Risk Management Through Bloomberg Terminal

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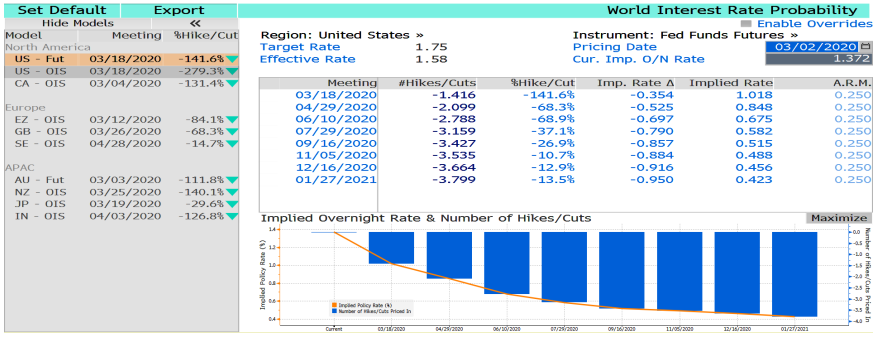
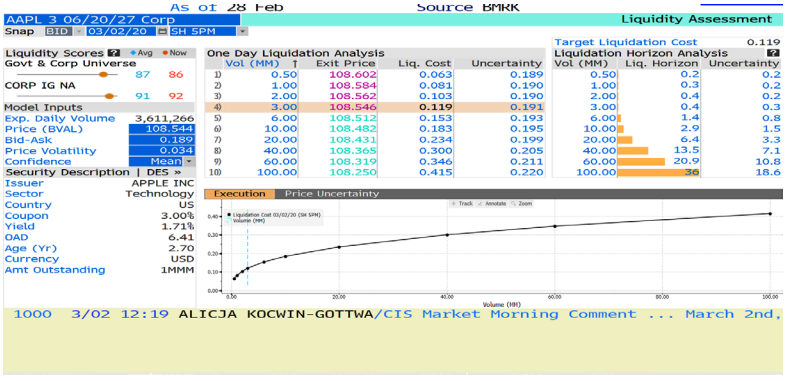
The modern world is ever more advanced and progressive, with the financial networks requiring frequent updates through accelerated data adjustments in the models and business decision processes. Due to the special features of the Bloomberg Terminal (BT) and its instruments, all Bloomberg linked models automatically take the required data in a few seconds. BT, however, is not just a data acquisition tool, and offers plenty of implementations not only from a trading point of view, but also a risk management perspective. By optimizing routine reporting and modeling, every company maximizes the effectiveness of their employees and allows employees to focus on analytical issues rather than repetitive and low-value tasks. Moreover, regardless of the model you use, BT always offers the best practice version to optimize the outcome. In this article, I will present BT's advantages in the risk management sphere. I will also suggest how BT can be used to create a competitive edge, because any biased or lagged information may cause a wrong decision, but the BT enables you to gauge end-of-day and intraday risk levels with precision.

It is universally believed that globalization is a force that shapes our contemporary world, affecting business, the environment and of course financial markets. Suppliers, corporations, and consumers are becoming progressively more linked by information, material, and capital flows, as production processes become increasingly dispersed around the globe. Because of the fast-growing economy, many changes and improvements may be missed and ignored. Despite this, we have to adjust our models and calculations as frequently as we can. It is necessary to determine the main flows of information which must be considered for the initial analysis in the trading, but prior to this, we must specify what kind of investments we primarily planned to view. The following indicators should be taken as leading measurement tools for risk management generally: market rates, diversified portfolio, liquidity, correlation among sub-portfolios, convexity, benchmark tracing, hedging opportunities, risk of loss and others.

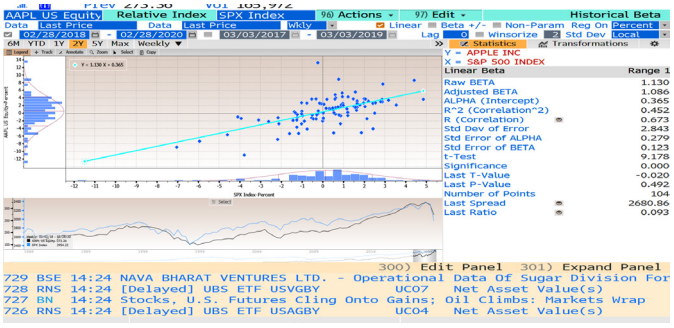
Market rates. Fixed-income investment is influenced by market rates in an inverse relationship. Therefore, by estimating the market rate we can forecast our potential gain from the trade. At least 8 market rate changes per year are distributed by their probabilities along with the FED meeting dates. These probabilities collect massive volumes of information across the world and are analyzed by Bloomberg professionals, who provide the exact prediction without any deviations.



