KODA

# Do <br> Valuations Matter? 

Brigette Leckie,
Chief Economist, Koda Capital
Bi Zhou,
Investment Analyst, Koda Capital

# In an investment landscape where traditional valuation metrics are constantly challenged, investors are increasingly asking: do valuations still matter in today's market? 

> The old principle of mean reversion appears to contradict the phenomenon that expensive assets can climb even higher and seemingly cheap investments can become value traps.

The paper discusses the relationship between valuations and assets returns. This analysis has been conducted in three parts:

- Using a time-series approach we analyse whether valuations are good predictors for future returns. This has been done via the US S\&P 500 index.
- On a cross-sectional basis we assess whether assets with cheaper valuations outperform the expensive ones and the underlying drivers of the relative performance.
- Analysing the underpinning factors and potential risks associated with the current high stock market valuations in the US.


## Conclusions: investors should not rely entirely on stock market valuations.

The relationship between valuations and future stock market returns is complex. Extremely low valuations often signal oversold conditions and buying opportunities, due to excessive pessimism despite solid fundamentals. At the other end of the spectrum, extremely high valuations often precede equity market selloffs, driven by unrealistic optimism about future growth.
When valuations hover near normal levels, their correlation with future returns appears to be insignificant. With most markets at or above, but not excessively so fair value, stock market valuations do not provide any significant guide as to future forecast returns.

## The metrics of stock valuations

Valuations of public stocks are typically measured through price multiples. Among these, trailing price to earnings (P/E) ratio has been the most prevalent metric. It provides a snapshot of a company's market value relative to its earnings. Despite being the most widely used metrics, relying solely on the trailing P/E ratio for investment decisions can be misleading as this backward-looking metric overlooks the growth potentials and can be skewed by different accounting practices.

In addition to the popular trailing P/E ratio, we have also constructed a valuation percentile metric to address these concerns. The valuation percentile metric utilises six key measures: P/E ratio, price to book ratio, price to sales ratio, price to forward earnings ratio, price to cash flow ratio, and EV to EBITDA ratio. Each metric's rolling percentile rank is calculated and then aggregated into an overall valuation percentile. This approach provides a historical context for assessing whether the stock market is relatively expensive or cheap. It mitigates look-ahead bias, adjusts for changes over different time regimes, and avoids over-reliance on a single metric.

Valuation and Drawdown - S\&P 500


## Are valuations good predictors for stock index returns?

The relationship between valuations and future stock market returns is not straightforward and only extreme valuations can significantly predict future returns.
Extremely low valuations often signal oversold conditions and buying opportunities, as they reflect excessive pessimism about future fundamentals and are often associated with fire sales. Using S\&P 500 as an example, when valuations fall below the 5th percentile, indicating market capitulation, the stock market typically experiences a significant rebound, with the forward one-year average abnormal returns reaching as high as $27 \%$. This outperformance, although to a lesser degree, is also observable when the valuation percentile falls below 20\%.


#### Abstract

Conversely, extremely high valuations (over the 95th percentile) often precede equity market selloffs, driven by unrealistic optimism about future growth. Historical analysis, particularly of the S\&P 500 drawdowns, supports this view. Since 1980, periods where the valuation percentile exceeded 95\% have mostly preceded major market downturns, such as the 1987 Black Friday, the late 1990s Dot. com Bubble, and the 2022 stock market selloff (which topped 95th percentile in November 2021). An exception occurred in the early 1990s when factors like technological advancements, liberalisation, and the end of the Cold War indicated a time-regime change and significantly boosted productivity and earnings growth. On average, S\&P 500 falls $7 \%$ below the long-term average on a one-year basis when valuations are above the 95th percentile.


## Average Forward Abnormal Returns of S\&P500 Conditional on Valuations



When valuations hover near normal levels, their correlation with future returns appears to be insignificant. For example, when the S\&P 500's valuations are fair, i.e., between the 20th and 80th percentiles, forward returns align closely with long-term averages. Notably, in the middle quintile (40th to 60th), the S\&P 500 tends to slightly outperform the long-term average by about $5 \%$ over one year. Additionally, while valuations in the 80th to 95th percentile range might suggest overvaluation, they often lead to solid returns afterwards as investors ride the boom, resulting in the momentum effect.

