**Market Timing Strategy In U.K**

# **Executive summary**

The paper addresses to tackle the hypothesis that: Does Market Timing in U.K. can gererate profits which can beat the Buy and Hold approach? We also analyse the risk metrics of this strategy like Sharpe ratio, return, volatility, ect.

# **Data description**

We obtain the daily UK index during a period of over 40 years: from Feb 1982 to Dec 2022. The data for Index was downloaded directly from the website Investing.com and was carefully cleaned for analysis purposes. The CAPE and 1M UK treasury Bond was obtained from Barclays and Investing websites, respectively.

# **Predictive power of CAPE**

**Chart 1 U.K. Equity 10-year returns sorted by starting CAPE Valuation, 1982–2022**

Chart 1 shows the average rate of excess returns (over cash) for UK index for 10-year period and sorting by CAPE ratio, using data from Jan 1982 til Dec 2022. As we can clearly see that, lower valuations for CAPE predicting higher returns (and vice versa) does indeed appear solid. Not only that, the index return shows a poor performance over treasury bond 1M return. That is the reason why the excess returns for the CAPE buckets (above 14.26) are negative. However, as we already know that based on the original paper, there is an important hindsight bias: we used a full history data to define quintiles.

**Chart 2 U.K. equity returns sorted by starting valuation based on rolling 10-year window, 1982–2020**

Chart 2 removes the hindsight bias by using a 10-year rolling of past data. It also add 1-year and 3-month returns. The patterns are not so clear for shorter periods, epecially in the 5th quintile, they did not so outperform the other quintiles.

**Table 1** EP (1/CAPE) as explanatory variable of future equity return 1982–2022 (in sample)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Next 10Y | Next 1Y | Next 1M |
| Beta | 1.82 | 4.95 | 5.66 |
| T-statistic | 17.24 | 10.89 | 2.99 |
| R-squared | 0.45 | 0.2 | 0.02 |

This table shows a strong relationship between 10Y returns and UK index. The linear regression model with R-squared of 0.45, indicating that approximately 45% of the variation in future equity returns can be explained by EP. The high T-statistic also suggests the relationship between EP and future equity 10Y returns is highly robust and reliable. While the relationship between 1Y return or 1M return and the Index appears EP has very limited explanatory power in predicting or understanding future equity 1Y or 1M returns.

# **Market timing strategy**

# 4.1 Methodology

We construct the market timing signal based on the current E/P and its rolling 10Y Median scaled by 95th and 5th percentile range. Monthly, the portfolio is rebalanced, with two market timing strategy: Leverage (ceil at 150% and floor at 50%) and No-Leverage (ceil at 100% and floor at 50%).

The equity weight is based on following formular:

# 4.2 Results

**Table 2 Performance of buy-and-hold and simple timing strategies in U.K. equities, 1992–2022.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Buy & Hold | Value Timing  (No leverage) | Value Timing  (Leverage) |
| Return | 3.97% | 3.12% | 3.83% |
| Volatility | 16.67% | 55.67% | 71.83% |
| Sharpe ratio | 0.06 | 0.002 | 0.01 |
| Max drawdown | -46.88% | -41.77% | -51.24% |
| Max relative drawdown |  |  |  |
| Average position | 100% | 85% | 103% |

The highest return is from Buy & Hold, following by Leverage Value Timing and No-Leverage Value Timing, respectively. Noticebly, both Value Timing strategies display a higher volatility than Buy & Hold, which implies a greater degree of uncertainty and risk in the investment strategy.

As regards the Shapre ratio, Buy & Hold appears the most attractive strategy, while Value timings’ Sharpe ratios are relatively low, only 0.01 for Leverage and nearly 0 for No leverage strategy. It means the timing strategy cannot beat the buy and hold approach over the research period. The lower return from the timing strategy comes from the

The timing strategy has been underinvested on average (average position of 85% and 103%)

# **Conclusion**

Market timing does not work in the UK market with the data set from 1982 to 2022. Although, the strategy generates a positive return, which is even higher Buy and Hold approach, it suffer from low Sharpe ratio and high variance.

**Reference**

Asness, C., Ilmanen, A., & Maloney, T. (2017), *Market Timing: Sin A Little - Resolving The Valuation Timing Puzzle*. Journal Of Investment Management, Vol. 15, No. 3, (2017), pp. 23–40.