FORTUNA investors

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We'll help you put it all in place

Comprehensive Financial Planning

Investment management is our cornerstone, but a well-managed portfolio is only one part of a financial plan. We can help you clarify and execute on your goals and optimize every aspect of your financial life. Common areas of emphasis include: budgeting & cash flow, scenario analysis, goal setting, risk management, tax mitigation strategies, insurance analysis, and estate planning. To put your own plan in place, please reach out or <u>schedule a time to speak</u>.

We can help with Trust and Estate Planning

Estate planning is vital for those who wish to protect their family from compounding headache with heartache should they meet an untimely end. In California, on a \$1.5m estate, probate fees average over \$50k for someone who passes without the necessary docs. For those with children, it's vital to set up proper funding and instruction for their care upon the death of both parents. The process of executing these documents has historically been cumbersome and costly. Thanks to an amazing tech package from our partners at Wealth.com, we are able to facilitate the creation, execution and ongoing maintenance of these vital documents in a streamlined, cost effective manner. If interested, please reach out or <u>schedule a time to speak</u>.



Portfolios for every need

You may allocate to multiple portfolio styles

Altruist allows us to assign clients to multiple model portfolios. This means that as a client of Fortuna, you have access to our tactical strategies as well as several buy & hold portfolios, and may mix-and-match among them in a single account for even greater diversification. We also offer risk-free T-bills through low-cost cash management models.

Buy & Hold Strategies

The cornerstones of our portfolios are global diversification and tactical risk management. That said, some investors are more comfortable with portfolios that have a higher correlation with US stocks and bonds. Clients who prefer conventional buy & hold portfolios can access those through Fortuna. If uncorrelated returns make you uncomfortable, we encourage you to consider a combination of a buy & hold index portfolio and one of our GEA tactical portfolios, as the blended return profile may make it easier to stick to your financial plan.

Emergency Fund / Short Term Cash Management

With short-term interest rates at multi-year highs, it makes little sense to keep substantial cash in the bank. You can set up a separate brokerage account within Altruist to function as a "savings account" that offers higher yields and more security than a bank (SIPC limit of \$500k plus \$40m in private Lloyds insurance per account). We invest our cash management accounts in ETFs that hold only short-term US Treasury notes and bills. Currently these yield over 5%. For this portfolio we charge only 0.15% per year. Money is readily accessible via a bridge to your bank, and you may take out funds whenever you need, with only a day's notice.



Two Flavors of Buy & Hold

We offer the following buy & hold models (each in three risk levels), alone or in combination with our tactical strategies:

Conventional Diversification

We use four equity funds and five fixed-income funds - all from Vanguard and averaging 0.05% in fees - to deliver the industry standard in investment performance from the two most common asset classes. They never hold gold, other commodities, or real estate investment trusts. These models deliver a similar experience to what you might get at a major robo-advisor, so when the S&P 500 is up, your account will be up, and when it's down, your account will be down. Over the long-run, these models should do well (and they have done great since 2009), but we have made no effort to optimize them for risk-adjusted returns.

Enhanced Diversification

Here we use the same low-cost Vanguard equity funds as above, but emphasize Treasury bonds over corporate bonds for greater downside protection, and include real estate investment trusts and gold, for a total of 5 asset classes. As you can see in the tables on the following pages, these models tend to offer similar long-term returns with more stability and less downside than conventional stock & bond portfolios, due to moderately lower stock market correlation. They remain buy & hold portfolios with no tactical input and very low tax profiles.



Four Risk Levels

We offer our portfolios in four risk levels: Standard, Balanced, Conservative, and Aggressive. We assign each client based on his or her objective financial situation and personal tolerance for risk. On the following pages we provide risk and return metrics for each of our portfolios, grouped by risk level. Note that for the Aggressive level, we offer levered and unlevered versions, as IRAs and UTMA accounts cannot use leverage.

As you peruse these tables and charts, note the general progression upwards in measures of risk-adjusted returns as you move from Conventional Diversification to Enhanced Diversification to our tactical GEA strategies.

