



# Portfolio Management in a Bourstad simulation

Webinar for 2023 Bourstad Challenge participants  
Thursday, February 16, 7 p.m.

**Guest speaker:**

**Ms. Erika Toth, CFA, Director, BMO ETFs, Eastern Canada**

# Content


- Welcome
- Portfolio management in a BOURSTAD simulation
  - The investor's profile
  - The investment strategy
  - Learning objectives
- Portfolio Management Assessment in the Bourstad Challenge
- A Primer on the Canadian ETF Industry
  - Erika Toth, CFA, Director – BMO ETFs, Eastern Canada





# Portfolio management in the Bourstad Challenge

- ▶ The criteria used by the jury to evaluate the quality of the portfolio management are:
  - ▶ consistency of the fictitious-investor
  - ▶ choice of strategies and their consistency with the investor
  - ▶ transactions carried out according to the strategies in force
  - ▶ portfolio management follow-up according to the mandatory justifications provided
  - ▶ quality of the additional justifications
  - ▶ performance achieved in relation to the investor's objectives and profile
  - ▶ learning objectives achieved
  - ▶ consideration of responsible investment concepts

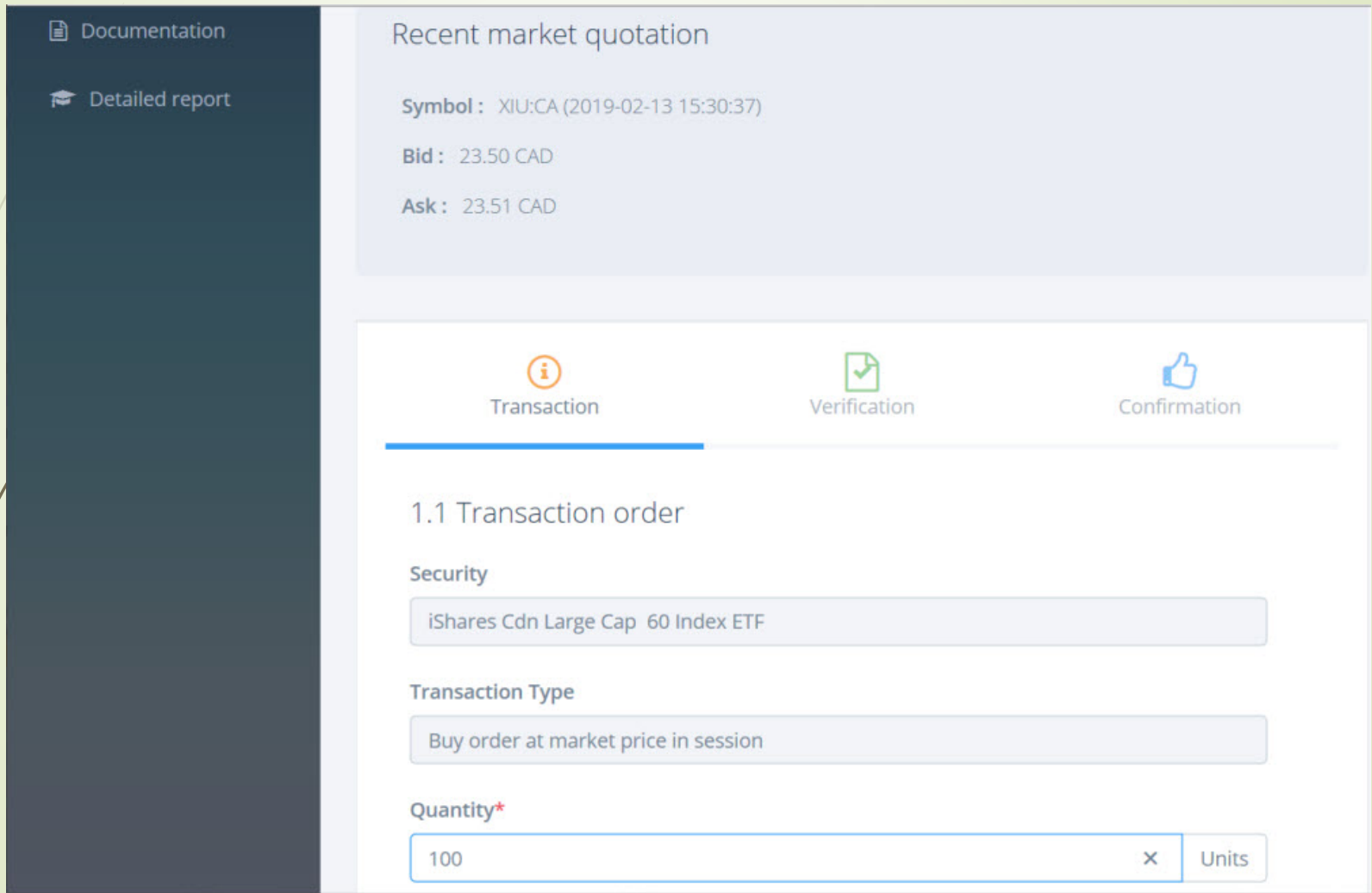


# Portfolio management on the Bourstad platform

- The investor's profile
  - Who is your fictitious investor?
- The investment strategy (Portfolio management)
- Learning objectives

**Many resources available in the documentation system**

# Transaction in a Bourstad simulation



The screenshot displays the Bourstad simulation interface. On the left is a dark blue sidebar with two menu items: 'Documentation' (with a document icon) and 'Detailed report' (with a graduation cap icon). The main content area is divided into two sections. The top section, titled 'Recent market quotation', shows the following data: Symbol: XIU:CA (2019-02-13 15:30:37), Bid: 23.50 CAD, and Ask: 23.51 CAD. Below this is a horizontal navigation bar with three tabs: 'Transaction' (selected, with an information icon), 'Verification' (with a checkmark icon), and 'Confirmation' (with a thumbs-up icon). The 'Transaction' section is titled '1.1 Transaction order' and contains three input fields: 'Security' with the value 'iShares Cdn Large Cap 60 Index ETF', 'Transaction Type' with the value 'Buy order at market price in session', and 'Quantity\*' with the value '100'. The 'Quantity\*' field has a small 'x' icon and the word 'Units' to its right.

