# Anja Rösner - Research statement

My research interests include applied microeconomics, primarily industrial organization and behavioral economics, but also intersection to competition economics, technologies and sustainability. Currently, I am working on different projects and papers that combine the fields of individual behavior, antitrust, asymmetric information, technologies, green transitions as well as mental health in different ways.

In the paper **Consumer Protection in the Digital Age: Evidence from the European Union** (with Justus Haucap and Ulrich Heimeshoff, DICE), I analyze the impact of an EU-wide consumer protection regulation on consumer behavior. I find that the regulation increased consumer trust and cross-border purchases especially for countries that had a very low consumer protection level before the regulation. I am very pleased that this paper is published in the *International Journal of Industrial Organization*(ABS-3).

In another paper, **Do Managerial Incentives Facilitate Anti-Competitve Behavior? Evidence from Collusion?** (with Marek Giebel, CBS), I analyze the relationship between managerial incentives and anti-competitive behavior of firms. While most studies so far have focused on factors on the firm-level that might affect collusive behavior, it is the manager who decides whether to take part in a collusive agreement or not. In the theoretical and empirical analysis, I find that a higher share of long-term remuneration within the manager's compensation package leads to an increase in the firm's likelihood for anti-competitive behavior.

A research project, I am currently working on, is titled **Do Consumers Really Care? Competitive Misconduct, Attention, and Prices**. Although traditional economic theory predicts that consumers will reduce their demand when prices increase, the actual consumer behavior remains debatable for products that are purchased on a daily basis. This is due to the fact that consumers seem to have a more inelastic demand for this type of goods. With Scanner data from major retailers in the United States, I exploit collusion as a demand-independent price shock and show how consumers' daily shopping behavior is influenced by collusion. To gain a deeper insight into the mechanisms behind the effect, I leverage news data in a second step of my analysis. This allows me to determine whether consumer behavior is affected by news reports about the price increase. My results show that consumers decrease their demand for former cartelized products in response to news reports reveal the price cartel. This clearly implies that there are consumers who are information sensitive and actually care about the pricing behavior of firms. Consumers are, thus, not price inelastic but rather inattentive to the price increases, however, their attention can be drawn to it by media reports. I also find that different consumer groups react differently to collusion and the respective news reports, as well as the sentiment within the news articles plays a significant role in shaping consumer behavior.

Another project, I am currently working on, is titled **Reaching for the Society: The Commercialization Effects of NASA Technology Transfer** (with Marek Giebel, CBS). It remains under discussion how government-funded research can be effectively commercialized and how this affects the innovation behavior of third parties. In this project, I use the technology-related information and patent data of the NASA technology transfer program, a program implemented to commercialize technologies through licensing of the respective patents. I find that patents that are part of an exclusive licensing agreement are cited to a higher degree. Additionally, the results reveal that their citation pattern is comparable to those of government-funded inventions developed and patented by private entities that received funding from NASA. Consequently, licensing is an important policy tool to foster commercialization of government inventions and thereby increase the benefits of government-funded research.

In the project titled **Overconfidence and Collusion** (with Marek Giebel, CBS; Catarina Marvão, TU Dublin; Giancarlo Spagnolo, University of Rome Tor Vergata) we explore whether there is a relationship between CEO overconfidence and collusion. Overconfidence may make managers compete more if they expect to be able to outperform competitors, or it may push them to collude if they expect the cartel to be stable and not to be caught/ convicted. These contrasting theoretical hypotheses make empirical analysis crucial. We document that: (1) there is a positive and highly significant relationship between overconfidence and collusion, and (2) overconfidence Granger causes cartel participation (and not the other way around). We then discuss some possible mechanisms underlying this relationship. These findings are highly policy-relevant. They confirm that cartel enforcement should focus on the top layer of firm management and on shareholders who provide their incentives. They also suggest that CEO overconfidence could possibly be used as a screening mechanism to detect cartels.

