



Financial University

under the Government of Russian Federation

Course: Behavioral Finance and business valuation.

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Class meetings: Leningradsky prosp., 49, Bloomberg classroom.

Thursday, 18:50 AM - 22:05 PM

Course description and course objectives:

The Behavioral Finance is a rare field in speedy growing Russian financial sciences.

Students learn the theory of Behavioral Finance and practice in Bloomberg system behavioral models of valuation.

During their course of behavioral finance students will make a research on building a discount rate of behavioral asset pricing model (Statman, Fisher, Anginer, 2000). In the Russian M&A market the most active segment is the deals with small and medium sized businesses. That is why students are asked to use the data on it.

During the research for every industry presented in the website the sample of three or five companies is made. Every company is evaluated using three valuation approaches. More closely the researchers used the discounted cash flow method. After determining the value by the income approach – discounted cash flow the result was compared to the price asked by the seller.

The difference between these two values was explained by behavioral factor as it is postulated in Meir Statman, Kenneth L. Fisher, and Deniz Anginer article “Affect in a Behavioral Asset-Pricing Model”. This deference was transferred to

the behavioral premium in the discount rate. All these premiums for different industries and different companies are to be compared and analyzed, as it is done in foreign researches (Barberis, Shleifer, Vishny, 1998), (Spiess, Adeck-Graves, 1995), (Stein, 1989).

The other field of practicing Behavioral Finance theory is implementation of Behavioral Finance's models into the Russian stock market. During practice in a Bloomberg class students experience some illustrative situation to the different Behavioral Finances theories. Many of them are categorized as examples of belief-based models.

Students are to realize a situation which happened in the beginning of a new century which illustrates the model of Investor Sentiment of Barberis, Shleifer, and Vishny.

Students have to illustrate an example of Hong and Stein Model. Momentum traders' actions lead to an overreaction of the market. When the activity of the "watching the news" responding to them is too high, there is a correction and the trend is changing. This pattern is clearly visible on the graphs.

Model of the investor awareness (DHS) - describes the over-confidence of the investor in the right, which leads to a short-term continuation of the trend and its subsequent long-term reversals (Muradoglu, Altay-Salih, Mercan, 2005). This must be observed throughout the period presented, which leads to substantial deviations from the fundamental market value.

Required texts:

- [1] H. Kent Baker, John R. Nofsinger, Behavioral finance: Investors, Corporations, and Markets, John Wiley & Sons, Inc., Hoboken, New Jersey, 2010.
- [2] A.I. Kitov, Economic psychology. Economics Publishing, Moscow, 1987.
- [3] Lee, C., Shleifer, A., Thaler, R., "Investor sentiment and the closed-end fund puzzle". *Journal of Finance* 46, Pages 75-110, 1991.
- [4] Meir Statman, Kenneth L. Fisher, and Deniz Anginer, "Affect in a Behavioral Asset-Pricing Model". *Financial Analysts Journal*. Volume 64, № 2, Pages 87-90, 2000.

- [5] Nicholas Barberis, Andrei Shleifer, Robert Vishny, “A model of investor sentiment”, *Journal of Financial Economics* Number 49, Pages 307-343, 1998.
- [6] Spiess, K., Adeck-Graves, J. “Underperformance in long-run stock returns following seasoned equity offerings”, *Journal of Financial Economics* Number 38, Pages 243-267, 1995.
- [7] Stein, J., “Overreactions in the options market”, *Journal of Finance* Number 44, Pages 1011-1023, 1989.
- [8] Tversky, A., Kahneman, D., “Judgment under uncertainty: heuristics and biases”. *Science* Number 185, Pages 1124-1131, 1974.
- [9] Zarowin, P., “Does the stock market overreact to corporate earnings information?” *Journal of Finance* Number 44, Pages 1385-1400, 1989.
- [10] Yaz Gulnur Muradoglu, Aslihan Altay-Salih, and Muhammet Mercan, “A behavioral approach to efficient portfolio formation”, *The Journal of Behavioral Finance*, Volume 6, Number 4, Pages 202–212, 2005.

Teaching methods:

Lectures, class discussions, and exams/assigned work will be based mainly on material from course textbooks, supplemented by use of appropriate websites and other resources. Working in Bloomberg classroom.

Bloomberg Homework and Project

Topic 1. Theoretical basis and preconditions for the development of behavioral valuation.

The task for the seminar. Go to the Bloomberg system. Identify market segments in which arbitrage is possible. Look at the real statistics on such transactions. In which sector? Which companies? Can we conclude that arbitrage operations implemented in full? What are the behavioral factors hinder arbitrage. Give examples of companies. To perform the job, use the following Bloomberg’s commands.

