

NEKST

VOL. 24
NO. 2

WINTER 2015
NEKST-ONLINE.NL

INTERVIEW EMILE AARTS

THE JOURNEY TO TILBURG

ALSO FEATURING

- ▶ SPECIAL: CHESS PROBLEMS
- ▶ EXCHANGE REPORT: HONG KONG
- ▶ COLUMN: FAIRYTALES IN EOR

ASSET

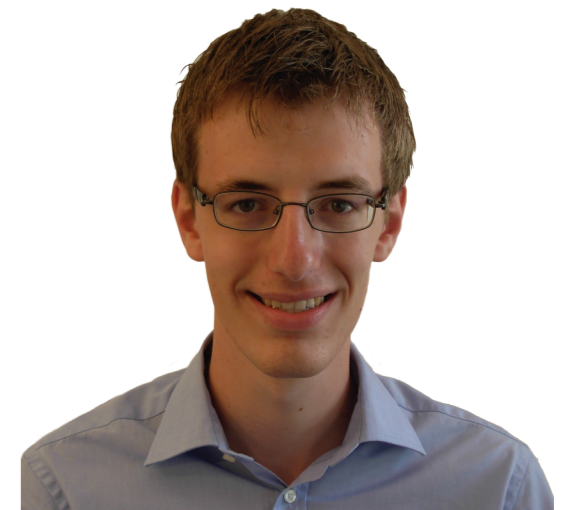


Econometrics

Towers Watson

P
r
e
f
a
c
e

A Dynamic World



In my opinion, the December month is always a confusing time of the year. Should we look back at last year, look forward to what is ahead of us, or should we just focus on what is in front of us right now? I suggest the latter, which is in your case simply a new issue of Nekst. While on the topic, let me tell you a little bit about it.

In today's fast moving, dynamic society, studying is not necessarily a well-defined concept. Hence, it is only natural that our study program is constantly changing. For this issue, we spoke to the department about all those changes and new initiatives. One level higher, we find the ideas, struggles and plans of the university as a whole, which are discussed in an interview with our Rector Magnificus Emile Aarts. First things first: he knows his mathematics. Of course you do as well, so let me dare you to think about the problems described in our chess special.

I can imagine that you are feeling like reading some more informal articles, as your holiday mode might already have kicked in. If that is the case, I invite you to read about all of the activities you have participated in during the last few months, or perhaps the ones you pity not participating in. For those of you who seek adventure and think Tilburg is too small, this issue provides you with inspiration and insights into Cape Town and Hong Kong. In any case, I can only suggest you pick your favorite articles, choose the best seat you can find, and enjoy Nekst!

Stefan ten Eikelder
Editor-in-Chief

COLOPHON

Nekst is the quarterly magazine of Asset | Econometrics ©2015
Insertion of an article does not mean that the opinion of the board of Asset | Econometrics or the editorial staff is verbalized.

Correspondence

Asset | Econometrics
Tilburg University
Room E 1.10
P.O.Box 90153
5000 LE Tilburg
Telephone: 013 466 27 47
info@Asset-Econometrics.nl
www.Asset-Econometrics.nl
www.Nekst-Online.nl

Editorial staff

Stefan ten Eikelder
Jesson Einmahl
Max van der Lee
Aurel Macias Minambres
Ennia Suijkerbuijk
Claire Vink
Pepijn Wissing

Lay-out editor

Lotte van Bakel

Contributions

Irmgard Oude Alink
Jochem Bruijninx
Nikkie Damen
Vince Dentener
Nick Huberts
Goos Kant
Thijs Kramer
Casper Kroot
Vera van der Lelij
Marieke Musegaas
Stan Olijslagers
Jelle de Rooij
Ernst Roos
Linda Torn
Rachel van der Velden
Pierre Verhulst
Fang Qi Wu

Printing

Gildeprint

Circulation

1250

Table of Contents

Special: EOR

18 Departement

Are you curious about changes in your current and future courses? We spoke to the department to obtain the answers to your questions.



14 The Passion Of

We interviewed Felix Gulinck, who does not let country borders stop him for his passion.

IBT: Cape Town

Twenty-four lucky students visited Cape Town in October. Penguins, company visits and wine tastings, you can find them all in this report!

28



Evening of the Committees

21

Rachel van der Velden explains how matrices are not only useful in mathematics, but also during negotiations.

ADVERTISEMENTS

Cover	Towers Watson
4	LED
16	Career Portal
Cover	Niños de Guatemala
Cover	Aegon

ARTICLES

1	Preface
5	From the Board
6	Special: Chess Problems
9	Column: Nick Huberts & Marieke Musegaas
10	Interview: Emile Aarts
13	Econometrics Orientation Day
14	The Passion Of: Felix Gulinck
17	Vacancies
18	Special: EOR Department
21	Evening of the Committees

22	Finance Expedition
23	Column: Goos Kant
24	The Teacher: Arthur van Soest
28	International Business Tour
31	Asset Gala
32	Business Interview Capgemini
34	Living in Lodges
36	Committee Profile: ORC
37	AMM & St. Nicholas Drink
38	Exchange Report
42	KOALA

43	Freshmen Activity
44	The Father Of: Loes van der Linden
46	Active Members Day
47	Cycling Dinner & Drink
48	Quatsch
49	Puzzle
50	Agenda
52	Graduates

Dear Members,

As we approach the end of December, you might be surrounded by your loved ones, enjoying a delicious Christmas meal and/or counting down the days of 2015. Writing this piece, I imagine you sitting right next to the Christmas tree, enjoying a warm cup of tea while reading this magazine. This is for everyone an ideal moment to lean back and to look forward to upcoming year. Remember: every end marks a new beginning. Keep your determination unshaken, and you will walk the road of success.

