



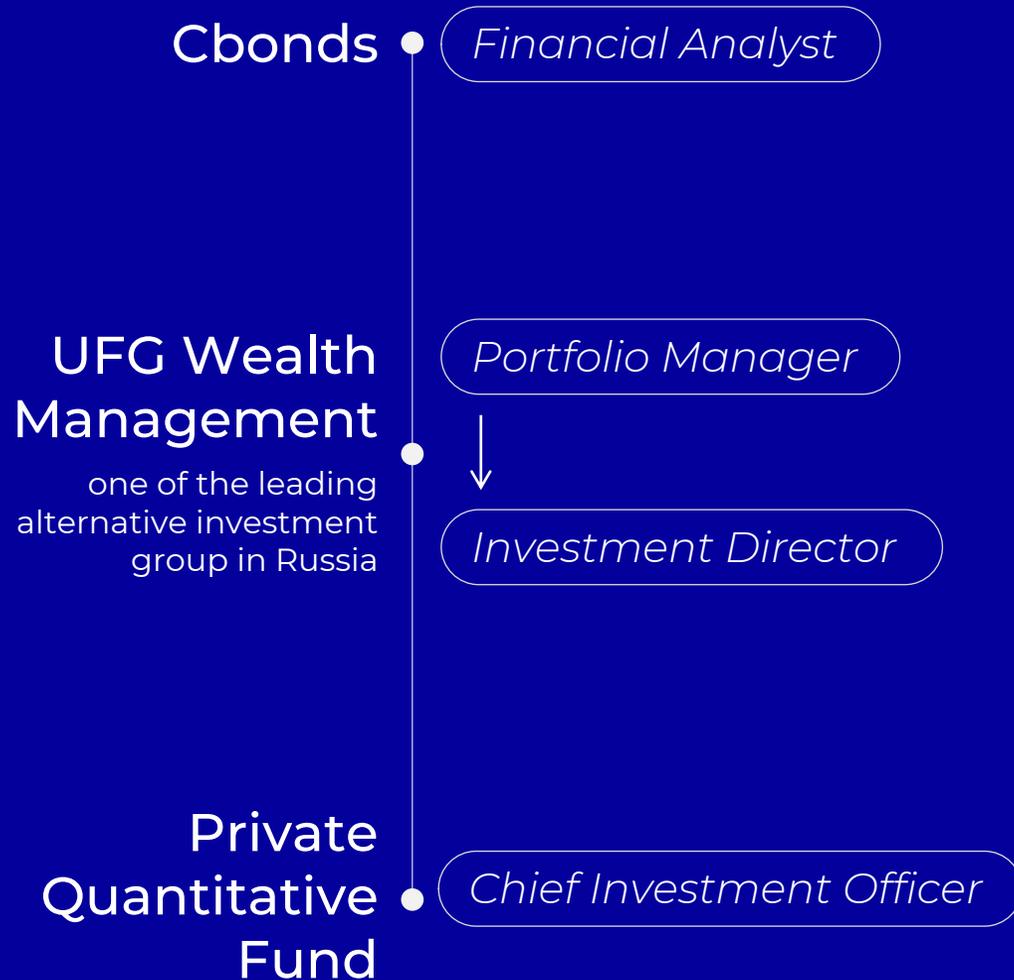
Evgeny Pundrovskiy, CFA

Revolutionizing Fixed Income with AI

XI Cbonds Fixed Income Conference – Cyprus
April 2024



Time to Bond



Evgeny Pundrovskiy, CFA



based in Nicosia, Cyprus



13 years of experience



passed the CFA designation in 2 years



Riding the Wave: AI's Buzz

Increased interest in AI-driven strategies

Opportunity to overcome traditional limitations in Fixed Income investing

Potential for AI to provide new insights and enhance performance

Market demand for more efficient and effective investment approaches

Navigating Complexity: AI Challenges in Fixed Income



OTC trading prevents the use of trading robots



End-of-day price data with minimal volatility



ML & DL need extensive data for accurate forecasts, limiting their use in Fixed Income and coverage by quant funds



