



UK Investment Competition London Grand Finale



Meet the team



Nicolae Darie Nistor

- Software Engineering Student
- Working as: Student and iOS Developer @Coolblue
- Interested in : AI, Finance, Economics & Guitars



The Fundamentals Guy



David Costin Drăghici

- Business Administration Student – Finance Track
- Working as : Student (for now)
- Interested in : Finance, Economics, History & Strategy Games



The Storytelling Guy



Robert Jacob Oros

- Computer Sciences Student
- Working as : Software Engineer Intern @Amadeus
- Interested in : Algorithmic Trading, Financial Technology & Videogames



The Analysis Guy

Why ACSL Veterans ?

- The **American Computer Science League** is an international **computer science competition** where high schools **from all around the world** compete
- It was probably **the most important thing** David and Jacob worked on throughout high school
 - We'd **study** together, solve **programming** problems, **compete** against each other and, eventually, **teach** the next generation of students



```
public float rayAmount = 3000;
```

```
public Gradient VisualTemperature;
```

```
private void Start()
```

```
{
```

```
    gameObject.GetComponent<Renderer>().material.color = VisualTemperature.Evaluate(0f);
```

```
    var GameController = GameObject.FindWithTag("GameController");
```

```
    temperature = GameController.GetComponent<gameController>().StartingTemperature;
```

```
    surroundingTemperature = GameController.GetComponent<gameController>().StartingTemperature;
```

```
    // getting the Ammount of rays emmitet to calculate the heating factor
```

```
    rayAmount = GameObject.Find("Rayemmitter").GetComponent<Raycast>().RayAmount;
```

```
    print("RayAmmount: " + rayAmount);
```

```
}
```

```
private void Update()
```

```
{
```

```
    coloring();
```

```
    adaptTemperature();
```

```
I
```

```
private void coloring()
```

```
private void adaptTemperature()
```

```
{
```

```
    float TempDif = temperature - surroundingTemperature;
```

```
    temperature -= TempDif * coolingFactor * Time.deltaTime;
```

We are programmers at heart

Our Starting Point

Where did we start ?

At first, it was just David and Jacob, **neither of us had any investment experience**

What did we do ?

Learn from the winners !

What did we learn ?

Our **macro assumptions** about how the world will look like are the **most important** part to win this competition !



Our Roadmap

Target Markets

Identified

- Based on our assumptions, we found **3 Main Markets**
- Primary focus on **equities(~75%)**,
Secondary focus on **commodities(~25%)**

Allocation

Calculated

- We **optimized the weights** of our selected securities, focusing on maximizing the portfolio's **Sharpe ratio**

10/10

15/10

24/10

25-26/10

27/10

Competition

Started

- Familiarized ourselves with **the platform**
- **Macro Assumptions** start being developed

Companies

Selected

Three Main Criteria :

- Exceptional **Growth**
- Interesting **Business Model**
- Likely to thrive given **our assumptions**

Final Portfolio

Deployed

- All our **orders were filled in**
- Focus on portfolio building
- **Fingers crossed !**

Tech Market -Breakdown-

1. Structural growth:

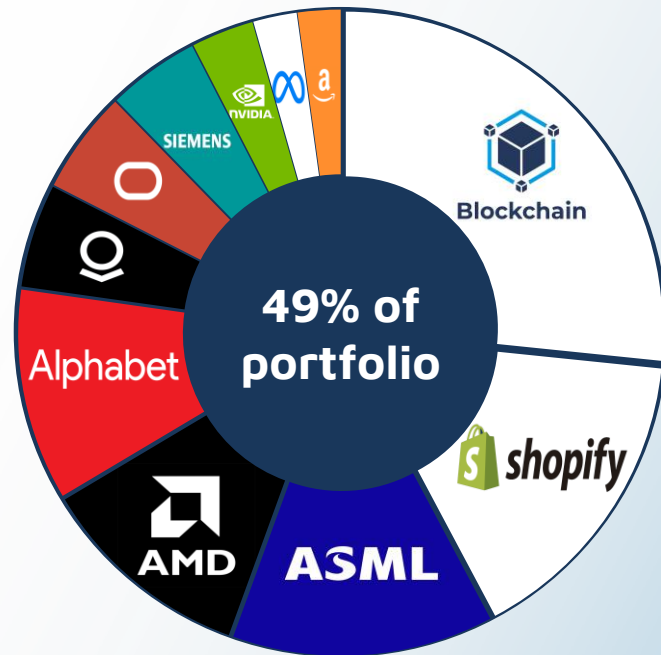
Digitalization, cloud, AI, automation and data usage will continue to **outpace GDP growth**, sustaining **above-market revenue growth** for leading firms.

