



BLACKHEATH
Fund Management Inc

Liquidity | Transparency | Absolute Returns

AI GLOBAL MACRO STRATEGY

Presented by Benjamin Chung

1 January 2018

COMPANY OVERVIEW: BLACKHEATH FUND MANAGEMENT INC.

Blackheath Fund Management Inc. (“Blackheath”)

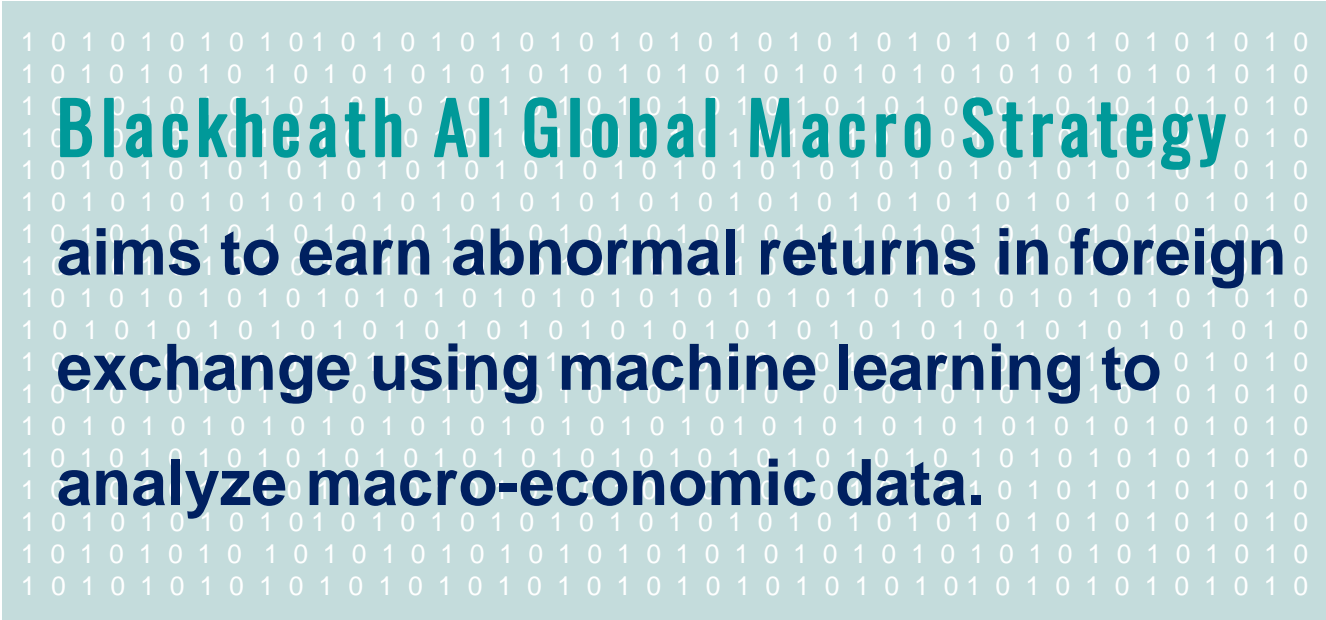
is a Commodity Trading Advisor (“CTA”), with headquarters in Toronto, Canada.

- A member of the National Futures Association (NFA); registered in the US with the CFTC and in Canada with the Ontario Securities Commission (OSC)
- Professional staff of 5
- Management team has over 25 years experience in exchange-traded derivatives

COMPANY OVERVIEW: INVESTMENT STRATEGIES

Blackheath offers Proprietary Investment Strategies,

with each strategy aiming to deliver risk adjusted returns that outperform the broad market indices and are uncorrelated to traditional asset classes.



Blackheath AI Global Macro Strategy
aims to earn abnormal returns in foreign
exchange using machine learning to
analyze macro-economic data.

