#### A PRESENTATION OF







### A presentation of

### Center for Economic Behavior and Inequality (CEBI)

#### Publisher

Center for Economic Behavior and Inequality (CEBI)
Department of Economics, University of Copenhagen
Øster Farimagsgade 5, building 35
DK-1353 Copenhagen K, DENMARK
Tel: +45 35 32 30 02
Mail: cebi.mailbox@econ.ku.dk

Editors

Simon Knokgaard Halskov Claus Thustrup Kreiner

Web: www.econ.ku.dk/cebi

### Proofreading

lda Maria Hartmann

### Layout

StudioFrost

#### Photos

Front page photo: iStock

The CEBI team: Christoffer Regild, Joachim Rode
Back: Ida Maria Hartmann

### ISBN

978-87-93428-44-7

Copenhagen, January 2022

### **CONTENTS**

Preface
The CEBI research agenda 6
Patient people are wealthier
Large inequality due to tax evasion behavior
Wealth taxation reduces savings 12
Reactions to inheritance call for a revision of the workhorse model of savings behavior 14
Lower interest rates favor the rich
Children cause inequality between women and men
Inequality in life expectancy: Not as big as we thought but still rising
Health behavior is contagious
High health care costs without better health outcomes
COVID-19: Only small consumption effects of mandated shutdown

COVID-19: Monetary incentives increase vaccinations	28
How people underestimate inequality	30
Why people have so different beliefs about economic trends	32
Knowledge about pension rules: A major problem and a solution	34
Detecting present-biased behavior from real-life choices	36
How to measure household financial behavior and design housing and mortgage policies	38
The CEBI team	40
CEBI activities	45
Recognitions at all levels	46
Popular outreach	48
Media attention	49
Scientific journal publications	50

### Preface

What is the role of behavior for inequality in society?

Center for Economic Behavior and Inequality (CEBI) answers this question.

CEBI is a center-of-excellence graciously funded by the Danish National Research Foundation. We are more than thirty researchers at all levels from PhD students to professors as well as administrative staff based at the Department of Economics, University of Copenhagen. Our team includes external CEBI members at New York University, Princeton University, University of Zürich and collaborators at many other leading departments in Europe and the US.

The research team has published more than 130 journal articles since the start in September 2017. This includes numerous articles in the top economic journals American Economic Review, Journal of Political Economy, Quarterly Journal of Economics and Review of Economics Studies, in the top general science journals Science and PNAS and in top journals in other disciplines.

CEBI organizes international conferences, workshops, seminars and PhD courses with world-renown scholars. We also interact with policy makers and communicate to the wider public. The work at CEBI has received public attention and proven relevant for practical policy making. This includes expert advice requested from Danish ministries, participation in government commissions, appearance in television news on national TV channels (DR and TV2), front page stories in the main Danish newspapers Berlingske, Information, Jyllands-Posten and Børsen and coverage in leading international newspapers such as Die Welt, the Economist, the Financial Times, Le Monde, the New York Times and the Washington Post. CEBI research has even been featured on Netflix.

With this book we wish to share brief stories of the exciting research done at CEBI.

Additional information about us can be found at www.econ.ku.dk/cebi and �� @CEBI\_UCPH.



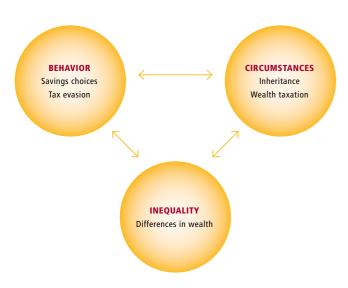
University of Copenhagen – Department of Economics

Center for Economic Behavior and Inequality

# The CEBI research agenda

INEQUALITY In Denmark, one of the most equal countries in the world, the top 1% richest own 20% of wealth and earn close to 10% of income. High-income people can expect to live 3 years longer than their low-income peers. And more than 1 out of 5 get into financial trouble in their twenties if they are born into families in financial trouble. What are the sources of such inequalities in prosperity, health and financial future? How much inequality is there in society? Is inequality viewed as fair or unfair? How do public policies affect inequality?

EXAMPLE OF HOW INEQUALITY RELATES TO BEHAVIOR AND CIRCUMSTANCES



BEHAVIOR These questions are important, but complex to answer. A key reason is the behavior of people, which is crucial for all aspects of inequality, but difficult to measure. As an example, consider wealth inequality. How much wealth people hold can vary because they inherit different amounts from their parents (circumstances) but also because some people save more of their income than others (behavior). Actual differences in wealth can be much larger than we think because some people hide away large fortunes in offshore accounts (behavior). Wealth inequality may persist across generations due to major differences in inheritances (circumstances), but the persistence crucially depends on consumption and labor supply responses of those receiving inheritances (behavior).

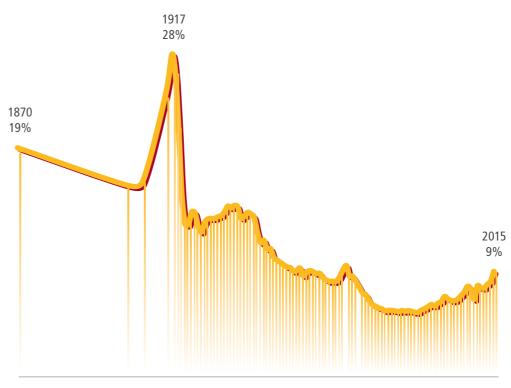
RELEVANCE Understanding whether wealth inequality is due to differences in savings behavior, tax evasion or inheritances is important for how people view inequality and the need for policy action. Behavior is also important for evaluation of policies. A potential and highly debated policy to achieve more equality is wealth taxation. To evaluate the attractiveness of such a policy, it is important to know whether this reduces savings and capital accumulation, as this reduces future production, income and tax revenue.

SCOPE CEBI looks at many dimensions of inequality and the role played by many different behavioral characteristics of people. For example, this includes differences in earnings between men and women and the role played by social norms; differences in crime propensities of people and the role played by risk willingness; differences in fairness views on inequality and the role played by beliefs about inequality.

APPROACH CEBI studies the role of behavior for inequality by using unique combinations of information for large representative samples of individuals. This includes objective information obtained from administrative records such as tax returns, wealth records, population registers, bank transaction data, health records etc., as well as subjective information about people's risk-, time- and social preferences, their beliefs about economic prospects and policy rules, and their

views on inequality obtained from experiments and surveys. The data is linked together by Statistics Denmark and stored in anonymous form on CEBI-financed servers at Statistics Denmark where it can be analyzed remotely by CEBI researchers under strict security precautions. The empirical analyses are rooted in hypotheses from economic theory and include construction and estimation of mathematically formulated economic models.

INEQUALITY IN DENMARK OVER THE PERIOD 1870-2015 MEASURED BY THE TOP 1% INCOME SHARE



Source: Søgaard. Nordic Economic Policy Review (2018)



PHOTO: SIMON KNOKGAARD HALSKOV

### WEALTH INEOUALITY

Differences in people's income create differences in wealth, but why is wealth inequality much bigger than income inequality? Researchers are still struggling to answer this question. A key hypothesis is that there are fundamental differences in savings behavior of people.

### Patient people are wealthier

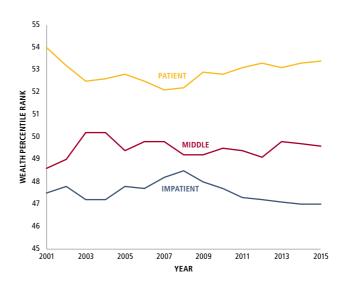
In economic theory, inequality is due to differences in economic possibilities of people or to differences in their preferences. For example, inequality in wealth can be due to differences in how much income people earn but it can also be due to differences in patience. Patient individuals prefer less consumption today and more consumption in the future compared to impatient individuals. This implies that patient individuals save more out of income and become wealthier throughout life. But does this theoretical prediction explain real-world differences in people's wealth?

Answering this question has proven difficult because of major empirical challenges in measuring the relationship between patience and wealth. Rich experimental evidence – going back to the famous marshmallow experiments from the 1960s measuring delayed gratification in children – points to pervasive differences in patience.

Administrative data provides very precise information about net wealth of people including bank debt, mortgage debt, money on deposit accounts, ownership of stock and bonds, value of houses etc. and documents large inequality in wealth. However, no study has been able to link these two different types of data. Claus Thustrup Kreiner, David Dreyer Lassen, Søren Leth-Petersen and Gregers Nytoft Rasmussen together with external members Thomas Epper, Ernst Fehr and Helga Fehr-Duda use the CEBI data infrastructure to overcome this challenge and provide empirical evidence on the relationship between patience and wealth.

The results reveal a strong association between people's patience and their position in the real-life wealth distribution. The figure plots the average position in the wealth distribution on a 1-100 scale (percentiles) for three equally-sized patience groups. Over a fifteen-year

### ASSOCIATION BETWEEN PATIENCE AND WEALTH



The graph shows the average position in the wealth distribution of three equally-sized patience groups of people over the years 2001-2015.

period, the most patient individuals are consistently 6-7 percentiles higher in the wealth distribution than the least patient individuals, with the middle patience group being in the middle of the wealth distribution. The magnitude is similar to the association between education and wealth inequality. This is striking, as education is known to be one of the best predictors of inequality.

The association is almost the same after controlling for a large set of characteristics of people such as their income history, school performance, risk type and parental background and suggests that the association is due to higher savings of patient individuals.

This research is important for understanding the driving forces behind inequality in society and the appropriate policy responses. Related research by the CEBI team documents how other basic preference measures predict behavior and attitudes of people. For example, risk tolerant individuals are more prone to commit crime and social preferences predict donations to charity and demand for redistribution in society. Together, this evidence points to the importance of differences in the behavior of people and to the usefulness of accounting for preference heterogeneity in economic models.

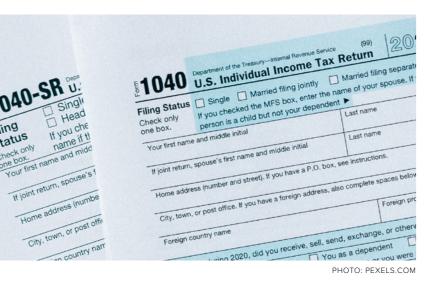
### Method

A random sample of middle-aged individuals received an invitation in their electronic mail box (E-boks) to participate in an online experiment. The experiment included money-now-or-later choices designed to elicit patience. Participants received money depending on their choices. Statistics Denmark linked the experimental data of the 3,600 participants to administrative records with precise information about wealth as well as detailed background characteristics relevant for understanding wealth formation in the statistical analysis.

### Research articles

Epper, Fehr, Fehr-Duda, Kreiner, Lassen, Leth-Petersen and Rasmussen. "Time Discounting and Wealth Inequality." American Economic Review (2020).

Epper, Fehr, Hvidberg, Kreiner, Leth-Petersen and Rasmussen. "Preferences Predict who Commits Crime among Young Men." *Proceedings of the National Academy of Sciences* (PNAS) (forthcoming).



### TAX EVASION

Who evades taxes the most – the rich or the poor? The question is fascinating in its own right and important for the measurement of inequality, which often relies on sources that do not account for tax evasion.

# Large inequality due to tax evasion behavior

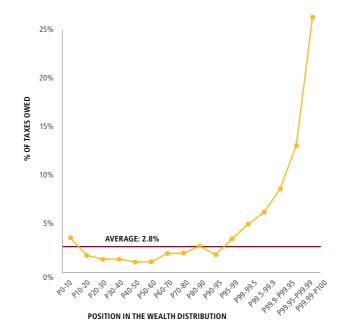
If tax evasion is equally prevalent in different groups, it will not affect measured inequality. But if the rich dodge taxes more than others then tax records will underestimate inequality.

CEBI researcher Niels Johannesen and coauthors estimate how tax evasion varies with wealth in the Scandinavian countries and correct inequality statistics for differences in evasion rates. To measure tax evasion, they merge information from randomized tax audits conducted by tax authorities with information on offshore financial activities obtained by the tax authorities through *Swiss Leaks* and *Panama Papers*.

The figure shows the estimated tax evasion rates by position in the wealth distribution. Tax evasion is below 3% of tax liabilities in the aggregate: most types of income are third-party reported by employers and financial institutions to the tax authorities and are subject to very limited tax evasion. However, at the top of the wealth distribution, tax evasion is much higher, plausibly around 25% for the top 0.01% group. Most of the tax evasion by the very wealthiest happens through undeclared offshore accounts, which makes it difficult to detect for the tax authorities.

The results suggest that tax evasion has important implications for the measurement of inequality because of its highly uneven distribution across wealth groups. According to the estimates, the wealth share of the top 0.01% increases by around 25% when accounting for wealth hidden in offshore financial centers.

#### TAX EVASION BY WEALTH



The results highlight that cracking down on offshore tax evasion, through cross-border information exchange and enhanced audit efforts, may not just be a source of substantial government revenue, but also a powerful tool for countering increasing inequality and redressing the progressivity of the tax system. Tax authorities around the world, including many tax havens, have recently stepped up enforcement efforts in this domain by initiating automatic exchange of information on financial accounts.

The graph shows the average tax evasion rate by percentile position of people in the wealth distribution. The overall average is 2.8% as illustrated by the red line.

### Research articles

Alstadsæter, Johannesen and Zucman. "Tax Evasion and Inequality." *American Economic Review* (2019).

### Method

The researchers combine detailed wealth data from tax returns for all households in Scandinavia with the outcomes of randomized tax audits and leaked customer accounts from HSBC Switzerland. From the audit data, they compute the non-offshore evasion rates by wealth group (as audits generally do not capture offshore evasion). From the leaked data, they compute offshore evasion rates by wealth group using estimates of aggregate offshore wealth. The figure shows the total evasion rate, combining non-offshore and offshore evasion.



PHOTO: UNSPLASH.CO

### POLICY & BEHAVIOR

Taxation of wealth has gained renewed interest following new empirical evidence of rising wealth inequality and the call for a global wealth tax by Thomas Piketty in his best-seller book Capital in the Twenty First Century. But to evaluate the attractiveness of a tax on wealth, it is key to understand its impact on savings behavior of people.

