

The background of the slide is a dark blue gradient with a faint, semi-transparent financial candlestick chart overlaid. The chart shows price movements over time with various technical indicators like moving averages and trend lines.

Abel Noser Solutions

San Jose Police and Fire Retirement Plan

Investment Committee Presentation

Fiscal Year 7/1/2023 – 6/30/2024

January 2025

Vinod Pakianathan, Abel Noser Solutions

Presentation Overview



About Us

Introduction to Abel Noser Solutions
Abel Noser Measures Trading for over 300 Asset
Owners and Managers
Our Global Universe comprises over 20 Trillion in
Principal across Asset Classes

US Equity Trading Review

Artisan Global Value

Cove Street SCV

International Equity

Trading overview

Artisan Global Value

Morgan Stanley

International Small Cap Trading Review

Oberweis

Glossary of Terms



Our Team

Dedicated, Thorough, Experienced

Our unparalleled team will work as an extension of your staff. Along with market leading product solutions, Zeno AN Solutions continues to be the ultimate client advocate, leveraging our expertise and custom services to help you achieve measurably superior executions, compliance peace-of-mind, and game-changing analytics data. We also offer bespoke data and reporting solutions that can be tailored to your specific set-up, fiduciary make-up or business model.

Zeno AN Solutions

Over 30 Years of Industry Leading Analytics

Zeno AN Solutions offers the industry's most comprehensive TCA analytics and monitoring solutions for all asset owners including pension funds, mutual funds, insurance companies and endowments.

Our leading TCA and compliance analytics can provide you with the critical transparency, substantive due diligence, and insight into how your managers are handling fund assets. Not only do we provide you with customized metrics so you can control excessive trade costs, we give you the reporting and archiving necessary to mitigate investment and fiduciary risk.



San Jose Police and Fire Retirement Plan Fiscal Year US Equity Transaction Cost Analysis Summary Covering the Third Quarter 2023 through the Second Quarter 2024

Artisan Global Value and Morgan Stanley International

All Manager Summary by Buys / Sells																		
Total - Current Period		Commission Cost				Execution Cost / Gain								Total Cost / Gain				
Shares	Principal					oOpnStrike Cost / Gain				oVWAP Cost / Gain				oVWAP + Commission				
	(000)	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	
Total	724,923	\$52,666	-\$11	-2.1	-1.56	47%	-\$681	-129.3	-93.97	95%	-\$11	-2.1	-1.51	43%	-\$22	-4.2	-3.07	41%
Buy	340,680	\$23,286	-\$6	-2.5	-1.69	49%	-\$183	-78.8	-53.83	82%	-\$5	-2.1	-1.45	50%	-\$11	-4.6	-3.14	57%
Sell	384,243	\$29,380	-\$6	-1.9	-1.45	44%	-\$498	-169.4	-129.56	95%	-\$6	-2.1	-1.57	37%	-\$12	-3.9	-3.02	37%
Manager 1: Artisan Global Value																		
		Commission Cost				Execution Cost / Gain								Total Cost / Gain				
	(000)	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	
Total	411,569	\$36,541	-\$6	-1.7	-1.54	47%	-\$528	-144.6	-128.39	95%	\$27	7.5	6.68	5%	\$21	5.8	5.14	5%
Buy	152,379	\$15,189	-\$3	-1.8	-1.82	59%	-\$53	-34.7	-34.59	70%	\$10	6.4	6.37	15%	\$7	4.6	4.55	13%
Sell	259,190	\$21,353	-\$4	-1.7	-1.37	42%	-\$476	-222.8	-183.54	95%	\$18	8.3	6.86	5%	\$14	6.7	5.49	5%
Manager 2: Morgan Stanley																		
		Commission Cost				Execution Cost / Gain								Total Cost / Gain				
	(000)	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	
Total	313,354	\$16,124	-\$5	-3.1	-1.59	48%	-\$153	-94.8	-48.77	83%	-\$38	-23.8	-12.27	95%	-\$43	-26.9	-13.86	95%
Buy	188,301	\$8,097	-\$3	-3.7	-1.58	46%	-\$131	-161.4	-69.41	89%	-\$15	-18.1	-7.77	88%	-\$18	-21.8	-9.35	87%
Sell	125,053	\$8,027	-\$2	-2.5	-1.60	55%	-\$22	-27.6	-17.69	62%	-\$24	-29.7	-19.03	95%	-\$26	-32.1	-20.64	95%

US Results for Artisan and Morgan Stanley for Fiscal Year 2024:

- Total Costs were similar, to 2023 and in the second quartile of universe averages.
- Commissions ranked slightly better than the peer median in Cents Per Share terms.
- Trading was also measured against the Volume Weighted Average Price. US trading performs well against the universe, particularly for Artisan who trades a larger fraction of volume. Despite, higher volatility in 2024, costs to sell securities in US markets was well handled.
- Results were consistent with annual results for the past five years both in absolute terms and against peer universes.

