



## **fLAB fUNDS**

*it's all about Asset Allocation*

We believe alpha is a very nice word, everybody talks about it, but only a few have ever seen it. We offer:

**fLAB Core**, an optimized Betalping© Asset Allocation Model or how to achieve Alpha through best Beta Selection

**fLAB Satellite** where Preservation is the main aim. This is a Relative Return Fund with a Minimum Sharpe Ratio Target.



## Our approach: It's all about Asset Allocation

In fLAB, Asset Allocation is the centre of all our decisions. We know that the key element to produce consistent returns is building a Disciplined, Global and Flexible Asset Allocation.

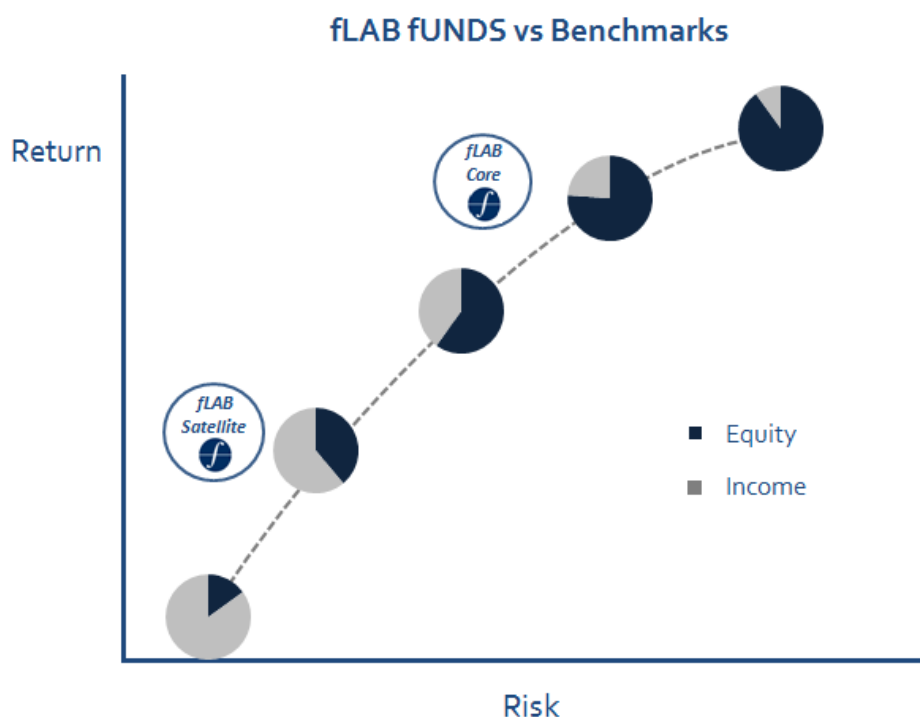
The most important debates in Asset Management in the last years have been regarding the existence/lack of Alpha as well as the fight between Active vs. Passive Management

**We don't participate in these endless debates. Moreover, we have created Betalphing©: Active Asset Allocation using Passive Investments, or how to find Alpha through the best Beta Selection**



We follow closely every advance in asset allocation, and we have worked hard to separate the wheat from the chaff in emerging industry trends; rewarding true innovations and discarding mere marketing claims.

Our UCITS funds, fLAB Core & Satellite have outperformed their peers since inception in 2009



# Key Points

## 1. It's All About Asset Allocation.

fLAB Core provides long-term capital growth through Betalping®: a dynamic, global flexible strategy, investing in the 3 traditional asset classes (equity, bonds and cash).

fLAB Satellite has Preservation as its main aim. It is a Relative Return Fund with a Minimum Sharpe Ratio Target.

## 2. Two compartments, 4 currencies



## 3. The Investment Manager: Octogone Europe

Supervised by CSSF, is part of the Octogone Group, who manages 2.3bn USD in assets of families and institutions from Europe, USA, Latin America and Middle East.



## 4. The Custodian: highest credit rating in Luxembourg



Our Custodian Bank is **Banque et Caisse d'Epargne de l'Etat, Luxembourg**. BCEE ratings : **Aa2/ AA+** by Moodys and S&P.