The project entitled **Green Transition Incentives of Firms, Technology Development, and the Impact on Labor Markets** (with Marek Giebel & Dario Pozzoli, CBS) has been submitted for third-party funding. In

this project, I analyze the effects of the Danish "Energiteknologiske Udviklings- og Demonstrationsprogram" (EUDP) and its benefits for society. The main objective of this research project is to analyze the impact of the promotion of green technologies in Denmark on the development of new technologies, on the green transition, and on the labor market. Climate change is one of the most pressing problems facing modern society, and recent decades have been marked by an increasing willingness to take action. Thus, I analyze how the EUDP directly affects the adoption of climate-friendly technologies and the evolution of greenhouse gas emissions. Regarding the indirect impacts of the EUDP, I determine the labor-related impacts of green technology adoption in firms in terms of employment, wages, and labor productivity.

Another third-party funding project entitled **Digital Technology to Predict Mental Health: Evidence from Social Media Platforms** is currently under assessment for a grant. In this project, I plan to use scraped data from different social media platforms to identify and predict the mental health status of users based on language. In addition to an annual cost of approximately $2.5 trillion, mental illness has far-reaching effects on individuals' behavior, emotions, language, and cognitive performance. The data contains self-reports of individuals' mental disorders and their experiences. In a first step, users with a particular identified mental disorder are used to predict the mental health status of other undiagnosed individuals using machine learning techniques. Following this approach, in the second step, I analyzes the impact of global events such as wars, climate change, or the COVID-19 pandemic on the mental health of individuals in different regions over time.

Another paper, entitled **Public Enterprises and Collusion** (with Justus Haucap, DICE), I am currently working on, is also related to anti-competitive behavior of firms. Cartel agreements can take place at different levels in a supply chain. If suppliers collude on the upstream level, firms on the downstream level are negatively affected by the cartel as they face higher prices or lower quantities. This implies that firms on the downstream level have a high incentive to reveal potential collusive behavior to avoid the negative effects of the cartel. In this paper, I analyze how the incentives for the downstream firms to report anti-competitive behavior change if it is private or public-owned. This project is planned to have a theoretical contribution but also an empirical analysis using firm and cartel data from the United States.

An early work project that is entitled **Fraudulent Behavior of Firms and Consumers' Reaction: Evidence from Media Data**. In this project, I analyze consumer behavior in response to different kind fraudulent behavior of firms. Fraudulent firm behavior encompass everything that might affect consumers, from low product quality to anti-competitive behavior to regulatory non-compliance. To analyze this relationship, I utilize press reports of firms, information from news reports, and social media data related to fraudulent firm behavior. As this project is in a very early stage, the data collection and subsequent empirical analysis are in progress and planing. I expect consumers to react heterogeneously to different fraudulent firm behavior. In a next step, I plan to extend the paper by analyzing the sentiment of the reports to determine how wording can influence consumers' reaction to different kind of news.

In addition, I am part of the interdisciplinary research group **Competition and Sustainability** (with Justus Haucap, DICE; Rupprecht Podszun & Tristan Rohner, University of Düsseldorf) at the University of Düsseldorf. The core focus lies in gaining insights in the interplay between competitive markets and sustainability goals. Besides my main responsibility to contribute to the group's research environment, I am also engaged in the acquisition of third-party funding, the organization of workshops and other related administrative work. I particularly contributed to acquire a grant of Euro 90,000 for conducting a study on behalf of the German Federal Ministry for Economic Affairs and Climate Action on **Competition and Sustainability in Germany and in the EU**. This study has been published in April 2023. Besides the actual study, the outcomes of our research were disseminated through several publications and a book currently in progress. Within this research group, I gained a lot of experience in writing several proposals for third-party funding, managing the respective projects, as well as working with a divers interdisciplinary group of researchers.

Looking forward, I plan to further work on these open projects but also pursue several research avenues related to the fields of industrial organization as well as behavioral economics, digitization and sustainability. For this, I continue to answer relevant, open research questions by combining profound empirical methods with unique data.

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