Finding Our Way

① Building in-house AI innovations

② Getting insights

Bond Price = NAV formula of future CFs → limited number of fundamental factors

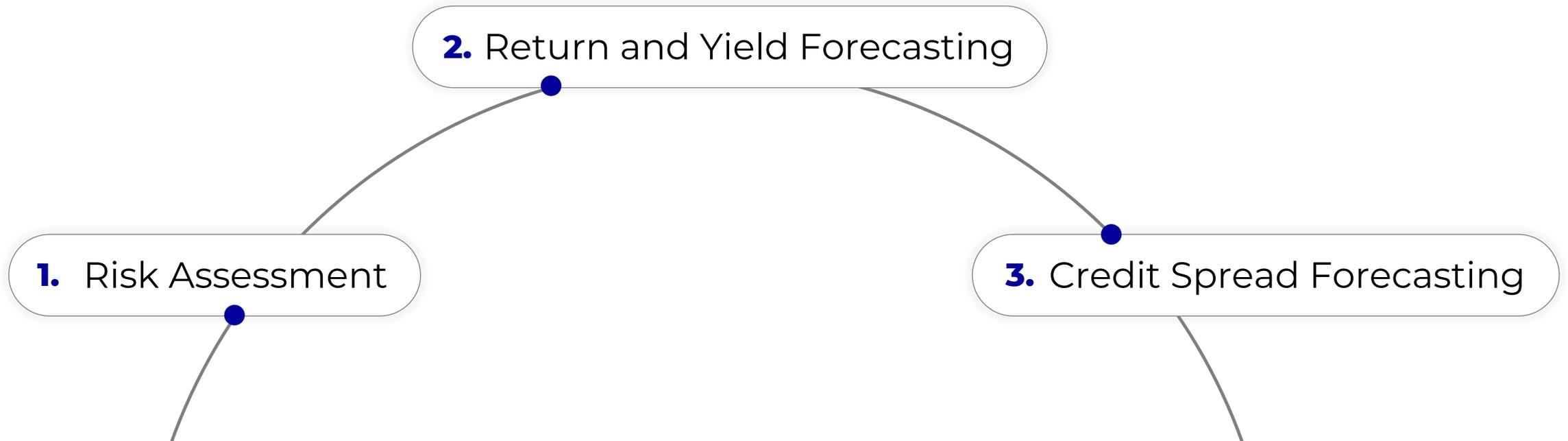


Forecasting by ML & DL becomes possible

Breaking Boundaries

Bringing together asset management professionals and ML-engineers leveraging expertise in finance and AI

