

# Deuterium Global Dynamic Allocation Long/Short Fund

Investor Presentation

December 2023

[www.deuterium.us](http://www.deuterium.us)

## Global Macro Hedge Fund Strategy

# Agenda

1. Identity and Offering
2. Long-Only Fund and Hedge Fund Track Record
3. Investment Process
4. Portfolio Construction
5. Risk Management
6. About the Team
7. About Deuterium

Case Studies

Disclaimer

# GDALS Identity and Offering

The fund’s objective is to generate positive returns, in all market conditions, over a rolling three-year period; by pursuing a policy of active allocation across asset classes and global markets according to a dynamic asset allocation model that is adjusted from time to time by short-term tactical asset allocation shifts in anticipation of changing market, fiscal and political conditions.

## Key Characteristics

● Strategy:	Absolute Return Multi-Asset
● Style:	Systematic Global Macro with manager discretion
● Target Return:	10-12% net
● Target Volatility	<10% annualised
● Target Sharpe Ratio	>1
● Target Correlation	Equity Beta <0.3
● Instruments	Equities, bonds, FX & futures
● Leverage (SoN*)	Expected 0-200%, 500% Max
● Capacity	\$5-10bn

## Fund Vehicle

● Umbrella:	Deuterium UCITS ICAV
● Domicile:	Ireland
● Regulatory Status:	UCITS V
● Base Currency:	US Dollar
● Dealing:	Daily
● Priced:	Single, Swing
● Share Class Currencies:	USD, EUR, GBP, CHF
● Fees (clean)	1.5% + 15% performance fee (over SoFR with HWM**)
● Management Company:	Waystone Management Company (IE) Limited (“WMC”)

\* SoN = Sum of Notionals

\*\* SOFR = Secured Overnight Financing Rate, the hurdle rate for USD share classes. Hurdle rates for EUR and GBP are ESTR and SONIA respectively. HWM = High Water Mark

# Returns

## GDA USD Morningstar

**1<sup>st</sup>** 10y 5 Star Rating

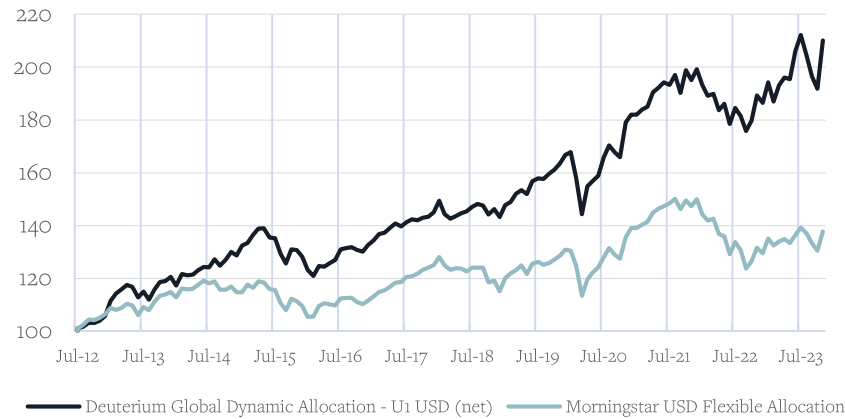
## GDA GBP Trustnet

**1<sup>st</sup>** 5y 5 Crown Rating

Morningstar five-star rating in recognition of stellar returns - GDA USD

Trustnet five-crown rating in the top 10% of UK funds - GDA GBP

## GDA Global Long-Only Fund USD returns over 10 Years



Top 96% of mixed-allocation peers over past year on Bloomberg (more than 5000 funds)

## GDALS Global Macro Hedge Fund USD returns since Nov 22



Top 95% of macro hedge fund peers YTD on Bloomberg (about 200 funds)

Source: Deuterium, Morningstar

Source: Bloomberg

Past performance is not a guide to future performance. Refer to important disclaimers at the end of this presentation.  
Source: Deuterium, Morningstar, Trustnet

Data as of 30<sup>th</sup> November 2023





# GDALS Track Record USD



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2022	-	-	-	-	-	-	-	-	-	-	3.6	-0.5	3.1
2023	3.9	-3.1	3.0	0.8	-1.0	4.3	4.0	-4.8	-5.5	-3.9	12.4	-	9.0

Source: Deuterium, Morningstar

Performance is shown net of fund level fees and expenses. The above chart shows the net performance of the Global Dynamic Allocation Long/Short S USD share class from 1 November 2022 to 18 November 2022 and the net performance of the F USD share class from its launch on 18 November 2022 onward. The Morningstar macro trading USD index has been included for information purposes only. Morningstar macro trading USD is not a benchmark for the fund and the fund is not managed by reference to the Morningstar macro trading USD index nor does it seek to outperform the Morningstar macro trading USD index. Past performance is not necessarily a guide to future performance. The value of your investment can fall as well as rise and you may not get back the original amount you invested. The value of any foreign investments may be affected by changes in currency exchange rates.

## Risk & Reward Profile: Source PRIIPs

Scenarios	if you exit after 1 year	if you exit after 3 years (recommended holding period)
<b>Stress</b>	<b>2,213 USD</b> -77.9%	<b>3,598 USD</b> -28.9%
<b>Unfavourable</b>	<b>9,129 USD</b> -8.7%	<b>10,321 USD</b> 1.1%
<b>Moderate</b>	<b>11,074 USD</b> 10.7%	<b>13,526 USD</b> 10.6%
<b>Favourable</b>	<b>12,385 USD</b> 23.9%	<b>15,894 USD</b> 16.7%



Source: USD F share class PRIIPs

# GDALS Track Record EUR



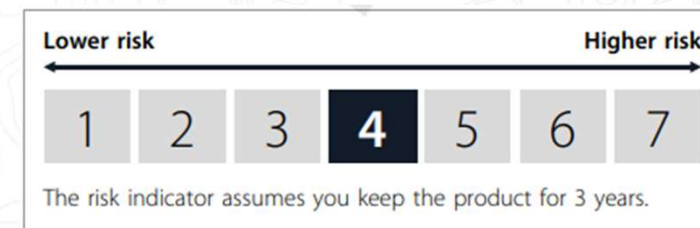
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2022	-	-	-	-	-	-	-	-	-	-	-0.6	-3.8	-4.4
2023	2.3	-1.0	0.8	-0.7	2.4	2.0	3.0	-3.5	-2.9	-3.7	8.7	-	6.8

Source: Deuterium, Morningstar

Performance is shown net of fund level fees and expenses. The above chart details the net performance of the Global Dynamic Allocation Long/Short S EUR share class from 1 November 2022 to 16 November 2022 and the net performance of the F EUR share class from its launch on 16 November 2022 onward. The Morningstar macro trading USD in EUR index has been included for information purposes only. Morningstar macro trading USD in EUR is not a benchmark for the fund and the fund is not managed by reference to the Morningstar macro trading USD in EUR index nor does it seek to outperform the Morningstar macro trading USD in EUR index. Past performance is not necessarily a guide to future performance. The value of your investment can fall as well as rise and you may not get back the original amount you invested. The value of any foreign investments may be affected by changes in currency exchange rates.

