Equity markets give way to inflating pressures

September 2021

Research Signals

After rising steadily for most of the year while Asia Pacific markets remained unsettled, US and developed Europe equity markets finally succumbed to concerns over economic growth from factors such as the spread of the delta variant and rising inflation. Moreover, the global manufacturing upturn has remained constrained by supply chain disruptions and input shortages, according to the J.P.Morgan Global Manufacturing PMI. Yet, high risk shares outperformed in many developed markets, alongside undervalued stocks (Table 1).

- US: Valuation measures continued to be favored, as captured by Forward 12-M EPS-to-Enterprise Value, while Price Momentum metrics such as Industry-adjusted 12-month Relative Price Strength, moved out of favor
- Developed Europe: Undervalued, high risk shares outperformed as gauged respectively by Book-to-Market and 60-Month Beta
- Developed Pacific: Fixed Assets Turnover Ratio was a highly rewarded factor in Japan, while Rational Decay Alpha outperformed in markets outside Japan
- Emerging markets: Investors continue to prefer large cap names, weighing down performance of Natural Logarithm of Market Capitalization

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Table 1

Global factor quantile return sp	oread (%) performand	ce snapshot,	Sep 2021				
Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market		6.44	4.30	4.82	2.32	1.45	1.00
Forward 12-M EPS-to-Enterprise Value	- -	4.51	6.21	-0.79	-2.08	0.47	-1.44
TTM EBITDA-to-Enterprise Value	 Deep Value 	0.82	3.13	0.37	0.13	-0.39	-1.74
TTM Free Cash Flow-to-Enterprise Value	_	0.43	4.25	0.07	0.36	1.07	-0.29
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	0.84	3.28	1.12	-0.48	2.41	-0.73
Industry Relative TTM Dividend Yield	itelative value	0.15	-2.25	-1.12	-3.13	0.67	-1.38
Fixed Assets Turnover Ratio		-3.24	-1.19	0.78	-1.70	4.71	-1.89
Inventory Turnover Ratio	[─] Management _ Quality	2.49	4.87	0.62	2.58	0.96	-0.20
Net Operating Asset Turnover	_ Quality	0.24	0.41	-0.71	0.14	3.86	-1.39
Change in Accruals to Assets		-0.59	0.95	-1.86	0.46	1.45	3.19
Change in TTM COGS vs. Inventory Level	- Earnings Quality	0.25	-2.19	-0.85	1.40	-2.12	0.60
Change in TTM Sales vs. Accounts Receivable		-6.25	-4.34	-0.42	0.00	-1.78	-1.62
Working Capital Accruals		0.33	- 0.50	0.00	0.35	-0.38	-2.57
1-yr Growth in TTM Free Cash Flow	_ Historical Growth	-0.11	2.91	-0.96	0.47	-0.44	-0.25
Reinvestment Rate		-5.92	0.65	-3.64	-1.32	-1.36	-1.29
Average Monthly Trading Volume-to-Market Cap	_	6.12	-2.34	2.64	0.22	6.04	-4.77
60-Month Beta		-8.91	-6.88	-4.94	-2.65	-5.19	1.08
Asset Quality Index	[—] Liquidity, Risk & _— Size	0.93	0.06	1.33	0.37	-0.37	0.79
Operating Leverage	_ 0120	0.70	0.22	-0.86	-1.60	-0.03	0.34
Natural Logarithm of Market Capitalization	_	4.59	0.14	1.78	1.27	-1.97	-3.32
2-Year Ahead EPS Growth		2.46	2.89	3.16	0.76	2.80	1.98
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	6.33	6.81	1.21	1.09	2.69	1.42
Real Earnings Surprise		0.93	4.01	0.15	0.06	0.42	-1.34
24-Month Value at Risk		-9.05	-4.47	-4.36	-1.69	-2.49	-0.42
5-day Industry Relative Return	_	-1.55	-3.44	-1.80	-3.26	-2.06	-4.51
Industry-adjusted 12-month Relative Price Strength	Price Momentum	0.77	0.34	-2.46	2.39	1.93	2.53
Rational Decay Alpha	_	-6.48	-4.02	-6.56	1.98	-0.30	-1.53
Demand Supply Ratio		-0.90	4.06	-1.92	1.70	-0.01	5.40
Implied Loan Rate	 Short Sentiment 	0.72	-0.41	0.65	2.30	1.66	2.22
0							