## Do cheaper stocks outperform their pricier counterparts?

Over the very long term, stocks with lower valuations have historically demonstrated a tendency to outperform their more expensive counterparts. Since 1951, cheap stocks have outperformed those with higher valuations by an average of 0.4\% per month. This phenomenon is widely recognised as the "value effect," which is primarily attributed to the principle of mean reversion.

Despite this overarching trend, there have been distinct epochs, such as the early 1970s, late 1980s, late 1990s, the (GFC), and the period from 2015 onwards, during which cheaper stocks have underperformed their more expensive counterparts. Particularly between 2017 and 2020, expensive stocks outpaced cheap stocks by a substantial margin of $0.9 \%$ per month.

## US Stock Return Relativity: Cheap to Expensive



From a portfolio construction perspective, understanding the drivers behind the time-varying relative performance is critical as it enables asset allocators to make informed decisions about tilting the portfolios towards the value or growth style under anticipated conditions. Investigating this backdrop, our analysis indicates that:

- Value (cheap) stocks often outperform during periods of rising interest rates. Since 1962, when the US 10year bond yields go up, cheap stocks tend to outperform expensive counterparts by an average of $+0.42 \%$ every month. By contrast, when bond yields are going down, the outperformance substantially narrows. This is because value stocks, often being more established and financially stable, are less sensitive to the cost of borrowing increases compared to growth (expensive) stocks, which might rely more on debt financing for growth. Additionally, climbing interest rates would decrease the discounted value of future earnings growth, disproportionately impacting stocks with high valuations which rely on future growth expectations.

[^0]- Value (cheap) stocks perform well when term spread/yield curve is steepening.
Since 1962, the outperformance over expensive stocks is averaging at $+0.40 \%$ per month. This can be explained by the fact that steepening yield curve usually signals strong economic growth in the future. Such environment benefits banks, resources and industrial companies which mostly have low valuations than the growth sectors, such as tech and communication services.
- Value (cheap) stocks outperform when investor sentiment is optimistic 2 .
Since July 1987, stocks with low valuations outperform expensive ones by $0.21 \%$ when general investor sentiment is optimistic. The gap reverses to $-0.12 \%$ if the sentiment is pessimistic. The potential explanation is that when sentiment is optimistic, there is a broader willingness to invest in stocks that are perceived as undervalued, under the assumption that growth outlook will improve and these companies will benefit from increased earnings.


## Monthly Return Spread Between Cheap and Expensive Stocks

| When US 10Y <br> bond yields are |  | When yield curve is <br> (10Y - 3M) |  | When investor <br> sentiment is |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unconditional <br> Average | Going UpGoing <br> Down | SteepeningFlattening <br> Or Inverting | Optimistic Pessimistic |  |

Source: Koda and Bloomberg as at 28th February 2024

[^1]
## Are the current high valuations of the US stock market sustainable?

Investors should not rely solely on valuations, but also consider the two underpinning factors: liquidity conditions and expectations surrounding fundamental aspects such as earnings growth.

Currently, the S\&P 500's valuations are high, ranking in the 92nd percentile. However, there is a significant dispersion within the market; tech and communication services sectors are more expensive, while other sectors are closer to fair value. This situation is underpinned by stabilising liquidity conditions, characterised by recently declining government bond yields, and optimistic expectations for earnings growth, supported by a potential economic soft-landing and Al-driven productivity growth.

Our analysis indicates that the current high valuations are rationally supported by these two underlying factors. Regarding liquidity, market consensus is that interest rates will remain high for some time, with minimal prospects of returning to the low levels seen post-COVID in the medium term. Consequently, profitless tech companies have underperformed the profitable big tech stocks (proxied by Nasdaq 100) over the last two years. On the fundamental side, unlike during the Dot.com bubble, top tech firms today boast significant cash flows and solid earnings growth, defying the broader economic slowdown. Their price multiples, though high, are not excessively so compared to historical standards - the forward P/E ratio of the "Magnificent 7 " is around 30 times, as opposed to over 100 times for the Nasdaq in 2000. Therefore, a repeat of the Dot.com bubble burst seems unlikely.