## Risk & Reward Profile: Source PRIIPs

Scenarios	if you exit after 1 year	if you exit after 3 years (recommended holding period)
<b>Stress</b>	<b>1,910 EUR</b> -80.9%	<b>3,056 EUR</b> -32.6%
<b>Unfavourable</b>	<b>8,510 EUR</b> -14.9%	<b>10,531 EUR</b> 1.7%
<b>Moderate</b>	<b>11,256 EUR</b> 12.6%	<b>13,838 EUR</b> 11.4%
<b>Favourable</b>	<b>14,855 EUR</b> 48.5%	<b>19,026 EUR</b> 23.9%



Source: EUR F share class PRIIPs



# GDALS Track Record GBP



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2022	-	-	-	-	-	-	-	-	-	-	-1.3	-0.3	-1.6
2023	1.8	-1.6	1.1	-0.6	0.5	1.6	3.0	-3.5	-1.8	-3.2	7.8	-	4.7

## Risk & Reward Profile: Source PRIIPs

Scenarios	if you exit after 1 year	if you exit after 3 years (recommended holding period)
<b>Stress</b>	<b>1,964 GBP</b> -80.4%	<b>2,977 GBP</b> -33.2%
<b>Unfavourable</b>	<b>8,571 GBP</b> -14.3%	<b>10,536 GBP</b> 1.8%
<b>Moderate</b>	<b>11,379 GBP</b> 13.8%	<b>14,629 GBP</b> 13.5%
<b>Favourable</b>	<b>14,878 GBP</b> 48.8%	<b>19,719 GBP</b> 25.4%



Source: GBP F share class PRIIPs

Source: Deuterium, Morningstar

Performance is shown net of fund level fees and expenses. The above chart details the net performance in GBP of the Global Dynamic Allocation Long/Short S USD share class from 1 November 2022 to 18 November 2022 in GBP and of the F USD share class until 19 December 2022 with the net performance of the GBP F share class from launch on 19 December 2022. The Morningstar macro trading USD in GBP index has been included for information purposes only. Morningstar macro trading USD in GBP is not a benchmark for the fund and the fund is not managed by reference to the Morningstar macro trading USD in GBP index nor does it seek to outperform the Morningstar macro trading USD in GBP index. Past performance is not necessarily a guide to future performance. The value of your investment can fall as well as rise and you may not get back the original amount you invested. The value of any foreign investments may be affected by changes in currency exchange rates



# GDALS Track Record CHF



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2022	-	-	-	-	-	-	-	-	-	-	-1.9	-2.6	-4.5
2023	3.4	-1.3	0.7	-1.6	1.7	2.1	1.2	-3.1	-1.9	-4.3	7.4	-	3.8

## Risk & Reward Profile: Source PRIIPs

Scenarios	if you exit after 1 year	if you exit after 3 years (recommended holding period)
<b>Stress</b>	<b>1,888 CHF</b> -81.1%	<b>3,051 CHF</b> -32.7%
<b>Unfavourable</b>	<b>8,586 CHF</b> -14.1%	<b>9,806 CHF</b> -0.7%
<b>Moderate</b>	<b>11,286 CHF</b> 12.9%	<b>14,312 CHF</b> 12.7%
<b>Favourable</b>	<b>12,728 CHF</b> 27.3%	<b>16,693 CHF</b> 18.6%



Source: CHF F share class PRIIPs

Source: Deuterium, Morningstar

Performance is shown net of fund level fees and expenses. The above chart details the net performance in CHF of the Global Dynamic Allocation Long/Short S USD share class from 1 November 2022 to 18 November 2022 in CHF and of the F USD share class until 19 December 2022, with the net performance of the CHF F share class from launch on 19 December 2022. The Morningstar macro trading USD in CHF index has been included for information purposes only. Morningstar macro trading USD in CHF is not a benchmark for the fund and the fund is not managed by reference to the Morningstar macro trading USD in CHF index nor does it seek to outperform the Morningstar macro trading USD in CHF index. Past performance is not necessarily a guide to future performance. The value of your investment can fall as well as rise and you may not get back the original amount you invested. The value of any foreign investments may be affected by changes in currency exchange rates.





# GDALS targeted portfolio exposures and betas to world equity index

Major Bonds Long/Short  
 Typical net: -50% to +50%  
 Typical gross: 0% to 100%  
 Backtested Beta: -0.01

Equities Long/Short  
 Typical net: -25% to +75%  
 Typical gross: 0% to 100%  
 Backtested Beta: 0.09

Dollar vs Major Currency  
 Typical net: -75% to +75%  
 Typical gross: 0% to 100%  
 Backtested Beta: -0.01

US Sector Long/Short  
 Typical net: -20% to +40%  
 Typical gross: 0% to 100%  
 Backtested Beta: 0.03

GDALS Portfolio  
 Typical gross: 75% to 200%  
 Backtested Beta: 0.1

GDALS net return Nov 22 to November 23 (+13.3%)\* compared to 10-year Hedge Fund and Equity Index annual returns

Indices	Cumulative Return	Annualised Return	Annualised Volatility	Raw Sharpe	% positive months	Correlation with MSCI World Equity Index (Rho)	Average Return in months when MSCI World is negative	Average Return in months when MSCI World is positive
<b>GDALS net monthly return index</b>		<b>*13.3%</b>	<b>13.1%</b>	<b>1.0</b>				
Credit Suisse Global Macro Index	58.2%	4.5%	6.9%	0.7	64.8%	0.17	-0.3%	0.8%
Credit Suisse Long/Short Equity Index	64.6%	4.9%	6.6%	0.7	61.6%	0.37	-1.2%	1.4%
Credit Suisse Multi-Strategy Index	73.7%	5.4%	4.3%	1.3	72.0%	0.15	-0.2%	0.8%
Credit Suisse Hedge Fund Index	51.3%	4.1%	4.6%	0.9	66.4%	0.23	-0.6%	0.9%
Credit Suisse Managed Futures Index	53.3%	4.2%	9.7%	0.4	56.0%	-0.03	0.3%	0.4%
Credit Suisse Convertible Arbitrage Index	38.2%	3.2%	4.0%	0.8	61.6%	0.15	-0.3%	0.6%
S&P 500 INDEX	184.4%	10.6%	15.0%	0.7	66.4%	1.00	-3.2%	3.4%
MSCI ACWI Index	95.2%	6.6%	14.7%	0.5	62.4%	1.00	-3.6%	3.1%

Source: Deuterium, Morningstar, data as of 30 November 2023. Past performance is not a guide to future performance. The value of your investment can fall as well as rise and you may not get back the original amount you invested.



# Equity correlation and Beta targets $\leq 0.3$

## Global Macro Portfolio Construction: 4 Baskets

Global Equities,  
Futures Long/Short & Options  
18 Equity Markets  
*Typical range: -25% to +75%*

USD vs Major Currencies,  
Futures Long/Short & Options  
10 Currencies  
*Typical range: -75% to +75%*



US Equity Sector baskets  
& Futures Long/Short  
11 Sectors Relative Value  
*Typical range: -20% to +40%*

Major Sovereign Bonds,  
Futures Long/Short & Options  
9 Sovereign Bond Markets  
*Typical range: -50% to 50%*

GDALS trades four unique portfolios. These portfolios utilize the same drivers as our long only product, making use of the same macroeconomic inputs and scoring systems with the long bias removed.

# PRIIPS Risk ranking, Leverage and VAR limits for GDALS

PRIIPS Risk Level **4** Moderate Risk



PRIIPS annual Net Return Estimate in Moderate Markets > **10%**

Scenarios	if you exit after 1 year	if you exit after 3 years (recommended holding period)
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<b>Favourable</b>	<b>12,385 USD</b> 23.9%	<b>15,894 USD</b> 16.7%

Expected Leverage 100% to 400% with Maximum 500%

Current Leverage **163%**

Maximum VAR\* 20%      Current VAR **10.9%**

\* 20 days 99%

Target Volatility\* <10%      Current Volatility **9.7%**

\* Annual

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Source: Deuterium

# Investment Process

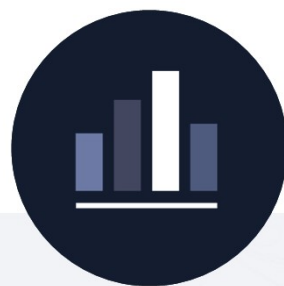
Our four-step process blends the power of large-scale quantitative analytics with fund manager expertise. The process is designed to be evidence-driven, systematic, dispassionate, seamless and transparent.



## 1. Models

**The team builds predictive macro models**

Analysis of 27 countries and 28 economic factors. 4-6 weeks forecasts updated 4 times per hour with new data.



