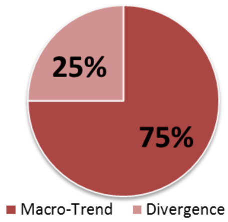
ARIAD Global Futures Strategy

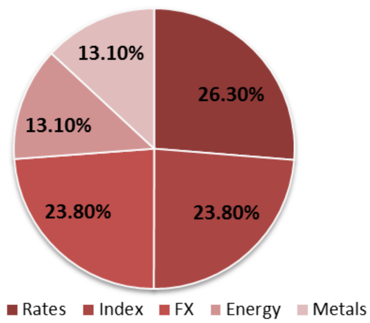
A fully algorithmic, transparent macro-trend strategy combined with a pattern recognition program, designed to capture the major price moves and blend with traditional investments.

FUND DETAILS

STRATEGY COMPOSITION



MARKET COMPOSITION



Sector	Global Macro	Pattern	Net Sector
Portfolio	**75%**	**25%**	**100%**
Interest Rates	25%	30%	26.30%
Equities	25%	20%	23.80%
FX	25%	20%	23.80%
Energy	12.50%	15%	13.10%
Metals	12.50%	15%	13.10%
Total	100%	100%	100%

MULTI-STRATEGY PROGRAMS

A Multi-Strategy Program combines non-correlated techniques to reduce the risk with frequent offsetting, independent market positions, attempting to capture different market activity.

The ARIAD Method balances a conservative macro-trend strategy with a pattern recognition method (Divergence) that has a much shorter holding period. The programs have a very low correlation to one another.

PROGRAM DESCRIPTION

The ARIAD Method is a diversified program with dynamic portfolio allocation designed to capture price moves of multiple time horizons driven by macro-economic events and Central Bank policy. It is well diversified into 5 asset classes and combined with a highly complementary short-term pattern recognition strategy (divergence) to detect early changes in trend direction. It is a unique approach that is both robust as well as fully integrated with risk controls and volatility stabilization at every level in its process.

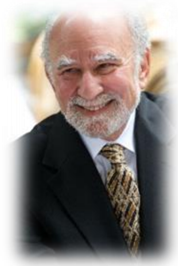
ARIAD ASSET MANAGEMENT GmbH

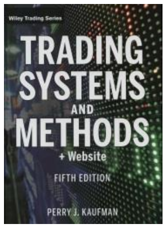
ARIAD Asset Management GmbH is an independent investment company owned and operated by its founders, Carsten Lund and Klaus Walczak. ARIAD has a strong focus on quantitative investment strategies for institutional customers and high-net-worth individuals.

Together with Perry J Kaufman, a renowned expert in algorithmic trading, and Managing Director of Kaufman Analytics, Ltd., they have formed ARIAD-Kaufman Research, GmbH, to develop and market trading strategies beneficial to the investment community.

Mr. Kaufman began his career in Aerospace, working on the navigation for Project Gemini, as well as the OAO, the predecessor of the Hubble telescope, and in military reconnaissance. By 1971 he was fully immersed in computerized trading. He has been a Principal of an agribusiness firm, head of systems trading a large energy company, and a consultant to many well-known financial institutions. He has published numerous books, translated into many languages, among which is the popular *Trading Systems & Methods, 5th Edition*.

ARIAD is led by Carsten Lund, Managing Director Risk-Management, and Klaus Walczak, Managing Director Portfolio-Management, along with a talented staff. Mr. Lund has more than 25 years of investment banking experience with HypoVereinsbank and Hamburg-Mannheimer-Group and has been responsible for managing in excess of EUR 12 billion. He holds the coveted Chartered Market Technician diploma. Mr. Walczak has also more than 25 years of investment banking with Commerzbank, Standard Chartered, Dresdner Bank, and Hamburg-Mannheimer-Group, where he met Mr. Lund. He was also responsible for managing over EUR 12 billion of investments.





Perry J Kaufman

Carsten Lund

Klaus Walczak

MULTI-STRATEGY PHILOSOPHY

Macro-trend strategies have proved to be highly reliable over many years, yet to be successful they must hold their position through ups and downs of the market. These periods show greater risk. To reduce that risk ARIAD designs complementary strategies that seek to profit at times when other methods might be in a drawdown.