LED

Looking forward to next year, the first career event is the National Econometricians Day, which will be held in Rotterdam on February 2. We also organize our own symposium on March 15, with this year's goal to teach us how one can improve business using Marketing Intelligence. On top of that, the first Operations Research Conference focusing on 'Outsmarting competitors' will be held on April 26.

Besides all the opportunities to invest in your future career, I would also like to invite you to all our other activities. Join us on one of our Monthly Afternoons, our monthly drinks or on a beer cantus. Besides those activities, we also organize two weekends for our members: next to the yearly infamous Active Members Weekend, we will also visit the beloved city of Ghent. Do not hesitate and join us on our activities, as they are guaranteed to become a success with your attendance.

If you want to further challenge yourself next year, then being active in of Asset | Econometrics' committees is an ideal way to do so. Become part of the committee that creates a new edition of the Book of Faces, an editor of this magazine, or organize a wonderful Introduction Activity for a new generation of econometricians. If you are looking for something more formal, you can become part of the Finance Expedition committee or of the committee that organizes the first Orientation and Connection Day, where all econometricians can prepare themselves for their future career, whether they are still orientating or already know their future career path.

To give 2016 a whole new look, the rooms in the Esplanade building are currently being refurbished. Therefore, we would like to invite

you all to step by at our rooms during the upcoming period to check out the new look, to celebrate a passed exam or to complain about the arduousness of one.

Maybe you already had your first exam of this semester, maybe you are questioning whether you should spend your days studying for the upcoming exams or enjoy the days off between exams, or maybe you are already focusing on your exams in January. In any case, I wish you the best of luck with your upcoming exams. We hope to see you at our activities this year! For now, take a day off. The year 2016 includes one more.

On behalf of the board,

Thijs Kramer
Chairman Asset | Econometrics
2015-2016



Bloodthirsty Queens and Wandering Knights

Text by: Pepijn Wissing

The game of Chess is hundreds of years old and is widely considered to be the pinnacle of strategic games. Although the basic concept seems rather simple at first, everyone who unsuspectingly played their first match and was forced to surrender only a few moments later will know that there is definitely a lot more to it than meets the eye. To deal with the sheer complexity of the game, we could call in the help of – you guessed it – mathematics.

First and foremost, you might be wondering why we are at all able to link mathematics and chess. This is possible because both concepts are based on logic. Any mathematical reasoning and any chess reasoning (at least, any brute-force, tactical reasoning and to some extent the more abstract concepts and strategies) can be reduced to more basic, formalized logic systems, which is what enables us to have calculators and chess computers. Every element of the chess game is well-defined, which makes it theoretically possible to fully grasp it through logic and mathematics. However, the complexity of the game gives rise to less well-defined themes and concepts, which are far easier for the mind to grasp than brute-force tactics, which even computers cannot solve completely.

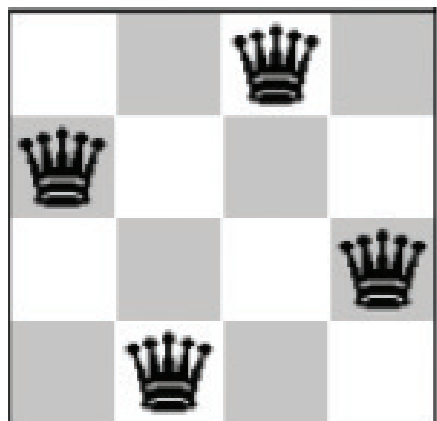


Figure 1: A four queens solution

Aside from the typical game of chess, many more intriguing problems have been constructed using just the chessboard and its pieces. These problems by themselves are usually not too relevant for the game itself. For example, having eight queens on the board that would legally be able to capture each other is simply impossible with only two players. However, these problems do illustrate quite nicely how mathematics might be applied to break down chess.

The n queens problem

The first problem we will discuss is the so-called n queens problem, which is formally defined as the problem of placing n queens on an n-by-n chessboard in such a way that no two queens are able to capture each other in a single move. Since a normal chessboard is 8-by-8 squares large, this problem is usually referred to as the eight queens problem, but the same principle holds for any n.

For the sake of simplicity, we will first consider a 4-by-4 board. A solution to the four queens problem is shown in Figure 1. As a matter of fact, there is only one fundamental solution to four queens, since every other solution is the result of some symmetry operation (rotation or reflection) from this one. For a board of this size, a solution can be

found relatively easily by simply trying a few positions. However, as you might imagine, the larger you choose your n, the harder it becomes to 'just see' a solution: if we increase the board size to 8-by-8, the problem already has 92 distinct solutions that can be reduced down to twelve fundamental solutions.

However, the difficulty of the problem does not lie in the finding of a single explicit solution. If the goal is to find a single solution, the search requires no combinatorics whatsoever. In Figure 2, you might notice that for n=6, 7 and 8, the shown solutions exhibit a stair-stepped pattern. For every $n \geq 4$, a solution with a similar pattern exists, and can be obtained using the heuristic below.

Construct a list containing all numbers $1, 2, \dots, n$ in the following manner:

Step 1: If the remainder from dividing n by 6 is not 2 or 3, then the list is simply all even numbers followed by all odd numbers (i.e. 2, 4, 8, 1, 3, 5 for n = 6)

Step 2: Otherwise, write separate lists of even and odd numbers (i.e. 2, 4, 6, 8 and 1, 3, 5, 7 for n = 8)

Step 3: If the remainder is 2, swap 1 and 3 in the odd list and move 5 to the end (i.e. 3, 1, 7, 5 for n = 8)