United States

US Large Cap

The US manufacturing PMI dropped to a five-month low in September (60.7), from 61.1 in August, as production was hampered by ongoing material and labor shortages. Equities also slumped, snapping a seven-month winning streak, weighed down by concerns over delta variant cases, supply-chain disruptions and inflation.

Valuation measures took on a more prominent role among leading factor performers in US large caps in September (Table 2). 60-Month Alpha (11.33%), a long term price reversal metric, led the way, extending the 12-month cumulative sum in spreads to 47.0% (Figure 1). Investors also took on more risk exposure, sending factors such as 24-Month Value at Risk (-9.05%) to the laggard board (Table 3), while also shunning growth stocks gauged by measures such as Yearly TTM Total Sales Growth Rate (-8.00%).

Table 2

Factor	Decile spread (%)	Factor group
60-Month Alpha	11.33	Price Momentum
36-Month Active Return with 1-Month Lag	11.07	Price Momentum
60-Month Active Return with 12-Month Lag	9.97	Price Momentum
Time Weighted Cash Yield	9.48	Deep Value
60-Month Active Return with 1-Month Lag	9.44	Price Momentum
Leading 12 Month Cash Yield	9.40	Deep Value
Price-to-Total Assets	9.07	Deep Value
36-Month Sharpe Ratio	8.81	Price Momentum
Altman Z Score	8.65	Liquidity, Risk & Size
Treynor Index	8.64	Price Momentum
Current Liabilities-to-Price	8.42	Liquidity, Risk & Size
Sortino Ratio	8.32	Price Momentum
Time Weighted Book Yield	8.29	Deep Value
Leading 12 Month EBITDA/ EV	8.08	Deep Value
Time Weighted Sales Yield	7.94	Deep Value

Figure 1

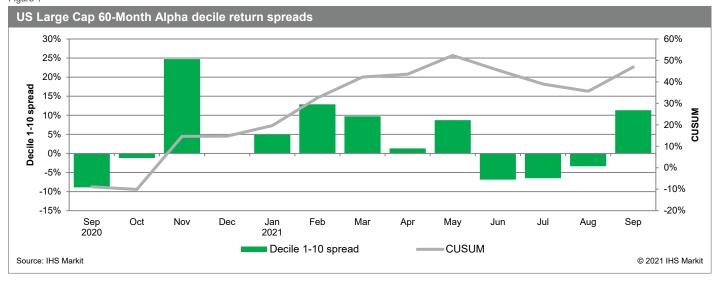


Table 3

actor	Decile spread (%)	Factor group
td Dev of FY2 EPS Estimates-to-Price	-9.72	Earnings Momentum
-Month Value at Risk	-9.05	Price Momentum
9-Month Beta	-8.91	Liquidity, Risk & Size
d Dev of FY1 EPS Estimates-to-Price	-8.84	Earnings Momentum
Sqr of 3-yr TTM Oper Cash Flow Trend Line	-8.60	Historical Growth
Month Active Return with 1-Month Lag	-8.34	Price Momentum
oduct of Beta and Sigma	-8.31	Liquidity, Risk & Size
rket Volatility Sensitivity	-8.12	Macro
rly TTM Total Sales Growth Rate	-8.00	Historical Growth
Compound Annual Sales Growth	-7.90	Historical Growth

Source: IHS Markit © 2021 IHS Markit

US Small Cap

Small cap top (Table 4) and bottom (Table 5) factor performance took on similar exposures as with large caps in September. Net Current Assets-to-Price (9.20%) and 60-Month Beta (-6.88%) are two such measures that turned in positive returns for deep value (decile 1) and high risk (decile 10) stocks, respectively, a trend that has been in place for most of the prior year (Figure 2). Other top performing factors include Inflation Sensitivity (7.24%) and Averaged Last 6-M EPS Revisions for FY2 (7.16%), while Market Volatility Sensitivity (-6.99%) and Price Above Last 260-day Lowest Trading Price (-5.75%).

