

# Investments

## Module 2, 2018-2019

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### Course description

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The core of this course is CAPM and APT, as well as application of the theory to portfolio management. We also discuss performance measurement. The course is case-based.

### Course requirements, grading, and attendance policies

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Statistics, mathematics.

The course grade is based on home assignments (20%), case discussions and write-ups (30%) and final exam (50%).

### Course contents

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Week	Date	Topic	Reading
1		<b>Return and risk, mean-variance analysis.</b> <ol style="list-style-type: none"><li>1. Risk and reward</li><li>2. Diversification</li><li>3. Mean-variance theory</li></ol>	[1]
2		<b>CAPM</b> <ol style="list-style-type: none"><li>1. Regressions and beta</li><li>2. CAPM</li></ol>	[2]
3		<b>Performance measurement</b> <ol style="list-style-type: none"><li>1. Performance measures</li><li>2. Indices</li><li>3. Benchmarks</li></ol>	[3]
4		<b>APT and multi-factor models</b> <ol style="list-style-type: none"><li>1. APT</li><li>2. Empirical evidence on CAPM</li><li>3. Empirical evidence on APT</li><li>4. Factor models</li></ol>	[4], [5]
5		<b>Market efficiency</b> <ol style="list-style-type: none"><li>1. Market efficiency</li><li>2. Predictability of market return</li></ol>	[6], [7]
6		<b>Behavioral finance</b> <ol style="list-style-type: none"><li>1. Anomalies from behavioral view</li><li>2. Short squeezes and limits to arbitrage</li></ol>	[6]
7		<b>Review session</b> <ol style="list-style-type: none"><li>1. Review</li></ol>	[8]

### Course materials

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1. Ivo Welch "Investments", Chapters 9 and 10
2. Ivo Welch "Investments", Chapters 11 and 12

3. Ivo Welch “Investments”, Chapters 13 and 14
4. Ivo Welch “Corporate Finance”, Chapter 10
5. “Darden Capital Management: The Monticello Fund”
6. Ivo Welch “Corporate Finance”, Chapter 11
7. “Innocents Abroad: Currencies and International Stock Returns”
8. “Global Asset Allocation: All That Glitters”

### **Sample tasks for course evaluation**

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#### Problem 1

Assume there is a no-borrowing constraint (one may not borrow money and pay risk-free rate in return). How the mean-variance frontier looks like in this case?

#### Problem 2

Assume there are only two risky securities. Show how the optimal solution to the problem of an investor looks like in mean-variance world.

### **Academic integrity policy**

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Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated.