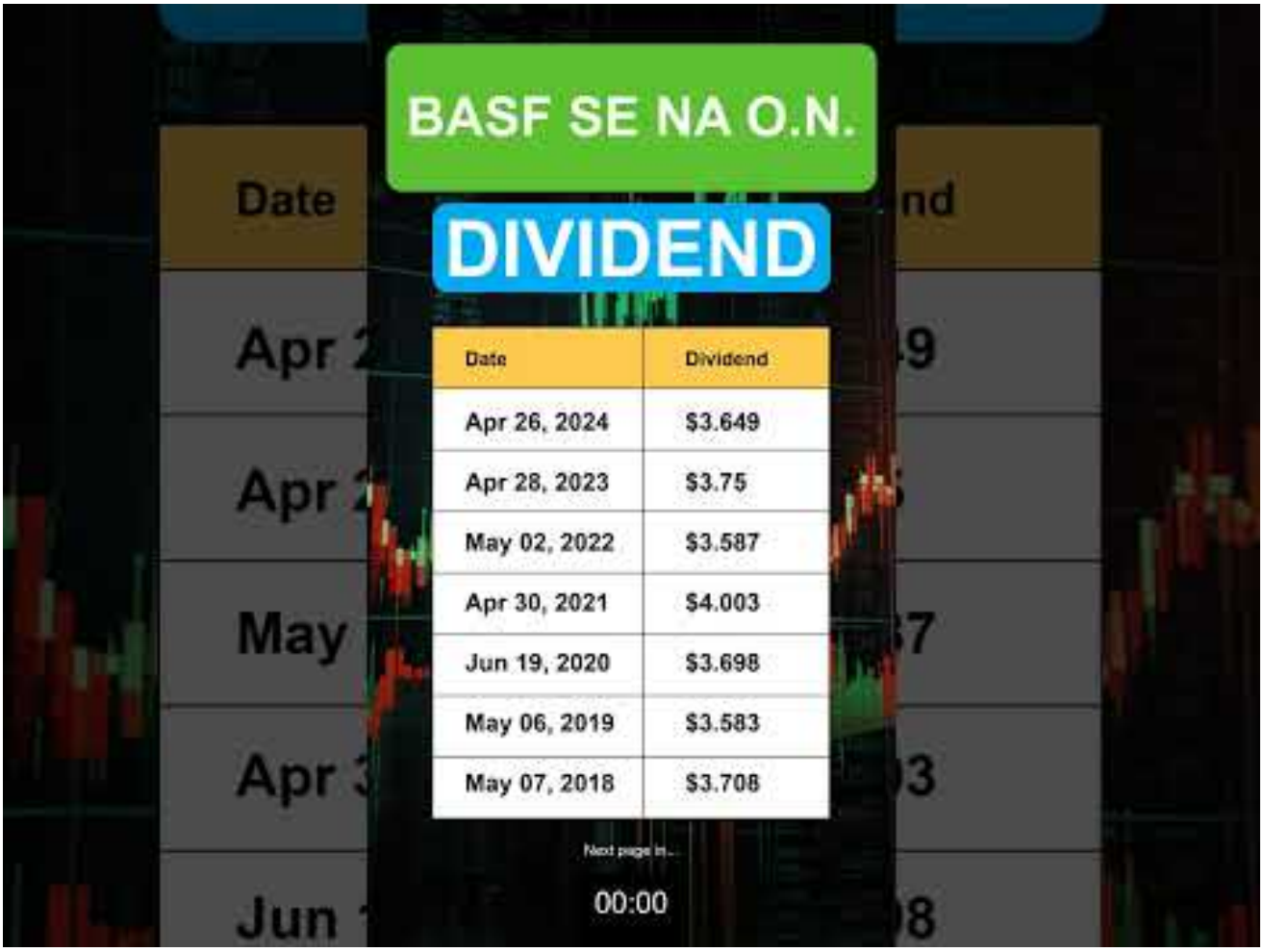
How to Evaluate Portfolio Risk Across Stocks, ETFs, and Funds

Understanding the scope of portfolio risk

When you hold a mix of stocks, ETFs, and funds, the risk of the whole is not simply the average of each part. Different assets interact, sometimes dampening losses and sometimes amplifying them. A methodical approach helps you see where the real vulnerabilities sit and which adjustments might improve your risk profile. The steps below walk through a practical assessment, with key checks at each stage.

Step 1: Gather your holdings and their weights

Start by listing every position in the portfolio. For each one, note the ticker, the type (stock, ETF, open-ended fund, bond fund), and the current market value. Calculate the percentage weight of each holding relative to the total portfolio. This baseline seems simple, but small positions can hide large risks if they are concentrated in a single sector or factor. Watch for positions that together account for more than 10% of the portfolio and that share the same industry or geography. Those clusters often drive more than their weight suggests.