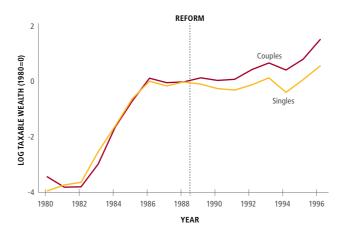
# Wealth taxation reduces savings

A reduction in people's savings reduce capital accumulation and future wealth, which reduces future income and tax revenue. The literature on behavioral responses to taxes is enormous, but almost no evidence exists on the impact of wealth taxation on savings behavior. This is not surprising. Solid empirical evidence requires comprehensive individual-level data on wealth, including data on deposits, debt, stock, bonds, houses, land, etc. This is needed for a very long horizon in order to estimate long-run effects because of the dynamic and slow-moving nature of wealth accumulation. Further, in the observation period there has to be compelling variation in wealth taxation in order to convincingly identify the responsiveness of savings to wealth taxation.

In many ways, Denmark is the perfect laboratory to overcome these challenges. Wealth data exist for the Danish population since 1980 and Denmark had a wealth tax that underwent major changes until its abolishment in 1997. For example, the tax exception threshold was doubled for couples in 1989. These changes can be used as a quasi-experiment to estimate responsiveness of savings behavior to wealth taxation. This is exploited by Katrine Jakobsen together with external CEBI member Henrik Kleven and co-authors.

The figure illustrates one of their main results. Here, they compare the development of taxable wealth (log scale) for couples and singles before and after the tax change. For each group, wealth is measured relative to the pre-reform level in 1988. The two curves are similar

COMPARING WEALTH OF COUPLES AND SINGLES BEFORE AND AFTER A WEALTH TAX REFORM



The graph shows the effects of the 1989 wealth tax reform on taxable wealth of couples affected by the reform compared to singles unaffected by the reform.

before the reform, which suggests that singles work well as a control group for couples. The two groups follow similar savings trends prior to the reform. Following the reform, which reduced the tax liability on couples' relative to singles' wealth, the gap between the two curves increases gradually consistent with an increase in the savings propensity of couples due to the reform. Eight years out, wealth has increased by more than 10 percentage points extra for couples than singles. In this example, people affected by the reform are moderately wealthy. The effects are considerably larger for the very wealthy.

Using a theoretical model, calibrated to the empirical evidence, to extrapolate further out in time, the authors find an estimated increase in the wealth levels of the two groups ranging from 30% to 65% (corresponding to a so-called elasticity of taxable wealth around 1). These behavioral effects of wealth taxation are large and cannot be disregarded if evaluating the attractiveness of imposing wealth taxes.

The empirical analysis is based on wealth records for the entire Danish population, which exist from 1980 and onwards. The information about individual wealth is gathered by the Danish tax agency and send to Statistics Denmark. The empirical analysis uses quasi-experimental variation in tax rates due to tax reforms. The empirical analysis uses difference-in-difference event-study regressions where the events are the reform-driven changes in tax rates.

### Research articles

Jakobsen, Jakobsen, Kleven and Zucman. "Wealth Taxation and Wealth Accumulation: Theory and Evidence from Denmark." *Quarterly Journal of Economics* (2020).

University of Copenhagen – Department of Economics

Method



PHOTO: PEXELS.CO

### SAVINGS BEHAVIOR

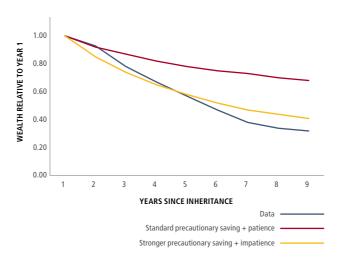
It is important to understand the savings motives of people, which underlie the work-horse model of household savings used for various policy analysis. An important question is whether the model is able to predict actual savings responses of people.

# Reactions to inheritance call for a revision of the workhorse model of savings behavior

Patient saving for retirement has been a central motive in economic theory since the early Nobel prize winning research in the 1950s by Franco Modigliani and Milton Friedman. Precautionary saving for a rainy day is another central motive that came into play with the Nobel prize winning research by Angus Deaton in the 1980s. The workhorse model of consumption and saving over the life-cycle includes both saving motives, but we still know little about their relative quantitative importance.

A CEBI study by Jeppe Druedahl and coauthor puts the workhorse model to a new test. Just observing the life-cycle profile of wealth is not enough for disentangling the relative importance of the various saving motives, because a given wealth profile can simultaneously be explained by different combinations of saving motives. Low precautionary saving and high patience can yield the same observed savings path as high precautionary saving and low patience. It is thus not enough to observe passive associations. We need evidence on the causal dynamics of wealth.

### ACTUAL VERSUS PREDICTED CHANGE IN WEALTH FOLLOWING INHERITANCE



The graph shows the predicted wealth development following inheritance using the standard model (red) and a modified model (yellow) compared to the actual development (blue).

### Method

First, the researchers use sudden inheritance, where the parent died due to a car crash or a heart attack (with no prior condition), as a natural experiment to estimate the causal effect of a monetary windfall on subsequent savings choices. Those inheriting in one year is the treatment group and have wealth paths that can be compared to a control group of people who inherit in later years in order to find the causal effect. Second, the new empirical findings are analyzed through the lens of a structural model of consumption and saving over the life-cycle to deduce the relative strength of the underlying savings motives in explaining the observed behavior.

Ideally, one would run a randomized experiment, where many people are given, say, 500.000 Danish kroner. It would then be possible to follow people over time and observe when they spend the money. This is not financially feasible in practice. As an alternative, Jeppe Druedahl and his coauthor ingeniously look at individuals who receive a sudden inheritance, where the parent died due to a car crash or a heart attack (with no prior condition). It is then possible to compare individuals who all inherit unexpectedly, but at different points in time. For those people treated in one year, people inheriting in later years can act as a control group.

The figure shows that only a third of the inheritance is left after a decade. This dynamic wealth depletion after inheritance is compared with outcomes of models estimated to match the passive life-cycle profile of wealth, which vary in terms of the relative strength of the underlying saving motives. The models where patience play an important role imply a much lower depletion rate of wealth after inheritance compared to what is observed empirically. This implies that a stronger than usual precautionary saving motive is needed for the model to also fit the new stylized facts. This generally suggests that the current model assigns a societal value to social insurance policies that is too low. It also has implications for wealth inequality dynamics, which Druedahl is currently exploring in ongoing research.

### Research articles

Druedahl and Martinello. "Long-Run Saving Dynamics: Evidence from Unexpected Inheritances." *Review of Economics and Statistics* (forthcoming).

15

University of Copenhagen – Department of Economics

Center for Economic Behavior and Inequality



PHOTO: UNSPLASH.COM

### **POLICY & INEQUALITY**

Monetary policy is an important tool for stabilizing the macro-economy. However, not everybody is affected in the same way when a softer monetary policy lowers the cost of borrowing in the economy. If the effects of monetary policy vary systematically with households' leverage, occupation and investments, it may have substantial implications for inequality.

# Lower interest rates favor the rich

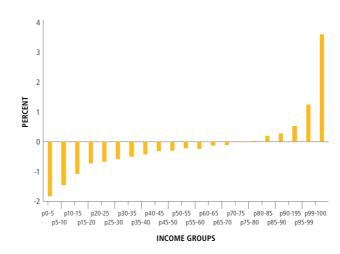
CEBI researchers Asger Andersen, Niels Johannesen, Mia Jørgensen and external member José-Luis Peydró analyze the distributional effects of monetary policy in Denmark using detailed information from tax returns to measure income, investments and debt at the household-level. Their methodology exploits that Denmark effectively imports its monetary policy from Frankfurt to keep the exchange rate fixed. This allows them to isolate and estimate the effect of monetary policy changes that are not themselves a response to changes in the Danish economy.

The results show that the gains from a lower interest rate are increasing in the income level: Households with higher incomes gain more. This finding reflects several opposing forces. On the one

hand, salary income increases most for low-income households due to a sizeable increase in employment. On the other hand, increases in business income and stock market income are highly concentrated at the top of the income distribution. Most surprisingly, gains in the form of lower interest expenses are also increasing in income, reflecting that high-income households have more debt relative to their income.

The figure illustrates the implications for inequality: softer monetary policy unambiguously increases income inequality by raising the income shares at the top of the income distribution and lowering them at the bottom. Specifically, accounting for direct as well as indirect channels, reducing the policy rate by one percentage point raises

### DISTRIBUTIONAL EFFECTS OF LOWER INTEREST RATES



The graph shows the percentage change in the income share by income group caused by a one-percentage point drop in the interest rate.

### Research articles

Andersen, Johannesen, Jørgensen and Peydró. "Monetary Policy and Inequality." CEPR working paper DP15599. *Journal of Finance* (revision requested).

the share of aggregate disposable income for the top 1% by around 3.5% over a two-year horizon and lowers it by almost 2% for the bottom income group.

The results provide important guidance to optimal monetary policy. First, even if policymakers only consider the aggregate stimulus effect of monetary policy, the distribution of gains and losses matters because high-income households tend to spend a smaller share of gains than low-income households. Second, standard social preferences for redistribution imply that policymakers should attach less weight to income gains at the top of the income distribution than at the bottom.

### Method

The researchers obtain detailed data on income, assets and debt from tax returns for all households in Denmark for the period 1987-2014 and assign each household-year observation to an income group. In a local projection model, they estimate the effect of a change in the Danish monetary policy rate on household-level outcomes while allowing the effect to vary by income group and time horizon. They identify the exogenous component of monetary policy by instrumenting the change in the Danish policy rate with the change in the policy rate in Germany (until 1999) and the Euro Area (after 1999) and control for a range of ex ante and ex post macro variables.

PHOTO: JOACHIM RODE



Experiments with girls and boys in Danish schools by Piovesan and Willadsen show that gender differences in competitiveness start already in childhood.

### **GENDER INEQUALITY**

Over the last century, we have witnessed considerable convergence in the labor market outcomes of men and women. However, despite the disappearance of gender differences in education and the implementation of anti-discrimination policies, gender inequality in earnings and wage rates continues to be substantial and the process of convergence appears to have slowed down.

# Children cause inequality between women and men

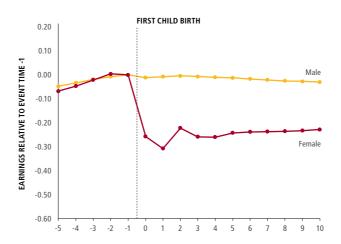
CEBI research by Jakob Søgaard and external member Henrik Kleven provides a simple explanation for the persistence of gender inequality: the effects of children on the careers of women relative to men are large and have not fallen over time. As a result, almost all of the remaining gender inequality can be attributed to children. The figure illustrates this finding. It shows the evolution of total labor market earnings of men and women relative to the underlying wage growth in the economy and the effect of individuals getting older and more experienced over time.

In the years up to the birth of the first child, men and women follow almost the same trend, but in the years just after the birth, the earnings of women drop by 30%, on average. This drop is driven by

the fact that women take the majority of the parental leave, but interestingly the earnings of women are still depressed by almost 20% even after 10 years. This is the total effect of children, including the effects of children born after the first child. The drop turns out to be increasing in the number of children.

In subsequent research, the researchers study an often-hypothesized mechanism for the so-called 'child penalty': namely biological factors such as pregnancy and breastfeeding, which is the exclusive domain of biological mothers. Comparing the evolution of earnings in biological and adoptive families around the arrival of their first child, they find that men and women follow very similar earnings trajectories regard-

### IMPACT OF CHILDREN ON EARNINGS OF WOMEN AND MEN



The graph shows earnings of men and women before and after child birth relative to its level the year before child birth.

### Research articles

Kleven, Landais and Søgaard. "Children and Gender Inequality: Evidence from Denmark" *American Economic Journal: Applied Economics* (2019).

Kleven, Landais and Søgaard. "Does Biology Drive Child Penalties? Evidence from Biological and Adoptive Families." American Economic Review: Insights (2021).

Piovesan and Willadsen. "Risk Preferences and Personality Traits in Children and Adolescents." *Journal of Economic Behavior and Organization* (2021).

Settele. "How Do Beliefs about the Gender Wage Gap Affect the Demand for Public Policy?" *American Economic Journal: Economic Policy* (forthcoming).

less of how they got their child. The short-run impacts are slightly larger in biological families, but the long-run impacts are virtually identical. These findings suggest that factors related to pregnancy and breastfeeding matter little for the long-run effect of children on women's careers. Rather, "cultural" factors such as traditional gender roles seem to be the dominant force behind the child penalty.

In related research, Sonja Settele studies the topic of gender inequality through the lens of policy preferences and finds that pessimistic beliefs about the effectiveness of policies mitigate the effect of perceived wage inequality on the demand for government intervention.

Using a survey experiment, she finds systematic differences in people's beliefs about the size of the gender wage gap. These beliefs causally affect individual demand for equality of opportunity policies such as equal pay legislation and affirmative action programs. However, the effects are small in magnitude and they cannot account for the polarization in policy views by partisanship and gender. Other recent research by Marco Piovesan and Helene Willadsen uses experiments with girls and boys (see picture) and provides evidence of gender differences starting already in childhood.

### Method

Child penalties are estimated using an event study methodology around the arrival of children, including a novel procedure for identifying foreign adopted children and their parents. It relies on almost forty years of administrative data from Denmark. The causal effect of beliefs are estimated using an incentivized survey experiment that elicits beliefs of 4,000 respondents. The evidence of gender differences starting in childhood is obtained by running experiments with girls and boys in Danish schools (see picture).



PHOTO:PEXELS.COM

### INEOUALITY MEASUREMENT

Inequality in health is in many ways more worrisome than economic inequality. Higher income enables people to buy a bigger house or a bigger car but it is also a ticket to a longer life. The question is how much longer?