STRATEGY OVERVIEW: PORTFOLIO PARAMETERS

Every Managed Account in the Blackheath AI Global Macro Strategy

is traded using the same methodology:

- US \$200,000 minimum account size
- Margin to equity ratio ranges from 0-30% (8% on average)
- Maximum 10 futures markets
- Currency markets only
- 50% notional funding allowed
- Approx 800 round-turns per annum for \$1 mil in equity

BLACKHEATH DEEP FIELD MACRO STRATEGY: STRATEGY DESCRIPTION

The Strategy aims to earn significant uncorrelated returns in foreign exchange

by taking speculative 1-month long positions in liquid global currencies

- Blackheath AI Global Macro Strategy applies algorithms developed within the field of Machine Learning to filter through macro-economic data and develop an understanding of each global currency's fundamental macro-economic environment, bringing to reality actionable economic information that was previously unseen.
- This information is then traded in a truly quantitative and systematic process maximizing capital growth - aside from risk tolerance, there are practically no other discretionary inputs.
- The Strategy is both Algorithmic and Quantitative.

OVERVIEW: AI GLOBAL MACRO STRATEGY

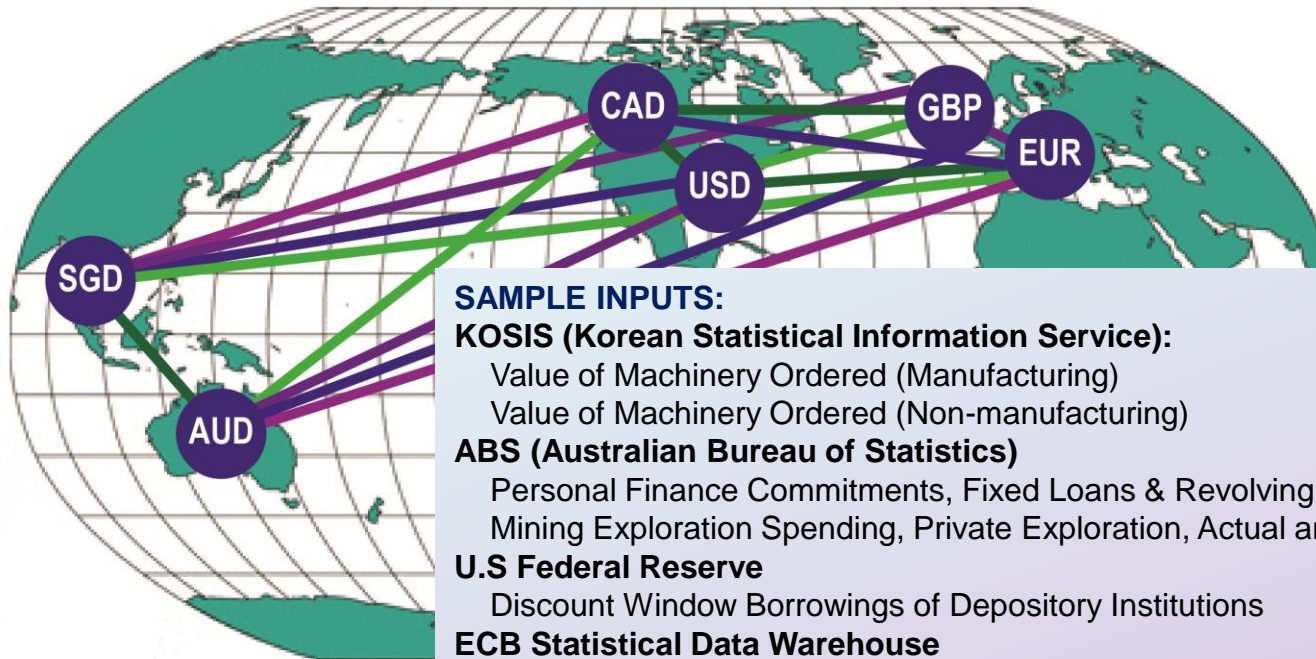
Key Points

- No subjective or discretionary inputs
- No price or technical factors such as MACD, SMA, etc
- Purely quantitative and automated

OVERVIEW: AI GLOBAL MACRO STRATEGY

Economic Inputs

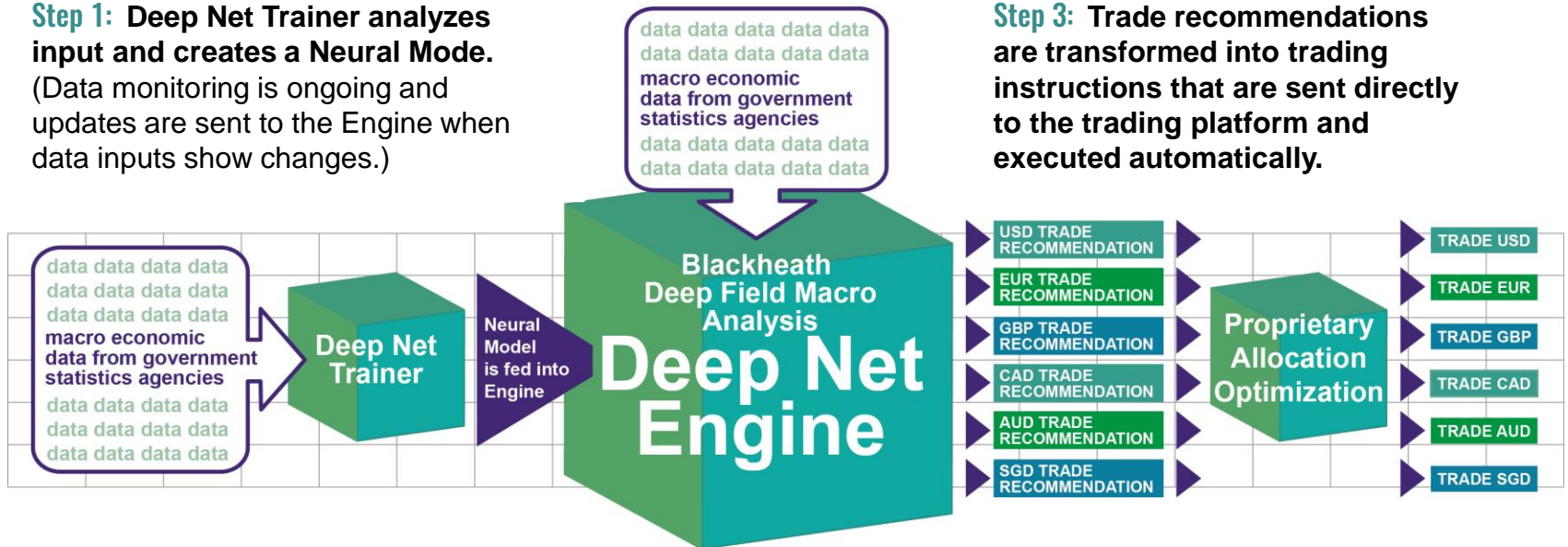
Our model takes a variety macro economic data from government agencies in markets that affect the currencies we trade, and analyzes it our Deep Net Engine.



- SAMPLE INPUTS:**
- KOSIS (Korean Statistical Information Service):**
 - Value of Machinery Ordered (Manufacturing)
 - Value of Machinery Ordered (Non-manufacturing)
 - ABS (Australian Bureau of Statistics)**
 - Personal Finance Commitments, Fixed Loans & Revolving Credit
 - Mining Exploration Spending, Private Exploration, Actual and Expected Expenditure
 - U.S Federal Reserve**
 - Discount Window Borrowings of Depository Institutions
 - ECB Statistical Data Warehouse**
 - Commercial and Industrial loans excluding reverse repos, non-MFI

OVERVIEW: HOW IT WORKS

Step 1: Deep Net Trainer analyzes input and creates a Neural Mode.
(Data monitoring is ongoing and updates are sent to the Engine when data inputs show changes.)



Step 3: Trade recommendations are transformed into trading instructions that are sent directly to the trading platform and executed automatically.

Step 2: The Deep Net Engine collects and analyzes new data continuously, and creates trade recommendations for the chosen currencies.

