks that have performed poorly in the past generate significant positive returns over 3- to 12-month holding periods. We find that the profitability of these strategies are not due to their systematic risk or to delayed stock price reactions to common factors. However, part of the abnormal returns generated in the first year after portfolio formation dissipates in the following two years. A similar pattern of returns around the earnings announcements of past winners and losers is also documented.

A POPULAR VIEW HELD by many journalists, psychologists, and economists is that individuals tend to overreact to information.[1] A direct extension of this view, suggested by De Bondt and Thaler (1985, 1987), is that stock prices also overreact to information, suggesting that contrarian strategies (buying past losers and selling past winners) achieve abnormal returns. De Bondt and Thaler (1985) show that over 3- to 5-year holding periods stocks that performed poorly over the previous 3 to 5 years achieve higher returns than stocks that performed well over the same period. However, the interpretation of the De Bondt and Thaler results are still being debated. Some have argued that the De Bondt and Thaler results can be explained by the systematic risk of their contrarian portfolios and the size effect.[2] In addition, since the long-term losers outperform the long-term winners only in Januaries, it is unclear whether their results can be attributed to overreaction.

*Jegadeesh is from the Anderson Graduate School of Management, UCLA. Titman is from Hong Kong University of Science and Technology and the Anderson Graduate School of Management, UCLA. We would like to thank Kent Daniel, Ravi Jagannathan, Richard Roll, Hans Stoll, René Stulz, and two referees. We also thank participants of the Johnson Symposium held at the University of Wisconsin at Madison and seminar participants at Harvard, SMU, UBC, UCLA, Penn State, University of Michigan, University of Minnesota, and York University for helpful comments, and Juan Siu and Kwan Ho Kim for excellent research assistance.

[1] See for example, the academic papers by Kahneman and Tversky (1982), De Bondt and Thaler (1985) and Shiller (1981).

[2] See for example, Chan (1988), Ball and Kothari (1989), and Zarowin (1990). For an alternate view, see the recent paper by Chopra, Lakonishok, and Ritter (1992).

Source: The Journal of Finance

Why do style premia exist?