San Jose Police and Fire Retirement Plan Fiscal Year International Equity Transaction Cost Analysis Summary Covering the Third Quarter 2023 through the Second Quarter 2024

Artisan Global Value and Morgan Stanley International

Total - Current Period		Commission Cost			Execution Cost / Gain						Total Cost / Gain			
Shares	Principal				oOpnStrike Cost / Gain			oVWAP Cost / Gain			oVWAP + Commission			
	(000)	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	
Total	2,823,294	\$128,923	-\$50	-3.9	48%	-\$1,458	-113.1	86%	-\$100	-7.7	65%	-\$150	-11.6	62%
Buy	1,245,786	\$65,423	-\$28	-4.3	50%	-\$394	-60.2	70%	-\$59	-9.1	69%	-\$87	-13.4	65%
Sell	1,577,508	\$63,501	-\$22	-3.5	46%	-\$1,064	-167.6	95%	-\$40	-6.3	58%	-\$62	-9.8	56%
Manager 1: Artisan Global Value		Commission Cost			Execution Cost / Gain						Total Cost / Gain			
	(000)	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	
Total	1,623,588	\$74,489	-\$31	-4.1	57%	-\$985	-132.2	91%	-\$27	-3.6	46%	-\$58	-7.8	47%
Buy	789,844	\$36,838	-\$19	-5.0	61%	-\$195	-53.1	66%	-\$29	-8.0	68%	-\$48	-13.0	66%
Sell	833,744	\$37,652	-\$12	-3.3	45%	-\$789	-209.6	95%	\$2	0.7	25%	-\$10	-2.6	25%
Manager 2: Morgan Stanley		Commission Cost			Execution Cost / Gain						Total Cost / Gain			
	(000)	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	
Total	1,199,706	\$54,434	-\$19	-3.5	44%	-\$473	-86.9	80%	-\$73	-13.4	77%	-\$92	-16.9	72%
Buy	455,942	\$28,585	-\$10	-3.3	40%	-\$198	-69.3	74%	-\$30	-10.5	70%	-\$40	-13.8	64%
Sell	743,764	\$25,849	-\$10	-3.8	46%	-\$275	-106.4	84%	-\$43	-16.5	78%	-\$52	-20.3	76%

International Results for Artisan and Morgan Stanley for Fiscal Year 2024:

- Total Costs were similar, to 2023 and in the third quartile of universe averages.
- Commissions ranked slightly better than the peer median in Basis Points terms. Artisan's commissions appeared slightly higher than Morgan Stanley's rates, but commission results for both are still in-line with expectations.
- Trading was also measured against the Volume Weighted Average Price. International trading lags the peer median slightly, but this is expected in an uncertain and volatile environment over the last four quarters. Results for Artisan who trades a larger fraction of volume appeared better than those for Morgan Stanley.
- Results were consistent with annual results for the past five years both in absolute terms and against peer universes.

San Jose Police and Fire Retirement Plan

Fiscal Year Small Cap International Transaction Cost Analysis Summary

Covering the Third Quarter 2023 through the Second Quarter 2024

OBERWEIS

Benchmark International Small Cap Growth Universe

US Summary

	Shares	Principal (000)	Commission Cost			Execution Cost / Gain						Total Cost / Gain		
			Dollars (000)	CPS	Rank	dOpnStrike Cost / Gain			dVWAP Cost / Gain			dVWAP + Commission		
			Dollars (000)	CPS	Rank	Dollars (000)	CPS	Rank	Dollars (000)	CPS	Rank	Dollars (000)	CPS	Rank
Total	58,000	\$976	-\$1	-1.6	42%	-\$5	-8.0	48%	-\$2	-3.4	67%	-\$3	-5.0	64%
Buy	18,100	\$357	\$0	-1.9	46%	-\$1	-3.8	41%	\$0	-0.6	37%	\$0	-2.4	36%
Sell	39,900	\$619	-\$1	-1.4	37%	-\$4	-9.9	57%	-\$2	-4.7	69%	-\$2	-6.2	65%