# Transaction in a Bourstad simulation (cont'd)

## 1.2 Quantitative Impacts on the Portfolio

Quantity held after the transaction  Units

Liquid balance after transaction  \$

## 1.3 Weight of asset types and business lines

Liquid assets  ▼

Bonds  ▼

Utilities  ▼

Financial services  ▼

Consumer products  ▼

Industrial products  ▼

Natural resources  ▼

## 1.4 Investment Objectives (changeable for 48 hours)

Income objective  %

Targeted capital gain  %

# Portfolio management in a Bourstad simulation

The screenshot displays the Bourstad simulation interface. On the left is a dark blue navigation sidebar with the following menu items: Simulation (Dashboard, Management, Transaction, Portfolio, Responsible Investment Test), Ranking (Bourstad Challenge), and Resources (Documentation, Detailed report). The main content area features three cards:

- Investor profile:** Includes an icon of a folder, documents, and a pen. Description: "Define the fictitious investor for whom you will act as an investment advisor during the simulation." Edit button.
- Portfolio Management:** Includes an icon of a laptop, calculator, pencil, and charts. Description: "Implement strategies and tactics to improve your investor's portfolio risk-return ratio." Edit button.
- Learning Objectives and Achievements:** Includes an icon of a brain, graduation cap, and gears. Description: "Describe the learning objectives you are pursuing in this simulation. You will then describe your accomplishments." Edit button.

# Investor profile

## Investor profile

Investor description Investment Information

Targeted performance as :

Income	<input type="text"/>	%
Appreciation	<input type="text"/>	%

Risk Tolerance

Investment Experience

Investment Knowledge

Total Assets  \$

Total debt  \$

Total Annual Income  \$

Investor profile  Prudent  Middle  Speculator

Enregistrer les modifications? [Annuler](#) [Enregistrer](#)



# Investment strategy

## Portfolio Management

### 1. Approaches

What style of portfolio management will you use?