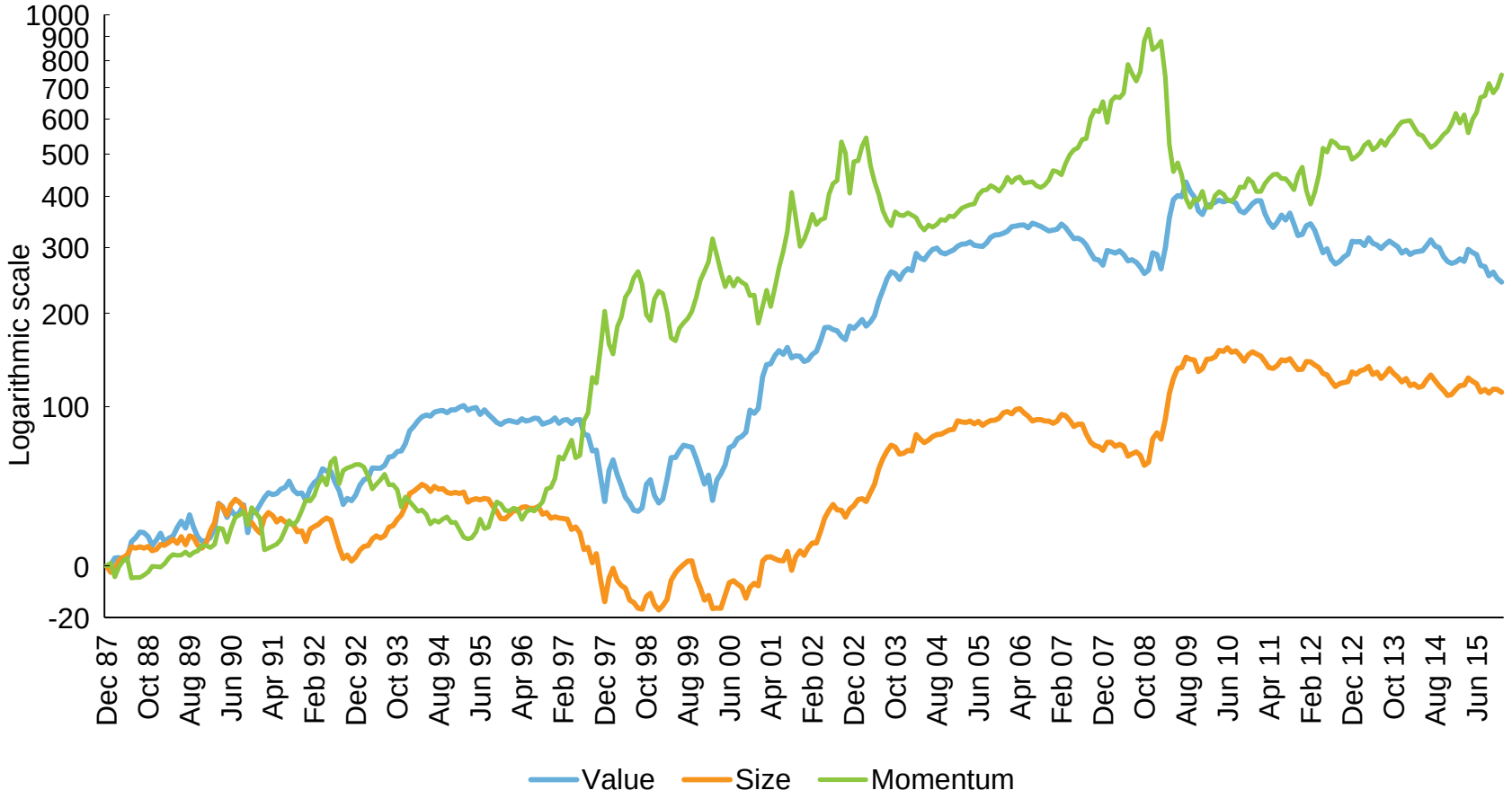
Compensation for taking risk

Efficient market

Result of hardwired human nature

Behavioural

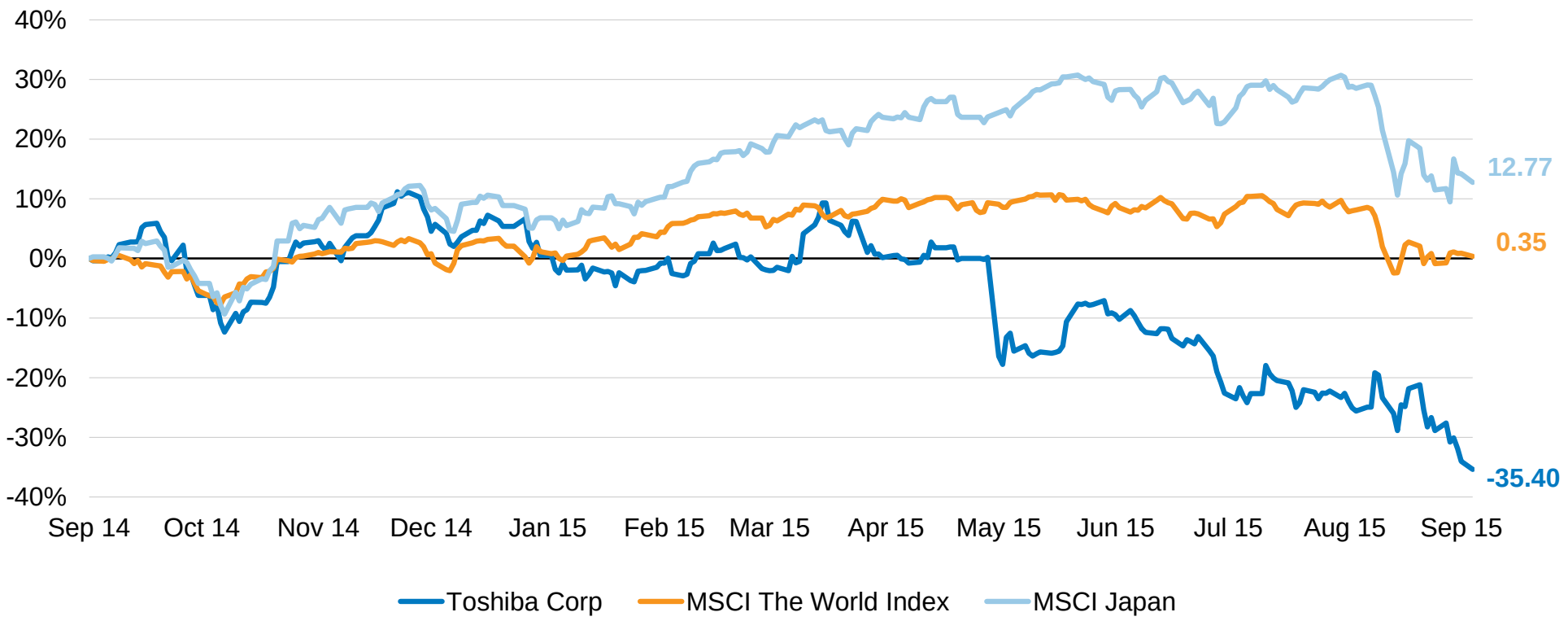
Observed returns to styles



Source: BMO Global Asset Management as at 31.12.2015. Factset. 31.12.1987 to 31.12.2015. Universe: MSCI World. The returns represent observed outcomes of zero investment portfolios that go long the top 20% of stocks with each particular attribute and go short the bottom 