Use the built-in keyboard Bloomberg blue keys: fractions. More bonds. Use the command Bloomberg “ECO”. Analyze the bar charts in the drop-down table. Build news schedule. Comment on the charts and graphs based on the news of the

analyzed market. How does the expected news (highlighted in white in a Bloomberg) affect the value of the investment tool you choose?

Get the data to analyze using the Bloomberg function “WECO” - news segment [WORLD ECONOMIC STATISTICS]. Use the command key F8. Choose the right analysis tool.

Theme 2. Behavioral factors and their use in the evaluation. Basic definitions and fundamental variables behavioral assessment.

Illustrate behavioral factors by determining the behavioral assessment, using the Bloomberg system resources.

Use the Bloomberg function “WT” [WORLD TRENDS]. Analyze the segments depending on their inherent trend. Open segments. Find the tools you are interested in belonging to the studied segment. Practice the disclosure of detailed information in the required section of the selected instrument. Apply “SECF” Bloomberg’s command to find a company known. Analyze its position. Rank the company's shares on the selected criteria.

Theme 3. Behavioral factors and their use in the evaluation. Fundamental variables of behavioral assessment.

Upon receipt of evidence from Bloomberg’s information refer to the following commands and system capabilities. Select the object value analysis using the service button on the keyboard Bloomberg F3 and F8. Or use the “EQS” Bloomberg’s function. Learn security’s ticker, using the Bloomberg’s command. Use the “MENU” Bloomberg’s command. Select the item “Money Markets”. Select the function “GC” (Graph curves). Compare profitability and market tools. Use the Search button to search for Bloomberg keyboard object of analysis. Use keyboard Bloomberg News. Monitor key. For ease of use analysis tools several “Quote Team 1/2 Quote” - output the last two requested pages. Red button “CONN DEFAULT” - interrupt connection with Bloomberg.

Topic 4: The Basics of building a successful behavioral valuation.

In the selection of actual examples relating to seminars, the function and the Bloomberg team.

Drag the tool you are interested in a behavioral chart market trends to the Bloomberg's toolbar, "hooking" it left mouse button in the chart, and activate it.

Activate functions related directly to the Ticker - selected instrument cost analysis, to illustrate behavioral factors applicable to the instrument. To select factors apply "DES" command [DESCRIPTION]. Use the function "FA" - Financial Analysis.

Theme 5. Valuation of assets on the basis of behavioral finance.

To perform the tasks of the seminar the students use a unique analytical Bloomberg's tool: "trend - in the news". Highlight keywords - psychological market drivers.

Identify colors of news flow, match it with the color gamut of efficiency (profitability) of the analyzed instrument.

Use hotkey "END MENU" to return to the previous level. Select and match the analyzed tools on the chart using built-in Bloomberg's functions "NEWS TRENDS GRAPH". Identify cost factors contradictions manifested in evaluation instruments and their practical use and the price of the instrument on with this tool market. Use "NMAP" function - color diagnostic chart news background instrument - news temperature and the yield temperature. Compare it with the returns. Use the "Quick review" of the latest market trends: "WEI". Use "WB" Bloombergfunction [WORLD BONDS].

Choose a suitable model for the behavioral valuation for various conditions defined above.

Create in the Bloomberg the following models:

Model of the misperception of a probability;

Models of the shift towards the attitude to risk;

Model of supporters of fundamental analysis and momentum traders (Model Hong Stein);

Model investor awareness (DHS);

Model of the sentimental investor (the predictability of the company's profitability).

Test models in Bloomberg. When testing the model should be noted that the test result takes from 15 minutes to one - two hours or days, depending on the period covered.

Homework

Option 1: "Valuation of assets on the basis of behavioral finance"

Go to the Bloomberg system. Use the Bloomberg's function "News". Select one of the industry with shares traded on the stock exchange (blue chips, the second, or "third" class). Use the Bloomberg's function "Financial Analysis". Build a table and a graph of the fundamental value of these companies according to analysts Bloomberg data and other investment companies and the market value of the shares. Data for the period to take is at least six months before the fall of 2008, the periods of the year and higher in the period 2009 - 2011, the current year's data. Identify the difference in prices. Explain the difference on the basis of models:

Model of the misperception probability;

Shift Models attitude to risk;

Model opposition supporters fundamental analysis and momentum traders (Model Hong Stein);

Model investor awareness (DHS);

Model sentimental investor (the predictability of the company's profitability).

Flatten the findings to the Generalized behavioral model of valuation of assets. Perform calculations based on this model. Calculate the deviation from fair value due to behavioral factors.

According to the results build a correlation regression model in Excel. To determine the function of behavioral abnormalities in the test industry.