

Rotman Portfolio Management Competition (RPMC) 2021

OVERVIEW

The BMO Financial Group Finance Research and Trading Lab is pleased to present the Rotman Portfolio Management Competition (RPMC) 2021. This competition is open to all undergraduate and graduate students from Canadian and US universities. RPMC aims to promote hands-on learning experience for students by managing an investment portfolio with the securities listed and traded in actual markets using the Rotman Portfolio Manager (RPM) platform developed by the Rotman Finance Lab.

DESCRIPTION

Students will participate in teams of up to three students and each team will start with an initial cash allocation of CAD \$1 million on Day 1. Each team's objective is to generate the highest risk-adjusted returns by the end of the competition period measured by the Sharpe Ratio. Participants will only be allowed to trade restricted securities listed on the U.S. and the Canadian exchanges. Participants may also short-sell any securities and trade on margin (e.g. leverage allowed).

The competition will take place online and will begin on **Wednesday, November 11th, 2020** and run until **Friday, March 12th, 2021**. Selected top performing teams will be invited to virtually present their strategies and performance results on **Friday, March 19th, 2021** to judges to determine the overall winner.

Prize

Grand prize for RPMC will be \$500 CAD and a trophy to the overall winning team.

Participation Eligibility

Participants should be currently registered in a Canadian or US university as a (part-time or full-time) student in the 2020-2021 academic year.

COMPETITION RULES

1. **Tradable Securities** – Teams are only allowed to trade securities and ETFs that are listed on the “Tradable Securities” document. You can find the list [here](#).
Teams who trade beyond the list of allowed securities will be penalized.
2. **Portfolio Constraints** – Each investment (security or ETF) must not exceed 20% of the portfolio at any point of the trading period.
3. **Capital Allocation** – Each team should invest most of their capital into securities. Cash position should always be kept lower than 10% of the total portfolio value starting from November 25th, 2020.
4. **Trading Frequency** – Teams must maintain regular trading activity with a minimum of one trade every two weeks starting from November 25th, 2020. Failure to make a trade every two weeks will result in a penalty.

NOTE: Penalties will be determined and calculated on an individual basis by the RPMC Committee, and will be disclosed to the participants and reflected in the scores.

SCHEDULE

Dates	Description
October 21 st , 2020 – November 4 th , 2020	Registration Period
November 11 th , 2020 – March 12 th , 2021	Competition Period
March 19 th , 2021	Presentation, Awards and Closing Ceremony 6:00pm to 9:00pm EST

REGISTRATION

Registration Period: October 21st, 2020 – November 4th, 2020

You must register in teams of up to three students to participate. Only one member needs to register for the team.

1. Complete the Team Registration Form, which can be found [here](#).
2. You will also need to pay the registration fee of CAD \$30/team plus 13% HST via this payment [website](#).
3. Once our staff receives your completed registration form and payment, you will receive a confirmation e-mail along with the necessary instructions for setting up your RPM account within 72 hours. If you have not received communication from our staff after 72 hours please email rpmc@rotman.utoronto.ca with the subject line "Registration Confirmation Inquiry" and include your team representative's full name, phone number and full names of all other team members

TRADABLE SECURITIES & BENCHMARK

Most of the securities included in the S&P500 Index and the S&P/TSX Composite Index are available for trading. Some securities were excluded from the list due to their illiquidity, high volatility, and/or high beta. In addition, a few major ETFs that represent particular asset classes, sectors, industries, and regions are also included in the list for trading.

There is a benchmark portfolio that consists of the following ETFs with corresponding weights. The benchmark portfolio will be constructed according to the weights based on the **closing prices** of the ETFs as of **November 11th, 2020**. The benchmark portfolio will be re-balanced on a monthly basis at the beginning of each month, and any distributions (e.g. dividends) will be re-invested into the ETFs according to the weights when the rebalancing happens. Please be advised that the purpose of the RPMC is not necessarily to 'outperform' the benchmark portfolio, but it will be another useful measure for understanding the performance of the portfolio.

Ticker	Name	Weight
SPY	SPDR S&P 500 ETF	35%
XIC.TO	iShares Core S&P/TSX Capped Composite Index ETF	15%
IEMG.K	iShares Core MSCI Emerging Markets ETF	20%
XBB.TO	iShares Core Canadian Universe Bond Index ETF	20%
GLD	SPDR Gold Shares	10%

The benchmark portfolio account will be named 'RPMC Benchmark' and each team will be able to compare the team's portfolio performance against the benchmark portfolio on the RPM platform.

SCORING

RPMC will use a 'score' system where a score is provided to each team based on their performance. Teams will be first evaluated by their performance measured by Sharpe Ratio. Selected top performing teams will be invited to present their strategies and performance results in front of judges to determine the overall winner. Any penalties will result in a score deduction when computing the ranking.

Deliverable	Weight
Sharpe Ratio Ranking*	50%
Presentation**	50%

*Adjusted for penalties

** Selected from top performing teams

Sharpe Ratio

The Sharpe ratio measures the average return adjusted for the risk-free rate and divides it against the total standard deviation of the portfolio. The definition of "zero risk" here indicates the investment of safe securities such as U.S. Treasury Bill. In other words, a portfolio that is 100% invested in U.S. Treasury Bills will yield a Sharpe ratio of exactly zero.

$$\text{Sharpe Ratio} = \frac{R_p - R_f}{\sigma_p}$$

Where,

R_p = Portfolio Return

R_f = Risk Free Rate

σ_p = Standard Deviation of Portfolio Returns

Presentation

Selected top performing teams will be required to virtually deliver a presentation on their portfolio performance and strategies to a panel of judges comprised of portfolio managers and investment professionals on **Friday, March 19th, 2021**.