## 2. Scores

**Models produce market directional scores**

Scores for 27 equity and sovereign bond markets, USD currency pairs and US sectors. Aggregated with central bank policy, price pattern and valuation scores.



## 3. Positions

**Scores translate into suggested fund positions**

Positions are formulated in deep liquid markets, and identified by reference to global market cap weightings.



## 4. Discretion

**Managers discuss and interpret positions**

Managers will adjust suggested positions for policy and politics influence on market behaviour. The final decision rests with the Lead Fund Manager.

Source: Deuterium



# 1. Models



## Fundamental Macro and Financial Data

## Key Macro Predictions mapped to their GDP Components

50 million data series are considered

~800,000 data series used in our model processing

~100,000 series are retained in final models

Each series is mapped for economic influence

Database updates are 4 times per hour every hour



### Consumer

- Consumption
- Consumer Confidence
- Personal Income
- Consumer Credit
- Employment
- Unemployment Inverse
- Initial Jobless Inverse

### Producer

- Production
- Factory Orders
- Durable Goods
- Exports
- Imports

### Capital Spending

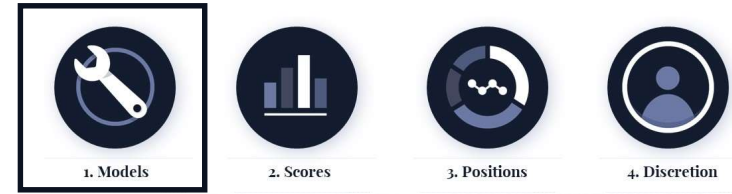
- Investment
- Retail Sales
- Business Credit
- House Prices
- Mortgage Applications
- Housing Starts
- Existing Home Sales
- New Home Sales

### Price

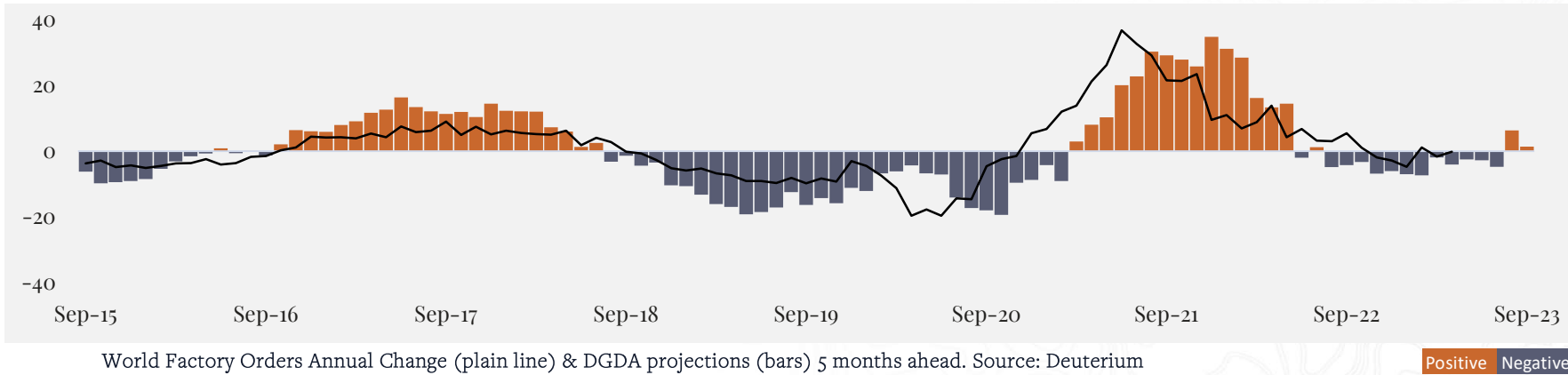
- CPI
- PCE
- Core CPI
- Service Inflation
- Goods Inflation
- PPI
- Core PCE
- PCE Services

Source: Deuterium

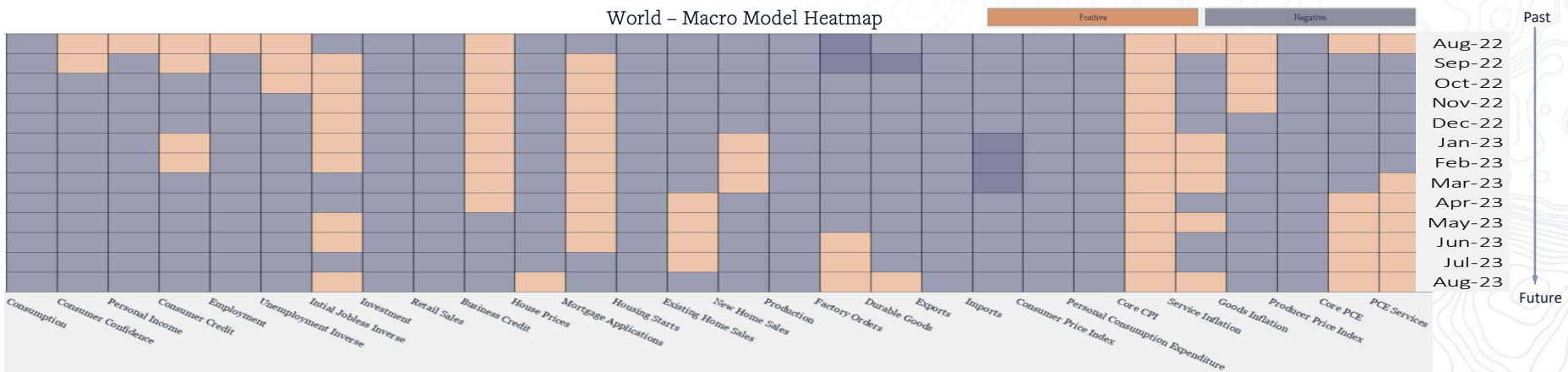
# 1. Model Projections



The process seeks to forecast, several months ahead, the key Macro Variables that drive asset prices.



The macro model outputs may be viewed as heat maps that show the projections for each country and region.



Source: Deuterium. For illustrative purposes only. Forecasts are not a reliable indicator of future performance.

## 2. Scores



1. Models



2. Scores



3. Positions



4. Discretion

Macro Models combine with Policy, Valuation and Price inputs to produce an overall market direction probability score (% chance the market will go up/down in the next 4 to 6 weeks).

75%

Macro Score

Model projections combined with Policy models for each country

12.5%

Valuation Score

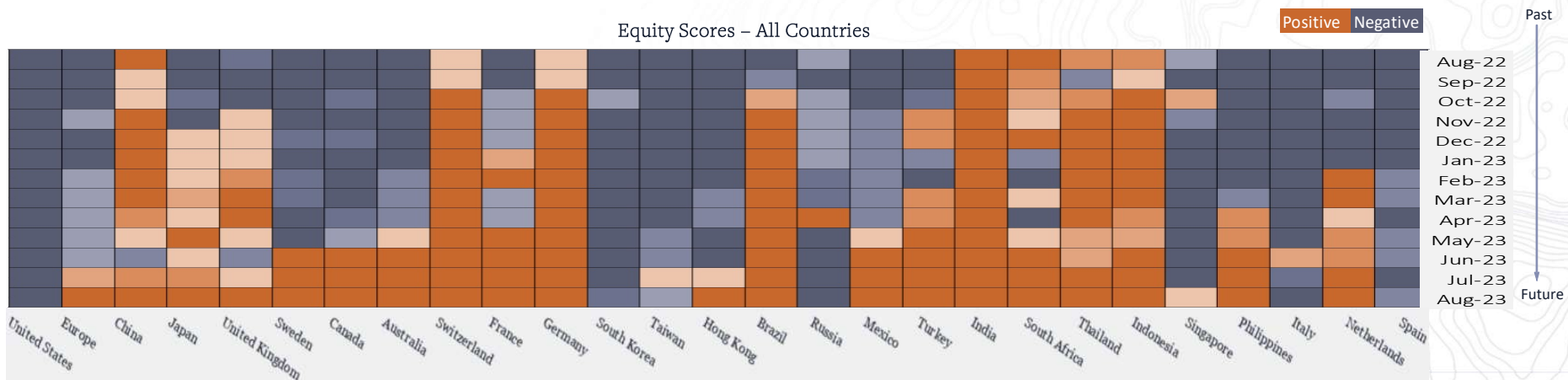
Valuation scores look at key market valuation metrics

12.5%

Price Score

Price pattern scores look at a number of technical indicators

The market scores outputs may be viewed as heat maps showing market forecasts in each country.