# Inequality in life expectancy: Not as big as we thought but still rising

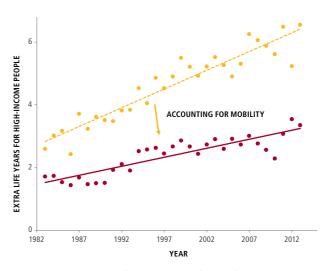
Existing research show that high-income individuals can expect to live much longer than low-income individuals. For example, a well-known study published in JAMA in 2016 shows that, for the United States, high-income people (income percentile 80) at age 40 can expect to live 6.5 years longer than low-income people (income percentile 20). This research gave rise to a substantial debate about inequality in health in the United States.

A recent article in PNAS by CEBI researchers Claus Thustrup Kreiner, Torben Heien Nielsen and Benjamin Ly Serena points to a serious problem with the standard method to measure inequality in life expectancy. The method assumes that the poor stay poor and the rich stay rich for the rest of their lives. In reality, however, over a tenyear period half of the poorest people move into groups with better incomes and lower mortality rates while half of the rich move into groups with lower incomes and higher mobility rates. Not accounting

for this social mobility behavior creates a significant bias that exaggerates the inequality in life expectancy.

The CEBI project devises a new method to compute inequality in life expectancy that accounts for movements across income classes. The authors validate their approach and demonstrate its usefulness by calculating life expectancy at age 40 in Denmark based on income and mortality records of the entire population over a thirty-year period. The graph illustrates the results for men and shows how much a high-income person at age 40 can expect to live longer than a low-income person over this period. In the most recent years, without accounting for income mobility, a high-income person would seem to get about six additional years. However, when accounting for social mobility the gap is only three years and thus half as big. The graph shows that this result holds throughout the thirty-year observation period. This also applies for women.

LIFE EXPECTANCY INEQUALITY WHEN ACCOUNTING FOR INCOME MOBILITY



The graph shows estimates of expected extra life years for high income 40year old people compared to those with low income without accounting for income mobility (yellow dots) and when accounting for mobility (red dots). Even though inequality in life expectancy now proves to be only half as big as earlier anticipated, the new research also shows, that the difference in life expectancy between the rich and the poor has steadily increased over the thirty years represented in the data. Hence, although the Danish state provides free health care and education and a finely masked welfare system that in many aspects is designed to make up for differences in income, inequality in health is still rising.

Related research together with Gordon Dahl from UCSD provides a novel decomposition method that enhances our understanding of what drives trends in life expectancy inequality. This research shows that inequality is not rising because new health innovations differentially benefit the rich. Rather, equal mortality improvements from better treatment and prevention of cardiovascular disease lead to unequal gains in life expectancy because poor patients surviving cardiovascular disease die soon after from other lifestyle-related diseases while rich patients live on for many years.

### Research articles

Kreiner, Nielsen and Serena. "The Role of Income Mobility for the Measurement of Inequality in Life Expectancy." *Proceedings of the National Academy of Sciences of the United States of America* (PNAS) (2018).

Dahl, Kreiner, Nielsen and Serena. "Understanding the Rise in Life Expectancy Inequality." *Review of Economics and Statistics* (forthcoming).

### Method

The standard method computes period life expectancy for a given age by combining mortality rates of different cohorts at a given point in time. When segregating period life expectancy by income class, the mortality of older cohorts in the same income class is used to estimate future mortality. This approach assumes that individuals stay in the same income classes over time, in contrast to evidence in economics and sociology documenting significant income mobility. The new method accounts for transitions across income classes. The empirical application combines income and mortality records of the entire Danish population spanning the period 1983-2013.

21



PHOTO:PEXELS.COM

### HEALTH BEHAVIOR

Health shapes the well-being and financial situations of individuals, families and populations. The COVID pandemic highlights how preventative behaviors and human interactions are important inputs in the production of individual health. Unlike viruses and bacterial infection, health behaviors are not biologically commutable, but they can be highly contagious via spillovers in families.

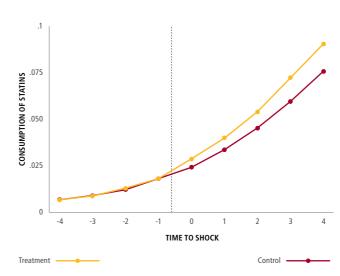
# Health behavior is contagious

Already prior to COVID, research results by Torben Heien Nielsen and his collaborator Itzik Fadlon provide a proof of concept that otherwise hard-to-change behaviors are amendable, and that families play a key role. The team shows how the choices individuals make about health care are influenced by what is happening around them—within their families, and even their co-workers. Severe health shocks among our beloved ones lead us to increase preventive measures against the specific disease that our family members were exposed to. In other words, we take better care of ourselves when a risk suddenly becomes salient.

Still, understanding why the families respond is extremely difficult, because many variables are potentially affected by an adverse event in the family: We may learn about family specific risks, but we are also emotionally affected by a health shock of a beloved family member.

The research showed that the mechanism is not only governed by pure information seeking behavior (e.g., the individual family member is learning of specific risks), but more so through the attention and salience of specific risks. For instance, families that are exposed to heart attacks or strokes turn their attention towards preventing these

HEALTH BEHAVIOR DEPENDS ON HEALTH SHOCK OF SPOUSE



The yellow graph shows how spouses of a patient hit by a heart attack or a stroke (at event time zero) respond by increasing their own take up of preventative medication. The red graph shows the same behavior for spouses who experience the same shock, but five years later. The difference between the graphs show that people respond to a family members' health shocks by increasing their own preventative behavior.

### Research articles

Fadlon and Nielsen. "Family Health Behaviors." *American Economic Review* (2019).

Fadlon and Nielsen. "Family Labor Supply Responses to Severe Health Shocks: Evidence from Danish Administrative Records." American Economic Journal: Applied Economics (2021). specific diseases, and networks that are exposed to cancer increase radiology screening, even if a network member's diagnosis did not contain any information about the other members' risk.

The American business magazine Quartz nominated this work as one of the twelve most important studies in the discipline of Economics in 2019.

### Method

Quantitative research has been challenged by credibly making statements about the contagious nature of behaviors. The underlying issue is a "reflection problem": when we see an individual and a family with similar health behaviors, we do not know whether the family affected the individual, whether the individual affected the family, or whether people in the network have sorted into groups with similar characteristics. The team developed a method to circumvent this issue and leverage Danish administrative data to study family health behaviors. The illustration replicates Panel A of Figure 1 in Fadlon and Nielsen (2019).



### **HEALTH INEQUALITY**

The US spends 25% more per capita on health care than the country with the second highest spending. Does this imply that the US has better health outcomes?

PHOTO: ISTOCK.COM

# High health care costs without better health outcomes

A common, often-mentioned, perception in the US political and public debate on health care is that while health outcomes are on average not higher than elsewhere, privileged Americans have access to much better healthcare than others, experiencing a health status surpassing that of comparable countries.

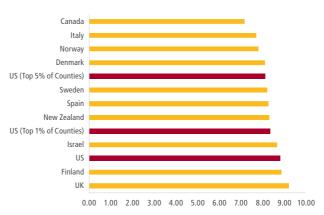
A study by CEBI researcher Mette Gørtz and collaborators asks whether health outcomes are higher for privileged Americans than for average residents in other developed countries. Specifically, the study asks: (1) Do white US citizens living in the 1% and 5% richest counties have better health outcomes than average citizens in the US? (2) Do white US citizens living in the same counties outperform average citizens from countries outside the US? The study includes six

main health outcomes: infant and maternal mortality, colon cancer, childhood acute lymphocytic leukemia (ALL), and acute myocardial infarction (AMI).

Unsurprisingly, white US citizens in the 1% and 5% highest-income counties obtain better health outcomes than average US citizens. However, white US citizens from these high-income counties do not perform consistently better in terms of health outcomes than average residents in many other developed countries.

The average US citizen experiences worse outcomes for infant and maternal mortality compared to any of the 12 comparison countries. Zooming in on the 5% highest-income counties, white residents in the US experience higher infant mortality than in all comparison

COMPARING CASE FATALITY RATES FOR THE US TO OTHER HIGH-INCOME COUNTRIES



The graph shows case fatality rate for comparison countries and the US where it is done for overall, top 1% and top 5% counties measured by income.

### Method

This comparative effectiveness study compares six health outcomes of white US citizens living in the 1% and 5% highest-income US counties with outcomes of average citizens in 12 other developed countries: Australia, Austria, Canada, Denmark, Finland, France, Germany, Japan, the Netherlands, Norway, Sweden, and Switzerland. The six health outcomes studied are: infant and maternal mortality, colon and breast cancer, childhood acute lymphocytic leukemia, and acute myocardial infarction. Data used are from OECD health data, CONCORD-3 cancer data, Medicare data, and individual-level data for the period 2013-15.

countries except Canada. Moreover, maternal mortality is much higher in the US than in the comparison countries, also when focusing on the 1% high-income counties.

Next, comparing 5-year survival rates from three cancer types – breast cancer, colon cancer, and childhood ALL – gives a more mixed picture. The study finds that the US survival rate from breast cancer is higher than in all 12 comparison countries. For colon cancer, the 5-year survival rate is higher for 4 out of 12 mental health diagnoses, even for the 5% high-income outcomes, while 5-year survival rates from ALL is higher than for most countries. Finally, the study finds that 30-day mortality rates after AMI are higher in the US, also when narrowing in on US citizens from the top 1% and top 5% counties.

To conclude, this study finds that privileged white US citizens often experience worse health outcomes than average residents in other developed countries, when looking at six health outcomes. Given the fact that the overall costs of the US health care system are substantially higher than in otherwise comparable countries, the results suggest a poor cost-effectiveness ratio of the US health care system.

### Research articles

Emanuel, Gudbranson, Parys, Gørtz, Helgeland and Skinner. "Comparing Health Outcomes of Privileged US Citizens with those of Average Residents of Other Developed Countries." *JAMA Internal Medicine* (2020).

25

University of Copenhagen – Department of Economics

Center for Economic Behavior and Inequality

# COVID-19: Only small consumption effects of mandated shutdown

### REGULATING BEHAVIOR

One of the key policy choices facing governments during a pandemic like COVID-19 is whether to shut down activity in selected parts of the economy to prevent the disease from spreading. However, this policy intended to regulate health behavior can also affect consumer behavior and thereby economic activity. Consumer spending dropped sharply in countries with mandated shutdowns in spring 2020. Therefore, a widespread view is that when choosing whether to shut down or not, governments face a sharp trade-off between saving lives and saving the economy.

It may seem natural to conclude from the big drops in consumer spending observed in countries with mandated shutdowns in 2020 that there exists a large trade-off between saving lives and saving the economy. However, this conclusion is premature. It does not account for the possibility that the underlying health risks that the shutdowns are designed to curtail may inflict significant harm on the economy in their own right. Consumers may themselves choose to limit activity based on their personal health risk, or on the fear of putting others at risk, even when this is not mandated by law. Because mandated

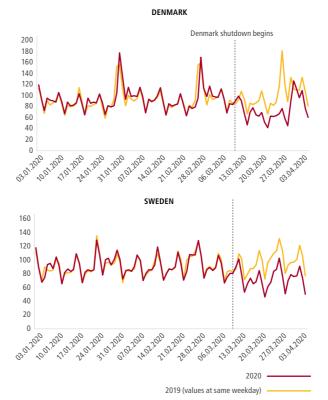
shutdowns tend to occur exactly at the time when infection rates are highest, it is hard to disentangle their effects on spending from such direct effects of the virus itself.

A CEBI study by Andersen, Hansen, Johannesen and Sheridan overcomes this challenge by exploiting access to real-time transaction data from the largest bank in Denmark (Danske Bank) with customers in both Denmark and Sweden, and using the very different policy responses of the two countries as a quasi-experiment. The two countries were equally exposed to the pandemic in early March 2020, but while Denmark opted for a mandated shutdown of large parts of the economy, Sweden allowed almost all businesses to stay open with minimal restrictions. Comparing the development in consumer spending in the two countries during the early phase of the pandemic therefore provides a way of assessing the impact of mandated shutdowns on economic activity.

The figure shows the development in daily consumer spending in 2020 compared to the same day in 2019 in both countries. In January and February 2020, spending in Denmark closely followed the same pattern as the year before. This was followed by a sharp drop just after March 11, when the prime minister announced the shutdown of large parts of the economy. Importantly, however, a similar development took place in Sweden. Over the first few weeks of the pandemic, spending declined 29% in Denmark and 25% in Sweden. The direct effect of the Danish shutdown is estimated as the difference of 4 percentage points, which is small compared to the total decline.

These results are important for understanding the trade-off facing governments during the pandemic: Shutdowns do come at a cost in

DAILY CONSUMPTION BEFORE AND AFTER SHUTDOWN IN DENMARK AND SWEDEN



The figures plot daily consumption, in percent of average daily consumption in 2019, over the period January-April 2020 (red) and January-April 2019 (yellow) in Denmark and Sweden.

the form of lower economic activity, but the trade-off between lives and livelihoods is much less steep than what is commonly argued, since economic activity suffers during a pandemic whether the government mandates a shutdown or not. The results of the study also reveal that the effects of shutting down are unevenly distributed across age groups: Young individuals reduced spending by 10 percentage

points more in Denmark than in Sweden, while older individuals reduced spending by 5 percentage points less in the former country. This suggests that by limiting the activity level of low-risk groups such as the young, mandated shutdowns may reduce the need for extreme isolation for at-risk groups such as the elderly.

### Method

The study uses transaction data for approximately 760,000 Danish and 100,000 Swedish customers of Danske Bank, the second-largest bank in Scandinavia. Spending is measured at a daily frequency and linked to key demographic information for each customer. The effect of the Danish shutdown is estimated by comparing the average change in spending (measured relative to 2019 levels) from before to after the outbreak of the pandemic in Denmark vs. Sweden, controlling for differences in demographics across the two samples in a regression framework.

### Research articles

Sheridan, Andersen, Hansen and Johannesen. "Social Distancing Laws Cause Only Small Losses of Economic Activity During the COVID-19 Pandemic in Scandinavia." *Proceedings of the National Academy of Sciences* (PNAS) (2020). Sheridan, Andersen, Hansen and Johannesen. "Consumer Responses to the COVID-19 Crisis: Evidence from Bank Account Transaction Data." *Scandinavian Journal of Economics* (forthcoming).