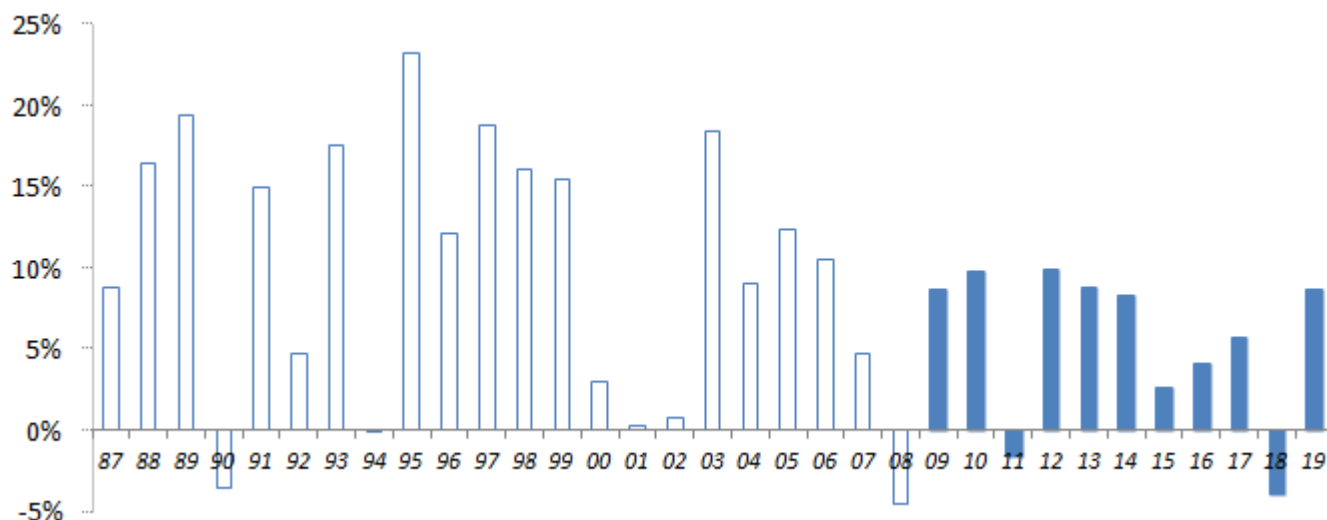
BCEE is ranked as '**One of the 10 safest banks in the world**' by the Global Finance Magazine.

## 5. The Management Company: Casa4Funds is our Luxembourg based UCITS Manco

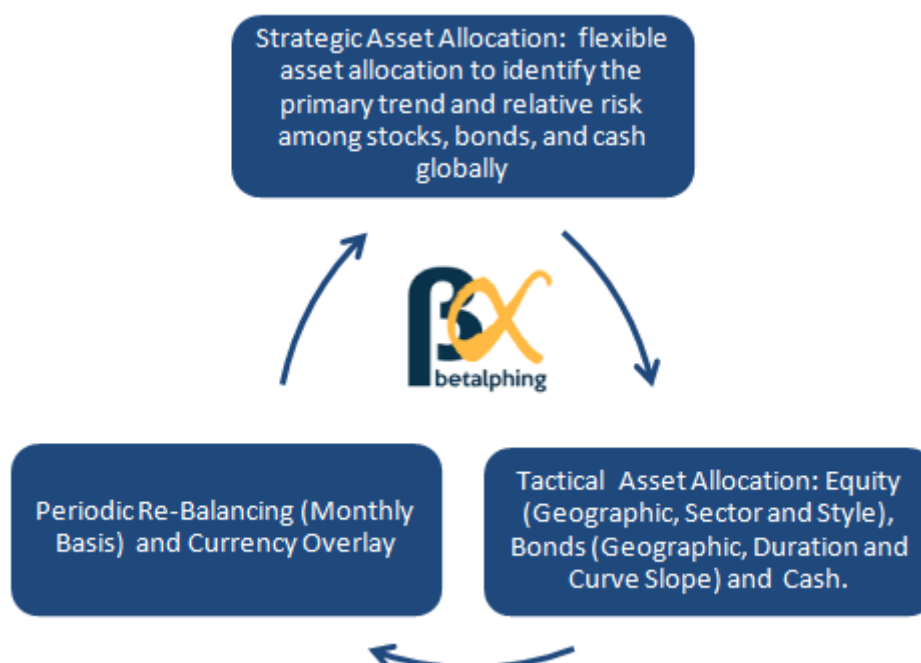


# fLAB Core : Global Flexible Asset Allocation Fund

Our long-term allocation to stocks, bonds and cash, based on our goals and our tolerance for risk. Sometimes called investment policy, it shouldn't change just because the market moves up or down.



**Betalphing** allows investors to outperform a traditional balanced/flexible allocation with a markedly lower volatility and a lower maximum drawdown, through a disciplined, smart and dynamic asset allocation. Betalphing is a **two-steps investment** methodology that aims to generate outperformance over the benchmark (also called "Alpha") through an optimized asset allocation model. **In other words, to get 'Alpha' through the best 'Beta' Allocation**



- 1) Strategically guided monthly asset allocation step:** The 1st layer is the strategic asset allocation between 3 Asset Classes: Equity, Bonds and Cash. Hence the benchmark universe is defined as follows: International equities in local currencies, with weights as defined in the MSCI All Country World Index. International Government Bonds with weights as defined in the Barclays Global Treasury Total Return Index, and cash returns are proxied by an equal-weighted average of the total returns of three-month Treasury securities from the U.S., Japan, U.K., Canada, and the Euro-Zone.



