

From one calibrated field to a 1.61 Sharpe

Backtesting Similarweb's Calibrated Ticker Mapping in a market-neutral
US consumer equity strategy

1.61

Sharpe ratio (net)

19.2%

CAGR, net of costs

11.3%

Volatility

-0.05

Beta to S&P 500



RESEARCH & ANALYSIS

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82-month backtest
Jun 2019 – Mar 2026

EXECUTIVE SUMMARY

Calibrated web traffic, mapped to tickers, traded market-neutral

- Web traffic data is a durable signal for companies with online presence; digital metrics frequently correlate with business KPIs, resulting in alpha opportunities for investors
- In our backtest, calibrated daily visits to websites mapped to covered tickers produced considerable alpha over the equal-weight S&P 500 in the Consumer Discretionary and Consumer Staples GICS sectors.
- A market-neutral, sector-neutral portfolio produced a 1.61 Sharpe ratio and 19.2% CAGR at roughly half the volatility of the S&P 500 and close to zero beta.
- Latency was a material factor; results were achieved at the calibrated data's T+1 pre-market latency. By T+3, almost 20% of the alpha potential was lost.

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Similarweb's Calibrated Ticker Mapping

Similarweb collects, models, and enriches billions of daily signals across the open web and apps to quantify how audiences discover, engage with, and convert across digital properties. For systematic investors, these digital metrics offer a signal independent of market, fundamental, or economic datasets. This paper uses one such dataset, Calibrated Ticker Mapping, described below.

Launched in November 2025, Similarweb's Calibrated Ticker Mapping is a point-in-time, low latency dataset designed for systematic and latency-sensitive strategies. Unlike Similarweb's traditional data that are modeled and scaled to estimate traffic volume, calibrated data is point-in-time observations within Similarweb's proprietary panel, normalized for panel size only. Data is aggregated to Eastern Time (ET), supporting a T+1, pre-market-open latency in North American markets.

Similarweb provides several calibrated daily traffic and engagement metrics in the ticker mapping product, paired with a corresponding mapping file that covers over 50,000 tickers globally across more than 200,000 domains.

50,000+

tickers mapped globally

200,000+

domains covered

T+1pre-market-open latency,
North American markets

Can calibrated web traffic data be used to develop meaningful alpha potential in equities with digital presence?

One of the primary challenges in digital data is defining a model that can reliably connect web-traffic trends to real-world business phenomena. Applications differ across industries; for example, retail and e-commerce online activity typically translate into revenue generation signals more readily than in industries with longer sales cycles such as software. In order to test the predictive value of calibrated web traffic data, we designed a simplified study that focuses on two sectors: Consumer Staples and Consumer Discretionary. Within those sectors, we then screened for the most liquid US-listed companies and arrived at a universe of 285 stocks for testing. These constraints allowed the study to implement a narrow set of rules while still offering a reasonable sample size.

We used Similarweb's calibrated daily website-visit data, mapped to publicly listed tickers, to generate daily trading signals within a simulated investment portfolio. To accurately benchmark performance, the strategy was constructed as a market- and sector-neutral long/short book and measured against broad equity indices (S&P 500, the equal-weight S&P 500, the equal-weight Nasdaq-100 and a weighted blend of RSPD Cons Disc EW & RSPS Cons Staples at a 78/28 split) within a fully point-in-time backtest that only ever traded on web traffic data available at the time.

Data from January 2018 onwards was used, covering 285 US-listed Consumer Discretionary and Consumer Staples companies. Each day's traffic across a company's web domains was aggregated into a single point-in-time record and distilled into a composite signal spanning multiple growth horizons: year-over-year, quarter-over-quarter, short-term acceleration, and a six-month trend. Names were ranked and standardized within their GICS sector, combined into a dollar- and sector-neutral portfolio, and rebalanced daily under realistic frictions, including T+1 execution at a VWAP-proxy fill, transaction costs charging half-spread plus market impact, a 10%-of-average-daily-volume capacity cap, and a rolling market beta hedge that strips out index return so only stock-selection alpha is measured.

We found that where a website visit converts to near-term revenue, such as e-commerce and online restaurant ordering, visit growth reliably led stock returns, letting the strategy identify accelerating or deteriorating demand ahead of the market. Net of realistic transaction costs the book delivered a Sharpe ratio of roughly 1.6, compounding well ahead of the equity benchmarks at around half their volatility while maintaining market neutrality.

