



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 Betalphing© 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



fLAB fUNDS vs Benchmarks



Key Points

1. It's All About Asset Allocation.

fLAB Core provides long-term capital growth through Betalphing©: 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 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.

4. Casa4Funds is our Luxembourg based UCITS Management Company.





6. The Regulator:

CSSF Commission de Surveillance du Secteur Financier



4 frequently asked questions

1) Which type of products do we admire? Robust, transparent and successful asset allocation funds.

2) Which are some of the most admired funds in the world? Carmignac Patrimoine, BlackRock Global Allocation, Julius Baer Absolute Return, Pimco Unconstrained Bond, M&G Optimal Income...

3) Which type of custodian would you rely on? Only the highest rated financial institutions in the world.

4) How do you keep away from black boxes? Only investing in fully transparent products and daily NAV.

Our answer:

fLAB Core: 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. We call it CORE, and our product is *fLAB Core:*



fLAB Satellite. A short-term fixed income diversified portfolio + an overlay of ETFs that invest in other asset classes as a hedge to adverse market movements, in order to produce Absolute & Relative Return patterns. We call it SATELLITE, and our product is *fLAB Satellite*:





fLAB Core : Global Flexible Asset Allocation Fund through Betalphing©

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 **twosteps 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**



<u>1</u>) Strategically guided monthly asset allocation step: A Stock/Bond Model first generates the allocation to stocks, and then the balance of the portfolio is allocated between bonds and cash based on the reading of the Bond/Cash Model.

Model Transparency: The 22 allocation indicators that we use for our Asset Allocation are the key point of our Fusion Analysis. They are a perfect sample of our 5 types of analysis: trend, valuation, sentiment, economic & interest rate indicators:





9 Indicators Bonds vs. Cash	9 In	idicat	tors E	Bonds	vs.	Cash
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Bond/Cash Trend (Double Weighted) Bond/Cash Overbought/Oversold Indicator Stock/Bond Momentum Global Consumer Sentiment Composite Global Business Sentiment Composite OECD G7 Leading Indicator Index North American GDP

> Stock Earnings Yield Stock Earnings Yield/Bond Yield

13 Indicators Equity vs. Bonds

Stock/Bond Ratio Trend Model Stock/Bond Ratio Trend Stock/Bond Overbought/Oversold Indicator % Stocks Above 10Wk & 40Wk MovAvg % Markets Above 10Wk & 40Wk MovAvg Stock Mowentum Bond Momentum Global Consumer Sentiment Composite Global Business Sentiment Composite OECD G7 Leading Indicator Index Crude Oil Momentum

Indicators taken from: MSCI World StockTotal ReturnIndex - Barclays Global Long-Term Government Bond Total Return 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

Yield Curve

In the Equity vs. Bonds Model, each indicator is given a value of +1 when it favours stocks, o when neutral and -1 when it favours Bonds. The indicators are summed and scaled to range between o and 100. This reading is smoothed with the previous month reading. The final number will be the percentage invested in Equity. The rest up to 100% will be allocated into the Bond vs. Cash Model that works in the same way.

Stock returns are proxied by the MSCI World Total Return Index, bonds by the Barclay's Global Long Term 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)**

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

- a) The Sector and Geo Equity Models to allocate between Sectors and Countries
- b) The Bond Geographical and Duration Model: Countries and curve strategy
- 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 KEY Models:

a) Geographical & Sector Equity models

GLOBAL EQUITY ALLOCATION		Recommende Allocation	d Benchmarl	< Weight	Effective Date
U.S.		51%	53,5%	Under	2017-02-15
Emerging Markets		14%	10,6%	Over	2017-03-02
Europe ex. U.K.	l	14%	14,7%	Market	2017-03-02
Japan		9%	7,8%	Over	2016-09-02
Pacific ex. Japan	1	7%	4%	Over	2017-02-15
U.K.		5%	6,2%	Under	2016-12-08
Canada	I	0%	3,2%	Under	2017-03-02

U.S. SECTOR	Recommended Allocation	Benchmarl	< Weight	Effective Date
Financials	17%	13,2%	Over	2017-03-09
Utilities I	5%	3,2%	Over	2017-03-09
Energy	9%	7,1%	Over	2017-02-16
Industrials	14%	10,1%	Over	2017-02-16
Consumer Staples	9%	11,1%	Market	2017-03-09
Materials	2%	2,9%	Market	2017-02-16
Information Technology	20%	19,8%	Market	2017-02-16
Telecom Services	2%	2,6%	Market	2017-02-16
Real Estate	3%	3%	Market	2017-02-16
Consumer Discretionary	9%	12,7%	Under	2017-03-09
Health Care	10%	14,3%	Under	2017-03-09



b) Bond Geographical & Duration Model



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Duration Model for the U.S:

Strategy	Readings
Under Benchmark Duration	84,54
Bearish	76,49
Neutral	58,67
Neutral	2,07
Neutral	62,12
	2,74
	2,25
	Under Benchmark Duration Bearish Neutral Neutral



c) Currency Hedge Overlay Model



Our results have been outstanding since inception in 2009:

	Model Results: 1986 to 2008 (in %);																					
1986	'87	'88	'89	'9 0	'91	'92	'93	[.] 94	'95	'9 6	'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

109 110 111 112 113 114 115 116 117 Annual Yield Since I		erformance since June 2009	norma	-A Pei	o Core		an			
100 140 144 142 143 144 145 146 147 Appual Vield Since I										
	nception	'16 '17 Annual Yield Since Inception	~16	`15	′14	′13	′12	11	~10	`09
8.71 9.76 -1.55 9.93 8.85 8.36 2.69 4.15 5.77 6.54%		4.15 5.77 6.54%	4.15	2.69	8.36	8.85	9,93	-1.55	9.76	8.71



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fLAB Fund SICAV Core A | ★★★★ fLAB Fund SICAV Core H-USD | ★★★★





Annex: fLAB Core performance since inception

Until 29.12.2017	Total Return	IRR
fLAB Core	72,26%	6,54%
Bloomberg UCITS Balanced Funds Index	49,45%	4,79%
Bloomberg UCITS Flexible Funds Index	42,08%	4,18%





fLAB Satellite : Relative Return Fund

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.

Now at current situation, when World Risk-Free Rates are o% 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)



Standard Deviation (Risk) of the Portfolio



		We ar	e currently here	
When G7 3Months	< 0.50%	0.50%	2.00%	> 4%
Treasury Bills	()	2.00%	4.00%	
R_p - R_f Target above G7 T Bills	+1	+2	+3	+4
σ_p Maximum Volatility	3%	6%	9%	12%
	\bigcirc			
S Sharpe Ratio Target	0.33	0.33	0.33	0.33

The most important part of the Portfolio is a Fixed Income Portfolio. Then we may add an overlay of liquid assets, mainly trough 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 linked 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:



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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.

fLAB Satellite Performance since Inception (May 2010) has been outstanding in Risk Return Terms, delivering well above our 0.33 Sharpe Ratio Target:



A fund of this type cannot keep high correlations to any particular Assets. In the last yearly period (May 16-May 17), our Correlation Matrix has been:

1 year Correlation Matrix: fLAB Satellite vs:

MSCI World	World Gov Bond Agg	World Inv Grade	World High Yield	Euro/USD	Commodity Index	Gold Spot
0.31	0.57	0.59	0.33	-0.13	0.41	0.32

Disclaimer: This Fund is authorised in the Grand Duchy of Luxembourg and regulated by the "Commission de Surveillance du Secteur Financier" (CSSF) The historical performance graph, Sharpe Ratio, Correlation, Volatility and VAR are calculated using the oldest share class: fLAB Core A and fLAB Satellite A Inception was in June 2009, under a SIF structure. In February 2016 it was converted into a full UCITS structure. SIF legal frame is not applicable anymore as the investments restriction and policies were amended to a UCITS framework in Feb 2016





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)
 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)
- 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 shares) all subject to a high watermark principle
- Subscription & Redemption fee: 0%
- Taxation: no withholding tax
- Management Company: Casa4Funds Investment advisor: Market LAB Luxembourg sarl
- Depositary Bank: Banque et Caisse d'Epargne de L'Etat Luxembourg (BCEE: Aa2/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 HUSD	LU0847086583	LUFLCOC LX	1,16%
us \$ hedged	clean share USD	LU1805616684	FLCLUHC LX	0,66%
sterling hedged	share HGBP	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 HUSD	LU0847086740	LUFLSACLX	0,91%
us \$ hedged	clean share USD	LU1805616841	FSCLUHC LX	0,66%
sterling hedged	share HGBP	LU1353747097	LUFLSHG LX	0,91%
singapore \$ hedged	share H SGD	LU0847086666	LUFLSAD LX	0,91%

How to BUY fLAB Core & fLAB Satellite?

 a) Directly through EFA, Fundsettle, Allfunds, Inversis or MFEX platforms for clients in Europe. Aviva Navigator, Old Mutual and Friends Provident.in Singapore
b) Sending a mail to 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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