2. AI Boom:

AI and automation are the **top growth engines** across software, chips, and cloud, with most firms prioritizing AI projects and spending to **stay competitive**.

3. More institutional and banks adoption

Large banks, asset managers, and enterprises will keep **expanding pilots into production**, especially for tokenized real-world assets (**RWAs**), on-chain funds, and internal settlement systems.



Tech Market

-Headlines-

Swiss Banks Execute First Cross-Bank Payment on Public Blockchain

UBS, PostFinance, and Sygnum complete binding transaction using tokenized deposits on Ethereum

BLOCKHEAD

September 17, 2025 · 6:00 PM — 2 min read



MARKETS

Nvidia's \$5 trillion market cap is equivalent to around 25 Disneys, 50 Nikes and more than 3,000 JetBlues

PUBLISHED WED, OCT 29 2025-1:56 PM EDT



Alex Harring
@ALEX_HARRING

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AMD signs AI chip-supply deal with OpenAI, shares surge over 34%

yahoo/finance

Microsoft and OpenAI's new for-profit deal gives Windows maker 27% stake



Tech News

Data Centres

Google to invest €5.5bn in German data centres & cloud expansion

11 November 2025 3 minutes

Google has unveiled plans to invest €5.5 billion in Germany from next year to 2029.

TECHNOLOGY

NATO Taps Google Cloud for AI-Driven Sovereign Cloud

Total Revenue Cloud Usage

\$102.3B (+16% YoY)

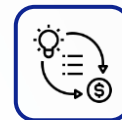
+34%

Q3 financial reports showed a 16% increase in revenues year over year

AI Infrastructure and Generative AI Solutions generated **\$15.2B (MoM)**



Exceptional Growth



Strong Business Model



Compatible with Assumptions



Tech News

Press Release · Nov 19, 2025 · 8 min read · 12 min listen

AMD, Cisco, and HUMAIN to form joint venture to deliver world-leading AI infrastructure

AMD signs AI chip-supply deal with OpenAI, shares surge over 34%

Total Revenue Cloud Usage

\$9.2B (+36% YoY)

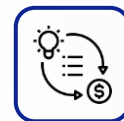
Q3 financial reports showed a 36% increase in revenues year over year

+22%

AI Infrastructure and dedicated Data Centers generated **\$4.3B**



Exceptional Growth



Strong Business Model



Compatible with Assumptions



BLOCKCHAIN

Market Trends

+ 155 ETF fillings

The number of Blockchain ETFs is rapidly increasing

Inflow

+\$477m

The most common iShares and Fidelity ETFs are bringing 9 figures inflow

Tech News

Swiss Banks Execute First Cross-Bank Payment on Public Blockchain

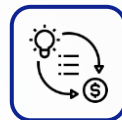
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BLOCKHEAD

September 17, 2025 . 6:00 PM — 2 min read



Exceptional Growth



Strong Business Model



Compatible with Assumptions

WORLD NEWS

DEC. 3, 2025 / 9:31 AM

Korean government urged to boost blockchain technologies

Defense Market

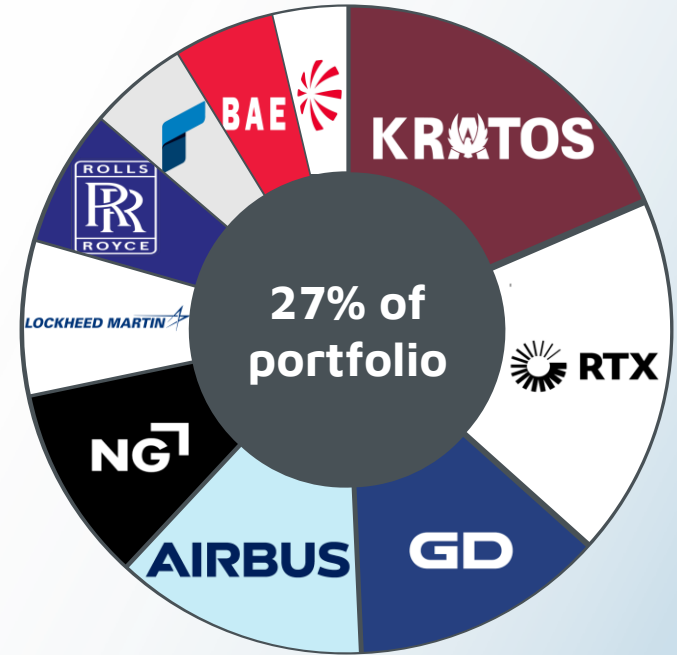
-Breakdown-

1. Persistent or rising defense spending:

Due to **rising global tensions** and increased militarization worldwide, governments **will increasingly prioritize national security** regardless of the economic cycle, providing **growing, or at least consistent budgets**.

