



Aalto-yliopisto  
Kauppakorkeakoulu

# Capital Budgeting (22E12000)

## Course Introduction

February 27, 2024

Jari Huikku

# Course objectives

To provide students with

1. a **capability to participate** in capital investment decision-making processes
2. the **understanding** of the opportunities and limitations of various capital budgeting methods and how they could be used in modern organizations

# After completing this course, you will be able to...

1. Prepare capital investment proposals
2. Analyze critically proposals made by other people
3. Explain what phases a typical capital investment process comprises of
4. Apply and compare key capital budgeting techniques

# After completing this course, you will be able to...

5. Explain how flexibility and risks can be taken into account in investment analysis and what challenges relate to this
6. Discuss how sustainability aspects can be considered in capital investment
7. Describe special features of IT and R&D investments

# After completing this course, you will be able to...

8. Discuss how gameplaying may influence capital investment
9. Explain the benefits and challenges of post-completion auditing
10. Explain how strategic considerations can be taken into account in investment analysis and what challenges relate to this

# Course philosophy

- Very interactive
- Active student participation
  - Learning diaries
  - Investment appraisal exercises
  - Case analyses in small groups
  - Discussions
- The top 5 contributors to class discussions: three bonus points given
- Also more traditional lecturing and guest lecturers

# Lectures

From 27<sup>th</sup> February to 9<sup>th</sup> April 2024, (6 weeks; fully onsite at Ekonominaukio 1):

- Week 9: Tuesday 27<sup>th</sup> February 8.30–11.45 o'clock (V001)
- Weeks 10-12: Tuesdays 9.00–11.00 o'clock (V001); Thursdays 14.15–16.15 o'clock (Weeks 10-11: V002; Week 12: U006)
- Week 13: Tuesday 26<sup>th</sup> March 9.00–11.00 o'clock (Q201)
- Week 14: Thursday 4<sup>th</sup> April 14.15–16.15 o'clock (V002)
- Week 15: Tuesday 9<sup>th</sup> April 8.30–11.45 o'clock (V001)
  
- Lectured by PhD, Professor Jari Huikku

# Course schedule

- 27.2. Introduction
- 5.3. & 7.3. Evaluation of capital investments (1-2)
- 12.3. Flexibility in investments (Real options);  
Risk analysis
- 14.3. Gameplaying; Sustainability aspects
- 19.3. R&D investments
- 21.3. IT investments
- 26.3. & 4.4. Strategic analysis (1-2)
- 9.4. M&A; Post-completion auditing
- 18.4. Final exam (check the date; at campus)



# Summary of the course content

(extensions to earlier knowledge marked with green colour)



# Course evaluation

- Investment appraisal exercise 12%
  - Learning diaries 18%
  - Case analyses 20%
  - Final exam 50%
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- Note! In practice, 50% exercises prepare you also for the Final exam

# Investment appraisal exercise

- Enables you to exercise applying capital budgeting techniques in practice
- Introduced during the first lecture on February 27
- Includes two individually conducted case exercises:
  - Manufacturing Line Case (Invest for Excel) (6/12%)
  - Hola-Kola –The Capital Budgeting Case (6/12%)

# Investment appraisal exercise (cont.)

- Manufacturing Line returned by Thursday March 7 at 23.59 o'clock
- Hola-Kola case returned by Monday March 11 at 23.59 o'clock through MyCourses
- Manufacturing Line discussed during the lecture on March 12 and Hola-Kola on March 14
- 12% of the overall grade

# Manufacturing Line (Invest for Excel)

- Exercise must be conducted by using Invest for Excel program (online version)
- One printable PDF document submitted to MyCourses
- The following dates booked for Invest for Excel tutoring (28.2. at U351, Kandikeskus; otherwise online, Zoom):
  - 28.2., 16.15–17.45 (training/demonstration)
  - 29.2., 15.00–16.00 (training/support person present)
  - 1.3., 15.00–16.00 (support person present)
  - 4.3.–6.3., 15.00–16.00 (support person present)
  - 7.3., 16.30–17.30 (support person present)

# Learning diaries

- Personal tool for enhancing learning
- Helps you to crystallize and reflect the topics addressed
- Topics will be discussed and pondered further during the lectures
- Very roughly, one well-written learning diary may take on average about eight hours to write
- A lot of work, but you will learn a lot and it makes studying for the final exam so much easier...