Global Summary

	Shares	Principal (000)	Commission Cost			Execution Cost / Gain						Total Cost / Gain		
			Dollars (000)	BP	Rank	dOpnStrike Cost / Gain			dVWAP Cost / Gain			dVWAP + Commission		
			Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank
Total	6,994,770	\$109,423	-\$114	-10.4	43%	-\$1,196	-109.3	72%	-\$144	-13.2	50%	-\$259	-23.6	49%
Buy	3,740,110	\$55,659	-\$61	-11.0	41%	-\$807	-144.9	68%	-\$93	-16.7	50%	-\$154	-27.7	45%
Sell	3,254,660	\$53,764	-\$53	-9.8	41%	-\$389	-72.4	60%	-\$51	-9.6	45%	-\$104	-19.4	42%

Results for Oberweis for Fiscal Year 2024:

- Total Costs were similar, to 2023 and in-line with universe averages.
- Commissions ranked better than the median of the Abel Noser Solutions peer universe which comprises seventeen trillion dollars worth of trading activity. Commissions for US trading ranked slightly better than the peer median in Cents Per Share terms. Commissions for Global trading also ranked better than the median in Basis Points.
- Trading was also measured against the daily Volume Weighted Average Price. US trading lags the universe slightly while Global trading ranked at the median, this was the result of higher volatility in 2024 particularly for the sells in US Markets.
- Results were slightly elevated as compared with annual results for the past five years both in absolute terms and against peer universes, owing to the higher recent volatility in markets stemming from increased geopolitical tensions and systemic economic issues.

San Jose Police and Fire Retirement Plan

Fiscal Year Equity Transaction Cost Analysis Summary Artisan Global And Morgan Stanley Covering the Third Quarter 2023 through the Second Quarter 2024

US Summary

Historical Summary

	Shares	Principal (000)	Commission Cost				Execution Cost / Gain								Total Cost / Gain			
			Dollars (000)	BP	¢/Share	Rank	oOpnStrike Cost / Gain				oVWAP Cost / Gain				oVWAP + Commission			
							Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank	Dollars (000)	BP	¢/Share	Rank
2024 Q2	78,774	\$10,195	-\$1	-1.4	-1.80	59%	-\$60	-59.2	-76.60	95%	\$3	2.6	3.33	5%	\$1	1.2	1.53	6%
2024 Q1	383,966	\$22,502	-\$7	-3.2	-1.89	62%	-\$396	-176.1	-103.18	95%	-\$12	-5.1	-3.01	63%	-\$19	-8.4	-4.91	64%
2023	1,540,216	\$87,140	-\$26	-3.0	-1.67	56%	-\$766	-87.9	-49.70	84%	-\$187	-21.5	-12.15	95%	-\$213	-24.4	-13.82	95%
2022	945,471	\$69,160	-\$18	-2.5	-1.86	61%	-\$497	-71.9	-52.58	85%	\$139	20.1	14.71	5%	\$121	17.6	12.85	5%
2021	966,994	\$135,876	-\$20	-1.5	-2.06	66%	-\$822	-60.5	-84.97	95%	-\$556	-40.9	-57.45	95%	-\$575	-42.3	-59.51	95%
2020	2,124,432	\$139,383	-\$35	-2.5	-1.63	50%	-\$991	-71.1	-46.63	82%	-\$231	-16.5	-10.86	95%	-\$265	-19.0	-12.49	95%
2019	975,129	\$77,457	-\$18	-2.4	-1.88	62%	-\$519	-67.0	-53.23	85%	\$8	1.0	0.81	18%	-\$10	-1.4	-1.07	20%
2018	1,102,369	\$72,243	-\$22	-3.0	-1.97	64%	\$119	16.4	10.75	5%	\$219	30.4	19.91	5%	\$198	27.4	17.93	5%
2017	18,342	\$691	-\$1	-11.5	-4.35	95%	-\$4	-61.7	-23.26	66%	\$1	14.1	5.30	5%	\$0	2.5	0.96	9%