2. Political continuity of contracts:

Large, long-term contracts will be honored across electoral cycles and are **less likely to be cancelled** outright than civilian projects.



Defense Market

-Headlines-

**RTX Lands Historic \$50B
Defense Contract to
Support Army, DLA, and
DoD Worldwide**

Lockheed Martin And Google Public Sector To
Bring Generative AI To On-Premise
Infrastructure For National Security

General Dynamics NASSCO Awarded \$1.7 billion to construct
T-AO 215 and T-AO 216

November 10, 2025 | Press Release



Defense News

December 2, 2025

RTX's Pratt & Whitney secures 1.6 billion dollar contract to sustain F135 engines for F-35 fleet

By Martin Chomsky (Defence Industry Europe)

RTX Lands Historic \$50B Defense Contract to Support Army, DLA, and DoD Worldwide

Total Revenue Backlog Value

\$22.5B (+12% YoY)

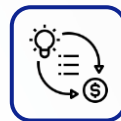
\$252B

\$7B comes from manufacturing Patriots rockets

\$103B are defense contracts and **\$103B** are commercial contracts



Exceptional Growth



Strong Business Model



Compatible with Assumptions



Defense News

AIR AMERICAS BUSINESS MIDDLE EAST TECHNOLOGY

Kratos to Acquire Israel's Orbit for Satellite Communications

August 19, 2025

Kratos to deliver up to 20 Valkyrie drones in 2026 as U.S. Marine Corps eyes contract

By Defence Industry Europe

Total Revenue

\$347.6M (+26%YoY)

\$87.2M (+36%) comes from shipments of their flagship high tech Valkyrie drones

DoD

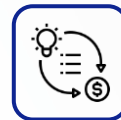
Contracts

47%

47% of Kratos' revenues come from the United States Department of Defense



Exceptional Growth



Strong Business Model



Compatible with Assumptions

Precious Metals Market

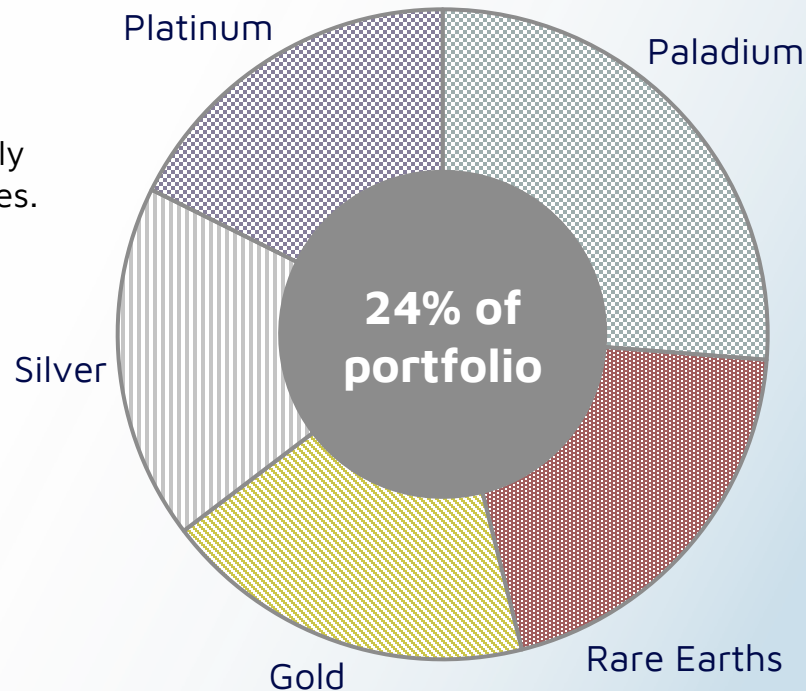
-Breakdown-

1. Increased global uncertainty

Precious metals such as gold and silver are frequently used as a **safe store of wealth** during uncertain times. We expect the world to become **increasingly unstable**, making precious metals **even more attractive**

2. Supply constraints:

New mines are expensive, bureaucracy slows new developments down, and precious metals are often found in politically unstable jurisdictions, leading to **scarcity or constrained supply** which can support **higher long-term prices**.