The backtest settings

The following settings were used in building the backtest.

SETTING	VALUE
Start date	2019-06-01 (first traded date; data from 2018-01-01 used to warm up the signal)
End date	2026-03-31
Investment universe	285 US-listed Consumer Discretionary and Consumer Staples stocks. Excludes Information Technology, big-ticket travel, and outlier cases where website traffic does not correlate with near-term revenue.
Benchmarks	S&P 500, equal-weight S&P 500, a weighted blend of RSPD Cons Disc EW & RSPS Cons Staples EW (72/28), and equal-weight Nasdaq-100, measured over the same point-in-time window.
Signal	A composite of four website-visit growth measures (year-over-year, quarter-over-quarter, short-term acceleration, and a six-month trend), computed on 7-day smoothed daily visits, ranked cross-sectionally and summed into one score per stock.
Selection criteria	Within each GICS sector, the composite is turned into a z-score (clipped at plus or minus 3 sigma). Names above their sector average are held long, names below are held short.
Weighting schemes	Sector-neutral z-score weighting, de-meanned within each sector so longs and shorts cancel, then scaled to the gross target. Each position is capped at 10% of the name's 20-day average daily dollar volume.
Position entry	The signal is computed from website-visit data through the prior trading day's close. That data is delivered the next morning before the open, so the signal is read pre-market and orders are executed that same trading day (T+1) at the VWAP. For example, the 17th's data arrives pre-open on the 18th, so the signal is read on the morning of the 18th and traded during the 18th.
Position duration	Positions are held continuously and adjusted daily. About 30% of the gap to the new target is traded each day (partial adjustment), with a 0.05%-of-book no-trade floor to skip very-small trades.

PORTFOLIO MODELING · CONTINUED

SETTING	VALUE
Trade price	VWAP proxy, calculated as (High + Low + Close) divided by 3, adjusted for splits and dividends. The closing price is not assumed.
Trading frequency	Daily.
Rebalancing	Daily. Target weights are recomputed each day from the latest available signal.
Book size (AUM)	USD 500 million.
Leverage	4.0x gross target (approximately 200% long and 200% short).
Transaction costs	Charged on every trade as half-spread (about 3 bps) plus square-root market impact.
Slippage	Captured through the VWAP fill and a close-versus-fill timing adjustment. Perfect fills are never assumed.
Market hedge	A rolling 60-day beta to the S&P 500 is subtracted from each day's return, leaving only the residual stock-selection return. Realized beta is about -0.05. The cost of the hedge was not modeled in performance data.
Short borrow & financing	Not modeled (transaction costs only).
Stop loss	None. The book is market-neutral and risk is managed through sector neutrality, the beta hedge, position sizing, and the liquidity cap rather than stops.

This backtest was intentionally simple and conservative by design. It relies on a single raw signal, a straightforward construction, and deliberately cautious assumptions about timing, pricing, costs, and capacity, and it was built to demonstrate the value of the underlying data rather than to replicate the execution of a professional systematic trading firm.

A 19.2% return at roughly half the market's volatility

The consumer web-traffic portfolio delivered a 19.2% annualized return over the June 2019 to March 2026 period, well ahead of the 10.0% for the equal-weight S&P 500 and 11.6% for the equal-weight Nasdaq-100, with a Sharpe ratio of 1.61 and a beta of just -0.05 to the market, all net of realistic transaction costs. Because the book is market and sector neutral, that return was achieved at roughly half the volatility of the equity benchmarks (11.3% versus around 20%) and with a maximum drawdown of only -15.3%, less than half the -34% to -39% peak-to-trough declines those indices sustained over the same window. Run without leverage, the identical strategy produced a 9.9% return at a 1.45 Sharpe with a -9.5% drawdown, confirming the performance comes from genuine stock selection rather than from leverage or market direction.

1.61 Sharpe ratio (net)	19.2% CAGR (net)	11.3% Volatility (S&P 20.1%)	-0.05 Beta to S&P 500
~62% Monthly hit rate	~76x Annual turnover	\$1.65B Growth of \$500M	3.3x Growth of \$1 vs 2.2x

FIGURE 1

Cumulative performance vs. benchmark: growth of \$1, 2019 to 2026

— Calibrated strategy (net) — S&P 500 equal-weight — Equal-weight consumer blend (72/28)



Calibrated strategy (net) compounds to **3.3x versus 2.2x** for the S&P 500 equal-weight and 1.7x for the equal-weight consumer blend, at roughly half the volatility and near-zero market beta.

