PORTFOLIO

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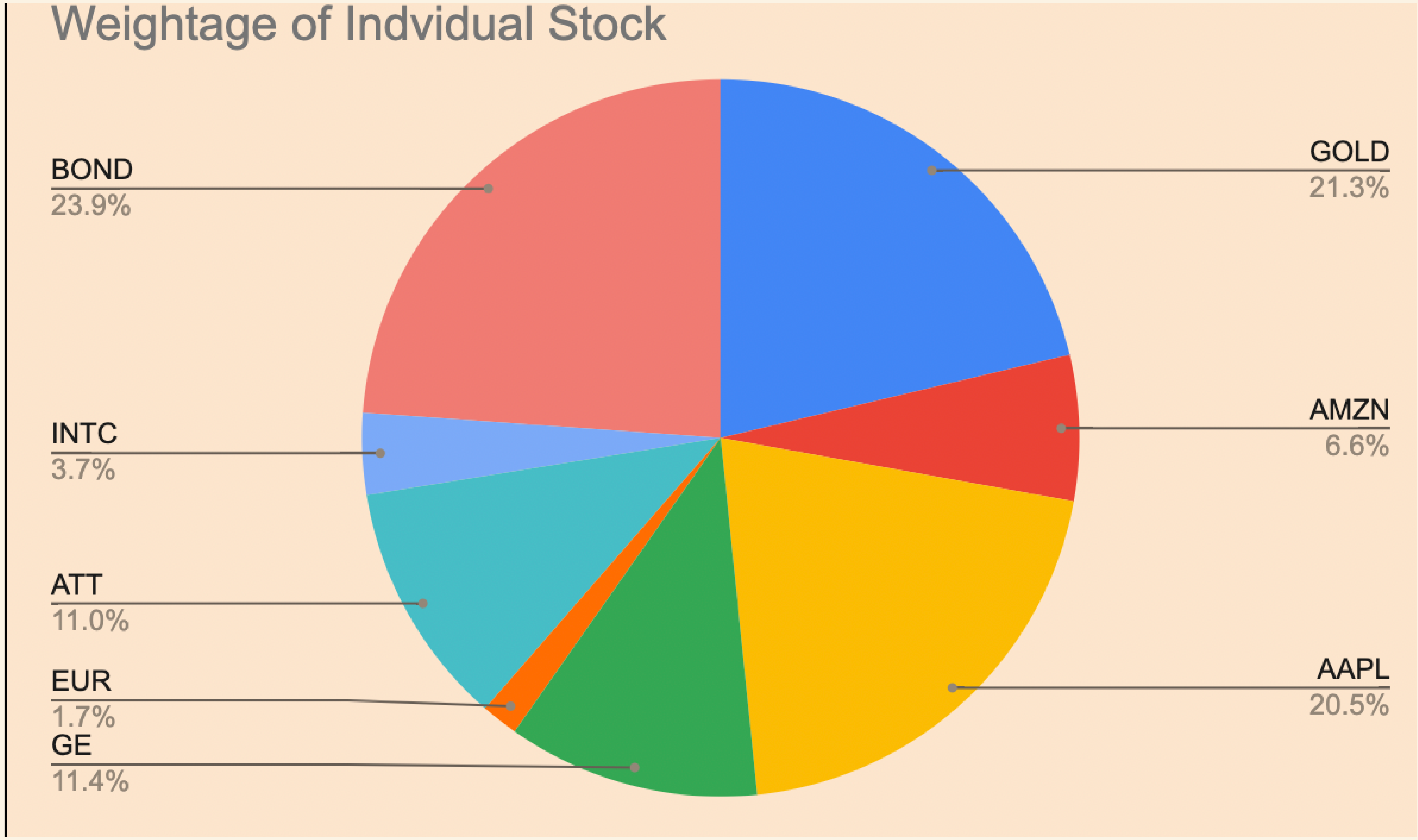
CHOOSING PORTFOLIO

Strategy	• Correlation needs to be slightly negative, small or zero • Sharp ratio should be higher			
MA-FLAT	AAPL	AMZN	GOLD	EUR
MA-SHORT	GE			
BB	BOND	INTC	ATT	

