Value shares profited from the stock market rebound

October 2022

Research Signals

Investors' hopes rose that central banks would ease off future rate hikes on increasing concerns about slowing global economic activity, as confirmed by the manufacturing sector's second consecutive month in contraction territory, according to the J.P.Morgan Global Manufacturing PMITM. In turn, most equity markets around the globe staged a rebound in October, led by the US, with value factors the beneficiaries across many of our coverage regions (Table 1).

- US: Deep Value factors enjoyed a strong bounce last month, as demonstrated by Forward 12-M EPS-to-Enterprise Value
- Developed Europe: Investors moved out on the risk curve, dragging down performance of 60-Month Beta
- Developed Pacific: Strong performance from Price Momentum measures such as Industry-adjusted 12-month Relative Price Strength extended into October in markets outside Japan
- Emerging markets: Large cap shares were favored last month, as captured by performance of Natural Logarithm of Market Capitalization



 $\textbf{Research Signals} \cdot \textbf{MK-ResearchSignals@ihsmarkit.com}$





Table 1

Global factor quantile return spread (%) performance snapshot, October 2022							
		US Large	US Small	Developed	Developed Pacific ex	Japan Standard	Emerging
Factor Book-to-Market	Factor Group	2.06	Cap 5.11	Europe 3.64	Japan -6.65	-2.22	Markets 2.40
Forward 12-M EPS-to-Enterprise Value	- Dans Value	8.23	12.11	1.56	0.22	0.08	3.37
TTM EBITDA-to-Enterprise Value	- Deep Value	8.09	10.32	1.39	3.35	-0.87	3.78
TTM Free Cash Flow-to-Enterprise Value	_	7.06	8.20	3.48	0.22	1.14	2.63
Industry Relative Leading 4-QTRs EPS to Price	- Relative Value	5.10	11.21	2.87	-1.15	0.01	4.43
Industry Relative TTM Dividend Yield		0.16	3.92	2.66	-3.29	0.86	0.39
Fixed Assets Turnover Ratio	- Management	5.63	2.70	1.20	-2.38	4.41	1.19
Inventory Turnover Ratio	_ Quality	3.58	10.95	0.53	3.00	0.37	1.78
Net Operating Asset Turnover	•	-0.78	5.23	4.43	-1.27	0.82	-0.22
Change in Accruals to Assets	_	0.86	-4.92	1.12	-1.94	1.29	-0.64
Change in TTM COGS vs. Inventory Level	 Earnings Quality 	-1.01	1.74	-0.46	-3.43	0.03	-0.29
Change in TTM Sales vs. Accounts Receivable	-	4.86	2.38	1.73	-1.30	-1.11	0.83
Working Capital Accruals		-1.00	1.17	0.37	5.48	0.06	-1.35
1-yr Growth in TTM Free Cash Flow	_ Historical Growth	5.63	-0.37	3.28	2.17	0.75	1.04
Reinvestment Rate		6.23	6.27	0.15	4.89	0.35	3.63
Average Monthly Trading Volume- to-Market Cap	_	2.33	-6.66	2.61	-5.79	0.75	0.19
60-Month Beta	Liquidity, Risk &	-7.70	-8.36	-6.05	-13.18	-8.09	-1.44
Asset Quality Index	_ Size	2.68	-2.14	1.89	-5.96	1.49	0.26
Operating Leverage	=	-1.66	-1.85	-0.42	1.44	-0.26	-0.11
Natural Logarithm of Market Capitalization		-0.28	-5.47	-2.05	-3.13	-0.30	-2.12
2-Year Ahead EPS Growth	-	3.05	-3.44	-0.30	-8.16	0.33	0.31
3-M Revision in FY2 EPS Forecasts	Earnings _ Momentum	2.27	1.87	0.60	8.45	-0.63	3.08
Real Earnings Surprise		4.02	-0.67	-0.89	2.49	0.24	2.01
24-Month Value at Risk	_	1.33	6.24	-4.28	0.60	-3.87	0.87
5-day Industry Relative Return	- Duine Managatur	1.43	0.88	0.14	4.78	6.82	-0.48
Industry-adjusted 12-month Relative Price Strength	Price Momentum	3.56	2.57	-1.46	6.95	2.34	-1.25
Rational Decay Alpha		1.78	4.85	-2.18	6.96	2.19	0.06
Demand Supply Ratio	- Short Sentiment	0.95	10.03	-2.37	-3.68	-0.82	7.77
Implied Loan Rate		0.87	7.20	-0.57	5.60	-0.65	3.14