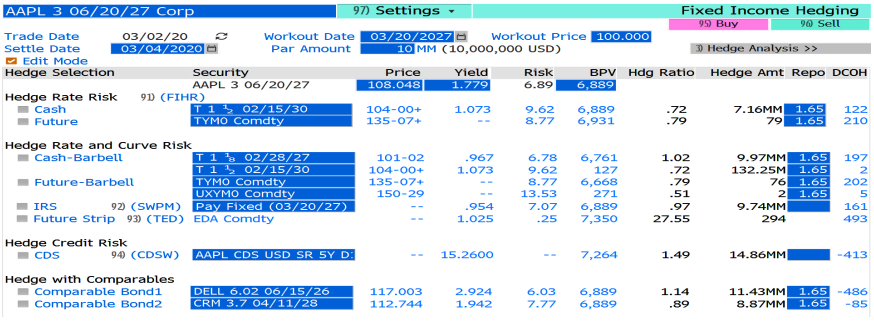
Liquidity of a security. How can we evaluate the liquidity of a single security by means of BT? Due to daily trade volume information, we can analyze the liquidity power of a security. In addition to the daily expected volume data, the BT offers liquidity cost change in case of a change in volume. In this manner, we can calculate an exit position cost of the security. Furthermore, in order to figure out the certainty, the BT shares probability levels of volume changes. Uncertainty columns express the reverse side of the probability and that level assumes liquidity horizon.



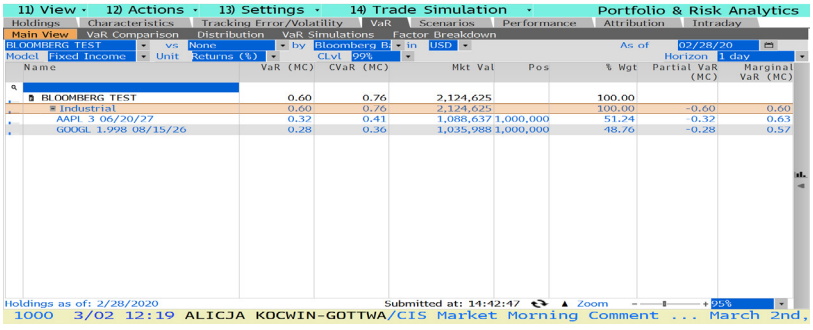
Correlation. Correlation metrics measure the relationship between dependent and independent variables, which consequently explain the direction of the connection. Positive, negative and non-related correlations can lead you to determine the final data as a result of changes in independent variables. The regression formula solves this issue and displays a clear picture of the relationship. Due to the BT, beta, alpha (intercept) and R-squared indicators of regression are defined through massive data and calculation. Besides, standard error of beta and alpha are also mentioned to clarify the effectiveness of correlation. By applying the BT's correlation tool, we can get an exact picture of the relationship between variables and forecast a security performance (example profit or loss) based on the performance of a selected security or benchmark.



Hedging. Hedging is another method of insurance. This protection method, which grants security from the market, credit and operational risk, motivates investors to become more secure. An additional service of BT consists in providing several types of hedge selection techniques, hedging ratios and hedge amounts. Successful hedging gives the trader protection against price changes, inflation, currency exchange rate changes, interest rate changes and so on. Futures and options are a very good short-term risk-minimizing strategy for long-term traders and investors. In virtue of the hedging system, an estimated loss can be protected by the amount of gap.



Risk of loss. The quantitative expected loss of a security is measured through the Value at Risk (VaR) measurement. Due to the VaR metric, we can determine the potential amount of loss and approve this VaR loss amount as a stop loss limit to exit the position in case of a breach. Calculation of VaR is a complicated process and the historical price list must be provided as a source. Moreover, portfolio VaR requires extra correlation and variance matrices to complete the portfolio VaR calculation. Instead of conducting this level of sophisticated work, we can set an exact portfolio at BT (we just need ISIN and face value data), split the portfolio into different categories based on maturity, quality, category or regions, and receive VaR for the portfolio and sub-portfolios simultaneously. The facilitation of such a time-consuming process allows for the automation of routine executed works, removes calculation biases and, as a result, hold and sell decisions (from a risk point of view) become greatly beneficial.



In summary, risk management is responsible for fulfilling various necessary targets, and indeed, Bloomberg Terminal has been designed to ease the task and to accelerate models used daily. This article covers the core part for starting Risk Management analysis at BT, however more detailed security portfolio management through the best practice will be shared in the next article. By improving risk management levels in the security portfolio scope, we can gain significant benefits aside from the liquidity management. Furthermore, risk management procedures and policies have to be prepared to complete the qualitative part of proceedings, and to be delivered properly.

Author's biography

Mr. Aydin Garayev *is a Market Risk specialist at PASHA Bank OJSC. He is simultaneously specialized in Bloomberg Terminal from a risk management point of view. Aydin carries 5 years of banking experience in strategy planning, project management and risk management spheres. Mr. Garayev is a PhD student and researching "Industrial Economics, Monetary Economics and Development" at Institute for Scientific Research on Economic Reforms.*