20%, rebalanced monthly, and do not include any transaction costs. This information is not a representative investment strategy but an indication of the efficacy of each style.

When does a stock represent good value?

Toshiba cumulative total return



Source: BMO Global Asset Management as at 14.09.2015.

Value – what is important?

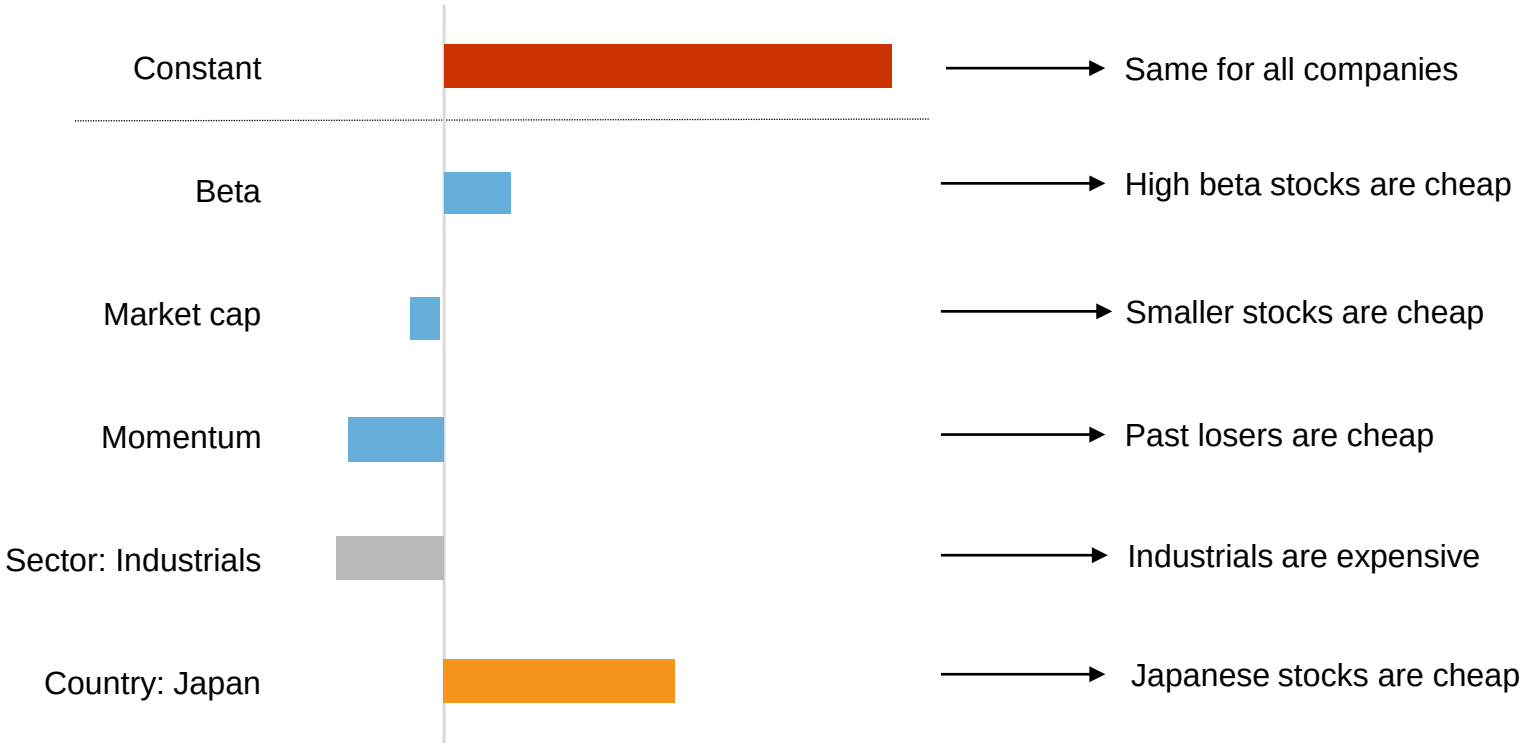
- Toshiba trades at a book-to-price ratio of 0.81
- Book-to-price ratio of MSCI World is 0.49