Source: IHS Markit © 2022 IHS Markit

United States

US Large Cap

US manufacturing firms signaled only a slight improvement in operating conditions in October, with the headline PMI posting at 50.4, down from 52.0 in September, with new orders falling at the sharpest rate since May 2020. As economic data softened, stocks staged an impressive rebound last month with thoughts of the Federal Reserve easing off its aggressive rate hike plans.

Deep Value measures regained favor in October, as confirmed by the list of top performing factors for US large caps (Table 2). Leading 12 Month EBITDA/EV (12.15%) is one such measure, posting a monthly spread more than double its prior 12-month average of 5.50% (Figure 1). The risk-off trade which was prevalent in September also unwound, sending measures such as Product of Beta and Sigma (-8.99%) to the laggard board (Table 3), alongside 6-Month Nominal Change in 18-Month Alpha (-9.67%) and Std Dev of FY1 EPS Estimates-to-Price (-6.54%).

Table 2

US Large Cap top decile return spread factor perform	ance, October 2022	
Factor	Decile spread (%)	Factor group
Time Weighted Cash Yield	12.57	Deep Value
Leading 12 Month EBITDA/ EV	12.15	Deep Value
Oil Prices Sensitivity	11.89	Macro
Leading 12 Month Cash Yield	11.61	Deep Value
Time Weighted EBITDA/ EV	11.53	Deep Value
Time Weighted Earnings Yield	11.02	Deep Value
Leading 12-Month Mean Earnings Yield	10.35	Deep Value
Natural Logarithm of TTM Sales (USD)	10.14	Liquidity, Risk & Size
Leading 12-Month Median Earnings Yield	10.08	Deep Value
Leading 12 Month Sales Yield	9.95	Deep Value
Time Weighted Sales Yield	9.88	Deep Value
Current Liabilities-to-Price	9.77	Liquidity, Risk & Size
1-yr Change in Asset Turnover Ratio	9.53	Historical Growth
TTM EBITDA-to-Price	9.50	Deep Value
TTM Sales-to-Price	9.50	Deep Value

Source: IHS Markit © 2022 IHS Markit

Figure 1

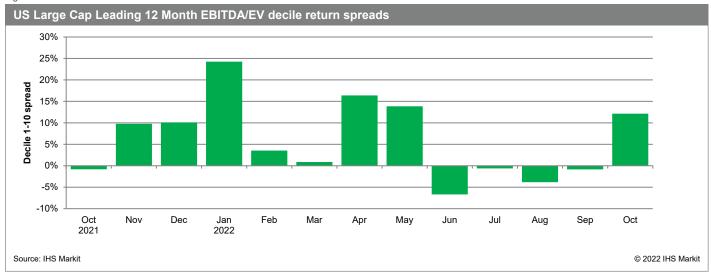


Table 3

Factor	Decile spread (%)	Factor group	
6-Month Nominal Change in 18-Month Alpha	-9.67	Price Momentum	
Growth Duration	-9.22	Liquidity, Risk & Size	
Product of Beta and Sigma	-8.99	Liquidity, Risk & Size	
3-yr Compound Annual Sales Growth	-8.27	Historical Growth	
60-Month Beta	-7.70	Liquidity, Risk & Size	
Debt to Market Cap	-7.49	Liquidity, Risk & Size	
Stability of 3-yr TTM Cash Flow	-7.41	Historical Growth	
Stock Return Volatility	-7.32	Liquidity, Risk & Size	
Std Dev of FY1 EPS Estimates-to-Price	-6.54	Earnings Momentum	
Std Dev of FY2 EPS Estimates-to-Price	-6.46	Earnings Momentum	
Source: IHS Markit			© 2022 IHS

US Small Cap

Deep Value was also a strong performing signal among small caps, though Management Quality measures topped the list of outperforming factors in October (Table 4). Included is Forward Return on Equity (13.62%) which has posted double-digit performance in six months since this time last year (Figure 2). On the other hand, factors which trailed for the month (Table 5) include 60-Month Beta (-8.36%), 6-Month Nominal Change in 18-Month Alpha (-7.27%) and Stability of 3-yr TTM Earnings per Share (-6.85%).