- *A Divergence Program* applied to the same asset classes, based on the divergence between prices and momentum, attempts to anticipate and capture the inflection points in the trend. It enters ahead of the trend change and exits once the new trend is confirmed. This tends to offset periods of uncertainty in longer-term trends.

These two programs, working together, show less risk than either one of the programs, confirming their low correlation.

THE IMPORTANCE OF VOLATILITY STABILIZATION

Risk control is of paramount importance. The ARIAD program attempts to control risk at every level of operation. We advocate equal risk over optimization, giving every trade and every sector an equal chance to participate in the performance.

All sector and portfolio returns are automatically monitored and continually adjusted to a conservative target volatility. Whenever market risk increases, the program responds by reducing the position sizes and overall exposure. When volatility falls, the program increases leverage. Multiple measures are used to assess risk.

Performance of Systematic Macrotrend Programs

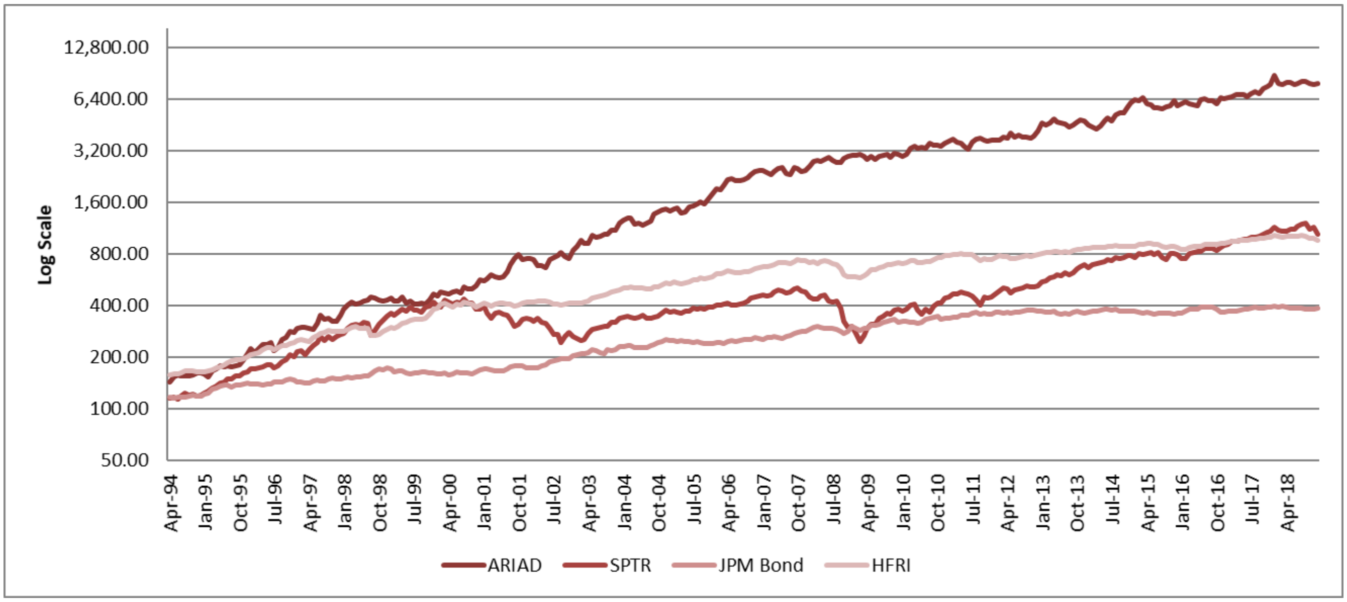
COMPARISON TO BENCHMARKS

The ARIAD program shows low correlations to most of the industry benchmarks, with the greatest similarity, 0.54, to the HFRI Macro Index. However, this level of correlation also shows that both programs capture parts of the same trends, but are also unique in the underlying strategy and the risk management. The addition of ARIAD's divergence strategy adds substantial uniqueness. The ARIAD program has the best return and a very attractive Information Ratio.

