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# Annual Report 2020

## Department of Economics



## Letter from the Director

This has been a special year, indeed. In January, a pandemic was not even among the main risks named by the leading forecasters – or mentioned in our last issue of this newsletter; and some weeks later and until today the COVID-19-saga has dominated everything. As concerns our department, on a practical level this involved a sudden switch of all major activities to online solutions. The major change here was of course in teaching. We all learned quickly how to deliver our presentations and interact with students online. Even if personal interactions are missing, most of us had no major problems to adjust our teaching.

A larger challenge were and are exams, where the adjustment to «open books» tests – which is unavoidable online – presented some headaches especially for multiple choice formats. For seminars and meetings, the adjustment to online worked so smoothly that I think some of this is here to stay – even in the hopefully soon to arrive post-pandemic world. As you see in this report, our scientific output seems to not have suffered due to the special situation; our list of papers and publications is at least as encompassing as in the last years. As concerns contents, the pandemic has also to a certain degree shaped our research and policy-related work. Many of us have contributed to the fastly expanding academic literature on economic aspects of this crisis. And some of us have been involved in consulting policy makers on how

to deal with the challenges this pandemic presents for economic policy.

Our new colleagues Costanza Naguib and Pierpaolo Benigno were already appointed in 2019 and had joined our department at the beginning of this year. You find interviews with both of them in this newsletter where they also explain how they dealt with starting their new position during extended lockdowns. In addition, a number of short interviews show how members of our department dealt with the challenges during the pandemic.

I would like to thank everyone working at our department for their valuable work that – despite the very unusual situation – contributed to a productive 2020.

Aymo Brunetti  
January 2021

### Impressum

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## Appointment: Costanza Naguib, Assistant Professor in Econometrics

Costanza Naguib studied economics at the Università della Svizzera italiana in Lugano where she received her Ph.D. in 2018. She became Post-Doctoral Fellow at the University of St. Gallen before joining our faculty in 2020. Her research focuses on econometrics and labor economics, where she focuses on wage mobility and inequality. We wish Costanza Naguib all the best in her new position at the University of Bern.



### Interview with Costanza Naguib

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*Costanza Naguib, we are pleased to welcome you as a new professor at our Department. Since you already had a connection to Bern from your Ph.D. courses in Gerzensee, how was it for you to get settled in?*

Thank you! It is nice to be settled in Bern. Indeed, the first time I had been here was back in 2013, when I visited the old main building of Uni Bern during a trip organized by the Swiss Study Foundation. Then I visited the city again during the Gerzensee program. As you may imagine my start here has been a bit unusual. Having moved in January, I had just started to discover the city when the lockdown kicked in.

*In the first semester teaching in Bern, you had to switch all your course to an online format. What are the take-aways for you as a lecturer?*

Yes, with the March lockdown, I had to suddenly switch all my three courses to online-only. What I take from this experience is that the tools for remote teaching that we can avail ourselves of are notably

advanced and they really help the lecturer in keeping the contact with the students. I am thinking about, e.g. software for recording lectures and for live-streaming them, as well as blogs and forums for students' questions. I was positively surprised by how many students reached out with questions or comments on the course' materials during the lockdown phase.

*In your research, you employ and develop econometric tools to estimate heterogeneous effects and prevailing inequality. Where comes your special interest in labor economics from?*

I enrolled in my bachelor in economics in 2010, in the aftermath of the Great financial crisis of 2007-2009, i.e. when the unemployment rate in Europe peaked over 10%. I'd say that my interest for earnings and employment dynamics actually started there, by reading the economic news every day.

*Also, you are quite creative in your methodology, often with a case-specific approach to a certain research question. Could you describe how you start a new research idea and how intuition, methodology and data shape the outcome?*

Intuition, methodology and data should ideally be deeply connected. By this, I mean that the methodology should be the most fit for the available data. On the other hand, even a sophisticated methodology should not let the underlying intuition disappear. I think there are many ways

in which a research idea comes to life. For me, it may start with observing something potentially interesting in the data and wanting to know if there is more to explore there. Or it may start by reading an existing scientific article and asking myself if it would be possible to say more on that topic. In many other cases, the idea started with a conversation, either with a colleague or with a participant in a seminar or conference, and this is why it is so important, especially for young academics like me, to look for interaction and feedback whenever it is possible.

*You are among the youngest members of our faculty and have been a student yourself not too long ago. What advice can you give to students that are interested in academia?*

Future PhD students should collect as much information as possible about what a PhD is and about the specific PhD program they are applying to. They should not be afraid to ask friends, colleagues and professors for information and advice. I think that one of the biggest challenges in academia is that, differently from a Bachelor or a Master program, the objectives are less well-defined and can change over time. If you wish to pursue a PhD, you should be ready to work both individually and with others, but most importantly you should be able to constantly keep the focus on what you are doing.

*Costanza Naguib, thank you very much for this interview.*

## Appointment: Pierpaolo Benigno, Professor in Monetary Macroeconomics

Pierpaolo Benigno received his Ph.D. in economics from Princeton University in 2000. He has been Assistant Professor at NYU and been appointed Professor at LUISS Guido Carli in Rome before he joined our faculty in 2020. Besides his academic positions, he has been a frequent research visitor at the Federal Reserve Bank and visiting scholar at the IMF. We wish Pierpaolo Benigno all the best in his new position at the University of Bern.



