

Understanding Value

What is value?

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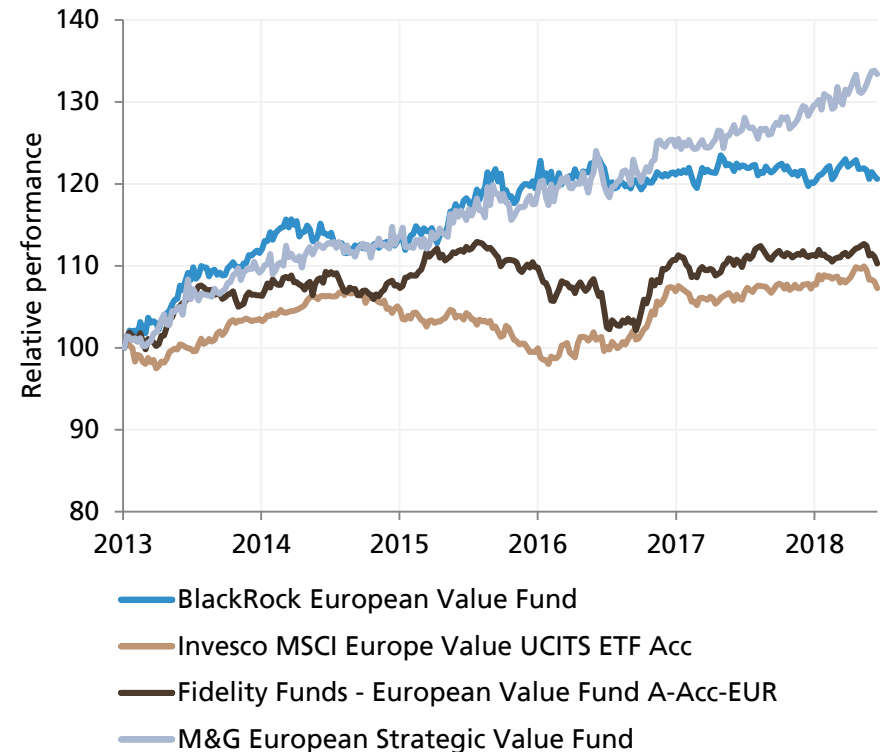
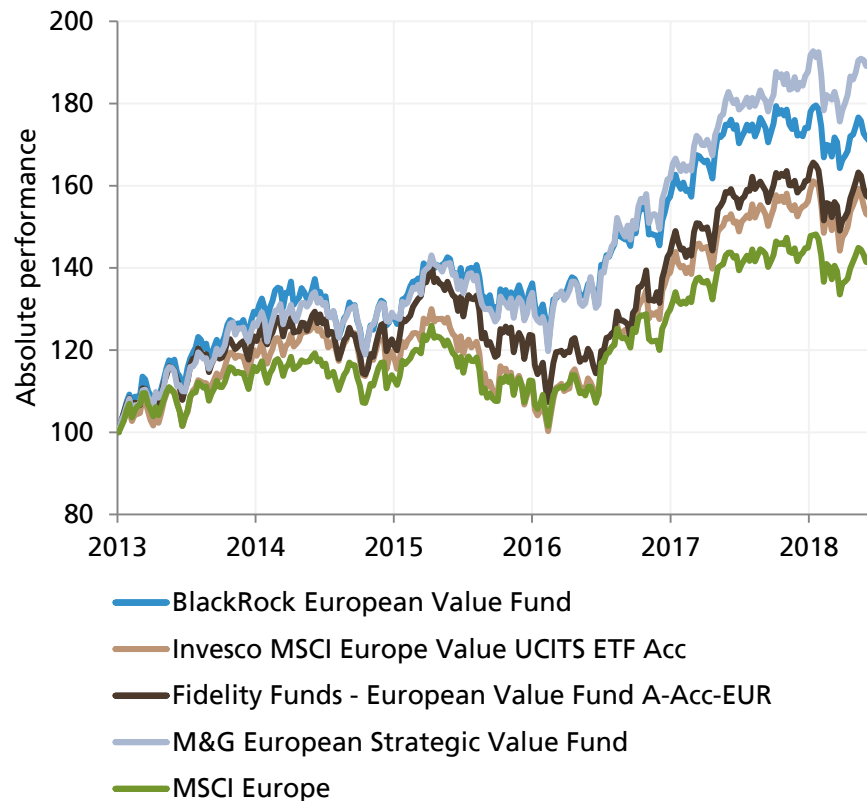
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"Value" can mean different things to different investors