Table 4

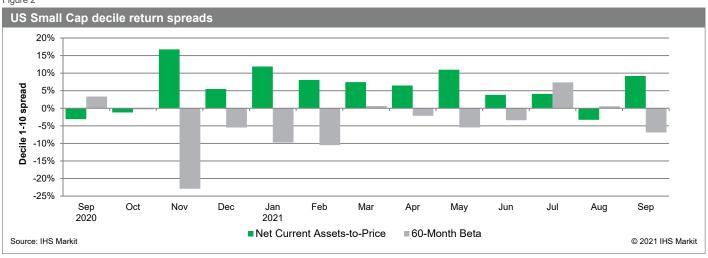
	Decile spread	_ ,	
Factor	(%)	Factor group	
Net Current Assets-to-Price	9.20	Deep Value	
TTM Operating Cash Flow-to-Price	9.05	Deep Value	
S-Month Active Return with 1-Month Lag	8.63	Price Momentum	
Current Ratio	8.48	Liquidity, Risk & Size	
eading 12 Month EBITDA/ EV	8.18	Deep Value	
Fime Weighted Earnings Yield	8.06	Deep Value	
TTM Operating Income to Enterprise Value	7.95	Deep Value	
60-Month Alpha	7.81	Price Momentum	
Quick Ratio	7.67	Liquidity, Risk & Size	
ōbin q	7.64	Liquidity, Risk & Size	
ime Weighted EBITDA/ EV	7.59	Deep Value	
Vorking Capital-to-Trailing 12-Month Sales	7.54	Management Quality	
nflation Sensitivity	7.24	Macro	
Market Leverage	7.18	Liquidity, Risk & Size	
Averaged Last 6-M EPS Revisions for FY2	7.16	Earnings Momentum	

Table 5

US Small Cap bottom decile return spread factor performance, Sep 2021

	Decile spread	
Factor	(%)	Factor group
Market Volatility Sensitivity	-6.99	Macro
60-Month Beta	-6.88	Liquidity, Risk & Size
TTM Capital Expenditures-to-Price	-6.47	Deep Value
Debt to Market Cap	-6.36	Liquidity, Risk & Size
Advertising Intensity	-6.08	Management Quality
Price Above Last 260-day Lowest Trading Price	-5.75	Price Momentum
Demand Value Concentration	-5.70	Short Sentiment
Cash to Enterprise Value	-5.69	Deep Value
Short Concentration Ratio	-5.63	Short Sentiment
3-yr Change in Price-adj TTM Cash Flow	-5.41	Historical Growth

Figure 2



Europe

Eurozone manufacturing sector growth continued to slow in September (PMI: 58.6), dropping from 61.4 in August, as supply-side constraints impacted goods producers and inflationary pressures persisted. Austria topped the growth rankings, while Germany registered the most notable monthly slowdown. European shares ended their seven-month winning streak, as volatile markets pushed stocks to their worst monthly performance in a year.

Like US markets, European investors favored undervalued, high risk shares in September. Factors encapsulating these respective themes include Price-to-Total Assets (7.62%), which resided among the top performing factors (Table 6), and 60-Month Beta (-4.94%) in the bottom. In fact, the distribution of decile returns across these signals (Figure 3) reveals positive average decile performance isolated to the top two deciles of undervalued names and the bottom decile of the highest risk shares. Other factor performance of interest includes outperformance of Net Debt Ratio (6.58%), a Management Quality measure, and 24-Month Active Return with 1-Month Lag (-7.27%), a Price Momentum metric.