#### PHOTO: UNSPLASH.COM

### VACCINE BEHAVIOR

Stalling COVID-19 vaccination rates threaten public health worldwide. To increase vaccination rates, governments have started using incentives to encourage vaccination. But do incentives work in this case?

### COVID-19: Monetary incentives increase vaccinations

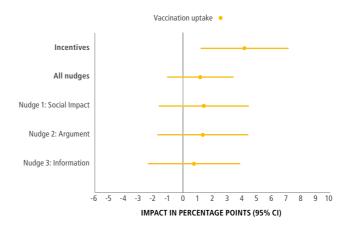
Citizens in Vancouver receive \$5 if they vaccinate, in Ohio they get a chance of winning a big lottery prize, and in Greece they receive €150. Governments at other places now also consider to pay people if they vaccinate. Notably, USA President Biden recently urged "[...] state, territorial, and local governments to provide \$100 payments for every newly vaccinated American, as an extra incentive to boost vaccination rates, protect communities, and save lives."

CEBI researcher Pol Compos-Mercade is co-lead author on a recent article in Science that reports results from the first randomized controlled trial (RCT) studying the impact of guaranteed monetary incentives on COVID-19 vaccination. The study is also unique by linking survey data to administrative data, implying that the researchers move beyond self-reported intentions to vaccinate to actually knowing whether people vaccinate.

In the study, participants are drawn from a general sample of the Swedish population and divided into treatment groups and a control group. In one of the treatment groups, participants were paid 200 Swedish kroner conditional on becoming vaccinated. A comparison of vaccination behavior of these people to those in the control group shows that the monetary incentives increased vaccination rates by 4.2 percentage points. This is an increase from a 71.6% baseline rate, which is a similar rate to other countries in the EU, indicating that incentives can increase vaccine uptake even in countries with high vaccination rates.

To compare the effects of the incentives to those of other interventions, the figure shows the effects of the incentives and compares them to three *nudges* – interventions that do not deny any options or change economic incentives - including information about the impact that vaccinating has for others (social impact), asking parti-

### EFFECTS OF INTERVENTIONS ON VACCINE UPDATE



The graph shows the percentage point difference between treatment groups and a control group. Only the economic incentive treatment is statistically significant.

cipants to think about arguments to vaccinate (argument) and giving information about the safety and efficacy of the vaccines (information). Compared to the control group, none of the nudge interventions significantly increases vaccination uptake. Incentives are the only intervention that has a significant effect.

The two most crucial behaviors to fight the COVID-19 pandemic are vaccinating and practicing social distancing. Since the beginning of the pandemic, the research group has contributed to our understanding of both behaviors. Besides studying which interventions work best to encourage vaccination uptake, the group has also found that people practice less social distancing when they are exposed to positive news about the vaccine rollout. The group has also carried out extensive surveys to understand the main determinants of social distancing and how people perceive stay-at-home policies. In sum, throughout the pandemic, the research team has focused on providing policy-makers with high-quality evidence on how to understand social distancing and vaccination uptake from a social science perspective.

### Method

The researchers conducted a pre-registered RCT from May to July 2021 with 8,286 participants at the age of 18-49. Participants were recruited from a broadly representative online panel of the Swedish population created by Norstat, a large survey company. In the online survey, participants were randomized into five different treatment conditions and one control condition. In August 2021, the Swedish Public Health Agency linked the trial data of each participant to their COVID-19 vaccination records collected for all residents.

### Research articles

Campos-Mercade, Meier, Schneider, Meier, Pope and Wengström. "Monetary Incentives Increase COVID-10 Vaccination." Science (2021). Andersson, Campos-Mercade, Meier and Wengström. "Anticipation of COVID-19 Vaccines Reduces Willingness to Socially Distance." Journal of Health Economics (2021). Andersson, Campos-Mercade, Carlsson, Schneider and Wengström. "The Individual Welfare Costs of Stay at Home Policies." Scandinavian Journal of Economics (forthcoming). Campos-Mercade, Meier, Schneider and Wengström. "Prosociality Predicts Health Behaviors During the COVID-19 Pandemic." Journal of Public Economics (2021).

University of Copenhagen – Department of Economics Center for Economic Behavior and Inequality

# How people underestimate inequality

### **INEQUALITY BELEIFS**

People's beliefs about inequality and their own social position relative to others are important for their attitudes toward redistribution policies in society. But how much do people know about income inequality and their own position among other people in various peer groups, say, their co-workers, their neighbors, their age group, or people with the same level of education?

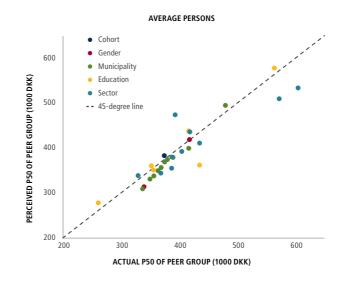
Recent work by CEBI researchers Kristoffer Balle Hvidberg and Claus Thustrup Kreiner, in collaboration with Stefanie Stantcheva from Harvard University, seeks to understand how much people know about inequality, how much their own social position influences their fairness views on inequality, and whether they are less or better informed about inequality and social positions where it matters the most to them. To do this, the research team first elicits people's beliefs about income inequality, perceived own positions within peer groups, and their fairness views on inequality within these groups. Afterwards, the team links the data on people's beliefs to tax return records revealing actual levels of income inequality and people's true social positions within their different peer groups.

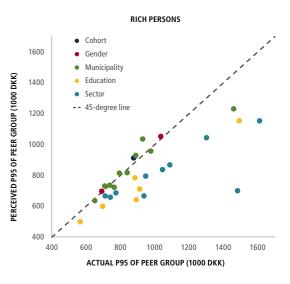
It turns out that people, on average, are well aware of the overall income levels of their different peer groups, but they severely underestimate how big income differences are among their co-workers and among people with the same level of education. The two graphs illustrate this finding. The left panel plots people's beliefs about the overall income level (the median income, P50) of their peer group against the actual income level. Each point represents either the overall age group, a gender group, an education group, a sector, or a set of municipalities. For example, the two red dots show how men perceive the overall income level of men and how women perceive the overall income level of women. All points lie close to the 45-degree line, which shows that people on average are well aware of the overall income levels of their peer groups.

The right panel shows the beliefs about the largest incomes (the 95th income percentile, P95) in the peer groups. Overall, the points representing the gender, cohort, and municipality groups are close to the 45-degree line. However, the blue and yellow dots, representing people's sector and education groups, are all below the 45-degree line. Thus, people systematically underestimate the top incomes within their education groups and within their sectors. The research team also finds that exactly within these two groups, people with low incomes overestimate their own position the most. Together, these results show that people underestimate the extent of inequality among their peers working in the same sector or with the same education level.

When asked about the fairness of inequality, people answer that they find income differences within their sector and within their education level as most unfair. Thus, people underestimate inequality more within the peer groups that matter the most to them.

#### COMPARING PERCEPTIONS AND ACTUAL INCOME LEVELS OF PEER GROUPS





The graphs plot people's perceived income level of average persons (left panel) and of rich persons (right panel) in their peer groups against the actual income levels. Perceptions within a peer group are on average correct if the point lies on the dashed line.

The study also shows that people who move up in social position tend to find inequality more fair while people who move down tend to find inequality more unfair. This implies that policies that change people's positions also change their fairness views on inequality.

### Research articles

Hvidberg, Kreiner and Stantcheva. "Social Positions and Fairness Views on Inequality." NBER working paper no. 28099 (2021).

### Method

A random sample of people born in 1969 to 1973 in Denmark received an invitation in their electronic mail box (Digital Post) to participate in an online survey. The survey asked people about their perceptions of the income distribution within various reference groups, for example among co-workers working in the same sector or same firm, where people think they rank within the group, and how fair they think income inequality is within the group. The survey data are linked to administrative records with information about the actual income levels of the individuals and of the people in their reference groups.



PHOTO: UNSPLASH.COM

### POLICY & BELIEFS

Beliefs about macroeconomic outcomes. such as unemployment or inflation in the economy, vary tremendously among consumers, firm managers, and even experts. This has important implications for the transmission of monetary and fiscal policies. But why are beliefs so different?

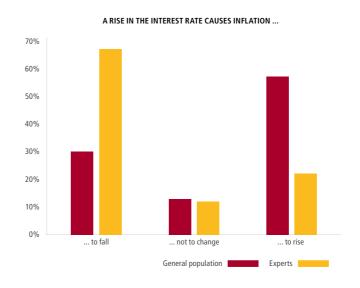
### Why people have so different beliefs about economic trends

The predominant explanation for heterogeneity in expectations about the future is that people differ in how well informed they are about past macroeconomic events. An alternative explanation focuses on differences in the 'mental models' people apply when thinking about economic events. In this view, even when everyone is perfectly informed about the past, there would still be disagreement in beliefs because people rely on different mental models.

A CEBI project by Johannes Wohlfart and coauthors develops a new survey method to study people's mental models of the economy and their origins, and applies this method in tailored surveys of economic experts and consumers. Survey participants predict the effects of different hypothetical macroeconomic events, such as the effects of an unexpected increase in the oil price or the central bank's interest rate on the unemployment rate and the inflation rate, in an environment where everyone has the same relevant information about the past.

The results reveal substantial disagreement in beliefs, both among households and among experts and also across the two samples. One of the findings is illustrated in the figure, which shows large disagreements about whether an increase in the central bank's interest rate will make inflation rise or fall. Because the environment is kept fixed in the experiment, the result suggests that differences in mental models are an important driver of differences in beliefs across people.

The team goes on to show that part of this disagreement seems to arise because different individuals selectively think of different aspects BELIEFS ABOUT IMPACT OF INTEREST RATE CHANGES ON INFLATION



The graph shows the share of people who believe a rise in the central bank's interest rate will cause inflation to fall, not to change or to rise

### Research articles

Andre, Pizzinelli, Roth and Wohlfart. "Subjective Models of the Macroeconomy: Evidence from Experts and Representative Samples." Review of Economic Studies (forthcoming)

of the events, in particular of supply- or demand-side channels. Finally, both contextual cues and prior experiences shape which channels individuals retrieve and thereby which forecasts they make, consistent with a role for associative memory in shaping belief disagreement.

The results of the research project offer a new perspective on the widely documented disagreement in macroeconomic expectations. The findings imply that, even if individuals hold comparable information about past macroeconomic outcomes, associative recall of different economic mechanisms generates strong differences in beliefs. In this view, news or actual events in the economy systematically affect which models people apply. Rather than sticking to one particular model, individuals retrieve specific experiences when cued by events, which in turn shape the economic mechanisms they think of. In light of these results, incorporating associative recall into macroeconomic models is a fruitful avenue for future research.

### Method

Representative samples of individuals from the general population were recruited through online panel providers. Experts were recruited among the participants of a leading expert survey run by the ifo institute and among participants of leading macroeconomic conferences in the last years. Respondents in the resulting samples of 6,500 US individuals and 1,500 experts participated in the online surveys, in which they predicted the effects of different hypothetical macroeconomic events (unexpected changes in the oil price, central bank interest rates, government spending or income taxes) on unemployment and inflation.



### **BELIEF UPDATING**

The age at which you can receive social security is important for the retirement decision and long-term economic planning. But how much do people actually know about their eligibility age and is it possible to update their beliefs through simple communication when reforms are being implemented?

PHOTO: UNSPLASH.COM

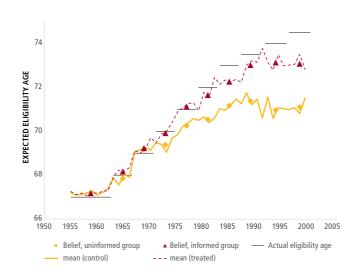
# Knowledge about pension rules: A major problem and a solution

Reforms of social security eligibility are being implemented around the world to make people work longer and reduce public expenditures that are growing as a result of the increase in life expectancy. They are typically announced years in advance to give people time to prepare for the future. For this to work, it is important that people are well-informed about eligibility rules. In economic theory it is normally taken for granted that people know the rules, but we know almost nothing in practice about whether people are informed or not.

Søren Leth-Petersen, Johan Sæverud and external CEBI member Andrew Caplin study workers' beliefs about when they are eligible for social security following the 2006 announcement of a major Danish social security reform. The reform changed the social security eligibility age from 65 to instead being based on life expectancy of the birth cohort. The study quantifies the importance of policy uncertainty and lack of knowledge about the reform. The researchers ask a large sample of Danes about when they expect to become eligible for social security. The survey included a so-called information treatment experiment: Half of the participants, selected randomly, are shown a table with the actual statutory eligibility ages of the different birth cohorts, while the other half is not.

The main result is presented in the figure. The horizontal lines show the actual eligibility age of the different birth cohorts. The diamonds show average beliefs of eligibility age for people who are not shown the table with statutory eligibility ages. People born before

### IMPACT OF INFORMATION ON BELIEFS ABOUT ELIGIBILITY AGE



The graph shows that people significantly underestimate their pension eligibility age, and that a simple information treatment can remove most of the underestimation.

1970 are well-informed about their eligibility age, while people born after 1970 systematically underestimate the age at which they become eligible. This latter group, on average, expects to become eligible up to one year earlier than their statutory eligibility age. The triangles show average beliefs in the treatment group of people who was shown the table with statutory eligibility ages. A comparison of the two groups in the figure (the triangles and diamonds) shows that the information treatment reduced the gap between expected and statutory eligibility ages by 80%. Thus, the very simple information treatment is successful in updating people's beliefs to be closer aligned with the rules.

The team also finds that people are uncertain about their estimate of the eligibility age and that this uncertainty is increasing in the number of years to eligibility. This might reflect that the social security reform is inherently associated with policy uncertainty that cannot be removed.

More broadly, the study offers a new method to quantify lack of knowledge about policy rules and the importance of policy uncertainty. The results demonstrate how simple information provision can align the beliefs about policy rules with the actual rules for the vast majority of people.

### Method

The researchers sent letters through electronic mail (E-boks) inviting a representative sample of more than 10,000 people to participate in a customized survey. The survey elicited the entire subjective distribution concerning retirement eligibility age beliefs using the so-called balls-in-bins method where the respondent is asked to allocate 20 balls into bins covering the possible social security eligibility ages within the age span 63-74.