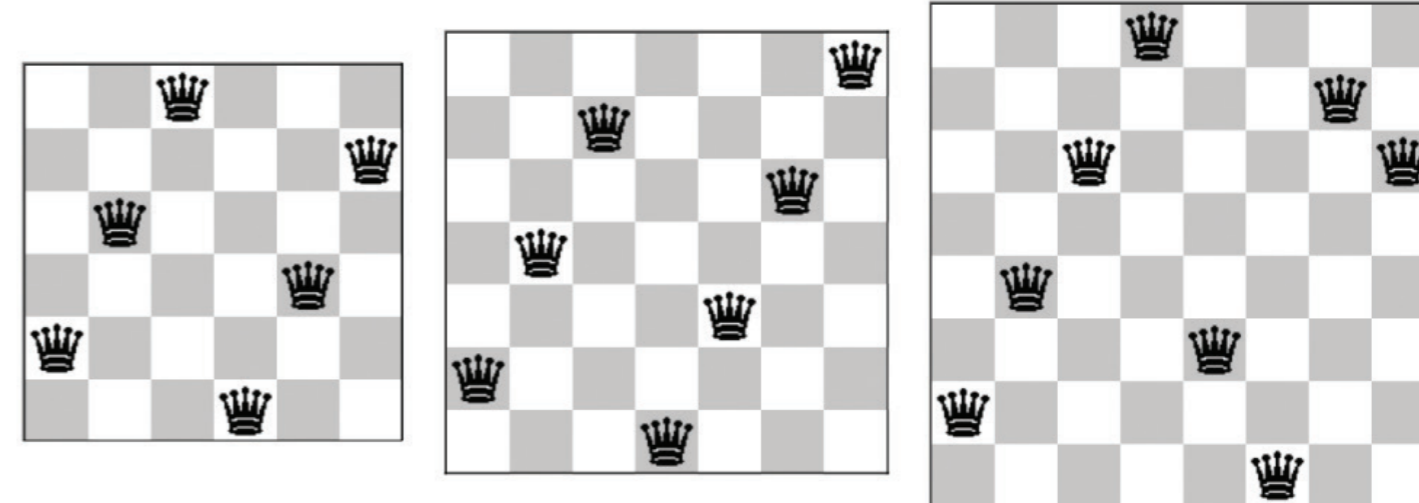


Figure 2: Stair-stepped patterns are clearly visible

Step 4: If the remainder is 3, move 2 to the end of the even list and 1,3 to the end of the odd list (i.e. 4, 6, 8, 2 and 5, 7, 9, 1, 3 for n = 9)

Step 5: Append the odd list to the even list. (i.e. 4, 6, 8, 2, 5, 7, 9, 1, 3 for n=9)

Now, the solution is obtained by placing queens in the rows given by these numbers, from left to right, i.e., a4, b6, c8, d2, e5, f7, g9, h1, i3 for n = 9.

Of course, a single solution can also be obtained as the solution to an Integer Linear Programming problem, which has first been proposed by Hoffman et al. in 1969. The formulation is quite intuitive and simply maximizes the number of queens on the board, while constraining the number of queens on each row, column and diagonal to a maximum of 1. But, being an ILP, this approach does cost an immense amount of computational power, especially for large n.

Significantly more problems arise when one tries to enumerate all possible

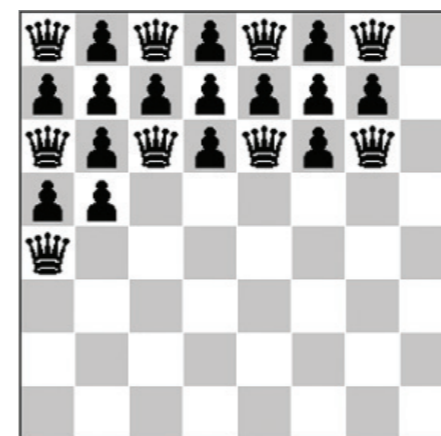


Figure 3: 9 queens on an 8-by-8 board with arbitrarily many pawns

solutions to the problem for a certain board size. Brute-force algorithms that are commonly used to count the number of solutions are computationally manageable for 'small' board sizes such as n=8 or n=10, but would be intractable for problems of $n \geq 20$ as the number of possibilities would grow enormously. For example at n=20 one would find $20! = 2.433 \cdot 10^{18}$ possible board positions for 20 queens

One queen more

The real challenges, though, are extensions of the standard n queens problem. A particularly interesting extension is the problem in which we attempt to place $m > n$ queens on an n-by-n board. Of course, this cannot be done without adding some auxiliary pieces. By custom, pawns are used to essentially 'hinder' the queens; the pawns do not have to be unable to capture any other pieces. To find some solution with arbitrarily many pawns is of course a trivial exercise. Consider, for example, Figure 3.

Difficulty in this problem is caused by restrictions on the number of available pawns. Typically, solutions with only one or two pawns can be found. Unlike the standard n queens problem, this is very much an open problem: as of today, no clever algorithms such as the one discussed above have been formulated. For small n, some solutions have been constructed by hand. For example, a solution to the problem of placing nine queens on an 8-by-8 board, using only a single pawn is shown in Figure 4.

Horse go 'round

Another very interesting problem is

known as the (closed) knight's tour problem, in which we attempt to find the sequence of moves of a knight that represents a full tour of the knight across the board in such a way that every square is visited exactly once and the knight returns to its original location. To offer some intuition, a solution to this problem on a 6-by-6 board is shown in Figure 5. The open knight's tour is a little more general in the sense that we do not

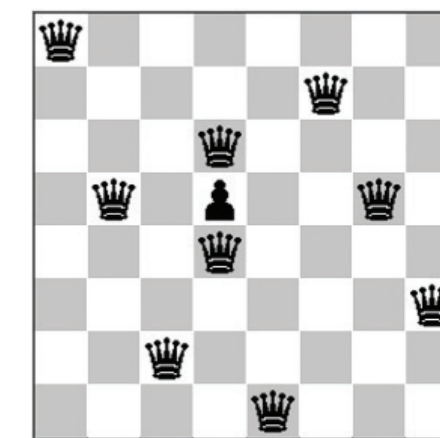


Figure 4: 9 queens on an 8-by-8 board with only a single pawn

require the knight to come back to his original position. Typically, the closed problem is considered.

