



Quality Investing

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Seeking to invest in companies with persistently high financial productivity and trading at attractive valuations is a long-established hallmark of Lazard Asset Management's approach to fundamental active investing. Ten years ago, we conducted research into this topic that revealed that the level and direction of firms' financial productivity was a key driver of their share prices. Here, we provide an update to this study and share some new findings.

Ten years ago, we published a white paper called [Relative Value Investing](#), in which we examined the relationship between financial productivity and shareholder returns. Today we are publishing an update, assessing the most recent decade for global equity markets. We draw three main conclusions from this long-term study:

1. Financial productivity remains a critical driver of companies' share prices. Over time, companies with leading levels of financial productivity should outperform the global index.
2. Incremental outperformance is afforded to investors who can identify companies that maintain high levels of financial productivity into the future.
3. Valuation discipline continues to be important—not only to avoid overpaying for companies, but also to prevent being seduced by optically "cheap" valuations.

In short, we believe that the central tenet of our investment philosophy, namely buying companies with the highest levels of financial productivity and trading at attractive valuations, remains as true today as it was 10 years ago.

Financial Productivity as a Driver of Returns

In this update, we have repeated our approach of observing the relative total shareholder returns of the MSCI All Country World Index (ACWI) by decile of reported financial productivity, measured in US dollars. As in our original study, we use cash flow return on investment¹ as our measure of financial productivity for non-financial companies and cash flow return on equity for financials.

Consistent with the 1998 to 2012 period, over the past 10 years a portfolio of companies with sector-leading financial productivity has outperformed the average global company. Relative returns over the past 10 years, calculated on an annual basis, show that companies with high financial productivity outperformed the average return of companies in the MSCI ACWI, whilst those with low financial productivity underperformed (Exhibit 1).

An equally weighted portfolio of stocks in the top decile of financial productivity based on the most recent calendar year, rebalanced on 1 January annually, would have delivered 110 basis points (bps) of annualised outperformance against the MSCI ACWI. In a similar fashion, an equally weighted portfolio of the bottom decile companies would have underperformed the global index by 210 bps per annum.

The Power of Foresight

Insight into future levels of financial productivity offers enhanced returns for investors, particularly for high-quality companies. Insight into the future allows us to distinguish between "high" financial productivity and "persistently high" financial productivity. The latter, we believe, is a key attribute of a "quality" business. We refer to insight into future levels of financial productivity as "foresight."

To demonstrate how valuable foresight can be, we assume that at the start of each calendar year we can successfully predict the financial productivity decile of each company for the coming calendar year. Naturally, we recognise that in the real-world context this is not possible. However, we felt it was important to categorise and test the investment returns from owning "persistently high" financial productivity companies.

Our research, past and present, illustrates that the ability to correctly identify companies with high levels of financial productivity that persist into the future has the potential to add significant alpha. Persistently high financial productivity is the hallmark of companies we refer to as Compounders. Over the past 10 years we have found that "foresight" applied to the highest financial productivity companies would have lifted investors' returns from the 110 bps we referred to earlier to 400 bps per annum (Exhibit 2). Foresight also alerts us to the alpha-destroying characteristics of companies with persistently low financial productivity. Companies that remain rooted in the 10th decile of financial productivity consistently and materially underperform. We refer to these companies as Structural Losers.

Exhibit 1 Financial Productivity Drives Relative Returns

Sector Decile: Productivity (equally weighted portfolio vs. equally weighted index)

Decile	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
1	-2.7	2.5	-0.7	-2.3	5.5	1.0	5.4				1.1
2	1.8	1.2	0.1	0.1	-0.8	0.8	8.4				1.7
3	1.3	-1.6	-1.2	3.6	1.1	1.3	5.0				1.5
4	0.0	4.4	-2.9	-0.5	-0.7	-0.2	0.3	-0.4	2.8	0.0	0.2
5	0.7	1.3	2.3	-0.6	0.3	-0.4	0.6	0.5	2.7	0.0	0.7
6	-1.1	2.3	-1.9	2.4	0.7	0.5	-3.4	-4.3	1.8	1.2	-0.1
7	-0.8	1.6	0.3	4.2	-3.1	0.4	-1.6	-1.8	-0.5	0.6	0.0
8	0.8	-0.7	1.2	-3.0	0.3	0.3	-4.6	-2.7	-0.3	1.7	-0.6
9	-0.9	-6.8	3.1	-1.7	-1.8	0.0	-5.0				-2.2
10	0.1	-3.9	2.5	0.5	1.2	-3.6	-6.1				-2.1