Market correlation also trends downwards the further you get from conventional portfolios. Personally, we prefer low market correlation, as hiccups in personal income often coincide with bear markets in equities. That said, portfolios with low market correlation can make investors uncomfortable when they lag stocks during strong rallies.

Combining Tactical with Buy & Hold

For the above reasons, we feel that some investors may be best served by a combination of tactical and buy & hold portfolios. A 50/50 mix of GEA and Enhanced Diversification offers a very strong expected long-term return with tolerable downside risk compared to a conventional portfolio. The additional market beta makes it easier to stick with, and the tactical side reduces the odds of a deep and long drawdown. Both offer exposure to foreign stocks, gold, and real estate investment trusts, which can deliver returns when US stocks lag.



Model Statistics – Standard Risk Level

Standard Risk Level – Portfolio Composition

	Conventional Diversification	Enhanced Diversification
US Large Cap Equities	35%	20%
US Small & Mid Cap Equities	6%	5%
Foreign Developed Equities	21%	15%
Emerging Market Equities	7%	5%
Total Equities	69%	45%
US 10 Year Bonds	4%	20%
US 30 Year Bonds	4%	5%
US Corporate Bonds	4%	0%
US Short Term Bills	8%	0%
International Bonds	9%	0%
Total Fixed Income	29%	25%
US Real Estate Investment Trusts	0%	10%
Gold	0%	20%
Cash	2%	0%
Total	100%	100%

GEA Allocations Dynamic among the following: US tech stock index US small cap stock index US REIT index Japanese stock index Chinese stock index European stock index Foreign developed stock index Emerging market stock index Long duration US treasuries Short duration US treasuries US corporate bond index Foreign bond index Commodities Index Gold Oil index Individual US stocks

Standard Risk Level – Summary Statistics

Strategy	Compound Annual Return (CAGR)	Sortino Ratio	Maximum Drawdown	CAGR / Max Drawdown	Correlation to S&P 500	Count of Drawdowns worse than -20%	Avg. Length of Drawdowns worse than -20% (months)
Conventional Diversification - 70/30	8.4%	0.57	-39%	0.22	0.93	4	39
Enhanced Diversification - 70/30	8.6%	0.64	-28%	0.31	0.77	2	27
GEA Standard	16.3%	1.86	-22%	0.73	0.54	2	26

Strategy	Year-to-date	1 Year	5 Year	10 Year	January 1973-to-date
Conventional Diversification - 70/30	15.9%	15.9%	7.7%	5.6%	8.4%
Enhanced Diversification - 70/30	13.1%	13.1%	7.1%	5.1%	8.6%
GEA Standard	8.1%	8.1%	5.5%	7.6%	16.3%



Standard Risk Level – Portfolio Growth





Standard Risk Level – Drawdown



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Model Statistics – Balanced Risk Level

Balanced Risk Level – Portfolio Composition

	Conventional Diversification	Enhanced Diversification
US Large Cap Equities	25%	10%
US Small & Mid Cap Equities	4%	5%
Foreign Developed Equities	15%	10%
Emerging Market Equities	5%	5%
Total Equities	49%	30%
US 10 Year Bonds	7%	30%
US 30 Year Bonds	7%	5%
US Corporate Bonds	7%	0%
US Short Term Bills	13%	10%
International Bonds	15%	0%
Total Fixed Income	49%	45%
US Real Estate Investment Trusts	0%	10%
Gold	0%	15%
Cash	2%	0%
Total	100%	100%

GEA Allocations Dynamic among the following: US tech stock index US small cap stock index US REIT index Japanese stock index Chinese stock index European stock index Foreign developed stock index Emerging market stock index Long duration US treasuries Short duration US treasuries US corporate bond index Foreign bond index Commodities Index Gold Oil index Individual US stocks