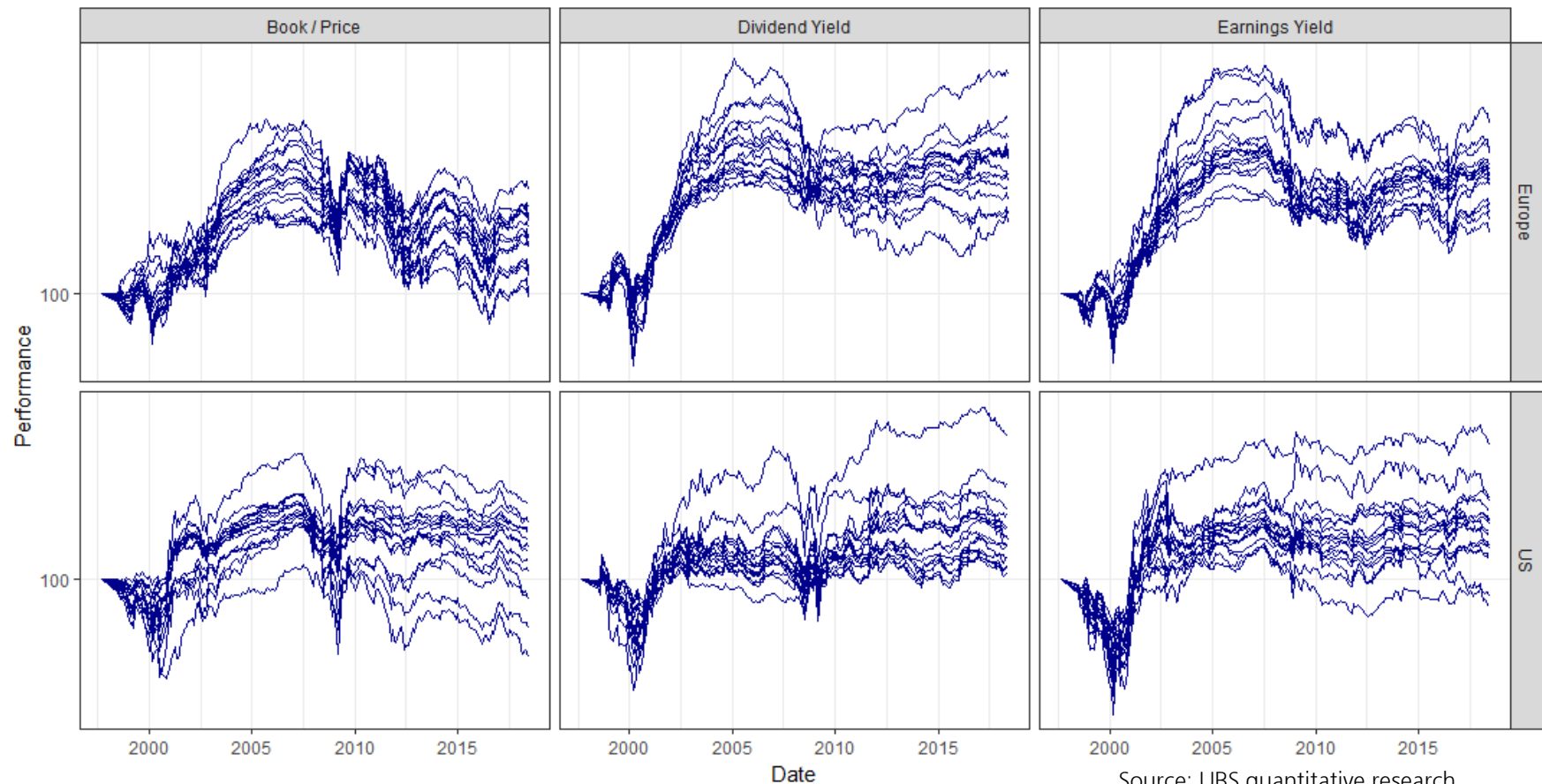
- Different investors interpret value very differently.
- Value metrics typically mean some ratio of the form "fundamental value to price".
- This can be in their choice of metric or their portfolio construction approach.