### Interview with Pierpaolo Benigno

*Pierpaolo Benigno, we are happy to welcome you as a new member of the faculty. The pandemic restricts all of us but for you who has just arrived in a new country, the situation is even more special. How did you settle in?*

Thank you very much, I am also very happy to be part of the faculty at the University of Bern. Indeed, it has not been an easy transition due to the pandemic. I have to say that I have not settled down yet, and still did not have much possibility to enjoy the Bern community and department life. Luckily both in the Spring and Fall semester classes started in presence so this allowed to create some contacts with students.

*You have already been at several Departments in your academic career. Why do you consider Bern an attractive place to further develop your academic career?*

The University of Bern represents an extraordinary community of researchers. I was impressed at the nomination meeting when the Rector underlined that within the university, there are currently more than 30 ERC grants. My short experience reveals that at the University of Bern there

are all the resources needed to do well in teaching and research. Further, the possibility to interact with other extraordinary researchers in my fields with whom we have very close interest in terms of research agenda. This includes the interaction with Ph.D. students. I have been very impressed by their quality and started to learn a lot from them.

*Many conferences and workshops have been cancelled this year or moved to online solutions. How do you think will the current pandemic influence academia and will it have a long-lasting effect?*

The online solutions to conference and workshops represent an interesting alternative, although now it is a necessity. There are indeed some benefits in terms of efficiency, cost-saving, broad audience that an online workshop can achieve. It is understandable to miss the social and human interaction. Others may miss networking. But, perhaps, a mixed system with some online seminars and conferences can help researchers to focus more on what matters.

*Your list of publications is impressive. Currently, what are your main research questions?*

My current research is focusing on monetary economics. I have been fascinated by the tools that central banks deployed during the last financial crisis and the current pandemic episode. In particular, I have been focusing on the power that an issuer of currency has with respect to

its liabilities and the use it can make for reflating the economy. In this respect, I am studying helicopter money deeply rooting it into the central bank's power in terms of risk-free properties of its liabilities. In the traditional view, helicopter money is conceived to operate through the treasury making a transfer to citizens financed at the end by the central bank. I have been trying to investigate whether a similar outcome can be achieved without treasury's intervention.

*The technological change does not make halt at currencies. Part of the media argues that in the future, tech-companies will issue money. What can monetary economics answer to such claims?*

This is a fascinating topic, and I have been recently studying the consequence of currency competition for monetary policy. On the one side, issuing a successful used money is a profitable activity, since the issuer can finance itself at zero cost. There are rents out there that a monopolist, as the government, would like to keep, which are however costly for society. On the other side, central banks play other important roles in the economy like those of stabilizing fluctuations, counteracting financial crisis and providing liquidity to the system. It is not clear that competition from private issuers can internalize these roles and how monetary policy can be run by tech companies.

*Pierpaolo Benigno, thank you very much for this interview.*

## Research Bit: Business Cycle Anatomy

**Harris Dellas** – In joint work with George-Marios Angeletos (MIT) and Fabrice Collard (Toulouse), "Business cycle anatomy, *American Economic Review*, October 2020, " we develop a new empirical method for identifying the main driver of business cycles and use it to evaluate alternative macroeconomic models. We find that the leading macroeconomic theories (of the Real Business Cycle or the Keynesian variety) lack proper business cycle propagation mechanisms. Instead, the data favor a newer theory that relies on demand-driven fluctuations without nominal rigidities and Philips curves.

"...One is led by the facts to conclude that, with respect to the qualitative behavior of co-movements among series, business cycles are all alike. To theoretically inclined economists, this conclusion should be attractive and challenging, for it suggests the possibility of a unified explanation of business cycles."...(Lucas, 1977)

In their quest to explain macroeconomic fluctuations, macroeconomists have often relied on models in which a single, recurrent shock acts as the main, or even the sole, driver of the business cycle (monetary, TFP, investment, risk and confidence shocks are examples). This practice is grounded not only on the desire to offer a parsimonious, unifying explanation as suggested by Lucas, but also on the belief that such a model may capture diverse business-cycle triggers if these share a common propagation mechanism: multiple shocks that produce similar responses for all variables of interest can be considered as the same shock.

Is there evidence of such a common propagation mechanism in macroeconomic

data? And if yes, how does it look like?

We address these questions with the help of a new empirical strategy. The strategy involves taking multiple cuts of the data. Each cut produces a statistical shock that accounts for the maximal volatility of a particular variable over a particular time frequency. Irrespective of whether these empirical objects have a structural counterpart or not, their properties form a rich set of cross-variable, static and dynamic restrictions, which can inform macroeconomic theory. We call this set the "anatomy." A core subset of the anatomy is the collection of the five shocks obtained by targeting the variance of the main macroeconomic quantities, namely unemployment, output, hours worked, consumption and investment, over the business-cycle. These shocks turn out to be interchangeable in the sense of giving rise to nearly the same dynamic responses for all the variables, as well as being highly correlated with one another.

