# Alpha Performance Verification Services

# Independent Verifier's Performance Examination Report

TWIN Capital Management, Inc. McMurray, Pennsylvania

We have verified whether TWIN Capital Management, Inc. (the "Firm") has, for the periods from January 1, 2018 through December 31, 2023, established policies and procedures for complying with the Global Investment Performance Standards (GIPS®) related to composite and pooled fund maintenance and the calculation, presentation, and distribution of performance that are designed in compliance with the GIPS standards, as well as whether these policies and procedures have been implemented on a firm-wide basis. We have also examined the Firm's TWIN Prime Composite for the periods January 1, 2004 through December 31, 2023.

The Firm's management is responsible for its claim of compliance with the GIPS standards, the design and implementation of its policies and procedures, and for the accompanying TWIN Prime Composite's GIPS composite report. Our responsibilities are to be independent from the Firm and to express an opinion based on our verification and performance examination. We conducted this verification and performance examination in accordance with the required verification and performance examination procedures of the GIPS standards, which includes testing performed on a sample basis. We also conducted such other procedures as we considered necessary in the circumstances.

In our opinion, for the periods from January 1, 2018 through December 31, 2023, the Firm's policies and procedures for complying with the GIPS standards related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been, in all material respects:

- Designed in compliance with the GIPS standards, and
- Implemented on a firm-wide basis.

Also, in our opinion, the Firm has, in all material respects:

- Constructed the TWIN Prime Composite and calculated the TWIN Prime Composite's performance for the periods from January 1, 2004 through December 31, 2023 in compliance with the GIPS standards, and
- Prepared and presented the accompanying TWIN Prime Composite's GIPS composite report for the periods from January 1, 2004 through December 31, 2023 in compliance with the GIPS standards.

A verification covering the periods from April 1, 1990 to December 31, 2017 was performed by another verification firm, whose report expressed an unqualified opinion.

This report does not relate to or provide assurance on any specific performance report of the Firm other than the Firm's accompanying TWIN Prime Composite's GIPS composite report, or on the operating effectiveness of the Firm's controls or policies and procedures for complying with the GIPS standards.

Alpha Performance Verification Services Michael W. Hultzapple, CPA, CFA, CIPM

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December 2, 2024

# TWIN Capital Management Inc. TWIN PRIME Composite (Wrap Fee Prospective Accounts) 1 January 2004 through 31 December 2023

Year	Total	Composite Assets		Performance Results (Percentages)				Wrap
End /Period End	Firm AUM (USD millions)	(USD millions)	Number of Accounts	Composite Gross	Composite Net	Benchmark Return	Composite Dispersion	Accounts as a % of Composite Accounts
2023	784.5	439.2	10	28.01	24.30	26.53	0.30	≤1
2022	793.7	460.9	11	-19.48	-21.91	-19.13	0.21	≤1
2021	1,014.2	618.4	11	28.40	24.68	26.46	0.33	≤1
2020	1,113.3	707.9	14	15.72	12.33	20.96	0.74	≤1
2019	1,197.2	714.8	16	29.74	25.98	31.43	0.33	≤1
2018	1,806.7	942.9	21	-5.68	-8.49	-4.78	0.29	≤1
2017	2,059.9	986.4	17	21.24	17.71	21.69	0.30	N/A
2016	1,568.9	585.1	10	13.36	10.03	12.05	0.30	N/A
2015	1,233.0	373.2	8	3.12	0.08	0.92	0.13	N/A
2014	1,061.1	239.5	8	14.84	11.48	13.24	0.67	N/A
2013	948.0	225.7	7	32.05	28.23	33.11	N/A	N/A
2012	1,063.4	66.5	≤5	16.07	12.68	16.42	N/A	N/A
2011	998.8	50.9	≤5	4.29	1.21	1.50	N/A	N/A
2010	947.6	31.2	≤5	14.81	11.45	16.10	N/A	N/A
2009	706.5	0.5	≤5	28.74	25.00	28.43	N/A	N/A
2008	563.3	6.8	≤5	-34.31	-36.32	-37.60	N/A	N/A
2007	832.3	10.6	≤5	8.69	5.49	5.77	N/A	N/A
2006	641.2	11.7	≤5	21.39	17.86	15.46	N/A	N/A
2005	483.0	24.7	≤5	7.35	4.19	6.27	N/A	N/A
2004	319.0	22.3	≤5	16.60	13.19	11.41	N/A	N/A

Annualized Performance Results (Percentages)

	1-year	3-year	5-year	10-year	Since Inception
Composite Gross	28.01	9.79	14.72	11.80	10.83
Composite Net	24.30	10.55	7.52	9.09	7.58
Benchmark	26.53	8.97	15.52	11.80	9.78

Past performance is not indicative of future results. Investments are not guaranteed and may decline in value.