Toshiba appears to be cheap

	Toshiba
Book-to-price	**0.813**
Beta	0.76
Market cap	$11.1bn
Momentum	-29.98%
Sector	Industrials
Country	Japan

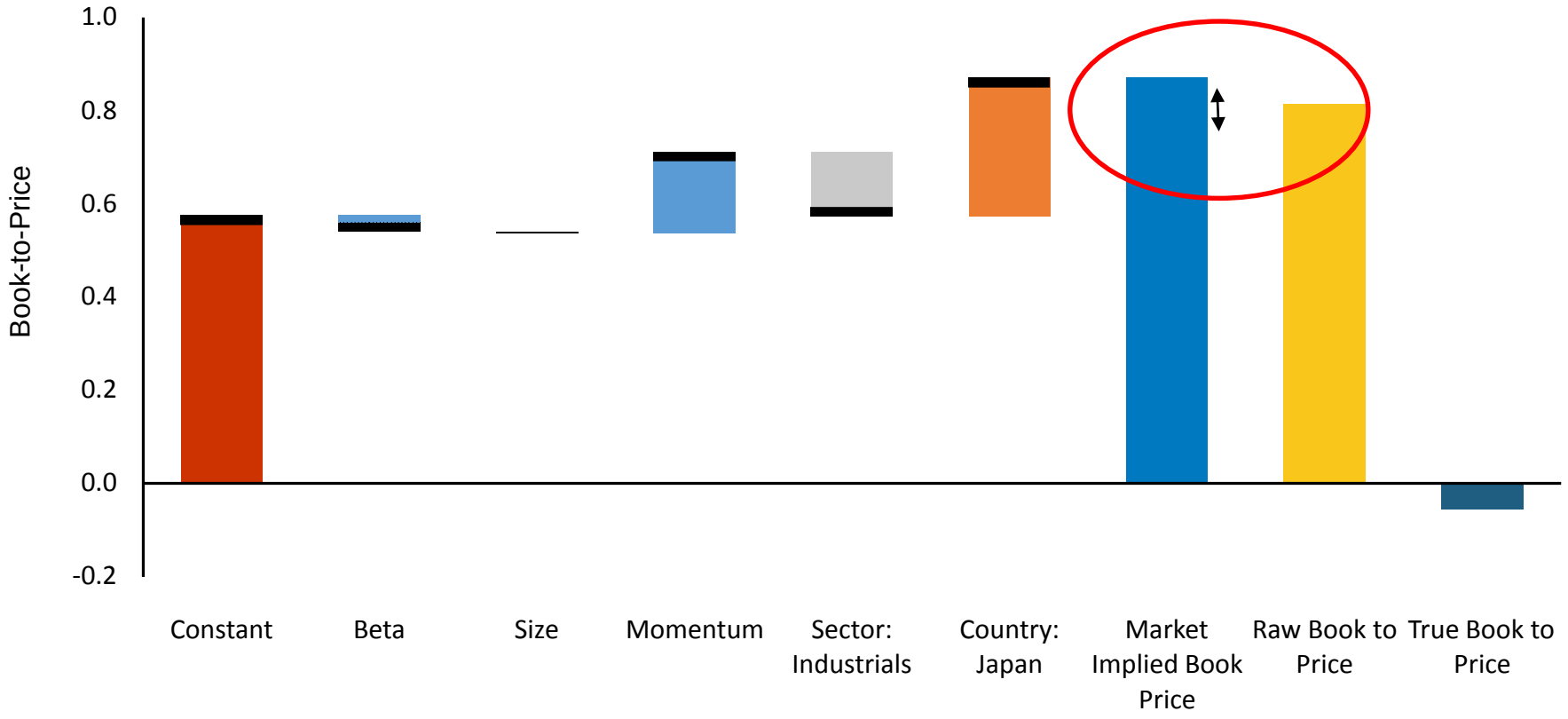
Source: BMO Global Asset Management as at 14.09.2015.