The interchangeability of these empirical shocks offers support for theories featuring either a single, dominant, business-cycle shock, or multiple shocks that leave the

same footprint because they share the same propagation mechanism. With this idea in mind, we introduce the term "Main Business Cycle shock" (MBC) to refer to the common empirical footprint, in terms of dynamic responses, of the aforementioned statistical shocks.

We establish that the MBC shock's properties make it look unlike many of the shocks that have been suggested as causing business cycles. It is disconnected from multifactor productivity (TFP) and also from the forces that drive the long run behavior of the economy. That is, what drives the business cycle accounts for little of the long-term variation in output, investment, consumption, and labor productivity. And symmetrically, the shocks that drive macroeconomic volatility in the long-term volatility make a negligible contribution to the business cycle.

This finding represents a challenge not only for the influential Real Business Cycle theory but also for its satellite models, that is, models that rely on shocks, including financial, uncertainty and animal spirits shocks, that operate through endogenous changes in TFP; and models that claim that macroeconomic movements represent a response to the arrival of news about the medium-long run economic outlook.

We also find that the MBC shock is not associated with movements in inflation, and that fluctuations in inflation are not associated with movements in economic activity. This property rules out inflationary

demand shocks, of the type emphasized in New Keynesian Phillips curve models.

These properties (interchangeability, disconnect between the short and the long run, disconnect between inflation and real economic activity) provide a template for evaluating state-of-the-art DSGE models with multiple shocks. We consider three influential, representative models: two with sticky prices that emphasize investment and risk shocks, respectively, as the main causes of fluctuations; and one with flexible prices that emphasizes sentiments (confidence), a demand shock that does not require a Phillips curve to operate. We establish that only the last model contains the type of shock that possesses the properties of the MBC.

Our work provides two lessons: First, in contrast to popular thinking, the established theories of the business cycle are fundamentally deficient. And second, a new class of models, exemplified by our sentiments model (ECMA 2018) holds promise for understanding macroeconomic fluctuations.

ANGELETOS, GEORGE-MARIA & COLLARD, FABRICE & **DELLAS, HARRIS**. 2020. Business-Cycle Anatomy. *American Economic Review*, 110(10): 3030-3070.



# Research Bit: Selling in Advance to Loss Averse Consumers

**Marc Möller** – Do you buy your airline tickets early in order to enjoy an advance purchase discount? Or do you buy them late in order to avoid potential losses from a suboptimal purchase? The answer to this question will depend on your degree of loss aversion. Suboptimal purchases are worrisome not only from an individual but also from a societal perspective as they lead to efficiency losses in form of mismatch between consumer preferences and product characteristics. Regulators may therefore try to mitigate the problem by improving consumers’ information during the advance purchase period, for example by limiting its duration. We argue that whether such a policy is useful or may actually backfire may only be understood when consumer loss aversion is taken into account.

## A Stylized Example

Consider a traveler choosing between a morning and an evening flight. Suppose that flying at the “correct” (“incorrect”) time gives a match value of 200 (160) and that both departure times are equally likely to be correct. On the day of departure, the morning and the evening flight are priced at \$70 and \$50 respectively, whereas when purchased in advance, a discount of \$10 applies to both. At the advance purchase stage, the traveler expects a match value of 180 from both flights and opting for the cheaper evening flight gives an expected utility of  $180 - (50 - 10) = 140$ . Waiting to guarantee the purchase of the correct flight, gives a match value of 200 at an expected price of \$60. Hence, in the absence of loss aversion, the traveler is just indifferent between purchasing in advance and waiting.

Expectation-based loss aversion postulates that, the traveler derives extra utility/disutility from gains/losses with respect to his

expectations. Gains and losses are evaluated separately in the match-value and the money-dimension and losses weigh more, say twice as much as gains. Expecting a match value of 180 from an advance purchase, the traveler experiences a gain/loss of size 20 depending on whether his purchase turns out to be correct, i.e. loss aversion reduces the traveler’s expected utility by  $0.5(200-180)+0.5(160-180)2 = -10$ .

Similarly, when postponing his purchase, the traveler expects to pay \$60 for the correct flight and experiences either a money gain or a money loss of size \$10, leading to a reduction of his expected utility by  $0.5(\$60-\$50)+0.5(\$60-\$70)2 = -\$5$ .

As in this example, the disutility from gains/losses in the match-value dimension turns out to be larger than the disutility from gains/losses in the money-dimension, loss aversion tilts the traveler’s preference towards a late purchase.

## The Direct and the Indirect Effect of Information

Improving consumers’ information at the advance purchase stage has the obvious effect of reducing the fraction of advance purchase that result in a mismatch. However, information also has the indirect effect of influencing the firms’ pricing and may lead to an increase in the number of consumers who are induced to purchase in advance. Whether the overall effect of information on welfare is positive or negative turns out to depend on industry structure and conclusions change drastically when consumer loss aversion is accounted for.

## Main Insights

In the absence of consumer loss aversion, information has no influence on the prevalence of advance selling in monopolistic markets. Hence one would conclude that information has an unambiguously positive effect on welfare. Accounting for consumer loss aversion reveals that improving consumer information increases the prevalence of advance selling by a monopolist so that the overall effect of information on welfare can be negative.

