

# NEKST

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ANNIVERSARY  
YEAR! NEKST  
HAS TURNED



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# Preface

# The Old and the New



These words officially mark the beginning of the twenty-fifth birthday of Nekst. That is twenty-five years of sharing experiences, informative articles and several other favorites such as the Quatsch section. To celebrate this, we are dusting off some of these jewels from the past, to let them shine once more. Additionally, we take a minute to see where we have come from: we dive into the history of both Nekst and econometrics as a discipline.

There are also several new and exciting things featured in this edition of Nekst! With a new academic year come a new board, a new Nekst committee and two brand new columnists to introduce to you. Over the upcoming academic year, Hein Fleuren and Servaas van Bilsen will be sharing some of their insights and experiences with us.

Furthermore, this issue contains articles on a variety of topics, ranging from the first steps of a brand new year of freshmen in the TOP week to the final paper handed in by a recent graduate on the do's and don'ts of life insurance. We offer a peek into the personal life of one of our favorite professors, René Peeters, and tell you the story of Tilburg's rising star: Spot On.

Finally, I would like to use this space to remind you that Nekst does not stop when you have turned this issue's final page. If by then you are still not satisfied and you are hungry for more Nekst, you could always visit [www.Nekst-Online.nl](http://www.Nekst-Online.nl) to find interesting exclusive articles, solutions to previous puzzles and exciting (multimedia) elaborations on printed articles. For now, I can only advise you to find a comfortable chair, because you will likely not get up until that final page has eventually been turned.

**Pepijn Wissing**  
*Editor-in-Chief*

## COLOPHON

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Farmer of professor? René Peters combines the best of both worlds!



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Check out page 22 for an interview with the Spot On band members.



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## TOP-Week

According to Jaron Kappers, he made friends for life during the TOP week! Read about it on page 16.

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Aandacht voor je toekomst

# Eeuwige student... én data talent?

Wil jij de studieboeken achter je laten en de stap zetten naar een eerste baan? Óf blijf je liever verder leren? Misschien wil je nog niet kiezen. En dat snappen we bij Aegon heel goed! Daarom bieden wij analytisch talent een traineeship aan. Dan breng je kennis en kunde meteen in de praktijk. En leer je de fijne kneepjes van het vak met trainingen en opleidingen. Zo blijf je als analytisch talent – nog héél even – die eeuwige student.

Meer weten? Ga naar:

[werkenbijaegon.nl](https://werkenbijaegon.nl)



# Dear Members,

**A few weeks ago, the academic year 2016-2017 has started. A new year implies several changes: new subjects, new challenges and maybe even a totally different life. For me and my fellow board members, the last was the case. While everybody around us was struggling with new courses, we were getting used to all the different colors in our agendas, the many tasks on our task lists and our new sleeping schedule.**

---

For those of you who do not know me, I would like to introduce myself. My name is Linda Torn, I am currently twenty years old and I am a second-year Bachelor student studying Econometrics and Operations Research. Last year, my career at Asset I Econometrics started with the Drinks and Activities committee and later on I joined the Orientation and Connection Day committee. My face is on this 5th page of Nekst, because this year I am allowed to call myself the Chairman of Asset I Econometrics. Of course, I will not be alone in this board and I am very happy with my fellow boardies: Charlotte Nijman, Tim van der Heijden, Milan van der Kamp and Anouk Verhagen. The first time I saw this new board, I was very surprised. We did not know each other very well, but the vibe was great right away. Now, only a few months later, we are already quite used to each other and our new lives, although I think one can never fully get used to the board life.

At this very moment, you are reading the 25th volume of the Nekst; did you realize that? 25 years of interesting interviews, nice students' stories, the best quatches and of course also 25 Nekst committees; committees that put so much effort and time into Nekst to provide us with new reading material four times a year. Of course, we should celebrate this and therefore it is time for some special editions! This whole year, the Nekst will have the 25 theme and you will see some fascinating articles from former Nekst editions.

During the summer me and my fellow board members often got the question: "What are you doing all day as the board of Asset I Econometrics?" To give you some more insight in our board lives, we created a Snapchat account. The name of the account is 'astrics-board' and you can add us yourself. We will show you the most interesting moments of

our board year. If you still want to know more about us, feel free to pass by at our rooms to get even more insight in our board year, have a little chat or get a cup of coffee.

We would like to make this year as great as possible and we cannot do this without all of you: our members. I hope to see you all at our activities and I hope that you will enjoy this year as much as I am going to!

On behalf of the board,

Linda Torn  
*Chairman Asset I Econometrics  
2016-2017*





# Who's Who?

**Text by: Zoë Connell & Julia de Kogel**



**Zoë  
Connell**

Zoë Connell is 22 years old and grew up in Uden. Nowadays, she lives in Tilburg, where she is studying for the fourth year. She is currently doing a pre-master, and besides the Nekst committee, she is also in the Econometrics in Practice Day committee. She enjoys living a carefree life, as her personal motto is "Never regret anything you did or said" and her favorite quote is "Wake up. Survive. Go back to sleep." Surviving is not a very hard goal to reach during the greater part of your life, so one day, she hopes to find her passion in life; for now, she loves listening to people who have found theirs. Until that time, she enjoys reading romantic novels, preferably written by Nicholas Sparks, and pretending the stories are real. If she were to write a book about herself, it would be called "Living the Pink Dream," because a lot of her clothing and accessories and even her studio is pink. Apart from the color pink, she loves spending time with her grandpa and her friends, and food. In fact, if you ever have about an entire day to spare, you should ask her to talk about food. Her absolute favorites are (tomato) soup and crème brûlée, and she can talk about this subject endlessly!



**Bas  
Dietzenbacher**

Bas Dietzenbacher was raised in Best (near Eindhoven) and currently lives at the Professor de Moorplein, located near the campus of Tilburg University. He is only 24 years old, but he already finished his first year of PhD at the department of Econometrics and OR and hence is currently in his second year. At the moment he is conducting research on cooperative game theory. He wants to become a professor and this is a goal he will definitely reach! A fun fact about Bas: upcoming International Business Tour will be the third time that he joins and next year he will be a member of the committee, so he will have joined the IBT a total of four times! In his free time he likes to play the saxophone and he is quite active in the associations of the orchestras he is a member of. Bas is a very passionate econometrician and it will therefore not surprise you that you can wake him for a proof of a conjecture. He states that he enjoys late romantic music so perhaps this is also something one could wake him up for (perhaps someone can try this at the next IBT?). Lastly, Bas has a favorite quote that is obviously related to his field of work: "Every number is small." If you want to know Bas a little better, feel free to ask him to elaborate on this meaningful quote.





## Steffi van den Hanenberg

Steffi van den Hanenberg is 21 years old. She grew up in Vinkel and currently lives in Oss together with her boyfriend (sorry guys everywhere...). Steffi just started the BAOR Master program and wants to become an OR consultant. Apart from being one of the smartest girls The Netherlands has to offer, she is an incredible dancer and has won multiple prizes for hiphop dancing: 5th place European championship UDO Hiphop and 8th place World championship UDO Hiphop in the category Hiphop DUO over 18. She quit dancing competitions herself, but now she is a proud coach of a junior hiphop crew named SCREAM. After a day of hard work, Steffi enjoys watching series. All together, Steffi is a busy girl and she experiences a fair bit of stress because of that. Therefore, she says that if a book were written based on her life, it would be titled "How to free yourself from stress in a million steps." I predict that Steffi has a lot of friends during January and February... This girl has numerous talents, but who knew face-painting people was one of them? Could come in handy for Carnaval! If you would like to be her friend during other months I would say: buy her some Ben & Jerry's Chunky Monkey and say that you have Magic Mike XXL. PS: Do not dare to take a bite of that ice cream! It is hers!



## Julia de Kogel

Julia de Kogel is 20 years old. She grew up in Helmond and now lives in a student residence together with five other girls. She is combining her Bachelor in EOR with a Bachelor in Liberal Arts and Sciences. Julia is a very special girl, with about seven nicknames including the Bullet, JdK (pronounced Jay de Kay) or Juuljaap. One should not mess around with Julia, as she is fit due to her water polo career. Some of her weird habits include going to IKEA just to test chairs and discuss which rooms look nice. However, she does not like to go home empty-handed... This is why she owns a plush shark, a book with Swedish songs about crayfish and beer, and a huge cardboard cutout of a dog. Her mother said she should not buy the dog because she would never use it, but this is something one should not say to Julia - this dog is decorated each year for Christmas and is put in the living room to prove her mother wrong. Julia not only enjoys buying odd stuff, she tends to steal things at parties (my advice: watch her when she is drunk!). If you want to hang out with this beautiful girl, I would recommend you to either buy her an extremely odd present or promise to listen to Christmas music or music from Ali B when she's over (he is her Ali Bae).





**Aurel Macias  
Minambres**

Aurel Macias is 23 years old and grew up in Eindhoven, where he still lives. Currently, he is a second-year student of the Bachelor in EOR. Aurel would love to become a baker, but he thinks that he should settle for something else since he is studying EOR. His free time is mostly filled with board games, relaxing, participating in stress-relieving activities such as seeing friends or going to the cinema and listening to music. Aurel is the kind of guy that appreciates the deeper meaning of a movie and therefore says Pulp Fiction is his favorite one. His childhood hero was (and perhaps still is) Ash Ketchum, but he does not share his thoughts about Pikachu; Aurel thinks Charmander is much better. Anyone that dares to disagree on this fact with him has a poor taste. One could wake Aurel up for more sleep, however if you wake him for anything else, you do not have to expect a punch in the face. Boxing and other martial arts sports are not really his cup of tea; he prefers athletics. Probably you know by now that this is a very interesting guy, so if you want to get to know him better and you are not good in punchlines, I have some advice: ask him about his opinion on Churchill quotes!



**Charlotte  
Nijman**

Charlotte Nijman, also known as Charly, Bokus or 003, is 22 years old. She grew up in Oisterwijk and now lives in Tilburg together with Denise Ligthart, a former active member of Asset I Econometrics. Currently, she is in the first year of her Master, but she does not have a lot of time to study because she is also the secretary of Asset I Econometrics. When she does have some spare time, she uses it to take long showers, spend time with her family, and hug her goldfishes. She can talk about her 3 year-old niece for hours and if she would win the lottery, she would take her niece to Disney Land. She claims that she would do this to give her niece the time of her life, but she is probably (or definitely) especially going there to meet her childhood hero, Mickey Mouse. Besides doing a board year, she dares to have even bigger dreams, which include meeting the tallest person on earth, asking King Willem Alexander to join Asset I Econometrics and becoming the owner of [www.kanikeenkortebroekaan.nl](http://www.kanikeenkortebroekaan.nl). If you want to make her happy, take her on a holiday to some nice and warm country, or help her to solve the mysteries in her life, such as "Why does my prince take so long to get here?" or "How can I optimize my utility if there is so much spaghetti in my head?"





**Claire  
Vink**

Claire Vink is 20 years old and grew up in Geldermalsen. She studied and lived in Rotterdam for a year, but now she is in the second year of her Bachelor in Tilburg, and lives in Talent Square. You may know her from the newspapers, as she won a reading competition, met Saint Nicholas, and placed second in the "Imagine scholierencompetitie". However, it is more likely that you know her for being active in both the Nekst committee and the Econometrics in Practice committee, or for attending nearly all Asset I Econometrics drinks. It will probably not surprise you that her favorite things to do are going out with friends and watching TV series such as How to Get Away with Murder, Scandal and Orphan Black, but she also has more serious aspirations that you may not expect. In the future, she would like to work at a corporation that is socially concerned, such as the World Food Programme. Moreover, she would like to travel the world. Ideally, this would include going on a road trip through Europe and America, and backpacking in New Zealand. If you are not super rich, but still want to impress her, try playing Adele or Beyoncé, offering her nachos or sushi, or just having a meaningful conversation.



**Pepijn  
Wissing**

Pepijn Wissing is 22 years old and he is originally from Essen (Germany). He moved to Eersel as a kid and then to Tilburg when he started his studies in Econometrics. He is currently in the first year of his Research Master. Besides being the editor-in-chief of the Nekst, he is also the treasurer of the International Business Tour 2016 committee. This means that he has quite a busy life, but he manages to sustain this lifestyle by being very creative and having the ability to get by fine on only 4 hours of sleep. He is a great cook, which guarantees the Nekst committee to win the board dinner. His favorite food is risotto. He also loves salami sandwiches with mustard, but will hopefully refrain from serving those to others. His guilty pleasure is carnival, but his more sophisticated interests include watching tv-shows or reading books that tell stories which constantly make you think and surprise you. He would also like to try playing the guitar some day (maybe if he simultaneously tries to sleep only 2 hours a night?). Although he comes across as a smart, sensible person when you meet him, he has once cleaned a bus in the middle of the night while wearing a Baywatch outfit. If you ever want to talk to him about a less serious subject, do not hesitate to ask for a more detailed version of this story!



# Econometric Roots

Text by: Pepijn Wissing

Oftentimes, research tends to be an ever-moving train that knows only one direction: forward. Sometimes, however, it is good to look back and see where we have come from. As is often the case with research fields, the exact moment of birth of the field of econometrics is hard to determine. The Norwegian economist Ragnar Frish is generally credited with having founded the discipline of econometrics. However, even though the first known use of the term “Econometrics” dates back to 1910, Frish only published his first important work on econometric methodology in 1929. Other sources, such as Epstein (1983) and Morgan (1990), state that the work of the Cowles Commission in the 1940s is believed to be the starting point of modern econometrics. In this article, we will attempt to offer some perspective on the matter.

## A statistical basis

A Victorian man by the name of Francis Galton, first cousin of Charles Darwin, first proposed the idea of a regression equation in 1865. Later, Galton studied the way in which intellectual, moral and personality traits tend to run in families. In doing so, Galton notes that, as one generation succeeds another, the outstanding qualities that have characterized the earlier generations tend to fade as generations progress. He describes this phenomenon as *tendency to mediocrity*; something we now know as central tendency. Galton conducted a detailed statistical investigation of such tendencies; his methodology reached its maturity in 1886 and would later be improved upon by Galton's disciple Karl Pearson.

The regression model that strongly influenced the early development of

econometrics has features that set it apart from the bivariate statistical model used by Galton. The former was the model in which the variable that is plotted on the horizontal axis is subject to experimental manipulation that was extensively used by Ronald Fisher at the Rothamsted Experimental Station. Having been founded in 1843, the Rothamsted Station is one of the oldest agricultural research institutions in the world. When Fisher joined the institution, he was tasked with making sense of the data generated by a series of long-term experiments, measuring the effects of diverse fertilizers on crop yield.

Over the years, Fisher generated many of the statistical methods that are associated with the linear regression model, such as the theory of design of experiments and the theory of hypothesis testing, as well as propounding the method of

maximum-likelihood estimation. As such, his first book, *Statistical Methods for Research Workers*, which was published in 1925, became a standard reference work for scientists in many disciplines, and traces of it are found in the early texts of econometrics.

The experimental regression model of Fisher can be reconciled with the descriptive regression model used by Galton if one rephrases the question to a conditional distribution of the dependent variable  $y$ , given the independent variable  $x$ . Even though  $x$  has its own Gaussian distribution in Galton's descriptive model, we can still take a specific value of  $x$  and ask for the consequent value of  $y$ , as illustrated in Figure 1.

