## Global Systematic Investors LLP

## January 2021

## The recent performance of growth and value stocks.

## Summary

- In 2020 growth stocks had a higher return than value stocks, yet again.
- This was largely driven by the so-called FAANG stocks and a few key companies - notably Tesla.
- The outperformance of growth stocks was substantially due to their re-rating after the financial stimulus in response to the COVID-19 pandemic.
- By the end of the year, the spread in valuation between growth and value exceeded its peak during the Tech boom.

2020 marked yet another year where value stocks as a group underperformed growth stocks around the world, extending their long run of underperformance. The returns of stocks across the global market were heavily influenced by the onset of the Covid-19 pandemic and the substantial financial stimulus provided by governments and central banks, especially the Federal Reserve in the US.

Overall, the return in sterling of developed market stocks was around $12.1 \%$. The top return contributions per company as a percent of the total developed market return are shown in the table below.

Top 10 Return Contributions in Developed Markets over 2020

| Company Name | Country | Sector | Return <br> Contribution |
| :--- | :--- | :--- | :---: |
| Apple Inc. | US | Technology | $14.6 \%$ |
| Amazon.com, Inc. | US | Cons Discret | $8.6 \%$ |
| Microsoft Corporation | US | Technology | $7.3 \%$ |
| Tesla Inc | US | Cons Discret | $6.6 \%$ |
| Alphabet Inc. Classes A\&C | US | Technology | $3.6 \%$ |
| NVIDIA Corporation | US | Technology | $2.5 \%$ |
| Facebook, Inc. Class A | US | Technology | $2.4 \%$ |
| PayPal Holdings Inc | US | Technology | $2.2 \%$ |
| Netflix, Inc. | US | Cons Discret | $1.4 \%$ |
| Adobe Inc. | US | Technology | $1.2 \%$ |
| Total |  |  | $50.3 \%$ |
| FAANG |  |  | $30.5 \%$ |

## GSI

This table shows that $50 \%$ of the total stock market return across developed markets in 2020 was attributable to just 10 companies, five of which are the so-called FAANG stocks (highlighted in blue) - Facebook, Apple, Amazon, Netflix, and Google (shown as its parent Alphabet), which together contributed $30 \%$. This represents an extreme concentration of return outcomes across markets. Many of these stocks have been significant beneficiaries of the changes in consumer patterns during the pandemic, especially the consumer technology and internet platform stocks. Tesla is another standout case having risen by $743 \%$ during the year. This may have been partly driven by its inclusion in the S\&P 500 index which meant that US index funds that are benchmarked to this index had to buy it, even at what is widely regarded as a highly elevated price.

We have previously looked at the relative performance of value versus growth stocks - e.g. see here. Below we update the charts we showed before of the relative returns of value and growth stocks globally. As before, for our returns and characteristics data, we use a well-known source of independent data provided by Style Analytics. Using their analysis tools, we create portfolios based on book-to-market (B/M), which is a standard metric for sorting stocks on value-versus-growth, and then track the returns and characteristics of these simulated portfolios through time. For our purposes here, we create global portfolios where we capture the top $30 \%$ (value) and the bottom $30 \%$ (growth) by market value of stocks when ranked by $\mathrm{B} / \mathrm{M}$. We set the country weights in each portfolio to match their market weights in a broad index. We also exclude the bottom $5 \%$ of each market to avoid any potential distortions due to micro-cap stocks. All returns are in UK sterling. We start the portfolios at the end of 1989 (if we go further back than this, the data coverage declines). A chart of the returns is shown in the figure below as the growth of $£ 1$ invested in each portfolio.

Growth of £1 Invested in Value and Growth Portfolios since January 1990 (in GBP)


## GSI

To track the relative returns of value vs. growth, each month we subtract the return of the global growth portfolio from the global value portfolio, and we cumulate that sum through time as shown in the chart below.

The Relative Performance of Value vs. Growth Stock Portfolios


As the chart above shows, in 2020 growth stocks substantially outperformed value stocks leading to a large negative return for the value (minus growth) factor. Moreover, this continues a pattern of underperformance of the value factor for some time.

This has raised concern among many investors and commentators about value as a factor in general. However, a key issue here is the degree to which the respective ratings of value and growth stocks have changed over time. One proxy for this is the Price-to-Book ratio of each portfolio. Price-to-Book or P/B is simply the inverse of B/M but is somewhat more intuitive and is generally preferred as a metric by investors.

The chart below shows the P/B ratio of the growth and value portfolios constructed as above as well as that of the overall market, all as solid lines using the left-hand scale. The P/B ratio of growth stocks has been trending up since the onset of Quantitative Easing (QE) in early 2009. However, in 2020, the price of growth stocks was pushed up much further so that their weighted average P/B ratio at the end of the year was 17.4 vs. a long run average of 7.0 over the 31 -year period covered. This is still somewhat below the peak of 26.6 reached in February 2000 during the Tech boom but is still excessively high.

Since the onset of QE, value stocks were not bid up as much as growth stocks. At the end of 2020, they traded at a P/B of 1.17, almost unchanged over the last year, and at a small discount to their long run average P/B of 1.27.

## GSI

The spread between growth and value stocks is calculated as the ratio of the P/B of growth stocks divided by that of value stocks. This is shown as the dotted line in the chart below (and maps to the right-hand side scale). As of the end of 2020, the P/B spread was 14.9, exceeding its peak during the Tech boom of 14.4 in February 2000.

Price-to-Book Ratios of Global Value and Growth Portfolios


In fact, it reached its all-time high of 15.0 at the end of October 2020 but has since retreated a little from that level as value stocks outperformed in November.