Source: Bloomberg, UBS quantitative research

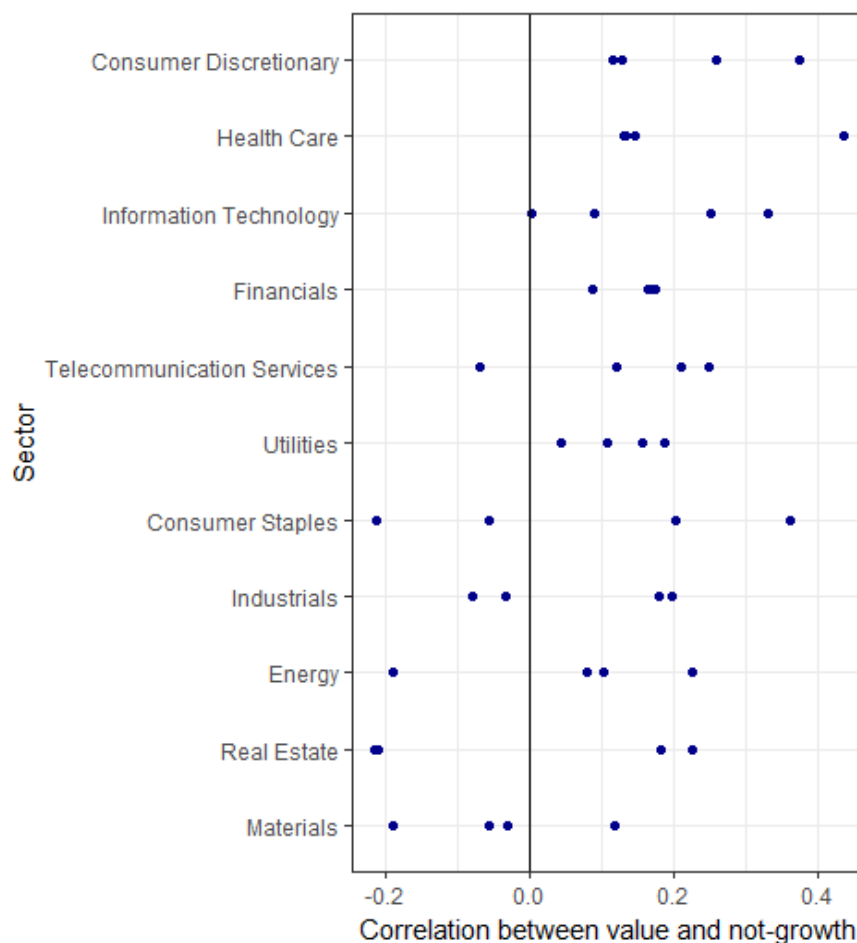
Differences in portfolio construction can cause big differences in performance

- Choice of value metrics, choice of construction method (rank weighting, top/bottom quintile etc.), choice of sector neutrality can have a huge impact on performance.



Is value different to "not-growth" ?