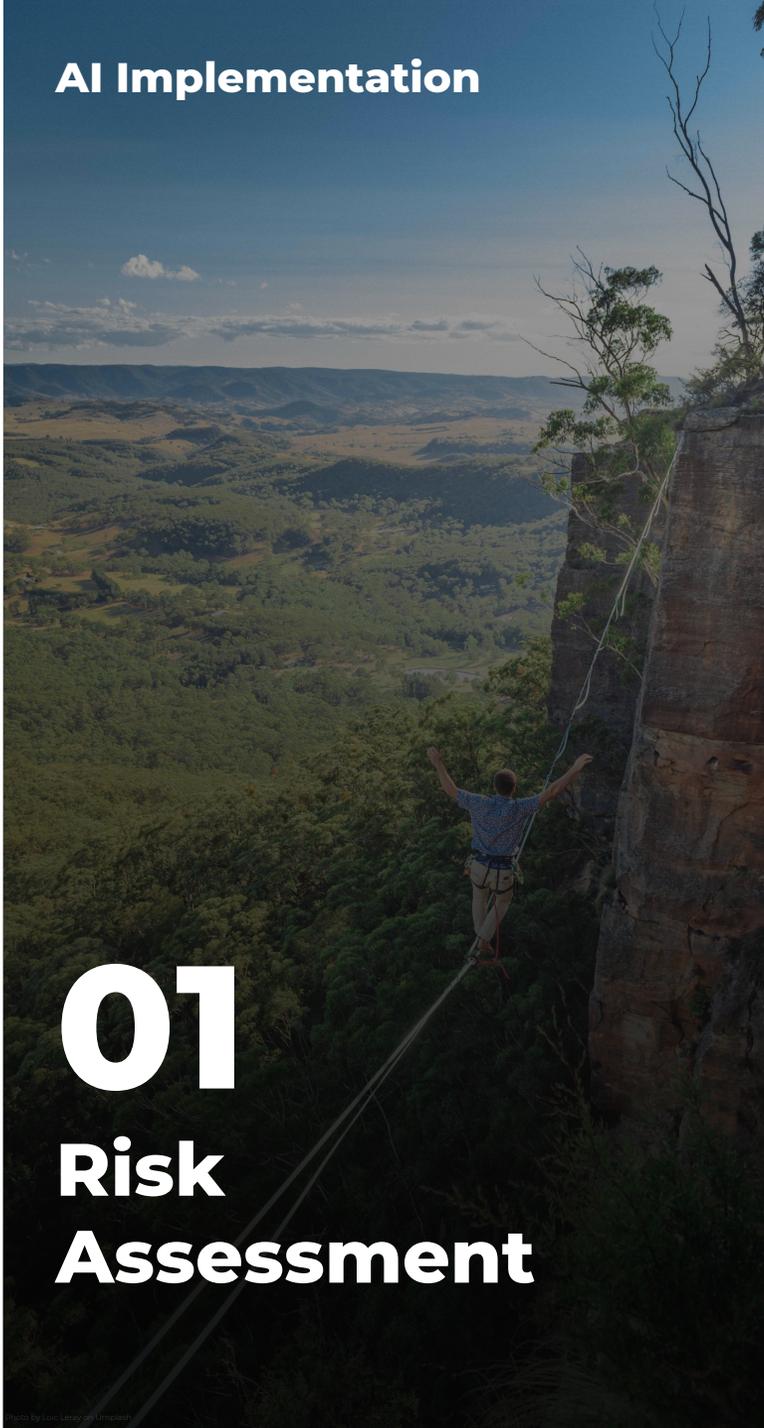
→ Three Strategic AI Implementation Areas:





Utilization of AI algorithms to calculate and forecast default probability:

- ● Analysis of past defaults and financial reporting
- ● Incorporation of company-specific factors into modeling process

A person is rappelling down a steep, rocky cliff face. The person is wearing a blue shirt and a harness, and has their arms outstretched. The background shows a vast, green valley with rolling hills under a clear blue sky.

01
**Risk
Assessment**

02
**Return
Forecasting**

03
**Credit Spread
Forecasting**

AI Implementation



Management of portfolio duration risk and forecasting yield changes across various maturities and bond selection

Benefiting from diverse data sources:

- Interest rates environment
- News sentiment analysis
- Macroeconomic statistics

01

Risk Assessment

02

Return Forecasting

03

Credit Spread Forecasting

- Identifying promising bonds based on expected Z-spread decrease
- AI Forecasting of credit quality improvement based on financial data research and historical evidence
- Prediction of Z-spread behavior modeled by algorithm trained with historical data, own forecast, company ratings and other factors

01

Risk Assessment

02

Return Forecasting

AI Implementation

03

Credit Spread Forecasting

From Theory to Action

AI has successfully recommended selling Bed Bath&Beyond bond on 05 March 2022 after series of ratings downgrades by Moody's



Source: Bloomberg

Moody's BBBY Rating

WR	04/27/2023
C	10/07/2022
Caa3	07/20/2022
B3	05/16/2022
B2	01/26/2022
B1	07/23/2020
Ba2	01/30/2020
Baa3	10/28/2019
Baa3	10/11/2018

Impact and the Road Ahead

Benefits of AI-driven approach

- ✓ Significantly reduced costs
- ✓ Enhanced fund performance
- ✓ Forecasting expected returns for asset classes or specific bonds
- ✓ Increased efficiency in portfolio management



**Your insights and
questions are welcome!**