## Benchmark used is 55-35-10 (this is the typical benchmark for a US Pension Fund)

The model uses two different sub-models: First one decides the Stock allocation. The second, the Bond/Cash allocation.

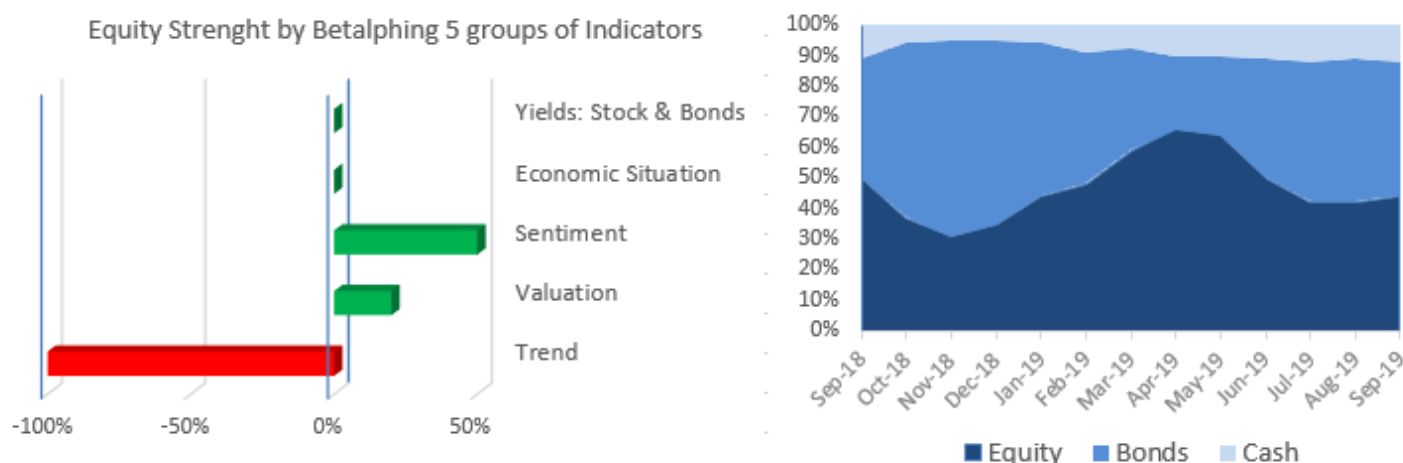
The inputs to the models are quantitative signals collected monthly, (the model is updated on the first trading day of the month) from 5 types of indicators.

Type of Indicator	Weight in the Model %	
	Stocks vs Bonds	Bonds vs Cash
Valuation	40%	20%
Trend	15%	20%
Economic	15%	20%
Yields	15%	20%
Sentiment	15%	20%

### Indicators taken from:

MSCI World Stock Total Return Index - Barclays Global Long-Term Government Bond Total Return Index  
Consumer Sentiment = U.S. Conference Board + Japan Consumer + European Commission + U.K. Consumer  
Business Sentiment = U.S. ISM Index, German Ifo Index and Japanese Tankan Survey  
OECD G7 Leading Indicator Index - NY Crude Oil 13 Week Perpetual Futures Contract  
Bloomberg Barclays Baa Corporate Yield - MSCI World Index Earnings Yield  
Equal-weighted average 10-year and 3-mth government interest rates in the U.S., Japan, EuroZone, U.K.  
and Canada - North American Real GDP - Ned Davis Research Group Data  
Stock/Bond Overbought/Oversold Indicator in different time frames - Global Stock and Bond Ratios & Global  
Stock Momentum - P/E, P/B, P/Sales, Sales/Share and comparison with mean as well as Index Fundamental  
Valuation - Moving Average Crosses for Equity and Bond Indices & Overbought, Oversold Indicators  
% of Stocks/Bonds/Markets above Moving Averages: used to identify the direction of the cycle (Bull/Bear)  
Momentum Indicators: it measures the rate of the rise or fall in asset prices

As an example we show **fLAB Core September 2019 Allocation:**



**2) Tactical Asset Allocation Step:** Once we have designed the Monthly Asset Allocation, we run our Betalphing sub-models:

- a) The Geo and Sector Equity Models to allocate between Countries and Sectors
- b) The Bond Geographical and Duration Model
- c) The Currency Hedge Overlay Model

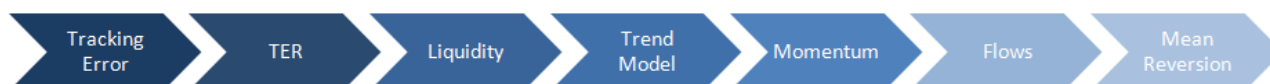
We mainly implement Betalphing through UCITS Compliant ETFs as well as Futures if needed. Benefits of Asset Allocation Using ETFs:

- Diversification – instant exposure to a variety of asset classes
- Transparency – exact understanding of the underlying securities
- Low Expense Ratios – allow for a fully-allocated multi asset portfolio at a lower cost to a single asset class fund
- Flexibility – high liquidity enables fast, easy moves among asset classes

This means that we are actively managing our Asset Allocation, but when we have to choose the vehicles to implement the strategy we have found that the very best option is to find the best Betas for each part of the portfolio: Equity Geo + Equity Sector + Bond Geo + Bond Curve Tranch

Choosing an ETF over another is complex and challenging. Once a benchmark is selected, assessing the quality of ETF candidates is a specific task that requires disciplined steps.





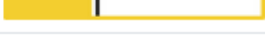


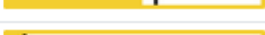



**Betalphing ETF Selection Criteria:**



**Betalphing Models:**

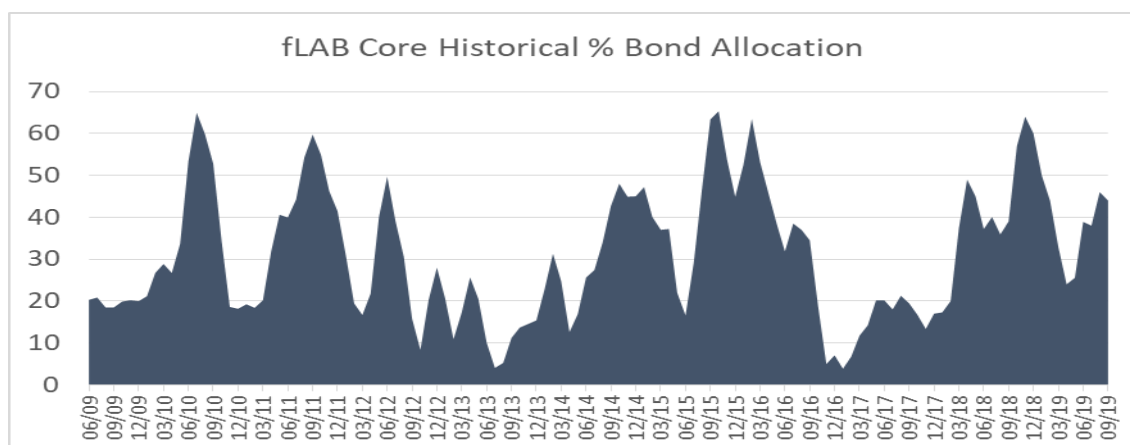
a) Equity models

GLOBAL EQUITY ALLOCATION		Recommended Allocation	Benchmark	Weight	Effective Date
U.S.		55%	55,4%	Market	2018-10-25
Europe ex. U.K.		15%	13,8%	Market	2019-05-23
Emerging Markets		11%	11,6%	Market	2019-05-23
Japan		7%	7,3%	Market	2019-10-03
U.K.		6%	5,1%	Market	2019-05-23
Pacific ex. Japan		3%	3,7%	Market	2019-10-03
Canada		3%	3%	Market	2018-10-18

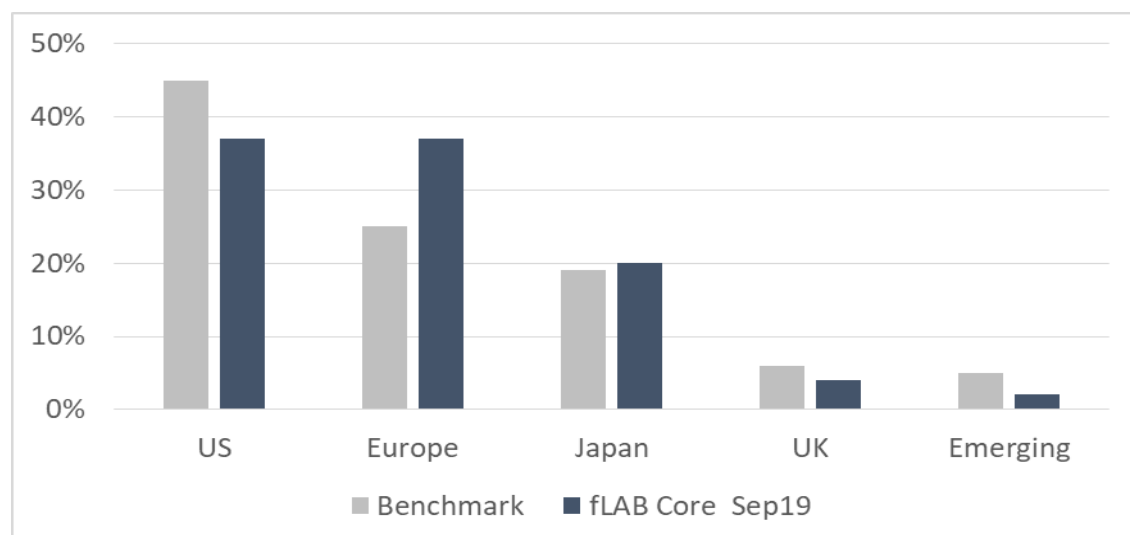
U.S. SECTOR		Recommended Allocation	Benchmark	Weight	Effective Date
Utilities		5%	3,2%	Over	2019-05-14
Energy		5%	5%	Market	2019-09-19
Industrials		10%	9,4%	Market	2019-09-19
Consumer Discretionary		10%	10,5%	Market	2019-09-19
Financials		12%	12,8%	Market	2019-06-11
Consumer Staples		10%	8,1%	Market	2019-05-14
Health Care		13%	14,3%	Market	2019-05-14
Information Technology		19%	20,9%	Market	2019-02-14
Materials		3%	2,6%	Market	2019-01-03
Communication Services		10%	10,3%	Market	2018-10-01
Real Estate		3%	3%	Market	2018-08-16