Source: Deuterium. For illustrative purposes only

### 3. Positions



1. Models



2. Scores

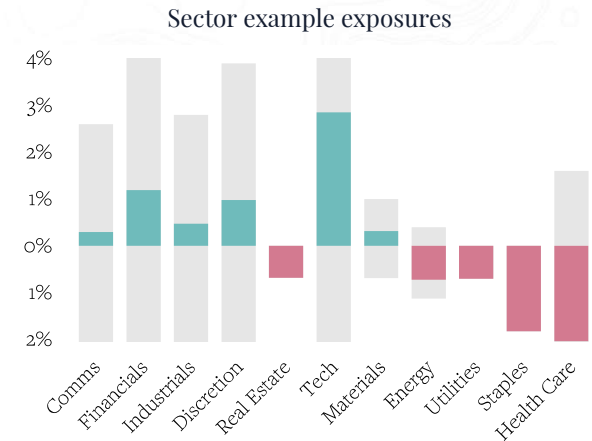
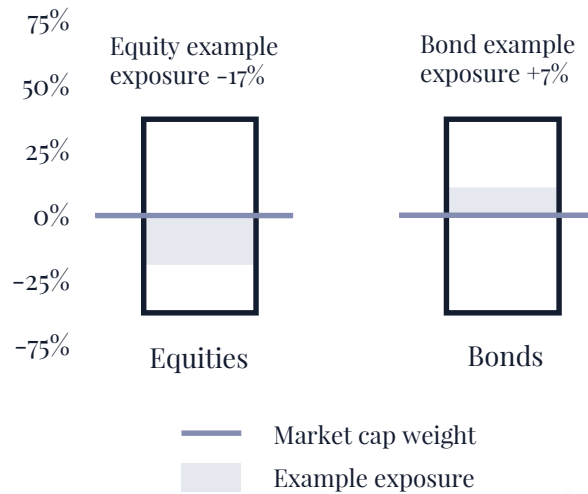


3. Positions



4. Discretion

Our Quant systems recommends long/short weights that reflect our equity, sector, bond, and currency scores.



- Equity market positions are set by scores with reference to liquidity and market cap
- US sector positions are set by scores and implemented through our own market baskets built with ESG compliant shares

- Currency positions are set by scores of the major currency markets relative to the USD and to each other
- Major sovereign bond positions are set by the scores, and can be implemented through futures, directly, and with options

Source: Deuterium. For illustrative purposes only



# Manager Discretion

Managers can choose to hold or delay implementation of positions for several reasons.



1. Models



2. Scores



3. Positions



4. Discretion



## Example considerations

**Policy** responses (and policy mistakes) that can have market effects more rapid than can be captured in underlying data

**Negative** score in a market that could lead to contagion across global markets

**Timing** effects to reflect differences between scores across various regions in asset classes



## When exercised

**Daily** real time, investment team discussions, aiming to make unanimous decisions. Lead Manager has ultimate decision-making authority

**Weekly** structured and minuted risk meeting sets GDA current macro view. The majority of trading takes place as a result of this weekly meeting

**Quarterly** Investment Summary (QIS) publication outlines model projections for the coming months. This can be distributed to clients

# Portfolio Construction: Global Equity Long/Short

## Model Universe and Instruments

- Major indices of 18 countries
- Positions are implemented through equity futures and article 8 compliant shares

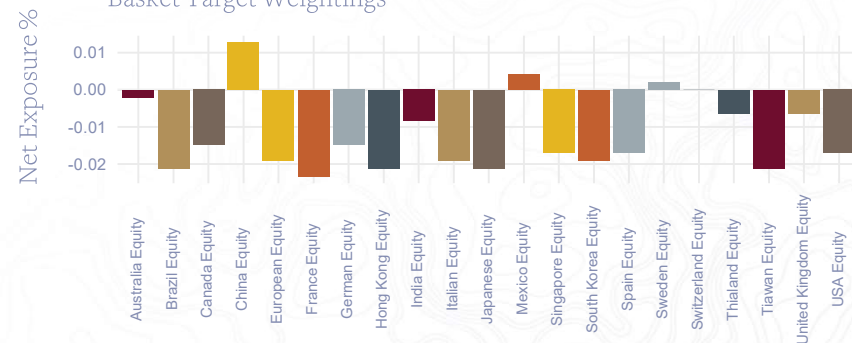
## What Drives Positioning?

- Primarily growth and inflation factors including consumption, investment, production and trade
- Valuations and trend

## Strategy Construction

- To translate the eighteen model outputs into positions, each equity market's total score, whether positive or negative, is expressed as a percentage allocation, subject to risk constraints
- Equity scores are independent and at times a majority can express the same direction. If most scores are positive, the fund will have a high exposure to equities. The fund in general will not be more than -50% short due to risk limits, with manager oversight of final position sizing

Global Equity Long/Short example  
Basket Target Weightings



Source: Deuterium

Typical net range: -25% to +75%

Typical gross range: 0% to 75%

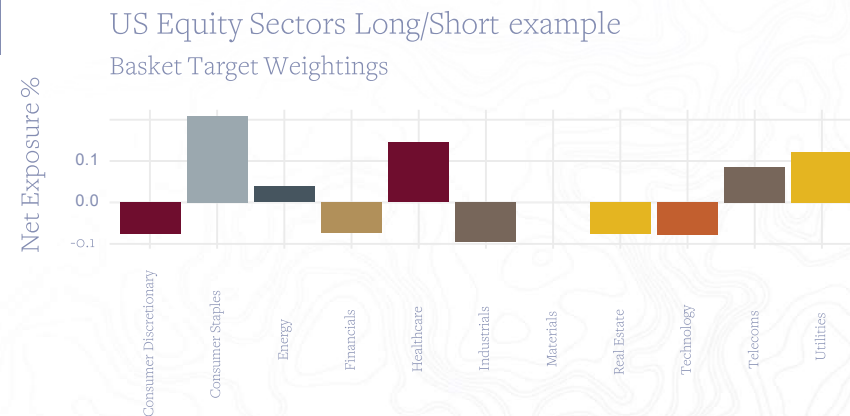
# Portfolio Construction: US Equity Sector Long/Short

## Model Universe and Instruments

- US indices for 11 equity sectors
- Positions are implemented through long exposures in article 8 compliant US sector shares and short US equity market futures.

## What Drives Positioning?

- Primarily growth and inflation factors including consumption, investment, production and housing, as well as consumer and producer price inflation
- Monetary policy effects and valuations



Source: Deuterium

## Strategy Construction

- To translate the eleven model outputs into positions, the sectors are separated into long and short baskets, and each sector's total score is expressed as a percentage of its basket, subject to risk constraints
- Models generate relative performance scores for each sector compared to the overall equity index. The final long and short positions are beta adjusted to give the long and short baskets similar sensitivity to market movements, with final sizing subject to manager review

Typical net range: -20% to +40%

Typical gross range: 0% to 100%

Source: Deuterium. For illustrative purposes only

# Portfolio Construction: Major Sovereign Bond Futures Long/Short

## Model Universe and Instruments

- Major sovereign bonds or bond futures
- Positions generally are implemented through major bond futures

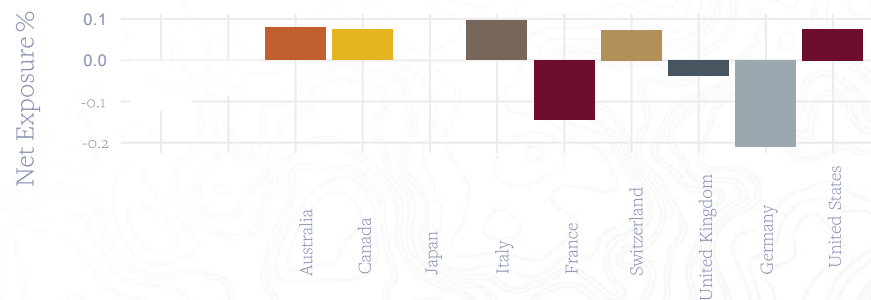
## What Drives Positioning?