COMMODITY TRADING INVOLVES SUBSTANTIAL RISK OF LOSS. PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.

OVERVIEW: HOW IT WORKS

Economic data

- Driven by low-level economic fundamentals

Month-long holding period

- Captures currency moves driven by underlying economic activity

Purely quantitative

- Only discretionary element is portfolio-wide risk tolerance (Kelly Fraction)

Extensive use of leading-edge Machine Learning

- 10 years of experience. Hedge funds just beginning to assemble machine learning teams to tackle global macro.

OVERVIEW: RISK MANAGEMENT

Two Discretionary Parameters have been put in place:

- In the event that the team believes the Algorithm is not performing to expectations, the connection between the Deep Net Engine and the markets will be severed.
- Large geopolitical risks can overwhelm fundamental inputs at any time. If the team believes such risks are present, we will reduce our target volatility and/or liquidate positions.

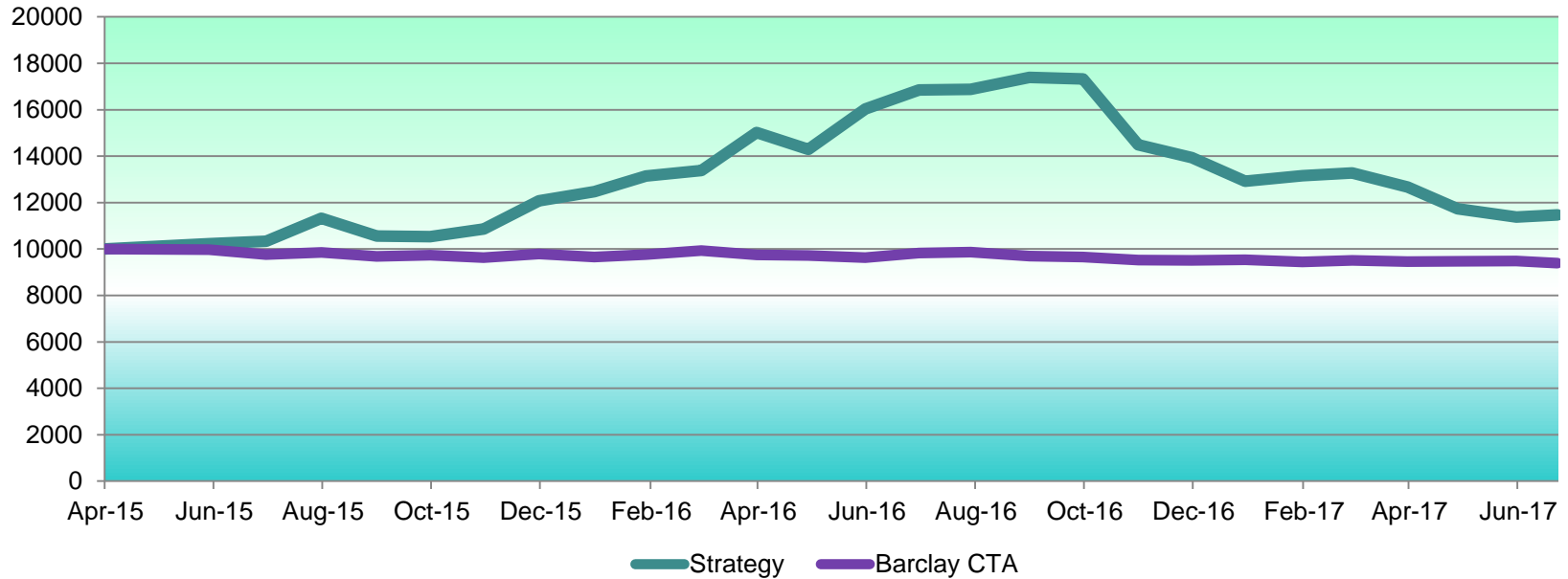
BACKGROUND: NEPTUNE AI MACRO FX FUND LTD*

The Blackheath AI Global Macro Strategy builds on the Neptune Strategy.