Correlation to different Benchmarks		AROR	Annual Volatility	Ratio
ARIAD Method	**Correl**	**17.52%**	**14.72%**	**1.19**
S&P 500 Total Return Index	0.065	9.06%	14.00%	0.65
JPM Bond Index	0.216	5.16%	5.52%	0.94
HFRI Fund Weighted Comp Index	0.207	8.76%	6.48%	1.35
HFRI Event Driven Index	0.115	9.81%	6.27%	1.57
HFRI Macro Index	0.558	8.38%	6.67%	1.26
HFRI Convertible Arb. Index	0.057	6.77%	6.22%	1.09
HFRI Emerging Markets Index	0.120	9.62%	12.91%	0.75
HFRI Multi Strategy Index	0.150	6.84%	3.94%	1.74
HFRI Equity Hedged Index	0.151	9.76%	8.53%	1.14
Average	**0.182**			

Source: Bloomberg, ARIAD. Based on monthly returns between April 1994 and December 2018
HFRI: Hedge Fund Research Index.

HISTORICAL PERFORMANCE OF THE ARIAD PROGRAM VS KEY BENCHMARK INDICES



HISTORICAL PERFORMANCE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
1992	-4.74%	-1.32%	1.22%	1.57%	4.28%	1.55%	6.74%	6.99%	3.66%	-4.65%	-2.59%	-2.74%	**9.46%**
1993	4.35%	7.40%	2.11%	5.33%	2.30%	2.04%	6.61%	1.81%	-2.02%	3.78%	-5.43%	8.95%	**43.09%**
1994	-1.46%	-4.67%	-1.32%	-1.43%	7.14%	3.26%	-1.76%	0.29%	-0.50%	1.79%	3.33%	-0.77%	**3.42%**
1995	-1.77%	-3.75%	8.55%	3.20%	3.80%	-0.69%	1.11%	-1.01%	0.77%	1.05%	7.79%	8.35%	**29.94%**
1996	6.19%	-4.17%	4.93%	5.09%	0.35%	2.53%	-9.87%	4.62%	10.67%	2.53%	8.82%	-1.47%	**32.45%**
1997	6.14%	0.71%	0.26%	-0.67%	-1.54%	8.38%	10.94%	-5.25%	1.74%	-4.55%	0.26%	8.59%	**26.26%**
1998	8.54%	5.03%	4.73%	-2.66%	1.60%	2.00%	1.59%	3.80%	-1.43%	-2.31%	-0.60%	0.68%	**22.39%**
1999	2.83%	-4.17%	-0.27%	6.23%	-7.45%	1.70%	-3.37%	0.00%	1.56%	-1.82%	5.64%	8.00%	**8.03%**
2000	-2.33%	5.25%	-0.34%	-2.10%	3.55%	0.46%	-2.97%	9.50%	-3.53%	1.01%	3.87%	8.29%	**21.52%**
2001	-1.56%	2.95%	5.68%	-2.87%	-1.59%	1.31%	7.11%	9.77%	8.56%	5.57%	-6.23%	1.08%	**32.45%**
2002	0.03%	-0.39%	-8.23%	-0.46%	-2.26%	11.16%	3.53%	1.84%	4.86%	-5.03%	-3.61%	11.97%	**12.05%**
2003	6.15%	8.49%	-4.73%	0.74%	11.17%	-2.40%	0.54%	3.28%	-0.21%	5.88%	0.24%	8.69%	**43.31%**
2004	5.04%	2.48%	-0.52%	-7.42%	1.07%	-2.30%	3.37%	2.69%	9.10%	3.31%	2.85%	0.29%	**20.82%**
2005	-1.49%	1.71%	1.14%	-6.40%	2.53%	6.11%	1.77%	2.17%	2.72%	-2.15%	6.31%	7.05%	**22.74%**
2006	8.29%	-1.61%	5.11%	9.06%	0.32%	-2.23%	-0.24%	1.95%	3.11%	3.94%	3.22%	1.95%	**37.42%**
2007	-0.05%	-2.96%	-2.90%	5.21%	3.82%	1.71%	-7.91%	-1.94%	9.46%	-0.18%	-3.93%	0.11%	**-0.72%**
2008	5.85%	6.91%	1.22%	-1.27%	3.81%	2.17%	-4.23%	-3.01%	0.97%	5.70%	2.42%	1.76%	**23.95%**
2009	-0.74%	1.01%	-2.47%	-3.20%	3.99%	-3.99%	3.34%	1.24%	1.49%	-3.12%	4.51%	-0.92%	**0.67%**
2010	-2.86%	3.81%	8.08%	2.47%	-3.06%	1.11%	-0.30%	6.87%	-2.57%	-0.20%	-1.54%	3.75%	**15.85%**
2011	2.93%	3.24%	-3.91%	-1.86%	-3.95%	-3.90%	9.59%	4.61%	1.67%	-2.54%	-1.48%	1.07%	**4.63%**
2012	0.49%	0.13%	3.21%	-1.72%	7.07%	-4.69%	3.00%	-3.54%	0.28%	-0.67%	2.60%	6.59%	**12.73%**
2013	11.61%	-2.90%	3.61%	5.17%	-4.28%	-1.82%	-0.38%	-3.93%	1.80%	5.18%	2.41%	-1.26%	**14.99%**
2014	-5.66%	-1.98%	-3.06%	4.45%	7.06%	3.12%	-3.26%	7.84%	3.10%	0.39%	7.99%	5.91%	**27.68%**
2015	4.41%	-1.94%	4.32%	-8.21%	-0.41%	-4.51%	-0.17%	-0.82%	2.52%	1.15%	7.48%	-6.69%	**-4.00%**
2016	2.64%	2.00%	-1.40%	-2.39%	-1.46%	8.79%	1.95%	-3.44%	0.50%	-4.50%	8.67%	-0.67%	**10.15%**
2017	0.45%	1.28%	2.75%	0.74%	-0.70%	-2.52%	3.91%	3.12%	-2.84%	7.93%	2.94%	2.26%	**20.57%**
2018	12.85%	-9.77%	-1.46%	2.86%	-0.43%	-3.22%	1.35%	3.13%	-0.56%	-1.46%	-1.42%	0.28%	**0.71%**