Precious Metals Market

-Headlines-

Gold prices jump above \$4,000/oz after Trump's tariff warning against China

by Energy News updated October 10, 2025 1:03 PM

Duties on Russia's palladium may support price for longer

By David McKay - October 21, 2025

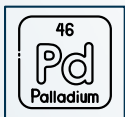
BUSINESS

US and China seek to strike a deal over rare earths, tariffs and soybeans

Platinum Supply: Mine Production Weak, Recycling Increases

Precious Metals Market

-Case Studies-

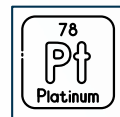


Palladium

- Palladium prices in late 2025 trade around \$1,440 per ounce, marking about **a 35% rise year-over-year.**
- **Supply constraints** from reduced **Russian** output due to geopolitical **sanctions** and **South African production cuts** underpin market tightness.



**Exceptional
Growth**



Platinum

- Platinum plays an **increasingly important role in the automotive industry**, supporting sustained demand.
- Mining **production cuts primarily in South Africa** contribute to supply tightness.

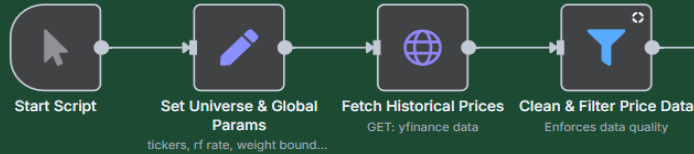


**Sustained
Demand**

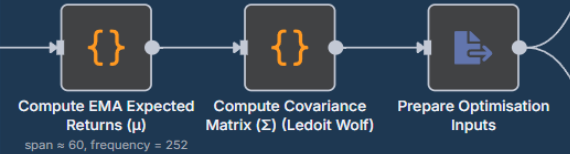


**Compatible
with
Assumptions**

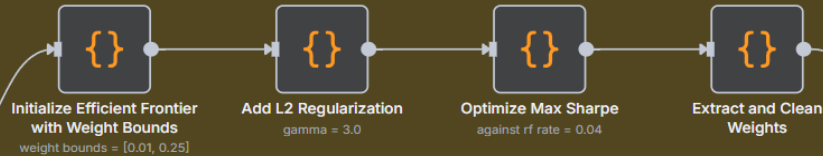
Phase 1 – Data Input & Universe



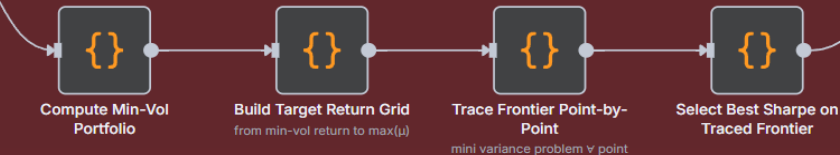
Phase 2 – Build μ and Σ (EMA Returns + Covariance)



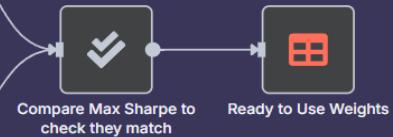
Phase 3 – Direct Max-Sharpe Frontier (Using Library API)



Phase 3 – Manually Traced Efficient Frontier (Point-by-Point)