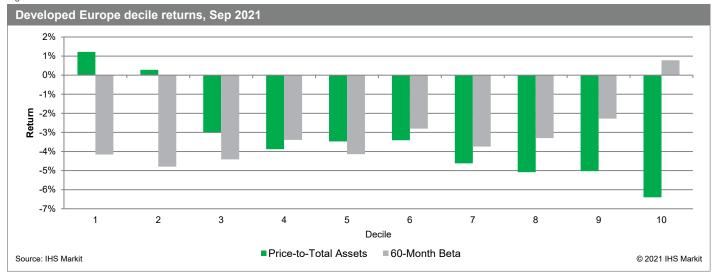
Table 6

Developed Europe top decile return spread factor performance, Sep 2021			
Factor	Decile spread (%)	Factor group	
Altman Z Score	8.90	Liquidity, Risk & Size	
36-Month Active Return with 1-Month Lag	7.77	Price Momentum	
Price-to-Total Assets	7.62	Deep Value	
Current Liabilities-to-Price	7.40	Liquidity, Risk & Size	
60-Month Alpha	7.07	Price Momentum	
Industrial Production Sensitivity	6.72	Macro	
60-Month Active Return with 1-Month Lag	6.63	Price Momentum	
Time Weighted Cash Yield	6.62	Deep Value	
Market Leverage	6.59	Liquidity, Risk & Size	
Net Debt Ratio	6.58	Management Quality	
Tobin q	6.39	Liquidity, Risk & Size	
Cash-to-Price	6.26	Deep Value	
Ohlson Bankruptcy Score	5.95	Liquidity, Risk & Size	
Net Current Assets-to-Price	5.88	Deep Value	
Graham Number Fair Value Premium	5.38	Deep Value	
Source: IHS Markit			© 2021 IHS Mark

Table 7

Developed Europe bottom decile return spread factor performance, Sep 2021			
Factor	Decile spread (%)	Factor group	
24-Month Active Return with 1-Month Lag	-7.27	Price Momentum	
18-Month Active Return with 1-Month Lag	-7.20	Price Momentum	
Debt to Market Cap	-6.67	Liquidity, Risk & Size	
Rational Decay Alpha	-6.56	Price Momentum	
Std Dev of FY1 EPS Estimates-to-Price	-5.93	Earnings Momentum	
Std Dev of FY2 EPS Estimates-to-Price	-5.37	Earnings Momentum	
Yearly TTM Total Sales Growth Rate	-5.25	Historical Growth	
3-yr Compound Annual Sales Growth	-4.98	Historical Growth	
60-Month Beta	-4.94	Liquidity, Risk & Size	
3-yr Change in Assets-adj TTM Oper Cash Flow	-4.48	Historical Growth	

Figure 3



Asia-Pacific

The manufacturing sector in the two largest Asian economies of China and Japan saw stabilization in the former while continuing to soften in the latter in September. In China, the manufacturing PMI rose to 50.0 after dipping below the cutoff between expansion and contraction in August (49.2), as new orders returned to growth, though inflationary pressures picked up amid material shortages. In Japan, the PMI eased to 51.5 in September from 52.7 in August, as both output and new orders fell into contraction for the first time since the start of this year, coupled with the sharpest rise in cost burdens for 13 years amid supply chain disruptions. Equities in both countries came off mid-month peaks, as stocks gave up nearly all gains following their sharp rise at the start of September.

In developed markets outside Japan, Price Momentum measures were among the top performing factors in September (Table 8), led by 52-Week High (6.01%), which has been a positive indicator for most of 2021 (Figure 4). Other outperforming factors include Asset Composition (8.27%) and Net Current Assets-to-Price (5.73%). Factors which trailed for the month (Table 9) include Net Debt to EBITDA (-7.71%) and 2-Month Active Return (-7.53%).

As with the broader region, investors in Japan highly rewarded Price Momentum factors in September (Table 10). The traditional Fama-French Momentum factor (6.52%) was the top performer, posting its highest spread over the past year (Figure 5). Other top performing factors include TTM Cash Flow from Investment to Total Assets (5.26%) and TTM Sales-to-Price (4.86%), while Product of Beta and Sigma (-5.47%) and Std Dev of FY2 EPS Estimates-to-Price (-4.57%) sat at the opposite extreme (Table 11).