As you might have determined by now, the complexity of this problems quickly spirals out of control: the number of existing open tours for $n = 1, 2, \dots, 8$ is 1, 0, 0, 0, 1, 728, 6.637.920, 165.575.218.320, 19.591.828.170.979.904. To put that into perspective: for your computer to be able to even be able to store all of the solutions for an 8-by-8 board at the same time, it would need $4.7 \cdot 10^{12}$ gigabytes of RAM memory, which is much, much more than the 4 to 8 →

gigabytes of RAM modern computers typically have. However, even though this massive number of solutions exists, you might find it quite difficult to even find a single one, for an 8-by-8 board. So, let us find out how mathematics could aid us in our quest for a solution.

The first useful observation is that the knight's tour problem is in fact an instance of the Hamiltonian cycle problem. Indeed, given the movement restrictions of a knight from one square

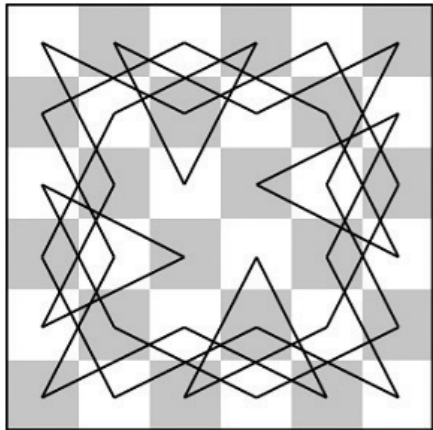


Figure 5: A solution to the closed knight's tour problem on a 6-by-6 board

to the next, we could construct a graph known as the Knight's Graph. In this graph, each node represents a square and each edge between two nodes represents the possibility of movement between those two squares. The Knight's Graph for $n = 6$ is shown in Figure 6. However, unlike the general Hamiltonian cycle problem, this problem has been proven to be solvable in polynomial time.

Many mathematically beautiful approaches to this problem exist. Let us describe a relatively simple heuristic, known as Warnsdorff's Rule, introduced by H.C. Von Warnsdorff in 1823. The rule states that one should always move the knight to the square from which the knight will have the fewest onward moves. By definition of the problem, previously visited squares should not be counted when calculating the number of onward moves for each candidate square.

It is, of course, possible to have two or more choices for which the number of onward moves is equal; making the 'wrong' choice on these occasions could make Warnsdorff's Rule fail to produce

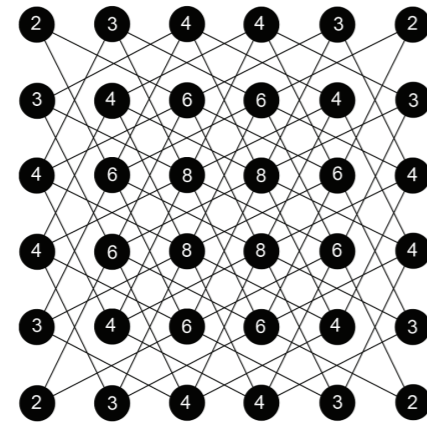


Figure 6: The knight's graph for a 6-by-6 board

a solution for boards as small as 5-by-5. There are various methods for breaking such ties. Warnsdorff himself proposed to just randomize the choice, which generally works well enough for boards smaller than 100-by-100; for boards of those sizes success rate is almost always above 50%, so simply rolling the dice a few times would usually do the trick. However, for larger board sizes, this approach would generally fail to produce a solution. To solve these larger problems, we would need a more sophisticated tie-breaking-rule, such as one devised by Squirrel and Cull.

Essentially, what Squirrel and Cull propose is to start the process with some (arbitrarily chosen) ordering of the eight basic directions a knight is allowed to move in, and to always prioritize the move highest on that list when two or more are tied for first place. One such ordering would be 12345678, which tells us to always prioritize direction 1 over all others, direction 2 over all but 1, etc. Using this rule once proved to be unsuccessful for small boards ($n < 50$), but using a cleverly generated

sequence of move orderings (12345678, 21345678, etc) and trying each one until a solution has been found proved to be extremely successful: for each of the m -by- n boards with $10 \leq m, n \leq 300$ they tried, a solution was found within the first nineteen move-orderings.

Another approach is known as the divide-and-conquer algorithm. This algorithm essentially splits up a large board into smaller boards, finds solutions for the smaller boards and then links them together to find the solution for the original board. For the interested reader, a particularly nice paper on this subject is "An efficient algorithm for the Knight's Tour problem" by Ian Parberry, 1997.

Whether it be bloodthirsty queens looking to capture one another or lonesome knights wandering across the board, mathematics has – as usual – its own ways to tackle the problems at hand. Who knows, you might just be the one to think of clever ways to wield its power and in doing so, you might find yourself retaliating from that first loss as you approach 'the game of kings' with a fresh perspective. ●

References

P Cull and J DeCurtins, Knight's Tour Revisited, Fibonacci Quart. 1978

A.J. Schwenk, Which Rectangular Chessboards have a knight's tour? Math. Mag. 64 (1991)

I. Parberry, An efficient algorithm for the Knight's tour problem, Discrete Applied Mathematics 73 (1997)



It is all about the Money

'Ome Loek, ome Loek, oh het bonnetje is zoek. Tante Mien, tante Mien, heb jij het bonnetje gezien? We zitten maar te zoeken, in kasten en in hoeken, in beuken en in linden, maar we kunnen het echt niet vinden.' Dominee Gremdaat once made a column about a scandal at the Dutch Ministry of Finance, where a receipt got lost. The minister was dismissed after he confessed that it never went lost, but he did not want

Recent financial developments forced the university to make some unpopular budgetary cuts. Not only the influx of new employees was dammed, also for us PhD students (and other researchers) some unpopular decisions were made. As an example, budgetary cuts for conference reimbursements were introduced. As a side note: a small bird whispered in our ears that prof.dr.ir. Edwin van Dam has been spotted with a toilet roll under his

return when halfway to be on time for his tutorial (perhaps he needs to cycle faster).