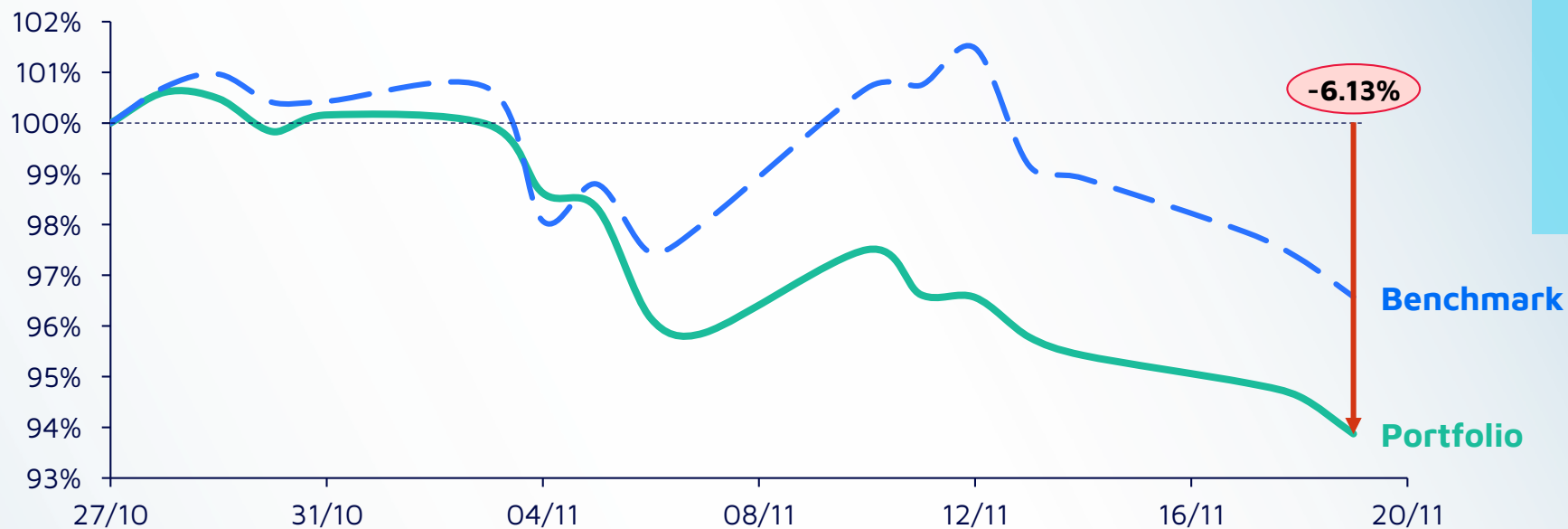


Phase 4 – Validation and Output



Our Allocation Strategy

Performance



	Portfolio	Benchmark		
Total Return	-6.13%	-2.67%	48.84%	NASDAQ
Sharpe Ratio	-6.37	-2	24.16%	DJGSP
Annualized Volatility	13.55%	20.32%	18.04%	XAR
Max Drawdown	-5.96%	-4.09%	8.96%	DEFV.L
CAGR	-56.04%*	-33.05%		

Performance - Evaluation



Overvalued Market Conditions

- Many companies trading near **short-term highs**
- Assets **highly sensitive to negative signals** + bearish market → losses were amplified

High exposure to riskier assets

- Some **highly volatile assets** (ex: Blockchain ETF, certain Defense and Tech companies)
- Short timeframe → Push for **High-risk-High-reward**

Bad Timing

- NASDAQ and S&P 500 peaked on October 29th, **haven't fully recovered since**
- Short timeframe → **Little room to wait** for better entry points

Future Outlook

Consistent Macro Trends

Despite seeing losses in our portfolio, our macro assumptions concerning **rising investments in tech, increased militarization** and growing **demand for precious metals** seem to **hold true**.



Promising Financial Reports

Although most companies saw their market cap decline, recent **earnings reports** show **significant and steady growth** in most cases



**Solid base for
Long Term
Performance**

What have we learned?

Investing is fun




Take more calculated risks



Timing: Don't buy the peak





*"A good plan violently executed now
is better than a perfect plan
executed next week"*

—George S. Patton

***Thank you for your
attention!***



Questions time!



Appendix : Compelte portfolio breakdown

Asset	Ticker	Weight	Performance
Paladium	IPDM.L	6.34%	-2.59%
US Rare Earth	RARE.MI	4.79%	2.40%
Gold	IGLN.L	4.49%	0.28%
Silver	ISLN.L	4.27%	6.17%
Platinum	IPLT.L	4.26%	-5.03%
Total Precious Metals		24.15%	
Blockchain ETF	BLKC.L	12.21%	-30.12%
Shopify	SHOP	7.15%	-16.47%
ASML	ASML	6.12%	-1.02%
AMD	AMD	5.00%	-13.31%
Google	GOOGL	4.94%	10.57%
Palantir	PLTR	2.42%	-12.46%
Oracle	ORCL	2.39%	-21.30%
Siemens	SIE.DE	2.15%	-10.41%
Nvidia	NVDA	1.46%	-1.83%
Meta	META	1.02%	-21.26%
Amazon	AMZN	1.00%	-2.18%
Total Tech		45.86%	
Kratos	KTOS	5.00%	-24.07%
RTX	RTX	4.88%	-3.15%
General Dynamics	GD	3.42%	-3.03%
Airbus	AIR.PA	3.41%	-2.91%
Northrop Grumman	NOC	2.64%	-6.59%
Lockheed Martin	LMT	2.08%	-2.93%
Rolls-Royce	RR.L	1.85%	-4.78%
BAE Systems	BA.L	1.37%	-7.78%
Rheinmetall	RHM.DE	1.34%	-10.01%
Leonardo DRS	DRS	1.00%	-18.26%
Total Defense		26.99%	
Utilities ETF	IUUS.L	2.95%	-2.87%