US Small Cap top decile return spread factor performance, October 2022			
Factor	Decile spread (%)	Factor group	
SG&A Expenses-to-Sales	15.16	Management Quality	
Forward Return on Equity	13.62	Management Quality	
30-75 Week Stock Price Ratio	12.97	Price Momentum	
Time Weighted Earnings Yield	12.67	Deep Value	
Leading 12-Month Mean Earnings Yield	12.57	Deep Value	
TTM Operating Income to Enterprise Value	12.55	Deep Value	
Leading 12-Month Median Earnings Yield	12.50	Deep Value	
TTM EBITDA-to-Price	12.41	Deep Value	
TTM Cash Flow-to-Price	12.41	Deep Value	
Forward 12-M EPS-to-Enterprise Value	12.11	Deep Value	
Oper Cash Flow Return on Invested Capital	12.10	Management Quality	
24-Month Active Return with 1-Month Lag	11.99	Price Momentum	
Edwards-Bell-Ohlson Value-to-Price	11.81	Deep Value	
Fama-French Momentum	11.72	Price Momentum	
Cash Flow Return on Invested Capital	11.54	Management Quality	

Source: IHS Markit © 2022 IHS Markit

Figure 2

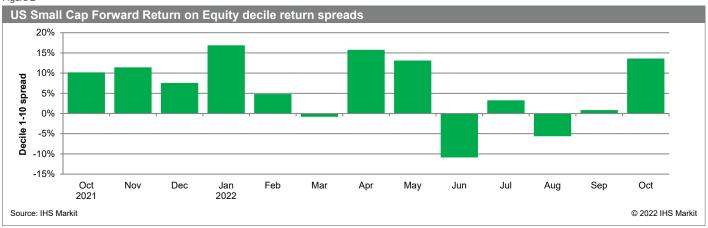


Table 5

US Small Cap	bottom decile return s	pread factor per	formance. '	October 2022

Factor	Decile spread (%)	Factor group
Advertising Intensity	-15.23	Management Quality
Asia-Pacific Sales Exposure	-11.38	Macro
Product of TTM FCF Yield and Forward ROE	-8.87	Earnings Momentum
60-Month Beta	-8.36	Liquidity, Risk & Size
Ohlson Bankruptcy Score	-7.86	Liquidity, Risk & Size
6-Month Nominal Change in 18-Month Alpha	-7.27	Price Momentum
Stability of 3-yr TTM Earnings per Share	-6.85	Historical Growth
Average Monthly Trading Volume-to-Market Cap	-6.66	Liquidity, Risk & Size
Natural Logarithm of Closing Price (USD)	-6.65	Liquidity, Risk & Size
Cash to Enterprise Value	-6.45	Deep Value
Source: IHS Markit		© 2022 IHS Mark

Europe

The eurozone manufacturing sector slid further into contraction territory in October, with the PMI falling to 46.4, from 48.4 in September, its lowest level since the initial COVID-19 wave as demand for goods plummeted. Ireland was the only monitored euro area country in expansion territory, while Spain and Germany were the worst performing nations. However, equities followed US markets higher despite the region's continued energy and inflation concerns.

The top performing factors in Developed Europe in October (Table 6) also followed suit with US markets, with a prominence of Deep Value measures such as TTM Sales-to-Price (7.60%) and Time Weighted Cash Yield (6.80%). At the opposite end of the spectrum, factors which underperformed in October (Table 7) include several risk measures, suggesting higher risk taking. For example, the distribution of decile returns across 60-Month Beta (-6.05%) are increasing in general from the lowest risk shares (decile 1) to the highest risk (decile 10), indicating systematic trading across this signal (Figure 3).