### Research articles

Caplin, Lee, Leth-Petersen and Sæverud. "Communicating Social Security Reform." CEBI Working Paper (2022).

35

University of Copenhagen – Department of Economics

Center for Economic Behavior and Inequality



PHOTO: SIMON KNOKGAARD HALSKOV

### PRESENT BIAS

Some people make economic choices that seem inconsistent with rational behavior.

From an economic policy view, it is important to know whether behavior is irrational, as this will often call for paternalistic policies that are not relevant with rational behavior.

But how do we know whether major choices over the life-course reflect rational or irrational behavior?

# Detecting present-biased behavior from real-life choices

Present bias, or time inconsistency, is a leading example of irrational behavior in Economics where people overvalue immediate rewards compared to what is optimal for them. Many real-life observations might reflect present-biased behavior. For example, some people choose to consume a lot now and afterwards get into costly financial problems that seem foreseeable. It may also help explain spending on habitual goods, such as tobacco, where people should know that it has large health costs in the future. Conversely, it can also explain why people sometimes keep on postponing choices that are costly now, although they give large benefits in the future.

Economists have developed theoretical models that allow for separate short and long term time discounting, so-called quasi-hyperbolic

discounting models of present biased preferences. These models give rise to time-inconsistent choices and they can help rationalize the behavior in the examples. However, while present-biased behavior is well-documented in experiments where people make choices in controlled settings, identifying this in in real-life is extremely challenging. In practice, the behavior of a very impatient but fully rational person is quite similar to that of a person who is present-biased.

CEBI research by Browning and coauthors overcomes this identification challenge. The researchers develop a so-called revealed preference condition for the quasi-hyperbolic model of consumption and savings that only requires observational, i.e., non-experimental, data on expenditures, prices and interest rates. The new method is applied

CONDITIONS TO DETECT PRESENT-BIASED BEHAVIOR

Corollary 2. The following statements are equivalent

- (1) The sophisticated hyperbolic discounting model rationalizes the data  $\{\rho_t, c_t\}_{t \in \tau}$
- (2) The data satisfies the conditions:  $(C_s C_{s+h}) < 0 \Rightarrow (\rho_s \rho_{s+h}) > 0$  for all  $s, s+h \in \tau$ ,  $h \ge 1$ ; and  $(C_s C_{s+h}) < 0 \land (C_t C_{t+j}) > 0 \Rightarrow \frac{\rho_{s+h}}{\rho_s} < \frac{\rho_{t+j}}{\rho_t}$  for all  $s < t < t+j < s+h \in \tau$

Notes: Economists develop formal mathematical models of economic behavior. This gives testable hypotheses that can be taken to data. The figure shows a corollary from the article stating testable conditions on consumption growth and price growth.

to data from the Spanish expenditure survey, which has individual information about spending, prices and interest rates over many years. About 40% of the households in the Spanish expenditure survey turn out to display present-biased behavior in varying degrees. Moreover, the prevalence of present-biased behavior, identified with this method, correlates sensibly with a number of household attributes and choices related to long-term behavior such as owner occupation, smoking and health expenditures.

### Research articles

Blow, Browning and Crawford. "Nonparametric Analysis of Time-Inconsistent Preferences." *Review of Economic Studies* (forthcoming).

### Method

The method is implemented by checking inequalities between spending in different periods as documented in expenditure survey data, i.e., observational data that keep track of people's spending. For example, consider the problem of understanding whether spending patterns can be rationalized by the standard (exponential discounting) model or the model with present-biased preferences. The exponential model assumes that people will spend more in periods when prices are relatively low. Hence, finding that some people spend more in periods when prices are relatively high rejects the standard model. Moreover, finding that this is always more likely now than in the future aligns with 'present-bias', i.e., that people put a relatively high weight on the present period.



PHOTO:PEXELS.COM

### SELF-CONTROL

Housing is the largest asset owned by most households and is an important source of inequality. During recent decades, financial innovation has given households an unprecedented ability to borrow against their housing wealth. But is this new flexibility beneficial or is there a gain to limiting access to borrowing? Answering this question requires a better understanding of household financial behavior.

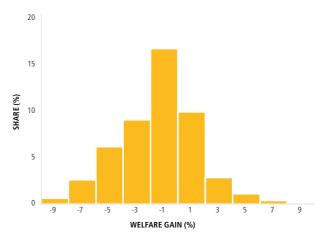
# How to measure household financial behavior and design housing and mortgage policies

Home equity withdrawal played an important role in the run up of household debt in many countries prior to the 2008 financial crisis. Yet, there are wide differences across countries in access to borrowing against housing wealth. For example, in the United States and Denmark, it is cheap and easy to borrow against housing wealth, while in other countries, such as Germany and Singapore, it is highly restricted. Which of these policy approaches is better for household well-being and macroeconomic stability, and are there alternative policies that work better than the two?

Economists typically assume that households benefit from a wid-

er variety of choices. This has led to the idea that households gain from financial liberalization and the ensuing increase in borrowing options. However, critics argue that greater access to credit may be harmful if households suffer from present-bias and use housing as a savings commitment device to overcome present-bias and accumulate wealth. According to this view, greater access to credit may weaken the commitment benefit of housing, potentially making it more difficult to save.

CEBI research by Patrick Moran bridges the gap between these two vastly different views of financial liberalization. He estimates a IMPACT ON HOUSE OWNERS OF ALLOWING BORROWING AGAINST HOUSING WEALTH



The graph shows the distribution of welfare gains and losses across households of allowing borrowing against housing wealth.

structural model of household behavior that can quantify households' demand for flexibility and commitment. The results show that both flexibility and commitment are important. While households benefit substantially from the ability to borrow and spend more when income is low, they are also harmed by weakened commitment and reduced savings. The figure shows the distribution of welfare gains across households of allowing borrowing against housing wealth. For about two thirds of households, the costs of weakened commitment exceed the benefits of improved flexibility, therefore welfare declines due to financial liberalization. The remaining one third of households benefit on net from home equity withdrawal. Many of these households have temporarily low income and benefit from the ability to borrow against expected higher income in the future.

How should countries design housing and mortgage policies given the trade-off between flexibility and commitment? The results show that neither of the two extreme policies are optimal. Instead, countries should implement state-contingent mortgage contracts and policies, which force households to accumulate wealth during normal times, but allow households to extract home equity during periods of financial distress. This type of policy provides the benefits of both flexibility and commitment when they are valued the most.

### Method

The researchers construct a structural model of household behavior where households make consumption, housing, and mortgage decisions while faced with income and unemployment risk. Housing can act as a savings commitment device to help households overcome temptation. To ensure a close link between the model and observed behavior, the model is estimated using household data on consumption and assets. The model obtains a good fit of the data and enables the researcher to not only disentangle the relative importance of flexibility and commitment, but also to investigate the effects of counterfactual policies, including policies that have yet to be implemented, but which may be beneficial to households.

### Research articles

Kovacs and Moran. "Breaking the Commitment Device: The Effect of Home Equity Withdrawal on Consumption, Saving, and Welfare." CEPR Discussion paper 16634 (2021).

### The CEBI team

### **CEBI Management**



Claus Thustrup Kreiner is Professor and Director of CEBI. Most of his research has centered around Public Economics, but he has also published research in many other areas. His recent research focuses on inequality, optimal tax and transfer policy, behavioral responses to public policy, and perceptions about inequality and fairness.



Søren Leth-Petersen is Professor and deputy director of CEBI. He does applied research with a primary focus on understanding individual level financial behavior and decisions about consumption, savings, and labor supply.



Niels Johannesen is Professor of Economics. Much of his research revolves around tax evasion, including a recent paper on offshore wealth and inequality. A more recent line of research studies households' financial responses to economic shocks.



**Thomas Høgholm Jørgensen** is Associate Professor. His primary interests are the dynamics of household behavior, computational methods and applied microeconometrics.



Torben Heien Nielsen is Associate Professor. His research uses administrative micro-data to understand interactions between households' economic choices and health behaviors. In his Sapere Aude project, he studies how career opportunities and inequalities are shaped in the highly specialized labor market for physicians.

Core CEBI Members, Junior Researchers

Simon Boserup is Assistant Professor and data

manager. His research in public economics fo-

inequality, and intergenerational mobility.

cuses on questions within taxation, tax evasion,



Miriam Wüst is Associate Professor. Her research revolves around child health and well-being, as well as policies to promote it. In particular, she focuses on the impact of universal health and social policies and their interaction with parental investments.

### Core CEBI Members, Senior Researchers



Asger Lau Andersen is Associate Professor. His work focuses on the financial and economic behavior of individual households, with a particular emphasis on decisions about consumption, borrowing and saving. He also does research in political economics.



Martin Browning is Professor of Economics. His research interests are applied microeconometrics; the economics of the family; demand and consumption analysis and levering lots of heterogeneity into any empirical micro model.



Meltem Daysal is Associate Professor. She is an applied microeconomist whose research lies at the intersection of health and labor economics. Her work is inspired by policy debates concerning the tremendous increase in medical expenditures on the one hand, and the growing body of evidence on rising wealth inequality on the other hand.

Mette Eirnæs is Professor of Economics. Her

econometrics and focuses on topics such as

processes and consumption with a life cycle

unemployment insurance, income/earning

work lies within the field of applied micro



Jeppe Druedahl is Associate Professor. His research lies in the intersection of macroeconomic questions, microeconomic data and computational methods. He has a special focus on consumption-saving behavior.



Mette Gørtz is Professor of Economics. Gørtz is also deputy head of Centre for Health Economics and Policy (CHEP). Her research areas are health economics, labor economics, family economics, and applied microeconometrics.



Christina Gravert is Associate Professor. Her research focuses on understanding how preferences and beliefs affect decision making and on designing optimal behavioral policies. She studies these questions through field and laboratory experiments.



**Pol Campos-Mercade** is Postdoc. He is an applied microeconomist who uses field experiments, lab experiments, and theory to investigate issues related to education and behavioral economics.



**Kristoffer Balle Hvidberg** is Postdoc. His research interests lies within applied micro econometrics, education and financial behavior.



University of Copenhagen – Department of Economics

framework



**Frederik Plesner Lyngse** is Postdoc. His research uses administrative data to study health economic questions within industrial organization, provider and patient behavior, and the labor market for physicians.



Patrick Moran is Assistant Professor. He is also a visiting scholar at the Institute for Fiscal Studies. His research lies at the intersection of macroeconomics, applied microeconomics, and public economics, with a particular emphasis on household financial decisions related to consumption, saving, and borrowing.



Sarah Sander is Postdoc. Her research focuses on understanding how early life circumstances, such as universal childcare and parental investments, affect people's life course and societal inequality.



Jakob Egholt Søgaard is Assistant Professor. His research lies in the core areas of public and labor economics with focus on taxation, labor supply optimization frictions and inequality.



**Sonja Settele** is Postdoc. Her research interests lie in health economics, behavioral economics and political economy.



**Ekaterina Travova** is Postdoc. Her research areas are Public Economics, Political Economy, Labor Economics and Economics of Crime.



Johannes Wohlfart is Assistant Professor. His research interests lie in household finance, behavioral economics and macroeconomics. In particular, his research focuses on the formation of beliefs and expectations and their role in shaping people's economic behavior.



**Sarah Zaccagni** is Postdoc. Her research lies within Health Economics and Behavioral Economics, with a particular focus on individual preferences, behaviors and choices.



Franziska Valder is Postdoc. Her research is in health and labor economics. In labor economics, she is interested in individual responses to incentives in labor supply decisions and the connection between the labor and the marriage market. In health economics, she works on the effect of payment schemes on health care provision.





**Hjalte Fejerskov Boas** is PhD student. His research interests lie within international taxation, tax evasion and public economics.



**Lykke Sterll Christensen** is PhD student. Her research interests lie within the areas of education, inequality and applied micro econometrics.



Malene Callesøe Fuglsang is PhD student. Her research interest lies within public economics, applied micro econometrics and structural modelling.



**Ida Lykke Kristiansen** is PhD student. Her research interests lies within health economics and early childhood investments.



Camilla Skovbo Christensen is PhD student. Her research interests lie within public economics, applied micro econometrics, savings behavior, and inequality.



**Louis Freget** is PhD student. His research interest lies within the economics of education and health economics.



Emil Toft Hansen is PhD student. His research, studies household finance and consumption with a focus on household debt and consumption loans



**Kristian Urup Olesen Larsen** is PhD student. His research interest lies within applied micro econometrics, health economics and inequality.



Lauge Truels Larsen is PhD student. His research interests lie within international taxation, tax evasion and inequality.



**Kathrine Aaby Lorentzen** is PhD student. Her research interests lie within labor economics, health economics and gender economics.



**Isabel Skak Olufsen** is PhD student. Her research interests lie within experimental economics, behavioral economics, and inequality



**Joachim Kahr Rasmussen** is PhD student. His research interests lies within labor economics, inequality and applied micro econometrics.



Johan Sæverud is PhD student. His research uses micro data to describe labor market behavior, and computational methods to build structural models.

### **CEBI** Administration



Tine Ceccardi is Center Administrator. She has several years of experience from the departmental administration. She has collaborated closely with the CEBI management on administrative tasks related to the Economic Policy Research Network (EPRN/EPRU) and Laboratory for Experimental Economics (CEE).



**Pernille Bang** is Data Manager. She advices on data options and bridges the collaboration with Research Services at Statistics Denmark.

### **CEBI** activities

CEBI organizes international conferences, workshops and weekly seminars with leading international scholars. We also organize weekly internal seminars and PhD courses. The pictures are from the inaugural CEBI conference and CEPR public policy symposium in Spring 2018 where Thomas Piketty, Ernst Fehr and Fatih Guvenen gave keynotes about inequality from a political economics, behavioral economics and macroeconomic perspective.



45



44 University of Copenhagen – Department of Economics Center for Economic Behavior and Inequality

## Recognitions at all levels



↑ The media Quartz called in some of the greatest minds in economics to identify economics research that mattered in 2018. Among the listed judges was two Nobel prize winners. 12 articles were elected and among them the work of associate professor Torben Heien Nielsen: Because his team exploits "a novel data source to look at how our choices about health care are influenced by what is happening around us—with our family, and even our co-workers. It challenges our standard notion of how people think about their own health behavior choices.