Nevertheless, despite all the severe cuts, a rainbow came down on the K-building and it appeared to be the faculty's lucky day. In great delight the faculty embraced the found money that came to light. New tenure track positions have been opened, which hopefully will lead to new interesting research. To us, money coming out of thin air sounds much like a fairytale. In fact, we would not mind if a similar miracle would happen to one of us. Would it not be wonderful if one of us wakes up in the morning and the Thesis Fairy left a nice piece of work on the kitchen table overnight? We would sing: 'Ome Loek, ome Loek, oh wat moeilijk al dat onderzoek. Tante Mien, tante Mien, heb jij dit wonder ook gezien? Waar eerst de kopjes stonden, heb ik nu dit boek gevonden. Nu het onderzoek is gedaan, kan ik op zoek naar een nieuwe baan.' ●

'A rainbow came down on the K-building and it appeared to be the faculty's lucky day'

the truth to come out that he actually paid a criminal the amount of 4.7 million guilders instead of 1.25 million. For those who do not know Gremdaat's column, you can look it up at YouTube, titled 'bonnetje is zoek'. Politics has always been a domain where facts are used in one's own advantage.

Here, in the very south, land of the Burgundians, far away from the Dutch political center, you might think we keep ourselves far away from these gray areas. But unfortunately, also on this very campus, things 'get lost'. No receipt or exam this time, however, but a lot of money. Enough to welcome several new researchers for a number of years.

arm on a camping site near a conference. We ourselves, instead of paying for a conference dinner, take sandwiches with peanut butter with us.

Also EOR students faced the effects of suchlike decisions. Until a few years ago, EOR students were sometimes hired as student assistants to give tutorials. This is no longer possible. As a consequence, expensive professors are now to give tutorials, which costs time that can no longer be dedicated to research or other (teaching) tasks. We heard that prof.dr. Peter Kort now grades exams while playing checkers. Likewise, prof.dr. Herbert Hamers lately wanted to ascend the Mount Ventoux again, but had to

Nick Huberts & Marieke Musegaas

Marieke Musegaas and Nick Huberts are PhD students at the Department of Econometrics and OR. Marieke's field of research is cooperative game theory and especially OR-games. She likes doing sports, playing board games and going on holidays. Nick's field of research applies game theory to a Real Options setting which analyzes strategic investment decisions under uncertainty. He likes to play (board) games, discover the secrets of Europe's beautiful nature, attend festivals and study Hermetic and Thelemic traditions.



From Research to Rector

His name will certainly ring a bell to students, but who exactly is Emile Aarts, what does he do at our university and what is his background? Nekst talked with our new Rector Magnificus about the university, mathematics and advancing society. Prof. Aarts: "We like to talk, but our debates should be sharper."

Text by: Stefan ten Eikelder

The life of a rector is undoubtedly a busy one, but what does a typical day actually look like?

I usually have breakfast at around 07.30 hours together with my wife, my daughter is at the age that she has already left home, and afterwards I check my email from 08.00 to 08.45 hours. When I leave my home, rush hour is mostly over, and depending on the traffic I arrive at the university between 09.30 and 10.00 hours. Most often, I have conversations all day, such as interviews like this or one-on-one conversations. This then ends at around 18.30 hours. Of course, all of this is subject to change due to early appointments or meetings elsewhere. My three most important tasks are education, research and valorization, and as such the conversations usually concern these topics. I am not responsible for finance, administration and buildings, amongst others. What I am particularly happy with, is that communication is part of my portfolio, which is a topic I like, and also think is very important.

Which of these tasks do you like most?

We generally do not talk about what we like most. All three parts have their charms, and also have their downsides. We try to have a clear distinction between shape and content in a discussion, and not let emotion play a role in this. Let me give an example. Due to miscommunication, this interview

started a bit later than originally planned, which can be seen as a problem. The discussion about shape is very difficult. This would entail the fact that you might have the idea that we did not take you seriously and you therefore cannot have a meaningful discussion with me, as you might feel offended. There is nothing I can do about that right now. The conflict on content, however, can be solved. It would simply mean that we discuss how to solve this, I for example can suggest to extend this interview beyond the original ending time. We try to stay away from the shape discussions and focus on the content. Now, concerning your original question. If I really have to pick one task, I choose valorization; it is in a very early stage at this university, and there is still much to do. I like to build things.

Why did you want to become rector?

"There were several contacts between



Tilburg University and me and I became more and more interested in its backgrounds. At the time, I was already involved with Tilburg University, due to its cooperation for the data science initiative with Eindhoven University of Technology (TU/e), where I was dean of the department of Mathematics and Computer Science back then. When I was working for CQM, I also met prof. Den Hertog, with whom you are familiar. I was thus not a complete stranger to Tilburg University, and knew its potential to become large in data science, which I found interesting. It was all very well developed, making it much easier to start collaborations with other parties.

Career

- 1983: Obtained PhD in Groningen, after studying physics in Nijmegen
- 1983-2012: Worked at Philips Research, the last couple of years being Chief Scientific Officer
- 1991-2012: Part-time professor at Eindhoven University of Technology (TU/e) first in computing science, later in industrial design
- 1997-2003: Senior consultant at CQM
- 2012-2015: Dean of Department of Mathematics and Computer Science at TU/e
- 2015-now: Rector Magnificus of Tilburg University

After obtaining your PhD, you started working in corporate life at Philips. That is not per se a normal move, right?