Table 6

Developed Europe top decile return spread factor performance, October 2022			
Factor	Decile spread (%)	Factor group	
Oil Prices Sensitivity	8.32	Macro	
TM Sales-to-Price	7.60	Deep Value	
urrent Liabilities-to-Price	6.89	Liquidity, Risk & Size	
ime Weighted Cash Yield	6.80	Deep Value	
TM Free Cash Flow-to-Price	6.63	Deep Value	
ΓM Sales-to-Enterprise Value	6.61	Deep Value	
)-Month Active Return with 1-Month Lag	6.52	Price Momentum	
ading 12 Month Sales Yield	6.36	Deep Value	
ne Weighted Sales Yield	6.33	Deep Value	
tural Logarithm of TTM Sales (USD)	6.12	Liquidity, Risk & Size	
ading 12 Month Cash Yield	5.67	Deep Value	
apital Expenditures to Depreciation Linkage	5.54	Management Quality	
M Operating Cash Flow-to-Price	5.52	Deep Value	
ustry Relative TTM Sales-to-Price	5.36	Relative Value	
-Month Alpha	5.18	Price Momentum	

Table 7

Source: IHS Markit

ead (%)	Factor group
-6.90	Liquidity, Risk & Size
-6.31	Liquidity, Risk & Size
-6.05	Liquidity, Risk & Size
-5.96	Price Momentum
-5.41	Liquidity, Risk & Size
-5.32	Liquidity, Risk & Size
-4.99	Short Sentiment
-4.93	Liquidity, Risk & Size
-4.89	Earnings Momentum
-4.82	Liquidity, Risk & Size
_	-4.82

© 2022 IHS Markit

Figure 3



Asia-Pacific

Manufacturing operating conditions remained on opposite sides of the 50 no-change mark in the two largest Asian economies of China and Japan in October. In China, the manufacturing PMI signaled further contraction, though with a marginal rise to 49.2 in October, from 48.1 in September, as the COVID-19 restrictions weighed on both output and demand. In Japan, the flash PMI fell to 50.7 in October, from 50.8 in September, the weakest reading in 21 months on declines in output and new orders, albeit at softer paces. Stocks also moved in opposite directions as shares in Japan rose for the month, while equity markets in China struggled following President Xi's reelection.

In developed markets outside Japan, Price Momentum factors remained at the top of the performance leaderboard in October (Table 8). The top performer was 50-200 Day Stock Price Ratio (11.98%), extending its string of positive spreads to four months (Figure 4). Alternatively, the weakest performing factors for the month (Table 9) include 36-Month Active Return with 1-Month Lag (-14.59%), a long-term price reversal metric, and Altman Z Score (-13.34%), a risk measure of firms with a higher likelihood of bankruptcy.

In Japan, short-term price reversal metrics topped the list of outperforming factors in October (Table 10). 5-day Industry Relative Return (6.82%) took the lead, with a spike in spread (Figure 5) at a level not seen since August 2020. 60-Month Beta (-8.09%) sat at the opposite extreme of factor performance last month (Table 11), followed by other measures such as Average Trading Volume in Preceding 6-month (-5.06%) and 52-Week High (-4.58%).

Table 8 Developed Pacific exJapan top decile return spread factor performance, October 2022 Decile spread (%) **Factor group** 50-200 Day Stock Price Ratio 11.98 Price Momentum 30-75 Week Stock Price Ratio 11.92 Price Momentum 11.84 18-Month Active Return with 1-Month Lag Price Momentum 6-Month Active Return with 1-Month Lag 11.73 Price Momentum Time Weighted Earnings Revision Dispersion 11.57 **Earnings Momentum** 24-Month Active Return with 1-Month Lag 11.41 Price Momentum 10.96 Time Weighted Earnings Revision **Earnings Momentum** Street Revision Magnitude 10.02 **Earnings Momentum** Averaged Last 6-M EPS Revisions for FY1 9.92 **Earnings Momentum** 39-Week Return with 4-week Lag 9.88 Price Momentum 15/36 Week Stock Price Ratio 9.39 Price Momentum Fama-French Momentum 9.38 Price Momentum 26-Week Relative Price Strength 9.31 Price Momentum Earnings Momentum Street Revision Confidence 9.18