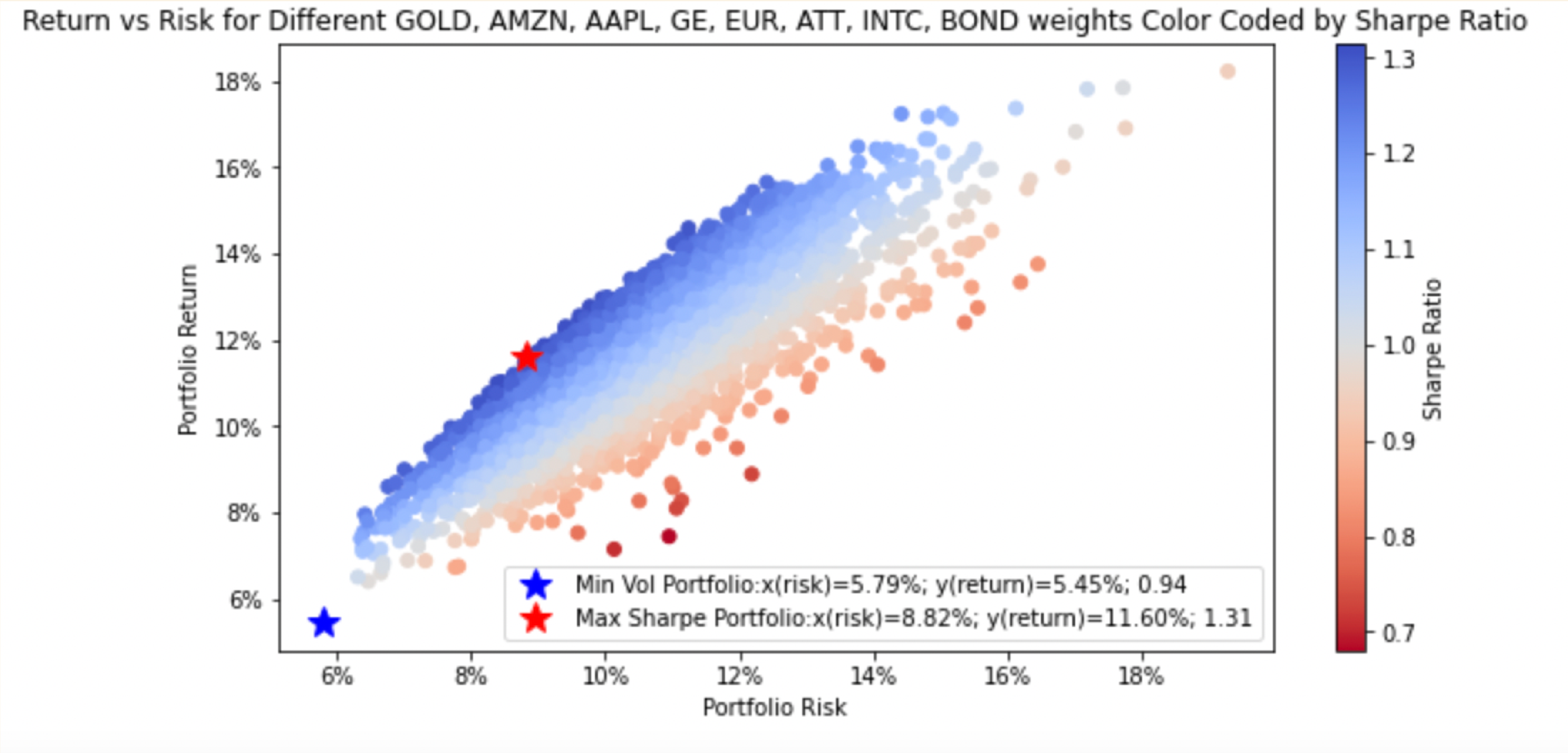
DETERMINING THE WEIGHTS

Running a mean optimization variance, we get



The weights are highest for instruments with a **'-Ve'** correlation with the other instruments, such as **GOLD** and **BOND**.