- Primarily growth and inflation factors including investment, production, consumer and producer prices
- Monetary policy effects and valuations

## Strategy Construction

- To translate the model scores into exposures, positive scores are set to a long position, negative scores to a short position. Position sizing is outlined by the bond scores
- Models are used to predict changes in yield for the most liquid maturity sovereign bonds, with sizing subject to manager review
- The fund will tend not to be short the bond market and long equities at the same time

Major Bond Long/Short example  
Basket Target Weightings



Source: Deuterium

Typical net range: -50% to +50%  
Typical gross range: 0% to 100%



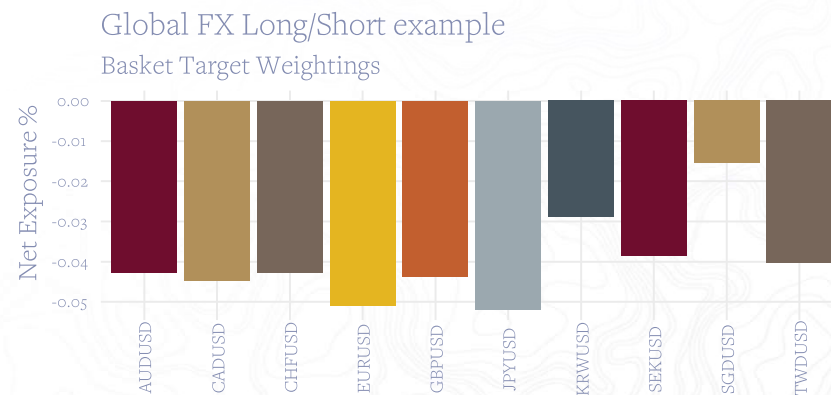
# Portfolio Construction: US Dollar vs Major Currencies

## Model Universe and Instruments

- USD versus currencies of 10 major countries
- Positions are implemented through currency futures and forwards

## What Drives Positioning?

- Primarily growth and inflation factors including consumption, investment, production and housing, as well as consumer and producer price inflation
- Monetary policy effects and valuations



Source: Deuterium

## Strategy Construction

- To translate the eleven model outputs into positions, the USD model is used to set the direction of USD exposures, long or short the USD. If the USD is long, the non-USD currencies with the worst scores will have the largest short positions. If the USD is short, the non-USD currencies with the best scores will have the largest long positions, subject to risk constraints
- Models predict changes in the USD versus its major counterparts, and set currency positions subject to manager review

Typical net range: -75% to +75%  
Typical gross range: 0% to 100%

# Risk Management

## Embedded Risk Management

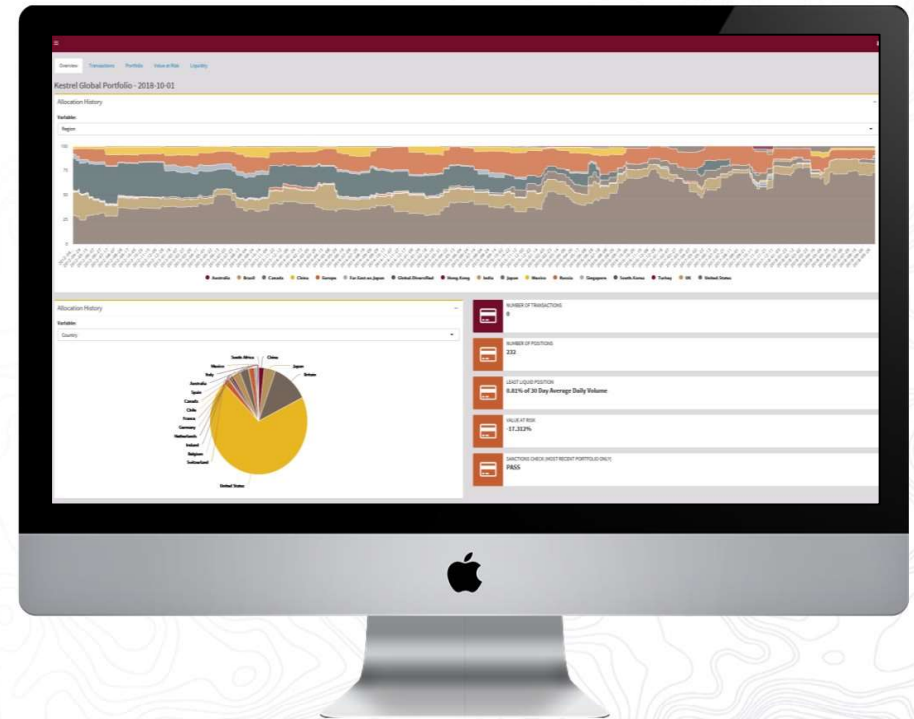
- At the sub-portfolio level, positions are set with limits applied during this process to control volatility at the instrument level
- Each day, these sub-portfolios are subject to their back tests, measuring volatility, beta and other risk characteristics
- The team integrates the systematic portfolio recommendations at its discretion, targeting individual basket contributions to risk and overall portfolio volatility

## Proprietary Systems

- Custom built systems ensure total transparency
- Data are available for all fund transactions
- Portfolio can be broken down by risk contributions, geography, VaR and liquidity

## Risk Oversight

- Weekly internal review by the Managers
- Quarterly risk report to the Fund Board



Source: Deuterium. For illustrative purposes only

# Investment Team



## John Ricciardi

### Lead Fund Manager and Head of Global Asset Allocation

Before joining Deuterium, John was the Head of Global Asset Allocation at Merian Global Investors. John cofounded Kestrel Investment Partners LLP in 2011, whose global asset allocation business was acquired by Merian in 2019. Prior to Kestrel, John's notable appointments were as Iveagh's Head of Asset Allocation between 2006 and 2011, where he launched the Iveagh Wealth Fund, and as Head of Global Asset Allocation for AllianceBernstein between 1996 and 2003.

John has also cofounded and built two successful asset allocation solutions businesses: Cursitor Management which was sold to Alliance Capital in 1996 and Bullrun Financial which was sold to Quantal International Inc. in 2010.



## Osman Ozsan

### Chief Investment Officer

In 2018, Osman founded Deuterium Capital Management, the investment manager of the Deuterium Global Dynamic Allocation Fund. In addition to his role on the GDA team, Osman also manages a private investment portfolio and a private equity pool for clients of the firm.

Osman has led an extensive international career in investment banking working at Barclays and UBS, trading interest rate and currency derivatives, as well as debt instruments. Osman studied law at the University of Bristol before moving to graduate study in Finance at the Stern School of Business in New York.



## Vijay Modhvadia

### Managing Director

Vijay joined Deuterium in Dec 2021. Vijay has led an extensive international career in investment banking working at UBS Zurich, Credit Suisse, Barclays and HSBC Bank trading interest rates, government bonds and currency derivatives.

Vijay has extensive experience in leading teams having been Head of G10 STIR at UBS and team leader at Barclays. Vijay has quantitative background with first class degree in Software Engineering and most recently completed courses in Artificial Intelligence and Machine Learning from MIT.



