



GGOAX

Very Unattractive Rating

Goldman Sachs Trust: Goldman Sachs Growth Opportunities Fund

- [Predictive Ratings](#) are based on the aggregation of our models for the fund's holdings, all of the fund's expenses, & the fund's overall rank.
- Stock-picking ([Portfolio Management](#)) and fund expenses ([Total Annual Costs](#)) drive fund performance.
- Get the [HBS & MIT Sloan paper](#) that shows our research measures and predicts earnings more accurately.

Investment Recommendation

- We strongly recommend investors avoid GGOAX.
- Despite strong past performance, we expect the fund to significantly underperform the market on a total return basis.
- GGOAX's Portfolio Management rating does not justify its high Total Annual Costs.

Fund Rankings

- 4th percentile of the 7000+ equity funds we cover.
- 549 out of 566 All Cap Growth funds.
- All 23 ETFs in the same category rank better.
- See rankings for all US equity funds on our [fund screener](#).

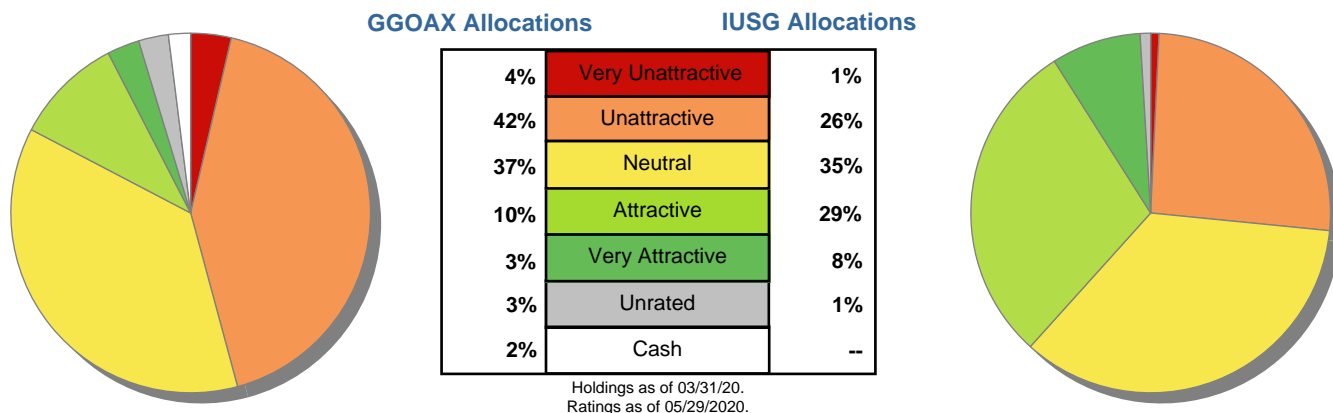
Portfolio Management Rating Details

- GGOAX receives our Unattractive Portfolio Management rating because its aggregate holdings are expected to underperform the aggregate holdings of IUSG.
- IUSG, GGOAX's benchmark, receives our Neutral rating.
- Our fund analytics are based on aggregating our models and ratings for each fund's holdings.
- Our [top-ranked](#) stock ratings leverage key data from the financial footnotes for unrivaled research quality.

Portfolio Management Rating Breakdown

Quality of Earnings Components: Ratings & Values		
Attractive	Economic vs Reported EPS	Positive EE
Neutral	Return on Invested Capital (ROIC)	9%
Valuation Components: Ratings & Values		
Unattractive	Free Cash Flow Yield	-3%
Very Unattractive	Price to Economic Book Value Ratio	4.6
Very Unattractive	Growth Appreciation Period	55 year(s)
Fund Asset Allocation: Rating & Value		
Attractive	Cash Allocation	2% cash

Stock and Cash Rating Allocations vs Benchmark - iShares Trust: iShares Core S&P US Growth ETF (IUSG)



Active Management Commentary

- GGOAX allocates 46% of its value to Unattractive-or-worse-rated stocks while IUSG allocates 27%.
- GGOAX allocates 13% of its value to Attractive-or-better-rated stocks while IUSG allocates 37%.
- Investors should expect funds with higher Total Annual Costs to allocate more value to Attractive and Very Attractive Stocks and less to Unattractive and Very Unattractive stocks than alternative funds with lower costs.
- Active portfolio management of GGOAX does not add value versus its ETF benchmark IUSG.