Global Summary

Historical Summary

	Shares	Principal (000)	Commission Cost			Execution Cost / Gain						Total Cost / Gain		
			Dollars (000)	BP	Rank	oOpnStrike Cost / Gain			oVWAP Cost / Gain			oVWAP + Commission		
						Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank
2024 Q2	463,099	\$13,687	-\$9	-6.4	62%	-\$25	-17.9	38%	\$0	0.2	16%	-\$9	-6.2	20%
2024 Q1	498,326	\$23,554	-\$14	-6.1	83%	-\$192	-81.5	93%	-\$20	-8.4	71%	-\$34	-14.5	78%
2023	7,182,824	\$120,369	-\$60	-5.0	21%	-\$78	-6.5	21%	\$98	8.2	7%	\$38	3.1	5%
2022	3,953,240	\$62,271	-\$31	-5.0	20%	\$507	81.3	5%	\$279	44.7	5%	\$248	39.8	5%
2021	5,237,994	\$98,018	-\$59	-6.0	33%	\$74	7.6	17%	\$60	6.1	8%	\$1	0.1	7%
2020	11,513,305	\$85,806	-\$50	-5.8	13%	\$6	0.7	19%	-\$225	-26.2	42%	-\$275	-32.0	24%
2019	1,799,702	\$15,986	-\$13	-8.4	19%	-\$19	-11.8	21%	-\$13	-8.3	22%	-\$27	-16.7	18%
2018	7,004,479	\$57,431	-\$33	-5.8	14%	\$168	29.3	15%	\$58	10.1	11%	\$25	4.3	5%
2017	126,178	\$1,324	-\$1	-10.6	32%	\$3	25.7	15%	\$2	18.8	5%	\$1	8.2	5%

San Jose Police and Fire Retirement Plan

Fiscal Year Equity Transaction Cost Analysis Summary Oberweis

Covering the Third Quarter 2023 through the Second Quarter 2024

US Summary

Historical Summary

	Shares	Principal (000)	Commission Cost			Execution Cost / Gain						Total Cost / Gain		
			Dollars (000)	BP	Rank	dOpnStrike Cost / Gain			dVWAP Cost / Gain			dVWAP + Commission		
						Dollars (000)	BP	Rank	Dollars (000)	CPS	Rank	Dollars (000)	CPS	Rank
2024 Q2	1,200	\$26	\$0	-2.0	57%	\$0	-29.9	83%	\$0	4.8	19%	\$0	2.8	19%
2024 Q1	8,300	\$165	\$0	-2.0	57%	\$0	-1.1	38%	\$0	-4.2	74%	-\$1	-6.2	74%
2023	93,500	\$1,436	-\$1	-1.5	40%	-\$5	-5.4	44%	-\$2	-2.0	49%	-\$3	-3.5	47%
2022	27,700	\$1,894	\$0	-1.2	32%	-\$4	-13.4	64%	\$0	1.2	24%	\$0	0.0	23%
2021	70,100	\$6,567	-\$1	-1.3	35%	-\$102	-145.9	95%	\$2	2.8	22%	\$1	1.5	21%
2020	45,000	\$1,551	-\$1	-1.7	44%	\$2	4.8	25%	-\$5	-11.6	95%	-\$6	-13.3	94%

Global Summary

Historical Summary

	Shares	Principal (000)	Commission Cost			Execution Cost / Gain						Total Cost / Gain		
			Dollars (000)	BP	Rank	dOpnStrike Cost / Gain			dVWAP Cost / Gain			dVWAP + Commission		
						Dollars (000)	BP	Rank	Dollars (000)	BP	Rank	Dollars (000)	BP	Rank
2024 Q2	1,835,400	\$22,114	-\$22	-10.1	33%	-\$221	-99.8	61%	-\$55	-24.7	63%	-\$77	-34.7	58%
2024 Q1	2,421,510	\$37,745	-\$40	-10.6	43%	-\$486	-128.9	76%	-\$54	-14.2	56%	-\$93	-24.8	50%
2023	8,435,573	\$122,441	-\$124	-10.1	39%	-\$1,310	-107.0	69%	-\$156	-12.7	48%	-\$279	-22.8	46%
2022	5,802,621	\$77,601	-\$80	-10.3	37%	-\$1,138	-146.7	76%	-\$139	-18.0	58%	-\$220	-28.3	49%
2021	7,963,346	\$127,361	-\$129	-10.2	43%	-\$2,032	-159.6	80%	-\$182	-14.3	57%	-\$312	-24.5	55%
2020	2,545,193	\$30,506	-\$39	-12.8	40%	-\$734	-240.5	83%	-\$126	-41.2	77%	-\$165	-54.0	75%

Glossary of Metrics

d: Trade day measure

o: Order length measure

/K: U.S. dollars in thousands

/BP: Basis Points

/CPS: Cents per Share

OpenStrike: This measure compares your execution price to the price at market open on the trade date (d) or the first day of the order (o)

VWAP: Volume Weighted Average Price: Total Principal traded divided by the number of shares for a specific period – Trade Day (d) or Order Length (o).

Total Cost: Commission plus execution gain/loss to the VWAP.