# Data Science Team



## Ravi Kishore Booka

### Head Quant Analyst

Ravi is the Head Quant Analyst within the GDA team, a position he has held since Jan 2021 having joined Kestrel in September 2011 as the Chief Technology Officer. Ravi is responsible for the team's technology strategy and he plays a key role in developing systems to power both the investment process and the research effort. Ravi previously worked with John at Iveagh as technology consultant and was instrumental in developing the innovative tools that drove its investment process.

Ravi began his career as a software engineer with Intoto Software Ltd in India. Ravi has a BSc in Mathematics and Computer Science and an MSc in Electronics from Andhra University, India.



## Pramila Prasingu

### Data Analyst

Pramila is a Data Analyst within the GDA team, a position she has held since November 2020 having joined Kestrel in August 2011 as a developer. Pramila is responsible for web administration and the data analysis that underlies the team's investment modelling capabilities. Pramila previously worked with John at Iveagh as intern and was instrumental in data processing.

Pramila began her career with Andhra Bank in India as Helpdesk Executive. Pramila holds a Master's degree in Computer Networks from Middlesex University.



## Sarath Kotamarthi

### Quant Analyst

Sarath is a Quant Analyst within the GDA team, a position he has held since November 2020 having joined Kestrel in December 2012 as a consultant developer. Sarath is responsible for organising, analysing and reporting on non-macro-economic and financial market data in support of the team's investment modelling systems.

Sarath began his career with PC DOCTOR 24 in London. Sarath holds a BSc in Computer Science and a MSc in Computer Networking from London Metropolitan University.



# About Deuterium

For professional investors only

- **Deuterium Capital Management LLC** (“Deuterium”) managing more than **\$1 billion** in assets, as of 31-Dec-2022 including **\$260 million** in absolute return style, long/short, private fund assets, has launched the Deuterium Global Dynamic Allocation Long/Short (“GDALS”), its global macro hedge fund on the same UCITS, daily-dealing platform as the Deuterium Global Dynamic Allocation Fund (“GDA”), its long-only, multi-asset fund.
- **GDALS** Deuterium’s Global Dynamic Allocation Long/Short Fund, looks to combine the best of quantitative macro fundamental analysis with decades of manager experience in a UCITS, daily dealing, **global macro hedge fund**.
- **GDA** The Deuterium Global Dynamic Allocation Long Only Fund, a UCITS, daily dealing, long only, multi asset fund with a ten-year track record has a **5-star Morningstar USD** and **5-crown Trustnet GBP** rating.



# Case Studies

# Lead Manager Track Records

More than three decades of performance in multi-asset investing: John Ricciardi's long-term track records



**John Ricciardi**

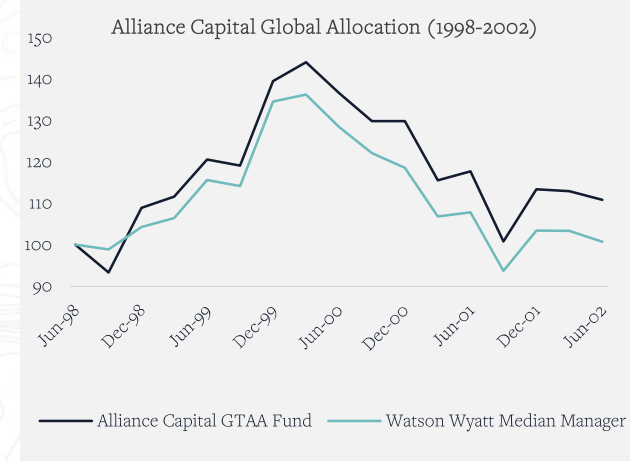
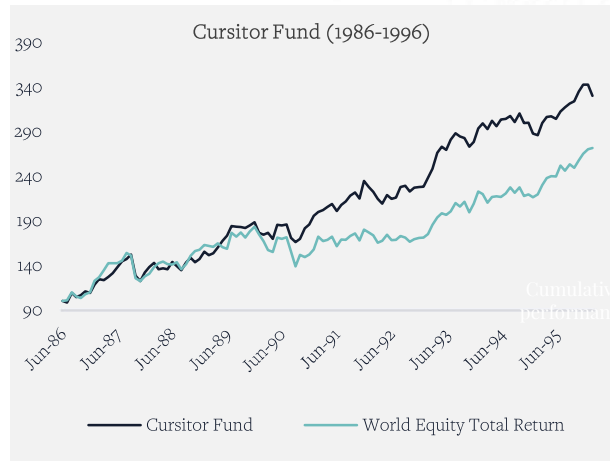
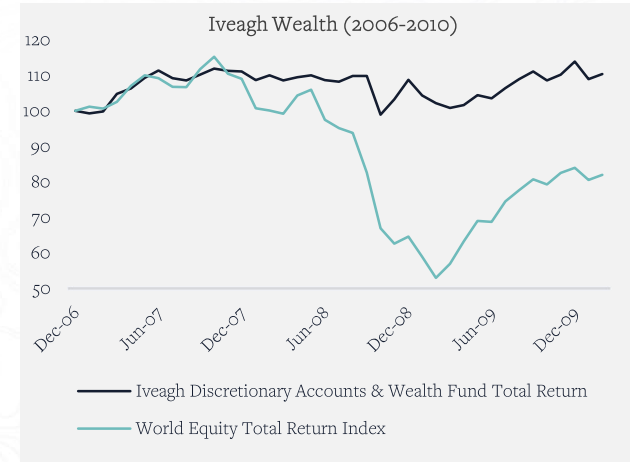
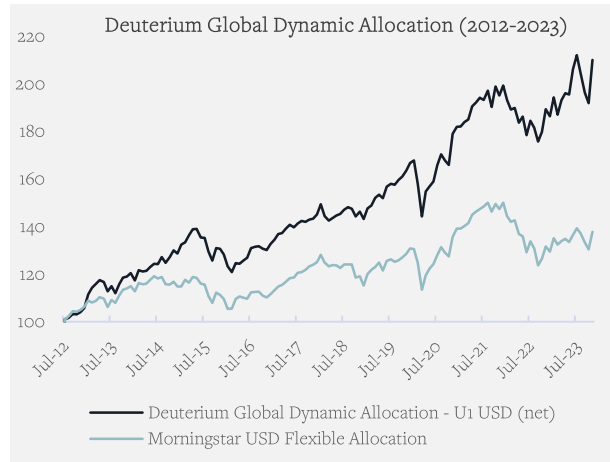
Partner and Lead Manager  
35 years experience

Head of global asset allocation for Alliance Bernstein, \$450 billion AUM

Manager of \$10 billion Cursitor Global Asset Rotation Fund

Head of global asset allocation for Iveagh Ltd

Co-founder of Cursitor and founder of Bullrun Financial, a pioneer of quantitative portfolio strategies



Sources: Bloomberg, Deuterium. The track records on this slide were achieved using prior versions of the modelling and allocation strategies used by the Fund. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed.