I first started off as a 'pure' scientist. Being part of the flower power generation, there was a huge gap between universities and the corporate world. I really had to justify myself to my friends for what I was going to do at Philips, as it was not a normal move back then. On the other hand, my job at Philips was not the average job in the corporate sector. Philips Research was known as the largest private university in Europe. There was no real business culture and we had a lot of freedom. When I started working there, my boss told me: "Okay, settle yourself, take a good look around, and tell me after one year what you would like to work on." This freedom turned out to work really well and the number of new innovations that resulted from our department was really astonishing.

It turns out that you have done research in many areas, including physics, mathematics, data science and innovation. Can you tell us some more about that?

At Philips Research, the general tendency was to research what you have affinity with and what sparked your interest at that moment. My research field is originally algorithmics, stemming from theoretical physics. The involved mathematics concerned discrete mathematics, which you will be familiar with: discrete structures, such as graphs and numbers. Once things start to get continuous, and involves subjects such as integral and differential calculus, I get less

'I only come to peace when I am allowed to be at the faculty of economics'

enthusiastic. Of course, I know what it is about, but only when I can count things I start to get really interested. And the concept infinity! If I ever have to give a last lecture, I will talk at least a quarter of an hour about infinity.

But it is true that there have been quite some switches in research topics.



When I was head of the department at Philips, whenever we were recruiting we really selected people on flexibility, to predict if they would be able to work on several different topics. Basically, we looked for what we now call 21st century skills. This culture led to very diverse researchers.

Over the years you gradually switched to the academic world. How and why did that happen?

At some point, the whole future of the Philips Research division was uncertain. As you probably know, Philips split up recently in a lightning division and a health division. Nowadays it is not the large company that it used to be. Compared to when I started there, the number of employees has decreased from 360,000 to 100,000. We saw that this trend came up and many people in my department found jobs elsewhere. I was already connected to the TU/e for almost 25 years as part-time professor.

differences between the TU/e and Tilburg University?

I can tell you one thing: the step from Philips Research to the TU/e was much smaller than from TU/e to Tilburg University. Why this is? This is due to culture; the end product of a student at the TU/e is an engineer. What is the word that best describes graduates of our university? There is no such word, but we came up with one: entrepreneurial thinkers. We have a humanities, a philosophy and also a theology department. I only come to peace when I am allowed to be at the faculty of economics, as I can actually understand that, for it is more beta science aimed. But also the organizational structure is different. I am still not used to that, and lately I have decided that I will not get used to it either.

Let me give you an example to illustrate this difference in culture. When I was working my way through the application rounds, I often drove here in the end of the afternoon. When I left Eindhoven, the billboards at TU/e would display the news that the Stella Solar Car had set a new record, and when I arrived in Tilburg, the billboards displayed: "Should the Netherlands participate in bombings in Iraq?" I found this such a striking example. On the one hand, the technology and innovation is nice, and I do miss that in some way. But on the other hand, at this university we really get to address the big societal challenges and issues, which I find fascinating as well. →

Perhaps your most 'eye-catching' idea so far is 'Advancing Society'. Can you explain what you mean by that?

I am happy that you bring up this topic, it has become an interesting debate recently. When I started discussions at the university, I started to understand that the concept of understanding society is very important. However, those people told me at the same time: "Suppose we are 100 percent successful in understanding the society, we know everything there is to know, and we do

what it is, but we should not go as far as to put together a menu. I am not yet sure whether I agree with this, but it is certainly an interesting idea.

Let me give an example of why I am not yet sure about this. Prof. Lans Bovenberg, one of our highly qualified professors of the TiSEM faculty, has recently received a grant to design a whole new economics study program for high school students. He is putting all his knowledge in this project,

'I would like that every student has the feeling that the university centers entirely around him or her'

not do anything with this knowledge. That is not a good thing." I agreed with this statement. We have stretched the concept of understanding society, and added advancing society to this. At some point we arrived at a debate, in which some people stick up for just restricting ourselves to understanding, whereas others say that we have to go all the way, and immediately go for advancing society. It is quite remarkable that in this division most philosophers are sticking to understanding, as they state that once we start to use our knowledge to influence society in some way, we do this from some sort of ideology. They state that we should put all the ingredients for the meal on the table, and indicate for every part

creating a lot of new study materials, and it is his ambition to have one in three high school students who take economics classes participate in this program in 2020. That is what I call advancing society, and I cannot see any way in which Lans is doing this influenced by some sort of ideology.

While on the topic of debates, we as a university talk a lot with each other, but do this in a careful way. This often leads to discussion ending without a clear conclusion. It is thus that we have declared that 2016 will be the year of the dialogue, which we introduced during the Dies Natalis. Did you not attend the Dies Natalis? No? Shame on you! It is our plan to have tough

debates with constructive conclusions, meaning that we can have debates that are a bit sharper, but we do not say our goodbyes before we have reached some form of consensus. We are currently organizing dialogue forums along this formula, together with study associations and the student fractions, to debate on topics of their choice.

Finally, prof. Aarts sets himself a challenge: "I would like that every student has the feeling that the university centers entirely around him or her. You may call us to account on that."

We would like to thank prof. Aarts for finding time in his busy schedule for this interesting interview, and we wish him the best of luck with his plans for our university. ●