Balanced Risk Level – Summary Statistics

Strategy	Compound Annual Return (CAGR)	Sortino Ratio	Maximum Drawdown	CAGR / Max Drawdown	Correlation to S&P 500	Count of Drawdowns worse than -12%	Avg. Length of Drawdowns worse than -12% (months)
Conventional Diversification - 50/50	7.7%	0.6	-27%	0.29	0.90	5	26
Enhanced Diversification - 50/50	7.8%	0.63	-19%	0.41	0.71	3	13
GEA Balanced	14.7%	1.83	-20%	0.72	0.53	2	24

Strategy	Year-to-date	1 Year	5 Year	10 Year	January 1973-to-date
Conventional Diversification - 50/50	12.7%	12.7%	5.5%	4.4%	7.7%
Enhanced Diversification - 50/50	9.8%	9.8%	4.9%	3.7%	7.8%
GEA Balanced	6.8%	6.8%	4.3%	6.2%	14.7%



Balanced Risk Level – Portfolio Growth





Balanced Risk Level – Drawdown

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Model Statistics – Conservative Risk Level

Conservative Risk Level – Portfolio Composition

	Conventional Diversification	Enhanced Diversification
US Large Cap Equities	15%	7%
US Small & Mid Cap Equities	3%	3%
Foreign Developed Equities	9%	7%
Emerging Market Equities	3%	3%
Total Equities	30%	20%
US 10 Year Bonds	9%	35%
US 30 Year Bonds	9%	5%
US Corporate Bonds	9%	0%
US Short Term Bills	19%	15%
International Bonds	21%	0%
Total Fixed Income	67%	55%
US Real Estate Investment Trusts	0%	10%
Gold	0%	15%
Cash	3%	0%
Total	100%	100%

GEA Allocations Dynamic among the following: US tech stock index US small cap stock index US REIT index Japanese stock index Chinese stock index European stock index Foreign developed stock index Emerging market stock index Long duration US treasuries Short duration US treasuries US corporate bond index Foreign bond index Commodities Index Gold Oil index Individual US stocks

Conservative Risk Level – Summary Statistics

Strategy	Compound Annual Return (CAGR)	Sortino Ratio	Maximum Drawdown	CAGR / Max Drawdown	Correlation to S&P 500	Count of Drawdowns worse than -8%	Avg. Length of Drawdowns worse than -8% (months)
Conventional Diversification - 30/70	7.0%	0.6	-17%	0.41	0.79	3	23
Enhanced Diversification - Conservative	7.2%	0.59	-17%	0.42	0.61	4	14
GEA Conservative	13.1%	1.78	-17%	0.78	0.49	3	18

Strategy	Year-to-date	1 Year	5 Year	10 Year	January 1973-to-date
Conventional Diversification - 30/70	9.8%	9.8%	3.5%	3.1%	7.0%
Enhanced Diversification - Conservative	8.2%	8.2%	3.9%	3.1%	7.2%
GEA Conservative	3.2%	3.2%	3.0%	4.7%	13.1%



Conservative Risk Level – Portfolio Growth



Conservative Risk Level -Drawdown



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Model Statistics – Aggressive Unlevered Risk Level

Aggressive Unlevered Risk Level -Portfolio Composition

	Conventional Diversification	Enhanced Diversification
US Large Cap Equities	50%	20%
US Small & Mid Cap Equities	10%	5%
Foreign Developed Equities	30%	20%
Emerging Market Equities	10%	5%
Total Equities	100%	50%
US 10 Year Bonds	0%	0%
US 30 Year Bonds	0%	20%
US Corporate Bonds	0%	0%
US Short Term Bills	0%	0%
International Bonds	0%	0%
Total Fixed Income	0%	20%
US Real Estate Investment Trusts	0%	10%
Gold	0%	20%
Cash	0%	0%
Total	100%	100%

GEA Allocations Dynamic among the following: US tech stock index US small cap stock index US REIT index Japanese stock index Chinese stock index European stock index Foreign developed stock index Emerging market stock index Long duration US treasuries Short duration US treasuries US corporate bond index Foreign bond index Commodities Index Gold Oil index Individual US stocks