Surprisingly, under competition, loss aversion affects the way in which advance selling depends on information in the exact opposite direction. Accounting for loss aversion offers the insight that improving consumer information can be doubly beneficial; it reduces the likelihood that an

advance purchase by any particular consumer results in a mismatch and decreases the number of consumers that competing firms convince (by way of a discount) to purchase in advance.

Hence, the key message of our paper: From a regulatory viewpoint, policies which induce competition in advance purchase markets should go hand in hand with policies that improve consumers’ information.

Recently, Spain has limited the advance booking horizon of railway-tickets to a mere 30 days while simultaneously opening its railroad market for private operators.

## Well Done Spain!

KARLE, HEIKO & MÖLLER, MARC. 2020. Selling in Advance to Loss Averse Consumers. *International Economic Review*, 61(1), S. 441-468.

# VWG-Prize 2020: Master's Thesis "An analysis of Grouped IV Quantile Regression"

Martina Pons was awarded the VWG -Prize 2020 for her excellent master's thesis titled "An analysis of Grouped IV Quantile Regression" that she wrote under the supervision of Blaise Melly. After completing her master's degree, Martina Pons started her Ph.D. at our Department. In what follows, she gives a short summary of her prizewinning master's thesis.

## Motivation & Contribution

When researchers aim to estimate the effect of a group-level treatment, say a cantonal tax reform, on an individual level outcome such as individual income, there are three main challenges. First, tax reforms are endogenous, and cantons introducing a tax reform might differ from other cantons. Second, the effect of the treatment may be heterogeneous. More precisely, in the case at hand, a tax reform is likely to affect low-earners differently than high-earners. Third, there might be some group-level heterogeneity, which could but do not need to be correlated with the treatment. To deal with the first challenge, one might rely on quantile regression and related methods to capture the distributional effects and to deal with the endogeneity, quantile regression estimators that accommodate instrumental variables or fixed effects have been suggested in the literature.

The grouped IV quantile regression estimator of Chetverikov et al. was developed to estimate the effect of a group-level treatment on an individual-level outcome when there are group-level unobservable

factors. While group-level unobservables cause bias in mean regression only when correlated with the treatment, these are a source of bias in quantile regression also when the treatment is exogenous. This paper analyzes the grouped IV quantile regression estimator and compares it with two alternative estimators: traditional quantile regression of Koenker and Basset (1978) and IV quantile regression of Chernozhukov and Hansen (2005). To analyze and compare the estimators, I perform numerous Monte Carlo simulations considering different settings.

## Estimators & Methods

Grouped IV quantile regression is performed in two stages. The first stage consists of regressing the dependent variable on the individual-level covariates, separately for each group, using quantile regression. For each group and quantile, the estimated intercepts are saved, and the data is collapsed at the group level. In the second stage, the constant from the first stage is regressed on the variable of interest, and the group-level controls using 2SLS or OLS when the treatment is exogenous.

The second stage regression includes only group-level variables and one observation per group and since it is linear, instrumental variables and fixed effects can be easily incorporated. This procedure is computationally faster than alternative quantile methods as quantile regression is performed only for one group at a time. Further, the two-step procedure deals with the unobserved group-level heterogeneity, as this will be absorbed by the group-level constant in the first stage.

In this paper, I mainly focus on bias, precision, relative mean squared errors and the empirical size of the estimators in three different settings. In the simplest one, there is neither endogeneity nor group-level unobservables. The second setting includes group-level factors, but the treatment remains endogenous, whereas in the third case, there is group-level heterogeneity, which is correlated with the treatment such that an IV strategy is needed.

## Results

The simulations show that grouped IV quantile regression is consistent in all the cases analyzed in the paper; however, the results uncover three major problems related to the estimator.

First, grouped IV quantile regression is not invariant to simple reparameterizations of the individual-level covariates. More precisely, as the estimated constant can

change substantially when the individual-level variables are reparametrized, the presence of an estimation error combined with extrapolation of the constant leads to imprecisely estimated second stage coefficients and might even cause significant biases.

Second, the asymptotic distribution suggested by Chetverikov et al. (2016) provides a poor approximation in finite samples, and in simulations, rejection rates of the true null hypothesis for the 5% theoretical level are as large as 10%. Chetverikov et al. (2016) argue that inference can be computed without considering the first stage error. As in finite samples, the first stage error plays an important role, the proposed standard errors overstate the precision of the estimates. Third, the estimator has lower precision when compared to the other estimators.

The results of this paper shed light on a number of problems of the grouped IV quantile regression estimator. While being affected by these critical issues, the estimator does remain consistent when there are unobserved group-level factors. For these reasons, future research should address the problems of the grouped IV quantile regression estimator.

**PONS, MARTINA.** 2020. An analysis of Grouped IV Quantile Regression.

# The Department of Economics and the Pandemic

Fiona Scheidegger tells us about complications in the administration from the Secretariats perspective, Prof. Dirk Niepelt explains the differences in conducting a hiring online, Severin Lenhard reports the implications for the exchange students and Oleg Muratov shares his experience of starting as Post.Doc. at our Department just before lockdown.