- Active (aims to exceed the return of the stock index)
- Passive (aims to match the performance of the stock market index)

What use will you make of each of these approaches? Click to choose the level.

Top-down approach



Bottom-up approach



### 2. Asset Class Weights and Risk Levels

How important will each sector be in the portfolio?

Fixed rate investments	%
Liquidity	<input type="text" value="0"/>
Bonds	<input type="text" value="0"/>
Stocks	%
Utilities	<input type="text" value="0"/>
Financial services	<input type="text" value="0"/>
Consumer products	<input type="text" value="0"/>

Industrial products

Save Changes?

Cancel

Save

# Objectives and achievements of the participant

The screenshot shows a mobile application interface titled "Objectives and achievements". At the top right, there is a blue arrow pointing left and the text "Objectives and achievements". Below this, there is a blue plus sign followed by the text "+ Add a learning objective". The main content area contains a table with three columns: "Category ?" (with a question mark icon), "Learning Objective", and "Learning achievement". The "Category ?" column has a dropdown menu open, showing the following options: "Select a level" (highlighted in blue), "Remembering", "Comprehending" (highlighted in grey), "Applying", "Analyzing", and "Synthesizing". The "Learning Objective" and "Learning achievement" columns are empty text input fields. To the right of the "Learning achievement" field, there is a red minus sign icon. At the bottom of the screen, there is a "Save Changes?" label, a red "Cancel" button, and a blue "Save" button.

Category ?	Learning Objective	Learning achievement
<ul style="list-style-type: none"><li>Select a level</li><li>Remembering</li><li>Comprehending</li><li>Applying</li><li>Analyzing</li><li>Synthesizing</li></ul>	<input type="text"/>	<input type="text"/>



# Portfolio Management Assessment in the Bourstad Challenge

# Portfolio Management Assessment Measures

- Formative evaluation in a Bourstad simulation
  - 5 measures
- Summative Evaluation in the Bourstad Challenge
  - 14 measures



# Formative measures

- Realism of the investor's situation
  - Coherence between the investor profile and their risk sensitivity
  - Coefficient of learning index at the beginning of the simulation
  - Strategy vs Real Portfolio Weighting Gap
  - Portfolio investment rate
- 

# Summative measures

- ▶ Realism of the investor's situation
- ▶ Coherence between the investor profile and their risk sensitivity
- ▶ Coherence between sector weights in the strategy in place on February 27th and the investor profile
- ▶ Coherence between sector weights in the strategy in place on March 27th and the investor profile
- ▶ Coefficient of learning index at the beginning of the simulation
- ▶ Estimation of learning realized during the simulation
- ▶ Financial performance considering the investor profile
- ▶ Average liquid balance maintained during simulation
- ▶ Compatibility of additional justifications with the fundamental / technical profile
- ▶ Weight of sectors in the portfolio on February 27th Vs weightings of the investment strategy
- ▶ Weight of sectors in the portfolio on March 27th Vs weightings of the investment strategy
- ▶ Assessment of the impact of transactions on the weights of the sectors in the portfolio
- ▶ Estimation of the liquid balance after transactions
- ▶ Taking into account risks related to corporate social responsibility (ESG)

# Automated Evaluation of Portfolio Management - Dissemination

- ▶ Formative evaluation during the simulation
  - ▶ 5 evaluation measures
  - ▶ The participant consults his formative evaluation
    - ▶ On the participant's dashboard (Achievements)
    - ▶ In the detailed report accurately

- ▶ Summative evaluation when simulation is complete
  - ▶ 14 evaluation measures
  - ▶ The participant's detailed report displays it when the simulation is over

## Summative Assessment



Simulation	2018 Bourstad Challenge
Participant	Anthony Smith
Username	<b>antony@iclf.ca</b>
Number of eligible transactions	11
Grade assigned (Sommmative)	73.02 %