## b) Bond Models:


### Allocation Model



### Geographical Model



## Duration Model

		Duration	Weight	Effective Date
Bond Duration		105	Over	2019-06-11
10-2 Yield Curve			Neutral	2019-09-17
	Current	Support	Resistance	
10-Year Treasury Notes	1.76	2.00	1.30	2019-08-01

### c) Currency Hedge Overlay Model

In currency markets, it is essential to identify the short-term turning points and to get in line with the new trends as they get underway. In fLAB Core, our main currency risk is our natural exposure to USD.

As far as US Equity Market and US Government Bond Market are the main components in our Equity and Bond Benchmarks (slightly above 50% of the overall portfolio), USD becomes the currency with the highest risk attribution.

In order to decide whether we hedge part of our USD Exposure we've found that the most reliable and risk-averse approach is one that is based on objectively-determined timing models:

- 1) Moving average cross-overs
- 2) Moving average and momentum slopes
- 3) Relative strength and deviation from trend indicators





# fLAB Core outstanding performance since inception

5 year Ranking: June 2014 to June 2019

LIPPER LEADERS 

MORNINGSTAR®

	fLAB Core	fLAB Satellite
Total Return	5	3
Consistent Return	5	3
Preservation	4	5
Expense Ratio	5	3

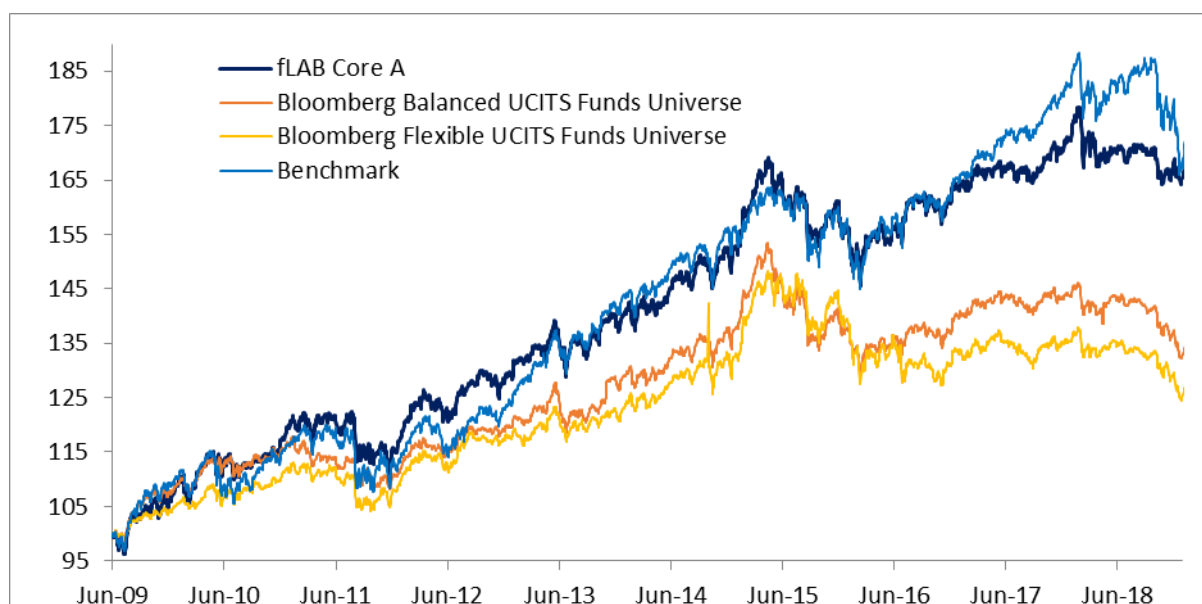
fLAB Fund SICAV Core A | ★★★★★

fLAB Fund SICAV Core H-USD | ★★★★★



Mixed Asset  
Flexible Global

Absolute Return  
Low Risk



In this graph we compare fLAB Core A, the institutional share class fund (0.66% management fee) with the Bloomberg Indices of Flexible Funds and Balanced Funds which are UCITS compliant (June 09 to December 18). We have also compared fLAB Core A with a tailor-made Benchmark (55% MSCI World Net Total Return EUR Hedged +35% FTSE World Government Bond Index EUR Hedged + 10% Lyxor EUR Cash UCITS ETF), applying a 0.66 fee to both Equity & Bond Index). Also, when comparing fLAB Core other share classes (in USD, GBP or SGD) with the competitors and benchmark, the results are also very good.