↑ Laudated with the Richard Musgrave Visiting Professorship in 2020, CEBI director Claus Thustrup Kreiner joins the world-renown company of peers like Raj Chetty, Timothy Besley, Joel Slemrod, Rachel Griffith, and Michael Keen who were previously awarded this prestigious price. At his Richard Musgrave Lecture with the title Behavioral Heterogeneity, Inequality and Public Policy, Claus Thustrup Kreiner presented some of the key lessons from research at CEBI.



← Assistant Professor Jakob Egholt Søgaard wins the American Economic Journal best paper award within applied economics for the paper "Children and Gender Inequality: Evidence from Denmark" (with CEBI external member Henrik Kleven and Camille Landais). Their article documents large, long-lasting negative effects of children on careers of women compared to men. The effect is called 'the child penalty' and the concept is now widely known and used in the debate about gender equality.



↑ Each year the students at Economics elect the best teacher of the year. Jeppe Druedahl won the prize, Den Usynlige Hånd, in 2020. CEBI members Niels Johannesen and Claus Thustrup Kreiner are previous winners of the prize.



↑ Camilla Skovbo Christensen is honored in the Ministry of Employment for her thesis "Retirement Policies and Private Savings Behavior: Evidence from a Reform of the Old-Age Pension Scheme" written together with Bastian Emil Ellegaard. The thesis investigates whether tax incentives for pension savings affect total savings, which is crucial to know for the design of pension systems.



↑ Assistant Professor Christina Gravert was elected one of Berlingske Media's Talent 100 in 2019. Committee member professor Marie-Louise Bech Nosch commented on the election: »We were blown away when we saw her CV. She is a pioneer within economics because she understands how the discipline of economics can complement other disciplines to solve concrete societal challenges

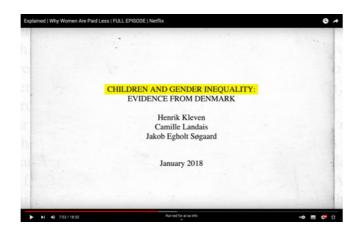
### Popular outreach



↑ Vice-President Margrethe Vestager and tax commissioner Paolo Gentiloni invited Niels Johannesen to inform the commission about how to fight tax avoidance and evasion behavior.



↑ Torben Heien Nielsen presents results on Healh Inequality at Folkemødet with participation of the Chair of the Danish Regions Stephanie Lose and Mayor in Copenhagen Sisse Marie Welling.



↑ Research results on gender inequality by Jakob Søgaard and Henrik Kleven is featured on Netflix.



↑ Plenum talk at the European Economic Association Annual Congress by Claus Thustrup Kreiner on how empirical economic research is informative for policy making.

### Media attention

The main aim of CEBI is to make groundbreaking research that is published in leading scientific journals. Some of the work at CEBI has also received massive public attention. This includes appearances in television news on national TV channels (DR and TV2), front page stories in the main Danish newspapers Børsen, Berlingske, Jyllands-Posten and Information and coverage in leading international newspapers such as Die Welt, the Economist, the Financial Times, Le Monde, the New York Times and the Washington Post.













# Scientific journal publications

### **SELECTED PUBLICATIONS**

MEASURING BELIEF-DEPENDENT PREFERENCES WITHOUT DATA ON BELIEFS, Alexander Sebald, Andreas Gotfredsen, Carsten S. Nielsen & Edward J. Webb, Review of Economic Studies (forthcoming)

PREFERENCES PREDICT WHO COMMITS CRIME AMONG YOUNG MEN, Thomas Epper, Ernst Fehr, Kristoffer Balle Hvidberg, Claus Thustrup Kreiner, Søren Leth-Petersen and Gregers Nytoft Rasmussen, Proceedings of the National Academy of Sciences (PNAS) (Forthcoming)

SUBJECTIVE MODELS OF THE MACRO ECON-OMY: EVIDENCE FROM EXPERTS AND REPRE-SENTATIVE SAMPLES, Peter Andre, Carlo Pizzinelli, Christopher Roth, Johannes Wohlfart, Review of Economic Studies (2021)

RISK EXPOSURE AND ACQUISITION OF MACRO-ECONOMIC INFORMATION, Christopher Roth, Sonja Settele, Johannes Wohlfart, American Economic Review: Insights (2021)

MONETARY INCENTIVES INCREASE COVID-19 VACCINATIONS, Pol Campos-Mercade, Armando Meier, Florian H. Schneider, Stephan Meier, Devin Pope, Erik Wengström, Science (2021)

DOES BIOLOGY DRIVE CHILD PENALTIES? EV-IDENCE FROM BIOLOGICAL AND ADOPTIVE FAMILIES, Henrik Kleven, Camille Landais, Jakob Egholt Søgaard, American Economic Review: Insights (2021)

ELITE CAPTURE OF FOREIGN AID: EVIDENCE FROM OFFSHORE BANK ACCOUNTS (2021), Niels Johannesen, Jørgen Juel Andersen & Bob Rijkers, Journal of Political Economy (forthcoming)

MEDIA, PULPIT, AND POPULIST PERSUASION: EVIDENCE FROM FATHER COUGHLIN, Tianyi Wang, American Economic Review (2021) TASK-SPECIFIC INFORMATION OUTPERFORMS SURVEILLANCE-STYLE BIG DATA IN PREDICTIVE ANALYTICS, Andreas Bjerre-Nielsen, Valentin Kassarnig, David Dreyer Lassen, Sune Lehmann Jørgensen, Proceedings of the National Academy of Sciences of the United States of America (PNAS) (2021)

NONPARAMETRIC ANALYSIS OF TIME-INCON-SISTENT PREFERENCE, Laura Blow, Martin Browning, Ian Crawford, Review of Economic Studies (2021)

DESIGNING INFORMATION PROVISION EXPERIMENTS, Ingar Haaland, Chris Roth, Johannes Wohlfart, Journal of Economic Literature (2021)

TIME DISCOUNTING AND WEALTH INEQUALITY, Thomas Epper, Ernst Fehr, Helga Fehr-Duda, Claus Thustrup Kreiner, David Dreyer Lassen, Søren Leth-Petersen & Gregers Nytoft Rasmussen, American Economic Review (2020)

WEALTH TAXATION AND WEALTH ACCUMU-LATION: THEORY AND EVIDENCE FROM DEN-MARK, Katrine Jakobsen, Kristian Jakobsen, Henrik Kleven, Gabriel Zucman, Quarterly Journal of Economics (2020)

THE WELFARE MAGNET HYPOTHESIS: EV-IDENCE FROM AN IMMIGRANT WELFARE SCHEME IN DENMARK, Ole Agersnap, Amalie Sofie Jensen, Henrik Kleven, American Economic Review: Insights (2020)

SOCIAL DISTANCING LAWS CAUSE ONLY SMALL LOSSES OF ECONOMIC ACTIVITY DURING THE COVID-19 PANDEMIC IN SCANDINA-VIA, Adam Sheridan, Asger Lau Andersen, Emil Toft Hansen, Niels Johannesen, Proceedings of the National Academy of Sciences of the United States of America (PNAS) (2020)

FAMILY HEALTH BEHAVIORS, Torben Heien Nielsen, Itzik Fadlon, American Economic Review (2019)

CHILDREN AND GENDER INEQUALITY: EV-IDENCE FROM DENMARK, Henrik Kleven, Camille Landais, Jakob Egholt Søgaard, American Economic Journal: Applied Economics (2019). Best Paper Award.

TAX EVASION AND INEQUALITY, Niels Johannesen, Annette Alstadsæter, Gabriel Zucman, American Economic Review (2019)

INCOME AND CONSUMPTION: A MICRO SEMI-STRUCTURAL ANALYSIS WITH PERVASIVE HETEROGENEITY, Mette Ejrnæs, Martin Browning, Sule Alan, Journal of Political Economy (2018)

ROLE OF INCOME MOBILITY FOR THE MEAS-UREMENT OF INEQUALITY IN LIFE EXPECTANCY, Claus Thustrup Kreiner, Torben Heien Nielsen, Benjamin Ly Serena, Proceedings of the National Academy of Sciences of the United States of America (PNAS) (2018)

### **FULL PUBLICATION LIST**

MANIPULATING PERCEPTION: THE EFFECT OF PRODUCT SIMILARITY ON VALUATIONS AND MARKETS, Alexander Sebald, Andreas Gotfredsen, Carsten S. Nielsen & Edward J. Webb, Journal of Economic Behavior & Organization

FAMILY LABOR SUPPLY RESPONSES TO SEVERE HEALTH SHOCKS: EVIDENCE FROM DANISH ADMINISTRATIVE RECORDS, Itzik Fadlon and Torben Heien Nielsen, American Economic Journal: Applied Economics

MEASURING BELIEF-DEPENDENT PREFERENCES WITHOUT DATA ON BELIEFS, Alexander Sebald, Andreas Gotfredsen, Carsten S. Nielsen & Edward J. Webb. Review of Economic Studies TAX EVASION AND TAX AVOIDENCE, Niels Johannesen, Annette Alstadsæter, Gabriel Zucman), Journal of Public Economics

CONSUMER RESPONSES TO THE COVID-19 CRI-SIS: EVIDENCE FROM BANK ACCOUNT TRANS-ACTION DATA, Adam Sheridan, Asger Lau Andersen, Emil Toft Hansen and Niels Johannesen, Scandinavian Journal of Economics

ANTICIPATION OF COVID-19 VACCINES RE-DUCES SOCIAL DISTANCING, Pol Campos-Mercade Ola Andersson, Armando Meier, Erik Wengström, Journal of Health Economics

THE DETERRENCE EFFECT OF WHISTLEBLOW-ING, Niels Johannesen, Tim Stolper, Journal of Law and Economics

LIVES OR LIVELIHOODS? PERCEIVED TRADE-OFFS AND POLICY DEMAND, Sonja Settele, Cortnie Shupe, Economic Journal

INCREASED TRANSMISSIBILITY OF SARS-CoV-2 LINEAGE B.1.1.7BY AGE AND VIRAL LOAD, Frederik Plesner Lyngse, Kåre Mølbak, Robert Leo Skov, Lasse Engbo Christiansen, Laust Hvas Mortensen, Mads Albertsen, Camilla Holten Møller, Tyra Grove Krause, Morten Rasmussen, Thomas Yssing Michaelsen, Marianne Voldstedlund, Jannik Fonager, Nina Steenhard, The Danish Covid-19 Genome Consortium, and Carsten Thure Kirkeby, Nature Communications

ANTICIPATION OF COVID-19 VACCINES RE-DUCES SOCIAL DISTANCING, Pol Campos-Mercade Ola Andersson, Armando Meier, Erik Wengström, Journal of Health Economics

MATERNITY WARD CROWDING, PROCEDURE USE AND HEALTH, Jonas Maibom, Hans Henrik Sivertsen, Marianne Simonsen, Miriam Wüst, Journal of Health Economics

RISK PREFERENCES AND PERSONALITY TRAITS IN CHILDREN AND ADOLESCENTS, Marco Piovesan, Helene Willadsen, Journal of Economic Behavior and Organization

PROMOTING SOCIAL DISTANCING IN A PAN-DEMIC: BEYOND GOOD INTENTIONS, Sarah Zaccagni, Paolo Falco, PLOS ONE UNDERSTANIDING THE RISE IN LIFE EXPECTANCY INEQUALITY, Gordon B. Dahl, Claus Thustrup Kreiner, Torben Heien Nielsen and Benjamin Ly Serena, Review of Economics and Statistics

PREFERENCES PREDICT WHO COMMITS CRIME AMONG YOUNG MEN, Thomas Epper, Ernst Fehr, Kristoffer Balle Hvidberg, Claus Thustrup Kreiner, Søren Leth-Petersen and Gregers Nytoft Rasmussen, Proceedings of the National Academy of Sciences (PNAS)

THE INDIVIDUAL WELFARE COSTS OF STAY-AT-HOME POLICIES, Pol Campos-Mercade, Ola Andersson, Fredrik Carlsson, Florian Schneider, Erik Wengström, Scandinavian Journal of Economics

SUBJECTIVE MODELS OF THE MACRO ECON-OMY: EVIDENCE FROM EXPERTS AND REP-RESENTATIVE SAMPLES: Peter Andre, Carlo Pizzinelli, Christopher Roth, Johannes Wohlfart, Review of Economic Studies

MATHEMATICS CAMPS: A GIFT FOR GIFTED STUDENTS?, Aino Aparicio Fenoll, Flavia Coda Moscarola, Sarah Zaccagni, Journal of Economic Behavior & Organization

CONFIDENCE AND CAREER CHOICES: AN EX-PERIMENT, Christina Gravert, Kai Barron, The Scandinavian Journal of Economics

MONETARY INCENTIVES INCREASE COVID-19 VACCINATIONS, Pol Campos-Mercade, Armando Meier, Florian H. Schneider, Stephan Meier, Devin Pope, Erik Wengström, Science

FINANCING CONSTRAINTS, HOME EQUITY AND SELECTION INTO ENTREPRNEURSHIP, Thais Lærkholm Jensen, Søren Leth-Petersen, Ramana Nanda, Journal of Financial Economics

MEDIA, PULPIT, AND POPULIST PERSUASION: EVIDENCE FROM FATHER COUGHLIN, Tianyi Wang, American Economic Review

COGNITIVE CONSEQUENCES OF IODINE DEFI-CIENCY IN ADOLESCENCE: EVIDENCE FROM SALT IODIZATION IN DENMARK, Benjamin Ly Serena, Scandinavian Journal of Economics CONSEQUENCES OF SERIOUS PARENTAL HEALTH EVENTS ON CHILD MENTAL HEALTH AND EDUCATIONAL OUTCOMES, Ida Lykke Kristiansen, Health Economics

ELITE CAPTURE OF FOREIGN AID: EVIDENCE FROM OFFSHORE BANK ACCOUNTS, Niels Johannesen, Jørgen Juel Andersen & Bob Rijkers, Journal of Political Economy

