Investment Fund 71 (US Equities) 5 Year Review - Jan 2018 to Dec 2022

Just Analytics Spend Wisely www.justanalytics.ca

Principles of Investment Management

- 1. Active Managers get higher fees than a 'pure' track the Index ETF because they are supposed to provide higher <u>net</u> returns.
- 2. These higher returns should <u>not</u> be purely a result of your Investment Fund (IF) taking on more risk.
- 3. These higher returns should <u>not</u> be purely a result of 'luck' (random) as this is not sustainable for your Investment Fund.

Our Approach

- 1. We utilize the science of Analytics.
- 2. This will tell you if it is 'just luck' or 'skill' (i.e., a better methodology) when your Investment Fund (IF) outperforms the market.
- 3. I want your Investment Funds to out perform the market!
- 4. Hire Investment Funds that are most likely to outperform the market & have reasonable fees Spend Wisely!
- 5. Custom design a portfolio with Tier 1 Investment Funds, and a low risk, low cost Bond ETF, to achieve a portfolio with less risk and higher rate of return / greater investment growth.



The Index

- 1. The first step in the Analytics is to determine the appropriate Index against which to compare your Investment Fund (IF).
- 2. The Russell 3000 is an excellent broad base index for U.S. Equities - it includes 98% of the total market cap; it had a annual return of -19.21% for 2022.
- 3. We can compare to any Index that you prefer; we have included the Russell 1000 in this review as well. It had an annual return of -19.13% for 2022.
- 4. The S&P 500 had an annual return of 18.11% for 2022.



Which Analytics?

Excess Return

Are you receiving enough return for the level of risk in the portfolio?

Downside Risk

How is your Investment Fund performing when the Index is struggling?

Outperformance Ratio

How often does your Fund outperform the Index in a 5 year period?

Likelihood to Outperform - the most critical in my opinion

- Is it random (50% ish) or 'almost science' (85% over 3 years)?
- ▶ Is it sustainable at the 85% level over 5 years?

Growth of \$100 (net of fees)

Is your Investment Fund at least 10% ahead of the Index(es) after 5 years?

Excess Return -Russell 3000

This Investment Fund has generated an average excess return (risk adjusted) of 300+ basis points per annum over the past 5 years as of 31 Dec 2022.

	IF 71	Russell 3000	T.E. Data
Avg. Monthly Returns	1.26	0.87	
Avg. Monthly Std. Dev'n.	7.04	5.53	
Avg. Annual Return	15.08	10.43	
Avg. Annual Std. Devn.	24.40	19.15	
Intercept	0.25		
Slope (Beta)	1.16		
Expected Return	11.59		
Excess Return (Alpha)	3.49		
Tracking Error	9.76		2.82
Information Ratio	0.36		

Excess Return -Russell 1000

This Investment Fund has generated an average excess return (risk adjusted) of 300+ basis points per annum over the past 5 years as of 31 Dec 2022.

	IF 71	Russell 1000	T.E. Data
Avg. Monthly Returns	1.26	0.88	
Avg. Monthly Std. Dev/n.	7.04	5.50	
Avg. Annual Return	15.08	10.58	
Avg. Annual Std. Dev/n.	24.40	19.04	
Intercept	0.24		
Slope (Beta)	1.16		
Expected Return	11.78		
Excess Return (Alpha)	3.30		
Tracking Error	9.88		2.85
Information Ratio	0.33		

	IF 71	Russell 1000G	T.E. Data
Avg. Monthly Returns	1.26	0.90	
Avg. Monthly Std. Dev/n.	7.04	5.39	
Avg. Annual Return	15.08	10.77	
Avg. Annual Std. Dev/n.	24.40	18.69	
Intercept	0.21		
Slope (Beta)	1.16		
Expected Return	12.04		
Excess Return (Alpha)	3.04		
Tracking Error	10.54		3.04
Information Ratio	0.29		

Excess Return - S&P 500

This Investment Fund has generated an average excess return (risk adjusted) of 300+ basis points per annum over the past 5 years as of 31 Dec 2022.

Downside Risk (Russell 1000)

- Stress test how did the Investment Fund perform when the Index (Russell 1000) had its worst months (i.e., the Index lost at least 2%).
- The Fund out performed the Russell 1000 Index by 1700+ basis points during the worst (17) months.

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Date	IF 71	R 1000	Difference
	-12.64	-13.21	0.57
	-7.87	-9.25	1.38
	-3.96	-9.11	5.15
	-8.98	-8.91	-0.07
	-4.80	-8.38	3.58
	-4.94	-8.17	3.23
	-9.98	-7.08	-2.90
	-7.03	-6.37	-0.66
	-1.13	-5.81	4.68
	-3.08	-5.64	2.56
	-5.14	-4.59	-0.55
	-3.85	-3.84	-0.01
	-1.67	-3.67	2.00
	-3.56	-3.65	0.09
	-3.94	-2.74	-1.20
	-2.28	-2.41	0.13
	-2.60	-2.27	-0.33
Sum	-87.44	-105.10	17.66

Downside Risk (Russell 3000)