Bert & Ernie Questions

Bert or Ernie?
Bert

Tilburg or Eindhoven?
Tilburg

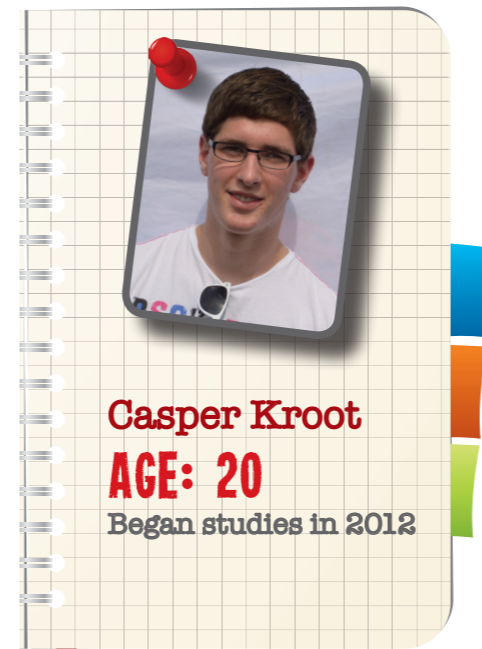
Students or colleagues?
Students

Theory or practice?
Practice

Beer or wine?
Wine

Pancakes or fries?
Pancakes

Carnival or Christmas?
Christmas



It all started with a registration in the small foyer of the C building, where you heard which company you would visit for the presentation, which for the business lunch and which for the case. After the registration I joined the presentation of Quintiq, a consultancy company in solving planning problems. Their own special software package does most of the work for a client, what remains for its employees is making the solution work in such a way that it does exactly what the client wants it to do. This apparently is a good approach: they have grown from being a small company in the city of Den Bosch to a large international business with over a thousand employees.

In the second round we had an information session about extracurricular activities, where several students talked about their experiences in those activities. The first student had been on an exchange to Canada and told us about his wonderful time over there. He enjoyed having to build a social life again from the bottom, and having time for lots of activities outside of school. The second student went on summer school, which is something like a short exchange in the summer vacation. Positive sides about this were that it did not cost too much time and money, while still being able to experience an exchange. The last two students stayed in the Netherlands for extracurricular activities. The first one was active as a work student, which gives the benefit

Discover your Future

On November 12 some fellow econometricians and I attended the Econometrics Orientation Day: a day where you get a little insight in what the lives of econometricians look like after graduating from university. For each of the three master programs a different company was present: Kleyne Consultants for QFAS, Quintiq for ORMS and Gibbs for EME. Every participant joined one company for a presentation, one for a business lunch and one for a case.

of knowing how to communicate with coworkers and already having a job that pays quite well during your studies. The last student did a board year at Asset I Econometrics, and this taught her how to make lots of contacts, and it also boosted her soft skills.

After the information session we went back to the foyer in the C building for our business lunch. All three companies had their own table in the foyer. I had my lunch with Kleyne Consultants, a small company located all the way in the south of Limburg, working as experts in actuarial advice and risk management. They are just with a small team and work all together on every project, so you never have to deal with problems on your own. According to the employee

that I spoke, you somewhat have the feeling that you are at home instead of at the office.

In the last round I worked on a case of Gibbs. This is a company from Rotterdam that checks big data sets and gives advice on how to use the information optimally. This was also our job in the case; we were given a data set of KPN users. In the case we learned how to work under the great amount of time pressure, but also that the best solution was worth some chocolate bars. It all ended afterwards with a nice drink in the café at Tilbury's. However, due to the master information sessions I had to leave early. ●



THE PASSION OF... FELIX GULINCK



We were lucky enough to arrange an interview with someone who has played at the highest level of Dutch hockey, Felix Gulinck. The fifth-year student Felix plays hockey for Tilburg, and has not only played in Den Bosch and Utrecht but even on the other side of the world. Hockey is a huge part of his daily life, which makes for an interesting story.

Felix started his hockey career very early: he was only four years old when he began playing. He sometimes plays hockey in a sports hall, but field hockey is more important to him and this is what he plays most often nowadays. He began playing in Den Bosch, but when he was older he went to Tilburg, even before he started studying at Tilburg University, where he is still playing hockey at the moment.



From Tilburg to Australia and Back

Text by: Aurel Macias Minambres

Tilburg is currently playing in the so-called transition division (Dutch: overgangsklasse), the second level of field hockey in the Netherlands. Last year they played in the premier division (Dutch: hoofdklasse), one of the best hockey leagues in the world, but sadly they relegated to the transition division after a play-off match. Because of this high level of hockey, Felix has to train at least four times in a week, approximately two hours per training, sometimes a bit longer, where they practice not only skill but also discuss tactical plans et cetera for the next match. Usually the match is on Sunday at 14.45 hours, 22 times in a year. After the regular matches, they play some playoff matches to ascend back to the premier division, in case they qualify for this.

Felix mainly plays on the midfield, but sometimes he is positioned elsewhere. Next to his playing in Tilburg, he is also active in coaching the youth in Tilburg. He used to coordinate the training for the

youth groups, but he stopped with that because it cost him too much time. He currently still coaches the under-16 girls, after starting his coaching career when he was eighteen years old by coaching the under-14 boys. Because of the combination of training, coaching and the matches on Sunday, Felix' everyday life is hugely influenced by hockey, he is involved in it practically every day.

Current goals

As Felix' current team in Tilburg relegated last year, his, and the teams current goal is to ascend back to the highest competition level in the Netherlands. Two years ago, Felix was already in the team while they ascended once, which was probably his best moment in all of his hockey years. The team is currently leading the competition consisting of twelve teams, while on par with one other team in the competition. The level of the two competitions is very different according to Felix, both tactically and technically. The pace of the game is much faster in the premier division. On the highest level, there are more foreigners than in the transition division. These foreigners mainly make a living out of the sport. They used to be in Tilburg as well, but after the relegation they are mostly gone. Felix: "The relegation was probably the worst moment in my career. I myself did not leave Tilburg though, I hope to play there forever." Still, he thinks the team needs a sufficient level of play to make him stay there, but as long as he plays in the premier division every year, he will be happy.

Felix also played in the Youth European Championships for the Dutch under 18-team. The tournament was in Utrecht, and

THE PASSION OF



although he did miss out on a trip abroad, Felix says: "It was a huge boost to have the support of my fellow countrymen, as the tournament was on home ground. All of my family came to watch the games." The Dutch team eventually finished in fourth position, a disappointment for Felix and his teammates who hoped on something better.