N/A.: Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire year.

# TWIN CAPITAL MANAGEMENT INC. TWIN PRIME COMPOSITE (WRAP FEE PROSPECTIVE ACCOUNTS) PAGE 2 OF 3

## **Compliance Statement**

TWIN Capital Management Inc. ("TWIN") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. TWIN has been independently verified for the periods April 1, 1990 through December 31, 2023. The verification report is available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The TWIN Prime Composite has been examined for the periods January 1, 2004 through December 31, 2023. The verification and performance examination reports are available upon request.

#### **GIPS** trademark

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

# **Definition of the Firm**

TWIN is a registered investment adviser, which started business in April 1990. TWIN provides investment management services to institutional and individual investors, offering a variety of growth-oriented investment services by investing primarily in domestic equity securities that it believes will provide attractive returns over the long term. TWIN's start of business, April 1990, coincides with the effective date of firm compliance with the GIPS® standards.

### **Investment Strategy**

TWIN manages the TWIN Prime Portfolio using the TWIN EQUITY Model ("the Equity Model"), a multi-factor valuation model that combines elements of relative value, expected growth, and earnings quality. The output of the Equity Model is an expected residual return, or alpha, for each stock. The Prime Portfolio focuses on the highest alpha candidates from among the large-cap and mid-cap US equity segments, while relaxing the sector and individual stock constraints present in TWIN's enhanced index strategies. Although alpha is the primary driver of the selection process, dynamic size allocation also plays a part. The primary objective is to outperform, on a total return basis net of fees, the Russell 1000 Index. The Composite's creation and inception date was January 1, 2004.

#### **Benchmark**

The benchmark for TWIN Prime is the Russell 1000.

Benchmarks should be used for purposes of comparison only, and the comparison should not be understood to mean that there will necessarily be a correlation between TWIN's returns and the benchmark's returns. Furthermore, the volatility of the benchmark may be materially different from TWIN's actual portfolio.

#### Fees

Gross performance figures are presented gross of management fees, custodial fees, and withholding taxes (if applicable), but net of all direct trading expenses. Net of fee performance returns are calculated by deducting a model fee of 3.0%, which represents the highest applicable annual wrap fee in effect for the respective time period, applied monthly.

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#### Fees, continued

The wrap fee is an all-inclusive or bundled fee based on a percentage of assets under management and may include investment management services, brokerage commissions, portfolio monitoring, consulting services, and custodial services. Wrap fee schedules are provided by independent wrap sponsors and are available upon request from the respective wrap sponsor.

#### Calculation Information

Composite performance figures include all discretionary accounts managed within the defined investment style during the periods presented. All performance figures have been computed on a total return basis and reflect the reinvestment of all income. Valuations and returns are computed and stated in U.S. dollars. Composite dispersion represents the standard deviation of gross returns (with equal weighting of portfolios) of accounts that have been managed within the investment strategy for the entire year. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

#### Minimum Account Size

The current separate account minimum is \$2 million. The current wrap fee account minimum is \$100,000.

#### **Ex-Post Standard Deviation**

<u>Year</u>	Composite 3-Yr St Dev (%)	Benchmark 3-Yr St Dev (%)
2011	18.17	19.22
2012	15.06	15.62
2013	12.08	12.43
2014	9.13	9.25
2015	10.35	10.63
2016	10.75	10.84
2017	10.13	10.11
2018	11.21	11.11
2019	11.96	12.05
2020	18.99	19.10
2021	17.65	17.71
2022	21.00	21.33
2023	16.87	17.42

Ex-post standard deviation is calculated using gross returns.

### Complete List of Composites Available

A complete listing and description of all composites is available upon request to TWIN. Please contact Sam Gerber (Phone: (724) 942-2000 / E-mail: <a href="mailto:SamG@twincapital.com">SamG@twincapital.com</a> / Address: 3244 Washington Rd. Ste. 202, McMurray, PA 15317)

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS; INVESTMENTS ARE NOT GUARANTEED AND MAY DECLINE IN VALUE.