Source: Similarweb Calibrated Ticker Mapping; backtest Jun 2019 to Mar 2026.

PORTFOLIO PERFORMANCE · DETAIL

Figure 2 · Growth of a \$500M allocation

net of costs



Compounding the net-of-cost return grows the modeled \$500M book to roughly \$1.65B.

Figure 3 · Rolling 12-month Sharpe

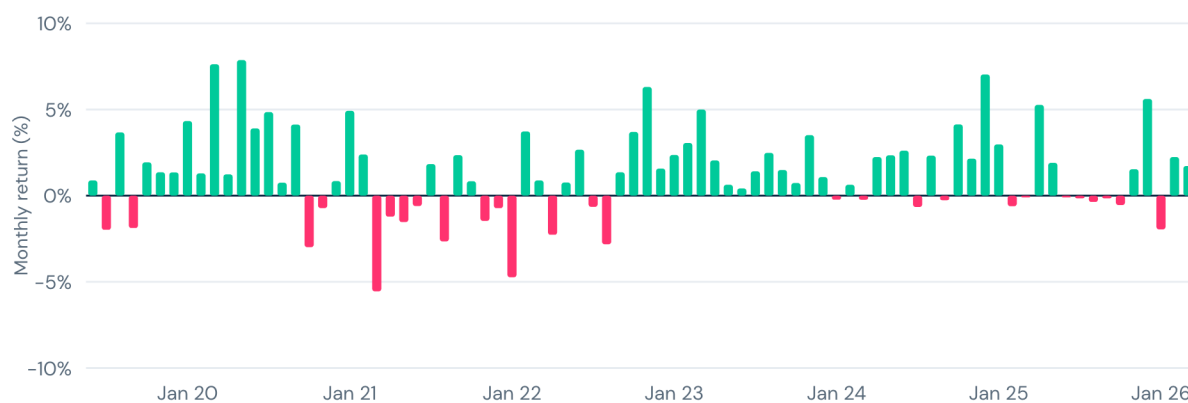
dashed line at full-period 1.61



The edge recurs across the window rather than concentrating in one regime.

Figure 4 · Monthly returns ~62% hit rate

Positive Negative



82 months, teal positive, pink negative. Monthly net returns, %.

DRAWDOWNS IN CONTEXT

Series	Max drawdown	Trough	Recovery
Similarweb strategy (285, 4.0x)	-15.3%	2022-02	~10 mo
S&P 500	-33.9%	2020-03	~5 mo
S&P 500 EW	-39.0%	2020-03	~8 mo
Nasdaq-100 EW	-32.1%	2022-10	~15 mo
EW Consumer (72/28)	-42.1%	2020-03	~8 mo