Source: IHS Markit © 2022 IHS Markit

9.08

Price Momentum

Figure 4

12-Month Active Return with 1-month Lag

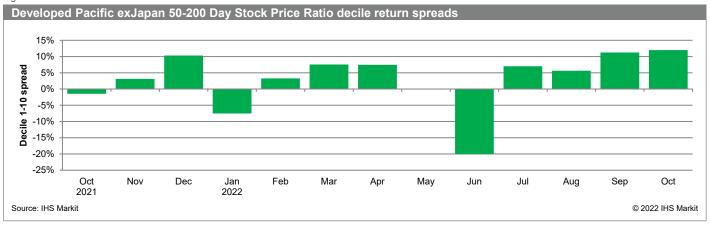


Table 9

Factor	Decile spread (%)	Factor group
Natural Logarithm of Closing Price (USD)	-16.87	Liquidity, Risk & Size
36-Month Active Return with 1-Month Lag	-14.59	Price Momentum
Altman Z Score	-13.34	Liquidity, Risk & Size
60-Month Beta	-13.18	Liquidity, Risk & Size
3-Month Active Return	-12.09	Price Momentum
Trading Turnover Ratio	-12.06	Liquidity, Risk & Size
60-Month Active Return with 12-Month Lag	-11.72	Price Momentum
Average Trading Volume in Preceding 6-month	-11.31	Price Momentum
Current Liabilities-to-Price	-10.92	Liquidity, Risk & Size
60-Month Active Return with 1-Month Lag	-10.89	Price Momentum

Table 10

Factor	Decile spread (%)	Factor group
5-day Industry Relative Return	6.82	Price Momentum
1-week Industry Relative Return	5.41	Price Momentum
-Month Active Return	5.10	Price Momentum
Fixed Assets Turnover Ratio	4.41	Management Quality
TM Capital Expenditures-to-Price	4.15	Deep Value
North America Sales Exposure	4.15	Macro
4 Day Relative Strength Index	3.96	Price Momentum
Year Change in Gross Profit Margin	3.81	Management Quality
early TTM Total Sales Growth Rate	3.76	Historical Growth
Forward Free Cash Flow-to-Price	3.61	Deep Value
field Curve Slope Sensitivity	3.25	Macro
Year Change in Gross Profit to Assets	3.22	Management Quality
ash Flow Leverage	3.19	Liquidity, Risk & Size
agged Inverse of PEG Ratio	3.03	Earnings Momentum

Source: IHS Markit © 2022 IHS Markit

3.01

Management Quality

Figure 5

TTM Capital Expenditures-to-Sales

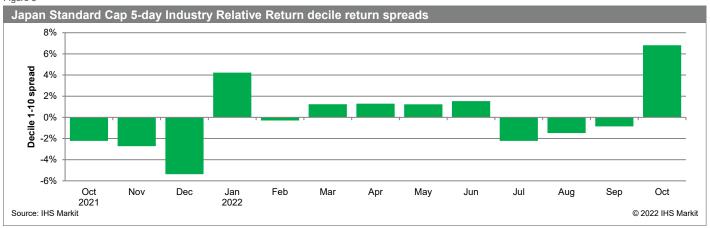


Table 11

Japan Standard Cap bottom decile return spread factor performance, October 2022			
Factor	Decile spread (%)	Factor group	
60-Month Beta	-8.09	Liquidity, Risk & Size	

ractor	Declie Spreau (70)	racioi group
60-Month Beta	-8.09	Liquidity, Risk & Size
Product of Beta and Sigma	-7.07	Liquidity, Risk & Size
1-Month Realized Stock Return Volatility	-6.25	Liquidity, Risk & Size
20-Day Volume Volatility to Price Volatility	-6.19	Liquidity, Risk & Size
1-Month Stock Return Interquartile Range	-5.55	Liquidity, Risk & Size
Average Trading Volume in Preceding 6-month	-5.06	Price Momentum
Stock Return Volatility	-4.79	Liquidity, Risk & Size
Market Volatility Sensitivity	-4.61	Macro
52-Week High	-4.58	Price Momentum
60-Day Residual Risk	-4.53	Liquidity, Risk & Size

Source: IHS Markit © 2022 IHS Markit

Emerging Markets

We wrap up the report with a review of top (Table 12) and bottom (Table 13) performing factors in emerging markets in October. Like most of our other coverage universes, Deep Value was a dominant signal last month, including Time Weighted Earnings Yield (5.32%) and Forward Free Cash Flow-to-Price (4.97%). On the contrary, factors which lagged for the month once again include short-term price reversal metrics such as 3-Month Active Return (-6.09%). We also highlight the common-currency measure of Natural Logarithm of Market Capitalization (-5.88%), whose sharp decrease in spread indicates a strong move by investors towards the largest cap names (Figure 6).