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

Exhibit 2 Foresight Adds to Outperformance

Sector Decile : Productivity + Foresight (equally weighted portfolio vs. equally weighted index)

Decile	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
1	1.0	6.3	3.2	-0.3	7.5	2.8	8.1	10.5	10.8	11.5	4.0
2	7.1	3.1	4.1	-2.8	-0.6	0.9	9.6	8.7	9.4	1.4	3.8
3	5.2	0.7	-1.1	2.0	3.9	7.7	6.7	10.4	-0.1	0.6	4.3
4	1.1	5.7	5.4	1.3	1.7	1.6	2.5	4.0	1.0	-0.1	3.0
5	1.4	2.6	5.7	2.2	-1.3	1.0	3.6	-4.2	0.0	-3.8	2.0
6	3.1	4.1	1.9	0.2	1.3	-0.1	-1.5	-6.9	-1.6	0.9	0.0
7	-1.8	1.5	0.8	3.0	-6.4	1.4	-1.9	-10.7	-6.1	0.3	-0.9
8	3.4	2.3	0.3	-5.9	-2.8	8.0	-5.0	-10.2	-13.0	1.1	-1.4
9	-3.5	-6.5	-1.4	-4.0	-3.4	0.9	-8.0	-8.4	-17.2	-3.8	-4.5
10	-8.1	-8.3	-2.7	-5.9	-7.3	-5.4	-10.3				-7.6

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

Although we can never hope to attain perfect foresight of companies' financial productivity, this analysis suggests that it is a worthwhile endeavour, both in terms of identifying which companies to own and which to avoid. In practice, we believe foresight can be enhanced through rigorous fundamental analysis, and for Compounders by focusing on developing insights into the competitive advantages enjoyed by businesses.

Interestingly, in terms of the persistence of financial productivity, history suggests that it is more prevalent amongst the highest and the lowest financial productivity companies. This lends support to the idea of enduring competitive advantages and structural challenges. Over the past 10 years, the percentage of companies that remained in their existing decile of financial productivity decile from year to year shows that companies in the top decile of financial

productivity exhibited by far the highest level of persistence, followed by companies in the lowest decile of financial productivity (Exhibit 3).

Industry or Global Leaders?

Our findings and observations have so far been based on sector-level financial productivity deciles. In this section, we consider the index level financial productivity decile, i.e., a company's financial productivity relative to the MSCI ACWI index. We take the view that as practitioners of a quality investment approach, it would be inconsistent to invest in a utility company in the top sector decile if at the same time it was in one of the lowest deciles of financial productivity relative to the index. This would be even more true if its financial productivity was below its cost of capital, thus destroying shareholder value.

Exhibit 3 Persistence of Financial Productivity

Persistence % (remain in decile)

Decile	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
1	74	78	79	79	81	77	79	77	78	76	76
2	46	54	49	50	54	50	54	42	38	49	49
3	40	42	36	37	39	36	37	34	32	43	38
4	31	33	32	33	29	33	33	29	26	37	32
5	30	29	33	35	29	32	28	22	25	32	30
6	29	24	27	30	29	32	31	22	29	36	29
7	29	31	33	32	32	39	28	25	24	37	31
8	28	35	35	32	36	36	33	28	24	38	33
9	43	40	38	43	42	43	43	33	35	47	41
10	66	61	60	63	65	66	64	65	63	63	63

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

When analysing the annual returns of the MSCI ACWI by index decile of financial productivity, the results strongly suggest that companies with the highest levels of financial productivity consistently outperform the average company in the index, and that companies with low financial productivity consistently underperform (Exhibit 4).

We also found that developing accurate insights into the future level of financial productivity was once again additive to investment returns. Instead of generating 250 bps of annualised outperformance against the MSCI ACWI, an investor with accurate foresight could hope to generate 500 bps of outperformance (Exhibit 5).

Equally Weighted Index or "The" Index?