Step 2: Measure individual volatility and maximum drawdown

For each holding, look at its historical volatility, usually expressed as the annualised standard deviation of daily returns. A stock with 40% volatility adds more jitter to the portfolio than a bond ETF with 8% volatility, even at the same weight. Alongside volatility, check the maximum drawdown over the past three to five years. A fund that lost 50% in a downturn will take longer to recover, and its presence in the portfolio can delay your ability to rebalance. The combination of high volatility and deep drawdown is a red flag; consider whether you have enough other assets that tend to hold up when that holding falls.

Step 3: Assess correlation between positions

Correlation measures how two assets move relative to each other. A correlation of +1 means they move in lockstep; -1 means they move in opposite directions; zero means no relationship. In a diversified portfolio, you want some positions that are not highly correlated with each other, because when one drops, the other may stay flat or rise. Use a correlation matrix or a rolling correlation tool to see pairs over the last three years. Pay special attention to ETFs and funds that claim to track different indexes but end up holding many of the same large-cap

stocks. Two "diversified" funds can be nearly identical under the hood, offering little real diversification. If you see a pair with a correlation above 0.85, ask whether holding both adds enough benefit to justify the overlap.



Step 4: Calculate portfolio beta

Beta compares the portfolio's sensitivity to a broad market index, usually the S&P 500. A beta of 1.0 means the portfolio tends to move with the market; 1.5 means it amplifies market moves by 50%; 0.5 means it moves half as much. To get portfolio beta, weight each holding's beta by its share of the total portfolio and sum the results. If the portfolio has a beta above 1.2, it will likely fall more than the market in a downturn. That might be fine if you have a long time horizon and a high risk tolerance, but it means you should have cash or defensive positions ready to rebalance. A beta below 0.8 suggests a more conservative posture; check whether the lower sensitivity comes from bonds, cash, or low-volatility stocks, because each behaves differently when rates change.

Step 5: Examine sector exposure and asset allocation

Even with low individual correlations, a portfolio can be concentrated in a few sectors. Sum the sector weights across all holdings. If technology stocks account for 40% of the portfolio, a tech downturn will hurt regardless of how many different names you own. The same logic applies to asset classes: stocks, bonds, real estate, commodities, and cash. A portfolio with 80% equities and 20% bonds has a different risk profile from one with 60% equities and 40% bonds, even if the stock selection is identical. Use a tool that can aggregate sector and asset-class data from the holdings' filings or fact sheets. Watch for sector weights that exceed your

intended allocation by more than 5 percentage points; that gap often indicates that recent market moves have shifted the portfolio without your noticing.

Step 6: Evaluate risk-adjusted return

Raw return numbers do not tell you whether the risk taken was worth it. Risk-adjusted measures such as the Sharpe ratio or Sortino ratio compare return to volatility or downside volatility. A holding with a Sharpe ratio above 0.8 over a full market cycle has historically delivered decent reward per unit of risk. If a fund or stock has a high return but also very high volatility, its risk-adjusted return may be mediocre. At the portfolio level, compute the weighted Sharpe ratio using the portfolio's overall return and standard deviation. Compare it to a benchmark that matches your asset mix. If the portfolio's risk-adjusted return trails the benchmark, the extra risk is not being compensated, and you may want to trim the positions that contribute the most volatility without contributing proportionally to return.



Step 7: Run a scenario or stress test

Historical data cannot predict the future, but stress testing shows how the portfolio would have behaved during past crises: the 2008 financial crisis, the 2020 COVID sell-off, or the 2022 inflation shock. Some investment screening tools include a stress-test feature that applies historical shocks to current holdings. Look at the maximum drawdown the portfolio would