Table 12

Factor	Decile spread (%)	Factor group
Natural Logarithm of Total Assets (USD)	6.37	Liquidity, Risk & Size
Natural Logarithm of TTM Sales (USD)	5.96	Liquidity, Risk & Size
Time Weighted Earnings Yield	5.32	Deep Value
TTM Core Earnings-to-Price	5.26	Deep Value
TTM EBITDA-to-Price	5.14	Deep Value
TTM EPS after Extra Items-to-Price	5.06	Deep Value
TTM EPS before Extra Items-to-Price	5.06	Deep Value
Forward Free Cash Flow-to-Price	4.97	Deep Value
_eading 12-Month Mean Earnings Yield	4.96	Deep Value
Leading 12-Month Median Earnings Yield	4.94	Deep Value
Industry Relative TTM EPS-to-Price	4.87	Relative Value
TTM Pretax Income-to-Price	4.84	Deep Value
TTM Cash Flow-to-Price	4.83	Deep Value
Industry Relative TTM EBITDA-to-Price	4.82	Relative Value
9-Month Active Return with 1-Month Lag	4.81	Price Momentum

Table 13

Emerging Markets bottom quintile return spread factor performance, October 2022			
Factor	Decile spread (%)	Factor group	
3-Month Active Return	-6.09	Price Momentum	
Natural Logarithm of Market Capitalization (USD)	-5.88	Liquidity, Risk & Size	
2-Month Active Return	-5.44	Price Momentum	
Std Dev of FY2 EPS Estimates-to-Price	-5.01	Earnings Momentum	
1-Month Active Return	-4.41	Price Momentum	
Std Dev of FY1 EPS Estimates-to-Price	-4.39	Earnings Momentum	
Change in QTR Sales vs. Gross Margin	-4.33	Earnings Quality	
Price Above Last 260-day Lowest Trading Price	-4.29	Price Momentum	
Debt to Market Cap	-3.58	Liquidity, Risk & Size	
1-yr Change in Total Assets	-3.44	Historical Growth	
Source: IHS Markit		© 2022 IHS Mar	

Figure 6



Customer Care

CustomerCare@ihsmarkit.com

Asia and the Pacific Rim Japan: +81 3 6262 1887 Asia Pacific: +604 291 3600

Europe, Middle East, and Africa: +44 1344 328 300

Americas: +1 800 447 2273

Disclaimer

The information contained in this report is confidential. Any unauthorized use, disclosure, reproduction, or dissemination, in full or in part, in any media or by any means, without the prior written permission of IHS Markit or any of its affiliates ("IHS Markit") is strictly prohibited. IHS Markit owns all IHS Markit logos and trade names contained in this report (including other media) are solely those of the individual author(s) at the time of writing and do not necessarily reflect the opinions of IHS Markit. Neither IHS Markit nor the author(s) has any obligation to update this report in the event that any content, opinion, statement, estimate, or projection (collectively, "information") changes or subsequently becomes inaccurate. IHS Markit makes no warranty, expressed or implied, as to the accuracy, completeness, or timeliness of any information in this report, and shall not in any way be liable to any recipient for any inaccuracies or omissions. Without limiting the foregoing, IHS Markit shall have no liability whatsoever to any recipient, whether in contract, in tort (including negligence), under warranty, under statute or otherwise, in respect of any loss or damage suffered by any recipient as a result of or in connection with any information provided, or any course of action determined, by it or any third party, whether or not based on any information provided. The inclusion of a link to an external website by IHS Markit should not be understood to be an endorsement of that website or the site's owners (or their products/services). IHS Markit is not responsible for either the content or output of external websites. Copyright © 2022, IHS Markit⁶. All rights reserved and all intellectual property rights are retained by IHS Markit