## Case Study Dec 2021 : Sell US Discretionary & Technology Sectors

In December 2021 Scores project high probability for losses in US Discretionary (-35%) & Technology (-30%) Sectors

December 11, 2021		
US Sector	Dec 21	Mar score - Dec score
Consumer_Staples	-50%	13%
Materials	27%	36%
Energy	14%	0%
Utilities	-27%	27%
Telecommunications	-44%	33%
Consumer_Discretionary	33%	-56%
Financials	89%	-78%
Real_Estate	-17%	44%
Information_Technology	57%	-100%
Industrials	69%	-25%
Health_Care	-60%	0%

US Equity Sector Direction Scores (+/- 100%)

December 11, 2021				
US Sector	Current price	Price Move required to get to target price	Buy	Sell
Consumer Discretionary	1614.44	-35.3%		CDR *
Consumer Staples	771.24	-6.8%		
Energy	430.61	27.8%	ENE	
Financials	647.84	-4.8%		
Health Care	1565.37	-3.2%		
Industrials	888.50	-24.9%		IDS
Information Technology	3068.89	-30.0%		TEC *
Materials	552.89	-0.3%		
Real Estate	306.72	-12.9%		
Communication Services	266.26	-28.1%		TCO
Utilities	349.30	-14.3%		

US Equity Sector Valuation Targets



CNBC John Interview

30<sup>th</sup> December 2021

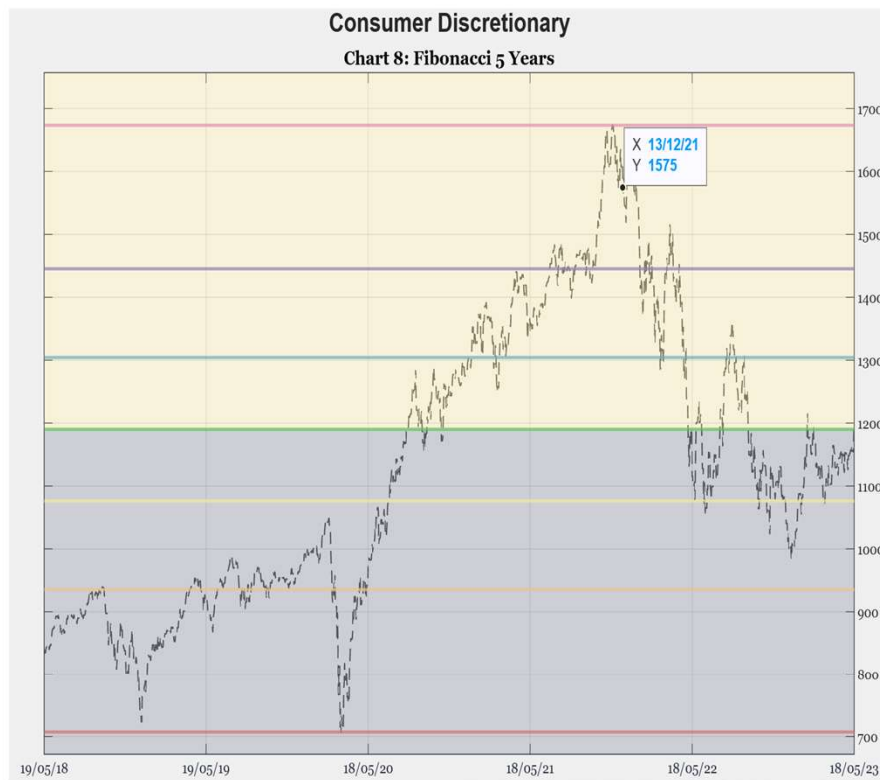
<https://youtu.be/7S5EjlePnmU>

Source: Deuterium, Refinitiv.



## Case Study Dec 2021 : Sell US Discretionary & Technology Sectors

### US Discretionary Sector drawdown (-36.5%)



### US Technology Sector drawdown (-32%)



Source: Deuterium, Refinitiv.

## Case Study Dec 2021 : Sell US Discretionary & Technology Sectors

Deuterium Long-only returns (+8.5%) vs World Equity (-0.4%) & US 10-year bond return (-17.8%)



Source: Deuterium, Bloomberg Past performance is not a guide to future performance. Refer to important disclaimers at the end of this presentation.



# Case Study: Managing Through the Covid-19 Crisis

In Mar 2020 The Team Extended Bond Durations, Stayed Overweight Equities Anticipating The Rebound, and Concentrated Positions In Technology, Communications and Discretionary Sectors



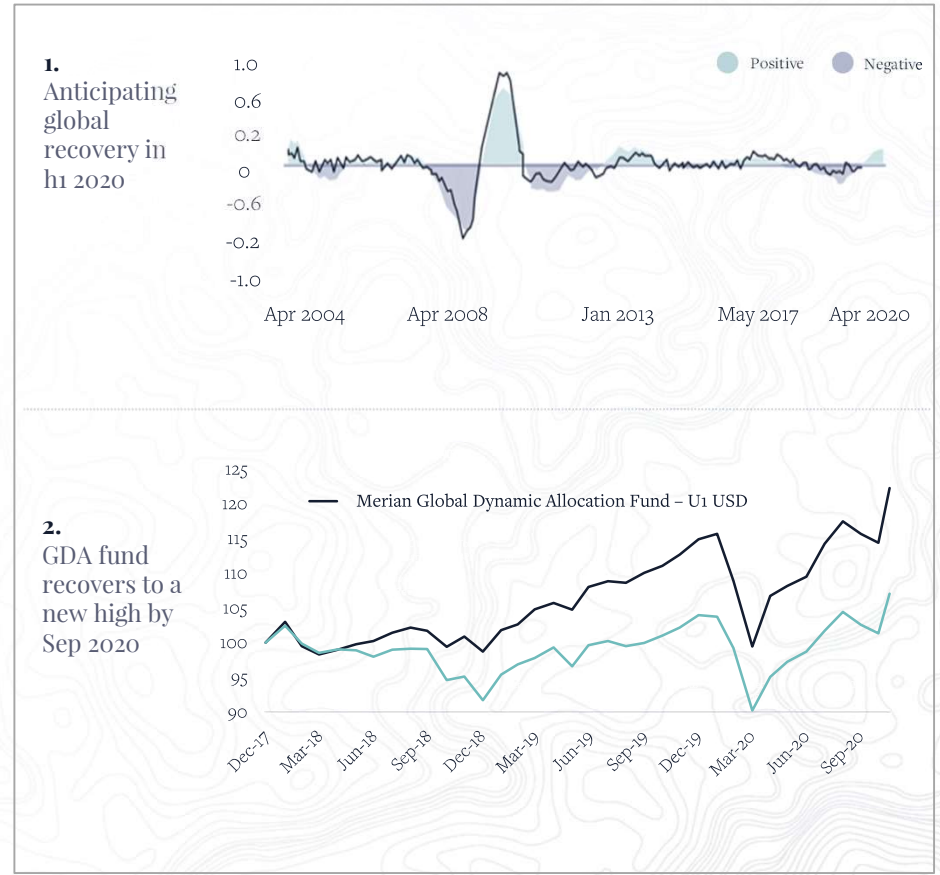
## COVID-19 Crisis

To start 2020 the GDA models showed a strong upswing in the global cycles to come over the next quarters, leading the team to hold an overweight in equities. When the Covid-19 crisis was recognized as a pandemic in March, the team shifted US Treasury bond positions up to an equivalent of 100% 10 year Treasury duration. This underpinned portfolio performance during March in one of the most rapid and deep crashes in stock market history.

The team implemented proprietary short term liquidity and market monitors to assess the effects of central bank interventions and fiscal policy measures on global debt and consumption. This kept the portfolio overweight equities and concentrated positions in technology, communications and discretionary sectors.

## The outcome

By Sep 2020 the fund had recovered to better its previous high in Feb 2020. This meant that the fund significantly outperformed the peer index with its Jan 2020 to Nov 2020 return of +6.4%. Adjusting the portfolio allocations for external shocks remains a core team competence.



Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed.

Source: Deuterium, Bloomberg as at 18/11/2020. Refer to important disclaimers at the end of this presentation.





# Case Study: Discretionary Added Value 2018

In Late 2018 the Managers Decided to Increase Equity Exposure, Ahead of the Fed Flip Flopping on Interest Rates



## Fed Flip Flops

The US Federal Reserve (Fed) flipped from raising interest rates until December 2018 to cutting them between August 2019 and October 2019. The fund was able to benefit from this change in direction.