Return - Annual | Top 5 Holdings | Key Mutual Fund Statistics

Year to Date	4.7%	Fiserv Inc	FISV	Net Assets(mm)	\$1,030.30	Category	All Cap Growth
1 Year	19.0%	Dollar General Corp	DG	NAV	\$14.76	Mgmt Co	Goldman Sachs & Co/GSAM
3 Year	13.8%	SBA Communications Corp	SBAC	Benchmark	IUSG	Manager	Barry/Chang
5 Year	9.4%	Ball Corp	BLL	# of Holdings	89	Tenure	1999
Inception	11.1%	Goldman Sachs FS Government Fund	-	Initial Min	\$1,000	Inception	05/24/1999

Data from Lipper, a Thomson Reuters Company, and New Constructs, LLC.

Details on Total Annual Costs Rating are on page 2.



Total Annual Costs Rating and Ranking

Rating	Total Annual Costs	Fund Universe % Rank	Category Rank
Unattractive	3.66%	6%	536 of 566

This rating reflects all expenses, loads, fees, and transaction costs in a single value that is comparable across all funds.

Total Annual Costs Breakdown

All Cost Types	Annualized Values	
	GGOAX	Benchmark: IUSG
Front-End Load	2.09%	--
Expense Ratio	1.42%	0.04%
Back-End Load	0.00%	--
Redemption Fee	0.00%	--
Transaction Costs	0.15%	--
Total Annual Costs	3.66%	0.04%

- To justify its higher Total Annual Costs, GGOAX must outperform its ETF benchmark before all costs by 3.62% annually over 3 years or 2.13% annually over 10 years.
- This analysis assumes a 3-year holding period, the average for all funds.
- Transaction costs are estimated using the fund's annual portfolio turnover ratio of 69%.

Data from Lipper, a Thomson Reuters Company, and New Constructs, LLC.

Overview of Our Predictive Mutual Fund Rating System

New Constructs' [Predictive Fund Ratings](#) enable smarter investing by assessing the key drivers of future fund performance. We start by analyzing every fund holding based on New Constructs' stock ratings, which are regularly featured as among the [best by Barron's](#). Next, we measure and rank the all-in costs of investing in a fund. Finally, we rank the fund compared to all other funds to identify the best and worst funds in the market.

- Intuitively, there are two drivers of future fund performance.
- 1) New stock-picking ([Portfolio Management Rating](#)) and
 - 2) Fund expenses ([Total Annual Costs Rating](#)) drive investment performance

The figure below details the criteria that drive our Predictive Rating system for funds. The drivers of our predictive rating system are Portfolio Management and Total Annual Costs. The [Portfolio Management Rating](#) is the same as our [Stock Rating](#) except that we incorporate [Asset Allocation](#) in the Portfolio Management Rating. The [Total Annual Costs Rating](#) captures the all-in cost of being in a fund over a 3-year holding period, the average period for all mutual fund investors.