## Model Results: 1986 to 2008 (in %);

1986	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	2000	'01	'02	'03	'04	'05	'06	'07	'08
8.91	8.81	16.41	19.43	3.60	15.00	4.75	17.61	-0.13	23.27	12.16	18.87	16.08	15.53	3.01	0.29	0.75	18.40	9.03	12.40	10.59	4.79	-4.55

## fLAB Core-A Performance since 2009

'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	19
8.71	9.76	-1.55	9.93	8.85	8.36	2.69	4.15	5.77	-3.94	8.73

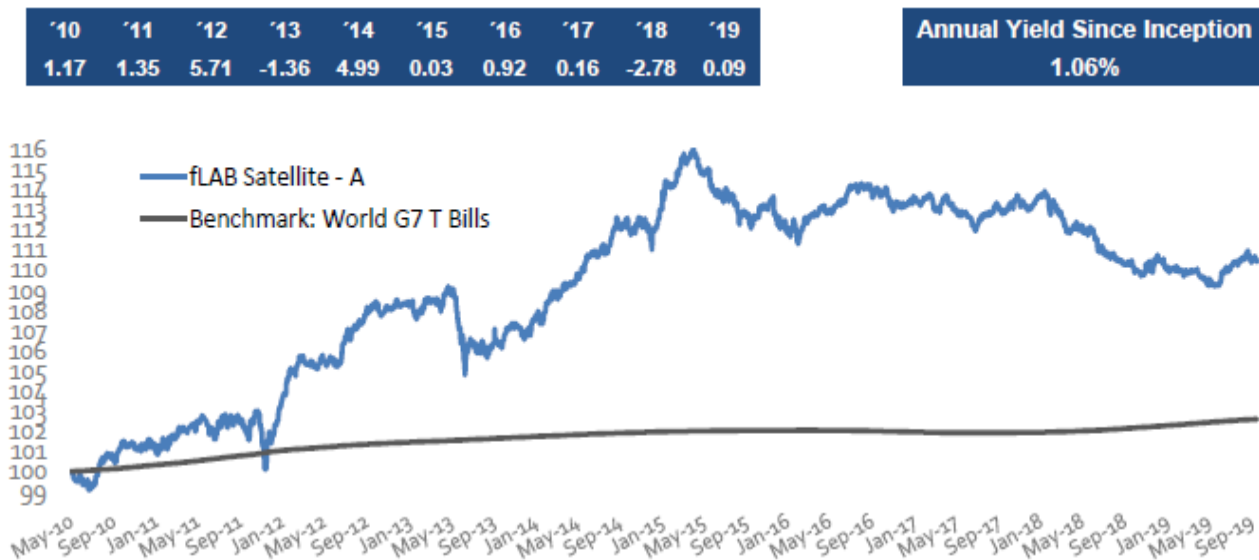
Annual Yield Since Inception  
5.85%



## fLAB Satellite : Relative Return Fund

Composed by a short-term fixed income diversified portfolio + an overlay of ETFs that invest in other asset classes as a hedge to adverse market movements and in order to produce a stable pattern of returns.

fLAB Satellite-A Performance since 2010



As mentioned, Asset Allocation is the center of all our decisions. We know that the key element to produce consistent returns is building a Disciplined, Global and Flexible Asset Allocation.

We know **Absolute Return Funds** are quite popular, but we think most of them are quiet inefficient. They were created when interest rates were between 3% and 5%. At that time, offering Libor+200bp was usual and achievable if the Manager had the right skills.

Nowadays, when World Risk-Free Rates are around 0% or even negative, we think that offering this type of Absolute Return Funds, trying to deliver hundred times the current Risk Free Rate is not feasible.

Risk-free rates change. **We cannot affirm we will achieve T-Bills + 3%, under any level of risk-free rate. We have to adapt our target dynamically.** That's why the excess return we try to obtain above T-Bills changes, as we adapt to different levels of maximum accepted volatility.

We have created a **new fund concept: a Relative Return Fund with a Minimum Sharpe Ratio Target.** In a game of non-stable correlations, fLAB Satellite role is to try and find the best combination between assets to provide positive relative returns. In essence, fLAB Satellite target is to maximize the Sharpe Ratio.