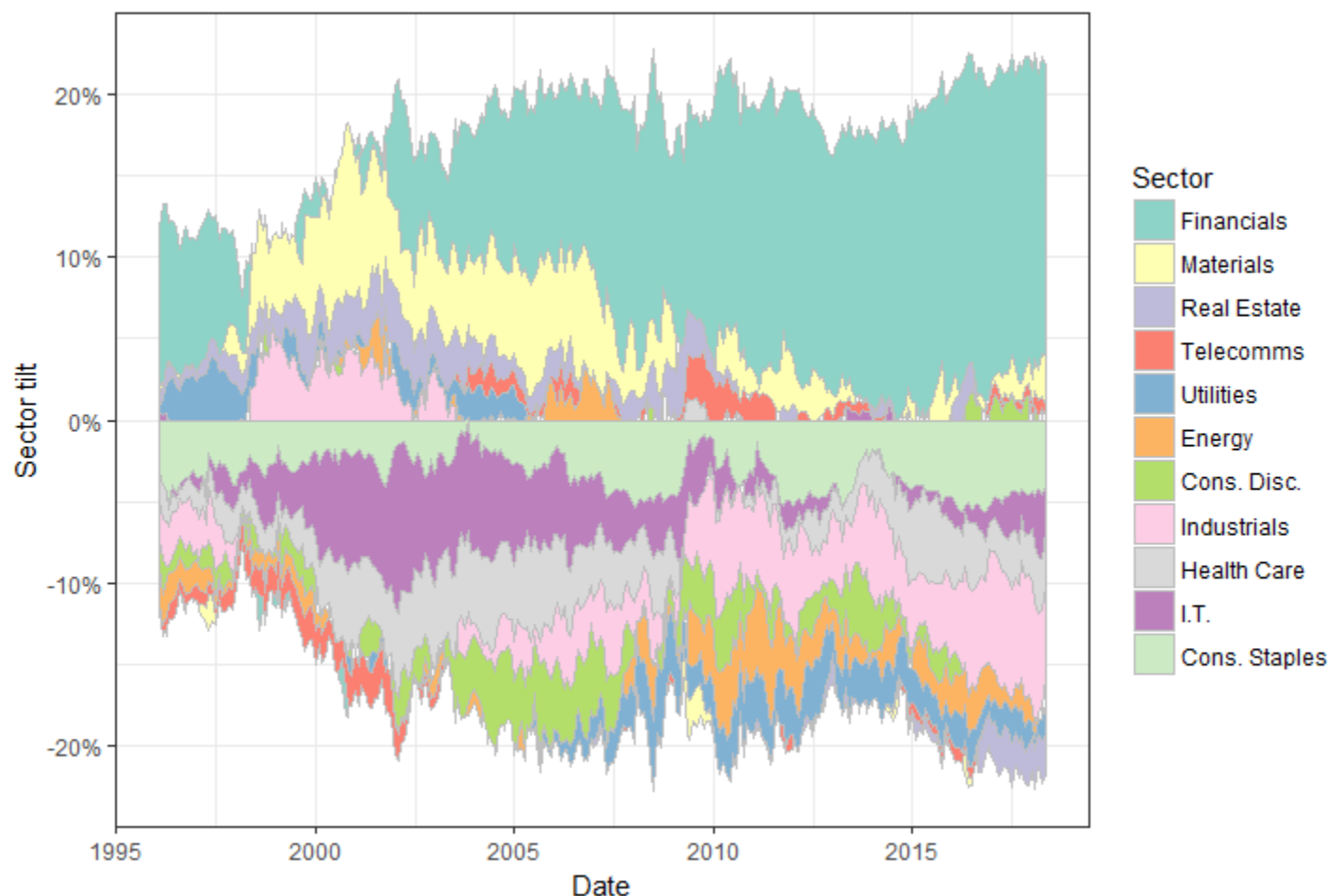
- Mostly, yes.
- Sectors where value is very different to "not growth" include materials, energy and consumer staples. Sectors where value is more similar include consumer discretionary and health-care.



- We define value as a composite signal based on earnings yield, book to price and free cash flow yield.
- We define growth as a composite signal using 12 month forecast and 5 year trailing EPS growth.
- Our portfolios are the top/bottom third of each sector by the value or growth metric, equally weighted.

Absolute vs industry-relative value (1)

- The biggest question for value investors is whether value should be considered in an absolute sense or in an industry relative sense.
- Absolute value typically leads to a consistent tilt towards financials and time varying tilts to the other sectors.



