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13015 Jörg Bühnemann:  
› Transparenz von Clustern - nötig und unmöglich?

**Abstract:**

Die Unterstützung von Wirtschaftsklustern spielt in der Politik eine zentrale Rolle. Rückschlüsse auf positive Wachstumseffekte dieser Maßnahme können bislang nur vermutet, aber nicht empirisch nachgewiesen werden. Ursächlich dafür sind einerseits eine unscharfe Clusterdefinition in der Theorie und andererseits mangelhafte Evaluierungsmechanismen in der praktischen Umsetzung des Konzeptes durch die Politik.

Innerhalb dieses Forschungsbeitrages wird erstmalig ein Ansatz zur Clusteranalyse auf Basis von F&E-Indikatoren präsentiert und somit die Konzepte des Innovationsprozesses und der Clustertheorie miteinander verknüpft. Auf der Grundlage wissenschaftlich fundierter Kennzahlen können die F&E-Aktivitäten von Institutionen in Clustern transparent aufgearbeitet und bewertet werden. Darüber hinaus trägt die übertragbare Methodik zur Entwicklung eines praktikablen Evaluierungskonzeptes bei. Im Ergebnis sind Kausalzusammenhänge zwischen wirtschaftlicher Entwicklung und politischer Einflussnahme ableitbar. Grenzen und Implikationen des Ansatzes sowie notwendige Erweiterungen werden zum Abschluss diskutiert.

**JEL:**

Keywords: Innovation, F&E-Indikatoren, Cluster, Evaluierung

13013 Daniel Cracau/Benjamin Franz:  
› Judo Economics in Markets with Multiple Firms

**Abstract:**

We study a sequential Bertrand game with one dominant market incumbent and multiple small entrants selling homogeneous products. Whilst the equilibrium for the case of a single entrant is well-known from Gelman and Salop (1983), we derive properties of the N-firm equilibrium and present an algorithm that can be used to calculate this equilibrium. Using this algorithm we derive the exact equilibrium for the cases of two and three small entrants. For more than three entrants only approximate results are possible. We use numerical results to gain further understanding of the equilibrium for an increasing number of firms and in particular for the case where N diverges to infinity. Similarly to the two-firm Judo equilibrium, we see that a capacity limitation for the small firms is necessary to achieve positive profits.

**JEL:** D43, L11

Keywords: Sequential Bertrand Competition, Judo Economics, N-firm oligopoly

13012 Eva Schliephake:  
› When Banks Strategically React to Regulation: Market Concentration as a Moderator for Stability

**Abstract:**

Minimum capital requirement regulation forces banks to refund a substantial amount of their investments with equity. This creates a buffer against losses, but also increases the cost of funding. If higher refunding costs translate into higher loan interest rates, then borrowers are likely to become more risky, which may destabilize the lending bank. This paper argues that, in addition to the buffer and cost effect of capital regulation, there is a strategic effect. A binding capital requirement regulation restricts the lending capaci

of banks, and therefore reduces the intensity of loan interest rate competition and increases the banks' price setting power as shown in Schliephake and Kirstein (2013). This paper discusses the impact of this indirect effect from capital regulation on the stability of the banking sector. It is shown that the enhanced price setting power can reverse the net effect that capital requirements have under perfect competition.

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JEL: G21, K23, L13

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Keywords: Capital Requirement Regulation, Competition, Financial Stability

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13011 Eva Schliephake:  
› Risk Weighted Capital Regulation and Government Debt

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**Abstract:** Microprudential capital requirements are designed to reduce the excessive risk taking of banks. If banks are required to use more equity funding for risky assets they invest more funds into safe assets. This paper analyzes a government that simultaneously regulates the banking sector and borrows from it. I argue that a government may have the incentive to use capital requirements to alleviate its budget burden. The risk weights for risky assets may be placed relatively too high compared to the risk weight of government bonds. This could have a negative impact on welfare. The supply of loans for the risky sector shrinks, which may have a negative impact on long term growth. Moreover, the government may be tempted to increase its debt level due to better funding conditions, which increases the risk of a future sovereign debt crisis. A short term focused government may be tempted to neglect the risk and, thereby, may introduce systemic risk in the banking sector.

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JEL: G21, G28, G32

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Keywords: Capital Requirement Regulation, Government Debt

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13010 Hendrik Ritter/Mark Schopf:  
› Unilateral Climate Policy: Harmful or even Disastrous?

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**Abstract:** This paper deals with possible foreign reactions to unilateral carbon demand reducing policies. It differentiates between demand side and supply side reactions as well as between intra- and intertemporal shifts in greenhouse gas emissions. In our model, we integrate a stock-dependent marginal physical cost of extracting fossil fuels into Eichner & Pethig's (2011) general equilibrium carbon leakage model. The results are as follows: Under similar but somewhat tighter conditions than those derived by Eichner & Pethig (2011), a weak green paradox arises. Furthermore, a strong green paradox can arise in our model under supplementary constraints. That means a "green" policy measure might not only lead to a harmful acceleration of fossil fuel extraction but to an increase in the cumulative climate damages at the same time. In some of these cases there is even a cumulative extraction expansion, which we consider disastrous.