Value – what is the market telling us?



Source: BMO Global Asset Management as at 14.09.2015.

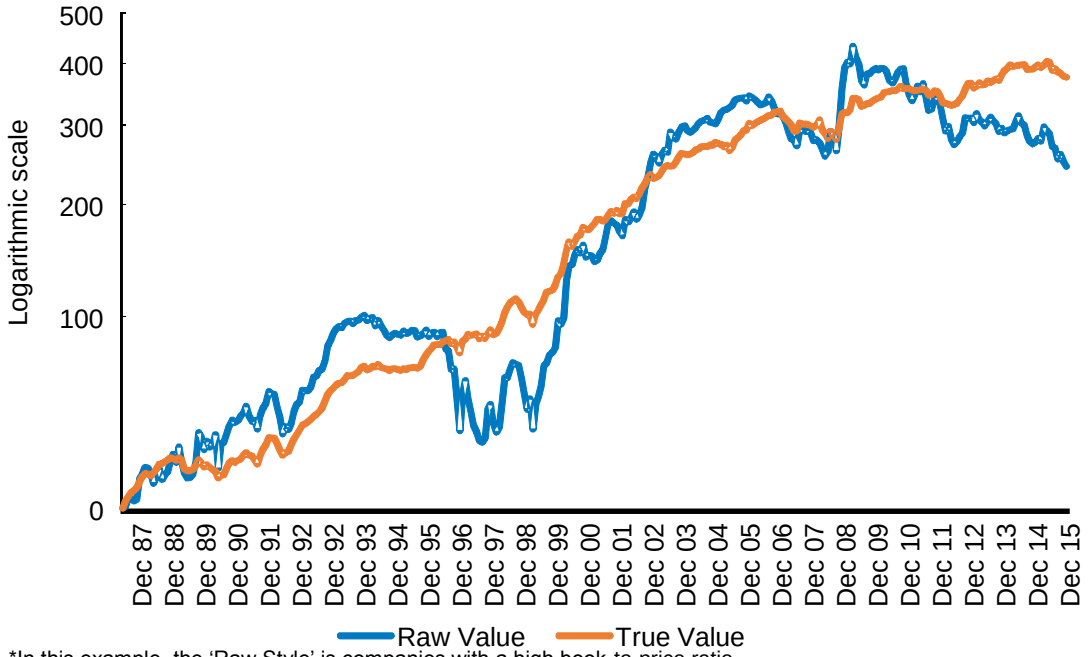
So what about Toshiba?



Source: BMO Global Asset Management as at 14.09.2015.

F&C Global Equity Market Neutral Strategy

Observed returns to raw and true style



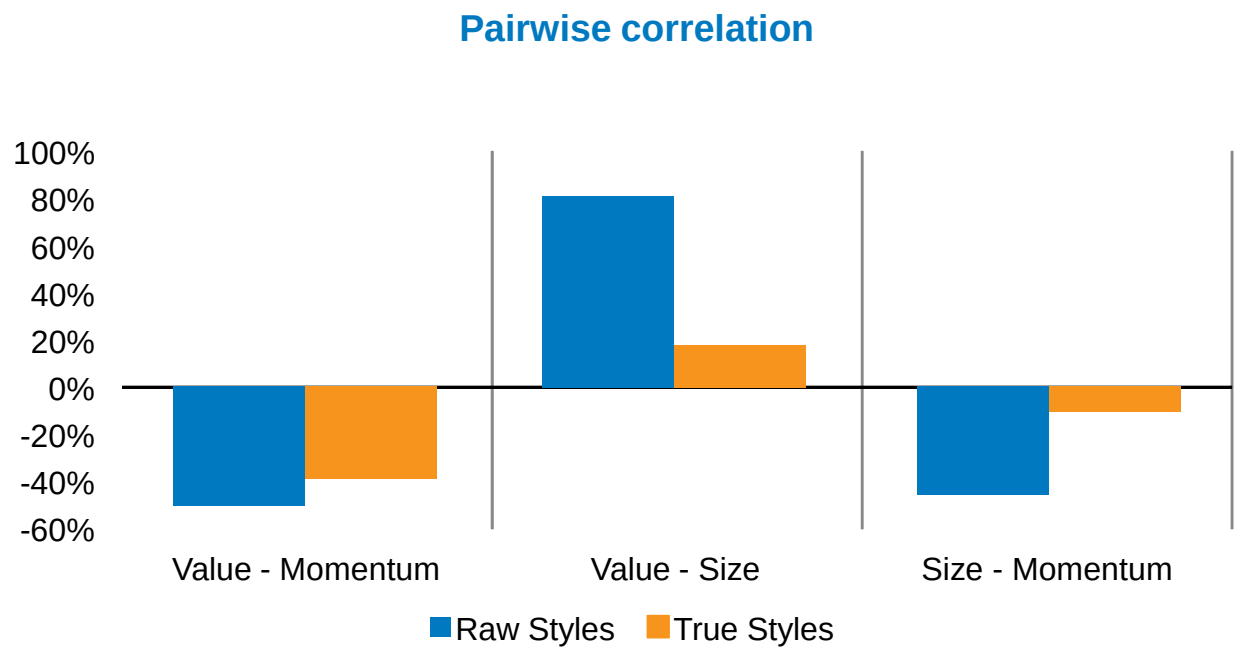
	Return (pa)	Volatility (annualised)	Sharpe ratio
Raw Style*	4.5%	12.5%	0.36
True Style**	5.7%	4.8%	1.18