The formative measures are highlighted

## Marks

### Portfolio Management Assessment

Criteria	Weighting	Score
Consistency of investor profile and risk sensitivity	8 %	100.00 %
Coherence between sector weights in the strategy in effect on 2018-12-25 and the investor profile	5 %	86.97 %
Coherence between sector weights in the strategy in effect on 2018-12-26 and the investor profile	10 %	86.97 %
Index of the learning coefficient at the beginning of the simulation	5 %	100.00 %
Estimation of learning achieved during the simulation	5 %	0.00 %
Financial performance considering the investor profile	10 %	54.21 %
Average liquid balance maintained during simulation	10 %	75.62 %
Compatibility of additional justifications with the fundamental / technical profile	5 %	97.50 %
Weight of sectors in the portfolio on 2018-12-25 Vs weightings of the investment strategy	5 %	75.00 %
Weight of sectors in the portfolio on 2018-12-26 Vs weightings of the investment strategy	7 %	74.50 %
Assessment of the impact of transactions on the weights of the sectors in the portfolio	10 %	61.54 %
Estimation of the liquid balance after transactions	10 %	98.19 %
Taking into account risks related to corporate social responsibility (ESG)	5 %	0.00 %
Realism of the investor's situation	5 %	83.50 %

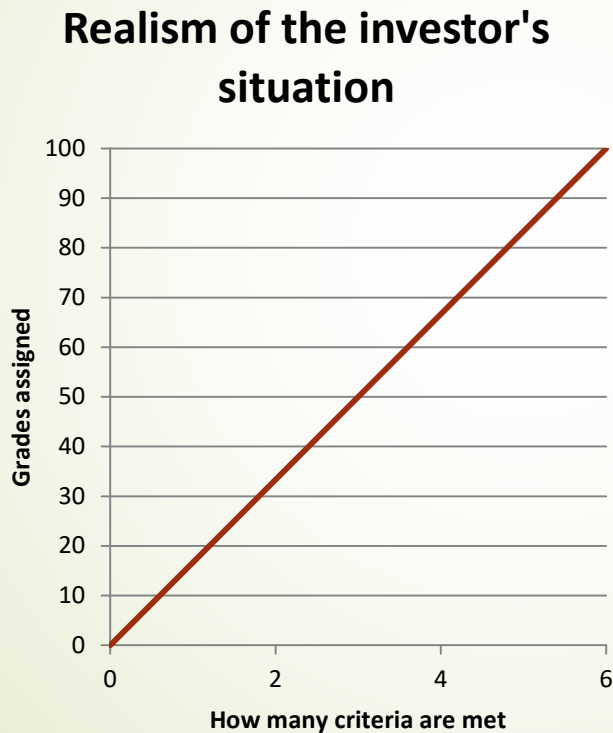


# The participant's dashboard

The dashboard is divided into three main sections:

- Resources:** A dark sidebar on the left containing:
  - Documentation (with a document icon)
  - Notifications (with an envelope icon)
  - Detailed report (with a graduation cap icon)
- Calendar:** A central blue calendar for February 2023. The 13th is highlighted in green, and the 16th is circled in light blue. A tooltip for the 16th reads: "Deadline to define the investor, the strategy et the learning objectives (11:59 PM)". The word "TODAY" is centered at the bottom of the calendar.
- Achievements:** A white panel on the right with a list of tasks:
  - Performed the minimum number of eligible transactions (9 done)
  - Investor profile defined (0.00%)
  - Basic strategy defined
  - Learning objectives described
  - Lessons learned