However, we have to be careful with the results obtained from both of these models: there are still some

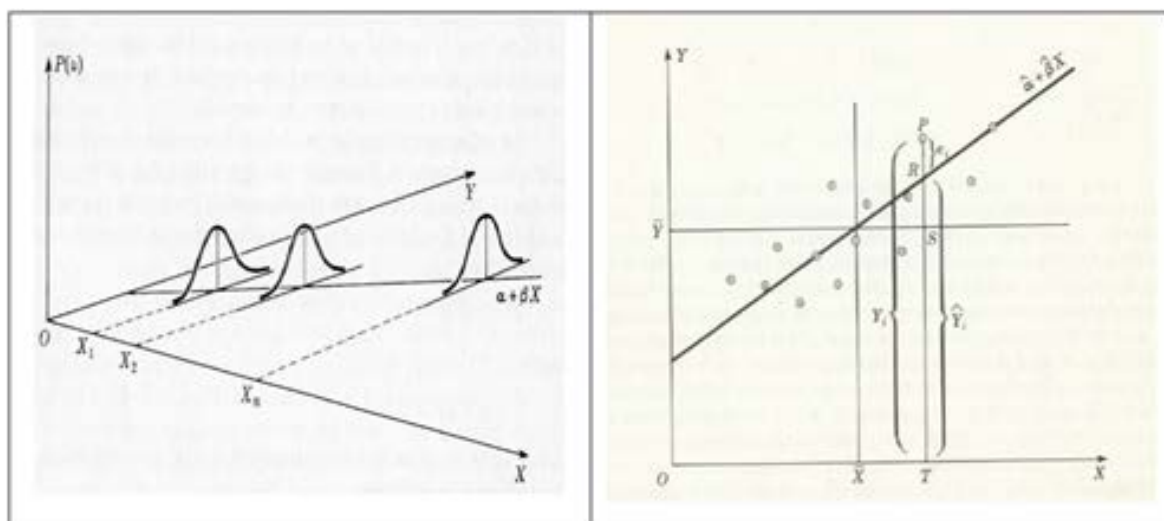
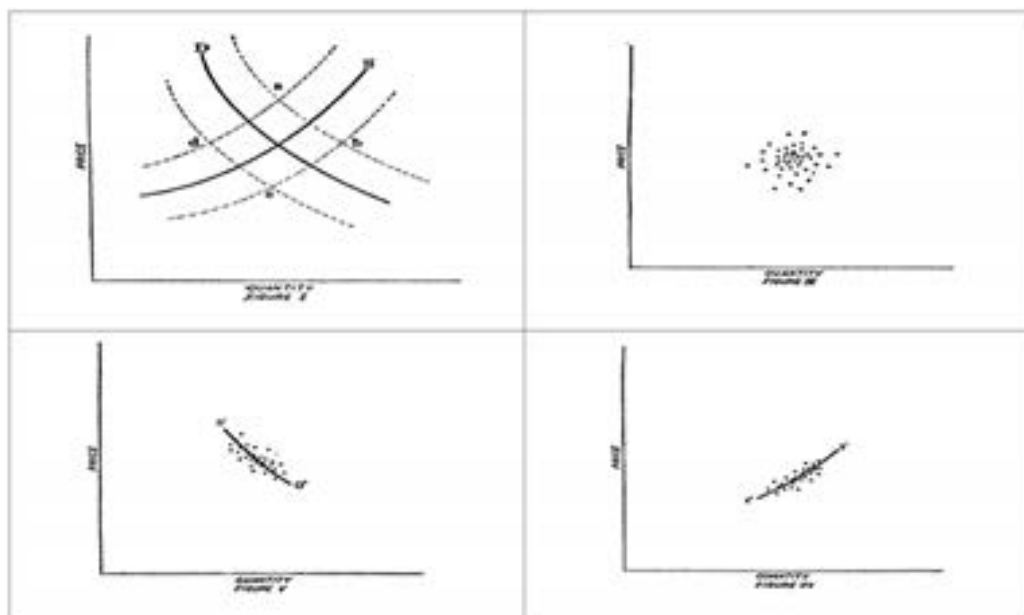


Figure 1. The conditional distributions of  $y$  given  $x$  and the least-squares estimation of the regression line.



**Figure 2. Diagrams of supply and demand.**

unincorporated bounds on the ranges of the independent variables. For example, using too much fertilizer would scorch the plants and using too much water would also kill them. In econometrics, imposing such bounds is quite uncommon: oftentimes, the main purpose of an estimated model is to form conjectures regarding the effect of values for the independent variable that are impossible (or just very hard) to test for in an experimental set-up. Furthermore, one of the more complex problems in early econometric theory is dealing with the various interdependencies that might exist between the explanatory variables. One of the essential difficulties came to light in the early 1900s, in connection with the statistical estimation of demand curves.

### Supply and demand

The estimation of demand curves was one of the major nuts to crack for American researchers throughout the 1920s and the 1930s. The main problem arises from the fact that prices and quantities of economic goods are jointly determined within their markets, by the interaction of supply and demand. In a particularly beautiful anecdote, Alfred Marshall explains why it may be inappropriate to view the matter from one side only. He said:

*"We might as reasonably dispute whether it is the upper or the lower blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that, when one blade is held still and the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second; but the statement is not strictly accurate, and is to be excused only so long as it claims to be merely a popular and not strictly scientific account of what happens."*

The implications of the statement above on the statistical determination of demand curves was fully revealed by Elmer Working in 1927; though historical research has shown that others had reached similar conclusions at earlier dates. For example, the Danish economist Jens Warming had reached this conclusion in his commentary on a book published in 1906. Elmer Working began noting that we may describe the prices and quantities that are determined in the market as the jointly dependent variables in the supply and demand equations. A series of diagrams produced by Working to illustrate this idea can still be found in many econometrics textbooks and is shown in Figure 2.

The recognition of the possibility of achieving the identification of the parameters of models with jointly dependent variables motivated a search for efficient methods of simultaneous-equation estimation<sup>1</sup>. This problem was addressed and solved in theory by a group of young statisticians known as the Cowles Commission in the late 1940s and the early 1950s.

### The Cowles Commission

The Cowles Commission for Research in Economics was founded in Colorado Springs in 1932 by a businessman and economist by the name of Alfred Cowles. In 1939, the Commission moved to the University of Chicago. In 1943, Jacob Marschak became director of the Cowles Commission. Under Marschak's directorship, the Commission began an intensive study of the problems of estimation and identification associated with simultaneous equation systems.

The inspiration for this line of research had been the work done by Ragnar Frish. In 1948, Tjalling C. Koopmans – yes, this is indeed the man the Koopmans building is named after – became the director of the commission; it was in this period that the definitive work on simultaneous equation estimation was published. →

<sup>1</sup> A technique that estimates (a part of) the variables in a system of linear equations, based on the premise that these equations must simultaneously hold.



The commission explored three methods: the indirect least-squares method, the method of limited-information maximum likelihood and the method of full-information maximum likelihood. The more considerable achievements of Koopmans and the Cowles Commission were their rigorous development of the theoretical statistical underpinnings of those earlier conceptual ideas and making all of them work together. At the 50<sup>th</sup> anniversary celebration of the commission, Malinvaud referred to their simultaneous equation methodology as a castle. He said:

*"It is a must to go on top of the keep and to look from there at the surrounding landscape. If one does not do so, one will be definitely handicapped and clumsy when making assessments about exogeneity, about identifiability or about estimation bias resulting from interdependence between phenomena."*

However, it is fair to say that the maximum-likelihood methods defeated the practitioners at the time. In the first place, the methods demanded computing facilities that were not widely available. Also, their mathematical derivations were demanding and not widely understood. In the late 1950s and the early 1960s, these methods

were effectively reinvented, now by the name of two- and three-stage least squares, in a manner that made them widely intelligible.

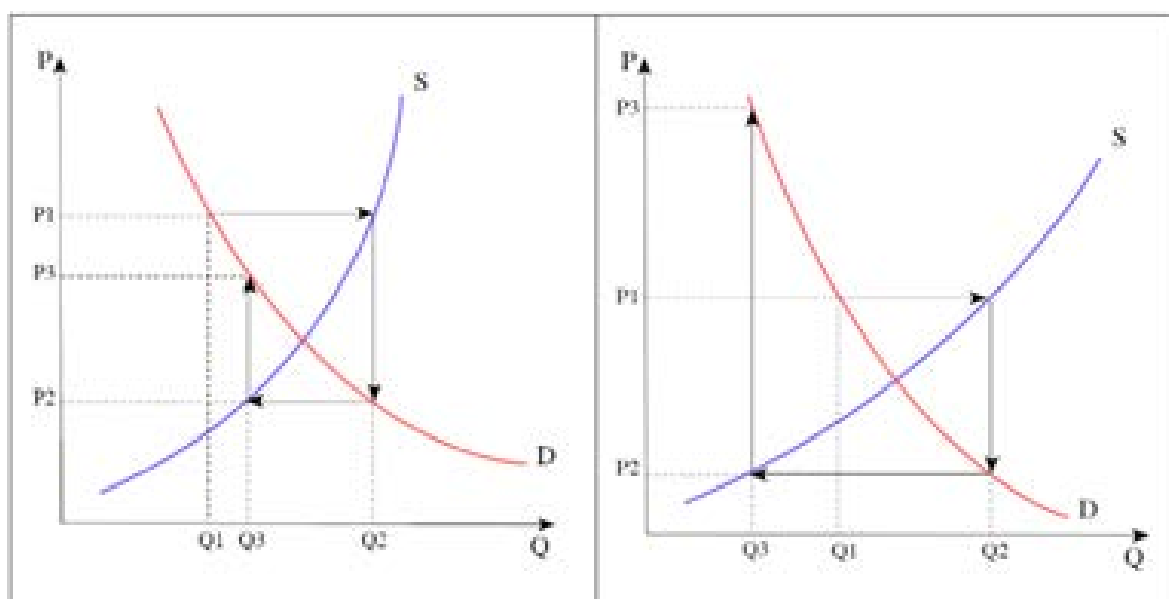
Rising opposition to the Cowles Commission by the department of economics at the University of Chicago during the 1950s forced the group to move to Yale University in 1955, where it would be reincarnated as the Cowles Foundation. Electronic copies of the fundamental papers on the subjects mentioned above are available at <http://cowles.econ.yale.edu/>, for the interested reader.

An important note on the origin of the fundamental ideas is placed by Morgan (1990). She said: *"According to my interpretation of the evidence then, system estimation and structural relations were both well understood (...) before the Cowles work of the 1940s. All that was missing is simultaneity, and it was Haavelmo in 1941, who moved the emphasis away from the individual structural relations (...) towards a model of simultaneous structural relations."* Haavelmo, in turn, owed much of his discussion of structure to Frish's influence. Frish had, for example, advised that individual equations in macrodynamic systems such as Tinbergen's should be estimated directly in 1933.

### Large-scale macroeconometrics

The work of the Cowles Commission was accompanied by an increasing interest in large-scale macro-econometric models, which were proposed as indispensable aids to governmental decision-making. The Dutch economist Jan Tinbergen developed the first comprehensive national model, which he first built for the Netherlands (in 1937) and later applied to the United States (1939) and to the United Kingdom (1951). For these efforts, Tinbergen received (jointly with Ragnar Frish) the first Nobel prize in economics in 1969. In the hands of the statisticians of the national central statistical offices (such as the Dutch CBS), these models grew to include hundreds of equations. There were equations for estimating a variety of consumer demands, equations to describe house-building activities in detail, and so forth.

However, the idea of joint or simultaneous determination of certain economic variables met quite some resistance, most notably from Herman Wold. Wold argued that multi-equation econometric models should be structured in a recursive manner, such that preceding equations would predetermine the inputs to each equation. In a paper titled *Causal Ordering and Identification*, Herbert Simon provides an example on the causal relation between (1) poor growing



**Figure 3. The cobweb model. The geometry of the diagrams determine whether the amplitude of the fluctuations will be increasing or diminishing.**



weather, (2) small crop yield and (3) the increasing price of wheat. He establishes a series of equations that determines the corresponding variables  $x_1$ ,  $x_2$  and  $x_3$  in sequence, which can be portrayed by writing  $x_1 \rightarrow x_2 \rightarrow x_3$ . This may be seen as a temporal sequence, although Simon notes that a causal ordering is not necessarily predicated on a temporal ordering.

That said, the existence of a temporal ordering amongst equations can greatly alleviate the problems of identification and estimation, as well as lending a dynamic quality to models. To see this, we consider an elaboration of Simon's model, in which farmers growing this year's crops are reacting to last year's prices. The so-called cobweb model depicts farmers who overreact to these prices, which will cause them to overproduce, which will cause the price to fall. The next year, farmers will again react to prices, now at a lower level. This, in turn, will cause underproduction and a rising price. Whether this repetitive cycle spirals out of control or not, depends on the geometry of the supply and demand curves, as is shown in Figure 3.

Wold did try testing his causal chains against the Cowles simultaneous equations model, with interesting results. See, for example, Wold (1958). In a paper published in 1982, Malinvaud raises the issue briefly, to remark that the simultaneous equations bias has often found to be small enough. However, it has been documented how the large macroeconomic models of the 1950s and 1960s did use Wold's notions in order to justify the use of the computationally easier OLS technique for estimation. Although Wold may have lost the ideological battle, he did win the practical war.

### Dynamic models

In an experimental situation, where one might be investigating the effects of an input variable  $x$  on some mechanism, one typically sets the value of  $x$  and waits for the system to achieve an equilibrium state, before observing the corresponding value of output variable  $y$ . However, in economics, we are often interested in the dynamic response of

$y$  to changes in  $x$ , given that  $x$  might be continuously changing and that the system might never reach an equilibrium state.

In the early days of econometrics, attempts were made to model the dynamic responses primarily by including lagged values of  $x$  in the regression equation. The so-called distributed-lag model was commonly adopted. This model typically takes the form of

$$\beta_0 x_t + \beta_1 x_{t-1} + \dots + \beta_k x_{t-k} + \epsilon_t.$$

Here, the sequence of coefficients  $\{\beta_0, \beta_1, \dots, \beta_k\}$  controls the impulse response function of mapping  $\{x_t\}$  to  $\{y_t\}$  and  $\epsilon_t$  is some error term.

A problem with the distributed-lag formulation is that it is shameless in its use of parameters. Furthermore, since in dynamic econometric context, the sequence  $\{x_t\}$  is likely to show strong serial correlation, we may expect the estimates of the parameters to be ill-determined with large standard errors. It is difficult to specify beforehand what form a lag response will take in any particular econometric context. Nevertheless, there is a common presumption amongst economists that the coefficients  $\{\beta_t\}$  will all be of the same sign and that, if the sign is positive, their values will rise rapidly to a peak, before declining gently to zero.

Several other models were introduced, such as the model of Koyk (1954), a limiting formulation based on a recursively defined lag-scheme and a second-order recursive formulation.

The latter is capable of generating a variety of impulse-responses. However, the failure of its equations to accommodate an adequate range of dynamic behavior may have been one of the main reasons for the demise of the large-scale macroeconomic models.

In reality, much of the practical modeling after the 1950s was on an ad-hoc basis, and it ignored the methodology of the Cowles Commission. The beautiful and grandiose model of the linear

simultaneous equation systems was simply not flexible enough for the macroeconomic models, which contained intractable non-linearities in many sectors. To this day, such models have survived, albeit in highly refined forms. However, the prestige has been severely damaged in the 1970s, when it was revealed that their forecasting performance was often far inferior to that of the simple unconditional time-series models of the autoregressive moving average variety.

All in all, I think it is fair to say that no one person can be credited with having founded the discipline of Econometrics. A great deal of people have contributed their ideas and their efforts, and even though these may not have been the ideas that have made the history books, they have still been extremely valuable to the research field by enkindling new ideas in others and revealing potential issues. ●

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## THE TEACHER



# The Best of Both Worlds

René Peeters is a 49 year-old professor at Tilburg University, who lives on a farm in Dongen. He works at the university two days a week; furthermore, he works on his dairy farm seven days a week. Some may know him from courses such as Advanced Linear Algebra or Combinatorial Optimization. He is definitely familiar with the Nekst and says he reads some parts, mostly columns or articles written by colleagues or students he knows.

**Text by: Zoë Connell**

### Student life

During his youth he was certain that he did not want to take over his parents' farm, so after high school he was looking for totally different subjects to study. He says that he thought physics was fascinating - perhaps even more so than mathematics - but he did not really enjoy the practical part of it and that is why he chose to study mathematics. During his time in Eindhoven he was quite active at the students athletics club via which he met his wife. He even did two part-time board years as treasurer and head of the association. Nowadays, athletics is still a very important part of René's life. He says he really enjoys meeting friends at the association during the weekends, and he trains for competitions. When he was younger he participated in different elements of athletics, but since he has arthrosis in his knee, he currently only competes in throwing events such as shot-put (NL: kogelstoten), discus and hammer throw. He compared the current state of his knee to moonwalking: you have the feeling that you are walking forward (your technique improves), but in reality you are walking backwards (your performance is getting worse). Still, he participates in around 20 to 25 competitions per year and currently is the second runner-up in his age class in hammer throw.

He chose to do his PhD at Tilburg University. During this period he changed his mind about the possibility of taking







over the farm, because he thought that working behind a desk until the age of 65 was not really his cup of tea. In addition, he experienced working with his hands during the weekends after studying all week as very relieving. He figured that he could use a degree in agriculture, so he studied at the HAS (Higher Agricultural School) for four years after he finished his PhD. He studied at the HAS in part time, which meant it took him only two evenings a week.

## 'I can do everything that does not include having ovaries'

### Dairy farm

René runs his dairy farm together with his wife; they have no other employees. They have two children and also take care of his niece and two nephews, who were involved in a tragic car accident last year. When he was younger, the farm was somewhat smaller and he used to milk the cows by hand. Some days he had to get up at 4.15 hours to do that before going to university and teach students at 8.45 hours. Three years ago, he chose to invest in a new housing with two milk robots that can milk 60 cows a day each. This means that he now has room for around 120 to 130 cows instead of 80, and he has less work to do himself. He always outsources the work on the land. He plans to keep the farm for another +/- 20 years and then sell it when the work becomes too much of a burden.