*In this example, the 'Raw Style' is companies with a high book-to-price ratio

**Once our systematic approach has reduced the impact of overlapping styles the 'True Style' of companies with a high book-to-price ratio is revealed

Source: BMO Global Asset Management as at 31.12.2015. Factset. 12.1987 to 31.12.2015. Universe: MSCI World. The returns represent observed outcomes of zero investment portfolios that go long the top 20% of stocks with each particular attribute and go short the bottom 20%, rebalanced monthly, and do not include any transaction costs. This information is not a representative investment strategy but an indication of the efficacy of each style. PA = Per Annum.

True styles not just about returns…



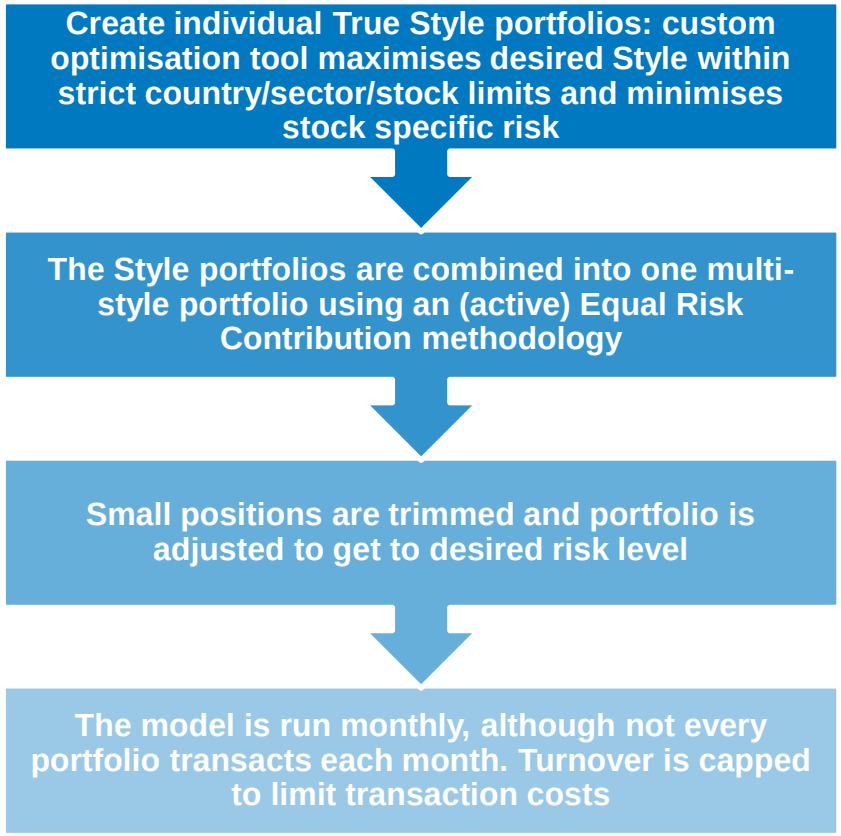
Source: BMO Global Asset Management correlations of observed style returns. Data as of 31.12.2015.