Absolute vs industry-relative value (2)

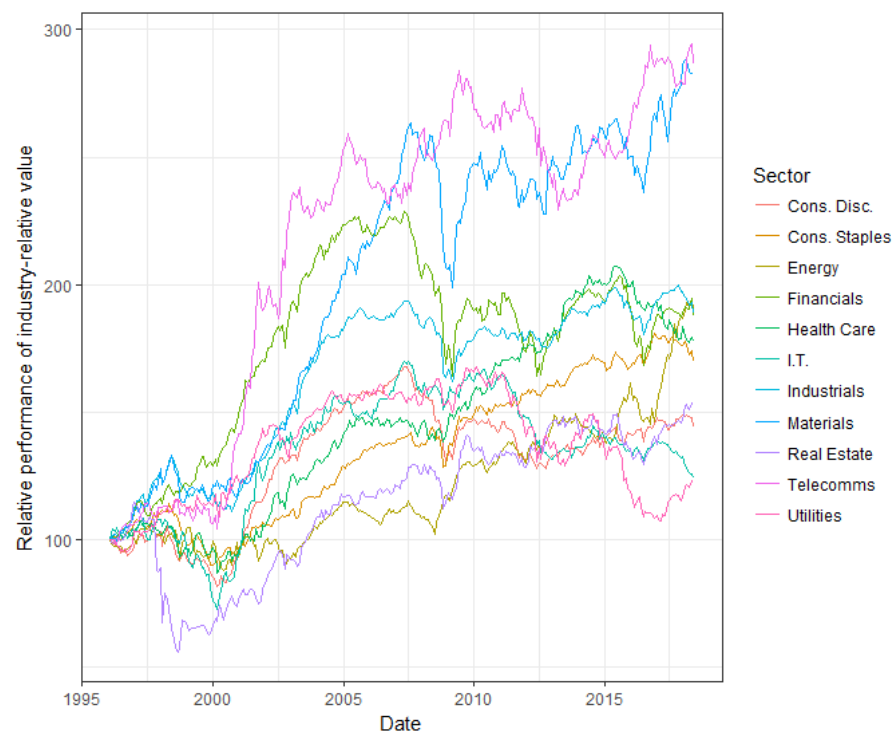
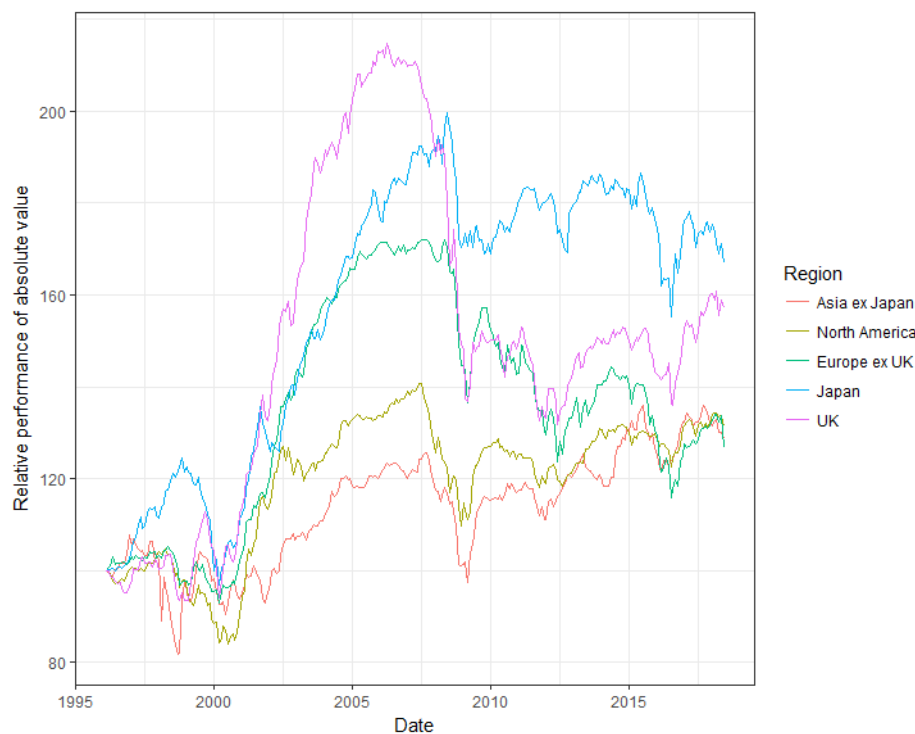
- We replicate the weights of an absolute value strategy using equal weighted industry portfolios to create an overall "industry tilt" portfolio.
- We regress the excess returns to the absolute value strategy onto the excess returns to this industry tilt portfolio.
- The majority of the outperformance of an absolute value strategy can be explained by the industry rotation – it isn't a stock picking strategy.