These ratios are shown at the beginning of each decade and at the beginning of 2021 in Panel 1 below. In Panel 2, we show the annualised change in P/B for the growth and value portfolios, and the difference between them on the right. For example, from beginning of 2010 to the end of 2020 the P/B of growth increased by 12.4 per year; the P/B of value increased by $1.5 \%$ per year; and the value-growth difference was therefore -10.9 per year, so the valuation level of growth stocks increased by much more than value stocks. The difference was -63.2\% in 2020 alone, with the valuation of value stocks slightly declining over the year.

Panel 3 shows the annualised returns of growth and value portfolios over the same periods and shows that growth stocks beat value stocks by $43.4 \%$ last year alone and by $7.2 \%$ p.a. since the start of 2010 . Over the longest period shown, value beat growth albeit by a small margin of $0.5 \%$ p.a.

However, in Panel 4 we show the returns if we back out the contribution made by the revaluation in P/B. For example, since the start of 2000, growth stocks returned $15.8 \%$ p.a. but experienced a valuation uplift of $12.4 \%$, and so net of that their adjusted return was $3.4 \%$ p.a. Over the same period, value stocks returned $8.7 \%$ p.a. but experienced a lower valuation uplift of $1.5 \%$, and net of that their adjusted return was $7.2 \%$ p.a.

Therefore, once we adjust for their respective valuation uplifts, value posts a higher adjusted return compared to growth of $3.8 \%$ p.a. over the last 11 years.

## P/B Valuations and Returns (in GBP) of Global Value and Growth Portfolios

| Panel 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Date | P/B Growth P/B Value | P/B Spread* |  |
| Jan 1990 | 6.7 | 1.6 | 4.2 |
| Jan 2000 | 20.3 | 1.9 | 10.7 |
| Jan 2010 | 4.8 | 1.0 | 4.8 |
| Jan 2020 | 10.7 | 1.2 | 9.1 |
| Jan 2021 | 17.4 | 1.2 | 14.9 |
| Avg 1990-2020 | 7.0 | 1.3 | 5.5 |

* P/B Spread is (P/B Growth / P/B Value)

| Panel 2 | Annualised Change in P/B |  |  |
| :---: | :---: | :---: | :---: |
| Period | Growth | Value | Value - Growth |
| Jan 1990 to Dec 2020 | $3.2 \%$ | $-0.9 \%$ | $-4.1 \%$ |
| Jan 2000 to Dec 2020 | $-0.7 \%$ | $-2.3 \%$ | $-1.6 \%$ |
| Jan 2010 to Dec 2020 | $12.4 \%$ | $1.5 \%$ | $-10.9 \%$ |
| Jan 2020 to Dec 2020 | $62.5 \%$ | $-0.7 \%$ | $-63.2 \%$ |

Panel 3
Annualised Returns

| Period | Growth | Value | Value - Growth |
| :---: | :---: | :---: | :---: |
| Jan 1990 to Dec 2020 | $8.5 \%$ | $9.0 \%$ | $0.5 \%$ |
| Jan 2000 to Dec 2020 | $5.7 \%$ | $7.3 \%$ | $1.7 \%$ |
| Jan 2010 to Dec 2020 | $15.8 \%$ | $8.7 \%$ | $-7.2 \%$ |
| Jan 2020 to Dec 2020 | $37.7 \%$ | $-5.7 \%$ | $-43.4 \%$ |

Panel 4 Annualised Returns adjusting for Change in P/B

| Period | Growth | Value | Value - Growth |
| :---: | :---: | :---: | :---: |
| Jan 1990 to Dec 2020 | $5.4 \%$ | $10.0 \%$ | $4.6 \%$ |
| Jan 2000 to Dec 2020 | $6.4 \%$ | $9.6 \%$ | $3.2 \%$ |
| Jan 2010 to Dec 2020 | $3.4 \%$ | $7.2 \%$ | $3.8 \%$ |
| Jan 2020 to Dec 2020 | $-24.8 \%$ | $-5.0 \%$ | $19.7 \%$ |

While growth stocks had an exceptionally strong performance in 2020, more than $100 \%$ of that return is accounted for in their valuation uplift. As we also reported last year, when we back out the valuation uplift to the returns of both the value and growth portfolios, the relative performance of the value portfolio looks a lot better over all the periods shown. Over the full period shown, value still manages to outperform growth,
despite the latter benefitting from a significantly positive contribution from relative valuation changes of $4.1 \%$ p.a.

The period since the start of 2010 has been dominated by QE to aid economic recovery from the Global Financial Crisis and latterly the enormous financial stimulus to deal with the economic shock of the COVID-19 pandemic. Over this time, value stocks performed in line with their longer-run average since 1990 ( $8.7 \%$ vs. 9.0\%). The outperformance of growth over value of $7.2 \%$ p.a. since 2000 has been substantially attributable to a relative valuation uplift of around $10.9 \%$ p.a., without which they would have underperformed.

There are of course limitations to this analysis, for example, most practitioners use additional metrics rather than just book-to-market to define value versus growth (as indeed we argue here). Partly this is because, in today's technologically driven age, book value is perhaps less useful as a measure of company's intrinsic value. Moreover, unlike growth stocks during the Tech boom, many growth companies today such as Apple and Facebook have strong earnings and dominant positions in their industry group - although that dominance could become a target under the incoming Biden administration. There may also be some merit in the argument that exceptionally low interest rates lead to a higher discounted value of the stronger prospective earnings of growth companies. Nonetheless, despite these caveats, a continuation of the higher returns to growth stocks would seem to at least partly depend on an everincreasing valuation spread between growth and value stocks, which is unlikely given observable history. We note, however, that it is not the first time that we have pointed this out!