Chosen styles

True value	Fama & French 1992
True size*	Fama & French 1992
True momentum	Jegadeesh & Titman 1993 Carhart 1997
Low volatility	Clark & DeSilva 2004
True growth at a reasonable price	BMO Systematic Equities Live Model (since 2007)

*True size is implemented on a seasonal basis.

Portfolio construction – putting it all together



F&C Global Equity Market Neutral Strategy

F&C Global Equity Market Neutral Strategy	
Targeted styles:	• Value • Size • Momentum • Low volatility • GARP (growth at a reasonable price)
Targeted volatility:	10%
Targets excess return:	7%*
Fund managers:	Erik Rubingh Christopher Childs

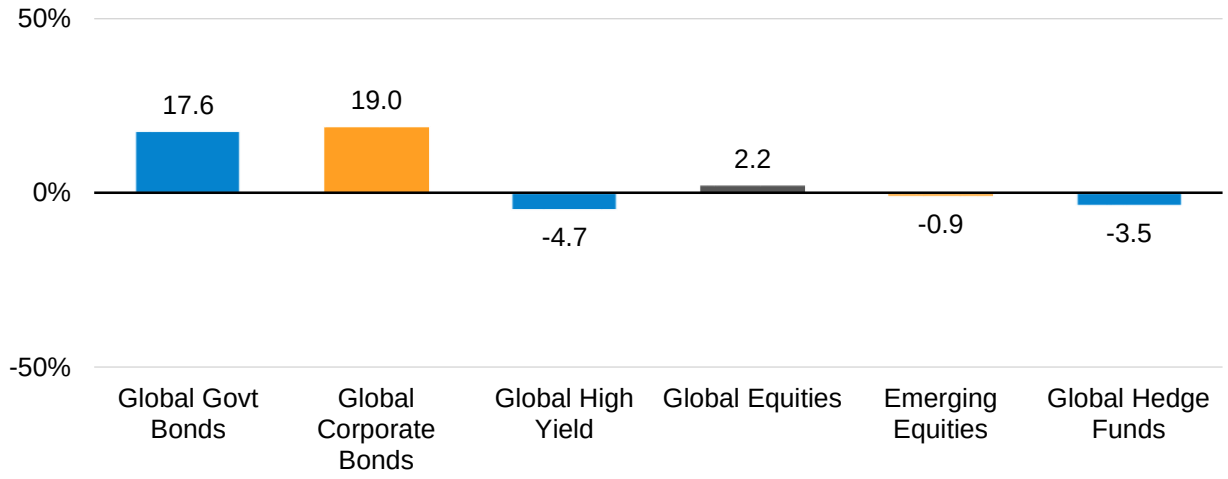
Source: BMO Global Asset Management as at 31.01.2016. The F&C Global Equity Market Neutral Strategy is an absolute return fund. The F&C Global Equity Market Neutral Strategy aims to deliver a positive return regardless of market conditions over a three year period but such a positive return is not guaranteed over this or any time period. Capital is at risk and on sale of shares in the Fund an investor may receive back less than the original investment. Capital is not guaranteed and there is no guarantee that a positive return will be achieved over any time period. *In excess of the risk free rate, gross of fees.

F&C Global Equity Market Neutral Strategy

Strategy performance

	3 months	12 Months	Since inception* (annualised)	Volatility since inception (annualised)
F&C Global Equity Market Neutral Strategy	6.4%	12.5%	20.5%	10.4%

Asset class correlations



Source: BMO Global Asset Management, Bloomberg as at 31.01.2016. *Strategy inception based on full calendar month performance, 01.10.2014 to 31.01.2016 – daily observations, Performance is net of implementation costs and annualised.

F&C Global Equity Market Neutral Strategy

Does it meet the investors' needs?

Genuine alternative	✓	Market neutral by design
Style driven returns	✓	Strategy returns are based on equity investment styles – no fund manager discretion
Daily liquidity	✓	Investment universe of MSCI World offers excellent liquidity – daily dealing
Diversifier	✓	Strategy exhibits low correlation to principle risk in a multi-asset portfolio
Competitive fee	✓	Significant discount for early investors

Disclaimer

Past performance should not be seen as an indication of future performance. The value of investments and income derived from them can go down as well as up as a result of market or currency movements and investors may not get back the original amount invested.

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The F&C Global Equity Market Neutral Strategy aims to deliver a positive return regardless of market conditions over a three year period but such a positive return is not guaranteed over this or any time period. Capital is at risk and on sale of shares in the Strategy an investor may receive back less than the original investment.

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