# Learning diaries: specifics

- Length about 3 pages
- Deadlines: March 14, March 24 and April 7 at 23.59 o'clock.
- Submitted through MyCourses
- See the detailed instructions in Syllabus (Appendix A)

# Learning diaries: specifics (cont.)

- Diary feedback sessions during the lectures
- Voluntary individual feedback for the first diaries through Zoom; March 19 to 22 (10 minutes)
- Grading per diary: Max 6 points. One point will be given if a proper effort has been made. In addition, grading is based on the rubric
- **18% of the overall grade (3x6%)**



# Learning diaries: general instructions

- What were the main issues in the given pre-material?
- Did the authors agree, or were they of different opinion on some essential matters?
- How does this relate to your earlier knowledge?
- Did some issues remain unclear? What would you like to know more about?
- Do you disagree on something? Why?

# Learning diaries: general instructions (cont.)

- Explain the main issues in your own words
- Synthesize the readings instead of analyzing them only separately
- Reflect (analyze, present own opinions, adopt a discussive stance)
- Be critical (justify your criticism)
- Consider using a few subtitles
- Present 2 explicit questions at the end of the diary to be addressed during the lecture

# Learning diaries: grading

- Addresses key issues?
- Own reflection?
- Justified criticism?
- Presented in an organized manner?
- Two questions posed?

# Learning diaries: grading rubric

1	<ul style="list-style-type: none"><li>• Does not address most key issues in the pre-lecture material</li><li>• No/little evidence of own reflection</li><li>• Contains no/little or inappropriate critical comments; no/little justification for these comments</li><li>• Presented in a disorganized, incoherent manner</li></ul>
3	<ul style="list-style-type: none"><li>• Addresses key issues in the pre-lecture material</li><li>• Some evidence of own reflection</li><li>• Provides some critical comments that reflect an understanding of key issues</li><li>• Is presented in an organized manner</li></ul>
5	<ul style="list-style-type: none"><li>• Essential content successfully integrated</li><li>• A lot of own reflection</li><li>• Includes critical comments with substantial justification that reflect an integrated understanding of key issues</li><li>• Evidence of relating the material to other knowledge domains</li><li>• The paper is well organized, written and free of errors</li></ul>

# Case analyses

- Provide you with an opportunity to apply to practice many of the topics and concepts covered during the course
- Comprises of two cases:
  - “Stryker Corporation: In-sourcing PCBs” (10%)
  - “Stryker Corporation: Capital Budgeting” (10%)

# Case analyses

- Report length of each case 5-10 pages + potential appendices
- Introduced during the first lecture on February 27
- Prepared in small groups (2-3 persons per group)
- Stryker Corporation: In-sourcing PCBs; submitted by Wednesday 20 March (by 23.59 o'clock)
- Stryker Corporation: Capital Budgeting; submitted by Tuesday April 2 (by 23.59 o'clock)
- The cases will be discussed together during the lectures on March 21 and April 4, respectively
  
- **20% of the overall grade**

# Final exam

- Open questions on wider topics: explain, analyze, compare, calculate...
- May include questions related to Case analyses
- 4 questions of which 4 answered
- 50% of the overall grade
- Will take place on April 18 (at campus, Check the date and place!)

# Final exam: readings

- Baker, H.K. and English, P. (eds.) (2011) Capital Budgeting Valuation: Financial Analysis for Today's Investment Projects. John Wiley & Sons, Hoboken, NJ. ISBN 978-0-470-56950-4; the following chapters: 1-8, 10, and 18.
- Other pre-readings (excluding Business and Investment Planning Module. ForestBioFacts Learning Environment, 2024; Huikku and Kolehmainen, 2024; Rasmussen, 2020)
- All lectures and material covered during the course



# Changes from the years 2022 & 2023 (1/2)

- Course fully onsite (in 2022 online, in 2023 partly online)
- Exercises 50%, Exam 50%. In 2022 Exercises 40%.
- Learning diaries and individual investment appraisal exercises 6 points (were 5 points in 2022). Group works 10 points (were 8 & 7 points in 2022).
- Exercise deadlines allocated more smoothly during the course than in 2022. DL always at 23.59 o'clock.
- First Learning Diary feedback now still voluntary, in 2022 mandatory to get points

# Changes from the last year (2/2)

- Invest for Excel re-introduced after COVID-19 in 2023. Online version used for the first time. Previously done fully in the “Mikro Class”.
- To be able to have only one longer lecture before lunch (the first and last lecture), we begin already at 8.30 o'clock.
- Less mandatory pre-readings for the exam than in 2022
- 4 (briefer) questions in the Exam (in 2022 only 3 longer)
- The exam still at the campus (artificial intelligence & cooperation etc. threats)

- Questions?
- Concerns?
- Suggestions?

# Course correspondence

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