HOW DO BELIEFS ABOUT THE GENDER WAGE GAP AFFECT THE DEMAND FOR PUBLIC POL-ICY? Sonja Settele, American Economic Journal: Economic Policy

TASK-SPECIFIC INFORMATION OUTPERFORMS SURVEILLANCE-STYLE BIG DATA IN PREDICTIVE ANALYTICS, Andreas Bjerre-Nielsen, Valentin Kassarnig, David Dreyer Lassen, Sune Lehmann Jørgensen, Proceedings of the National Academy of Sciences of the United States of America (PNAS)

DESIGNING INFORMATION PROVISION EXPER-IMENTS, Ingar Haaland, Chris Roth, Johannes Wohlfart, Journal of Economic Literature

WHEN NUDGES AREN'T ENOUGH: NORMS, INCENTIVES, AND HABIT FORMATION IN PUBLIC TRANSPORT USAGE, Christina Gravert & Linus Olsson Collentine, Journal of Economic Behavior and Organization

SHORT- AND LONG-TERM CONSEQUENCES OF SERIOUS PARENTAL HEALTH SHOCKS, Ida Lykke Kristiansen, Health Economics

RISK EXPOSURE AND ACQUISITION OF MACRO-ECONOMIC INFORMATION, Christopher Roth, Sonja Settele, Johannes Wohlfart, American Economic Review: Insights

ACADEMIC SELF PERCEPTIONS IN A NATIONAL DANISH SAMPLE: PREDICTIVE POWER AND DEVELOPMENT FROM GRADE 4 TO 9, Miriam Gensowski Steven G. Ludeke, Oliver P. John, Simon Calmar Andersen, Journal of Research in Personality

NUDGING À LA CARTE: A FIELD EXPERIMENT ON CLIMATE-FRIENDLY FOOD CHOICE, Christina Gravert & Verena Kurz, Behavioural Public Policy

PERSONALITY IN A PANDEMIC: SOCIAL NORMS MODERATE ASSOCIATIONS BETWEEN PERSONALITY AND SOCIAL DISTANCING BEHAVIORS, Steven G. Ludeke, Joseph A. Vitriol, Erik Gahner Larsen, Miriam Gensowski, Personality and Individual Differences

SENSITIVITY TO CALIBRATED PARAMETERS, Thomas Høgholm Jørgensen, Review of Economics and Statistics

AT YOUR SERVICE! THE ROLE OF TAX HAVENS IN INTERNATIONAL TRADE WITH SERVICES, Niels Johannesen & Shafik Hebous, European Economic Review

WATER PURIFICATION EFFORTS AND THE BLACK-WHITE INFANT MORTALITY GAP, 1906– 1938, D. Mark Anderson, Kerwin Kofi Charles, Daniel I. Rees, Tiany Wang, Journal of Urban Economics

HOME PRICES, FERTILITY, AND EARLY-LIFE HEALTH OUTCOMES, N. Meltem Daysal, Michael Lovenheim, Nikolaj Siersbæk, David Wasser. Journal of Public Economics

PROSOCIALITY PREDICTS HEALTH BEHAVIORS DURING THE COVID-19 PANDEMIC, Pol Campos-Mercade, Armando N. Meier, Florian H. Schneider, Erik Wengström, Journal of Public Economics

THE TRADING RESPONSE OF INDIVIDUAL IN-VESTORS TO LOCAL BANKRUPTCIES, Johannes Wohlfart, Christine Laudenbach, Benjamin Loos, Jenny Pirschl, Journal of Financial Economics

INEQUALITY IN PERSONALITY OVER THE LIFE CYCLE, Mette Gørtz, Miriam Gensowski, Stefanie Schurer, Journal of Economic Behavior and Organization

NUDGING AS AN ENVIRONMENTAL POLICY IN-STRUMENT, Christina Gravert, Fredrik Carlsson, Olof Johansson-Stenman, Verenz Kurz, Review of Environmental Economics and Policy DOES BIOLOGY DRIVE CHILD PENALTIES? EV-IDENCE FROM BIOLOGICAL AND ADOPTIVE FAMILIES, Henrik Kleven, Camille Landais, Jakob Egholt Søgaard, American Economic Review: Insights

COMPARING HEALTH OUTCOMES OF PRIVI-LEGED US CITIZENS WITH THOSE OF AVERAGE RESIDENTS OF OTHER DEVELOPED COUN-TRIES, Mette Gørtz, Emanuel J. Ezekiel, Emily Gudbranson, Jessica Van Parys, JAMA Internal Medicine

THE VOLUNTEER'S DILEMMA EXPLAINS THE BY-STANDER EFFECT, Pol Campos-Mercade, Journal of Economic Behavior and Organization

MATERNITY WARD CROWDING: PROCEDURE USE, AND CHILD HEALTH, Miriam Wüst, Hans Henrik Sivertsen, Jonas Maibom, Marianne Simonsen, Journal of Health Economics

INEQUALITY IN PERSONALITY OVER THE LIFE CYCLE, Miriam Gensowski, Mette Gørtz, Stefanie Schurer, Journal of Economic Behavior & Organization

ESTIMATING TEMPTATION AND COMMITMENT OVER THE LIFE-CYCLE, Agnes Kovacs, Hamish Low, Patrick Moran, International Economic Review

SPILLOVER EFFECTS OF EARLY-LIFE MEDICAL INTERVENTIONS, N. Meltem Daysal, Marianne Simonsen, Mircea Trandafir, Sanni Breining, Review of Economics and Statistics

BELIEFS ABOUT PUBLIC DEBT AND THE DE-MAND FOR GOVERNMENT SPENDING, Christopher Roth, Johannes Wohlfart, Sonja Settele, Journal of Econometrics

HIGHER-ORDER INCOME DYNAMICS WITH LINKED REGRESSION TREES, Jeppe Druedahl, Anders Munk-Nielsen, Econometrics Journal

EXPOSURE TO THE COVID-19 STOCK MARKET CRASH AND ITS EFFECT ON HOUSEHOLD EXPECTATIONS, Johannes Wohlfart, Tobin Hanspal, Annika Weber, Review of Economics and Statistics

DO YOU HAVE TIME TO TAKE A WALK TO-GETHER? PRIVATE AND JOINT TIME WITHIN THE HOUSEHOLD, Martin Browning, Olivier Donni, Mette Gørtz, Economic Journal

NONPARAMETRIC ANALYSIS OF TIME-INCON-SISTENT PREFERENCES, Laura Blow, Martin Browning, Ian Crawford, Review of Economic Studies

LONG-RUN SAVING DYNAMICS: EVIDENCE FROM UNEXPECTED INHERITANCES, Jeppe Druedahl, Alessandro Martinello, Review of Economics and Statistics

THE NEGATIVE EFFECT OF SMARTPHONE USE ON ACADEMIC PERFORMANCE MAY BE OVER-ESTIMATED: EVIDENCE FROM A 2-YEAR PANEL, David Dreyer Lassen, Andreas Bjerre-Nielsen, Kelton Ray Minor, Asger Andersen, Psychological Science

UNIVERSAL PRESCHOOL PROGRAMS AND LONG-TERM CHILD OUTCOMES: A SYSTEM-ATIC REVIEW, Jens Dietrichson, Ida Lykke Kristiansen, Bjørn A. Vinholt, Journal of Economic Surveys

SOCIAL DISTANCING LAWS CAUSE ONLY SMALL LOSSES OF ECONOMIC ACTIVITY DUR-ING THE COVID-19 PANDEMIC IN SCANDINA-VIA, Adam Sheridan, Asger Lau Andersen, Emil Toft Hansen, Niels Johannesen, PNAS

FAMILY LABOR SUPPLY RESPONSES TO SEVERE HEALTH SHOCKS: EVIDENCE FROM DANISH ADMINISTRATIVE RECORDS Torben Heien Nielsen, Itzik Fadlon, American Economic Journal: Applied Economics

ROBUST ESTIMATION OF FINITE HORIZON ECO-NOMIC MODELS, Thomas H. Jørgensen, Maxime To, Computational Economics

THE CONTAGIOUS NATURE OF A VACCINE SCARE: HOW THE INTRODUCTION OF HPV VACCINATION LIFTED AND ERODED MMR VACCINATION IN DENMARK, Mette Gørtz, Noel T. Brewer, Peter Reinhard Hansen, Mette Ejrnæs, Vaccine

BECAUSE OF YOU, I DID NOT GIVE UP - PEER EFFECTS IN PERSEVERANCE, Christina Gravert, Leonie Gerhards, Journal of Economic Psychology

A GUIDE ON SOLVING NON-CONVEX CON-SUMPTION-SAVING MODELS, Jeppe Druedahl, Computational Economics

TAXATION AND THE ALLOCATION OF RISK INSIDE THE MULITNATIONAL FIRM, Niels Johannesen, Johannes Becker, Nadine Riedl, Journal of Public Economics

THE WEALTH OF PARENTS: TRENDS OVER TIME IN ASSORTATIVE MATING BASED ON PARENTAL HEALTH, Sander Wagner, Diederik Boertien, Mette Gørtz, Demography

DOES PARENTAL EDUCATION INFLUENCE CHILD EDUCATIONAL OUTCOMES? A DEVELOPEMENT ANALYSIS IN A FULL-POPULATION SAMPLE AND ADOPTEE DESIGN, Steven G. Ludeke, Miriam Gensowski, Robert M. Kirkpatrick, Oliver P. John, Simon C. Andersen, Journal of Personality and Social Psyscholgy

INFERRING TRANSPORTATION MODE FROM SMARTPHONES SENSORS: EVALUATING THE POTENTIAL OF WI-FI AND BLUETOOTH, David Dreyer Lassen, Andreas Bjerre-Nielsen, Kelton Ray Minor, Sune Lehman, Piotr Sapieżyński, PLosOne

THE WELFARE MAGNET HYPOTHESIS: EV-IDENCE FROM AN IMMIGRANT WELFARE SCHEME IN DENMARK, Ole Agersnap, Amalie Sofie Jensen, Henrik Kleven, American Economic Review: Insights

IRRESPONSIBLE PARTIES, RESPONSIBLE VOTERS? LEGISLATIVE GRIDLOCK AND COLLECTIVE ACCOUNTABILITY, Asger Lau Andersen, David Dreyer Lassen, Lasse Holbøll Westh Nielsen, PLosONE

CAN CONSUMERS DISTINGUISH PERMANENT FROM TRANSISTORY INCOME SHOCKS? , Jeppe Druedahl, Thomas H. Jørgensen, The Economic Journal A STABLE RELATIONSHIP BETWEEN PERSON-ALITY AND ACADEMIC PERFORMANCE FROM CHILDHOOD THROUGH ADOLESCENCE. AN ORIGINAL STUDY AND REPLICATION IN HUN-DRED-THOUSAND-PERSON SAMPLES, Simon Calmar Andersen, Miriam Gensowski, Steven Ludeke, Olive P. John, Journal of Personality

THE CRUCIAL ROLE OF SOCIAL WELFARE CRITERIA AND INDIVIDUAL HETEROGENEITY FOR OPTIMAL INHERITANCE TAXATION, Esteban Garcia Miralles, The B.E. Journal of Economic Analysis and Policy

DO PEOPLE RESPOND TO THE MORTGAGE INTEREST DEDUCTION? QUASI-EXPERIMENTAL EVIDENCE FROM DENMARK, Jonathan Gruber, Amalie Sofie Jensen, American Economic Journal: Economic Policy

THE INFORMATIVENESS OF ESTIMATION MO-MENTS, Bo E. Honorè, Thomas H. Jørgensen, Áureo de Paula, Journal of Applied Econometrics

DIFFUSING POLITICAL CONCERNS: HOW UN-EMPLOYMENT INFORMATION PASSED BETWEEN SOCIAL TIES INFLUENCES DANISH VOTERS, James E. Alt, Amalie Sofie Jensen Horacio Larreguy, David Dreyer Lassen, John Marshall, Journal of Politics

FAMILY PLANNING IN A LIFE-CYCLE MODEL WITH INCOME RISK, Mette Ejrnæs, Thomas H. Jørgensen, Journal of Applied Econometrics

HOUSING WEALTH AND COLLATERAL: HOW HOME VALUE SHOCKS DRIVE HOME EQUITY EXTRACTION AND SPENDING, Henrik Yde Andersen, Søren Leth-Petersen, Journal of The European Economic association

TAXING HIDDEN WEALTH: THE CONSEQUENCES OF US ENFORCEMENT INITIATIVES ON EVASIVE ACCOUNTS, Niels Johannesen, Patrick Langetieg, Daniel Reck, Max Risch, Joel Slemrod, American Economic Journal: Economic Policy

TIME DISCOUNTING AND WEALTH INEQUALITY, Thomas Epper, Ernst Fehr, Helga Fehr-Duda,-Claus Thustrup Kreiner, David Dreyer Lassen, Søren Leth-Petersen & Gregers Nytoft Rasmussen, American Economic Review INTERACTION DATA FROM THE COPENHAGEN NETWORKS STUDY, Piotr Sapiezynski, Akadiusz Stopczynski, David Dreyer Lassen, Sune Lehmann Jørgensen, Scienfic Data

NEONATAL HEALTH OF PARENTS AND COG-NITIVE DEVELOPEMENT OF CHILDREN, Claus Thustrup Kreiner, Hans Henrik Sivertsen, Journal of Health Economics

WEALTH TAXATION AND WEALTH ACCUMU-LATION: THEORY AND EVIDENCE FROM DEN-MARK, Katrine Jakobsen, Kristian Jakobsen, Henrik Kleven, Gabriel Zucman, Quarterly Journal of Economics

WHAT IS THE ADDED VALUE OF PRESCHOOL FOR POOR CHILDREN? LONG-TERM AND INTER-GENERATIONAL IMPACTS AND INTERACTIONS WITH AN INFANT HEALTH INTERVENTION, Miriam Wüst, Maya Rossin-Slater, American Economic Journal: Applied Economics