Date	IF 71	R3000	Difference
	-12.64	-13.75	1.11
	-7.87	-9.27	1.40
	-3.96	-9.11	5.15
	-8.98	-8.97	-0.01
	-4.80	-8.37	3.57
	-4.94	-8.19	3.25
	-9.98	-7.08	-2.90
	-7.03	-6.37	-0.66
	-3.08	-5.88	2.80
	-1.13	-5.86	4.73
	-5.14	-4.49	-0.65
	-3.85	-3.73	-0.12
	-1.67	-3.67	2.00
	-3.56	-3.64	0.08
	-3.94	-2.52	-1.42
	-2.60	-2.27	-0.33
	-2.28	-2.16	-0.12
Sum	-87.44	-105.33	17.89

- Stress test how did the Investment Fund perform when the Index (Russell 3000) had its worst months (i.e., the Index lost at least 2%).
- The Fund out performed the Russell 3000 by 1700+ basis points during the worst (17) months.

Date	IF 71	S&P 500	Difference
	-12.64	-12.35	-0.29
	-7.87	-9.21	1.34
	-3.96	-9.03	5.07
	-8.98	-8.72	-0.26
	-4.80	-8.25	3.45
	-4.94	-8.23	3.30
	-9.98	-6.84	-3.14
	-7.03	-6.35	-0.68
	-1.13	-5.76	4.63
	-3.08	-5.17	2.10
	-5.14	-4.65	-0.48
	-3.85	-4.08	0.23
	-3.56	-3.80	0.24
	-1.67	-3.69	2.02
	-3.94	-2.99	-0.94
	-2.28	-2.66	0.38
	-2.60	-2.54	-0.06
Sum	-87.44	-104.33	16.89

Downside Risk (S&P 500)

- Stress test how did the Investment Fund perform when the Index (S&P 500) had its worst months (i.e., the Index lost at least 2%).
- The Fund out performed the S&P 500 by 1600+ basis points during the worst 17 months.

Outperformance Ratio (5 years)

Even the best performing funds will regularly under perform the Index; a Quartile 1 fund will typically underperform the Index in 2 of 5 years (Mercer).

Annual Return	IF 71	SP 500	R 3000	R 1000
2018	12+	-4.38	-5.24	-4.78
2019	39+	31.49	31.02	31.43
2020	65+	18.40	20.89	20.96
2021	10+	28.71	25.66	26.45
2022	-39.00	-18.11	-19.21	-19.13

IF 71 has outperformed all three Indexes 3 out of 5 years - a very good result.

Performance - is it 'Random' or 'Skill'?

- 1. If your Fund out performs the market, they will tell you it is 'skill'.
- 2. If your Fund under performs the market, they will tell you it is 'bad luck'.
- 3. Actually, they will lie and tell you they beat their (manipulated) benchmark.
- 4. The reality is that either statement could be true or false.
- 5. How do you know?
- 6. The 'Science of Analytics' can determine if out performance (or under performance) is random (luck) or skill (better process / meaningful).
- 7. The analytics looks at the returns, the various risk profiles, the correlation, and then runs a regression analysis to determine the probability of the results being more than just luck.

'Random' or 'Skill' - What is the Threshold?



SCIENTISTS EXPECT A 95% CONFIDENCE LEVEL, IT IS A VERY RIGOROUS STANDARD. I LOOK FOR AN 85% CONFIDENCE LEVEL OVER BOTH 3 AND 5 YEARS, AND 80% OVER 10 YEARS.



LEVEL OVER 10

YEARS).

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WE KNOW THAT INVESTMENT FUND 71 OUTPERFORMED THE MARKET OVER THE PAST 5 YEARS BASED ON HAVING GENERATED EXCESS RETURN. WAS IT LUCK OR SKILL? THAT IS THE CRITICAL QUESTION...

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Repeatability - 5 years



We are very confident (at least 93%) that Fund 71 results are statistically significant likelihood to outperform.

Growth of \$100m (net of fees) - 5 years



- The Russell 3000 grew to \$152m, the Russell 1000 grew to \$154.4m, the S&P 500 grew to \$156.6m, and the IF 71 grew to \$172.9m.
- IF 71 generated at least 15% more return, net of fees, over the best performing Index.
- What was my Compound Annual Growth rate? (next slide...)



Growth of \$100 (net of fees) - 5 years

The CAGR of the Tier 1 Investment Fund was at least 2% per annum better than the best of the 3 Indexes.

We can make you more money with less risk! Consistently!

Exec Summary

Investment Fund 71 outperformed the market (risk adjusted) over the 5 year period as it generated positive Alpha of 300+ basis points per annum.

The Downside Risk results were positive - at least 1600 basis points better.

IF 71 outperformed all the Indexes (R 3000, R1000, S&P 500) in 3 out of 5 years.

There is a 93% likelihood that the outperformance is not random (i.e., a better methodology).

Growth of \$100 - IF 71 outperformed the best performing Index (S&P 500) by 15% over the 5 years.

How? - a CAGR that was at least 2% higher.



Review Meeting

- Please call me at 403 818 0671 or email me at greg@justanalytics.ca to book our review meeting.
- Please let me know if you have any questions.
- Thank you for choosing Just Analytics.ca!



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