RISK-RETURN SCATTER PLOT



MAXIMUM SHARPE RATIO FOR THE PORTFOLIO : 1.31

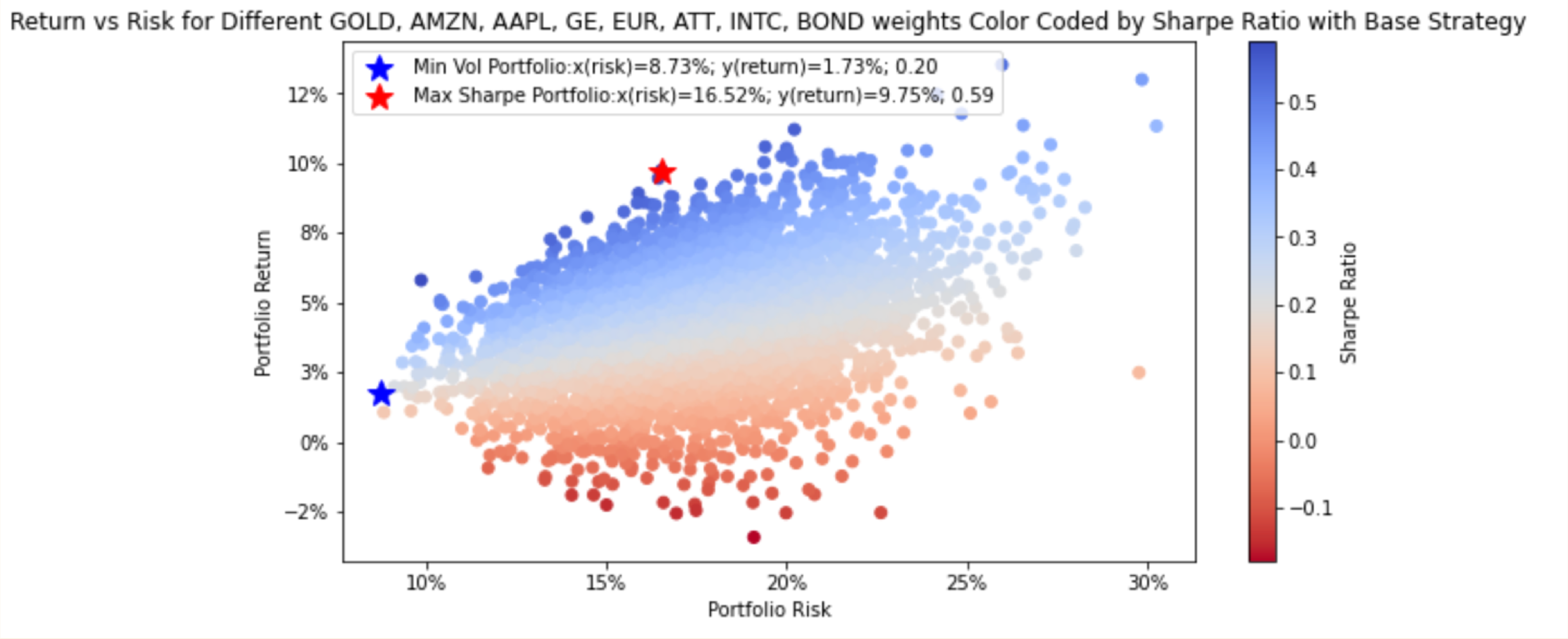
Equal Weight vs Best Portfolio

	GOLD	AMZN	AAPL	GE	EUR	ATT	INTC	BOND	Port	Best Port
Average Annual Return	8.22%	19.91%	23.60%	14.96%	1.24%	9.71%	15.07%	1.46%	11.77%	11.60%
Annual Risk	14.36%	33.40%	28.07%	31.07%	7.16%	22.36%	31.39%	3.28%	9.37%	8.82%
Sharpe Ratio	0.572177	0.596136	0.840946	0.481526	0.172608	0.434361	0.480177	0.446094	1.255730	1.314999
maxDD	-40.43%	-105.04%	-85.28%	-96.04%	-21.95%	-49.42%	-60.40%	-5.17%	-9.95%	-12.60%
Success Ratio	68.27%	66.92%	65.35%	51.67%	71.07%	63.65%	62.41%	62.17%	54.56%	54.92%

Beta Value

- **Beta (β)**, is a measure of the volatility–or systematic risk–of a security or portfolio compared to the market as a whole.
- The Beta value we obtained is **0.095.**
- Beta is used as a proxy for a stock's riskiness or volatility relative to the broader market.
- A beta value that is less than 1.0 means that the security is theoretically less volatile than the market.
- If you are a conservative investor looking to preserve principal, a lower beta may be more appropriate.