Freshness is worth ~20% of the Sharpe

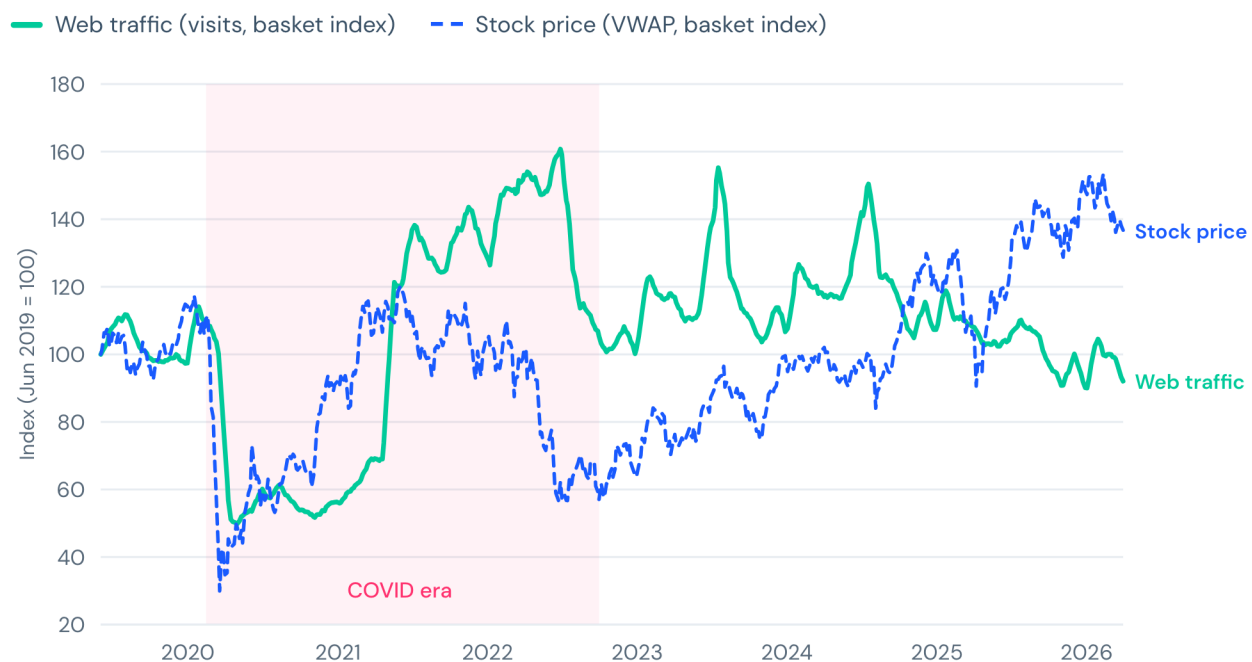
At T+1 the strategy holds a 1.61 Sharpe. By T+3, around 20% of it is gone.

Latency	Sharpe	CAGR	Sharpe retained
T+1	1.61	19.2%	100%
T+2	1.41	16.5%	88.0%
T+3	1.30	14.9%	80.7%
T+4	1.21	13.8%	75.1%

How sector dynamics impact the signal

Big-ticket travel names behave differently from the rest of the universe due to specifics around consumer behavior. For cruise lines, hotels, casinos, and online travel agents, the purchase cycle is long and the booking is deliberated, so site traffic leads revenue by an uncertain lag and often reflects browsing or service activity rather than demand. Through COVID and beyond, these sites stayed busy with browsing and refunds while revenue and price moved on their own path. Due to these shifting correlations, we implemented an **ex-ante economic rule** that removed cases where the web traffic-to-revenue link was unstable across the observation period.

Figure 5 · Big-ticket travel: web traffic vs. stock price decoupling



Both series rebased to Jun 2019 = 100. Visits and price repeatedly decoupled, most sharply in the 2020 crash and the 2022 selloff, when browsing held up while prices did not.

Source: Similarweb Calibrated Ticker Mapping; backtest Jun 2019 – Mar 2026.

CONCLUSION

Digital metrics and alpha opportunity

Using a single Similarweb field with calibrated desktop visits mapped to tickers, we built a market- and sector-neutral consumer equity strategy that turned website demand into consistent, repeatable stock selection. Net of realistic transaction costs it delivered a Sharpe ratio of 1.61 and compounded well ahead of the equal-weight S&P 500 benchmark at roughly half its volatility and with near-zero market exposure. The result held up under demanding assumptions, including T+1 execution, a VWAP-proxy fill, a 10% ADV cap, and a point-in-time beta hedge, and it survived a walk-forward test.

We noted that the simulation had a number of limitations, including simplified transaction costs and no cost of carry modeling. We also observed that the relationship between online activity and share price behaves differently across retail, restaurants, travel, and casinos, which suggests each sub-sector likely needs to be considered on its own terms rather than under a single blanket signal. Systematic trading firms will be well-equipped to tailor these signals further with additional datasets and more fine-tuned modeling.

CONTACT US

The full Calibrated Ticker Mapping product is available for your own testing. Similarweb provides a suite of calibrated daily traffic and engagement metrics, paired with a corresponding mapping file that covers over 50,000 tickers globally across more than 200,000 domains, so you can reproduce this analysis or build your own signals on the same underlying data. To request access, please get in touch.

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Independent, trusted digital intelligence at market scale

Similarweb delivers independent, trusted digital intelligence at market scale. We collect, model, and enrich billions of daily signals across the open web and apps to quantify how audiences discover, engage with, and convert across digital properties.

For investors, this means demand signals independent of price and fundamentals: orthogonal input to existing factors. Datasets span multiple categories, each delivered by API and flat file, with history depth, coverage, and update cadence specified per dataset during evaluation.

