10025

Martin Fochmann, Dirk Kiesewetter, Abdolkarim Sadrieh:
The Biased Effect of Aggregated and Disaggregated Income Taxation on Investment Decisions

Abstract:
Income taxation may not only affect investment behavior by distorting payoffs, it may also have a more subtle, psychological effect, by biasing investors' perceptions of the financial consequences. In a laboratory experiment that allows us to vary the taxation method, while keeping the financial outcomes constant, we find clear evidence that aggregated income taxation (comparable to profit taxation) with complete loss deduction induces a sustained bias towards more risk-taking, while disaggregated income taxation (comparable to a transaction taxation with loss offset) does not. We suggest that this bias may be exploited to increase the volume of private investments by choosing aggregated income taxation, if investors are (too) risk-averse, and to decrease the volume and the risk by choosing disaggregated income taxation, if investors are (too) risk-seeking.

JEL: C91, D14, H24
Keywords: tax perception, risk-taking behavior, distorting taxation

10024

Anne Chwolka, Johanna Zwernemann:
Forensic Services - Eine Innovation auf dem Wirtschaftsprüfungsmarkt?
Forensic Services - An Innovation on the Auditing Market?

Abstract:
Forensic Services werden unter diesem Label in Deutschland seit gut 10 Jahren von vielen großen Wirtschaftsprüfungsgesellschaften angeboten. Da die Dienstleistungen und Methoden einzeln gesehen nicht grundlegend neu sind, stellt sich die Frage, mit welchen Vorteilen das Angebot für Anbieter und Nachfrager verbunden ist. In diesem Beitrag wird gezeigt, dass die Bündelung von Dienstleistungen hinsichtlich der Aufklärung und Prävention von "Fraud" durch Wirtschaftsprüfungsgesellschaften aufgrund der Methodenkompetenz und der Vorbehaltsaufgabe der Jahresabschlussprüfung ein größeres Verbesserungspotenzial aufweist als durch reine Beratungsunternehmen. Forensic Services stellen somit auf dem Wirtschaftsprüfungsmarkt eine Serviceinnovation dar.

Over the past 10 years large German auditing companies have enriched their service portfolios by offering forensic services. However, since the
individual services and methods employed are not new by themselves, one may question, whether and where forensic services offer an improvement for the accounting firm and/or the client. In this paper we show how the forensic-specific bundling of well-known and established services in the service portfolio of auditing firms creates improvements both for audit firms and the customers of forensic services due to the specific competence of the auditor compared to a "normal" consultant.

JEL: L84, M41, M42, O31
Keywords: Forensic Services, Fraud, Innovation, Wirtschaftsprüfungsmarkt, Abschlussprüfung, Forensic services, fraud, innovation, auditing market, annual audit

10023 Johannes Becker, Marco Runkel:
Even Small Trade Costs Restore Efficiency in Tax Competition

Abstract: We introduce transport cost of trade in products into the classical Zodrow and Mieszkowski (1986) model of capital tax competition. It turns out that even small levels of transport cost lead to a complete breakdown of the seminal result, the underprovision of public goods. Instead, there is a symmetric equilibrium with efficient public goods provision in all jurisdictions.

JEL: H25, F23
Keywords: Tax Competition, Public Goods Provision, Trade

10022 Barbara Schöndube-Pirchegger:
Corporate Governance, Human Capital Investment, and Job Termination Clauses - a Lesson from the Literature on Hold-Up

Abstract: This paper examines a principal-agent problem between a manager (principal) and an employee (agent). At the contracting date uncertainty with regard to the profitability of the relationship is present. Once the contract is signed, the employee performs a specific investment that reduces his disutility from working hard. After that, but before the employee performs his effort, the uncertainty is resolved. The manager and the employee are free to renegotiate the contract at this point. Moreover, we distinguish three settings with respect to the principal's and the agent's options to terminate the relationship irrespective of possible renegotiation. If both parties are free to quit we find that an underinvestment problem with regard to the employee's personal investment is present. If none of the parties are allowed to breach the
contract, an overinvestment problem arises. Finally, allowing the employee to quit but not the manager allows achieving first best investment.

JEL:
Keywords:

10021

Holger Müller, Steffen Voigt:
Are there gambling effects in incentive-compatible elicitations of reservation prices?
An empirical analysis of the BDM-mechanism

Abstract:

Pricing research suggests incentive compatible evaluations of separate products in so-called monadic designs when consumers' situation-specific WTP is to be elicited in a monopolistic purchase setting. In our study, the lottery-based BDM-mechanism is applied for measuring subjects' WTP for a fast moving consumer good in binding one-on-one interviews at the point of purchase. In previous studies, the validity of elicited WTP measures is commonly checked within subjects with respect to indicators of face and criterion validity (such as interest in buying, preference ratings, compliance rates). In addition, we observed real purchases of a separate validation sample at the point of purchase, thus checking external validity between subjects. As a result, the BDM-based WTPs reveal a sufficient degree of internal face validity. However, the external validity in terms of a goodness of fit between WTP-based predictions and purchases of the validation sample is significantly reduced. Specifically, we observed a substantial underestimation of shares of non-buyers. Hence, a potential bias is indicated, leading to an overrating of consumers' true WTP in the lottery-based BDM-mechanism in the setting of our survey.

JEL:
Keywords: Pricing, Willingness to Pay (WTP), BDM-mechanism, Validation

10020

Marco Runkel, Thomas Eichner:
Subsidizing Renewable Energy under Capital Mobility

Abstract:

This paper provides a rationale for subsidizing green (renewable) energy production. Within a multi-country model where energy is produced with mobile capital in green and dirty production, we investigate the countries' decentralized choice of emissions taxes and green energy subsidies. Without green subsidies, the emissions tax is set inefficiently low, since each country ignores the environmental externality in icted on other
countries and since the emissions tax leads to a capital outflow to other countries. When the green subsidy is available, countries choose a positive subsidy rate since this reduces the overall distortion of the tax-subsidy system. In doing so, each country internalizes a larger part of the environmental externality. As consequence capital is relocated from the dirty into the clean sectors and reduces global pollution. Hence, the subsidy is not only beneficial for the country which imposes it but for all countries.

JEL: H71, Q42, Q58
Keywords: renewable energy, capital mobility, green subsidy, emissions regulation

Abstract:
This paper points to the important role which the elasticity of aggregate capital supply with respect to the net rate of return to capital plays for the efficiency of policymaking in a decentralized economy with mobile capital and spillovers among jurisdictions. In accordance with previous studies, we show that under the assumption of a fixed capital supply (zero capital supply elasticity) the decentralized policy choice is optimal. If the capital supply elasticity is strictly positive, however, capital tax rates are inefficiently low in the decentralized equilibrium.

JEL: H23, H77, Q58
Keywords: decentralized policymaking, spillovers, capital supply elasticity

Abstract:
Aim of our paper is to develop an adequate measure of predictive success and accuracy of rating functions. At first, we show that the common measures of rating accuracy, i.e. area under curve and accuracy ratio, respectively, lack of informative value of single rating classes. Selten (1991) builds up an axiomatic framework for measures of predictive success. Therefore, we introduce a measure for rating functions that fulfills the axioms proposed by Selten (1991). Furthermore, an empirical investigation analyzes predictive power and accuracy of Standard & Poor’s and Moody’s ratings, and compares the rankings according to area under curve and our measure.

JEL: C52, G21, G33
Stefan Hlawatsch, Peter Reichling:  
**Portfolio Management under Asymmetric Dependence and Distribution**

Abstract:  
Aim of our paper is to analyze the enhancement of portfolio management by using more sophisticated assumptions about distributions and dependencies of stock returns. We assume a skewed t-distribution of the returns according to Azzalini and Capitanio (2003) and a dependency structure following a Clayton copula. The risk measure applied to our portfolio selection changed from traditional portfolio variance to downside-oriented conditional value-at-risk. The empirical results show a superior performance of our approach compared to the Markowitz approach and to the approach proposed by Hatherley and Alcock (2007) on a risk-adjusted basis. The approach is applied on daily stock returns of 16 stocks of the EURO STOXX 50.

JEL: C01, C13, C15, C16, C46, G11  
Keywords: Asymmetric Dependency, Copula, Skewed t-Distribution, Conditional Value-at-Risk, Portfolio Optimization

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Stefan Hlawatsch, Peter Reichling:  
**Konstruktion und Anwendung von Copulas in der Finanzwirtschaft**

Abstract:  

The usage of copulas in modern finance has increased in the recent decades. The main reason for this is the possibility to describe non-linear dependency structures with the help of copulas. Furthermore, a copula allows separating a multivariate distribution into their marginal
distributions and their dependency structure. This offers the opportunity to analyze the dependencies between random variables without considerations of their distributions. Applications of copulas range from risk management over pricing of complex financial instruments to portfolio allocation and optimization. The paper provides both a didactical introduction in copula theory and a summary for recent developments in the named research fields.

JEL: C16, C51, G11, G12, G15
Keywords: Copula, Portfoliomangement, Risikomanagement, Optionspreisbewertung

copulas, portfolio management, risk management, option pricing

Abstract:

In this paper, the risk management behavior of firms is analyzed. The empirical studies document the importance of risk management. However, empirical studies on reporting behavior show that quantitative information on risks is largely missing. It is surprising, because many benefits of risk management systems can only be realized when their effectiveness is communicated plausibly. The apparently paradoxical reporting behavior is the focus of this work. According to theoretical explanations, one would at least expect a partial disclosure of quantitative information. As a result, we attribute these empirical observations to an excessive regulation of risk reporting by legislators.

JEL: G11, G12, G15
Keywords: Risk management, Risk reports, Unraveling, Disclosure

Abstract:

Would the introduction of a corporate tax system with consolidated tax base and formula apportionment lead to socially wasteful mergers and acquisitions across borders? This paper analyzes a two-country model.
with an international investor considering acquisitions of already existing target firms in a high-tax country and a low-tax country. The investor is able to shift profits from one location to another for tax saving purposes. Two systems of corporate taxation are compared, a system with separate accounting and a system with tax base consolidation and formula apportionment. It is shown that, under separate accounting, the number of acquisitions is inefficiently ciently high in both the high tax and the low tax country. Under formula apportionment, the number of acquisitions is inefficiently ciently high in the low tax country and inefficiently ciently low in the high tax country. Under tax competition, a novel externality arises that worsens the efficiency; ciency properties of equilibrium tax rates under separate accounting, but may play an efficiency; ciency enhancing role under formula apportionment.

JEL: H25, F23
Keywords: Corporate Taxation, Separate Accounting, Formula Apportionment

Abstract:

This paper analyses the competitive effects of capital requirement regulation on an oligopolistic credit market. In the first stage, banks choose the structure of refinancing their assets, thereby making an imperfect commitment to a loan capacity as a function of the chosen degree of capitalization and the regulatory capital requirement. In the second stage, loan price competition takes place. It is shown that a capital requirement regulation may not only decrease the supply of credit through an increased marginal cost effect but can have an additional collusive enhancing effect resulting in even higher credit prices and increased profits for the banks.

JEL: G21, K23, L13
Keywords: equity regulation, oligopoly, capacity constraint
Steffen Burchhardt, Christoph Starke:  
Target-Group and Quality Decisions of Inequity-Averse Entrepreneurs

Abstract:  
Limited donations force nonprofit entrepreneurs to ration needy individuals by deciding on who is served at what quality level. We propose a positive model of this allocation for applicants with differing incomes under the assumption of perfect user-fee discrimination. By following recent experimental economic research on social preferences, we assume that entrepreneurs behave inequity averse, i.e. they care about the relative consumption possibilities of others. We find that less inequity-averse entrepreneurs prefer to serve wealthier individuals at high reference quality. In contrast, more inequity-averse entrepreneurs care for the poorest individuals but offer minimum quality. Furthermore, as input costs increase, entrepreneurs with low inequity aversion change the target group, while entrepreneurs with high aversion do not.

JEL: L31, H41, D45  
Keywords: inequity aversion, nonprofit, quality, rationing, social entrepreneur, user fees

Stefan Hlawatsch, Sebastian Ostrowski:  
Simulation and Estimation of Loss Given Default

Abstract:  
The aim of our paper is the development of an adequate estimation model for the loss given default, which incorporates the empirically observed bimodality and bounded nature of the distribution. Therefore we introduce an adjusted Expectation Maximization algorithm to estimate the parameters of a univariate mixture distribution, consisting of two beta distributions. Subsequently these estimations are compared with the Maximum Likelihood estimators to test the efficiency and accuracy of both algorithms. Furthermore we analyze our derived estimation model with estimation models proposed in the literature on a synthesized loan portfolio. The simulated loan portfolio consists of possibly loss-influencing parameters that are merged with loss given default observations via a quasi-random approach. Our results show that our proposed model exhibits more accurate loss given default estimators than the benchmark models for different simulated data sets comprising obligor-specific parameters with either high predictive power or low predictive power for the loss given default.

JEL: C01, C13, C15, C16, C5  
Keywords: Bimodality, EM Algorithm, Loss Given Default, Maximum Likelihood, Mixture Distribution, Portfolio Simulation
10009

Martin Fochmann, Joachim Weimann, Kay Blaufus, Jochen Hundsdoerfer, Dirk Kiesewetter:

**Grosswage illusion in a real effort experiment**

**Abstract:**

In a controlled laboratory experiment, subjects had to fold letters in order to earn money. While the net income per letter was the same in the three treatments, the gross income varied and the tax rate was 0, 25% and 50%. Although work incentives should be the same in all treatments, subjects worked harder and longer when they were taxed. We conclude that this is due to a 'gross-wage illusion effect'. The existence of this effect demonstrates that not only the tax rate and the tax base are of importance for work incentives, but also the perception of a tax.

**JEL:**

**Keywords:**

10008

Bettina Büttner, Stephan L. Thomsen:

**Are We Spending Too Many Years in School? Causal Evidence of the Impact of Shortening Secondary School Duration**

**Abstract:**

This paper analyzes the impact of shortening the duration of secondary schooling on the accumulation of human capital. In 2003, an educational policy reform was enacted in Saxony-Anhalt, a German state, providing a natural experimental setting. The thirteenth year of schooling was eliminated for those students currently attending the ninth grade. Tenth grade students were unaffected. The academic curriculum remained almost unaltered. Primary data collected from the double cohort of 2007 Abitur graduates reveals significantly negative effects for both genders in mathematics. Only females were negatively effected in English and the results obtained in German literature were statistically insignificant.

**JEL:** I21, J18, C21

**Keywords:** student performance, school duration, learning intensity, natural experiment

10007

Sebastian Henn, Gerhard Wäscher:

**Tabu Search Heuristics for the Order Batching Problem in Manual Order Picking Systems**

**Abstract:**

In manual order picking systems, order pickers walk or ride through a distribution warehouse in order to collect items requested by (internal or
external) customers. In order to perform these operations efficiently, it is usually required that customer orders are combined into (more substantial) picking orders of limited size. The Order Batching Problem considered in this paper deals with the question of how a given set of customer orders should be combined such that the total length of all tours necessary to collect all items is minimized. For the solution of this problem the authors suggest two approaches based on the tabu search principle. The first one is a straightforward classic Tabu Search algorithm (TS), the second one is the Attribute-Based Hill Climber (ABHC). In a series of extensive numerical experiments, the newly developed approaches are benchmarked against different solution methods from literature. It is demonstrated that the proposed methods are superior to existing methods and provide solutions which may allow for operating distribution warehouses significantly more efficiently.

JEL:
Keywords: Logistics, Warehouse Management, Order Batching, Tabu Search, Attribute-Based Hill Climber

10006

Elmar Lukas, Christian Heimann:
Bedingte Kaufpreisanpassungen, Informationsasymmetrien und Shareholder Value:
Eine empirische Analyse deutscher Unternehmensübernahmen

Abstract:

JEL: G14, G34, D8
Keywords: Unternehmensübernahme, Earn-out, Ereignisstudie, Shareholder Value, Informationsasymmetrien

10005

Karl Inderfurth, Rainer Kleber:
Abstract:

After-sales service is a major profit generator for more and more OEMs in industries with durable products. Successful engagement in after-sales service improves customer loyalty and allows for competitive differentiation through superior service like an extended service period after end of production during which customers are guaranteed to be provided with service parts. In order to fulfill the service guarantee in these cases, an effective and efficient spare parts management has to be implemented, which is challenging due to the high uncertainty concerning spare parts demand over such a long time horizon. The traditional way of spare parts acquisition for the service phase is to set up a huge final lot at the end of regular production of the parent product which is sufficient to fulfill demand up to the end of the service time. This strategy results in extremely high inventory levels over a long period and generates major holding costs and a high level of obsolescence risk. With increasing service time more flexible options for spare parts procurement after end of production gain more and more importance. In our paper we focus on the two most relevant ones, namely extra production and remanufacturing. Managing all three options leads to a complicated stochastic dynamic decision problem. For that problem type, however, a quite simple combined decision rule with order-up-to levels for extra production and remanufacturing turns out to be very effective. We propose a heuristic procedure for parameter determination which accounts for the main stochastic and dynamic interactions between the different order-up-to levels, but still consists of quite simple calculations so that it can be applied to problem instances of arbitrary size. In a numerical study we show that this heuristic performs extremely well under a wide range of conditions so that it can be strongly recommended as a decision support tool for the multi-option spare parts procurement problem.

JEL: C61, M11
Keywords: Spare Parts, Inventory Management, Reverse Logistics, Final Order
investors significantly reduce their risk-taking as predicted by theory. Next we compare the baseline investment choices to choices under three different types of income taxation. We observe that risk-taking is significantly increased with partial and with capped loss deduction, but is unaffected by a tax system that allows no loss deduction. Since in all these treatments the after tax outcomes of the prospects were identical, we conjecture that investors have a positively biased perception of partial and capped loss deduction that promotes their willingness to take risks.

JEL: C91, D14, H24
Keywords: risk-taking behavior, distorting taxation, tax perception

10003
Holger Müller, Eike Benjamin Kroll, Bodo Vogt:
When Judgments and Preferences Fail to Conform: Research on Preference Reversals for Product Purchases

Abstract: In this paper, the preference reversal phenomenon known from risk research is investigated according to which subjects prefer gamble A over B in competitive decisions although they reveal higher valuations in terms of a cash equivalent (CE) or a willingness to pay (WTP) for the latter when gambles are assessed separately in monadic judgments. In contrast to the experimental settings of research on risky choices, our studies observed unforced and binding purchase decisions of experienced consumers between real products in natural shopping environments. Results confirm robustness of preference reversals in risk-free purchase decisions indicating that orderings of product preferences reverse significantly between evaluations in monadic and competitive designs. While recent pricing research has been largely focused on monadic designs and suggested BDM mechanisms or second-price auctions for elicitations of consumers’ true willingness to pay, results of our studies indicate a substantial discrepancy between preference orders based on monadic judgments and preferences that consumers reveal in competitive purchase decisions.

JEL: Preference Reversals, Willingness to Pay, Monadic Designs, Competitive Designs, Pricing Research, Procedure Invariance

10002
Christoph Starke:
Serving the Many or Serving the Most Needy?

Abstract: For free, subsidized or cost-covering? The decision on how much to charge for a good or service is fundamental in social business planning.
The higher the fee paid by the recipient, the more people in need can be served by the additional revenues. But charging a fee means simultaneously to exclude the very poor from consumption. This paper argues that the entrepreneur's trade off between both effects is governed by her level of poverty aversion, i.e., her preference intensity for the service of needy people with different incomes. Additionally, we account for the possibility of excess demand for the provided good and assume that applicants are rationed by non-price allocation mechanisms. We thereby contribute to the extensive literature on the pricing and rationing behaviour of nonprofit firms. Within our theoretical model, we find ambiguous reactions of the entrepreneur to a cut in donations. Given a sufficiently low level of status-quo donations, entrepreneurs with relatively high poverty aversion tend to increase the project volume, while those with relatively low poverty aversion do the opposite.

**JEL:** L31, H41, D45  
**Keywords:** allocation mechanism, donation, nonprofit, poverty aversion, social entrepreneur, user fee