An equally weighted approach to measuring the return of the MSCI ACWI benchmark enables us to test the strength of financial productivity as a driver of companies' share prices,

irrespective of market capitalisation. However, we appreciate that our clients generally do not measure the performance of their portfolios against equally weighted benchmarks. They measure them against the return of the index itself. We therefore felt it necessary to test the returns of these financial productivity deciles also against the MSCI ACWI.

Reassuringly, we found that companies that remain in the highest index deciles of financial productivity also outperform the MSCI ACWI (Exhibit 6). However, we should also note that this relative outperformance is lower than when measured against the equally weighted MSCI ACWI. We attribute this in large part to the rise of the "FAANG" stocks over the past decade.

The approach to the weighting the decile portfolios is also relevant. The MSCI ACWI is an index of roughly 2,500 stocks, meaning that each financial productivity decile contains around 250 names. When equally weighted, this results in an individual position size of approximately 0.40%. As such, the deciles that contain the index's largest constituents such as

Exhibit 4 Index Decile of Financial Productivity

Index Decile: Productivity (equally weighted portfolio vs. equally weighted index)

Decile	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
1	9.0	2.2	4.9	-5.1	1.0	1.0	10.8	10.7	4.0	-7.6	2.5
2	1.9	5.3	0.9	-3.0	5.2	2.0	7.4	12.8	1.4	-2.9	2.7
3	4.0	3.2	3.2	-2.2	1.9	2.7	7.0	1.5	2.8	-0.7	2.2
4	3.2	0.9	-0.2	0.2	1.6	-0.7	2.3	1.3	-2.7	-0.6	0.4
5	-0.5	0.5	0.4	2.5	-2.3	-0.5	-4.8	0.0	1.3	1.2	-0.1
6	-2.3	-0.6	0.6	-0.9	0.0	0.3	-0.7	-6.2	2.0	2.9	-0.4
7	-2.0	-0.9	-0.7	-0.7	1.4	-4.3	-5.2	-9.1	0.2	2.5	-1.8
8	-1.9	0.1	-2.3	-1.7	-0.8	1.6	-7.2	-10.5	0.7	1.7	-1.9
9	-6.1	-2.7	2.0	2.1	-1.7	1.5	-5.6	-6.6	-1.7	5.2	-1.1
10	-6.2	-7.9	-5.5	11.3	-3.3	-3.4	-5.2	2.8	-7.3	-1.0	-2.8

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

Exhibit 5 Index Decile of Financial Productivity with Foresight

Index Decile: Productivity + Foresight (equally weighted portfolio vs. equally weighted index)

Decile	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
1	11.9	3.6	8.0	-3.4	2.5	3.2	12.8	14.4	8.2	-5.3	5.0
2	2.3	9.3	4.2	-1.3	5.9	4.0	6.0	9.8	6.2	-4.3	3.9
3	4.6	4.1	6.4	-4.2	4.0	6.6	5.8	3.0	3.0	-2.3	3.0
4	5.5	1.8	2.3	3.5	1.5	0.7	5.8	1.1	3.6	1.8	2.6
5	-1.5	3.1	-0.1	3.8	-4.5	-2.5	-5.8	4.0	-3.0	2.7	-0.3
6	-2.8	2.6	1.1	-3.5	1.4	1.9	-0.7	-13.7	0.9	1.5	-1.0
7	0.4	4.6	-3.0	-1.2	-2.4	0.9	-2.1	-14.9	2.2	3.6	-1.1
8	-1.9	1.4	-4.4	-3.7	-9.3	5.3	-8.0	-14.0	-5.3	0.7	-3.6
9	-8.7	0.3	1.0	0.5	-7.0	4.4	-7.5	-12.5	-7.1	2.9	-2.9
10	-14.2	-11.0	-14.4	5.7	-11.0	-6.6	-9.7	-6.4	-18.7	-5.0	-9.2

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

Exhibit 6 Index Decile of Financial Productivity with Foresight against the MSCI ACWI

Index Decile: Productivity + Foresight (equally weighted portfolio vs. index)