Demand, not price

Signals independent of price and fundamentals, orthogonal to existing factors.

Point-in-time

Captured as observed, so signals backtest without look-ahead bias.

Multi-dataset

Multiple categories by API and flat file, coverage and cadence per dataset.

Traffic dataset

FIELD	DESCRIPTION
site	A site associated with one or more subsidiaries. This is the core part of the mapping, connecting between the various sites and the ticker. A site can be a domain, a subdomain or a regional domain.
Country	Code indicating country filter (999 = worldwide).
year-month-day	Field used for data partitioning.
Desktop_calibrated_visits	Number of desktop visits to a domain during the given time period.
Desktop_calibrated_unique_visitors	Number of distinct desktop users visiting the domain within the time period.
Desktop_bounce_rate	Percentage of desktop visits where the user left the site after viewing only one page and without further interaction.
Desktop_average_visit_duration	Average time spent (in milliseconds) per desktop visit on the domain.
Desktop_pages_per_visit	Average number of pages viewed per desktop visit.
Desktop_page_views	Total desktop page loads, counting every page load or reload within a visit; desktop only.
date_added	The date the domain was added to the calibrated universe.

Mapping dataset

FIELD	DESCRIPTION
ticker	The ticker (stock symbol) of the parent company.
exchange	The exchange where the ticker is traded.
parent_site	The primary website associated with a parent company, represented by a ticker.
parent_name	The parent company associated with the ticker.
subsidiary_site	A site associated with one or more subsidiaries. This is the core part of the mapping, connecting between the various sites and the ticker. A site can be a domain, a subdomain or a regional domain.
subsidiary_name	The primary subsidiary that holds the site is selected, with the strongest relationship chosen where multiple subsidiaries are linked to the same site. If none adequately represent the site, an external name is provided.
start_date	The earliest date a subsidiary established a relationship with a ticker, either through its creation or a merger and acquisition (M&A) event.
end_date	The date a subsidiary ended its association with a ticker, whether due to a shutdown, M&A, or privatization. If the connection is still active, the date is 2100-01-01.
site_related_subsidiaries	A comprehensive list of all subsidiaries linked to the site, including their respective start and end dates.
ticker_active	Indicates if a ticker is active today.
site_type	parent / subsidiary / regional.
subsidiary_site_swid	A Similarweb unique identifier of the digital assets correlated with the subsidiary site.
parent_site_swid	A Similarweb unique identifier of the digital assets correlated with the parent site.
yearmonth	Partition.

Glossary

Sharpe Ratio

Risk-adjusted return of the portfolio (without accounting for any risk-free rate), calculated from the daily returns since inception and annualized.

CAGR (Compound Annual Growth Rate)

The geometric annualized rate of return: $(\text{ending value} / \text{starting value})^{(1 / \text{number of years})} - 1$. It reflects the smoothed yearly return an investor would have earned over the full period, from inception to the end date.

Volatility

The annualized standard deviation of the portfolio's daily returns, calculated as the daily standard deviation multiplied by the square root of 252. It measures how much returns fluctuate around their average.

Maximum Drawdown

The largest peak-to-trough decline in the portfolio's cumulative value over the backtest, expressed as a percentage. It captures the worst loss an investor would have sustained from a prior high before recovering.

Beta

The portfolio's sensitivity to the overall market, calculated as the slope of a regression of the portfolio's daily returns against the S&P 500's daily returns from start date to end date. A value near zero indicates performance independent of market direction. A rolling 60-day version is also used within the strategy to hedge out market exposure day by day.

Alpha

The portfolio's return not explained by market movement, calculated as the intercept of the same regression of daily returns against the S&P 500. For a market-neutral book with beta close to zero, alpha accounts for essentially the entire return, confirming that performance comes from stock selection rather than market exposure.

Annual Turnover

The total notional value traded over a year, expressed as a multiple of the book's value. It measures how actively the portfolio trades and directly drives the transaction cost estimate.

Monthly Hit Rate

The proportion of calendar months in which the portfolio produced a positive return. Because the book is market-neutral, each month's return is effectively an excess return over the market, so the hit rate indicates the consistency of the stock-selection edge rather than exposure to a rising market.

LEARN MORE

If you're interested in learning more, contact Scott.

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