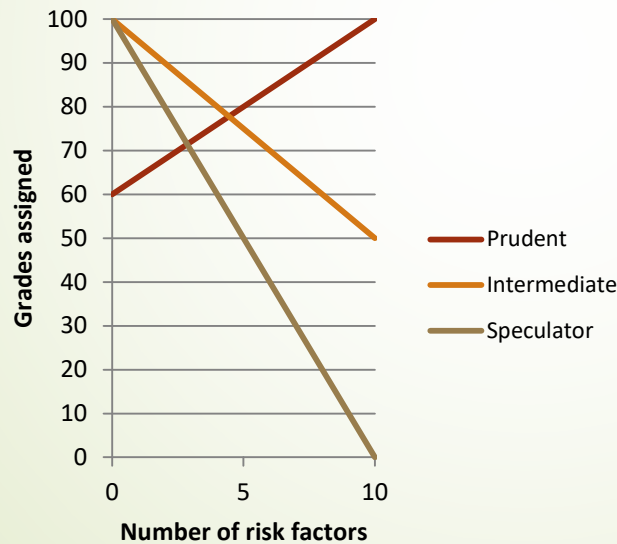
# Realism of the investor's situation



- ▶ A person has entrusted you with \$200,000 to invest on their behalf in the financial markets
- ▶ This is probably not
  - ▶ Warren Buffet or Jeff Besos
  - ▶ A recent 6-49 winner
  - ▶ A college graduate who just got his first job

# Coherence between the investor profile and their risk sensitivity

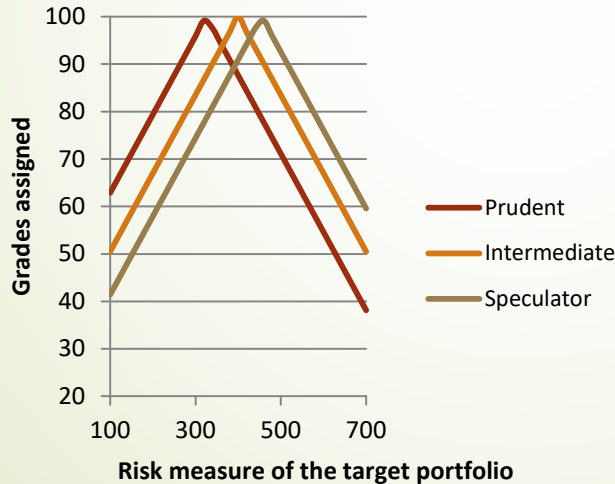
## Coherence between the investor profile and their risk sensitivity



- ▶ What is the investor profile of the person who has retained your investment counselling services?
- ▶ This should be determined by taking into account risk factors:
  - ▶ Dependents
  - ▶ Job security
  - ▶ Debt load
  - ▶ ...

# Consistency between the sector weights in the strategy as of February 27 and the investor's profile

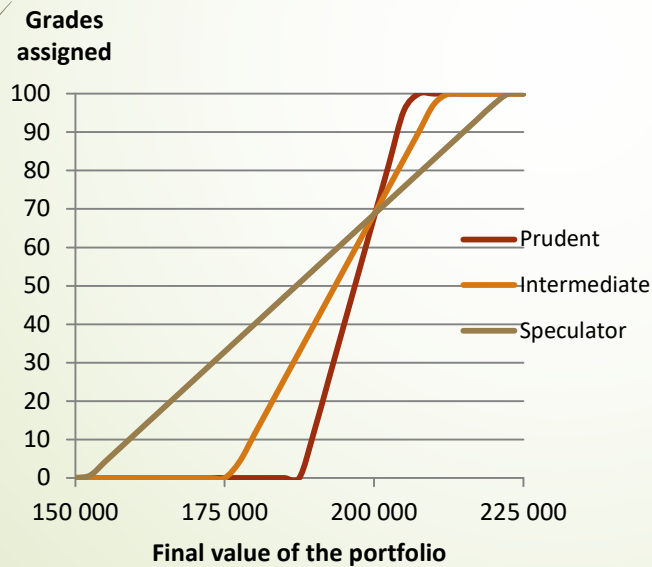
**Coherence between sector weights in the strategy in place and the investor profile**