Decile	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
1	6.5	2.4	5.0	-1.6	5.1	0.3	6.8	12.3	0.8	-2.4	3.1
2	-3.1	8.1	1.2	0.5	8.5	1.1	0.0	7.6	-1.3	-1.4	2.0
3	-0.8	2.9	3.4	-2.4	6.6	3.7	-0.1	0.9	-4.4	0.6	1.1
4	0.1	0.6	-0.7	5.3	4.2	-2.3	-0.2	-1.1	-3.9	4.7	0.7
5	-7.0	1.9	-3.0	5.6	-1.9	-5.4	-11.7	1.8	-10.5	5.5	-2.2
6	-8.2	1.4	-1.9	-1.7	4.1	-1.0	-6.7	-15.9	-6.5	4.4	-2.9
7	-5.0	3.3	-6.0	0.6	0.2	-2.0	-8.0	-17.1	-5.2	6.5	-3.0
8	-7.4	0.2	-7.4	-1.9	-6.7	2.4	-14.0	-16.1	-12.7	3.5	-5.5
9	-14.2	-1.0	-2.0	2.3	-4.4	1.5	-13.5	-14.7	-14.6	5.8	-4.9
10	-19.6	-12.2	-17.4	7.5	-8.3	-9.5	-15.6	-8.6	-26.1	-2.1	-11.2

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

Apple, Amazon, Meta, and Alphabet, are in fact significantly underweight those names. Given that these mega-cap stocks have risen significantly in the past 10 years, their performance has been a headwind for every financial productivity decile in this analysis. Despite this, the highest financial productivity deciles have still delivered alpha over this period.

Quality as the Driver of Potential Alpha, versus Sector and Geographical Exposure

As committed quality investors we are frequently challenged with the rebuttal that quality investing is nothing more than a huge bet on a small number of sectors and on US companies. Many argue that this has been the underlying driver of outperformance of "quality" portfolios over the past 10 years or more. This section investigates those arguments.

Our approach to tackling this (mis)perception was to look at the relative sectoral and geographic composition of companies consistently in the top three deciles of financial productivity (i.e., with foresight).

Firstly, looking at the sectoral exposure relative to the MSCI ACWI, we can see that the sector bias is reasonably small (Exhibit 7). Certainly, there are several sectors with consistently little-to-no exposure at all, such as Energy and Utilities. Conversely, there are sectors with a consistent overweight, but none of them significant. Consumer Staples and Industrials are the largest at on average 4%. In short, we do not believe that sector exposures are sufficiently large enough to have a meaningful impact on the shareholder returns from a portfolio of top three decile companies.

Exhibit 7 Sector Exposures from an Equally Weighted Portfolio of Compounders

Weight vs. Benchmark (%)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
Industrials	5	3	3	4	4	5	4	4	5	7	4
Consumer Staples	4	4	5	4	3	3	4	5	6	3	4
Consumer Discretionary	6	6	5	4	4	3	2	-1	-4	-2	2
Financials	5	5	5	5	3	2	0	1	1	2	3
Health Care	1	1	1	1	2	3	1	3	4	1	2
Information Technology	3	2	1	1	1	2	1	0	-1	-3	1
Materials	-5	-3	-2	-1	-1	-2	-2	0	0	4	-1
Communication Services	-1	-1	0	-1	-1	-2	-2	-3	-4	-3	-2
Real Estate	-2	-1	-1	-2	-2	-2	-2	-2	-1	-1	-2
Utilities	-3	-3	-3	-3	-3	-3	-3	-3	-3	-2	-3
Energy	-7	-7	-7	-5	-6	-6	-5	-5	-3	-3	-5

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

Turning to geographic exposure, here it is fair to say that investing in quality companies does result in more pronounced relative exposures (Exhibit 8). Clearly, an investment approach of investing in the highest financial productivity companies globally can lead to a sizeable allocation to the US and a persistent underweight to Japan.

But we believe that the alpha-generating characteristics from high-quality companies are still apparent when assessed on a regional basis. To test this, we looked at the returns of top three decile companies in each region against the average return for all stocks in that region. We found that these high financial productivity companies outperformed their local compatriots in each region (Exhibit 9).

Top three decile companies in the US outperformed the average US company by on average 260 bps per year between 2013 and 2022. In fact, we observed outperformance versus the local market in every region of the globe.

Overall, this suggests to us that the attractive alpha-generating characteristics in a portfolio of high financial productivity companies are likely derived from their inherent "quality" rather than the sectoral or regional exposures of such a portfolio.