## Online Administration

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*Fiona Scheidegger, as head of the department's secretariat, how did you experience the lockdown in spring, the uncertainty regarding exams?*

I have to admit that it was quite a challenge. We prepared the exams as on site exams and all of the sudden things changed. We had to adapt all exams to the new situation and additionally register each one on Ilias. Here I would like to especially thank Yvonne Seiler from Ilias for her invaluable help. Also all Ph.D. students did a great job. Without all the support I received the exams wouldn't have gone so well.

*The pandemic made many people work from home. How did it change the way you work?*

The pandemic didn't change my work very much as I was present at the office. Home office can be a good thing, no doubt, but it isn't always efficient. A secretariat should, as a hub, whenever possible, remain open at a certain level for the students and the personnel. Being present was helpful to

solve and handle many requests.

## Virtual Hiring

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*Dirk Niepelt, you have been chair of the hiring committee for the succession of Winand Emons. The job market required many adaptations from both candidates as well as departments. What have been the major challenges?*

Due to the social distancing needs we had to move online and use Zoom. This was easy as far as committee meetings are concerned. Most of us knew each other and in such a situation Zoom actually saves time, particularly when somebody listens to the discussions and takes notes while everybody else is fighting with the mute/unmute button. We were lucky that Susanne Moser volunteered to take the minutes, that certainly helped a lot.

As far as the actual job talks and meetings with the candidates are concerned Zoom worked as well but of course this was only a mediocre substitute for the usual in-person thing. A lot of the spontaneity is lost in an

online seminar, important signals may be missed, and listening to somebody in the same room simply is more enjoyable, at least for me.

All this must be even harder for the candidates. I wonder how a person that eventually gets the offer but hasn't met department representatives would make up their mind about whether to accept or not.

*Do you expect that the year 2020 will have a lasting effect on the job market and how it is organized?*

The pandemic certainly has a long-lasting effect in that many universities abroad don't hire or hire many fewer junior professors than usual. There will be ample supply of excellent young economists for several years.

In addition, many middle-tier US colleges might permanently change the way they organize teaching. Online teaching can easily be scaled, parents complain about ever rising tuitions, and now we have seen that teaching over Zoom sort of works, voila! I expect demand for teachers to fall permanently for that reason but I don't think that this will affect top universities to the same extent.

The format of the academic job market will probably revert to what we are used to, given the huge advantage of meeting

in person, chatting informally, and having a nice dinner.

## Exchange under Uncertainty

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*Severin Lenhard, the pandemic made most countries impose severe travel restrictions in spring just right in the middle of our semester. What were the implications for both incoming and outgoing students?*

In spring, exchange students attended courses with their colleagues at their host university when the pandemic forced the world to switch online. Since the online classes are independent of the location, some students completed their exchange earlier and wrote their exam online at home. However, since most exchange students are beside the host university's courses also interested in their host country's social life, some canceled their exchange for the fall semester due to the uncertainty.

*There is still a lot of uncertainty. Do you feel that students interested in going on exchange are more cautious?*

Students are still interested in going abroad. However, planning an exchange needs time; some students may be afraid that their effort is in vain if the pandemic continues. Therefore, we offer extra guidance and work together with the



international office on individual solutions with our partner universities.

### Arriving before the lockdown

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*Oleg Muratov, you have joined our department as Post-doc researcher early in 2020 just before lockdown. How difficult was it for you to settle in? Which things were more cumbersome, what did you enjoy so far in being here?*

It was not too difficult, actually, to settle in. The people around me at the department were very friendly, that definitely helped a lot. The university has provided a temporary housing for enough time for me to find a long-term rental. Although I was worried the search for the apartment was going to be complicated due to the lockdown, I was lucky to be approved for the second apartment I applied for.

I guess, having to spend a lot of time at home during the spring lockdown was the most cumbersome part, so far, but the same applies to everyone. It became easier during the summer, when I could swim in the Aare, and go to the exhibitions at the Zentrum Paul Klee. Lately, I enjoy hiking, both in the Oberland and Valais.

*Since regulations concerning the pandemic in Switzerland are mainly communicated via local media, did you start to consult those?*

Initially, I relied on learning important things (like, whether I must be wearing a mask while doing groceries) from the people on the department, but I was gradually also reading more and more of the swissinfo.ch. The instagram account "swiss.public.health" was also helpful in learning the essentials, like the new regulations the officials would announce on the press-conferences.

## Publications

### Journal Articles

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**ADRIAN, NANA & MÖLLER, MARC.** 2020. Self-managed work teams: An efficiency rationale for pay compression. *Journal of Economics & Management Strategy*, 29(2), S. 315-334.

**ANGELETOS, GEORGE-MARIOS & COLLARD, FABRICE & DELLAS, HARRIS.** 2020. Business-Cycle Anatomy. *American Economic Review*, 110(10), S. 3030-3070.

**BENATI, LUCA.** 2020. Money Velocity and the Natural Rate of Interest. *Journal of Monetary Economics*, 116, S. 117-134.

**BENATI, LUCA & CHAN, JOSHUA & EISENSTAT, ERIC & KOOP, GARY.** 2020. Identifying noise shocks. *Journal of Economic Dynamics & Control*, Vol. 111, 103780.