- Cash (1)
- Bonds (2)
- Utilities (3)
- Financial Services Sector (4)
- Consumer Products Sector (5)
- Industrial Products Sector (6)
- Natural Resources Sector (7)

# Financial performance considering the investor profile

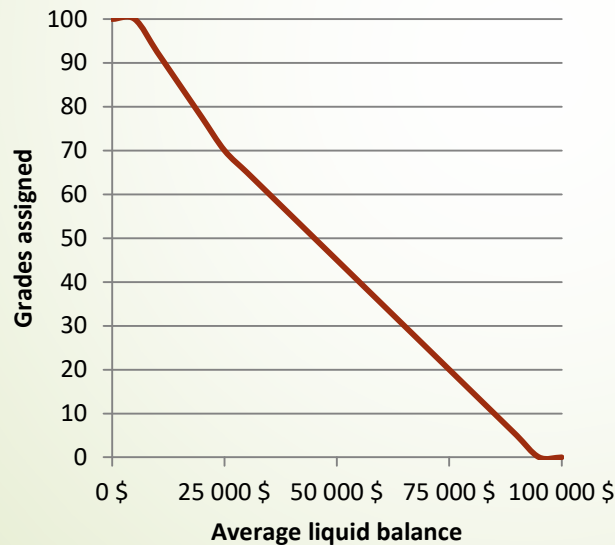
## Financial performance considering the investor profile (2022)



- The purpose of this measure is to verify whether the financial performance achieved is in line with the investor's profile.

# Average liquid balance maintained during simulation

**Average liquid balance maintained during simulation**



- ▶ You should aim to invest the maximum amount of the sum entrusted to you
- ▶ Exemption for which no penalty is applied: \$5,000

# Compatibility of additional justifications with the fundamental / technical profile

## Compatibility of justifications with the fundamental / technical profile



### TECHNICAL ANALYSIS

Identification of ups and downs

Yes  No

Study of moving averages

Yes  No

Study of short-term fluctuations

Yes  No

### FUNDAMENTAL ANALYSIS

Calculation of ratios

Yes  No

Calculation of the fundamental value

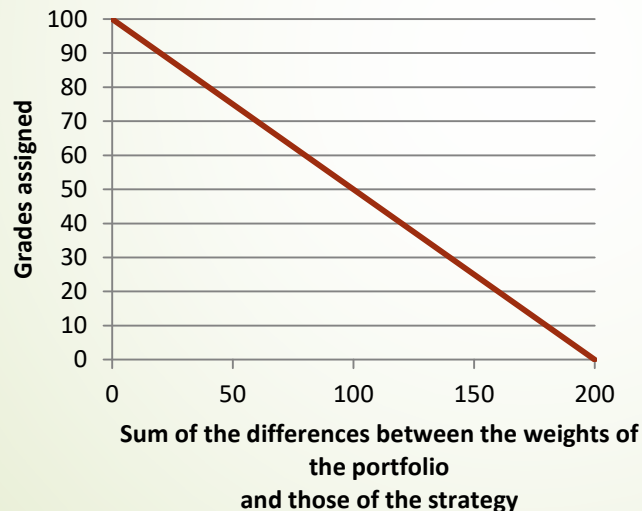
Yes  No

Analysis of the management and projects of the company

Yes  No

# Weight of sectors in the portfolio Vs weightings of the investment strategy

## Weight of sectors in the portfolio Vs the current strategy



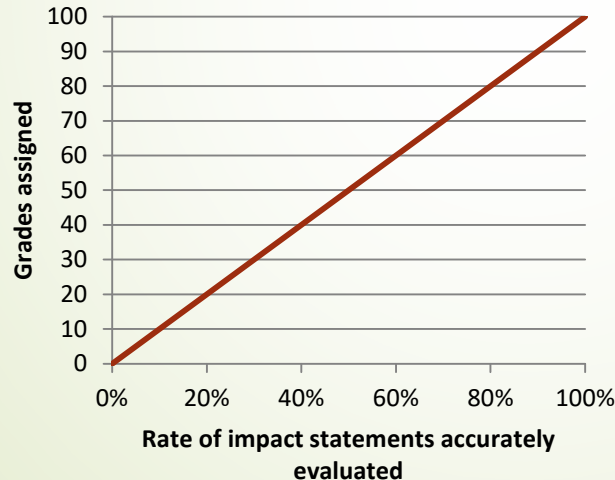
► You should aim to create an actual portfolio that matches your strategy allocation :

