

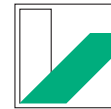
Business Taxation and Financial Decisions

Master Module (V 2-5) in Business Management

Course outline

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– Betriebswirtschaftliche Steuerlehre –
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△ 1. General information

The course consists of a lecture and a tutorial held and is held at irregular intervals -- usually during the winter term -- depending on demand. The dates concerning the course are announced separately on the webpage of the chair BWL II.

△ 2. Course intention and target audience

Taxes matter! Nobody seriously doubts this. Yet many finance classes keep entirely quiet about tax issues. It is well-known that investors and enterprises strive to maximize their income net of taxes, yet business schools rarely teach their students how tax effects impact business decisions. Ignoring tax effects will typically lead to investor decisions that are wrong from a real world perspective. A lack of student knowledge also makes fiscal policy more difficult: How can a financial system offer targeted tax incentives given that managers, former business school students, do not know how to rationally incorporate them into their decisions?

Planning costs partly explain the relative neglect of tax planning so far. Incorporation of taxes makes problems inherently more complex. Also, tax systems around the world differ considerably. While the financial sector exhibits the same economic structures globally, and

accounting rules are converging, tax systems still impact investment and financing decisions differently. Many business schools tend to provide a simple answer to the challenging question of which tax system to teach their students: They omit taxes entirely from their curriculum. Any conclusions about the tax impact of a tax system are obviously confined to that country. Ignoring taxes however is certainly wrong everywhere. Because of this, the education of investment bankers, financial managers and strategy consultants frequently proceeds without taking tax issues into account.

They highlight in a universal treatment the tax influence on investment and financing decisions by following the common division into time-, tax base- and taxrate effects. In contrast to the supposition that taxes only lend themselves to verbal discussion by lawyers, their approach is grounded in analytical rigor. The advantages of tax planning vis-à-vis a neglect of taxes can thus be calculated. All results are consistently clarified via numerical examples.

The content of this course is intended for graduate students with a basic knowledge of taxation.

△ 3. Prerequisites

It's good to have some basic skills in finance. No prerequisites in taxation are required.

△ 4. Learning goals

COURSE OBJECTIVES The aim of the course is basically sensitizing students for tax matters in financial or investment decisions. The approach provided in the course stresses how taxation effects investment and financing decisions. Students will be able to integrate taxation into general decision settings and will be able to evaluate profitability of investments under consideration of taxation.

COURSE CONTENT

- Principles of investment decisions in absence of taxation
- Integration of taxes in investment decision making
- Neutral tax systems
- Standard model for sole proprietorships/partnerships and corporations
- Standard model in practice
- Standard model of business valuation
- Taxation and financing decisions

△ 5. Course content in detail

Part I Introduction to Investment Decision Making

1. Introduction to Tax Planning

1.1 *Why Taxes Matter in Investment Decision Settings*

1.2 *Two Objectives of Tax Research: Optimizing Tax Planning and Identifying Tax Impact*

1.3 *Tax Planning vs. Tax Minimization*

1.4 *The Tax Planning Process*

2. Principles of Investment Decisions

2.1 *Overall Assumptions*

2.2 *Financial Plans*

2.3 *Basic Concepts of Decision Criteria*

2.3.1 *Net Present Value Before Taxes*

2.3.2 *Present Value and “True” Economic Profit*

2.3.3 *Net Future Value and Future Value*

2.4 *Present Value of an Annuity*

2.4.1 *Capital Recovery Factor*

2.4.2 *Internal Rate of Return*

2.4.3 *Newton’s Solution*

2.4.4 *Modified Internal Rate of Return (Baldwin Rate of Return)*

2.5 *The Fisher Model*

2.5.1 *Maximization of Utility in Case of Real Investment in the Absence of a Capital Market*