He says that he would not want to be a full time farmer, because one has a really small world in that case, as he only meets a few people each day. For him, university and being a farmer is easy to combine. He really appreciates the fact that his work at university is so flexible; if he cannot finish his work at the university, he can just take it home and finish it there. However, he is highly aware of the fact that he is not a typical farmer and at the same time not a typical professor. He told us that one day, he went to the vet, saw their phone number (0416-333381) and immediately said "That's a nice number!" The vet did not really understand his comment and René explained that  $3^4$  is 81 and therefore it was a very nice number. Surprisingly, the vet still did not see the beauty of the number...

### Work at the university

Since René works only two days a week at the university, it is quite difficult to conduct research next to his normal tasks. Especially during the fall semester he is too busy to really achieve breakthroughs in the field of research. Normally, he focuses mainly on teaching classes and supervising students that are writing their thesis. René thinks that

you achieve more than alone. For his own case he repeatedly mentioned that only because his wife he is able to do a lot of things, he is able to do a lot he otherwise would not be able to, including combining the farm with his work at university. He also notes that in a relationship/marriage it is very important that you give and take. He then said: "I can do everything that does not include having ovaries."

Secondly, as stated earlier, it is very important that people make their own mistakes. He says he even jokes around with his daughter, telling her that if she wants to try XTC she should do it on a Saturday morning, so that he may use her energy and let her work on the dairy farm. Children/students need to have their own responsibility and should not be protected too much, because in the end they have to make it on their own. When things get tough, he tries to prioritize and be practical to get through it. Lastly, he said one should never listen to a middle-aged man that is beginning to grow bald. ●

### Bert & Ernie Questions

<input checked="" type="checkbox"/> Bert	<input type="checkbox"/> Ernie
<input checked="" type="checkbox"/> Education	<input type="checkbox"/> Research
<input checked="" type="checkbox"/> Pancakes	<input type="checkbox"/> Fries
<input type="checkbox"/> Full-Time Professor	<input checked="" type="checkbox"/> Full-Time Farmer

it is very important that people make their own mistakes and learn from them, which is one of the reasons why he lets his students have all responsibility regarding their tasks and depends on their initiative to meet up.

For him personally, it motivates him to achieve something that others say he cannot do. He immediately thinks: why not? Examples include people saying that he could not do VWO; well, he could and he did it. Others said combining his farm with university would not work out and look at him now, combining the two professions he loves most.

### Life lessons and advice for students

When we asked him for life lessons and advice for students he stated that it is important to realize that together

# Non-sTOP Party

After six years of athenaeum at the Heemgaard College in Apeldoorn, it was time to say goodbye to my old friends and leave Apeldoorn for Tilburg to study Econometrics. While my friends were still enjoying their holidays, I had to start at Tilburg University. Since I did not know anybody in Tilburg, I was happy to meet my fellow students during the TOP week, before the lectures started. All of the nice stories really made me look forward to the TOP week, since this should be the best way to get to know each other.

On Sunday, I arrived at the train station of Tilburg, where Jelle, someone to whom I got connected during the program introduction day, picked me up. Together with two other friends, I stayed at his place during the TOP week. After some chilling in his house and ordering some pizzas, it was time to go to bed. Next morning, the TOP week would finally start!

Awakened by the alarm, we got dressed and made ourselves some breakfast. I was a bit nervous for the TOP week, because I was afraid that there would only exist stereotype econometricians. In hindsight, I think I really looking forward to the upcoming week and therefore I was a bit nervous. Fortunately, I had already met my fellow group members,

named 'brothers and sisters', and my mentors Tom Scholtze and Pepijn van den Brink, named 'dads'. After breakfast, we went with our tickets to the Tilburg University sport hall to check in. We had to show up on time at the reception to get our TOP week bracelets. After we were checked in, we had to find our group. Every group had its own costume. We were dressed like Romans. In most of the groups only the parents were dressed, but our dads had arranged a laurel for everybody. The dads also wore a gown. We played games for the rest of the afternoon. I do not enjoy being active, so that is probably the reason I did not like the program on Monday afternoon that much. In the evening we had a well-organized barbecue with the whole group; everyone was there. After

we had eaten enough, the barbecue ended and we made ourselves ready for the party that was organized. I was really looking forward to the party. I made the acquaintance with Schrobbelèr, which is the local liquor of Tilburg. The party continued in the centre of Tilburg. We came home very late, so we decided to go to bed immediately after arrival.

On Tuesday morning, after a short night, we went to the university again to continue our program. In the Leijpark, some sport activities were planned for the new students. Moreover, some sport associations presented themselves. I had already heard about the soccer club in Tilburg, Merlijn, which is run and represented by students. When I transferred myself to Merlijn three months ago, something went wrong – there had been some miscommunication with my old football club – so I had to register myself again. After I had registered myself at Merlijn, I had a professional interview and an official picture for the presentation. From the Leijpark, we went to the city, where we had a beer cantus at Café de Boekanier. I had never attended a beer cantus before, so I was really excited to participate in one. I had heard great stories about it, from the 'Student for a Day'-days at Tilburg University. I really loved it! There are some rules that you have to follow. Otherwise, you have to do challenges that will not make you happy. I think that there is no better way of fraternization than drinking and singing together. Singing old traditional



Jaron Kappers

AGE: 17

Began studies in 2016





Dutch songs or typical songs from Tilburg and having drinks together really improved the atmosphere and the relationship between the students. After a long night out, we went home and got ourselves some sleep.

Wednesday was a day where you got time for yourself and had the opportunity to relax. After recovering from a heavy hangover, we went to the Heineken Beer Cantus, organized by the TOP week board. My experiences from the beer cantus at the Boekanier told me what to expect and I was really looking forward to it. The atmosphere at the beer cantus was once again great; the relationship between me and the other students from Tilburg University really improved. The beer cantus was followed by a small powernap to get enough energy to party again in the centre of Tilburg that evening. We were home late again.

On Thursday morning, we woke up to get ready for the day of the TOP festival. At the TOP festival, there were again a lot of stands of the sport clubs in Tilburg, but also some activities to do. After a

nice day at the TOP festival we went to the centre of Tilburg for a pub-crawl. We went to a lot of pubs, which is of course very useful for the rest of your student life.

On the last day, we had a pool party. This event was very funny, because almost everyone was still having a hangover from the night before. Although this was not a big surprise, everybody really enjoyed the pool party! There was a dance organized in the pool, so every upcoming student transformed into a childish person and started to splash water at the rest of the dancing people.

The pool party was followed by the end party, organized by the TOP committee, in the evening. It was nice, but not as nice as the opening party. After the end party,

we went to student association Vidar to end our TOP week as good as possible. I have had an amazing week in Tilburg! However, due to my hangover, the 55-year marriage party of my grandparents the following Saturday was not a success for me.

I would recommend the TOP-week to everyone. In my opinion, partying with your fellow freshmen is the best way to get to know each other. I really want to thank my dads, Tom and Pepijn, for this amazing week. They did not act as supervisors, but more as friends. In this week, one makes friends for the rest of his life! For me it feels like it was one of the best weeks of my life. I have had so much fun! ●

**'I think that there is no better way of fraternization than drinking and singing together'**



# Play it Safe or Gamble for More?

Imagine you are soon to retire and have the choice between the following two options: a guaranteed pension benefit of €2000,- each month until you die or a variable pension benefit which is expected to amount to €2250,- per month, but also with a probability that this amount will decrease in the future. Which option would you prefer? This is a choice more and more participants in certain pension schemes have to make.

As the final part of the Master program Quantitative Finance and Actuarial Sciences, I have written my Master thesis during an internship at the Dutch central bank (DNB) in Amsterdam. DNB operates as an independent central bank and supervisor to ensure financial stability in the Netherlands. One of the tasks of DNB is to supervise financial institutions, such as pension funds and insurance companies.

## Introduction

During the last few years, the Dutch pension sector has been put under pressure. Several social developments, such as individualization and labor mobility, have resulted in an increasing demand for freedom of choice and customization. New legislation in the Netherlands introduces more freedom of choice for participants by making it possible to invest after retirement.

In the Netherlands, various forms of pension schemes exist. The most common type is the defined benefit (DB) pension scheme in which the pension benefit depends on the amount of working years in combination with the salary of the participant. However, more and more employers are switching towards defined contribution (DC) pension schemes in which the pension benefit depends on the pension contributions paid during the working life and the investment returns achieved with those contributions. This implies that risks, such as the investment risk, are shifted from the employer towards the participant. Due to the combination of poor investment results during the financial crisis, the prolonged period of low interest rates and a higher life expectancy, it is very difficult for re-

tirees to attain an adequate pension. This is the case because participants in the Netherlands were obliged to convert their accrued pension capital into a fixed annuity.<sup>1</sup> Until recently, participants in a DC pension scheme have had to do this at once, which has led to them missing investment returns during retirement. However, since the introduction of the new legislation 'Wet verbeterde premieregeling' [1] on September 1 this year, participants can also decide to invest after retirement by choosing for a variable annuity.

## Investment after retirement

The main advantage of investing after retirement is that it is expected to lead to a higher pension. This is due to higher expected investment returns during both the accumulation (or pre-retirement) phase as the decumulation (or retirement) phase. However, investment after retirement also has a downside. The main drawback is that the pension benefit level is not guaranteed anymore, but instead becomes variable due to financial shocks, which are the result of investment in risky assets. In case of disappointing investment returns, the pension benefit can decrease as well.

In case a participant buys a fixed annuity, he is assured of a fixed amount of yearly pension benefits at retirement. If a participant buys a variable annuity, future pension benefits are not known at retirement since these depend on the actual investment returns during retirement. In case of a variable annuity, one has to determine at retirement how the pension

<sup>1</sup>An insurance product in which the participant receives a fixed payment of the insurer as long as the participant is alive.



wealth at retirement should be divided over the pension payments during retirement. The assumed interest rate (AIR) determines how the pension wealth is distributed.

The goal of my thesis is to investigate the investment policy and the pension benefit payment policy for participants continuing to invest after retirement. Which investment strategy is suitable for a participant with certain risk preferences and what is the influence of the AIR on the pension benefit during the retirement period? Finally, I investigate the impact of financial smoothing on the investment policy and pension benefit payment policy.

### Theory

In order to prevent large changes in the expected pension benefit level just before retirement, participants should take less investment risk by applying a decreasing equity exposure over time towards retirement. The development of the equity exposure over the life of the participant is captured in a so called life-cycle. A decreasing life-cycle protects participants against bad stock performances.

According to the standard life-cycle theory of Merton (1971) [2] a suitable life-cycle strategy is characterized by a decreasing equity exposure over time until retirement and a constant equity exposure after retirement. This is based on the assumption of risk-free human capital and constant risk preferences. It is assumed that the preferences of the participant can be described by a utility function with constant relative risk aversion (CRRA).

### Model analysis

I used the Merton model as benchmark model in my model analysis. In the Merton model the financial market is described by the Black-Scholes model, in which two investment opportunities exist: a risky stock and a risk-free bond. The interest rate is assumed to be constant. In the Merton model, an analytic solution for the optimal investment strategy is available. I adapted or relaxed some strong assumptions in the Merton model in order to make the model more realistic. For example, including micro longevity risk (i.e. uncertainty about the age of death), state pension (AOW in Dutch) and a borrowing constraint (i.e. short positions are not allowed) in the model.

The pension payments of the variable annuity during the retirement period are calculated via the PPR mechanism<sup>2</sup> (see Bovenberg et al. (2014) [3]).

To investigate the design of the life-cycle both before and during the retirement period I did the following. I measured the performance of different life-cycle strategies by calculating different indicators for the pension result, such as the average replacement rate<sup>3</sup>, volatility in the replacement rate and the probability of a decrease in the replacement rate. I executed the analysis for three different levels of risk aversion: a default participant, a less risk averse participant and a more risk averse participant.

### Two life cycles

In case the participant chooses for a variable annuity, the life-cycle strategy is different from the life-cycle strategy for a fixed annuity. The equity exposure can decrease at a slower rate in case of a variable annuity because the equity exposure



**Annick van Ool**

Age: 23

Began studies in 2011

at retirement is higher in this case. As a consequence, the life-cycle strategies for both annuities will start to deviate at a certain age. An example is shown in Figure 1. The pension provider is obliged to consult participants during the accumulation phase about their preliminary preference for a fixed or variable annuity. However, the choice of the participant for the type of annuity is not yet binding at this stage. The participant can still alter his choice at retirement.

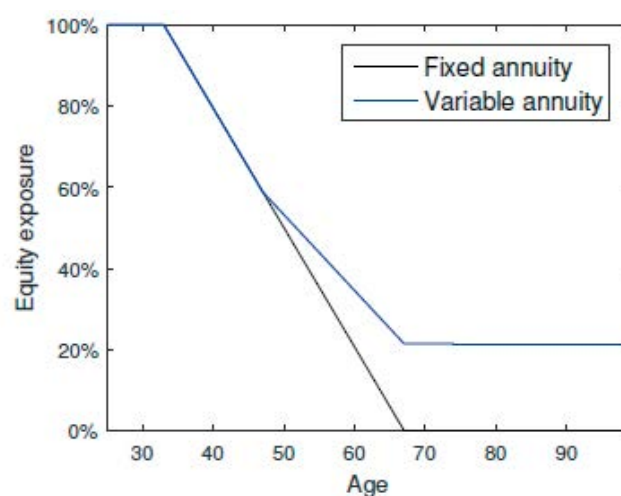


Figure 1: Equity exposure in case of a fixed annuity and variable annuity over the complete life-cycle.

### Results investment policy

Based on the results of the model analysis one can conclude that a decreasing life-cycle yields better results compared to a constant life-cycle, which is in line with the standard life-cycle theory.

An important conclusion from the welfare analysis is that the size of the welfare loss<sup>4</sup>, as a result of a chosen strategy, can differ significantly. For example, it is more important to use the right amount of investment risk than to use the optimal

<sup>2</sup>Personal Pensions with Risk Sharing.

<sup>3</sup>The total pension benefit (including state pension) as percentage of the final salary.

<sup>4</sup>calculated welfare losses as percentage in terms of consumption during the retirement period.



decreasing life-cycle design. Moreover, welfare losses due to absence of investment after retirement are significantly higher than welfare losses due to temporarily using an inadequate life-cycle before retirement, in case the participant chooses for a fixed annuity during the accumulation phase but ultimately chooses a variable annuity at retirement.

### Results pension benefit payment policy

Besides the investment policy, the pension benefit payment policy is also an important aspect of variable annuities. As already mentioned, it has to be determined how the pension wealth at retirement should be distributed over the different pension payments by choosing an appropriate AIR. A high AIR implies a higher pension benefit at retirement but also a higher probability that the benefit will decrease at a certain moment in time. In my thesis, I investigated several AIRs, two of which I will discuss below.

The first AIR is the risk-free interest rate. In case the pension wealth would be invested in risk-free bonds only, this AIR would yield a constant pension benefit over time. However, since the participant invests a fraction of his pension wealth in risky assets in case of a variable annuity, the expected pension benefit will increase over time. In case the participant does not prefer an increasing consumption pattern during retirement, a higher AIR might be preferable. The advantage of a higher AIR is that it implies a higher pension benefit at retirement.

The expected return is an alternative AIR which is higher than the risk-free rate in case the participant invests a fraction of his pension wealth in risky assets. The expected return yields a constant pension benefit over time in expectation. Of course, the expected return depends on the amount of investment risk the participant takes.

An interesting conclusion regarding the pension benefit payment policy is that it takes approximately ten years after retirement until a low AIR, such as the risk-free rate, yields a higher replacement rate than a higher AIR. This holds for each economic scenario and each amount of investment risk. This is visualized in Figure 2, which displays different quantiles of the replacement rate over time in case the risk-free rate and the expected return are used as AIR.

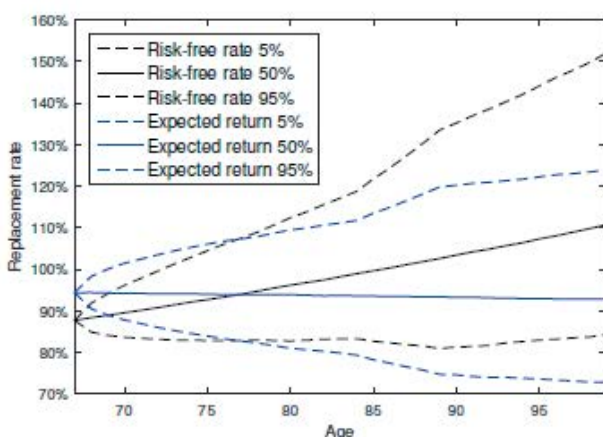


Figure 2: Replacement rate during the retirement period using a constant equity exposure (21%) in case of the risk-free rate and expected return as AIR.

### Financial smoothing

In order to reduce the variability in the pension benefit level one can smooth financial shocks, which are the result of risky investments, over several years by applying a certain smoothing period. This means that shocks in financial wealth are not absorbed immediately in the pension benefit but are ab-

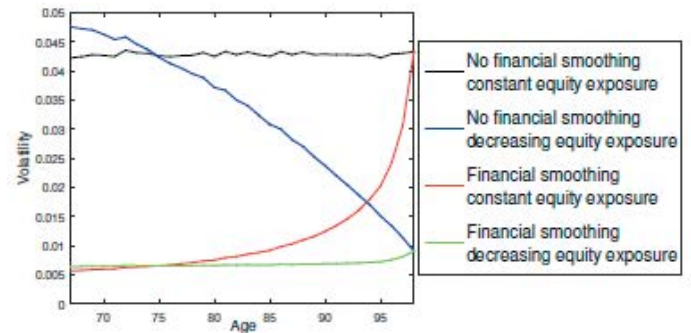


Figure 3: Year-on-year volatility of income during the retirement period for different equity exposures in case of no financial smoothing and financial smoothing.

sorbed gradually over the smoothing period. This implies a lower year-on-year volatility of income compared to no financial smoothing. This is displayed in Figure 3.

Because the expected remaining lifetime decreases when the participant becomes older, the length of the smoothing period has to be adjusted. As a result, larger fractions of the financial shock must be absorbed at high ages, implying an increasing year-on-year volatility of income (see Figure 3). One can imagine that a participant does not want to take more risk as he becomes older. An alternative for the constant equity exposure after retirement is a suitable decreasing equity exposure after retirement, which leads to a constant year-on-year volatility of income.

### Conclusions

It can be concluded that a suitable life-cycle strategy is characterized by a decreasing equity exposure over time until retirement and a constant equity exposure after retirement. However, in case the participant decides to smooth financial shocks it is appropriate to use a decreasing equity exposure also after retirement. To make the model more realistic, it would be relevant to investigate the design of the life-cycle in a financial market model which includes interest rate risk and/or inflation risk. ●

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# Optimizing Humanitarian Aid

As your new column writer for this academic year, I could not have wished for a better introduction than Prof. Goos Kant's last column on "Optimizing Society"! Thanks, Goos. Let me introduce myself and share with you my new passion in helping the world with Data Science/Operations Research.

Long, long ago I studied Mechanical Engineering in Twente. A mistake? No; I did not know what to choose out of a number of nice studies (would be worse in the current time frame) and then my older brother advised me to study Mechanical Engineering because "you could still go in all directions." In retrospect, it was not really a good motivation, but it has proven to be true. I got more and more interested in the mathematics of production and distribution management and decided to also do a Master in Informatics because most OR methods go hand in hand with good Information Science. This turned out to be one of my best career decisions ever.

After my Ph.D. on vehicle routing, I started at consultancy firm CQM in Eindhoven. It was a very good time, laying the foundation for my combined interest in research/innovation and applications in the field of OR & Informatics. After 10 years at CQM I moved full time to CentER Applied Research of our University. After 6 years I decided to work as an independent consultant under the name of OR Coach, helping organizations to get the full benefit of OR.

In the 11 years that followed, I worked a lot for TNT Express (now FedEx). In 2012, Tilburg University, ORTEC and TNT Express received the crowning glory of our work when it won the Franz Edelman Award.

From time to time, my creativity starts to burn again and three years ago I started, together with my copartner Wouter Lammerse from the software industry, a new firm: BlueRock Logistics. In another column I will tell you about our ideas (but not too much because ORTEC, CQM and Quintiq are also reading this column).

## **'My new passion is helping the world with OR'**

During my years at TNT, I worked regularly for the Board and Peter Bakker was the CEO. Peter initiated the first big 'commercial – humanitarian aid': TNT supported the United Nations World Food Programme (WFP) in Rome with knowledge and equipment from TNT where and whenever necessary. One of the actions that still touches me (partly because one of my sons is from Haiti) is that in 2010, when Haiti was hit by a very severe earthquake, only a few days later in the weekend one of TNT's Boeing 747s was rerouted to ship 100 tons high energy biscuits to Haiti. You can survive by eating 3 of these biscuits per day! I never calculated how many biscuits 100,000 kg of them must have

been and how many people must have been helped in the weeks that followed. Peter was very convinced of optimization methods and introduced me to the WFP, now 5 years ago. Since then, I have mainly been giving their employees talks about the possibilities of optimization (in the beginning they hardly believe you), but 3 of my Master thesis students have really been doing the data and modeling work in Rome and Ethiopia. The concrete result is that with our work so far, in Syria, 1 million people more can be fed (on a total of 4 million being helped in 2015) with exactly the same budget. The work is now also being used in Yemen, Mali and Iraq, and extended by students from Prof. Dick den Hertog on the robust side. For me this was also the start of thinking about applications of our optimization knowledge to other humanitarian aid organizations. I am very grateful that recently, the faculty TiSEM decided to support me for one day per week in this endeavor in light of the new Data Science initiative. In the near future there are very interesting possibilities for you as well to work in this field! If you are interested, please follow my columns and Blackboard. ●



## **Hein Fleuren**

Hein Fleuren is part-time full professor at the department of Econometrics and OR, as well as partner and founder of BlueRock Logistics in Den Bosch. Since September 1, 2016, he has a special chair on Data Science for Humanitarian Innovation together with Prof. Conny Rijken from the Law School.



## THE PASSION OF... JOCHEM BRUIJNINCKX



On a sunny Monday afternoon, Pepijn and I went to do an interview with Jochem Bruijninx. It was not an interview as usually conducted, as Jochem's band, Spot On, was due to play at the opening reception of the academic year. Preceding their performance, we had the opportunity to talk to the entire band: Jochem and his fellow band members Coen Babeliowsky and Coen van Tol.

**Text by: Aurel Macias**



**Jochem  
Bruijninx**

**AGE: 20**

**Began studies in 2013**

# Spot on: From University Grounds to Festival Mundial

It does not come as a surprise that Jochem's passion is "music, in all sorts of ways", as he states himself. The most important part is the three-piece band 'Spot On', in which Jochem and the two Coens have been collaborating for nine months now. Jochem plays the piano, whereas Coen B. is the leadsinger who also plays guitar. Coen van T. plays the bass sequences on his guitar. The band is where the passion of Jochem comes to fruition most. According to Jochem, it is hard to say what kind of music they actually play, although it is clear they play in an acoustic setting. Jochem calls it acoustic pop, but both Coens state it is more like jazz pop. The band started, according to Coen van T., after splitting from a larger band when the other members could not join in on a repetition. They fit very well with only the three of them together and started playing. The reason for playing in an acoustic setting was clear from the start, as they did not have a place for their repetitions. They remained to do it, because Coen B. stated he does not have a loud, rock-like voice to sing and because even when they play with electrical instruments, they still get the feeling that they are playing acoustically. Moreover, they do not have a drummer; this all adds up to a nice, soft sound. You cannot go and play too hard without drums, according to Jochem. It is also handy for practical reasons.

Jochem, himself, also has a history in music before the band. In his second year of high school, he found it saddening that some of his classmates could piece together some fine music and he could not, so he started to play the piano. After two years, he joined in for his first band action in a band where

Coen B. was already playing. That was amazingly different and Jochem learned a lot from it and liked it a lot.

Playing in a band is fun, but it is still time-consuming. The band practices two times a week, usually at Jochem's place. As Coen B. does not live in Tilburg and therefore needs to take the train home, they have roughly four or five hours from late in the afternoon until the end of the evening on a session. Apart from that, they also use a lot of time practicing alone. Both Coen B. and Jochem emphasize that the band takes up almost all their spare time, but it does not matter to them because it is what they like to do. Besides practicing together and alone, they play concerts. These form the best part, but the amount of time they take is very fluctuating. They are usually on weekends or evenings, but sometimes they take place at receptions during daytime. This is somewhat impractical sometimes, considering Coen van T. studies in Utrecht, while the other two are usually in Tilburg. Still, it works out in the end. Still, they agree on one thing: preparing for a gig costs more time than anyone thinks. Even the organizer sometimes does not recognize that well enough. Furthermore, when the band has a gig, they are already thinking about nothing else than playing at that concert for two days before it starts. It really causes some tension beforehand. All the hard work pays off in the end, though. In total, they think they participated in thirty gigs. The difference in the setting is large. Being an acoustic band, Spot On is well suited for receptions, but they have also played at cafes and at Festival Mundial.

There are some key roles in the band. For instance, Coen B. writes most of the lyrics. Everyone works together on



the musical part, although Coen B. is the one who comes up with most new ideas; these ideas are then worked out together. In that sense, they have more and more own material. The band started with playing covers most of the time, but they have about seven own songs at the moment, all of which they are very happy about. Coen B. tells us that they would like to record their own songs as well: "So that anybody can listen and check out what we are like when we are playing somewhere." They want good recording quality for that, seeing as having poor quality recordings around would not do justice

Instruments cost quite a large amount of money. Especially when one wants good quality, some serious money is needed. Still, according to Jochem: "It does not matter because you do it because you like it; you should invest in something you really love to do." The band members also share in buying some stuff, such as snares for a guitar or cables. The band went to a large music store in Cologne a short time ago, in search of possible candidates to become the drummer of the band, but the only thing they ended up getting was a 'blow piano' for Jochem, which sounded somewhat like a harmonica and

universally agree on that. The band played on a small stage, in a caravan where they had to check their own sound beforehand, but still it was a lot of fun. The band rolled into that after playing at a Fontys reception, when the organizer said that there was a duel between different acoustic bands for a place at the festival in Tilburg. They participated in and eventually won the competition! It was great that everyone loved it, and the band thinks that it was one of their better concerts as well. Their lesser experiences were if other people undervalue what is needed to partake in a well-setup concert. For instance, if it is raining, it is not okay to have no rain protection. Having to walk three kilometers with all of the gear is not a nice thing to do either. These small problems are not ruining anything, but can dampen the experience still. Part of the good experience is also going through everything together. Coen van T. did not know Jochem before the first band started and only knew Coen B. vaguely. However, after all of their experiences, he feels the three of them are really good friends.

Even though each band member has his own source of inspiration, the band considers itself as having a unique sound. There are influences though: Coen B. hinted a lot that he was a major fan of John Mayer and likes Amy Winehouse a lot. The three of them have one artist they all really like: Allen Stone. Jochem likes it a lot when someone gives joy with music by using the simple things. He tells us: "If someone plays a sweet, simple, jazzy tune that brings joy to the hearts of people, that is one of the best things someone can do."

The company really likes to continue, with the ultimate ambition to hear themselves play on the radio, according to Coen B. Considering the path up until now: they started from scratch twelve months ago to play at Mundial on a high and a total of thirty gigs, one cannot deny the possibility of this happening. For now, though, they are playing at a reception at our very own university, which is very nice too. After the interview they carried on preparing for that, but not without some advice: "If you like music, take an instrument and just try it!" ●

**'When someone thinks,  
"I will play a little harder,"  
everyone picks up his game  
in half a second'**



to their songs. They want to do it right the first time around. Experience and getting a feel for one another plays a large role in playing in a band; all three of them feel like they are getting that part just right by now. Jochem said that when someone thinks, "I will play a little harder," everyone picks up his game in half a second. They know each other well enough to do that.

looked like the key part of an accordion. Jochem says he wanted it because it is somewhat annoying to take a whole 60 pounds heavy electrical piano to all of their performances and now he has another option.

The best experience of the band is the aforementioned playing at Festival Mundial. Jochem, Coen and Coen

# How I Met Your Board

The cheerleader effect is a well-known vision, all over the world. If someone of the group is perfect, the whole group looks perfect. But luckily this was not the case with the board of 2015-2016. The whole board completed each other, which made it an amazing academic year. However, all good things come to an end. So, like any other year, a Department Members Meeting (DMM) and a Constitution Drink (CoBo) were organized, to constitute the board and have a party afterwards.



**Pierre Verhulst**

**AGE: 19**

Began studies in 2015

Last year's board triggered me to go to the DMM. This was my first time at a DMM, so I was curious what to expect. Here, the new board officially took over the work of the board of 2015-2016. But before this took place, the old board had to present their accomplishments, together with the according financial records. Of course everything had to be official, so the DMM was recorded. After some points mentioned by the chairman, the people present had to vote whether they were against, in agreement with or had a neutral view about these implementations. Before they officially resigned it was time for a break. During the break there were some lovely cherry turnovers and some drinks.

After the break it was finally time for the chairman to constitute the new board. Beforehand, the board members had to present themselves and what committees they have worked on, as well as what they plan to work in the upcoming year.

Now it was time for the new board to present their goals, with the corresponding financial outlook. This was a piece of cake for them; they did it without any hiccups. One of their new goals is to close the gap between the students and the professors, such that if there are any problems, they can be solved quickly. I think this is a great idea! As expected, they had several other great ideas. Additionally, they will further develop some ideas from the old board.

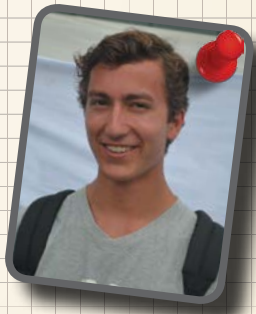


After the new board was officially constituted, we had a few drinks at de Heuvel Gallery to congratulate the board. After this, the CoBo had been planned, which would take place in Café Qwibus. Of course, there were some other boards from other departments of Asset present, so they could officially wish the new board all the best. Besides that, there was a tradition that had to be kept. The tradition is that the new board has to tell a story about the old board, but it has to be a legend according to how we know this person. So there was a beautiful Powerpoint, with which the new board members said goodbye

to the old board members with some hilarious stories. After that, the time had come to enjoy the cold beverages with some good conversations.

You might think the new board will not be as legendary as last year's, or that they are going to use the lemon law, but I think this group of econometrics students can make this a great academic year. So hereby we can congratulate Linda Torn, Charlotte Nijman, Anouk Verhagen, Tim van der Heijden and last but not least Milan van der Kamp by becoming the new board and wishing them all the best for the academic year 2016-2017. ●





Bart Ruigrok

AGE: 24

Began studies in 2012

Usually, days like these start off with putting on your suit. Not this time though; there was no dress code - perfect! After a cup of tea, we made our way to the first session of the day. For me, BrightCape was on the schedule. Our very own Thijs Verhaegh introduced us to the goal and mission of BrightCape; a young and rapidly growing data consultancy firm, based in Eindhoven. Jeroen, founder/director, then explained how he got in touch with Thijs, and how his Nepali grandmother played a crucial role in Thijs accepting Jeroens LinkedIn invitation. BrightCape is a company that is very much interested in recruiting econometricians. This is one of the reasons why they asked 300 econometrics alumni what sort of jobs they ended up with. The results were presented in sweet, interactive graphs: the love of every econometrician.



The next item was the MBTI test that we all came for. The MBTI (Myer Briggs Type Indicator) might just be the most widely used personality assessment test in the world. It identifies your strengths and weaknesses. It helps to answer questions like: "Which kind of job suits you, and why?", "How do you react to stress and changes?", "What gives you energy?" and "How do you make decisions?" The insight it provides makes many companies use it during their interview process. The accuracy of the results might surprise you!

You can also have a go at it:  
(<http://www.humanmetrics.com/cgi-win/jtypes2.asp>)

I found it stunning how a few questions can give such a detailed description of your personality. I hear you thinking: maybe the descriptions are written like horoscopes, i.e., in such a vague way that anyone is able to recognize themselves. Well, as a matter of fact, I switched laptops with my neighbor, Vince, and neither of us was able to identify himself with the description of the other's personality. I turned out to be a Steve Jobs kind of person, whereas Vince would probably be a closer match to someone like Bill Cosby... (Sorry, Vince. I could not resist putting this in here.) Much to everyone's surprise,

there was only one introverted person in the room, according to the test. Also, overall, we turned out to be much more 'feeling' than 'thinking' than you would expect a group of econometricians to be.

After that, it was time for lunch, which turned out to be breakfast for some, and then on to the second session. For me, this was the Career Orientation training by ORMIT, a company that is not very well known among econometricians. ORMIT offers interesting traineeship possibilities, with projects in large, mostly Dutch companies. Although we expected some sort of sales pitch, we received a high-quality training session to discover our inner goals in life. We answered question like: "Who am I?" (using a drawing), "What do I want?" (using post-its with norms and values) and "What are my strengths?" (using a success story in an interview setting).

Life is full of choices. I could only pick two out of the three sessions that were offered and unfortunately I had to miss out on the Financials4u session. I wish I could say that, judging by what I have heard from others, it was very good, but the fact is I did not speak with anyone who went to their session. All in all, I can conclude that this was a day full of insights. The first Asset | Econometrics Training Day has been a hit! ●

# The First of Many

September 13 was a not so regular Tuesday at the end of summer. Not only because it set records for highest temperatures ever recorded in the Netherlands so late in the year, but also because it has become a historic day for Asset | Econometrics. Why so, you might wonder? Well, for those who were not there, I can tell you that you missed a pretty amazing first Training Day!

**ASSET**



Econometrics





# Board 2016-2017



# Fun Games, Bad Jokes and New Friends



**Fleur Theulen**

**AGE: 18**

Began studies in 2016

The first weeks of university are important weeks for your social life during the rest of your studies. You meet a lot of new people who you will keep seeing throughout your studies: in sport clubs, in a new house, and of course in your lectures. In the introduction week you already get to know some of your fellow students, so you are not completely by yourself during the first lectures.

After everyone has settled a bit, it is always nice to get to know some more people apart from your introduction group, but lectures do not provide a good environment to meet new people. Asset | Econometrics realized this, and decided to organize some activities to make it easier to come into contact with fellow students. It turned out to be a fun afternoon and evening, and I met a lot of new people who I talk to regularly now.

**‘And our day did not finish until the early hours of the next day...’**

We started with a lunch, during which we could introduce ourselves to the group with whom we would battle for victory that afternoon. To make everything a bit more competitive, we were divided into countries; I was part of team France. During the lunch, the board of Asset | Econometrics also introduced themselves briefly. That was useful, because I recognize them now and I know that I can always ask one of them if I have a question about Asset.

A few weeks ago, Asset | Econometrics organized an introduction activity for first-year students, primarily to meet some more people and to have a good afternoon. I joined this activity, eager to accomplish both. This is a short description of the day, and how I experienced it.



After lunch, the battle could begin! We started out with a game with some geography and spelling woven into it, which turned out not to be our strongest point. Luckily, there were plenty of chances to make up for this. We were really good at taking all the photos around campus, surviving 90 seconds of interrogation without saying yes, no, or uh, and guessing the anthems of different countries around the world.

On top of that, we played an excellent game of minesweeper in record time. We were working together as a group and we might have been guilty of a bit of cheating here and there, but most of all we had a lot of laughs.

The end game was decisive for the victory, and consisted of three parts. In the first part we had to solve some riddles and questions, and our knowledge of the first two weeks of

our university program already turned out to be useful. The second part was building a tower of 70 cm high out of spaghetti and marshmallows. For the last part we had to cross a grass field with just a few crates, so we had to huddle with two people on one crate and pass them on from the back to the front. We had a photo finish in our game against the other group, and of course we were convinced we should be the winners. After this thrilling end game, it was time to fuel up again during a delicious barbeque.

During this barbeque, the results of the day were announced. Despite our good efforts, France did not end very high. Luckily there were some drinks, meat, and a lot of fun people, so we forgot about our loss soon enough. Instead, I heard stories about what everyone had been doing so far, I got some helpful tips from older students and, last but not least, I made plans for the evening with the people I met that afternoon. And our day did not finish until the early hours of the next day... •



# Young People's Secret Weapon

**Ask a lecture hall full of students if any of them have ever thought about their old-age pension. Many of them will probably say: "Why worry about that now?" Which is a pity, because the opposite is actually true. Your pension is very much something to look into at a young age. Why, you may ask? Well, because young people have a secret weapon that older people do not have: they have their whole working lives ahead of them and can profit from this if they play their cards right.**

Let us suppose you made €2,000 working a part-time job. You could spend this money on a trip to a far-away tropical island. If you choose a holiday destination like that, the money you earned will likely be gone by the time your holiday is over. Alternatively, you may choose to go on holiday closer to home – let us say, to a campsite in southern France. If you choose this option, you will probably only spend half of the €2,000 you earned. You can save the remaining €1,000 for your retirement. Your savings will substantially grow of time. If you are young and have another 45 years of working ahead of you before retiring, you will end up with €9,000, assuming an annual rate of return of 5%. Do you think 5% is high? Well, pension funds have achieved higher rates of return over the last few years. Furthermore, if we adjust for an annual inflation rate of 2%, these €9,000 will be worth €3,700 in terms of purchasing power, which is still almost four times your initial savings.

Now compare your situation with that of an older person who has only five more years to go until retirement. If this person invests €1,000 at an annual rate of 5%, he will end up with €1,300. We could also look at it another way. How much would

this person have to save to end up with €9,000? Rather a lot of money – slightly over €7,000. What these calculations help us understand is that saving for retirement can be quite profitable for young people. After all, time is on their side. What we see here is the power of compound interest at work

Research shows that many (young) people will not save for their old-age pensions if it is left up to them. Why is that? There are several explanations for this. One explanation is that people simply like living in the here and now, because it gives them something to hold on to. Since the future is insecure by definition, people tend not to look beyond the short term. What this means is that current euros are preferred to future euros. That is, people have a time preference: they do not want to trade their current money for future money. Another explanation is that people do not like taking risks, as this will result in fluctuations in their pension wealth. Indeed, research shows that despite the relatively high average rates of return on risky investments, most people are not willing to invest in stocks. Economists call this the stock market participation puzzle.

In the Netherlands, the social partners and the government have agreed to reform the current pension system, because employers are finding the current system rather expensive. Questions that are being raised include: Should we give people the freedom to withdraw money at any time from their pension accounts? Should we let people choose their own investment portfolios? Considering the above arguments regarding people's time preference and aversion to taking risks, the answer to these questions should probably be no. ●



## Servaas van Bilsen

Servaas van Bilsen is assistant professor of actuarial science and mathematical finance at Tilburg University (NETSPAR) and the University of Amsterdam. His research interests include pension economics and behavioral finance.



**Text by: Charlotte Nijman**

**During the Department Members Meeting of Wednesday August 31, the board of Asset | Econometrics of 2015-2016 resigned from their positions. After 7 Monthly Afternoons, 53 room duties, 54 drinks, 9 formal and 38 informal events, their wonderful board year had finally come to an end. We gathered with the former board to recap good memories and get some last words of advice.**

When Tim and I enter the room, we find Ashley, Björn, Thomas (Coenraad), Thijs and Ennia already present, laughing about a silly joke of Björn. Apparently nothing has changed between them. They still act like a group of close friends, which is what characterized them during their board year. After several pigeon jokes from Ashley, I ask the former board:

**What was the best moment in your year as a board member of Asset | Econometrics?**

**Ennia:** "I liked the beer cantus. Many active members were present and it was a fantastic night!"

**Thijs:** "Haha, I liked the morning after the beer cantus!"

**Ashley:** "I liked all our attempts to hide Hendrik from Ennia!" (Hendrik is Ennia's plush cow, which was at the rooms all year long.)

**Coenraad:** "The Board's Men Activity of Asset when we had a beer cantus in Joep's garden."

**What are you most proud of?**

**Ashley:** "I am most proud of what I did not have to do: save the Operations Research Conference (ORC). The day was a success and I did not have to fix anything, because everything went very well. The committee has done a really good job!"

**Björn:** "The Quantitative Investment Group (QIG), I think. We started this group ourselves and there are a lot of students interested in joining now. We even made some profit, so I am really proud of that!"

**Coenraad:** "I think the Monthly Afternoons were great. It started with a trial and every time there were more students than before. The concept did not change, but at the end of the year even freshmen and a PhD student came!"

**Ennia:** "Yes, the concept of the Monthly Afternoon is really simple, but a lot of students liked it! I also liked the Christmas Brunch. It was a spontaneous idea, but many members were present. I liked seeing everyone with their Christmas hats."

**Thijs:** "I am most proud of the fact that every event worked out fine. Nothing went terribly wrong."



**What was your favorite drink?**

Everyone: "The Karaoke Drink!"

**Ennia:** "I liked our Constitution Drink as



well! There were a lot of people present and everyone was a little tipsy."

**Thijs:** "I liked my awesome Ducky Tie at the Constitution Drink!"

**Björn:** "I liked almost every drink. The Beer Race Drink was really awesome and also the Astrics Beer Cantus of course."

**What is the most useless thing you have done in building E?**

**Thijs:** "Haha, there were a lot of things."

**Björn:** "Well... once I played a seal being slaughtered by another seal. I think that was the most useless thing I have done."

**Coenraad:** "I looked at a tree being planted with 40 other people at some point. That was pretty useless."

**Ashley:** "Origami and labeling everything"

**Ennia:** "Yes, EVERYTHING!"

**What are you going to miss next year?**

**Ashley:** "Eating fries with everyone when someone has to treat!"

**Björn:** "I am going to miss the board meetings and the happy chaos that arose at the rooms sometimes."



**Ennia:** "I will miss the active members who come by for small talk and a cup of coffee."

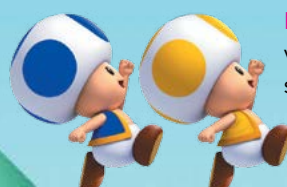
**What was the best Quatch?**

Apparently this is a difficult question, because at first there is a long silence. After a while, Ennia mentions that she liked the MetaFloors. MetaFloor



is a concept that arose after some statements of Björn Floor. He has a habit of merging two expressions into one new unknown expression.

**Ennia:** "My personal favorites are 'Hij voelt de bal al hangen' and 'Het vijfde spaak aan het wiel'."





**Coenraad:** "I liked 'You have to be careful and make sure that you eat your desert at the end.'"

**Ashley:** "My favorite: 'You are allowed to be a narcissist, but only if it is justified.'"

#### What was your favorite committee?

A discussion arises in which almost every committee is named, but after the discussion Ennia mentioned: "I really liked the Active Members Weekend committee. They were a bunch of crazy people."

**Coenraad:** "The International Business Tour committee 2015."

**Björn, hinting to the presence of Vera, Coenraad's girlfriend, who just 'happened' to be part of the committee:** "Haha yes, why would that be? But you are right; I liked the International Business Tour as well."

#### What is the most awkward thing you have done last year?

**Björn:** "That was definitely the time when I showed up in the wrong city for one of my summer conversations this summer."

**Coenraad:** "Last year there was a moment when I was looking at the Facebook page of one of our members. I did not notice she was standing behind me until she asked me what I was doing. That was really awkward."

**Ashley:** "I am perfect, but that is embarrassing as well."

#### And Thijs, what was your most awkward moment?

**Ennia:** "That time when you were stripping in a public square during the Active Members Weekend!"

**Thijs:** "I was in my underpants! Why was that awkward?"

#### What is the most important lesson you learned last year?

**Björn:** "For Coenraad, this one is easy! Perforate!"

**Coenraad:** "Haha, that is true!"

**Björn:** "I learned to manage and keep track of my agenda."

**Ennia:** "During the year, I learned to anticipate the worst case scenarios. People and even companies make mistakes and you have to be prepared for that."

#### After your board year, you have to make new plans. What are you going to do?

**Björn:** "I want to get my Bachelor's degree."

**Thijs:** "I am going to work for Aorta BI, TiSEM and I will also try to get my Bachelor's degree."

**Coenraad, Ennia and Ashley:** "We will start/finish/continue our Master in Econometrics." →

I said I am called Ashley.. I never claimed I would turn you into ash! So why exactly is it that even when I say I love Disney songs that I still get to be Bowser? Hmm. Maybe I should not have mentioned that part about being enthusiastic about dead things... Well, at least I'm STRONG and powerful.

Hi! My name is Peachennia, I'm full of ENERGY and bubbling with life! I care, so if you ever need my help, please don't be shy and just ask me.



Ashley

Björn

Coenraad

Thijs

Ennia

First to arrive  
or last to  
leave?

Thijs

Last to leave

Last to leave

Both

First to arrive

Favorite 50 ct  
candy shop  
article?

Ice Tea  
Green

Bueno

Ice Tea

Ice Tea

Crisps

Favorite  
promotional  
item?

Vests

Sport Shirts

Hoodies

Vests

STUFFED CUDDLY  
CHRISTMAS BEARS  
OH YEAH!

My board  
year in one  
word:

OK

Sleepless

Sleepless

OK

Legen  
- wait for it -  
dary



**I'm Mario,  
but my friends call  
me Coenraad. Being an  
all-round HERO sort of guy I  
jump into danger with a big  
"Wahoo"! Or... I turn around  
and fall asleep again.  
Or is that comment  
too random?**

No matter what, I'm always  
there to help out my buddies!  
Well, at least if I have not vanished into  
thin air, because I run around like a  
CRAZY thing just because I think it is  
fun! Oh, by the way, people call  
me Björnoshi!





My name is Thijs AKA Wario  
and I get myself into TROUBLE all the time!  
BTW. Maybe it does not look like it  
from this angle, but I am pretty tall.



**In a fulltime board year, you get to know each other very well. What do you like the most...**

...about Björn

**Thijs:** "He has the ability to talk about EVERYTHING. He gets along with everyone. Sometimes we lost him and eventually found him talking with someone we did not even know."

**Ashley:** "His hair looks like that of a llama!"

**Ennia:** "He looks like Sid from Ice Age."

...about Thijs

**Ashley:** "His VVD-smile."

**Ennia:** "His hair after a drink."

...about Ennia

**Thijs:** "She did everything within an hour."

**Ashley:** "I liked to laugh with her about dead animal jokes."

...about Coenraad

**Björn:** "Coenraad and I have done an ad fundum in every pub we entered. I liked that. I also liked his endless knowledge about 'How I met your mother'."

**Ennia:** "His nicknames, like Coenraad, Coinzaad, Coenipoeniemoenie </3 and so many more! And sacrificing his sleep to be with our active members."

...about Ashley

**Ennia:** "Her love for dead hamsters! And her origami art."

**Thijs:** "Her pigeon jokes!"

**Where will everyone be in ten years?**

...Björn

**Thijs:** "He will be a lobbyist or maybe

politician! He will be living with his girlfriend."

...Thijs

**Coenraad:** "He will be living in Sprang and he will be the owner of his own company or senior manager strategic change development."

**Ennia:** "He will be married to someone who is either always away or is doing all the tasks at home."

...Ennia

**Thijs:** "I think she will become a Data Analyst at Pointlogic, without any children."

**Björn:** "She will definitely drive a Toyota Prius!"

...Coenraad

**Ennia:** "I think he will become a strategy consultant, living with Vera in Eindhoven."

**Björn:** "Yes, driving an Aston Martin! Like James Bond!"

...Ashley

**Coenraad:** "I think she will have a kid

of 4 years old and will go on plant expeditions."

**Thijs:** "She will definitely own a cat!"

**Ennia:** "In ten years she will have even more mathematical puzzles!"

**Do you have any last wise words for us?**

**Ennia:** "Realize that the association is very special. Asset I Econometrics is a group of close friends, but the group is still accessible for new people. I think that is very special and rare."

**Björn:** "I want to add that you should not lose yourself in your board tasks, but enjoy every moment!"

**Ashley:** "TEV is vet."

After these last wise words of Ashley, we thank the former board for all their hard work. We hope the board of 2015-2016 will never forget this amazing year and we wish them all the best in the future. Thijs Kramer, Ennia Suijkerbuijk, Thomas (Coenraad) van Manen, Ashley Beringer and Björn Floor, thank you for all the effort you put in Asset I Econometrics! ●





**Text by: Pepijn Wissing**

This year, we are celebrating the twenty-fifth birthday of **NEKST** magazine. The magazine you are reading today has an extensive history: the predecessor of Nekst was published back in 1978! This academic year, we will have several articles highlighting this history.

Firstly, and perhaps most noticeably, we introduce the special returning theme 'Archived', for which we will crawl through the archives of Nekst to dig up and dust off the nicest jewels Nekst has to offer, so that you may enjoy the finest pieces of penmanship once more. These articles may date back to the time that Nekst was published in Dutch; we have decided that we will not be translating them as more often than not this would only detract from the literary prowess of the original article. Alongside this new theme, we will break down a little piece of Nekst's history every edition. This edition, we will start at the very beginning.

#### De Cirkel

In November 1978, the first edition of a still unnamed magazine was published. Admittedly, it was more like a newsletter at the time; it consisted of just four pages and contained mainly announcements and exam statistics. Moreover, it was not even an official TEV (the predecessor of Asset | Econometrics) magazine yet! By the time the second edition was released, a name had been chosen, namely "De Cirkel". In this edition, the goal of the magazine was also formulated: "The purpose of the magazine is to give a wider knowledge about educational and managerial issues that take place with the sub-faculty."

In the second volume of De Cirkel, TEV was introduced to the students: "Although Econometrics students form a close group, the number of activities in this group during the last half year has decreased to a worrying level, (...). Therefore, four Econometrics students got together and concluded that the foundation of a sub-faculty association would be a good idea." From the third volume onward, each volume featured an edition that was dedicated to the upcoming freshmen, as well as an annually returning puzzle. The remaining three editions that were published each year were made for all econometrics students.



#### Rapid progression

Piece by piece, the magazine started to contain more and more returning articles. In just two short years, it grew from four to twenty-eight pages. Slowly but surely, it started to take the form it has nowadays; reports about day trips to companies and articles about econometrics-related subjects were published. Moreover, the very first Quatsch was published around this time! Bob Kaper's "Relations are more important than functions" formed the fundament of a long-lasting tradition. Moreover, the first real interview with a student was held; it resembled the current 'Living in Lodges' and 'The Passion of ...' sections.

De Cirkel did experience some hard times. For example in 1983, when Mr. Deetman, then Minister of Education, proposed to disincorporate the study Econometrics at the universities of Amsterdam, Groningen and Tilburg. If the study would disappear, De Cirkel would disappear with it. As such, the final edition of the fifth volume was made as a memoriam. Fortunately for both us and the Cirkel-writers at the time, minister Deetman's plans did not pass. Because of the relief, the cover of the following edition contains the image of a phoenix, which represents the rebirth of De Cirkel. •

**The next edition of NEKST will feature the next chapter in this thrilling story: the Tristichon years!**





# Bij de koffieautomaat

## De stelling

De beste discussies ontstaan vaak op de meest informele plekken. Daarom trok de redactie van de Nekst naar dé discussieplek op de UvT, namelijk de koffieautomaat. Hier leggen we de aanwezige econometristen een prikkelende stelling voor; deze keer: *“Econometristen kunnen niet hoofdrekenen.”* Als je wilt reageren of zelf een stelling voor de volgende keer hebt, kan je dat laten weten via [koffieautomaat@TEV.nl](mailto:koffieautomaat@TEV.nl)

***“Econometristen kunnen niet hoofdrekenen.”***  
**Met de proef op de som: hoeveel is  $280/16$ ?**

**Vincent Sterk**  
**Elisabeth Wever**

*Hector Santoni Gomez:* “Econometristen kunnen niet goed hoofdrekenen. Ze maken heel veel gebruik van rekenmachines.  $280/16=12$ ”

*Mohammed Chahim:* “Ik zelf kan wel hoofdrekenen, maar ik weet het niet van andere econometristen. Ik kan nu  $280/16$  niet berekenen omdat ik helemaal ingesteld ben op Administratieve Technieken dus ik heb alle wiskundige kennis van me afgezet”



*Ken Swagten:* “Je gebruikt tegenwoordig heel veel rekenmachines. Het wordt je makkelijk gemaakt. Je hoeft tegenwoordig niet meer te kunnen hoofdrekenen.  $280/16$  kan ik echt niet.”

*Stan de Greef:* “Het zal per persoon verschillen of ze kunnen hoofdrekenen.  $280/16=17,5$ ”

*Gerda Polman:* “Het is waar, ik kan echt niet goed hoofdrekenen.  $280/16=30$ ”

Ineke Meuffels pakt haar mobiel om de som te berekenen..

*Yonina Sint Jago:*  $280/16=15$ .

*Inge Magilsen:*  $280/16=17,5$ .

*Arjan Buijsen:* “Ik denk het wel.  $280/16=15$ ”

*Stijn Wouters:*  $280/16=18$

*Arjan en Stijn als ze te weten komen dat het antwoord 17,5 is:* “17,5, daar doen we niet aan. Dit is geen hoofdrekenen, daar heb je rekenmachines voor nodig.”

*Drs. Bomgaars:* “Ik zou veronderstellen dat econometristen juist wel zouden moeten kunnen hoofdrekenen. In de praktijk blijft het anders te zijn. Doordat econometristen zulke onwijze rekenapparaten hebben, berekenen ze daar alles mee.”

*Drs. Konings:* “Jongere mensen, ongeacht welke pluimage, kunnen niet hoofdrekenen. Ik denk wel dat econometristen over het algemeen wel wat meer gevoel voor getallen hebben. Maar het actief met het hoofdje rekenen kunnen ze net zo slecht als de gemiddelde Nederlander.”







# De vaart der dingen

## Column door Arnoud Klep



Dit jaar stonden al drie verschillende columnisten in de Nekst. Deze reeks wordt afgesloten door columnist Arnoud Klep.



O Tempora, o mores. Met deze gevleugelde woorden van Cicero ben ik vaker een tekst in de Nekst begonnen. Mijn oma van 98 vertelde laatst zich niet langer te bekommeren om al die lastige veranderingen ten gevolge van de invoer van de nieuwe spelling. Dit standpunt kon mijn volste goedkeuring wegdragen, want ik betreur het persoonlijk ook dat klassiekers als 'De sterrenkijker kijkt door zijn sterrekijker' uit onze hedendaagse taal geharmen(?) zijn. Echter, het mensje bedoelde niet de wijziging van de spelling van een paar jaar terug, maar refereerde aan de introductie van Het Groene Boekje in 1954.

Dingen veranderen. Zo lang als het begrip 'tijd' bestaat, zo lang zijn er al 'veranderingen.' Misschien valt 'het verstrijken der tijd' op zich al te definiëren als 'het veranderen' ofschoon genieën als Stephen Hawking en z'n maatjes een andere begrip van tijd zullen hanteren. We kunnen ook vanuit de andere kant redeneren, zeg maar het duale probleem: 'Dingen veranderen kost tijd', een veel gehoorde kreet in Den Haag en contreien. Of nog anders (een waardige econometrist levert immers graag een bewijs uit het ongerijmde): Als dingen niet veranderen, dan schiet het ook niet op.

'Nederland is nog nooit zoveel veranderd als afgelopen 50 jaar'. Deze inhoudsloze oneliner citeer ik uit een of ander geschiedenisboekje, waaruit ik zo'n 15 jaar geleden onderricht heb mogen genieten. Met een dergelijke open deur kun je natuurlijk elke tien jaar komen aanzetten. Wat mij persoonlijk dan weer bezighoudt, is de tijdsdynamiek achter deze bewering. Misschien is er de afgelopen 50 jaar evenveel veranderd als in de 200 jaar daarvoor. En in die laatstgenoemde periode weer evenveel als in de rest van de moderne jaartelling. Zo op het eerste oog huist er in de differentievergelijking van de maatschappelijke ontwikkeling een tijdschaal gebaseerd op logaritmische intervallen. Afgaand op de extrapolatietechnieken bekruipt mij een beklemmend gevoel voor de komende intervallen: Gaan we een dergelijke hoeveelheid veranderingen als in de afgelopen 50 jaar nu meemaken in de komende 10 jaar? En in de periode daarna dezelfde portie in een nog korter tijdsbestek?

Zelfs 26-jarige net opgedroogde wereldburgers als ik moeten erkennen dat de technologische ontwikkeling zich de laatste twee decennia erg snel heeft voltrokken. Ik heb nog tijden meegemaakt dat je een bankfiliaal fysiek moest betreden om daar je



guldens op te nemen. Tegenwoordig betalen we al lang niet meer met deze munt en kun je buiten in de rij gaan staan voor een pinautomaat. Een beetje bankovervaller moet nu ook bulldozer kunnen rijden ook. Ik was 18 toen ik voor het eerst van e-mail en internet hoorde. Tegenwoordig kun je de nieuwste films downloaden en meteen branden op DVD. Voor m'n verjaardag kreeg ik ooit een grammofoonplaat van Doe Maar en Feyenoord speelde in die tijd nog gewoon werkvoetbal. Heden ten dage loop ik rond met een mobiele telefoon, waarmee ik behalve de hele wereld bellen ook nog teletekst kan lezen, foto's maken en radio 538 luisteren. Wat staat ons Nederland allemaal nog te wachten voor de komende decennia? En België dan?

Volgens het zelfde geschiedenisboekje dat eerder ter sprake kwam, gebeurde in België alles 50 jaar eerder. Verdisconteerd tegen de logaritmische curve van de tijdsverdichting is dat momenteel nog steeds een achterstand van 10 jaar. Voorbeelden zijn er te over: tal van chemische bestrijdingsmiddelen die in Nederland uit den boze zijn, worden vijf kilometer over de grens achteloos over de gewassen uitgespoten. Vuurwerk wordt er het hele jaar door verkocht in willekeurige doe-het-zelf toko's, die natuurlijk gelegen zijn in de dicht bevolkte woonwijken. Ondanks tragische "Wie is de Bob?"-campagnes, nemen grote groepen jongelui na een avondje stevig drinken rücksichtslos plaats achter het stuur. In België moet het allemaal nog gebeuren. Van veel Nederlanders begrijp je niet dat ze in deze achterstandswijk willen wonen, behalve dan wellicht van Cor Boonstra, maar die heeft dan ook voorkennis genoeg. De eerste tekenen duiden er evenwel op dat België meer en meer begint open te staan voor de 'Ollandse Zegeningen', zoals een liberaal drugsbeleid, homohuwelijken en euthenasiewetten (om eens wat puinhoopjes van acht jaar paars te noemen). Overigens lijkt het me verstandig dat ze die Europese pioniersrol aan ons overlaten, want dankzij hun belachelijke

genocidewet heeft George W. Bush de guts niet meer om zijn straaljager op de grote markt van Brussel aan de grond te zetten; bang als hij is om daar vervolgd te worden vanwege misdaden van de menselijkheid. Nee, laat die Belgen maar lekker achter de rest aansukkelen en in hun eigen tempo veranderen.

Terug naar het ijtempo waarin bij ons de ontwikkelingen elkaar opvolgen. Moeten we angst hebben voor technologische vooruitgang? Er liggen tal van ethische vragen op het gebied van genetische manipulatie, biodiversiteit en de ontrafeling van het menselijk DNA. Alles wat ooit ontsproten is aan het brein van een genie om te dienen als zegening voor de mensheid, is daarnaast ook keihard misbruikt voor andere toepassingen. Van atoomsplitsing tot dynamiet, tot zelfs de wielklem, waarvan het nooit de bedoeling is geweest van de weinig visionaire hobbyist dat zijn uitvinding ooit in de handen van de politie zou vallen. Zelfs de meest briljante uitvinding in haar eenvoud, namelijk de paperclip, is al talloze malen in malafide context gebruikt om het portier van een auto mee te openen. Hierin kennen we natuurlijk het welbekende Free Rider probleem (in het laatste voorbeeld trouwens wel erg letterlijk). Het misbruik gaat immers hand in hand met de zegening, daarentegen zal de technologische ontwikkeling zich hierdoor niet laten afremmen.

Hebben we eigenlijk invloed op de vaart der dingen? Ik denk het niet en waarschijnlijk moet je dat ook niet eens willen. Ik heb in tegenstelling tot de salonsocialisten nooit zo geloofd in de maakbaarheid van onze samenleving. Net zoals de natuur mechanismen kent om zichzelf aan te passen, heeft ook de maatschappij waarin we leven de flexibiliteit om vernieuwingen vrij automatisch te absorberen. De ene technologische ontwikkeling maakt de andere overbodig. Het versnellende proces van de vooruitgang wordt geleid door een soort invisible hand die ervoor zorgt dat allen superieure technologieën overleven en het totaal naar een hoger niveau gestuwd wordt.

Al sinds het ontstaan van het heelal is er sprake van verdichting van de tijd. Het duurde duizenden jaren om een stenen speerpunt door te ontwikkelen naar een ijzeren lans, terwijl er tussen Commodore 64 en Pentium 4 hooguit twintig jaar zitten. Veranderingen volgen elkaar in een steeds hoger tempo op en deze versnelling is van exponentiële orde (dus differentiëren helpt niet). We hebben geen invloed op de vaart der dingen en eigenlijk is dat helemaal niet erg. Let's go with the flow...





# YOUmunity

draagvlak en raakvlak

Never believe that a few caring people can't change the world. For, indeed, that's all who ever have.

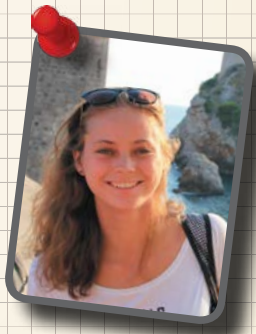
- Margaret Mead

Stichting YOUmunity aims to create mutual understanding between refugees and the Dutch population, removing prejudices and ultimately facilitating the integration of refugees in Dutch society. To this end, we are looking for volunteers who are willing to contribute by doing activities with refugees. Basically anything can be proposed; it is completely up to you!

✉ [stichtingyoumunity@gmail.com](mailto:stichtingyoumunity@gmail.com)  
f [facebook.com/stichtingyoumunity](https://facebook.com/stichtingyoumunity)







**Rachel  
van der Velden**

**AGE: 19**

**Began studies in 2015**

# In It to Win It

On Tuesday October 4, the annual Lecturer of the Year Award (LotYA) and Game Afternoon took place. This year, I had the privilege to organize them! Our committee, the Education committee, invited all members of Asset | Econometrics to thank the lecturers for their efforts the past year and to have a good time!

A few months ago, we started by choosing several categories for the Lecturer of the Year Awards. There are two categories that are present every year: the Best Bachelor lecturer and the Best Master lecturer. Beside these, we decided to add three categories, namely: Best educational support material, Best English-speaking lecturer and the Best PhD-Student.

Next, we had to find a lecturer who was able to give a lecture of around 45 minutes on a certain topic. We had a topic and lecturer in mind, namely dr. Hendrickx with games as his topic, since that topic would be connected to the consecutive Game Afternoon. Unfortunately, professor Hendrickx was not able to be present at the LotYA, which meant that we had to find someone else and we decided that the topic Business Analytics would also be great, because of the new Master program. Luckily professor Vera was willing to do the lecture! So now we could finally finish our flyer and promote this event to our fellow students.

Jochem, chairman of the Education committee, opened the LotYA with a nice word to the professors, thanking them for their efforts during the past year. Then, professor Vera gave an interesting lecture on Business Analytics, with some fun applications and fun facts. Next, Jochem handed out the prizes to the winning lecturers. The winners for Best Bachelor lecturer, Best Master lecturer, Best English-speaking lecturer, Best educational



support material and Best PhD student were Edwin van Dam, Peter Borm, Etienne de Klerk, Henk Norde and Nick Huberts, respectively. Congratulations to all of you!

We wanted to do the Game Afternoon a little differently than in recent years, so we decided to have a competition for the first time! We first had to think of the kind of games we wanted to incorporate in the competition. We decided we could let 56 people enter in the competition, based on the subscription list that day. In the first round we went from 56 participants to 24, playing simple and fast games like Set, Halli Galli and Jungle Speed. After the first round the pizzas arrived and all the participants still in the competition could charge up their body in order to get ready for the next round!

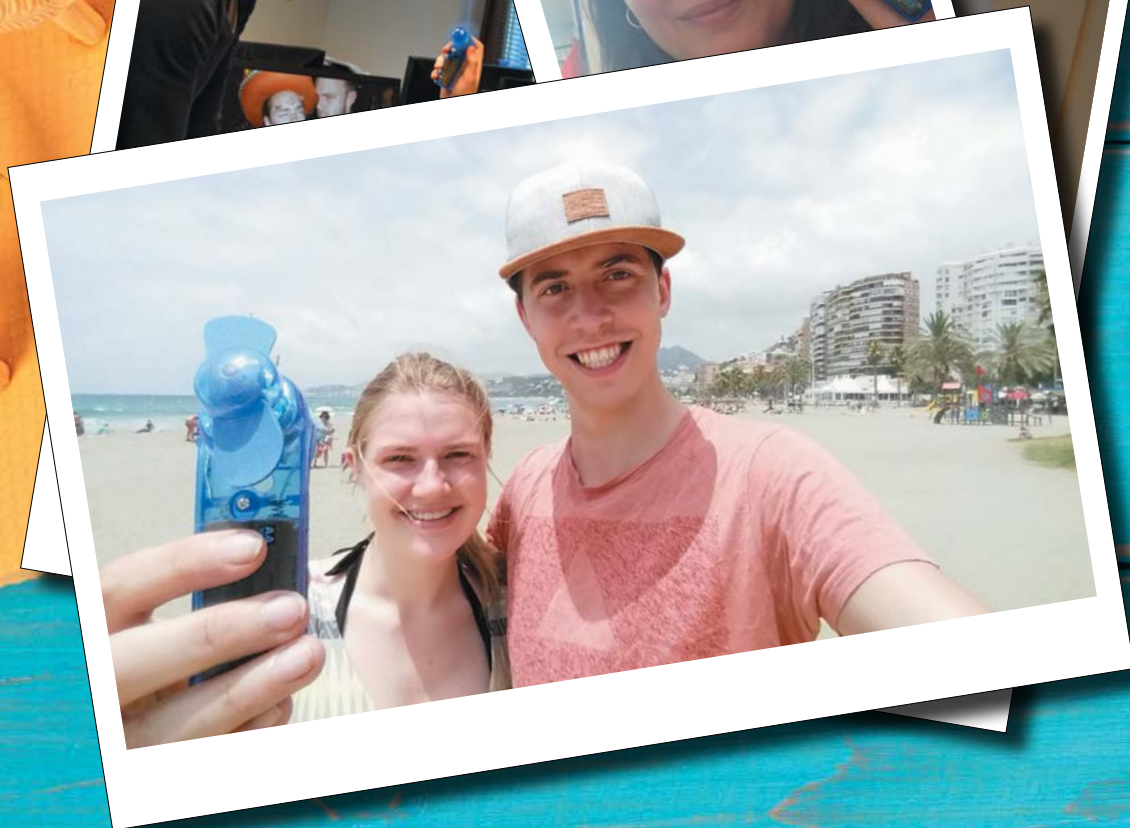
In the second round we played 3 games of 30 seconds in teams of two. Only three teams were going to the next round. The game Perudo was played with the remaining 6 participants. Freshman Max Wilke and PhD student Bas Dietzenbacher made it to the finale! In the finale, probably the longest and most thrilling game of Jenga was played. In the end, Bas Dietzenbacher won the Game Afternoon Competition, and he won a great prize: a mini pool table!

Overall, I think the LotYA and the Game Afternoon were a huge success and I am very proud to have organized these events with my committee! ●



# FAN-tastic Photos!

As during every summer holiday, all recipients of **NEKST** were invited to participate in the summer photo contest. This year the submitted photos had to involve the Asset I Econometrics electric hand fan that sprays water, in an original way. Some of the entries are displayed on these pages, and we have chosen a winner as well. Together with last year's Editor-in-Chief, it was decided that Max Smedts is the proud winner of this year's contest! We are pretty sure that also the camel in the background appreciated the breeze of your electric hand fan!





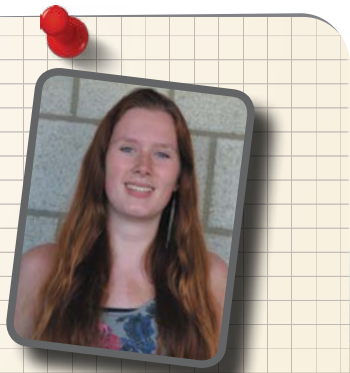


Congratulations!  
As promised, we would like to reward you with a pie  
or a crate of beer, which you can pick up at room E1.10.



# The American Dream

I am very lucky to be studying at Bentley University this fall semester. Bentley is a business school located in Waltham, Massachusetts, and is known for being a good school. It was very important for me to go to an English-speaking country; it makes life just a bit easier. Let me tell you about my experiences so far.



**Anouk Casparie**

**AGE: 20**

**Began studies in 2014**

One of my goals while being here is improving my English. I am certain that my vocabulary and confidence in speaking will increase during this semester. I hope my spelling and grammar improve too, but that is a little bit trickier. Maybe not that useful, but definitely fun is learning slang. I learned that if you want to say that something is very exciting/cool, you could say that something is "lit", and if you want to say that you are going to bed, you could say "I am going to hit the deck" or "I am going to hit the hay." Another important reason for choosing Bentley is that I wanted to go to America and travel around. I did some traveling already, and have some more trips on my agenda. I fell in love with the country and I definitely see myself returning here one day.

## Traveling and exploring

First of all, Boston is an amazing city. There is a free shuttle from the university to Harvard Square, where you can take the subway into the city center of Boston. Within 45 minutes you can travel from the Bentley campus to the heart of Boston. Boston looks and feels more like a European city than most of the cities in America. It does not feel that large and has beautiful parts.

Going on an exchange is definitely a good way to travel. I traveled along the West coast before the semester started and have also been to New York

and Acadia National Park, both for a weekend. It was truly amazing. It is hard to say what I liked the most. I love the feeling metropolitan cities give, and New York definitely topped that. The nature I have seen was also very beautiful. The Grand Canyon is spectacular, but personally I thought Acadia National Park was more beautiful. Just a small tip: if a trail is said to be going up with 41%, they really do mean 41%. So there will be a lot of steps, ladders and steep rock slabs. Vermont, Montreal, Toronto and the

Niagara Falls are on the agenda for my October break. All of the exchange students want to see a lot and visit many places, so you can always find someone who wants to join you on your trip. You do not have to go off campus to have a good time, though. This year is Bentley's 100th anniversary and therefore they organize a lot of extra activities, things such as concerts and gatherings with a lot of free stuff. There are also a lot of clubs that organize fun activities and trips.

## 'It's not about where you're from, but where you're going!'



## Clubs

They have unbelievably many clubs (associations). Clubs for different sorts of dances, a club/team for every sport you can think of, clubs on debating/the United Nations, sororities, fraternities, clubs focused on a certain culture and much more.

Along with some other exchange students I joined BEAR, the outdoor club, on a kayaking trip on the river that goes through Boston: the Charles River. I am also going to Salem in a few weeks, the city which is known for its witch-hunts, with ISA. ISA is the international student association that organizes some fun activities and is focused on international students and their integration in Bentley. So out of all the clubs you can join, I decided to become an exchange liaison for the board of ISA. I decided to join



ISA because I liked the idea that they are focused on different cultures and because I think they are just a really nice group of people. One of my reasons for going on exchange was to learn more about different cultures and what better way to do that than in an international student association? A bonus is that they understand that you sometimes can have a misunderstanding based on differences in culture and the language barrier. You do not have to be an international student to join; our slogan is: "It's not about where you're from, but where you're going!"

We will also take part in the Culture Festival, a festival focused on all the different cultures in the Bentley community. There will be food and drinks from a lot of different countries, dances from all over the world, and many more things that still need to be worked out.

### Campus life

Bentley is a real American university with its own campus; around 90 percent of the people that study there live on campus. You can live in a residence hall (those are for the freshmen), a suite, or an apartment. In residence halls, you just have a bed in a room which you share with other students. In suites, you also have a refrigerator and a microwave. In both types of housing, you have to have a meal plan. Having a meal plan means that you have to eat around 15 times a week in the 921, called "Seasons" with all the students. It is a big dining hall, with way too many desserts. This is the



main reason that I do not have a meal plan. I chose to live in an apartment to be able to cook for myself. I share the apartment with four other girls, one of which is my direct roommate. Yeah, you read it correctly, I have a roommate. At first, I was really scared about having a roommate, because I am not used to sharing my room with someone else and I appreciate my privacy. But it is typically American, so I wanted to try it. So far, it has been going really well; she is a really nice girl from Honduras (she is studying here for her full undergraduate program, which is the same as a Bachelor's degree in the Netherlands).

### School

Maybe it is a good thing to tell you that I am also studying. The way of teaching at Bentley has more similarities with the HBO system we have in the Netherlands than with the Dutch university system. They expect you to show up every lecture, prepare for class, participate actively and you have to hand in assignments almost weekly for every class. This means that I am very busy during the week to make sure that I have the weekends off. They reward effort and give high grades very easily, but they would be heavily disappointed and you would have a problem if you get a six for a course.

### School spirit

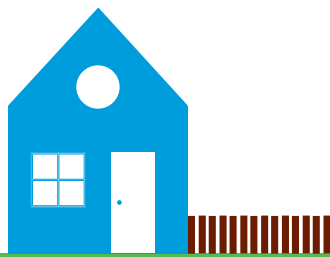
The last thing I would like to talk about is school spirit. We are called the Falcons, and have Flex the Falcon as our mascot. School spirit is very important and therefore they give a lot of promotional items; I can already start my own shop with t-shirts, footballs and frisbees. I already went to two football games in which the Falcons played; we won the last one! It is a strange game if you do not know the rules, but luckily people were very nice and explained the rules to us. In general, the American mentality is open and they are friendly and helpful.

I would like to conclude by saying that I am looking forward to the next 3 months at Bentley and am anxious to see what Halloween will bring. ●





## LIVING IN LODGES



# Enjoying Student Life to the Fullest

On a Monday morning, Julia and I got the opportunity to interview Jelle Sieben, a 17-year old freshman who is a committee member of the Active Members Weekend (AMW) committee. There is a big chance that you have already seen him during one of the activities of Asset | Econometrics, since he is already a very loyal participant. Otherwise, you might have seen him during the evenings at Café de Boekanier, which is his favorite bar.

**Text by: Claire Vink**

### About the house

After having struggled with Google Maps we finally arrived at his home, where we were kindly welcomed. As expected, he is an easy-going and spontaneous freshman, which made us feel right at home. We were both quite impressed by the enormous size of the house and the inside of the house matched our expectations as the whole house was very spacious. While he showed us around we both noticed that his house would be the perfect setting for throwing a big party and he told us that they were indeed planning to do so.

His house is located at a 20 minute bike ride from the university and is close by an Aldi. He lives there with ten other students and they form a nicely mixed group. Some of them are HBO students, while others are taking a degree at Tilburg University and one of his roommates already has a job. A funny side note is that his direct neighbor is a fellow econometrician, namely Maureen Los. All roommates have to share two kitchens, three bathrooms and a living room that contains two couches.

Besides the common areas, he has a bedroom of 17m<sup>2</sup>

which he considers to be an ideal size for a bedroom as there is enough space to place everything you need. Like most students he bought most of his furniture at IKEA. The windowsill is especially something that he values since it creates another spot to chill and makes his room even more ideal for hanging out with some friends. Additionally, he is very happy with the fact that he has the chance to eat with some of his



**Jelle Sieben**

**AGE: 17**

**Address:**

**Spoordijk 82**

**Rent: € 310**

roommates every night. All of the above makes him feel right at home, the only thing that he slightly misses is his dog.

### Challenge

Have you already spotted the one slightly odd object in his room? It is an object that most students definitely do not have, which makes him a proud owner of it. To be honest, it took me some time to spot it, but if you look closely at the photos you will find a street sign from Rome, which he collected on one of his high school trips.

### About Jelle

Besides being utterly interested in his house, we were also very curious to get to know him a little better. Jelle grew up in Roermond, where he has lived with his sister and parents for as long as he can remember. Despite the fact that he is living in Tilburg now, he still travels to his hometown every weekend to play soccer at his childhood club. In order to keep up with his teammates he trains at T.S.V.V. Merlijn once a week. He is definitely not planning on playing competition in Tilburg, as he has been assured that he will join a better team at his own soccer club next year.

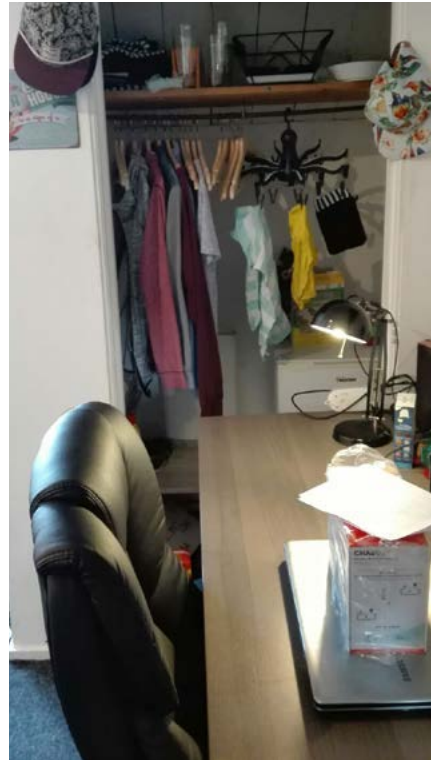




One year ago, he was not that sure that he would be going to study in Tilburg. It was quite an easy choice which subject to study, as math was the only subject he truly enjoyed and he already knew that other math-related Bachelors were not the right fit for him. However, he had been in doubt at which university he would be going to study for a long time. Erasmus University and Tilburg University both attracted him, but eventually the 'smallness' and the recruited study points made him choose for Tilburg University.

### So far so good

His student life could not have started any better. He was fortunate enough to get a room with little effort. He just started searching for a room a week before the TOP-week started and he was immediately chosen by his current roommates. In addition, he had the pleasure of having the two well-known and outgoing active members Tom and Pepijn as his supervisors during the introduction week. Actually, I want to give some credits to these two. According to Jelle, they have been great promoters for Asset I Econometrics and it made him and some others become active members, so good job guys! From the TOP-week onwards his student life has been everything that he had expected: great fun, a lot of freedom and some great parties. Despite all the obvious reasons to live in lodges, many fellow



freshmen decided not to move out for different reasons. However, Jelle would recommend all his fellow students to live in lodges so that they do not have to miss out on anything and make their student life even more worth it!

Besides having a great social life, he also realizes that it is important to study every now and then. Even though the midterms were not much of a success, he still believes that econometrics is within his reach. He stressed that

obtaining the required 42 points for a BSA is more than manageable, but that he will just have to put more effort into keeping up with the homework. Luckily, he does enjoy the courses with the exception of Macro Economics, so it is highly likely that he finds the motivation to study enough for the exams. Econometrics seems the right fit for him and I hope that he will manage to get through Macro Economics. While talking about the courses and the future some more, we realized that we actually share the same vision. The three of us would rather complete our Bachelor's degree within 4 years and live the student life to fullest than obtaining a Bachelor's degree within 3 years whilst not doing so.

### Coming to an end

Stupidly enough we did not take pictures during the first time he showed us around, so before he could get rid of us, he had to show us around one more time. The many empty beer bottles that we came across indicated that there never is a dull moment in his house and that this house definitely provides a good basis for having an awesome student life. Hopefully, he will enjoy the rest of his student life as much as he has enjoyed his first few weeks and undoubtedly many of us will see him at least once in café de Boekanier! Last but not least, we also wish him good luck for his upcoming exams. ●





# It's all Fun and Games

Early in the morning, a lot of students gathered at the central station of Tilburg to take the train to Rotterdam, where the LEST 2016 took place. The LEST is a sports tournament for all econometricians in the Netherlands (LEST is the abbreviation for *landelijk econometristen sport toernooi*). In previous years, the tournament was called LEVT (*landelijk econometristen voetbal toernooi*), as it was only a soccer tournament. This year other sports and games were added, which meant that the name LEST better fit the event.

When we arrived at the location, every city received beautiful shirts, which fit perfectly. Tilburg got the color blue. When everybody had changed clothes, the games started. Unfortunately, it started raining even before our first game started. For the soccer tournament, Tilburg had 2 teams: 1 girl's team and 1 boy's team (and Anouk). This year, the competition was a mixed competition and there were two different categories; a recreational competition and a competitive competition. Nobody in our team could play soccer very well, so we joined the recreational competition. Our first game was against a team of really passionate boys who were too good to be in the recreational competition. It was not

really fair and we lost the game with a big difference.

After three matches, it was time for a break. During the break, we supported the 2 teams of Tilburg at the Sport & Games Tournament. They had to play five games during the day. For example there was a Sweeper, where you have to jump over a spinning bar and the last one standing wins. Another game was horseback riding, where four blindfolded people had to carry a plastic horse with one teammate sitting on it, who would guide the group around obstacles on the route.

After the break, we still had two matches to go, against two companies

that sponsored the tournament. After these two matches, it was finally time to take a hot shower and to have some beers at the café. We talked with the companies for a bit and waited for everybody to finish the Sport & Games tournament, which ended a little later.

Just when it started raining very hard, the organization told everybody to go to the sports center for the barbeque and the party, so we had to walk to the university campus for about ten minutes. When we arrived there, everybody had the opportunity to talk with the companies again, or just sit and drink some beers while waiting for the barbeque.