- Cash
- Bonds
- Utilities sector
- Financials Sector
- Consumer Products Sector
- Industrial Products Sector
- Natural Resources Sector



# Assessment of the impact of transactions on the weights of the sectors in the portfolio

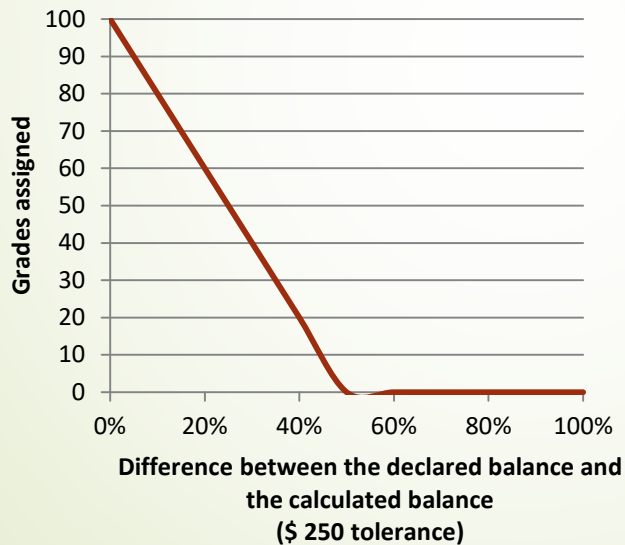
## Assessment of the impact of transactions on the weights of the sectors in the portfolio



- Keep in mind the impact a trade normally has on your cash balance:
  - Buy: decrease
  - Selling: increase
- There is one exception!
  - (buying or selling a 100% liquid asset)

# Estimation of the liquid balance after transactions

## Estimation of the liquid balance after transactions



- Make a reasonable estimate of your cash balance after a trade order is executed
- There is a tolerance of \$250, so there is no need to calculate to the nearest dollar.



# Relevant documentation

- ▶ 2023 Bourstad Challenge - Important Dates and Deadlines
  - ▶ Documentation / Contest Rules
- ▶ Portfolio management in a Bourstad simulation
  - ▶ Documentation / How it works
- ▶ Assets and average household liabilities – Canada 2010
  - ▶ Documentation/Educational content
- ▶ Revenus totaux des ménages québécois, 2010
  - ▶ Documentation/Educational content (French)
- ▶ Enregistrement vidéo - [Webinaire Les bases de l'investissement boursier](#) (31 janvier 2023)
  - ▶ [Version PDF de la présentation utilisée](#)

# A Primer on the Canadian ETF Industry



Erika Toth, CFA

- ▶ Director – BMO ETFs, Eastern Canada, BMO Global Asset Management
  - ▶ Joined BMO Global Asset Management 10 years ago
- ▶ Joined BMO Financial Group a few years before as a consultant to high net worth clients and Investment representative



# Question and answer period





# Acknowledgements

- To our guest expert,
  - Ms. Erika Toth, CFA, Director – BMO ETFs, Eastern Canada
  - To CIRANO's Events Coordinator, Ms. Manon Blouet
- To all those who attended this second webinar of the Bourstad 2023 series



# Next webinar

- ▶ **Sustainable Investment in the Boursstad Challenge**

Thursday, March 9, 7:00 p.m. to 8:00 p.m.

- ▶ Guest experts:

- ▶ Thomas Estinès, co-director of the Groupe Investissement responsable (GIR)
- ▶ Michel Magnan, CIRANO Fellow, professor at Concordia University



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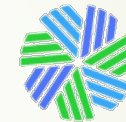


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