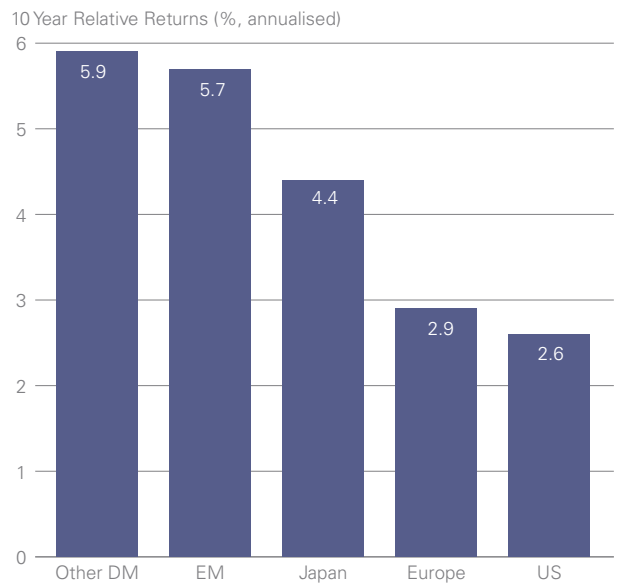
Valuation Considerations

We have demonstrated the degree to which financial productivity and insights into its future level is potentially a meaningful driver of relative returns. However, its advantage can be eroded if considerations around valuation are not properly weighed. Our studies show that combining financial productivity and valuation is a powerful approach to investing. Buying best-in-class companies when they are trading at

valuation discounts to the industry average can potentially generate strong returns for investors. Conversely, we found it was sensible to avoid firms with low financial productivity when they are trading at valuation premiums to the industry—which seems inherently intuitive.

Next, we investigate in more detail the influence of valuation on high financial productivity companies. On an annual basis we isolated companies in the top three index deciles of

Exhibit 9
Alpha Generation of Compounders against Regional Peers



As at 31 December 2022
Source: Lazard, Credit Suisse, FactSet, MSCI

Exhibit 8
Regional Exposures from an Equally Weighted Portfolio of Compounders

Weight vs. Benchmark (%)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average
US	12	14	14	14	16	19	22	19	20	17	17
Other DM	-7	-7	-5	-5	-8	-9	-11	-7	-9	-10	-8
Europe	3	3	3	4	3	2	2	2	2	2	2
Japan	-10	-9	-9	-9	-8	-7	-8	-7	-6	-5	-8
EM	1	-1	-3	-3	-3	-5	-5	-5	-7	-4	-4

