First Portfolio:

"Invest in **China**" ! not diversified, focus on 3 equities ETF and 1 money ETF with RMB:

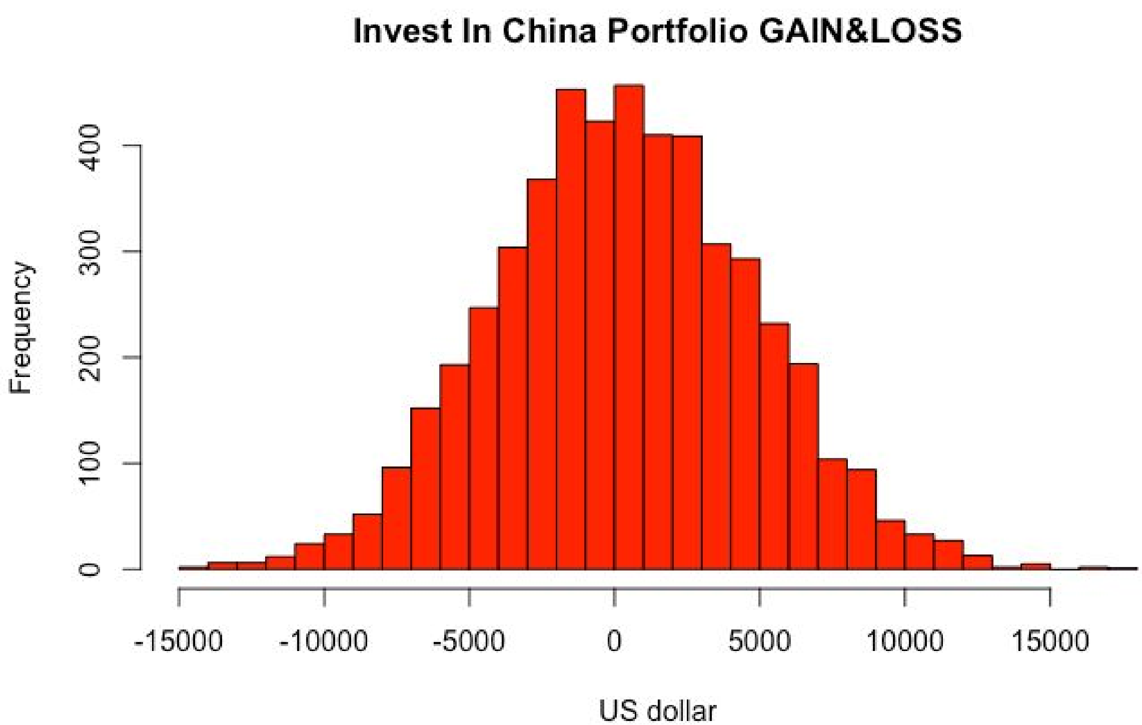
CQQQ: Invesco China Technology ETF

CYB: WisdomTree Chinese Yuan Fund

EWH:iShares MSCI Hong Kong ETF

CXSE: WisdomTree China ex-State-Owned Enterprises Fund

Since it focuses on emerging market sector in a country that’s experiencing rapid developments, we expect the portfolio to be more risky.



After running our simulation (see code), the Value at Risk for this “China portfolio” is ***$6895.95***, when you invest $100,000 in a 4 week period. With a 95% confidence, we expect that our worst daily loss will not exceed this number.

One interesting thing we found out was, if you don’t reset your weight everyday, you will lose money in 4 weeks (with 99% confident). The VaR will be around $25,000 which shows something bad was going on in one or more of the sectors in the portfolios in the past five years.

Second Portfolio:

A diversified portfolio hoping to lower risks, focusing on 8 ETFs from many different sectors, from bonds, to commodity, to equity. Also, we mostly picked the ones with big amount of assets. Expect to lower risk:

VNQ: Vanguard Real Estate Index Fund

USO: United States Oil Fund

SHV: iShares Short Treasury Bond ETF

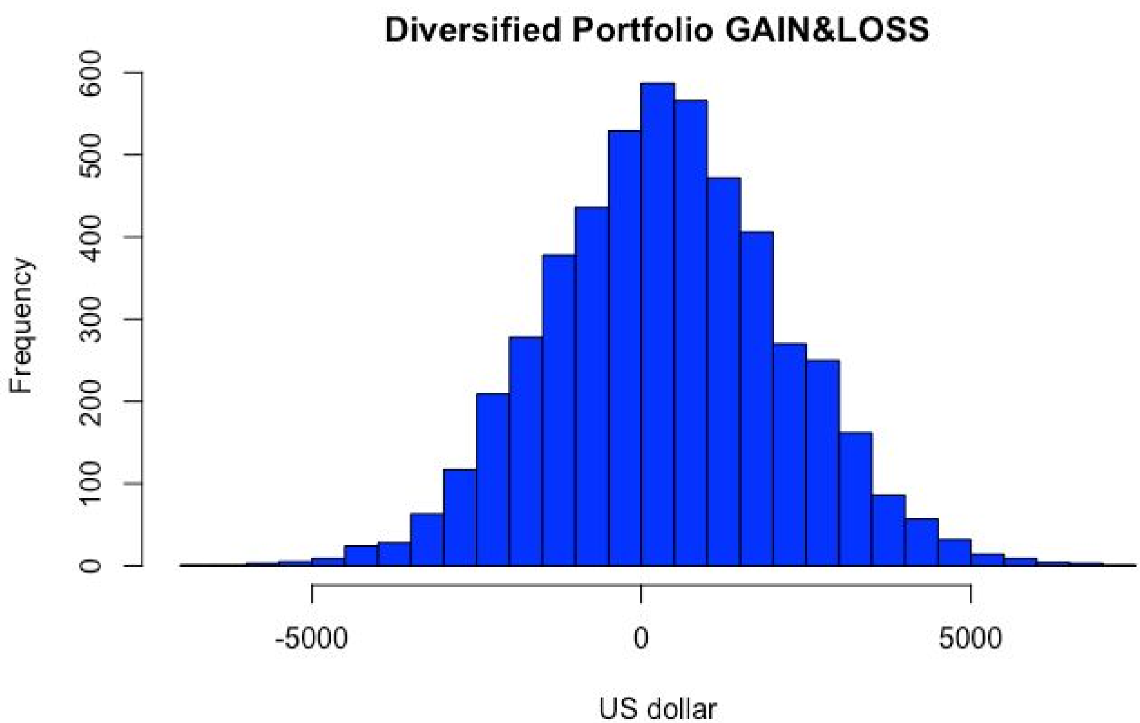
VCSH: Vanguard Short-Term Corporate Bond ETF (Corporate)