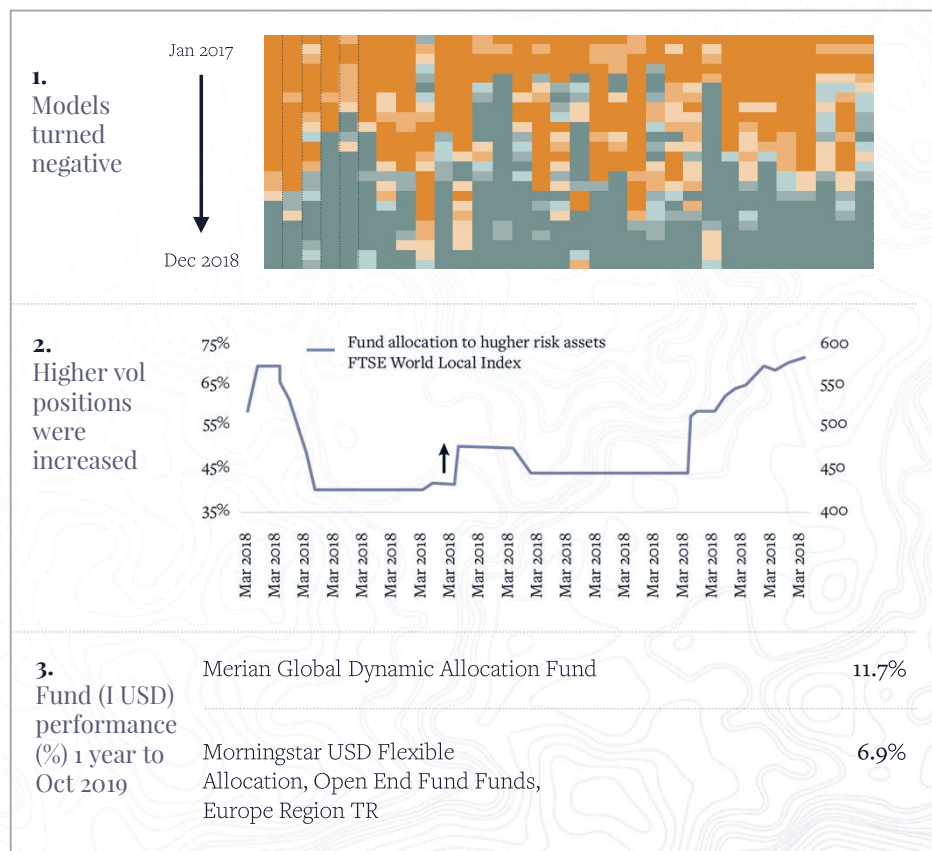
In the latter months of 2018, the team's models showed that worsening economic conditions would make it very difficult for the Fed to continue on its rate hiking path.

## Manager Discretion

Was introduced because a judgment needed to be taken on human decision making within the Fed. Exposure to equities was increased.

## The Outcome

The fund significantly outperformed peers during the twelve months to October 2019.



Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed. Source: Deuterium, Bloomberg, Morningstar. Merian U1 USD Acc (in USD) performance 1 year at October 2019. Performance is shown net of fees and expenses. Refer to important disclaimers at the end of this presentation.



# Case Study: Avoiding the Crash of 2008

In January 2008, The Lead Manager Reduced Equities Below 30%



## Great Financial Crisis

When the great financial crisis hit in September 2008, the fund's lead manager was well prepared. He had only 27% allocated to equities. Consequently, the performance of the fund he was then managing held up well, while equity markets tumbled in one of the worst crashes in stock market history.

He was led to his cautious stance because his macro models had long been forecasting a global recession in 2008.

## Manager Discretion

Was introduced because a judgment needed to be taken on human decision making within the Fed. Exposure to equities was increased.

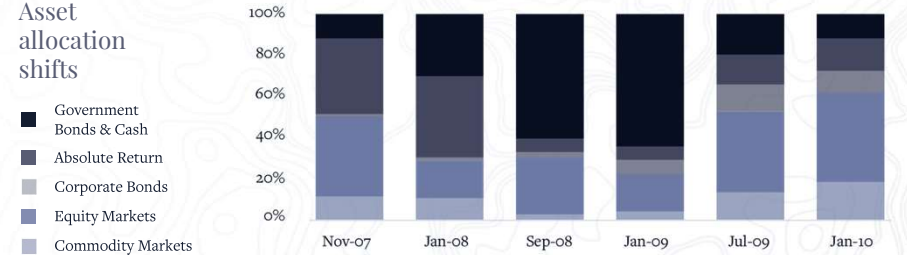
## The Outcome

The fund he was then managing significantly outperformed the market during the worst of the crisis, suffering a fall of only -1.0% during the period 1 September 2008 to 2 January 2009, compared to the -11.2% fall of the MSCI World Index (in GBP). Protecting against downside risk remains a key part of his investment philosophy to this day.

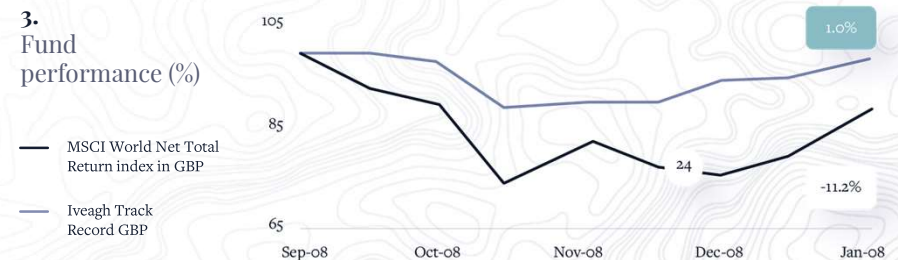
## 1. Macro modelling



## 2. Asset allocation shifts



## 3. Fund performance (%)



Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed. Source: Iveagh Wealth LTD, Bloomberg as at Jan-2010. Refer to important disclaimers at the end of this presentation.

# Important Disclosures

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# Important Disclosures

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These portfolios tend to hold regularly rotating positions in stocks, bonds, commodities, cash and their related derivatives. These funds may exhibit characteristics fitting cautious allocation, moderate allocation, or aggressive allocation at any point in time. They may also regularly rotate between countries and regions. These portfolios typically hold from 20% to 80% of exposure in equities and between 20% to 80% of exposure in fixed income and cash. Morningstar CHF Moderate Allocation: CHF Moderate Allocation funds have a mandate to invest in a range of asset types for a CHF-based investor. The equity component will usually be between 35% & 65% in the normal running of the fund. These portfolios tend to hold regularly rotating positions in stocks, bonds, commodities, cash and their related derivatives. These funds may exhibit characteristics fitting cautious allocation, moderate allocation, or aggressive allocation at any point in time. They may also regularly rotate between countries and regions. Morningstar EUR Flexible Allocation – Global: funds have a largely unconstrained mandate to invest globally in a range of asset types for an EUR-based investor. Funds in this category may have up to 30% gross exposure allocated to alternative sub-strategies. These portfolios tend to hold regularly rotating positions in stocks, bonds, commodities, cash and their related derivatives. These funds may exhibit characteristics fitting cautious allocation, moderate allocation, or aggressive allocation at any point in time. They may also regularly rotate between countries and regions. Morningstar GBP Flexible Allocation: funds have a mandate to invest in a range of asset types including equities, bonds, property, commodities, cash and liquid alternatives for a GBP-based investor. These portfolios tend to exhibit a ‘home bias’ but have a largely unconstrained mandate to invest in a mix of equity and non-equity securities. Funds in this category may have up to 30% gross exposure allocated to alternative sub-strategies. A decision to invest should take into account all of the objective and characteristics of the fund as set out in more detail in the fund documents. The relevant articles of association, prospectus, supplement and key investor information document (KIID) and/or PRIIPS KID, available in English, and the latest annual/semi-annual report (as applicable) are available free of charge by clicking on <https://www.deuterium.us/>. Complete information on the risks of investing in the Fund are set out in the Fund’s prospectus. A summary of your investor rights is available in English by clicking on <https://www.deuterium.us/>. The on-going charges are the fees the Fund charges to investors to cover the costs of running the Fund. Additional costs, including transaction fees, will also be incurred. These costs are paid out by the Fund, which will impact on the overall return of the Fund. For the avoidance of doubt, if you make a decision to invest, you will be buying shares in the Fund and will not be investing directly in the underlying assets of the Fund.