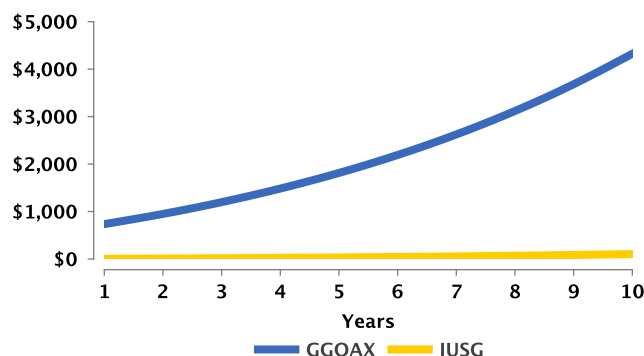
Predictive Rating	Portfolio Management Rating						Total Annual Costs Rating
	Quality of Earnings		Valuation			Asset Allocation	
	Economic vs Reported EPS	Return on Invested Capital (ROIC)	FCF Yield	Price-to-EBV Ratio	Growth Appreciation Period (yrs)	Cash %	
Very Unattractive	Misleading Trend	Bottom Quintile	< -5%	> 3.5 or -1 < 0	> 50	> 20%	> 4%
Unattractive	False Positive	4th Quintile	-5% < -1%	2.4 < 3.5 or < -1	20 < 50	8% < 20%	2% < 4%
Neutral	Neutral EE	3rd Quintile	-1% < 3%	1.6 < 2.4	10 < 20	2.5% < 8%	1% < 2%
Attractive	Positive EE	2nd Quintile	3% < 10%	1.1 < 1.6	3 < 10	1% < 2.5%	0.5% < 1%
Very Attractive	Rising EE	Top Quintile	> 10%	0 < 1.1	0 < 3	< 1%	< 0.5%

Reported Costs vs Benchmark: as of 12/27/2019

	GGOAX	Benchmark: IUSG
Front-End Load	5.50%	--
Expense Ratio	1.25%	0.04%
Back-End Load	0.00%	--
Redemption Fee	0.00%	--

Accumulated Total Costs vs Benchmark

Accumulated Total Costs represent the dollar value of costs investors incur during a 10-yr holding period. Assumes a \$10,000 investment and a 10% annual return for the fund and its benchmark.



- 3-year Accumulated Total Costs are \$1,197.85 for GGOAX and \$15.97 for IUSG. 10-year Accumulated Total Costs are \$4,323.70 for GGOAX and \$103.56 for IUSG.



Footnotes adjustments matter. We are the ONLY source.

We provide ratings, models, reports & screeners on U.S. 3,000 stocks, 700 ETFs and 7000 mutual funds.

[HBS & MIT Sloan research](#) reveals that:

- Markets are inefficiently assessing earnings because no one reads the footnotes.
- Corporate managers hide gains/losses in footnotes to manage earnings.
- Our technology brings the material footnotes data to market for the first time ever.

Combining human expertise with NLP/ML/AI technologies ([featured by Harvard Business School](#)), we shine a light in the dark corners (e.g. footnotes) of hundreds of thousands of financial filings to unearth critical details.

The HBS & MIT Sloan paper, [Core Earnings: New Data and Evidence](#), shows how our superior data drives uniquely comprehensive and independent debt and equity research.

This [paper](#) compares our analytics on a mega cap company to other major providers. The Appendix details exactly how we stack up.

[Learn more.](#)

Quotes from HBS & MIT Sloan professors on our research:

Get better research:

"...the NC dataset provides a novel opportunity to study the properties of non-operating items disclosed in 10-Ks, and to examine the extent to which the market impounds their implications." - page 20

Pick better stocks:

"Trading strategies that exploit cross-sectional differences in firms' transitory earnings produce abnormal returns of 7-to-10% per year." - abstract

Avoid losses from using other firms' data:

"...many of the income-statement-relevant quantitative disclosures collected by NC do not appear to be easily identifiable in Compustat..." - page 14

Build better models:

"Core Earnings [calculated using New Constructs' novel dataset] provides predictive power for various measures of one-year-ahead performance...that is incremental to their current-period counterparts." - page 4

Exploit market inefficiencies:

"These results ... suggest that the adjustments made by analysts and Compustat to better capture core earnings are incomplete. Moreover, the non-core items identified by NC produce a measure of core earnings that is incremental to alternative measures of operating performance in predicting an array of future income measures." - page 26

Fulfill fiduciary duties:

"An appropriate measure of accounting performance for purposes of forecasting future performance requires detailed analysis of all quantitative performance disclosures detailed in the annual report, including those reported only in the footnotes and in the MD&A." - page 33-34



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