JPST: JPMorgan Ultra-Short Income ETF (Money Market)

SCZ: iShares MSCI EAFE Small-Cap ETF (Global)

XLV: Health Care Select Sector SPDR Fund

GLD: SPDR Gold Trust

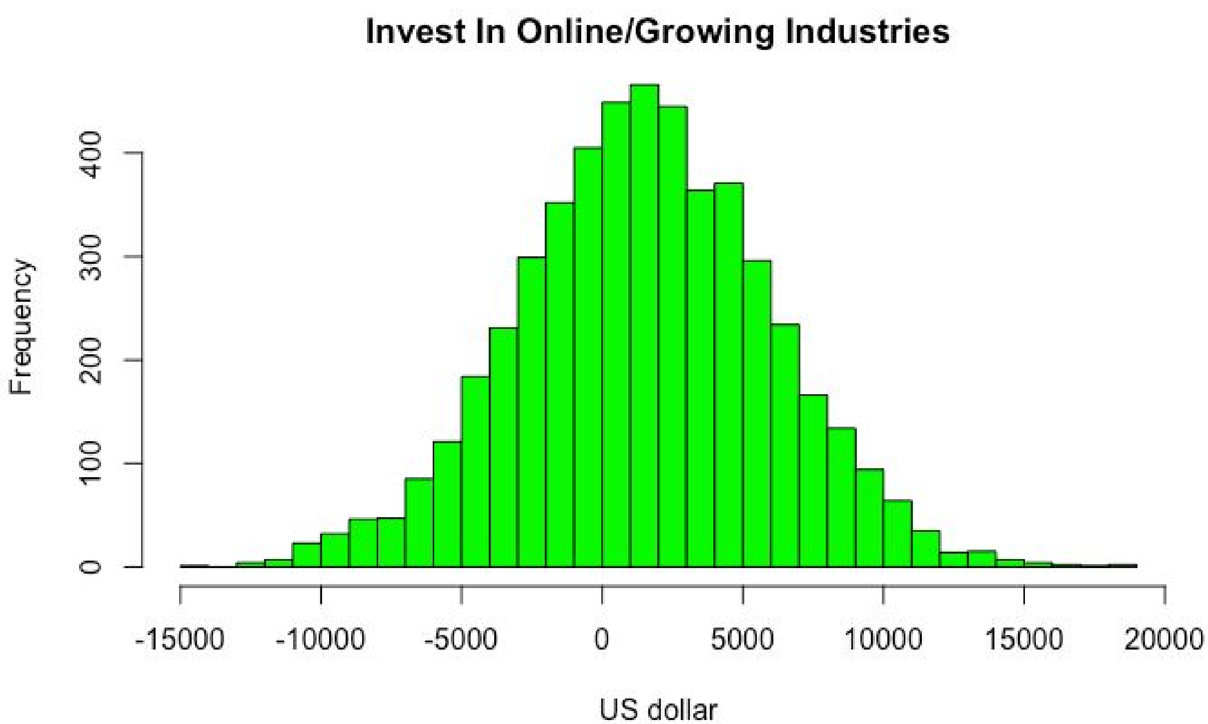


The distribution from our simulation proved our theory and expectations. the Value at Risk for this “Diversified portfolio” is ***$2501.85***, when you invest $100,000 in a 4 week period. With a 95% confidence, we expect that our worst daily loss will not exceed this number. It’s around one-third of the China portfolio’s VaR. You are less likely to make big money in 4-week, too. However, the slighted left-skewed distribution means we are more likely to gain.

Third Portfolio:

A risky, more aggressive portfolio that contains tech/online industries, small/mid growth, and trending topics. With the rapid growth, we expect greater gains (or loss), less stability, and in other words, more risks:

XWEB: SPDR S&P Internet ETF
IBUY: Amplify Online Retail ETF
JSMD: Janus Henderson Small/Md Cp Gr Alpha ETF
IFLY: ETFMG Drone Economy Strategy ETF



After running our simulation (see code), the Value at Risk for this “Online/Growing Portfolios” is ***$5933.17***, when you invest $100,000 in a 4 week period. With a 95% confidence, we expect that our worst daily loss will not exceed this number. Even the risk level is pretty similar to the Chine one, because the ETFs here are in general doing better than the “China Portfolio” in the past 5 years the VaR for 4 weeks is actually lower. It still shares a similar distribution and shape with the China one, because they are both emerging and developing.

Conclusion:

Both the “Diversified Portfolios” and “Online/Growing” are looking good with that left-skewed shape. If you want to play safe, go with the former. Play big? Then take more risk with the latter. Still, try to avoid China related topics though, the risk looks like it’s not really worth it, especially now we have trade war going on. That can cause even more issues outside of the scope of this simple simulation.