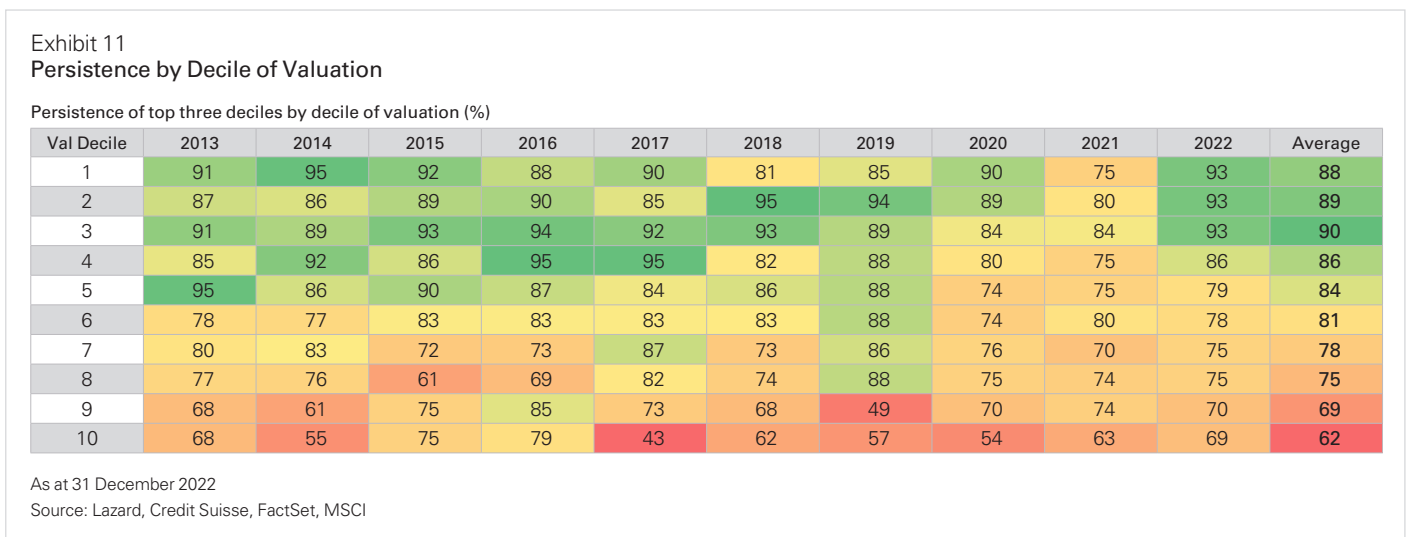
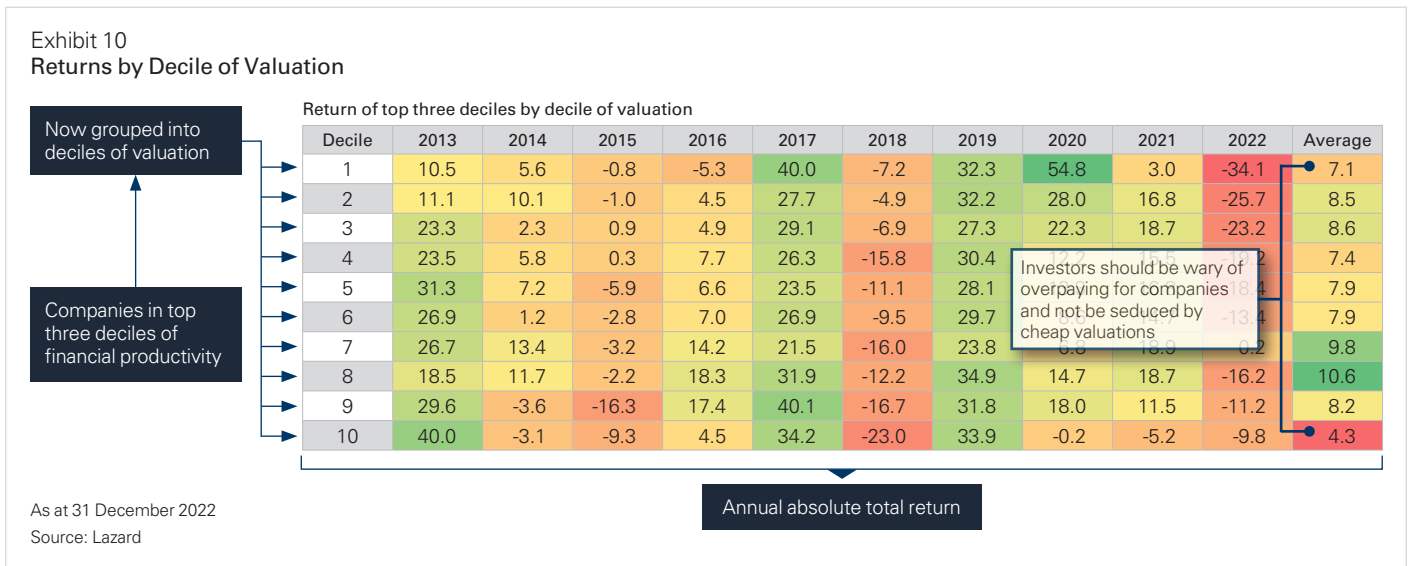
As at 31 December 2022
Source: Lazard, Credit Suisse, FactSet, MSCI

productivity and segmented this list of stocks into deciles of valuation.² We then calculated the annual share price returns for each valuation decile, now in absolute terms for easier comparability. Unsurprisingly the most expensive companies (decile 1) produced returns that were lower than almost all the other deciles—supporting the commonly held belief that it is better to avoid the most expensive stocks (Exhibit 10).

What is more interesting is that the worst performance of all came from the cheapest group of companies. This may seem counterintuitive to some—but it ties in well with our experience of investing in high-quality companies. The market often moves to derate high-quality companies where there is a perceived threat to their ability to sustain financial productivity. While we certainly do not subscribe to the efficient market hypothesis, we would argue that the market does this in a way that is better than random.