**BENIGNO, PIERPAOLO & EGGERTSSON, GAUTI B. & ROMEI, FEDERICA.** 2020. Dynamic Debt Deleveraging and Optimal Monetary Policy. *American Economic Journal: Macroeconomics*, 12(2), S. 310-350.

**BENIGNO, PIERPAOLO & NISTICÒ, SALVATORE.** 2020. Non-Neutrality of Open-Market Operations. *American Economic Journal: Macroeconomics*, 12(3), S. 175-226.

**BENIGNO, PIERPAOLO.** 2020. A Central Bank Theory of Price Level Determination. *American Economic Journal: Macroeconomics*, 12(3), S. 258-283.

**BENKERT, JEAN-MICHEL & LETINA, IGOR.** 2020. Designing Dynamic Research Contests. *American Economic Journal: Microeconomics*, 12(4), S. 270-289.

**BLOURI, YASHAR & V. EHRLICH, MAXIMILIAN.** 2020. On the optimal design of place-based policies: A structural evaluation of EU regional transfers. *Journal of International Economics*, 125, S. 103319.

**BÜCHEL, KONSTANTIN & V. EHRLICH, MAXIMILIAN.** 2020. Cities and the structure of social interactions: Evidence from mobile phone data. *Journal of Urban Economics*, Vol. 119, 103276.

## Publications (2)

**BÜCHEL, KONSTANTIN & V. EHRLICH, MAXIMILIAN & PUGA, DIEGO & VILADECANS-MARSAL.** 2020. Calling from the outside: The role of networks in residential mobility. *Journal of Urban Economics*, Vol. 119, 103277.

**BÜCHEL, KONSTANTIN & LEGGE, STEFAN & POCHON, VINCENT & WEGMÜLLER, PHILIPP.** 2020. Swiss trade during the COVID-19 pandemic: an early appraisal. *Swiss Journal of Economics and Statistics*, 156(1), S. 22.

**BÜCHEL, KONSTANTIN & KYBURZ, STEPHAN.** 2020. Fast track to growth? Railway access, population growth and local displacement in 19th century Switzerland. *Journal of Economic Geography*, 20(1), S. 155-195.

**BOSE-DUKER, THEOPHILINE & HENRY, MICHAEL & STROBL, ERIC.** 2020. Children's Resource Shares: Male Versus Female-Headed Households. *Journal of Family and Economic Issues*.

**BREI, MICHAEL & PÉREZ-BARAHONA, AUGUSTÍN & STROBL, ERIC.** 2020. Protecting Species through Legislation: The Case of Sea Turtles. *American journal of Agricultural Economics*, 102(1), S. 300-328.

**CARAPPELLA, FRANCESCA & MONNET, CYRIL.** 2020. Dealers' insurance, market structure, and liquidity. *Journal of Financial Economics*, 138(3), S. 725-753.

**CATTANEO, MARIA & LERGETPORER, PHILIPP & SCHWERDT, GUIDO & WERNER, KATHARINA & WOESSMANN, LUDGER & WOLTER, STEFAN.** (2020). Information provision and preferences for education spending: Evidence from representative survey experiments in three countries. *European Journal of Political Economy*, 63.

**CHERNOZHUKOV, VICTOR & FERNÁNDEZ-VAL, IVÁN & MELLY, BLAISE.** 2020. Fast algorithms for the quantile regression process. *Empirical Economics*.

**DELLAS, HARRIS & NIEPELT, DIRK.** 2020. Austerity\*. *The Economic Journal*

**DOBSON, STEPHEN & RAMLOGAN-DOBSON, CARLYN & STROBL, ERIC.** 2020. Savings and the informal sector. *International Review of Applied Economics*, 34(2), S. 217-234.

**EGGER, PETER H. & V. EHRLICH, MAXIMILIAN & NELSON, DOUGLAS.** 2020. The trade effects of skilled versus unskilled migration. *Journal of Comparative Economics*, 48(2), S. 448-464.

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**MUEHLMANN, SAMUEL & WOLTER, STEFAN C.** 2020. The Economics of Vocational Training. in: *The Economics of Education. A Comprehensive Overview*. S. 543-554.

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**BRUNETTI, Aymo.** 2020, April 9. Womit befasst sich die Volkswirtschaftslehre? *Die Volkswirtschaft: Plattform für Wirtschaftspolitik*, S. 30-31.

**BRUNETTI, Aymo.** 2020, April 27. Kein wirtschaftspolitischer Aktivismus im Blindflug. *Neue Zürcher Zeitung*, S. 8.

**BRUNETTI, Aymo.** 2020, Juni 22. Wachstum versus Konjunktur. *Die Volkswirtschaft: Plattform für Wirtschaftspolitik*, S. 54-55.

CORTES, MATIAS & **TSCHOPP, JEANNE.** 2020, October 28. Steigende Marktkonzentration und Lohnungleichheit. *Ökonomenstimme*.

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**WOLTER, STEFAN C.** 2020, October 1. Wird alles besser ohne Prüfung? *Neue Zürcher Zeitung*, S. 12.

