



Evgeny Pundrovskiy, CFA

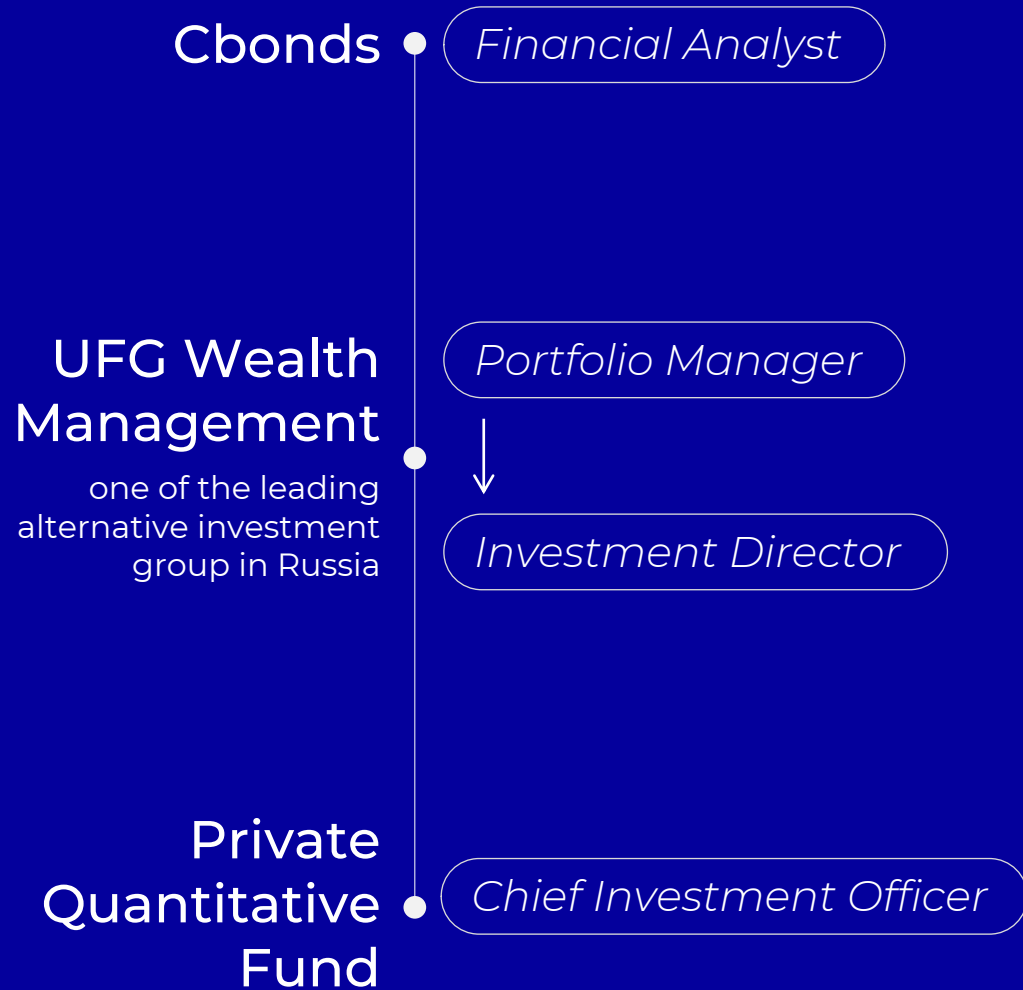
# Revolutionizing Fixed Income with AI

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# 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

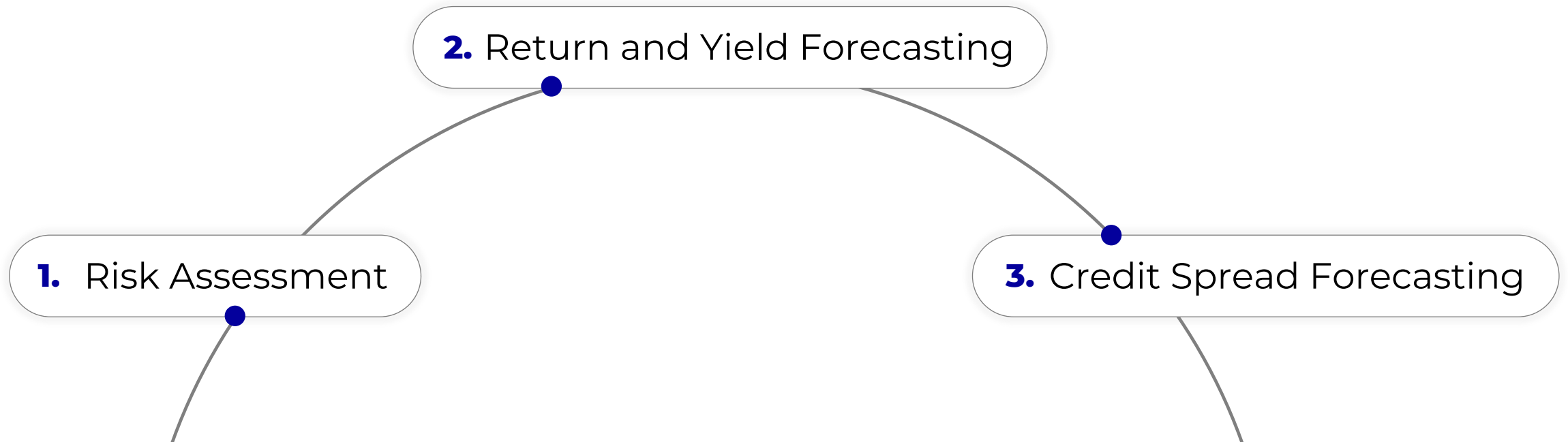


Forecasting by ML & DL becomes possible

# 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

# 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

# 01

**Risk  
Assessment**

# 02

**Return  
Forecasting**

Benefiting from  
diverse data sources:

- Interest rates environment
- News sentiment analysis
- Macroeconomic statistics

# 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 BBY 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!**