DO LOWER MINIMUM WAGES FOR YOUNG WORKERS RAISE THEIR EMPLOYMENT? EVIDENCE FROM A DANISH DISCONTINUITY, Claus T. Kreiner, Daniel Reck, Peer Ebbesen Skov, Review of Economics and Statistics

CHILDHOOD HEALTH SHOCKS, COMPARATIVE ADVANTAGES, AND LONG-TERM OUTCOMES: EVIDENCE FROM THE LAST DANISH POLIO EPIDEMIC, Miriam Wust, Miriam Gensowski, Torben Heien Nielsen, Journal of Health Economics

FAMILY HEALTH BEHAVIORS, Torben Heien Nielsen, Itzik Fadlon, American Economic Re-

FINANCIAL TROUBLE ACROSS GENERATIONS: EVIDENCE FROM THE UNIVERSE OF PERSONAL LOANS IN DENMARK, Claus T. Kreiner, Søren Leth Petersen, Louise Willerslev-Olsen, Economic Journal

NUDGING 'A LA CARTE: A FIELD EXPERIMENT ON CLIMATE-FRIENDLY FOOD CHOICE, Christina Gravert, Verena Kurz, Behavioural Public Policy EARMARKED PATERNITY LEAVE AND THE RELATIVE INCOME WITHIN COUPLES, Jeppe Druedahl, Mette Eirnæs, Thomas H. Jørgensen, Economic Letters

MIDDLE CLASS WITHOUT A NET: SAVINGS, FI-NANCIAL FRAGILITY, AND PREFERENCES OVER SOCIAL INSURANCE, David Dreyer Lassen, Amalie Sofie Jensen, Jacob Gerner Hariri, Comparative Political Studies

GUILT AVERSION IN ECONOMICS AND PSY-CHOLOGY, Charles Bellemare, Alexander Sebald, Sigrid Suetens, Journal of Economic Psychology

HETEROGENEOUS CONSUMER REACTIONS TO HEALTH NEWS, Martin Browning, Lars Gårn Hansen, Sinne Smed, American Journal of Agricultural Economics

LABOR SUPPLY AND OPTIMIZATION FRICTIONS: EVIDENCE FROM THE DANISH STUDENT LABOR MARKET, Jakob Egholt Søgaard, Journal of Public Economics

CAN TAXES TAME THE BANKS? EVIDENCE FROM THE EUROPEAN BANK LEVIES, Niels Johannesen, Michael Devereux, John Vella, Economic journal

ASSOCIATION OF TYPE 1 DIABETES WITH STAND-ARDIZED TEST SCORES OF DANISH SCHOOLCHIL-DREN, Skipper N, Gaulke A, Sildorf SM, Eriksen TM. Nielsen & NF & Svensson J. JAMA

THE DISTORTIVE FEFECTS OF TOO-BIG-TO-FALL: EVIDENCE FROM THE DANISH MARKET FOR RETAIL DEPOSITS, Niels Johannesen, Adam Sheridan, Thais Lærkholm, Review of Financial studies

THE DARK SIDE OF THE VOTE: BIASED VOTERS. SOCIAL INFORMATION, AND THE INFORMA-TION AGGREGATION THROUGH MAJORITY VOTING, Marco Piovesan, Rebecca Morton, Games and Economic Behavior

ARE LESS DEVELOPED COUNTRIES MORE EX-POSED TO MULTINATIONAL TAX AVOIDANCE? METHOD AND EVIDENCE FROM MICRO-DATA Niels Johannesen, Thomas Tørsløv, Ludwig Wier, World Bank Economic Review

UNCOVERING DISHONESTY, Marco Piovesan, Ingo Zettler, Journal of Economic Psychology

IT WASN'T ME! VISIBILITY AND FREE RIDING IN WASTE DISPOSAL, Marco Piovesan, Natalia Montinari, Ecological Economics

TAX EVASION AND INEQUALITY, Niels Johannesen, Annette Alstadsæter, Gabriel Zucman, American Economic Review

ROLE OF INCOME MOBILITY FOR THE MEAS-UREMENT OF INEQUALITY IN LIFE EXPECTANCY, Claus Thustrup Kreiner, Torben Heien Nielsen, Benjamin Ly Serena, PNAS

BIASED VOTERS, SOCIAL INFORMATION AG-GREGATION, AND INFORMATION AGGREGA-TION THROUGH MAJORITY VOTING, Marco Piovesan, Jean-Robert Tyran, Rebecca Morton, Games and Economic Behavior

OPTIMAL FIRM BEHAVIOR WITH CONSUMER SOCIAL IMAGE CONCERNS AD ASSYMET-RIC INFORMATION, Alexander Sebald, Nick Vikander, Journal of Economic Behavior & Organization

INCOME AND CONSUMPTION: A MICRO SEMI-STRUCTURAL ANALYSIS WITH PERVASIVE HETEROGENEITY, Mette Eirnæs, Martin Browning. Sule Alan, Journal of Political Economy

ACADEMIC ACHIEVEMENT AND THE GENDER COMPOSITION OF PRESCHOOL STAFF Mette Gørtz, Eva Rve Johansen, Marianne Simonsen, Labour Economics

IDENTIFYING HETEROGENEOUS INCOME PRO-FILES USING COVARIANCES OF INCOME LEVELS AND FUTURE GROWTH RATES, Jeppe Druedahl, Anders Munk-Nielsen, Journal of Economic Dynamics and Control

LIQUIDITY CONSTRAINT TIGHTNESS AND CONSUMER RESPONSES TO FISCAL STIMULUS POLICY, Claus Thustrup Kreiner, Søren Leth-Petersen, David Drever Lassen, American Economic Journal: Economic Policy

HETROGEGENEOUS GUILT SENSITIVTIES AND INCENTIVE EFFECTS, Alexander Sebald, Charles Bellemare, Sigrid Suetens, Experimental Eco-

CHILDREN AND GENDER INEQUALITY: EV-IDENCE FROM DENMARK, Henrik Kleven, Camille Landais, Jakob Egholt Søgaard, American Economic Journal: Applied Economics

WHAT HAPPENS WHEN COMPENSATION FOR WHIPLASH CLAIMS IS MADE MORE GENER-OUS? J. David Cassidy, Søren Leth-Petersen, Gabriel Pon Rotger, Journal of Risk and Insurance

PRECAUTIONARY BORROWING AND THE CREDIT CARD DEBT PUZZLE, Jeppe Druedahl, Casper Nordal Jørgensen, Quantitative Eco-

ACADEMIC PERFORMANCE AND BEHAVIORAL PATTERNS, Valentin Kassarnig, Enys Mones, Andreas Bjerre-Nielsen, Piotr Sapiezynski, David Dreyer Lassen, Sune Lehmann, EPJ Data Science

BORN WITH A SILVER SPOON? DANISH EVI-DENCE ON WEALTH INEQUALITY IN CHILD-HOOD, Simon Halphen Boserup, Wojciech Kopczuk, Claus Thustrup Kreiner, Economic journal

INCREASING INCOME INEOUALITY IN THE NOR-DICS, Jakob Egholt Søgaard, Jesper Roine, P-O Robling, Nordic Economic Policy Review

WHO OWNS THE WEAITH IN TAX HAVENS? MACRO EVIDENCE AND IMPLICATIONS FOR GLOBAL INEOUALITY. Annette Alstadsæter. Niels Johannesen, Gabriel Zucman, Journal of Public Fconomics

HOUSEHOLD LABOR SUPPLY AND THE GAINS FROM SOCIAL INSURANCE. Torben Heien Nielsen, Itzik Fadlon, Journal of Public Economics

PERSONALITY, IO. AND LIFETIME EARNINGS. Miriam Gensowski, Labour Economics

CLASS ATTENDANCE, PEER SIMILARITY, AND ACADEMIC PERFORMANCE IN A LARGE FIELD STUDY, Kassarnig, V, Bjerre-Nielsen, A, Mones, E, Lehmann, S, Lassen, DD, PLOS ONE

THE ENDOGENOUS GRID METHOD FOR DISCRETE-CONTINUOUS DYNAMIC CHOICE MODELS WITH (OR WITHOUT) TASTE SHOCKS, Thomas H. Jørgensen, Iskhakov, F, Jørgensen, TH, Rust, J, Schjerning, B, Quantitative Economics

END-OF-LIFE MEDICAL SPENDING IN THE LAST TWELVE MONTHS OF LIFE IS LOWER THAN PREVIOUSLY REPORTED, Mette Gørtz (French, E, McCauley, J., Aragon, M., Bakx, P., Chalkley, M., Chen, S, Christensen, BJ, Chuang, H, Cote-Sergent, A, De Nardi, M, Fan, E, Echevin, D, Geoffard, P-Y, Gastaldi-Menager, C, Gørtz, M, Ibuka, Y, Jones, JB, Kallestrup-Lamb, M, Karlsson, M, Klein, TJ, de Lagasnerie, G, Michaud, P-C, O'Donnell, O, Rice, N, Skinner, JS, van Doorslaer, E, Ziebarth, N & Kelly), Health Affairs

BAUMOL'S COST DISEASE AND THE SUSTAINA-BILITY OF THE WELFARE STATE, Torben M. Andersen, Claus Thustrup Kreiner, Economica

MYOPIC LOSS AVERSION IN THE RESPONSE OF ELECTRIC VEHICLE OWNERS TO THE SCHEDUL-ING AND PRICING OF VEHICLE CHARGING, Alexander Sebald, Fetene, GM, Kaplan, S, Sebald, AC, Prato, CG, Transportation Research. Part D: Transport & Environment

LIFE-CYCLE CONSUMPTION AND CHILDREN: EVIDENCE FROM A STRUCTURAL ESTIMATION. Thomas H. Jørgensen, Oxford Bulletin of Economics and Statistics

EMPLOYMENT EFFECTS OF ACTIVE LABOR MARKET PROGRAMS FOR SICK-LISTED WORK-ERS, Mette Gørtz (Holm, A, Høgelund, J, Gørtz, M. Storck Rasmussen, K. Sofie Bøie Houlberg). Journal of Health Economics

DOES PEACETIME MILITARY SERVICE AFFECT CRIME?, Søren Leth-Petersen (Albæk, K. Leth-Petersen, S. le Maire, D. Tranæs, T). Scandinavian Journal of Economics

THE CONSUMPTION EFFECTS OF THE 2007-2008 FINANCIAL CRISES: EVIDENCE FROM HOUSEHOLDS IN DENMARK, Niels Johannesen, Jensen, TL, American Economic Review

REGISTERED REPLICATION REPORT: RAND, GREEN, AND NOWAK (2012), Marco Piovesan (Bouwmeester, S, Verkoeijen, PPJL, Aczel, B, Barbosa, F, Bèque, L, Brañas-Garza, P, Chmura, TGH, Cornelissen, G, Døssing, FS, Espín, AM, Evans, AM, Ferreira-Santos, F, Fiedler, S, Flegr, J, Ghaffari, M, Glöckner, A, Goeschl, T, Guo, L, Hauser, OP, Hernan-Gonzalez, R, Herrero, A, Horne, Z, Houdek, P, Johannesson, M, Koppel, L, Kujal, P, Laine, T, Lohse, J, Martins, EC, Mauro, C, Mischkowski, D, Mukherjee, S., Myrseth, KOR, Navarro-Martínez, D. Neal, TMS, Novakova, J, Pagà, R, Paiva, TO, Palfi, B, Piovesan, M, Rahal, RM, Salomon, E, Srinivasan, N, Srivastava, A, Szaszi, B, Szollosi, A, Thor, K, Tinghög, G, Trueblood, JS, Van Bavel, JJ, van 't Veer, AE, Västfjäll, D, Warner, M, Wengström, E, Wills, J & Wollbrant, CE), Perspectives on Psychological Science

AKTIVE OG PASSIVE VALG I PENSIONSOP-SPARINGEN, Torben Heien Nielsen, Nationaløkonomisk tidsskrift

INCOME AND OUTCOMES: SOCIAL DESIRABIL-ITY BIAS DISTORTS MEASUREMENTS OF THE RELATIONSHIP BETWEEN INCOME AND POLIT-ICAL BEHAVIOR, David Dreyer Lassen, Hariri, JG, Public Opinion Quarterly

COGNITIVE LOAD AND COOPERATION, Marco Piovesan/Felix Døssing (Døssing, FS, Piovesan, M. Wengström, ER), Review of Behavioral Fconomics

PERSISTENT VS. PERMANENT INCOME SHOCKS IN THE BUFFER-STOCK MODEL, Jeppe Druedahl, Thomas H. Jørgensen, The B.E. Journal of Macroeconomics

PETRO RENTS, POLITICAL INSTITUTIONS, AND HIDDEN WEALTH: EVIDENCE FROM OFFSHORE BANK ACCOUNTS, Niels Johannesen, David Dreyer Lassen, Andersen, JJ, & Paltseva, Journal of the European Economic Association

ASSIGNMENT PROCEDURE BIASES IN RAN-DOMISED POLICY EXPERIMENTS, Alexander Sebald, Aldashev, G, Kirchsteiger, G, Economic PENSION SAVING RESPONSES TO ANTICIPATED TAX CHANGES: EVIDENCE FROM MONTHLY PENSION CONTRIBUTION RECORDS, Claus Thustrup Kreiner, Søren Leth-Petersen, Peer Ebbesen Skov, Economics Letters

SIMPLE UNAWARENESS IN DYNAMIC PSY-CHOLOGICAL GAMES, Alexander Sebald, Nielsen, CS, B.E. Journal of Theoretical Eco-

A GENERAL ENDOGENOUS GRID METHOD FOR MULTI-DIMENSIONAL MODELS WITH NON-CONVEXITIES AND CONSTRAINTS, Jeppe Druedahl, Thomas H. Jørgensen, Journal of Economic Dynamics and Control

A NOTE ON TESTING GUILT AVERSION, Alexander Sebald, Bellemare, C, & Suetens, S, Games and Economic Behavior

### UNIVERSITY OF COPENHAGEN

CENTER FOR ECONOMIC BEHAVIOR AND INEQUALITY (CEBI)
DEPARTMENT OF ECONOMICS





CENTER FOR

**E** C O N O M I C

BEHAVIOR &

I NEQUALITY