2.5.2 *Integration of a Capital Market*

2.6 *Maximizing Withdrawals and Future Value*

Part II Integrating Taxation into Investment Decision Making

1. Integrating Income Taxes into Finance

1.1 *Why Integrate Taxes?*

1.1.1 *The Model*

1.1.2 *Discussion of Assumptions*

1.2 *Other Post-Tax Decision Criteria*

1.2.1 *Post-Tax Present Value*

1.2.2 *Post-Tax Net Future Value and Post-Tax Future Value*

1.2.3 *Post-Tax Present Value of an Annuity*

1.2.4 *Post-Tax Capital Recovery Factor*

1.2.5 *Post-Tax Internal Rate of Return*

- 1.2.6 *Post-Tax Modified Internal Rate of Return (Post-Tax Baldwin Rate of Return)*
- 1.3 *The Income Tax Paradox*
 - 1.3.1 *Occurrence of the Income Tax Paradox*
 - 1.3.2 *Reason for Occurrence of the Income Tax Paradox*
- 1.4 *Types of Tax Effects*
 - 1.4.1 *Tax Rate Effects*
 - 1.4.2 *Tax Base Effects*
 - 1.4.3 *Timing Effects*
 - 1.4.4 *Comparison of Tax Effects*
- 1.5 *Marginal and Average Tax Rates*
- 1.6 *Fisher–Hirshleifer Model and Taxes*
 - 1.6.1 *Taxation of Real Investments and Financial Investments*
 - 1.6.2 *The Impact of Taxation and Debt Financing on Intertemporal Consumption Behavior*
- 1.7 *Maximizing Withdrawals or Future Value*
- 2. *Tax Facts*
 - 2.1 *Types of Taxes*
 - 2.2 *Distribution of Individual Income Tax Burden*
 - 2.3 *Income Tax Rates*
 - 2.3.1 *Individual Income Tax Rates*
 - 2.3.2 *Corporate Income Tax Rates*
 - 2.4 *Income Tax Bases*
 - 2.4.1 *Germany*
 - 2.4.2 *United States*
 - 2.5 *Taxation of Capital Income*
 - 2.5.1 *Germany*
 - 2.5.2 *United States*
 - 2.5.3 *OECD Countries*
- 3. *Neutral Income Tax Systems*
 - 3.1 *Introduction*
 - 3.1.1 *Subtypes of Decision Neutrality*
 - 3.1.2 *Classification of Neutral Tax Systems*
 - 3.1.3 *Taxing the Objective*
 - 3.2 *Cash Flow Tax*
 - 3.2.1 *Preliminary Thoughts of Brown*
 - 3.2.2 *The Model*
 - 3.2.3 *Integration of a Cash Flow Tax into the Fisher–Hirshleifer Model*

- 3.2.4 *Excursus: Deductibility of Taxes in a Cash Flow Tax System*
- 3.2.5 *Problems of Implementing a Cash Flow Based Tax System*
- 3.2.6 *Flows of Funds*
- 3.3 *Allowance for Corporate Equity Tax (ACE Tax)*
 - 3.3.1 *The Model*
 - 3.3.2 *Comparison of the ACE Tax with the Cash Flow Tax*
 - 3.3.3 *Experiences with the ACE Tax in Practice*
 - 3.3.4 *Adjustments to Cash Flow Taxation Using Basic Elements of an ACE Tax*
- 3.4 *Johansson/Samuelson Tax*
- 4. *Introduction to Business Taxation*
 - 4.1 *Tax Base Determination for Business Income*
 - 4.2 *Evaluation of One-Book Accounting Systems*
 - 4.2.1 *Low Tax Compliance Costs*
 - 4.2.2 *Distorted Reported Profits*
 - 4.3 *Relationship Between Tax Accounting and Financial Accounting in EU Member States*
 - 4.4 *Principles of Business Taxation for Different Legal Entities*
 - 4.5 *Taxation of Partnerships and Sole Proprietorships*
 - 4.6 *Taxation of Corporations*
 - 4.6.1 *Types of Corporate Tax Systems*
 - 4.6.2 *Double Taxation*
 - 4.6.3 *Avoidance of Triple Taxation*
 - 4.7 *Standard Model for Corporations*
 - 4.7.1 *Financing by Retained Earnings*
 - 4.7.2 *Financing by New Equity*
 - 4.7.3 *Some Comments on the Assumptions of the Standard Model for Corporations*
 - 4.8 *A Static Comparison of Partnerships and Corporations*
- 5. *Extensions of the Standard Model*
 - 5.1 *Introduction*
 - 5.2 *Taxing Capital Gains*
 - 5.3 *Further Tax Base Adjustments*
 - 5.3.1 *Provisions*
 - 5.3.2 *Prepaid Expenses and Deferred Income*
 - 5.3.3 *Valuation of Inventory*
 - 5.3.4 *Fair Value Depreciation*

