

Laudation – Prof. Nicholas Bloom

Schumpeter School Award, 5th of July 2019

Rector Koch,

Secretary of State Mr. Feicht,

Dear Colleagues,

Dear Students,

Dear Guests,

Dear Nick,

It is a great honor and privilege to deliver this laudation of Nick Bloom. This year's laureate for the Schumpeter School Award for Business and Economic Analysis is one of the world's most distinguished economists in the field of macroeconomics. At the same time he is making outstanding contributions in the field of management. While a combination of these research fields is extremely uncommon, it perfectly fits with Schumpeter's approach to science. As we all know, Schumpeter was a very prolific scientist. He is best known for his seminal contributions to the fields of innovation and entrepreneurship, but he also did research on macroeconomic topics, like business cycles. Schumpeterian research is also highly relevant for business administration, management, political science, and sociology. Accordingly, one of the many reasons for awarding Nick Bloom the Schumpeter School Award is his broad spectrum of research topics.

Nick is now the fifth awardee after David Audretsch, Dietmar Harhoff, Rachel Griffith, and Eric von Hippel. Like his four predecessors, Nick is an excellent scientist with a striking impact on economic research. Rachel Griffith, who was honored with the Schumpeter School Award in 2015, is one of Nick's co-authors. Together with other colleagues they published a highly influential article on the relationship between innovation and competition. Since this joint work was one of the reasons Rachel Griffith was recognized with the Schumpeter School Award in 2015, to acknowledge Nick for the same research work in 2019 would constitute a redundancy. But that is not a problem,

because Nick has offered other research to society that is also worthy of praise. Our prize committee decided to give the Schumpeter School Award to Nick Bloom for his research on management practices and uncertainty.

Before elucidating in greater detail on Nick's outstanding and highly influential research, I'll briefly summarize Nick's academic career. As you all know, Nick Bloom is professor at Stanford University. But what you might not know is that he is a member of two faculties: The Economics School of Humanities & Sciences and the Graduate School of Business. This demonstrates his ability to bridge the gap between economics and business administration in classic Schumpeterian tradition. Moreover, he is Co-Director of the Productivity, Innovation and Entrepreneurship program at the National Bureau of Economic Research, which is one of the most renowned research organizations in economics worldwide.

Nick has served as an editor and associate editor of several prestigious academic journals, like *Econometrica* and the *Quarterly Journal of Economics*. He has been the recipient of several academic awards, for example the Alfred Sloan Fellowship, the Bernacer Prize, the European Investment Bank Prize, the Kauffman Medal and a National Science Foundation Career Award, among others. In 2010, Nick was awarded with the Frisch Medal for his article "The Impact of Uncertainty Shocks". This Medal, named in honor of Ragnar Frisch, the first Nobel laureate in economics, is one of the top prizes in economics. It is awarded every two years by the Econometric Society for an outstanding article published during the previous five years in the society's journal *Econometrica*. This represents another connection to Joseph Schumpeter, as Schumpeter was elected chairman of the founding meeting of the Econometric Society.

Nick not only crossed the borders of academic disciplines, he also crossed the Atlantic to become an assistant professor at Stanford University in 2005. Before advancing his academic career in the United States, he completed his early education and earned his academic degrees at two distinguished universities in Great Britain. He has a Bachelor's degree from the University of Cambridge and a Master's degree from the University of Oxford. Not a bad start for an academic career, wouldn't you say?

From 1996 to 2002 he worked as a research economist at the Institute for Fiscal Studies, a renowned think tank in the field of public economics. Nick completed his PhD

with the title “Real options, uncertainty and investment” under the supervision of John Van Reenen and Richard Blundell at University College London in 2001. After finishing his PhD, he worked for McKinsey for one year which may explain why he did not shy away from management related research later in his academic career. To sum it all up, before moving to the United States, he enjoyed one of the best academic environments that one can have in Europe.

According to his biography, on the personal side he is English, living with his Scottish wife and American kids in a multi-lingual English household. Obviously, bridging gaps is an integral part of Nick’s life. When sending emails back and forth to organize this award ceremony, we also learned that he is a lifelong Tottenham Hotspur’s fan. Nick was overwhelmed by the Spurs’ victory over Ajax Amsterdam in the semi-final of the Champions League. Unfortunately, the Spurs lost against Liverpool in the final. As a lifelong fan of Borussia Mönchengladbach, I can understand what a cruel fate it is to be a fan of a football club that doesn't win titles. However, as someone said: "You don't choose your club, your club chooses you." There are, however, some degrees of freedom with respect to occupational choice and the choice of research topics; obviously, Nick made the right choices as he is one of the top players in the Champions League of Economic Research.

Combining theoretical and quantitative research is one of the factors explaining Nick’s success in and great influence on economic research. Although Schumpeter himself never really engaged in mathematical theory building or quantitative research, Schumpeter was a great advocate of these research approaches. Moreover, Nick’s research focuses on topics that are not only fascinating from a scientific point of view, but are also of great practical relevance. As mentioned before, our prize committee decided to give the Schumpeter School Award to Nick Bloom for his research on management practices and uncertainty.

Let me now briefly explain why his research in these fields is of greatest significance. For a long time, economists did not really care about management practices. It was simply assumed that firms maximize their profits. The firm was treated as a black box. Analyzing what’s going on in this black box was a mission left to management scholars. In empirical research, like the estimation of production functions, economists tried to

account for unobserved differences between firms by using certain econometric techniques, like panel data estimations with fixed effects. While it can be assumed that better managed firms are also more productive, you need data to do quantitative analyses on firm differences in management practices.

However, international data on management practices didn't exist. This is exactly where Nick Bloom and John van Reenen started. They published a seminal article with the title "Measuring and Explaining Management Practices across Firms and Countries" in the Quarterly Journal of Economics. Last week, Google Scholar listed 2507 citations of this article. In this article, Nick and John developed a new survey methodology to measure management practices. They distinguished 18 different management practices ranking them from best to worst. Adopting best management practices makes firms, on average, more productive than firms that adopt worst practices; Nick and John provided empirical evidence for this link.

At first glance, this might not be very surprising and when talking to management scholars about Nick and John's work, some of them seem to be a little bit annoyed saying that this is already well known. But that isn't quite true. Before Nick and John's work there was no systematic approach for collecting international data on management practices. Because of their work that has changed. We now have the World Management Survey, a dataset measuring the quality of management practices in establishments in 35 countries that is based on more than 20 thousand interviews.

From my point of view the most striking result of this research is the tremendous variation in management quality. Product market competition tends to foster better management practices but it seems that even badly managed firms can survive. U.S. firms are, on average, better managed than European firms. Newer studies pointing to the differences between developed and developing countries show that poorly managed firms are more concentrated in developing countries. There are also significant within-country differences. There is a long tail of extremely badly managed firms. In a very recent study titled "What Drives Differences in Management Practices?" that was published this year in the American Economic Review, Nick and his colleagues partnered with the US Census Bureau in surveying 35,000 manufacturing plants. They find that management practices at manufacturing plants are affected by the business

environment through labor laws. Learning spillovers, as measured by the arrival of large “Million Dollar Plants” in a county, also improve management quality. Moreover, they find an enormous dispersion of management practices across plants, with 40 percent of this variation occurring within the same firm. This reminds me of an NBER working paper written by Zvi Griliches and Jacques Mairesse where they conclude that “the observed variability-heterogeneity does not really decline as we cut our data finer and finer.”

Nick and his colleagues repeatedly find that management practices are correlated with various measures of firm performance; however it is not clear whether these associations reflect causal relationships. For instance, the adoption of best-management practices may increase the performance of firms, but successful firms may also adopt best-management practices. Hence, the relevant question is: Can differences in management practices across firms explain differences in productivity?

This question was examined by Nick and his colleagues in their study titled “Does Management Matter? Evidence from India” that was published in 2013 in the Quarterly Journal of Economics. In order to examine the causal effects of management practices, Nick and his colleagues ran a management field experiment on large Indian textile firms. It is a really nice experiment that I mention quite often in my lectures. These Indian textile firms were randomly allocated to two groups. To one group of firms they provided free consulting on management practices. Another control group of firms was not provided free consulting on management practices. The productivity of the randomly chosen treatment plants was then compared to the performance of control plants. The findings suggest that adopting best-management practices raised productivity by 17% in the first year and within three years led to the opening of more production plants.

I think that this research on management practices is a great example for extremely fruitful long-term projects that provide an extraordinarily large benefit for science.

As mentioned before, another major contribution is Nick’s research on uncertainty. He has brought the issue of uncertainty back into the spotlight of economic discussion. And the debate is omnipresent:

How does uncertainty about global economic conditions affect the investment behavior of firms?

What are the effects of political uncertainty in a parliamentary democracy?

What are the costs of uncertainty spikes due to Brexit concerns?

How much did Europe gain from eliminating exchange rate risk through the Euro?

Nick's work is of paramount importance in answering these questions. The issue of uncertainty also played an important role for Keynes, Schumpeter and other great economists. But Nick's contribution goes far beyond a "revival." Nick first took up ideas from Dixit and Pindyck on the economic analysis of investment under uncertainty. Our dean, Nils Crasselt, also had this book under his pillow for many years when he worked on Real Options. Obviously, it's a good idea to refer to this book.

And it is often the simple-sounding relations that unfold the greatest relevance for science and practice. Nick has shown convincingly that „When uncertainty spikes, investment goes down.“ If there's a lot of uncertainty, for instance about prices, investors may simply wait. Wait and See. This reaction to uncertainty can have far-reaching consequences for the real economy.

The second major contribution by Nick in this field was to show that there are fluctuations in uncertainty over time which again have far-reaching consequences. Let's go into some of the details of his work.

Nick has used company and balance sheet data and regression methods to confirm that the effects on uncertainty and investment behavior actually exist. Previous studies were mostly speculative. In parallel, Nick worked on incorporating the effects into Dynamic Stochastic General Equilibrium models. That took a little longer. I think the Econometrica paper on this took you more than 10 years? Nick uses a battery of research methods: from classic balance sheet analysis of companies to the evaluation of microdata and Scopus analyses of newspapers. For instance, his famous index measuring policy uncertainty was constructed to reflect the frequency of articles in 10 leading US newspapers that contain the following triple: “economic” or “economy”; “uncertain” or “uncertainty”; and one or more of “congress”, “deficit”, “Federal Reserve”, “legislation”, “regulation” or “White House“.

An exciting service for the scientific community was the creation of the "Uncertainty Database", which any of us can use online. The various cross-country indices it makes use of establish uncertainty as a general phenomenon.

Of particular relevance is Nick's finding that uncertainty fluctuates over time. Specifically, Nick has shown that fluctuations in uncertainty move hand in hand with the business cycle. His most important finding is: „Uncertainty increases in recessions and decreases in booms.” Of course, this is only a correlation at first. But Nick took it one step further by emphasizing one possible direction of causality: namely that uncertainty can "produce" the business cycle. This debate has triggered an avalanche of research in this field.

Nick emphasizes the contractive effects of uncertainty. However, in a Schumpeterian manner one might reply that higher uncertainty may also lead to more ex post diversity - in terms of products, production processes and so on. And more diversity might be advantageous as it creates new opportunities for specialization. Thus, at Schumpeter School we may add to the debate: Uncertainty and diversity are Evil Twins! So one question for the future is: Where are the frictions through which uncertainty impacts the economy, on the real side of the economy, on the financial market side, or somewhere else?

Without Nick Bloom's work, the debate would not be where it is today. Of course, Nick has made other significant contributions to economic research but it is beyond the scope of this laudation to present them all.

Nick, we are very pleased and honored to have you here in Wuppertal today to award you with our Schumpeter School Prize for your contributions to the empirical analysis of uncertainty and management practices.

And we are keeping our fingers crossed that the Spurs will win the champions league final next year. Congratulations!