Aggressive Unlevered Risk Level – Summary Statistics

Strategy	Compound Annual Return (CAGR)	Sortino Ratio	Maximum Drawdown	CAGR / Max Drawdown	Correlation to S&P 500	Count of Drawdowns worse than -20%	Avg. Length of Drawdowns worse than -20% (months)
Conventional Diversification 100% Stocks	9.3%	0.53	-55%	0.17	0.94	6	40
Enhanced Diversification Aggressive	8.9%	0.64	-30%	0.30	0.77	3	24
GEA IRA Aggressive	20.1%	1.81	-29%	0.69	0.53	2	25

Strategy	Year-to-date	1 Year	5 Year	10 Year	January 1973-to-date
Conventional Diversification 100% Stocks	20.8%	20.8%	11.0%	7.5%	9.3%
Enhanced Diversification Aggressive	13.7%	13.7%	7.2%	5.4%	8.9%
GEA IRA Aggressive	7.2%	7.2%	15.1%	13.1%	20.1%



Aggressive Unlevered Risk Level -Portfolio Growth





Aggressive Unlevered Risk Level -Drawdown



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Model Statistics – Aggressive Levered Risk Level

Aggressive Levered Risk Level -Portfolio Composition

Note – we do not offer Conventional Diversification Levered or Enhanced Diversification Levered, as the drawdown risk is too high; we show these portfolios for illustrative purposes only

	Conventional Diversification	Enhanced Diversification
US Large Cap Equities	95%	38%
US Small & Mid Cap Equities	19%	10%
Foreign Developed Equities	57%	38%
Emerging Market Equities	19%	10%
Total Equities	190%	95%
US 10 Year Bonds	0%	0%
US 30 Year Bonds	0%	38%
US Corporate Bonds	0%	0%
US Short Term Bills	0%	0%
International Bonds	0%	0%
Total Fixed Income	0%	38%
US Real Estate Investment Trusts	0%	19%
Gold	0%	38%
Cash	0%	0%
Total	190%	190%

GEA Allocations Dynamic among the following: US tech stock index US small cap stock index US REIT index Japanese stock index Chinese stock index European stock index Foreign developed stock index Emerging market stock index Long duration US treasuries Short duration US treasuries US corporate bond index Foreign bond index Commodities Index Gold Oil index Individual US stocks

Aggressive Levered Risk Level – Summary Statistics

Strategy	Compound Annual Return (CAGR)	Sortino Ratio	Maximum Drawdown	CAGR / Max Drawdown	Correlation to S&P 500	Count of Drawdowns worse than -30%	Avg. Length of Drawdowns worse than -30% (months)
Conventional Diversification - Levered	10.9%	0.51	-81%	0.13	0.94	9	39
Enhanced Diversification - Levered	11.2%	0.6	-55%	0.21	0.77	4	31
GEA - Levered	24.4%	1.48	-43%	0.56	0.54	4	17

Strategy	Year-to-date	1 Year	5 Year	10 Year	January 1973-to-date
Conventional Diversification - Levered	34.1%	34.1%	13.2%	7.5%	10.9%
Enhanced Diversification - Levered	19.7%	19.7%	7.5%	4.6%	11.2%
GEA - Levered	6.1%	6.1%	9.1%	12.6%	24.4%

Conventional Diversification Levered or Enhanced Diversification Levered, as the drawdown risk is too high; we show these portfolios for illustrative purposes only

Note – we do not offer



Aggressive Levered Risk Level -Portfolio Growth

Note – we do not offer Conventional Diversification Levered or Enhanced Diversification Levered, as the drawdown risk is too high; we show these portfolios for illustrative purposes only



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Aggressive Levered Risk Level -Drawdown

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Disclaimer: Conventional Diversification & Enhanced Diversification return streams are based on modelled results and no actual client or account received these returns. GEA return streams are based on modelled results prior to August 2018 (no actual client or account received these returns prior to August 2018), and actual client accounts in each GEA portfolio thereafter. All performance numbers - hypothetical & actual are inclusive of Fortuna's 1% asset management fee and estimated or actual commissions, trade slippage, underlying fund fees and margin interest (LIBOR or SOFR +1.1% margin

interest (the rate charged by our broker)). Data courtesy of Norgate Data & Global Financial Data. For historical data prior to ETF inception, asset class level backfills are used.