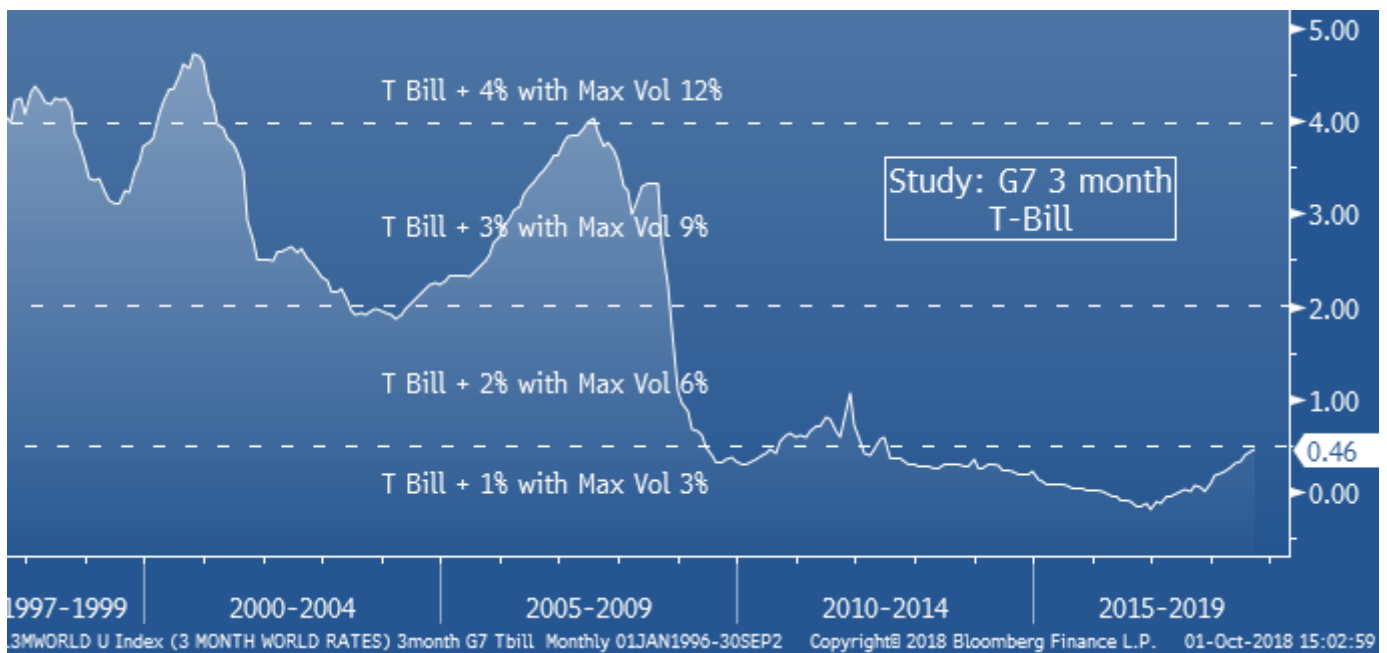
**Our minimum projected Sharpe Ratio will be always 0.33:**  
**(sharpe ratio = excess return above T-Bills / Volatility)**



$$S = \left( \frac{R_p - R_f}{\sigma_p} \right)$$

$R_f$  Rate of Return of the Portfolio  
 $R_p$  Risk-Free Rate  
 $\sigma_p$  Standard Deviation (Risk) of the Portfolio

#### World basket of G7 3-Month Treasury Bills since 90's



We are currently here

When G7 3Months Treasury Bills	< 0.50%	0.50%	2.00%	> 4%
$R_p - R_f$ Target above G7 T Bills	+1	+2	+3	+4
$\sigma_p$ Maximum Volatility	3%	6%	9%	12%

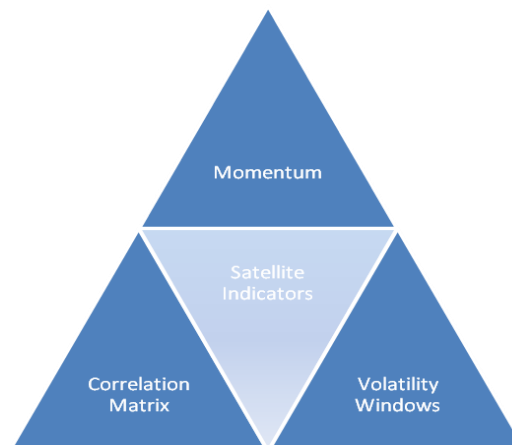
$S$ Sharpe Ratio Target	0.33	0.33	0.33	0.33
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The most important part of fLAB Satellite Portfolio is a Fixed Income Portfolio. Then we may add an overlay of liquid assets, mainly through ETFs: Commodities (Metal, Energy, Agriculture, Precious Metals), Currency Products, Inflation Linked, High Yield, Convertible Bonds, Credit Markets, Equity Strategies, and a few more sub-assets