5.4 *Loss Offset Restrictions*

5.4.1 *Loss Offset Restrictions in Germany*

5.4.2 *Loss Offset Restriction in Selected Countries*

5.4.3 *The Combined Effect of Loss Offset Restrictions and Tax Base Adjustments*

5.5 *Varying Marginal Tax Rates and Progressive Tax Rates*

5.6 *Tax Options*

5.7 *Handling Uncertainty*

6. *Standard Model of Business Valuation*

6.1 *Introduction*

6.2 *Marginal Price, Goodwill, and Going-Concern-Value*

6.3 *Decision Setting of the Purchaser*

6.3.1 *Marginal Price of Purchaser is Lower than Going-Concern-Value*

6.3.2 *Marginal Price of Purchaser Exceeds Going-Concern-Value*

6.4 *Marginal Price of the Seller*

6.5 *Extension*

7. *Taxation and Financing Decisions*

7.1 *Introduction*

7.2 *Integrating Debt Financing in Decision Criteria*

7.3 *Types of Loans*

7.3.1 *Bullet Loan*

7.3.2 *Amortization by Installments*

7.3.3 *Annuity Loans*

7.4 *Disagios*

7.4.1 *Straight-Line Depreciation of the Disagio*

7.4.2 *Declining Balance Depreciation of the Disagio: Exact Method*

7.4.3 *Declining Balance Depreciation of the Disagio: Sum of Digits-Method*

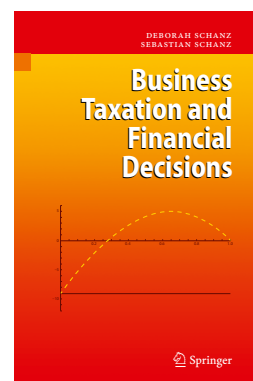
7.5 *Leasing*

7.5.1 *Operating Lease*

7.5.2 *Finance Lease*

△ 6. **Forms of instruction and work load**

There is a lecture (2L) and a tutorial (2T). Master students get 6 ECTS credited if they pass the final exam.



Schanz, Deborah/ Schanz, Sebastian (2011): *Business Taxation and Financial Decisions*, Springer Verlag, Heidelberg.

△ 7. References

The course is designed along the textbook *Schanz/Schanz* (2011). The textbook is available at the book store (»Unibuchladen«) at a reduced price of 39,99 EUR (instead 81 -- 106 EUR at Amazon). Additionally, the textbook is available as an eBook at SpringerLink for free. Additional optional references can be found in the book or are mentioned during class.

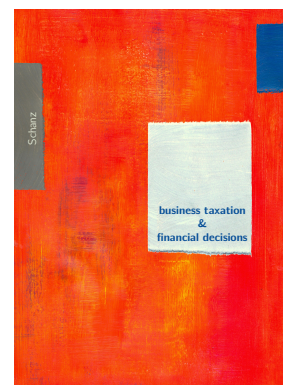
Additionally, there is a manuscript in form of a slide collection that covers the main content of the textbook.

△ 8. Exam

There is one final written exam that takes 60min.

△ 9. Good to know

No obligatory prerequisites are required. There is no limited subscription. Anyone who is interested in tax matters in finance is welcome to attend this course. The course »Business Taxation and Financial Decisions« is equivalent to the course »Steuerplanung und Steuerwirkung« held in german. Just one of the two courses can be credited.



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