Table 8

ctor	Decile spread (%)	Factor group
set Composition	8.27	Liquidity, Risk & Size
-Week High	6.01	Price Momentum
Current Assets-to-Price	5.73	Deep Value
lit Risk Premium Sensitivity	5.71	Macro
ay Residual Risk	5.48	Liquidity, Risk & Size
al Gearing Ratio	4.80	Liquidity, Risk & Size
Defensive Interval	4.77	Liquidity, Risk & Size
onth Active Return with 1-Month Lag	4.69	Price Momentum
hange in Total Assets	4.59	Historical Growth
& Equivalents-to-Current Liabilities	4.55	Liquidity, Risk & Size
ing Capital-to-Total Assets	4.52	Management Quality
Prior 90-Day Closing Prices	4.21	Price Momentum
eek Relative Price Strength	4.15	Price Momentum
Ratio	4.15	Liquidity, Risk & Size
ent Ratio	4.09	Liquidity, Risk & Size

Source: IHS Markit

Figure 4

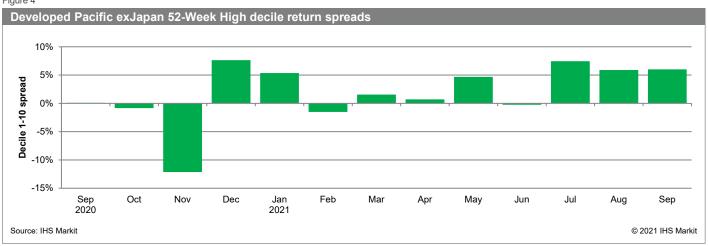


Table 9

Decile spread (%)	Factor group
	Factor group
7 74	
-7.71	Management Quality
-7.53	Price Momentum
-6.13	Price Momentum
-5.24	Price Momentum
-5.16	Management Quality
-5.03	Relative Value
-4.51	Historical Growth
-4.41	Historical Growth
-4.11	Earnings Quality
-4.09	Relative Value
	-6.13 -5.24 -5.16 -5.03 -4.51 -4.41

Table 10

	Decile spread	F4
actor	(%)	Factor group
Fama-French Momentum	6.52	Price Momentum
Natural Logarithm of TTM Sales (USD)	6.51	Liquidity, Risk & Size
Average Monthly Trading Volume-to-Market Cap	6.04	Liquidity, Risk & Size
9-Week Return with 4-week Lag	6.04	Price Momentum
30-75 Week Stock Price Ratio	5.93	Price Momentum
9-Month Active Return with 1-Month Lag	5.89	Price Momentum
Natural Logarithm of Closing Price	5.68	Liquidity, Risk & Size
TM Capital Expenditures-to-Sales	5.43	Management Quality
TM Cash Flow from Investment to Total Assets	5.26	Management Quality
2-Month Active Return with 1-month Lag	5.01	Price Momentum
5/36 Week Stock Price Ratio	4.93	Price Momentum
TM Sales-to-Price	4.86	Deep Value
Equity Turnover Ratio	4.85	Management Quality
Forward Free Cash Flow-to-Price	4.73	Deep Value
ixed Assets Turnover Ratio	4.71	Management Quality

Source: IHS Markit © 2021 IHS Markit

Figure 5

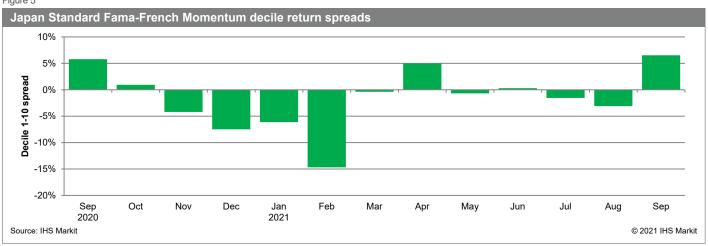


Table 11

Japan Standard Cap bottom decile return spread factor performance, Sep 2021 Decile spread		
Factor	(%)	Factor group
GG&A Expenses-to-Sales	-5.71	Management Quality
Product of Beta and Sigma	-5.47	Liquidity, Risk & Size
Price Above Last 260-day Lowest Trading Price	-5.47	Price Momentum
Stock Return Volatility	-5.31	Liquidity, Risk & Size
60-Month Beta	-5.19	Liquidity, Risk & Size
IOPAT Margin	-4.76	Management Quality
nventory-to-Total Assets	-4.57	Management Quality
Std Dev of FY2 EPS Estimates-to-Price	-4.57	Earnings Momentum
Operating Cash Flow Profit Margin	-4.30	Management Quality
Average Collection Period	-4.14	Management Quality

Emerging Markets

Lastly, we review top (Table 12) and bottom (Table 13) performing factors in emerging markets in September. Investors favored larger firms once again, with Natural Logarithm of Total Assets (4.50%) recording a two-month cumulative spread of 8.2% (Figure 6). Other top performing factors include 52-Week High (5.97%), indicating that investors chased stocks trading closest to their annual highs, along with 60-Day Residual Risk (4.12%), a low volatility trade. On the other hand, several measures of high growth and quality underperformed, such as 3-yr Change in Assets-adj TTM EPS (-4.74%) and Cash Flow Return on Invested Capital (-3.96%).

Table 12

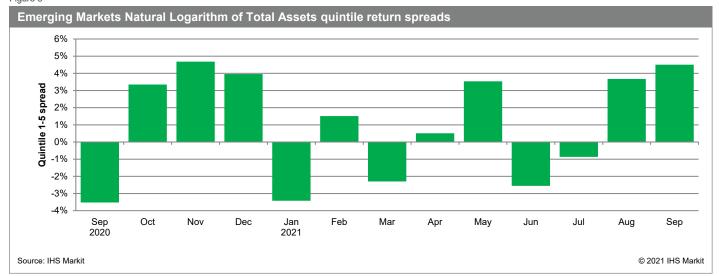
	Decile spread	F
Factor	(%)	Factor group
52-Week High	5.97	Price Momentum
Market Cap per Analyst	5.30	Liquidity, Risk & Size
3-yr Compound Annual TTM EPS after Extra Items-to-Price Growth Rate	4.94	Historical Growth
Frading Turnover Ratio	4.87	Liquidity, Risk & Size
Average Trading Volume in Preceding 6-month	4.75	Price Momentum
20-Day Volume Volatility to Price Volatility	4.58	Liquidity, Risk & Size
Natural Logarithm of Total Assets	4.50	Liquidity, Risk & Size
60-Day Residual Risk	4.12	Liquidity, Risk & Size
3-yr Compound Annual Operating Profit Margin	3.95	Historical Growth
86-Month Active Return with 1-Month Lag	3.94	Price Momentum
-Month Stock Return Interquartile Range	3.94	Liquidity, Risk & Size
Net Cash to Equity	3.87	Liquidity, Risk & Size
Slope of 66 Week Price Trend Line	3.79	Price Momentum
Norking Capital-to-Total Assets	3.74	Management Quality
-Month Realized Stock Return Volatility	3.71	Liquidity, Risk & Size

Source: IHS Markit © 2021 IHS Markit

Table 13

	Decile spread	
ctor	(%)	Factor group
erage Monthly Trading Volume-to-Market Cap	-4.77	Liquidity, Risk & Size
yr Change in Assets-adj TTM EPS	-4.74	Historical Growth
Ionth Active Return	-4.72	Price Momentum
Growth in TTM Earnings per Share	-4.66	Historical Growth
Growth in TTM Cash Flow	-4.53	Historical Growth
y Industry Relative Return	-4.51	Price Momentum
Change in Assets-adj TTM Cash Flow	-4.29	Historical Growth
Change in Price-adj TTM EPS	-4.12	Historical Growth
Flow Return on Invested Capital	-3.96	Management Quality
ırn on Assets	-3.96	Management Quality

Figure 6



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