After the barbeque, the awards ceremony took place. Unfortunately, none of the teams from Tilburg had been good enough to win a prize. All the companies went home and the beer pong tournament started. Unfortunately there was no real tournament like last year, so we just played some other games. When we had had enough of the games, the party started. It was a good party, but the DJ did not want to play a song by Monique Smit – even though we asked him repeatedly – so it was not fantastic. Everybody was tired of the sports so we went to bed really early. At the end of the evening, only 5 people and the organization were still up, so they ended the party. We all slept in the sports hall. A lot of people snore, so we could not sleep that well,



**Nikkie Damen**

**AGE: 21**

Began studies in 2013





**Tom Scholtze****AGE: 22****Began studies in 2012**

About a year ago, our committee had its first meeting. Now, almost a year later, we are ready to go. The first big decision we had to make was, of course, the destination of our tour. We came up with several ideas and investigated the possibilities of these cities. After some research our top 3 had become San Francisco, Hong Kong and Tokyo, in no particular order. Some presentations and voting session later, we ended up with Tokyo. We decided to do a trip to more cities in Japan if possible and thanks to the Shinkansen (Japanese high speed train) we are able to visit Tokyo, Osaka and Kyoto.

Following the tradition, we wanted to keep this location a secret until our Active Members Weekend. Although we did our best, not everybody succeeded. At some points it was hard to keep the secret. Our first committee dinner was a hard moment, for example. We went to a Japanese restaurant, but I told everyone we went to a steak house. Apparently they believed me, as the location was still a surprise for most members at our announcement. Our second committee dinner was very nice as well. Pepijn cooked for us, which was delicious, and afterwards we played 'The Settlers of Catan'. Not everybody enjoyed that game, but Ashley certainly did.

Another big aspect of our committee was finding companies to collaborate with. Our external affairs' did a great

# Travel Agency Committee

For the very few of you who do not know what the International Business Tour entails, I will shortly explain: the International Business Tour is a study trip to a foreign city where we will explore companies, universities and where we will do some sightseeing too. Past International Business Tours have visited amongst others Singapore, Dubai, New York and Cape Town. For the last one, I was present myself and it was an unforgettable experience! I hope we can create an even more unforgettable experience in Japan with the International Business Tour 2016.



job at calling and mailing many companies. ING is our main sponsor and we have arranged several formal activities. For example, we will be visiting the Nikkei, which is the stock exchange of Tokyo. Sometimes calling to Japan is kind of difficult since relatively little people speak proficient English. But not just that, I even got laughed at my last name several times...

Since the International Business Tour committee lasts longer than one year, we switched some committee members during the summer. Unfortunately Ashley and Coenraad have left the committee since they finished their board year. Instead, we got back Anouk

and Ridho. Now, it has literally become one great party! Nonetheless, it really is a pity that Ashley and Coenraad will not be joining us, even though they put a lot of work into our tour. We will definitely be thinking of them while we are visiting some temples.

At the time of writing, there is only one month left until we fly to Tokyo. Personally I cannot wait to discover all the temples, shrines and other typically Japanese things. Furthermore, I hope we can see a little bit of the Japanese nightlife if we have some spare time. I hope that we will have a lot of great stories to tell after our trip and of course there will be an article in Nekst! ●



# Quatsch!

All-time favorite:  
"Als ik iemand na moet doen  
die dom is, dan praat ik altijd  
Limburgs."  
- Eduard van Boxtel

"De empty set  
is leeg."  
- Milan

"Weet jij wat  
een lunch is?"  
- Linda Torn

"Oh, that's quite unique,  
I finished on time!"  
- Dr. Peeters

"Doet 'ie ook echt een  
studie of doet 'ie HBO?"  
- Coenraad

"Heb jij het beneden ook  
rood geverfd?"  
- Milan van der Kamp  
tegen Linda Torn

Lieke van Uden: "Past Toyko  
wel op een kaart?";  
Tom Scholtze: "Heel Frankrijk  
past toch ook op een kaart"

"Is dit een land of een ziekte?"  
- Tom Scholtze over Eritrea

"Hij heeft wel kleine neusgaten.  
Ja voor als je daar je vingers in  
wilt steken zegmaar."  
- Irmgard Oude Alink

Claire Vink op de LEST: "Hé, die jongen  
van Building Blocks lijkt best op Bart de  
Peuter!"  
Loes van der Linden: "Claire, dat is Bart  
de Peuter.."

## Quatsch?

Over the past few months, the editorial staff of **NEKST** received many quotes that relate to the study of Econometrics and to the activities organized by Asset | Econometrics. Therefore, we present to you a selection of some striking and funny quotes! Please mail all remarkable quotes you have heard to [nekst@Asset-Econometrics.nl](mailto:nekst@Asset-Econometrics.nl)!





# PUZZLE

**With the summer holidays already several weeks behind us and with the first few midterms coming up in the surprisingly near future, now seems like the perfect time for some mental fitness exercises to kick start your brain into high-performance mode. This puzzle should be plenty to get up to second gear!**

Tom and Coenraad, two young and upcoming econometrician boys, have been chatting up a beautiful girl in the TOP-week. Their shy friend Björn was obviously interested, but could not muster the courage to talk to her. Being a mysterious young woman that finds intelligence attractive above all else, she decides to take the opportunity to test the boys in an attempt to choose between them; the boys have to figure out her address. She gives the boys the following list of possibilities:

Korvelseweg 10, Korvelseweg 12, Korvelseweg 14, Akkerstraat 11, Akkerstraat 13, Tarwehof 9, Tarwehof 12, Capucijnenstraat 9, Capucijnenstraat 10, Capucijnenstraat 11.

She then tells Tom the street on which she lives, and she tells Coenraad her house number. Being as competitive as they are, the boys do not share any information. Tom says: "I do not know your address, but I am certain Coenraad does not know it either!" Coenraad thinks for a while and says: "Then I know her address," after which Tom cries out: "Well, then I know it too!" Happy with their success, the boys give each other a high five and turn around to tell the girl, only to find out that Björn had figured it out already, and has walked off with the girl.

Can you figure out on which address the girl lives? Please send your solution to [nekst@Asset-Econometrics.nl](mailto:nekst@Asset-Econometrics.nl) before November 29. A crate of beer or a delicious pie, whichever the winner prefers, will be waiting for whoever has sent the best (partial) solution. Please note that, as before, every recipient of this magazine is eligible to send in their solution, so members of the department are invited to participate as well. Good luck!



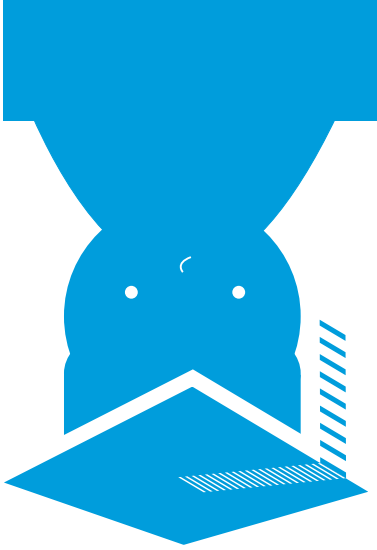
For elaboration visit  
**NEKST-ONLINE**

**Dolf Oosten** is the winner of the previous puzzle.

As a reward, he can come and pick up a crate of beer or a pie at room E1.10.

The solution of the previous puzzle was 67794.





# Asset | Econometrics congratulates...

Name: Maarten van Liempd  
Title: Stochastic Optimization of Safety Stock Levels in Multi-echelon Networks  
Supervisors: Dr. R.C.M. Brekelmans, Prof.dr.ir. J. Ashayeri

Name: Sven van Grunsven  
Title: Optimization of the Seating Process of Wide-Body Aircraft at KLM Royal Dutch Airlines  
Supervisors: Prof.dr.ir. J. Ashayeri, Prof.dr.ir. R. Sotirov

Name: Ruud Beks  
Title: Solvency II: the impact of Longevity Risk.  
Supervisors: Prof.dr. A.M.B. De Waegenaere, Prof.dr. B. Melenberg

Name: Jochem van Vuren  
Title: The Power of both: Optimal Technology Adoption for Incumbent Firms  
Supervisors: Prof.dr. P.M. Kort, Dr. K.J.M. Huisman

Name: Kevin Jacobs  
Title: The Effect of Retirement on the number of Medical Visits  
Supervisors: Dr. M. Salm, Dr. B.A. Vollaard

Name: Frans Fonville  
Title: Facility Layout Design for a Central Distribution Center of CRH to Support Management Decisions  
Supervisors: Prof.dr.ir. J. Ashayeri, Dr. R.C.M. Brekelmans

Name: Michel van Gelder  
Title: Deriving a Marketing Budget Allocation Model Under Uncertain History Data  
Supervisors: Dr. J.C. Vera, Prof.dr.ir. D. den Hertog

Name: Vasileia Xezonaki  
Title: Asset Pricing Models: An Empirical Application to the Greek Stock Market  
Supervisors: Dr. P. Cizek, Dr. S.J. Sender

Name: Willem Jongen  
Title: Quantifying Intereducational Wealth Transfers in a Dutch Pension Fund  
Supervisors: Dr. B. Drepper, Prof.dr. A.M.B. De Waegenaere

Name: Cansu Yamaner  
Title: Optimization of a Wastewater Treatment Plant: A New Central Control Algorithm for Pump Stations  
Supervisors: Dr. B. Drepper, Prof.dr. A.M.B. De Waegenaere

Name: Dimitros Mokas  
Title: Nowcasting Greek GDP in Real Time  
Supervisors: Prof.dr. B. Melenberg, Dr. P. Cizek

Name: Saskia Riddersma  
Title: Multivariate Time Series Forecasting of Product Sales using Vector Autoregression Models  
Supervisors: Dr. K.J.M. Huisman, Prof.dr. P.M. Kort

Name: Lisanne den Hoed  
Title: Benchmarking Store Performance: Location Analysis in Retail  
Supervisors: Dr. P. Cizek, Dr. M. Salm

Name: Pieter Vromen  
Title: Fixed Versus Variable Pensions: Design and Choice  
Supervisors: Dr. S.J. Sender, Prof.dr. B. Melenberg

Name: Nienke Markus  
Title: The Ex-ante Redistribution in the Decumulation Phase of the IDC Scheme  
Supervisors: Dr. S.J. Sender, Prof.dr. B. Melenberg

Name: Jorgo Goossens  
Title: Quantification of the Discontinuity Risk of Pension funds  
Supervisors: Dr. S.J. Sender, Prof.dr. B. Melenberg

Name: Evelien Verstegen  
Title: Scheduling Internal Transportation Tasks for Hospitals: xed versus ad hoc  
Supervisors: Dr.ir.ing. M.J.P. Peeters, Prof.dr.ir. H.A. Fleuren

Name: Jeroen Brouwers  
Title: Break Detection Analysis in Binary Choice Problems  
Supervisors: Prof.dr. A.H.O. van Soest, Dr. O. Boldea



Name: Maran van Heesch  
 Title: Combined Cooperation and Non-Cooperation for Channel Allocation and Transmission Power Control  
 Supervisors: Prof.dr. A.J.J. Talman-Prof.dr. P.E.M. Borm, Dr. R.L.P. Hendrickx

Name: Etienne Baghuis  
 Title: An Adaptable Multi Depot Vehicle Routing Algorithm for Fuel Distribution  
 Supervisors: Prof.dr.ir. H.A. Fleuren, Dr.ir.ing. M.J.P. Peeters

Name: Karolis Bielskis  
 Title: The Interaction between Financial Development and Financial Globalization in CEE Countries: Evidence from Time Series Analysis  
 Supervisors: Dr. O. Boldea, Dr. P. Cizek

Name: Michiel van Erp  
 Title: Testing a Market Risk Economic Capital Model using the Displaced Relative Changes Model  
 Supervisors: Dr. F.C. Drost, Dr. P. Cizek

Name: Koen Weterings  
 Title: Natural Language Processing: Ratings and Reviews  
 Supervisors: Dr. J.C. Vera, Prof.dr.ir. R. Sotirov

Name: Jakob Schwerter  
 Title: Economic Uncertainty, Parental Selection, and Young Adults' Labor Market Outcomes  
 Supervisors: Dr. M. Salm, Prof.dr.ir. J.C. van Ours

Name: Rongrong Tang  
 Title: The Myerson Value in TU-games with Circular Communication Structure: What is different from the Average Tree Solution  
 Supervisors: Prof.dr. A.J.J. Talman, Prof.dr. P.M. Kort

Name: Paulan van Nes  
 Title: Estimating Conditional Distributions of Asset Returns: a Comparison between Bootstrap Methods and Least Squares Stress Testing  
 Supervisors: Dr. O. Boldea, Prof.dr. B. Melenberg

Name: Ruus Swinkels  
 Title: Appropriateness of the Standard Formula for Calculation of the Solvency Capital Requirement at Bovemij  
 Supervisors: Prof.dr. J.H.J. Einmahl, Dr. F.C. Drost

Name: Piotr Szczerba  
 Title: The Cyclical Pattern of Informal Employment in Europe  
 Supervisors: Dr. M. Salm, Dr. P. Cizek

Name: Annick van Ool  
 Title: Investment Strategies for the Pre-retirement and Retirement Phase of IDC Pensions  
 Supervisors: Prof.dr. T.E. Nijman, Dr. A.G. Balter

Name: Nanne van 't Klooster  
 Title: Helping Participants Make Choices Regarding Retirement: A Data Driven Approach  
 Supervisors: Prof.dr. A.H.O. van Soest, Prof.dr. E.H.M. Ponds

Name: Riley Badenbroek  
 Title: Adding Robustness to WFP's Supply Chain Optimization Model  
 Supervisors: Prof.dr.ir. D. den Hertog, Prof.dr.ir. H.A. Fleuren

**...on obtaining their  
 Master's degree.**

# Agenda

## Autumn 2016

### *International Business Tour*

Monday October 24 – Thursday November 3

During the International Business Tour (IBT), 24 students will visit Japan. They will not only discover the business side of this country, but also its nightlife and interesting history. The program includes visits to companies and universities, a trip to Kyoto and several temples!

### *D&A Activity & Drink*

Tuesday November 8

The first activity of the Drinks & Activities committee takes place on November 8, which gives you the perfect opportunity to meet new people and make new friends! The activity will be followed by a drink at Café de Nachtwacht, so we hope to see you there.

### *Asset Gala*

Thursday November 10

It is time to clean your dancing shoes and find your suit, for the Asset Gala takes place on Tuesday November 10! All members of Asset are welcome, so make sure you get a ticket in time!

### *Monthly Afternoon*

Wednesday November 16

The next Monthly Afternoon will take place on November 16. You can catch up with your fellow students while having a drink or playing a game. There is no need to register, you can just swing by from 16.00 hours onwards.

### *Finance Expedition*

Tuesday November 15 – Friday November 18

The Finance Expedition is the perfect opportunity for students interested in Finance to meet possible future employers. Several fascinating firms will provide lectures, drinks and interactive sessions during which you get insight in their day-to-day projects. Participation is free of charge and includes a stay in the luxurious Hotel Arena.

### *(Aspirant) Former Active Members Dinner*

Saturday November 19

This November, the notorious (Aspirant) Former Active Members dinner ((A)FAM) will be organized for all our Former Active Members. During this dinner, memories will be retrieved and friendships will be renewed.







## Freshmen Activity

Tuesday November 22

The first activity especially for first-year students will be organized on November 22. While the activity itself is currently not yet known, we can assure all freshmen that it will be a memorable evening where new friendships will be made. Make sure you save the date!

## Asset Party

Wednesday November 23

The Asset Party will take place on Wednesday November 23. Make sure you are there for some free beers!

## Orientation and Connection Day

Thursday November 24

Do you want to learn more about your possible future employer? Then participate in the Orientation Day, where firms corresponding to the three Master tracks will give presentations in order to give you more insights for your (future) career. Are you at least a third-year student, and interested in a certain field of Econometrics? Then participate in the Connection Day! Choose for Deloitte or PointLogic and get to know the companies by doing an interesting case.

## St. Nicholas Drink

Tuesday December 6

The famous St. Nicholas Drink will take place at Café de Nachtwacht. It is a perfect opportunity to drink a beer with your fellow econometricians.

## Monthly Afternoon

Tuesday December 20

There will also be a Monthly Afternoon in December. Swing by for a nice game or just a beer!

## COdE Beer Cantus

Thursday December 22

On Thursday December 20, the COdE Beer Cantus will take place. This will be the first Christmas Cantus. Make sure you will be there!

## Christmas Brunch

Friday December 23

On Friday December 23, the second edition of the Christmas Brunch will take place. Bring your Christmas hat and wish your fellow econometricians a happy Christmas!

# “Wil je net als ik data analyseren om klanten betere keuzes te bieden?”

**Celine Brouwers**  
Customer Intelligence Analyst

lees het blog van Celine op  
[werkenbijaegon.nl](https://werkenbijaegon.nl)

[Lees het blog](#)



Aandacht voor je toekomst