While the risk of a stock market crash appears low, valuations of the S\&P 500 could quickly derate if liquidity conditions deteriorate or fundamental expectations shift. Potential catalysts for this include:

- A "no-landing" scenario:

If economic growth persists more vigorously than anticipated, leading to persistent inflation, this scenario could transform into a "hard-landing" for financial markets. In such a situation, where full employment and entrenched inflation are present, central banks may be compelled to maintain high interest rates or even reinstate monetary tightening measures to temper inflationary pressures.

- Regulatory scrutiny of Artificial Intelligence: Growing concerns about the misuse of Al for illicit activities, copyright infringements, and its potential impact on the job market are leading to heightened attention on AI regulations. It is anticipated that the upcoming US election cycle will feature more extensive political discourse on Al governance, which could significantly influence the industry's future trajectory and weigh on the top tech stocks.
- Potential for earnings downgrade:

Currently, financial markets are priced for a "soft-landing" scenario, characterised by modest yet positive economic growth and inflation gradually approaching the $2 \%$ target. Despite recent data suggesting a very resilient labour market, the possibility of a recession remains high as monetary policy works with significant lags. Presently, Wall Street analysts forecast 9\% earnings growth for 2024. However, this projection could be substantially lowered to a range of 0\% to $-10 \%$ in the event of even a mild recession.

## About the Author



## Brigette Leckie <br> Chief Economist

Brigette Leckie has worked in financial markets since the early 1990s.

Previous roles have included Chief Strategist, Chief
Economist and Head of Research at Australian, New Zealand and multinational firms including BNY Mellon, Alliance Bernstein, Perpetual and BNP. She has also worked in New Zealand Treasury and served on numerous public and private sector committees.


## Bi Zhou <br> Investment Analyst

Bi Zhou is responsible for undertaking macro-economic, portfolio and multi-asset research at Koda Capital.

Bi received a Master Degree of Research on Applied Finance from Macquarie University, a Master degree of Professional Accounting from the University of Sydney and a Bachelor degree of commerce from Shanghai University of Finance and Economy.

Prior to Koda Capital, Bi gained experience in analysis and consulting at Aon Hewitt, LVMH Fashion Group and Nike.

Bi holds the Chartered Financial Analyst designation (CFA) and is a Paraprofessional Interpreter (Mandarin and English) of NAATI in Australia.

## Important Information

This material has been delivered to you by Koda Capital Pty Ltd ABN 65166491961 AFS Licence No. 452581 (Koda) and has been prepared for general information purposes only and must not be construed as investment advice or as an investment recommendation. This material does not take into account your investment objectives, financial situation or particular needs. This material does not constitute an offer or inducement to engage in an investment activity nor does it form part of any offer documentation, offer or invitation to purchase, sell or subscribe for interests in any type of investment product or service. You should read and consider any relevant offer documentation applicable to any investment product or service and consider obtaining professional investment advice tailored to your specific circumstances before making any investment decision.

Past performance is not necessarily indicative of future results and no person guarantees the future performance of any strategy, the amount or timing of any return from it, that asset allocations will be met, that it will be able to be implemented and its investment strategy or that its investment objectives will be achieved. This material may contain 'forward-looking statements'. Actual events or results or the actual performance of a financial product or service may differ materially from those reflected or contemplated in such forward-looking statements.

This material may include data, research and other information from third party sources. Koda makes no guarantee that such information is accurate, complete or timely and does not provide any warranties regarding results obtained from its use. This information is subject to change at any time and no person has any responsibility to update any of the information provided in this material. Statements contained in this material that are not historical facts are based on current expectations, estimates, projections, opinions and beliefs of Koda. Such statements involve known and unknown risks, uncertainties and other factors, and undue reliance should not be placed thereon.

Any trademarks, logos, and service marks contained herein may be the registered and unregistered trademarks of their respective owners. This material and the information contained within it may not be reproduced, or disclosed, in whole or in part, without the prior written consent of Koda.

kodacapital.com


[^0]:    ${ }^{1}$ The sum of the average abnormal returns across percentile groups is not equal to zero due to the use of rolling metrics and different samples sizes in each group.

[^1]:    ${ }^{2}$ Proxied by Net Reading of AAll Investor Sentiment Survey.