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**ALTERMATT, LUKAS & WIPF, CHRISTIAN.** 2020, February 19. Liquidity, the Mundell-Tobin Effect, and the Friedman Rule, *Unpublished*.

**BALESTRA, SIMONE & SALLIN, AURÉLIEN & WOLTER, STEFAN C.** 2020. High-Ability Influencers? The Heterogeneous Effects of Gifted Classmates. *University of Zurich IBW Working Paper Series*, No. 0170.

**BECCUTI, JUAN & MÖLLER, MARC.** 2020. Fighting for Lemons: The Encouragement Effect in Dynamic Contests with Private Information. *Department of Economics, University of Bern, DP 20-17*.

**BENIGNO, PIERPAOLO & CANOFARI, PAOLO & DI BARTOLOMEO, GIOVANNI & MESSORI, MARCELLO.** 2020. Theory, Evidence, and Risks of the ECB's Asset Purchase Programme. *SEP LUISS Working Paper*, No. 20-05.

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**BENIGNO, PIERPAOLO & NISTICÒ, SALVATORE.** 2020, April. The Economics of Helicopter Money. *CEPR Discussion Paper*, No. 14555.

**BRACCIOLI, F. & NAGUIB, C. & PELLIZZARI, M.** 2020. Productivity, jobs and wages. *Unpublished*.

**BÜCHLER, SIMON & VAN DE MINNE, ALEX & SCHÖNI, OLIVIER.** 2020, April. Redevelopment Option Value for Commercial Real Estate. *CRED Working Paper*, No. 26.

**BECKER, RAPHAEL N. & HENKEL, MARCEL.** 2020, February. The Role of Key Regions in Spatial Development. *DICE Discussion Papers*, No. 331.

**BÜCHEL, KONSTANTIN & JAKOB, MARTINA & KÜHNHANSS, CHRISTOPH & STEFFEN, DANIEL & BRUNETTI, AIMO.** 2020. The Relative Effectiveness of Teachers and Learning Software: Evidence from a Field Experiment in El Salvador. *Department of Economics, University of Bern, DP 20-06*.

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**CORTES, GUIDO MATIAS & LERCHE, ADRIAN & SCHÖNBERG, UTA & TSCHOPP, JEANNE.** 2020, October. Technological Change, Firm Heterogeneity and Wage Inequality. *Unpublished*.

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## Publications (6)

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**EMONS, WINAND; LENHARD, SEVERIN**. 2020, July. Rebating Antitrust Fines to Encourage Private Damages Actions. *Department of Economics, University of Bern, DP 20-02*.

GONZALEZ-EIRAS, MARTÍN & NIEPALT, DIRK. 2020, April. On the Optimal "Lockdown" during an Epidemic. *CESifo Working Papers*, No. 8240.

GONZALEZ-EIRAS, MARTIN & **NIEPALT, DIRK**. 2020, May. Tractable Epidemiological Models for Economic Analysis. *Department of Economics, University of Bern, DP 20-09*.

**GONZALEZ-EIRAS, MARTÍN & NIEPALT, DIRK**. 2020, Dezember. Optimally Controlling an Epidemic. *Department of Economics, University of Bern, DP 20-19*.

HOFMANN, ELISA & **KYRIACOU, LUCAS CHRISTOPHER ANDREAS** & KLAUS, SCHMIDT. 2020. A Model United Nations Experiment on Climate Negotiations. *Unpublished*.

**KALAMBADEN, PREETHA & STEFFEN, DANIEL**. 2020. The Effect of Outward Foreign Direct Investments on Home Employment: Evidence using Swiss Firm-Level Data. *CRED Working Paper*, No. 28.

KUHN, ANDREAS & **WOLTER, STEFAN C.** 2020, June. Things versus People: Gender Differences in Vocational Interests and in Occupational Preferences. *IZA Discussion Paper*, No. 13380.

**LETINA, IGOR** & LIU, SHUO & NETZER, NICK. 2020, May. Optimal Contest Design: A General Approach (Discussion Papers 20-11). *Department of Economics, University of Bern, DP 20-11*.

**LETINA, IGOR** & SCHMUTZLER, ARMIN & SEIBEL, REGINA. 2020, August. Killer Acquisitions and Beyond: Policy Effects on Innovation Strategies. *University of Zurich, Economic Working Paper Series*, No. 358.

**MELLY, BLAISE**. 2020. Estimation, Inference, and Interpretation in the Regression Discontinuity Design. *Unpublished*.

**MÜLLER, TOBIAS** & SCHMID, CHRISTIAN & **GERFIN, MICHAEL**. 2020, July 21. Rents for Pills - How Financial Incentives Influence Physician Behavior, *Unpublished*.

**NAGUIB, COSTANZA** & DE GIORGI, GIACOMO. 2020. Relocations after natural disasters: Evidence from credit score data. *Unpublished*.

**NIEPALT, DIRK**. 2020. Monetary Policy with Reserves and CBDC: Optimality, Equivalence, and Politic. *Department of Economics, University of Bern, DP 20-18*.

**SPYCHER, SARAH & WINKLER, RALPH** 2020, Dezember. Strategic Delegation in the Formation of Modest International Environmental Agreements. *CESifo WP No. 8769*.