MINIMAL ASSUMPTIONS

The ARIAD program does not use optimization of any kind. We believe that optimization is a form of chasing profits, a method that rarely works and sets expectations at an unrealistically high level. Instead, the program uses as few rules as possible and applies those rules over a broad spectrum of investment horizons.

The strategies try to give every trade and every sector an equal chance of contributing to the performance by equally weighting all elements, subject to liquidity. This may seem to ignore the outperformance of specific sectors or markets at different times but provides more stability for the investor in the long run. Whenever you give one market or sector more weight you are assuming that it will outperform the other markets or sectors. More concentration always leads to higher risk.

RISK MANAGEMENT OVERLAY

Risk management has proved to be an increasingly important component of the investment process during times of economic stress. Volatility of prices is reflected in volatility performance unless comprehensive stabilization and control rules are in place. ARIAD believes it has accomplished this at every level of the investment process beginning with individual trade size, market allocations with a sector, sector stabilization, and finally portfolio stabilization at a target volatility. This process may reduce gains during exceptionally volatile years, but its goal is to avoid the extreme risk associated with it and produce a long-term stable return for investors.

FULLY-ALGORITHMIC STRATEGIES

The ARIAD Method is fully algorithmic. Trading signals are generated automatically based on daily data. Risk is reevaluated and adjusted continuously by varying leverage and market exposure. While it lacks “fundamental insight,” systematic approaches to trading have proved to be sensible, profitable, scalable, and consistent.

Our Program Consists of Two Modules:

- The Trend Module – A Sound Premise

An overwhelming consideration in using a trading strategy is whether it has a sound premise. That distinguishes methods that have been “found” by testing indicators and rules on a computer and settling on the one that was most profitable, or most reliable, or most anything. “Discovering” a system through testing is a sure way to lose money. The right way is to first determine the reason why a strategy should work, then implementing it. A macro-trend system attempts to identify the direction of prices based on government economic policy (mostly interest rates), long-term shifts in supply and demand, changes in FX, or a change in the stability of a country (geopolitical risk). While there are other reasonable approaches, such as arbitrage, this is a fundamentally sound premise. Using long-term trends has proved to be the most robust strategy for investors over the past 30 years.