We will add these other assets ETFs to the fixed income risk-off portfolio, only if our fLAB Satellite Indicators allow us to do so. We have to maintain the Sharpe Ratio over the promised threshold. We use 3 type of indicators to evaluate if we can add those ETFs:



- 1) In House Momentum Indicators of each asset class (ETFs/ETNs) to be added at several terms, short-term (1 month) and mid-term (between 3 and 6 months depending on the input).
- 2) Correlation Matrix between the assets included in fLAB Satellite and the traditional ones, and also correlation and covariance between all assets.
- 3) Volatility of all the assets and of the aggregated one.

A fund of this type cannot keep high correlations to any particular Assets. In the last yearly period (September 18 – September 19), our Correlation Matrix has been:

**1 year Correlation Matrix: fLAB Satellite vs:**

MSCI World	World Govies	World Inv.Gr.	World HY	Euro/USD	Commdty Ind	Gold Spot	Hedge F Index	fLAB CORE
-0.08	0.51	0.43	0.01	-0.11	0.16	0.40	0.01	0.39

## The product (UCITS): fLAB FUNDS, Core & Satellite

- Base Currency: EUR , also available in USD, GBP and SGD (hedged classes)
- Management fee:  
fLAB Core 0.66% (EUR A share & Clean Shares in EUR & USD) ; 1.66% (EUR B share); 1.16% (EUR C share & Hedged share classes: H-USD, H-GBP and H-SGD); 1.50 (K shares EUR & USD)  
fLAB Satellite 0.66% (EUR A share & Clean Shares in EUR & USD) ; 1.16% (EUR B share); 0.91% (EUR C share & Hedged share classes: H-USD, H-GBP and H-SGD); 1.25 (K shares EUR)
- Performance fee: a percentage of the annual performance of the compartment:  
5% (A share and Clean Shares); 10% (B share); 7.5% (C share, H-USD, H-GBP, H-SGD, K-EUR -except Satellite- and K-USD shares) all subject to a high watermark principle.
- Subscription & Redemption fee: 0%
- Management Company: Casa4Funds - Investment Manager: Octogone Europe SA
- Depositary Bank: Banque et Caisse d'Epargne de L'Etat Luxembourg (BCEE: Aaz/AA+)
- Regulator: Commission de surveillance du Secteur Financier (CSSF)
- Registrar & Transfer Agent: EFA - European Fund Administration - Auditor: Ernst & Young
- Net Asset Value, Reporting & Liquidity: daily

Core	fLAB CORE	ISIN Code	Bloomberg	Management Fee
eur	share A EUR	LU0415020451	LUFLCOA LX	0,66%
eur	clean share EUR	LU1805616502	FLCCLEC LX	0,66%
eur	share C EUR	LU1353746792	LUFLCCE LX	1,16%
eur	share B EUR	LU0415023042	LUFLCOB LX	1,66%
us \$ hedged	share H USD	LU0847086583	LUFLCOC LX	1,16%
us \$ hedged	clean share USD	LU1805616684	FLCLUHC LX	0,66%
sterling hedged	share H GBP	LU1353746875	LUFLCHG LX	1,16%
singapore \$ hedged	share H SGD	LU0847086401	LUFLCOD LX	1,16%

Satellite	fLAB SATELLITE	ISIN Code	Bloomberg	Management Fee
eur	share A EUR	LU0415025179	LUFLSAA LX	0,66%
eur	clean share EUR	LU1805616767	FLSCLEC LX	0,66%
eur	share C EUR	LU1353746958	LUFLSCE LX	0,91%
eur	share B EUR	LU0415027464	LUFLSAB LX	1,16%
us \$ hedged	share H USD	LU0847086740	LUFLSAC LX	0,91%
us \$ hedged	clean share USD	LU1805616841	FSCLUHC LX	0,66%
sterling hedged	share H GBP	LU1353747097	LUFLSHG LX	0,91%
singapore \$ hedged	share H SGD	LU0847086666	LUFLSAD LX	0,91%

### How to BUY fLAB Core & fLAB Satellite?

- Directly through Octogone, EFA, Fundsettle, Allfunds, Inversis or MFEX platforms for clients in Europe. Aviva Navigator, Old Mutual and Friends Provident in Singapore
- Through your Private Banking representative. fLAB FUNDS available in most well-known Private Banks
- Sending a mail to [info@flabfunds.com](mailto:info@flabfunds.com), and you will receive a Subscription Form

*The funds are registered in Luxembourg and Spain. Also included in MAS Singapore list of restricted schemes to be offered to Accredited Investors*

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