**STEPHAN, GUNTER**. 2020. Intergenerational fairness and climate change adaptation policy. *Unpublished*.

TAVONI, ALESSANDRO & **WINKLER, RALPH**. 2020. Domestic Pressure and International Climate Cooperation. *Università di Bologna, Quaderni Working Paper DSE*, No. 1154.

**WIPF, CHRISTIAN**. 2020, February 16. Should Banks Create Money? *Unpublished*.

**ZUMBUEHL, MARIA** & HOF, STEFANIE & **WOLTER, STEFAN C.** 2020, May. Well prepared or just pushed enough to gain access? Educational Success After Private Tutoring. University of Zurich, *Economics of Education Working Paper Series*, No. 0169.

Visit [www.vwi.unibe.ch/research](http://www.vwi.unibe.ch/research) to read the *Discussion Paper Series* of the Department of Economics.

## Grants

### Grants

**BENIGNO, PIERPAOLO:** Grant from the *Swiss National Science Foundation* for the project "Monetary Policy and Currency Competition".

**VON EHRLICH, MAXIMILIAN:** Grant from the *Swiss National Science Foundation* for the project "The Hidden Consequences of Digitalization for the Spatial Economy", *SNF National Research Program 77*, 2020 "Digital Transformation".

**GERFIN, MICHAEL:** Grant from the *Swiss National Science Foundation* for the project "On the Impact of Social Comparison on Physician Behavior". SNF-Grant No. 10001C\_192341

**KALAMBADEN, PREETHA:** Competitive and care-related fund for junior researcher, *University of Bern*.

**TSCHOPP, JEANNE:** Grant from the *Swiss National Science Foundation* for the project "On the Road to Recovery". SNF-Grant No. 100018\_192553

## Awards and Honors

### Awards and Honors

**NIEPELT, DIRK:** President of the Swiss Society of Economics and Statistics.

**EMONS, WINAND:** Dean of the Faculty of Business, Economics and Social Sciences, *University of Bern*.

**PONS, MARTINA:** VWG-Prize for Economics 2020 awarded by the *Volkswirtschaftliche Gesellschaft des Kantons Bern*.

### New Outreach Activities

**BRUNETTI, Aymo:** Member of the Swiss National COVID 19 Science Task Force.

**BRUNETTI, Aymo:** Member of the "Beirat für Konjunkturstabilisierung" for the State Secretariat for Economic Affairs (SECO).

**NIEPELT, DIRK:** Academic Council Member, *StiftungZukunft.li*

## Appointments and Promotions

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**COSTANZA NAGUIB** has been appointed Assistant Professor (tenure track) in Econometrics.

**IGOR LETINA** has been promoted to Associate Professor in Microeconomics.

**MARCEL HENKEL** has been appointed Postdoctoral Researcher in Public Economics.

**MAXIMILIAN V. EHRLICH** has been promoted to Full Professor in Public Economics and appointed Director of the Center for Regional Economic Development (CRED).

**OLEG MURATOV** has been appointed Postdoctoral Researcher in Microeconomics.

**PIERPAOLO BENIGNO** has been appointed Professor in Monetary Macroeconomics.

**SIMON BÜCHLER** has been promoted to Postdoctoral Researcher in Public Economics.

## Doctoral Theses

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**AEPLI, MANUEL:** "Essays in Applied Microeconomics with a Focus on Vocational Education and Training". *Doctoral Committee:* Michael Gerfin, Samuel Mühlemann (Ludwig-Maximilians-Universität München).

**BÜCHLER, SIMON CAMILO:** "How do economic forces affect the real estate market". *Doctoral Committee:* Maximilian von Ehrlich, Albert Saiz (Massachusetts Institute of Technology).

**BLOURI, YASHAR:** "Public Policy and the Geography of Economic Activity". *Doctoral Committee:* Maximilian von Ehrlich, Tobias Seidel (Universität Duisburg-Essen).

**CANETG, FABIO:** "Monetary Policy in a New Era". *Doctoral Committee:* Fabrice Collard (Toulouse School of Economics), Cyril Monnet.

**OLESCHAK, ROBERT:** "On the Contribution of Payments and Clearing to Financial Inclusion and Stability. Three Essays". *Doctoral Committee:* Cyril Monnet, Thorsten V. Koepl (Queen's University, Kingston, Ontario).

**STEFFEN, DANIEL:** "Essays in Applied Causal Analysis. Development, Real Estate, and International Economics". *Doctoral Committee:* Aymo Brunetti, Isabel Günther (ETH Zürich), Mauricio Romer (Instituto Tecnológico Autónomo de México ITAM).

**WIPF, CHRISTIAN ANDREAS:** "Money Creation by Banks, Regulation and Optimal long-run Inflation Targets". *Doctoral Committee:* Cyril Monnet, Chao Gu (University of Missouri).

## Moving on...

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**DANIEL STEFFEN** has left the department and has accepted a job as senior research associate of the University of Applied Sciences of Lucern

**FABIO CANETG** has left the department and has accepted a job offer as lecturer at the University of Neuchâtel and he also works as freelance journalist

**YASHAR BLOURI** has left the department and has accepted a job as pricing actuary at the Baloise Insurance.