This is illustrated by the "persistence" with which companies in the top three deciles of financial productivity, grouped by valuation decile, at least maintain their financial productivity decile. The cheapest companies were materially more likely to see their returns fade than the more expensive companies (Exhibit 11). It is this lower persistence rate which we believe explains the weaker performance of these "cheaper" companies.

The message from this analysis is clear. Investors should be wary of buying the most expensive high-quality companies—you can overpay, even for a fundamentally robust company, and you may be punished for doing so. At the same time, investors should be aware of the dangers of being seduced by very cheap valuations—often companies will be cheap for a reason. It also reinforces our view that whilst valuation considerations are important, over the medium-to-long term, financial productivity is the primary driver of share price returns.



25 Years of Global Equity Market Analysis

The past 25 years covers a wide range of market environments: "growth" booms and busts, commodity super-cycles, three significant equity market corrections, and more recently a global pandemic and war. When taking a 25-year view and analysing the rolling 3-year annualised relative returns for the MSCI ACWI by index decile of financial productivity from 1998 to 2022, we believe the consistency of outperformance by the highest deciles of financial productivity makes a compelling case for a quality-based approach to investing (Exhibit 12).

Conclusion

We firmly believe that investing in the highest-quality companies is the best way to deliver an attractive pattern of outperformance over the medium-to-long term. Our analysis

of the past 25 years of global equity market returns gives us the confidence to make this assertion. In practice, unearthing the most rewarding investments according to our investment philosophy means looking for strong businesses with enduring competitive advantages.

Developing insights into future levels of financial productivity is extremely powerful from an investment perspective, as firms that deliver and sustain high levels of financial productivity may offer additional outperformance. However, identifying such companies requires an understanding of each industry's drivers and firms' competitive positions within it, an appreciation of the incremental returns on capital that companies can achieve, and an awareness of managements' capital deployment decisions. This can only be achieved, in our view, through robust fundamental analysis, to potentially pave the way for long-term alpha for our clients.

Exhibit 12
25 years of Returns by Index Decile with Foresight

(%)

Decile	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Avg.
1	4	12	20	13	4	-5	-7	-6	-1	0	1	2	1	6	5	7	3	5	2	3	1	4	6	7	3	4
2	2	-7	-2	-3	8	1	0	-4	-3	-2	3	4	5	5	3	3	2	3	3	3	3	3	3	2	1	2
3	1	-6	-6	0	7	7	1	-3	-2	-3	3	2	2	2	4	4	2	2	1	2	2	3	2	-1	-1	1
4	0	-9	-5	-3	4	-2	-2	-2	0	-1	2	3	4	8	8	6	2	0	2	3	2	0	-1	-2	0	1
5	-1	-6	-8	-4	1	0	-2	-7	-2	-2	-1	-4	-4	-1	2	0	0	-3	1	0	-1	-6	-5	-7	0	-2
6	1	-7	-10	-10	1	2	2	-1	-1	0	0	2	1	1	0	-2	-2	-3	-1	0	0	-1	-8	-10	-5	-2
7	-1	-5	-7	-11	-7	-9	-2	-4	1	2	5	0	-3	-2	0	-1	-2	-3	-1	-2	-1	-3	-9	-10	-4	-3
8	-2	-15	-13	-14	-1	-7	-2	-5	-2	-3	2	-2	-3	-5	-1	-2	-3	-5	-3	-5	-2	-5	-8	-14	-7	-5
9	-2	-9	-9	-12	-4	-7	-5	-5	-1	-2	-2	-8	-4	-4	2	-3	-5	-5	0	-1	0	-5	-8	-14	-7	-5
10	-1	2	-1	-7	-16	-10	-7	0	-10	-13	-13	-13	-12	-15	-15	-17	-15	-16	-8	-7	-4	-11	-11	-17	-12	-10

As at 31 December 2022

Source: Lazard, Credit Suisse, FactSet, MSCI

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Lazard Asset Management Limited

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This content represents the views of the author(s), and its conclusions may vary from those held elsewhere within Lazard Asset Management. Lazard is committed to giving our investment professionals the autonomy to develop their own investment views, which are informed by a robust exchange of ideas throughout the firm.

Notes

- 1 CFROI® using the Credit Suisse HOLT methodology
- 2 Valuation based on 12-month forward EV/EBITDA or Price/Earnings.

Important Information

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