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Get in touch

We appreciate the trust you have placed in us, and we look forward to the opportunity to continually serve you. If you'd like to schedule some time to discuss your individual situation, our investment philosophy, or anything that is on your mind, please reach out. Feel free to email or call us, or use this <u>LINK</u> to schedule an appointment directly.

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Portfolio management – what matters?

- Returns
 - Compound annualized returns (CAGR)
- Risk
 - Drawdowns
 - Length
 - Depth
- Risk-adjusted returns
 - Sortino Ratio (SR)
 - Maximum Drawdown (MDD)
 - CALMAR Ratio
 - Count of drawdowns > 20%
 - Average length of drawdown > 20%
- Pains points associated with potential strategy

Portfolio management – what matters?

Returns

- Compound annualized returns (CAGR)
- Expressed as a percentage
- How to maximize
 - Concentrate in an asset where you have unique skill or influence over the outcome
 - Concentrate in an asset/asset class where you cannot influence, but you get lucky (risky)
 - Diversify (win by losing less)
 - Use statistical factors like Trend & Momentum to tip the odds in your favor



Risk– what is a drawdown?



Risk– why do drawdowns matter?





Risk– drawdown length also matters





Measuring risk-adjusted returns

- Sortino Ratio (SR) = returns relative to downside volatility
 - Higher SRs
 better risk-adjusted returns
- **Maximum Drawdown** = biggest drawdown in history
 - Lower Max DD 🗆 lower risk
- CALMAR Ratio = Annualized return / -Max DD
 - Higher CALMAR
 better risk-adjusted returns

- Count of drawdowns worse than -20%
- Average length of drawdown worse than -20%
- US market correlation
 - All else equal, lower = better

Note: We believe that standard measures of risk and risk-adjusted returns, such as standard deviation & Sharpe ratios are inadequate. These measures penalize strong upside volatility, which is a *good thing* for investors! Downside deviation is what we seek to avoid.

Building a better portfolio: The progression

- US Stocks only (S&P 500 or NASDAQ)
- Simple diversification
- Enhanced diversification
- Further enhanced diversification + quantitative methodologies
 - Trend following
 - Momentum

Each step along the path should lead to better risk-adjusted returns and lower correlation to US stocks



US stocks alone are risky!

Lost years – US Large Cap Stocks – total returns, including dividends

1929 – 1943; ~15 years; annualized return -0.06%



<u>1973 - 1978; ~5 years;</u> annualized return +0.66%



<u>2000 - 2010; ~10 years;</u> annualized return -0.07%





Never concentrate in a single asset class!

Japanese stocks went sideways for ~20 years



Lehman was a darling amongst pros and retail traders alike ahead of its collapse





The best way to achieve strong returns, mitigate risk, and achieve high risk-adjusted returns is to take a completely systematic approach to investing, diversify broadly, and use statistical factors like Trend and Momentum to make decisions.

While this approach leads to the highest likelihood of strong outcomes, it can still be challenging to stick with at times.



What's the catch to diversification & enhanced portfolios?

Sometimes it's no fun!

	Annualized Returns			
Period	S&P 500	Enhanced Diversification	GEA Standard	
July 1982 - July 1985	25%	20%	21%	
Aug 1987 - Aug 1992	9%	4%	7%	
Feb 2009 - Feb 2012	20%	20%	13%	
May 2020 - May 2023	14%	6%	5%	

No matter what strategy you choose, commit to it for the long haul.





Combining Tactical with Buy & Hold: 50/50 GEA Standard / Enhanced Diversification



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Combining Tactical with Buy & Hold: 50/50 GEA Standard / Enhanced Diversification



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PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS