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JEL: Q31, Q32, Q54

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Keywords: Natural Resources, Carbon Leakage, Green Paradox

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13009 Karina Gose:  
› Fair Wages Survive Multiple Sources of Income Inequality

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**Abstract:** When an employee in a gift exchange game earns significantly less than the employer, the source of employer income does not affect effort choices. However, to induce one unit of effort, the employer has to pay higher wages than in a game without payoff inequality.

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JEL: C91, D31, M52

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Keywords: Gift exchange, fair wage-effort hypothesis, reciprocity, inequity aversion, tit for tat

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13008 Karina Gose/Abdolkarim Sadrieh:  
› Strike, coordination, and dismissal in uniform wage settings (updated January 2014)

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**Abstract:** We study a gift exchange game with 12 employees and one employer. When the employer can offer individually differentiated wages in a setting without collective action, we observe high levels of wages, effort choices, and total earnings. When the employer is restricted to offering a uniform wage, trust and reciprocity drop dramatically due to widespread shirking. The stepwise introduction of two collective action mechanisms, strike and coordination, increases the employees' share of the total earnings, but does not mitigate the free-riding problem. Adding employment risk to the collective action setup drives up wages, reduces free-riding, and leads to higher total earnings. However, this increase in productivity is not sufficient to achieve the high levels of wages, efforts and earnings that we observe with individually differentiated wages.

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**JEL:** C92, D23, J33, M52

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**Keywords:** fair wage-effort hypothesis, efficiency wages, wage compression, labor unions, unemployment

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13007 Karl Inderfurth/Gudrun P. Kiesmüller:  
› Exact and heuristic linear-inflation policies for an inventory model with random yield and arbitrary lead times

**Abstract:** We investigate a periodic inventory system for a single item with stochastic demand and random yield. Since the optimal policy for such a system is complicated we study the class of stationary linear-inflation policies where orders are only placed if the inventory position is below a critical stock level, and where the order quantity is controlled by a yield inflation factor. We consider two different models for the uncertain supply: binomial and stochastically proportional yield and we allow positive and constant lead times as well as asymmetric demand and yield distributions. In this paper we propose two novel approaches to derive optimal and near-optimal numerical values for the critical stock level, minimizing the average holding and backorder cost for a given inflation factor. First, we present a Markov chain approach, which is exact in case of negligible lead time. Second, we provide a steady state analysis to derive approximate closed-form expressions for the optimal critical stock level. We conduct an extensive numerical study to test the performance of our approaches. The numerical experiments reveal an excellent performance of both approaches. Since our derived formulas are easily implementable and highly accurate they are very valuable for practical application.

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**JEL:** C02, M11

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**Keywords:** Inventory/production systems, Heuristics, Random Yield, Lead times, Stochastic model applications

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13006 Michèle Belot/Marina Schröder:  
› Does Monitoring Work? A Field Experiment with Multiple Forms of Counterproductive Behaviour

**Abstract:** This paper provides field experimental evidence on the effects of monitoring in a context where workers can engage in various forms of counterproductive behaviour and only one of them is monitored and incentivised. We hire students to do a job for us (identifying euro coins) for which they are paid a flat fee. There are various ways they can behave counterproductively: they can perform sloppily, not complete the task within the requested time or even steal some of the coins. We study how monitoring one productivity dimension (sloppiness) spills over to others (tardiness and theft). We find that introducing lax monitoring does not improve performance, but increases tardiness substantially. Strict monitoring increases tardiness to the same extent, but also leads to substantial improvements in performance. Theft, on the other hand, occurs more rarely and its prevalence is not affected by the monitoring scheme. We conclude that monitoring does have a disciplining effect on workers, but at the same time, workers retaliate for being monitored and do so in the least costly manner for themselves (both in monetary and non-monetary terms).

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**JEL:** C93, J24, J30, M42, M52

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**Keywords:** counterproductive behaviour, monitoring, experiment

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13005 Abdolkarim Sadrieh/Guido Voigt:

› Strategic risk in contract design

Abstract:

Supply chains facing asymmetric information can either operate in a cooperative mode with information and benefit sharing or can choose a non-cooperative form of interaction and align their incentives via screening contracts. In the cooperative mode, supply chain efficiency can be achieved, but high levels of trust and trustworthiness are required. In the non-cooperative mode, the contract mechanism guarantees a second best supply chain performance, but only if all parties choose their equilibrium strategies without trembles. Experimental evidence, however, shows that both operating modes often fail due to strategic risk. Cooperation is disrupted by deceptive signals and the lack of trust, whereas non-cooperative strategies suffer from persistent out-of-equilibrium behavior. We present an experiment on supply chain interaction with reduced strategic risk in both operating modes. We find that supply chain performance can reach a second-best level in either operating mode, if strategic risk is sufficiently reduced. We present two means to reduce strategic risk. First, a punishment mechanism leads to a better matching of trust and trustworthiness and supports the cooperative operating mode. Second, an enforcement of self-selection supports the non-cooperative equilibrium by increasing the attractiveness of screening contracts. We conclude that supply chain managers should seek to reduce the variability of the supply chain partners' behavior no matter what operating mode is considered.