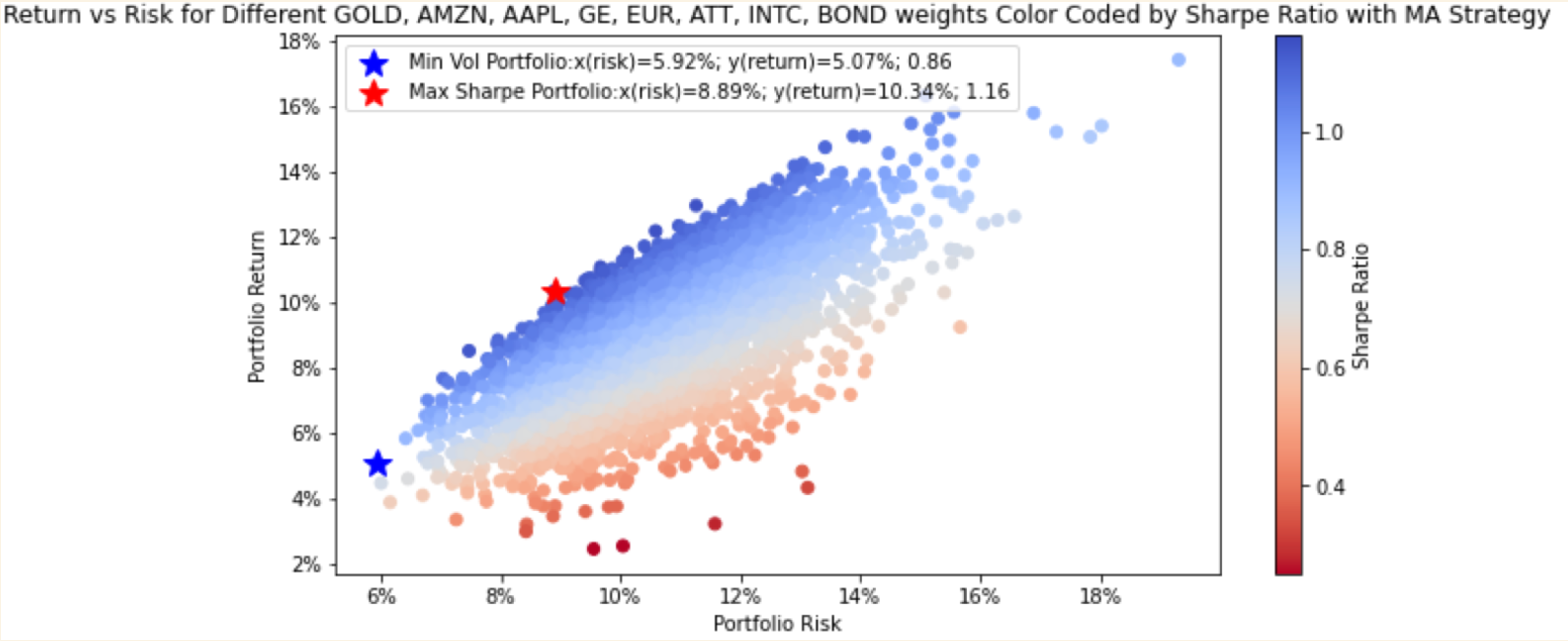
Base Strategy



Maximum Sharpe ratio by Base Strategy: 0.59

GOLD: 20.39%	**AMZN: 18.50%**	**AAPL: 5.04%**	**GE: 20.26%**
EUR: 5.63%	**ATT: 0.17%**	**INTC: 29.17%**	**BOND: 0.81%**

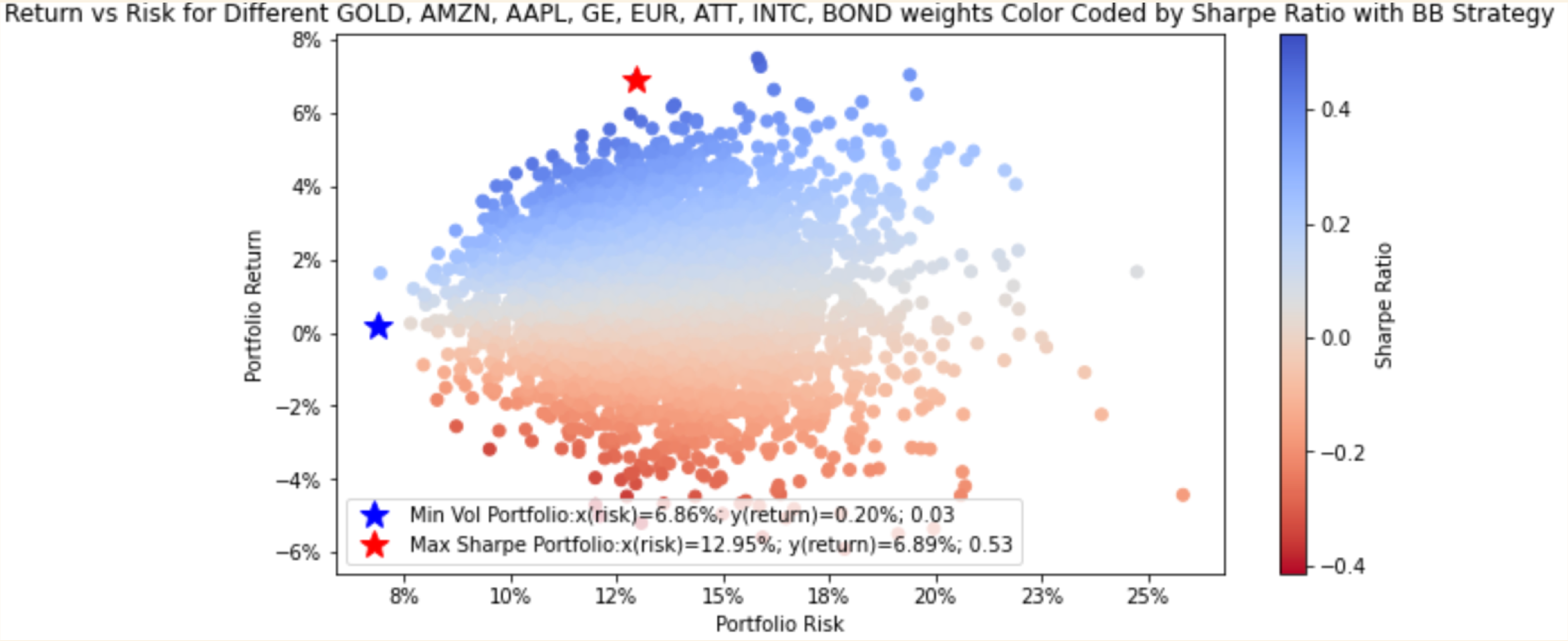
MA Strategy



Maximum Sharpe ratio by MA Strategy: 1.16

GOLD: 20.27%	**AMZN: 12.84%**	**AAPL: 17.62%**	**GE: 9.48%**
EUR: 16.44%	**ATT: 0.94%**	**INTC: 1.20%**	**BOND: 21.16%**

BB Strategy



Maximum Sharpe ratio by BB Strategy: 0.53

GOLD: 1.36%	**AMZN: 2.86%**	**AAPL: 1.89%**	**GE: 0.85%**
EUR: 5.36%	**ATT: 30.04%**	**INTC: 27.97%**	**BOND: 29.64%**

SUMMARY

	GOLD	AMZN	AAPL	GE	EUR	ATT	INTC	BOND	Best Port
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Observations

- The final portfolio has a much lower risk when compared to the majority of the instruments.
- The Sharpe Ratio of our portfolio is the highest.
- The maxDD has decreased significantly.

Thank

YOU