Robustness means that it is broadly successful when we apply the same rules and parameters to all markets. This also avoids overfitting (that is, fine-tuning to specific situations). We believe in the policy that “loose pants fit everyone.” Some markets will have bigger risk or smaller returns, but we expect all markets to perform well over time. Fine-tuning to each market is a guarantee of failure.

Besides that, macro-trend strategies don’t trade often, which means that costs are low; they work across nearly every market; they work across a large range of time frames (calculation periods); and they capture the “fat tail” of price moves, the exceptionally big moves. Therefore, they are robust. Very few trading strategies are robust. And yes, they can be boring.

The downside is that the method is slow getting out of a trade, often giving up a large part of recent gains. It is insensitive to current events and often seems stupid. It requires discipline to follow and it can be frustrating when there is no clear trend.

At ARIAD we see the characteristics of macro-trend strategies mostly as pros, which are complemented by our second module.

- The Divergence Module

Not all patterns are consistent or meaningful. Arbitrage, entered when two similar markets move apart, is one successful method, but highly competitive. Divergence is another form of arbitrage using one market but two concepts, the price direction and its momentum, that is, one slower (the trend) and one faster (momentum) measure of direction.

We see momentum as an early sign of a change in the direction of the trend, but only under a limited number of conditions. A successful pattern setup can be seen on a chart as prices rising but at a slower and slower rate. Sometimes it may form a rounded top, but it is not necessary for it to be that perfect, nor does it have to be over a long time period. Trades typically last for 5 to 8 days.

To assure that the pattern we are seeking is not by chance, we look for the same pattern over multiple time periods, in the range of 5 to 15 days. Multiple confirmations give us the robustness that we need to trade successfully.

Trades are exited when the divergence pattern is satisfied or that pattern disappears. Trades tend to be entered when other trends are not strong; therefore, this method complements trend following very well.

PRINCIPLES COMMON TO BOTH METHODS

Consistency is fundamental to algorithmic trading and to success. Both modules have many common features.

All trades have the same initial risk. That maximizes diversification and prevents any one trade from affecting the portfolio unnecessarily. This avoids trying to predict which trade will be the next on to outperform the others.

Each module is volatility stabilized, that is, each of the two sub-portfolios are adjusted separately to maintain the same risk.

Both modules have multiple parameters. Rather than try to guess which calculation period or profit target will perform best next month, we use a range of choices in order to get an average result. This is important for stabilizing performance.

The concepts are transparent. That is, the calculations and signal generation are not complicated, so we have a sense about whether the trend is correct for the market, or if prices are diverging. We will not be holding a long position when prices are plummeting, trying to explain why it should rally soon.

OUR DYNAMIC PORTFOLIO ALLOCATION

For many years the Industry has decided on what markets to include in the portfolio based on long-term historical performance. Once they were allocated, they did not change. That was a good approach during the nearly 30 years when interest rates where steadily declining and commodity prices were rising. That is no longer true.

Interest rate trends cause trends in FX and equity index markets, as well as underlying trends in costs associated with nearly every product. With rates now at historic lows, we need to look carefully at each market. There are strong trends in energy and FX, but then they stop. There have been trends in equity index markets, but not right now.

Instead of fixed allocations, ARIAD has developed a dynamic approach. The idea was that, removing even one market from a portfolio because it is not performing well, would increase the returns of the portfolio. If removing one is possible, why not two, or three? Our portfolio methodology uses multiple time periods to assess performance of each market, then selects those for trading that rank the best. As this ranking changes, markets are removed or added to the portfolio.

We are particularly careful to maintain diversification. We do not allow a portfolio to be dominated by one sector, such as interest rates. If very few sectors have candidates that qualify for the portfolio, we trade a much smaller selection and limit the leverage. We believe it is better to trade a smaller, more conservative portfolio from time to time, then enter a market that has had poor performance. Less exposure means less risk and lower costs.