JEL:

Keywords: Behavioral operations management, contracting, asymmetric information, punishment

13004

Roland Kirstein/Matthias Peiss:  
› Quantitative Machtkonzepte in der Ökonomik

Abstract:

Macht ist ein zentraler Bestandteil sozialer Interaktion. Obgleich eine Vielzahl gebräuchlicher Anschauungen und Begriffsdefinitionen zum Thema Macht existiert, erfordert ein wissenschaftlicher Umgang mit dem Konzept der Macht deren quantitative Operationalisierung. Der vorliegende Beitrag untersucht die ökonomische Bedeutung des Machtkonzeptes und konzentriert sich dabei auf Möglichkeiten der Quantifizierung von Macht unter Berücksichtigung ihrer vielfältigen Erscheinungsformen. Hierfür werden einerseits unterschiedliche Konzepte der Machtmessung in der Ökonomik vorgestellt und im jeweiligen Kontext motiviert, so etwa im Rahmen verschiedenartiger Transaktionsbeziehungen, in (nicht-)kooperativen Interaktionssituationen, oder im Bereich der kollektiver Entscheidungsfindung. Zum anderen erfolgt eine Einschätzung darüber, welche der vorgestellten Analyse- und Messkonzepte Macht im Sinne bekannter Machtdefinitionen erfassen und operationalisieren können.

JEL:

Keywords:

13003

Roland Kirstein:  
› Fight or buy? A comparison of internationalization strategies.

Abstract:

The paper evaluates three internationalization strategies of a company that considers invading a foreign market:  
It can buy a firm that resides in the target market (acquisition strategy),  
it can produce at home and export into the target market (export strategy),  
or the two firms can agree upon produce in the invader's home country and sell the products in the target market (OEM strategy).  
For simplicity, we assume that the incumbent firm in the target country has a monopoly position. Under these circumstances, following the acquisition strategy would allow the newcomer to obtain this monopoly position, whereas the export strategy might result in a duopoly. We compare the outcomes of these two strategies for the two firms involved, allowing for different cost situations, and derive necessary conditions for a mutually beneficial acquisition. This analysis will allow us to derive sufficient conditions under which export would be the better strategy.  
The case of Lenovo is helpful to illustrate the point made by this paper: Lenovo had the options to set up own production sites in China to conquer the North American and European markets competing against

IBM thinkpads, or to buy out IBM and use their production sites (which is what Lenovo actually did).

JEL:

Keywords:

13002

Daniel Cracau:

› Judo Economics in Markets with Asymmetric Firms

Abstract:

I study a game with one market incumbent and a small entrant in a duopoly with perfectly substitutable products. Firms face a sequential Bertrand competition. Limiting the initial capacity (Judo economics) is a plausible entry strategy for the small firm. If we, however, introduce asymmetry in production cost or product quality, capacity limitation can become obsolete. I derive thresholds as regards the cost and quality differences for the entrant's choice to voluntarily limit the production capacity in equilibrium. I study a market entry game with price competition and perfectly substitutable products. Limiting the initial capacity (Judo economics) is a plausible entry strategy. I show that under asymmetry in production cost or product quality, capacity limitation can become obsolete.

JEL:

D43, L11

Keywords:

Sequential Bertrand Competition, Judo Economics, Asymmetric Firms, Cost, Quality

13001

Daniel Cracau/Abdolkarim Sadrieh:

› Coexistence of small and dominant firms in Bertrand competition: Judo economics in the lab

Abstract:

The theory of "Judo Economics" describes an optimal entry strategy for small firms. Using a capacity limitation, small firms force dominant market incumbents to accommodate. In this article, we study the power of Judo economics as an entry strategy in different market environments. We find experimental evidence supporting the theory in the original setting with a monopolistic, dominant market incumbent. When we introduce a cost advantage for small firms, profits go down. This can be explained by incumbents responding aggressively towards large entrants. For settings with multiple market incumbents, results are reversed. There, a cost advantage strengthens small firms and pricing below the incumbents' marginal cost provides the unique entry strategy.

JEL:

D43, L11

Keywords:

Judo economics, Market entry, Price competition, Capacity limitation, Experimental economics

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