	R-squared
Asia ex Japan	71%
Europe ex UK	66%
UK	68%
Japan	66%
North America	57%

Source: UBS quantitative research

Absolute vs industry-relative value (3)

- There is greater correlation between regional absolute value portfolios than between the relative value portfolios from different industries.
- This suggests that absolute value may be more correlated to macro-economic risk and industry-relative value may be more related to mispricing.



Source: UBS quantitative research

	Absolute value	Industry relative value
Average pairwise correlation of monthly returns	0.33	0.22

Why should value outperform?

- There are both rational and behavioural explanations for why value outperforms:

Rational

- Value stocks are distressed so investors should be compensated for taking this risk.
- An alternative explanation is that value companies may be mature businesses which struggle to adapt to changing economic conditions.

Behavioural

- Suppose a proportion of investors are overconfident about private price information. If this is positive information this will push the stock price higher than can be justified by a more rational assessment of the information.

Absolute value is strongly related to macro risk

- Merton's ICAPM model suggests that state variable which forecasts the future investment opportunity set (which we proxy here with GDP growth) should be a priced risk factor.
- To test if absolute value is a priced risk factor, we run this regression:

$$GDP\ growth_{t,t+4} = \alpha + \beta_1 GDP\ growth_{t-4,t} + \beta_2 Mkt\ ret_{t-4,t} + \beta_3 Value\ ret_{t-4,t} + \varepsilon$$

	US	UK	Europe ex UK	Japan
Intercept	1.24%	1.53%	1.40%	1.07%
	(0.65%)	(0.4%)	(0.42%)	(0.41%)
Return to absolute value	-0.062	-0.065	-0.013	0.026
	(0.038)	(0.043)	(0.027)	(0.025)
Market return	0.010	0.018	0.019	0.025
	(0.017)	(0.018)	(0.009)	(0.017)
Lagged GDP growth	0.325	0.032	0.057	-0.366
	(0.215)	(0.142)	(0.120)	(0.104)

Source: UBS quantitative research, Coefficients of the regression, with standard errors in brackets below

- The coefficient to the return to absolute value is negative, for three out of four of our regions, and is "close" to significant in every case. This suggests that absolute value is a risk factor.
- Japan, as always, is the exception to the rule!

Conclusions

- "Value" is a catch-all term for very different investment strategies.
- In particular, absolute value and industry-relative value strategies are distinct approaches to investing.
- These two approaches appear to have different sources of alpha. Absolute value appears to be, at least partially, a risk premia. Industry-relative value appears to be explained slightly more by behavioural issues (aka mispricing).

Valuation Method and Risk Statement

Our quantitative models rely on reported financial statement information, consensus earnings forecasts and stock prices. Errors in these numbers are sometimes impossible to prevent (as when an item is misstated by a company). Also, the models employ historical data to estimate the efficacy of stock selection strategies and the relationships among strategies, which may change in the future. Additionally, unusual company-specific events could overwhelm the systematic influence of the strategies used to rank and score stocks.

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Sell	FSR is > 6% below the MRA.	15%	12%
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Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
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Source: UBS. Rating allocations are as of 31 March 2018.

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