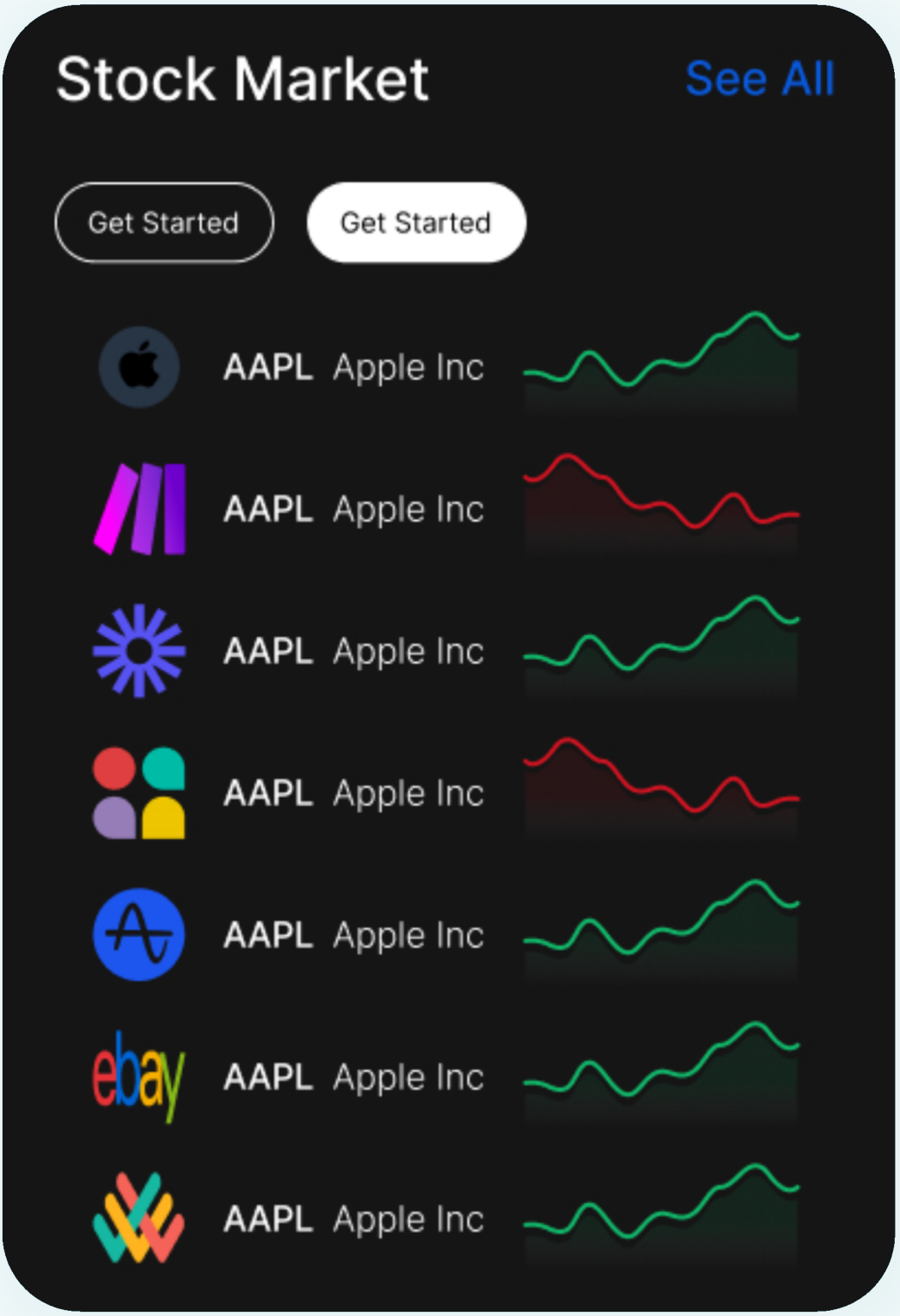
have suffered in each scenario. If the simulated loss exceeds your comfort threshold, the portfolio may be too aggressive for your actual risk tolerance. Also check how long it would have taken to recover. A portfolio that took three years to get back to even after a crisis might not suit someone nearing retirement, even if the long-term return looks attractive.

Step 8: Review concentration in single issuers or strategies

Beyond sectors, check whether any single stock, ETF, or fund accounts for more than 10% of the portfolio. A concentrated position in one name can dominate outcomes, for good or ill. Similarly, watch for overlapping strategies. If you hold three different growth-oriented ETFs, you may have unintentionally created a large bet on growth stocks. A risk analytics platform can flag these hidden concentrations by scanning the underlying holdings across all your funds and ETFs. One use of a risk analytics platform is to reveal that what looks like a diversified portfolio is actually a collection of similar bets. The other use is to run the same check after any rebalancing, so you do not reintroduce concentration while trying to reduce it.

Step 9: Compare to a target allocation and rebalance

Once you have the full picture, compare the current portfolio to your target asset allocation. Decide on thresholds for rebalancing, such as a 5% drift from the target for any asset class or a 10% drift for any sector. Rebalancing brings the portfolio back in line, but do not do it too often; once a quarter or after a significant market move is usually enough. Use the risk measures from earlier steps to decide which positions to trim and which to add. If a holding has high volatility, deep drawdown, and low risk-adjusted return, it is a candidate for reduction. If a holding provides uncorrelated returns and a decent Sharpe ratio, it may warrant a larger weight.



Keeping the process repeatable

Portfolio risk is not a one-time calculation. Markets shift, holdings change, and your own circumstances evolve. Revisit this assessment every quarter or after any major portfolio change. The steps stay the same, but the numbers will tell a different story each time. By making the evaluation a regular habit, you catch problems before they compound and keep the portfolio aligned with the risk level you intended.