Developed by Benjamin Chung before joining Blackheath, Neptune primarily traded FX forwards, while Blackheath AI Global Macro will be purely trading FX futures. However, both investment strategies use the same machine learning strategies to create both a trainer and an engine to analyze data and develop the trading allocations.

The Neptune track record is not representative of Blackheath AI Global Macro's potential future results, but does illustrate how Ben's programming worked in another variation.

PERFORMANCE: NET PERFORMANCE OF THE NEPTUNE AI MACRO FX FUND LTD*



*NOTE: Starting on May 5, 2015, the above track record shows composite performance of the Neptune AI Macro FX Fund Ltd, calculated using the Only Accounts Traded (OAT) method. From May 5, 2015 to June 23, 2017, the performance shown is the proprietary, pro-forma net returns of an account in the name of Neptune AI Macro FX Fund Ltd. It is based on the actual trading results as observed in this single, proprietary flagship account traded under the strategy, assuming a beginning trading size of approximately US\$165,000. Please note that the results for this period are based on certain assumptions that have inherent limitations, some of which are described herein. Whereas the original account targeted an annualized volatility of 60%, versus a targeted volatility of the Blackheath AI Global Macro Strategy which is targeting a volatility of 25%, the track record has been deleveraged by dividing monthly gross returns by 2.5 for each month. The actual broker records of this proprietary account are stated in US dollars (USD); Also, please note that the proprietary account has favourably negotiated trading commissions. Additional details of this computation and calculation of the performance are available upon request. Net returns are calculated assuming a fee structure of a 2% Management Fee accrued monthly and a 20% Incentive Fee paid quarterly.

The Barclay CTA Index measures the composite performance of established managed futures programs. For purposes of this index, an established trading program is a trading program that has four years or more documented performance history. Once a trading program passes this four-year hurdle, its subsequent performance is included in this unweighted index. The Barclay CTA Index does not represent an actual portfolio, which could be invested in, and therefore the index performance results should be deemed to be hypothetical in nature and of comparative value only.

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PORTFOLIO MANAGER

Frankie Liu, CFA,

is the Portfolio Manager of Blackheath AI Global Macro Strategy.

In addition to his responsibility for Blackheath AI Global Macro Strategy, Frankie is the Head of Research at the firm. His responsibilities include developing proprietary trading software, building quantitative pricing models as well as conducting research in asset price dynamics.

After graduating from the University of Chicago in 2009 with Bachelor's degrees in Mathematics and Economics, Frankie has worked as a trader and managed options books in both commodities and foreign exchange markets. Frankie received his CFA® charter in 2013.



Frankie Liu
Portfolio Manager

fliu@blackheath.ca

STRATEGY CONSULTANT

Benjamin Chung

is the Strategy Consultant for Blackheath AI Global Macro Strategy.

Ben Chung was an early champion of machine learning's potential for application to absolute return strategies. He created the world's first opensource Object-Oriented Deep Learning library (Java) and released it under the GPLv2 in 2007 and continued to work on its development through 2012.

From 2009 to 2012 Ben was employed as a Portfolio Analyst, for the Canadian Pension Plan Investment Board's Global Tactical Asset Allocation Group. There he conducted research on macroeconomic forecasting models for the Group's emerging market currencies portfolio.

In 2013, Ben struck out on his own, launching the Neptune AI FX Fund Ltd, a neural-network, fundamental strategy. This program founds the basis of the trading method Ben is employing in the Blackheath AI Global Macro Strategy.

Ben is a graduate of the University of Toronto in Computer Science.



Benjamin Chung
Strategy Consultant

bchung@blackheath.ca

CONTACT US

Blackheath Fund Management Inc.

372 Bay Street, Suite 1100

Toronto, Ontario

Canada M5H 2W9

416-363-2962

www.blackheath.ca

Portfolio Manager

Frankie Liu

fliu@blackheath.ca

Sales Director

Chris Foster

cfoster@blackheath.ca

416-363-2962 x2002

Client Relations

Jennifer Coghill

jcoghill@blackheath.ca

416-363-2962 x2001

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