Felix even went abroad to practice hockey, during his vacation to Australia, he played in the domestic competition there. Some of his teammates in Tilburg used to be Australian (they mostly transferred to other teams when Tilburg relegated to the transition division), and because his connections with these Australians, he could experience hockey right there in the domestic league. Felix: "Over there, the game is very different, especially on a tactical note: playmaking is somewhat less advanced there than it is in the Netherlands. Still, it was nice to experience something different and new, while still practising my passion."

How it all started

Felix is not the only one who plays hockey in his family, his father also played hockey in Tilburg. When Felix was young, his father would take him to Tilburg sometimes to let him watch his games. Because of the influence of his father, Felix also started playing himself when he was only four years old. He was already very dedicated from a young age, always wanting to train and be on the hockey field. As a child he started playing in Den Bosch and played there until he was fourteen years old and moved to Tilburg.

Incidentally, this move to Tilburg meant that he had to travel much longer to play hockey, but it felt better to him. For Felix, this was also part of the decision to study in Tilburg, as he thought it would make it easier for him to combine his studies with hockey. Still, this combination is pretty hard sometimes. Currently, Felix is in the 5th year of his bachelor studies, mainly because he is taking it a bit easy on the study side to have enough time for his passion. Felix himself says that it is quite possible to combine the two, but that sometimes it is just hard to manage. When Felix is having a long training day and the next day he has lectures early in the morning, he sometimes feels too tired to actually go there. That means Felix is planning a lot, but he admits that he never completely follows these schedules. The first year was the hardest to manage, as Felix still needed to reach the binding study advice to go on with his studies, but after that one gets pushed less. Currently, he thinks he divides his time and energy fifty-fifty over his passion and his studies. Felix: "If I would really have to choose between studies and hockey, I would choose for my studies because I can make a living out of that."

Practical affairs

To play hockey, one simply needs a hockey stick and clothing. In the case of a team like Tilburg the team provides the clothing and the sticks, which get replaced two or three times a year. Another important part of the gear is the shoes. Usually, one uses three pairs of shoes a year. Back in his early years, when those were not provided by the teams

or sponsors, one stick per year usually would do as well. Nevertheless he does really feel the difference between a new, smoother feeling stick and an old one: a new stick shoots better. Although the gear is provided, Felix still has some costs. He eats at the club three times a week and has to pay contribution to the club every year. Furthermore there are the traveling costs. Obviously there are away matches as well: for example, a while ago Felix played a match all the way in Alkmaar. In such a case, the team mostly travels together in a couple of cars.

Felix thinks he has learned a lot from playing hockey, such as how to work together in a team. He also thinks Tilburg really feels like a successful team: there is also quite a lot of support, especially for playoff matches there is sometimes a crowd of a few thousand people. According to Felix, hockey is really fun and the atmosphere is quite good. It is important to him to be able to have a drink after the matches with his supporters, which is possible. It is important to just have some fun with everybody. ●



Felix Gulinck

AGE: 22

Began studies in 2011

Career Portal

Aim for Success



CAREER PORTAL



Gezellige Collega's

Kleynen Consultants HEERLEN

We zijn op zoek naar mensen die net als wij het avontuur niet schuwen. Die bereid zijn om de status quo niet voor lief te nemen en zich steeds afvragen hoe het eenvoudiger, sneller, beter of mooier kan. Onze ideeën verpakken we in software zodat we deze met zoveel mogelijk mensen kunnen delen.

Wil je met ons meedoen, stuur dan een mail naar Jim. Wie weet kunnen we samen geschiedenis schrijven.

Contact information Jim Bemelen | j.bemelen@kleynen-consultants.nl | +316 346 322 59



Afstudeerstagiair Econometrie

Gibbs ROTTERDAM

Gibbs adviseert organisaties in het optimaal benutten van data. We analyseren deze data met behulp van econometrische modellen. Veel van onze projecten zijn terug te herleiden naar het verklaren en voorspellen van menselijk gedrag. We doen projecten als het voorspellen van aankoopgedrag van producten, het voorspellen van klantlevensduren en het optimaliseren van prijzen, voor opdrachtgevers als Aegon, bol.com, KPN, Marktplaats en Shell.

Gibbs heeft in het voorjaar van 2016 nog plek voor een masterstudent econometrie met interesse in marketing. Als afstudeerstagiair werk je aan een onderzoek voor een van onze opdrachtgevers. Wil jij je master-scriptie bij ons komen schrijven? Solliciteer dan nu!

Contact information Anneke Exterkate | anneke.exterkate@gibbsqrc.com | 010 – 786 04 27

Junior Consultant Insights & Data

Capgemini UTRECHT



Als Junior Consultant Insights & Data werk je in complexe omgevingen bij grote organisaties. Je bent betrokken bij het analyseren, ontwerpen, testen en bouwen van BI Solutions. Je draagt bijvoorbeeld bij aan de ontwikkeling, de levering en het onderhoud van complexe rapportage omgevingen of bij het bouwen van tools waardoor de klant beter gebruik kan maken van zijn data.

Je kunt jezelf specialiseren in het analyseren van data, het modelleren van data warehouses, het integreren van data uit verschillende bronnen of het opzetten van complexe rapportage structuren van bron tot jaarverslagen. Voor deze rol heb je een afgeronde (bèta of technische) opleiding op HBO- of WO-niveau, bijvoorbeeld econometrie, operations research, wiskunde. Verder is het belangrijk dat je de Nederlandse en Engelse taal goed beheerst vanwege het internationale karakter van onze klanten.

Contact information Mirjam de Haas | campusrecruitment.nl@capgemini.com | 030 - 689 64 96

The State of the Art of EOR

As the world is turning and the days are going, everything is changing, and so is the world of Econometrics and Operations Research (EOR). For this reason there are some changes every year, some minor and some major. Next year, one of the masters will change drastically and one of the bachelor courses will be completely different. A good reason for two interviews about the current and new state of the program.

Text by: Aurel Macias Minambres

First of all, an interview with Edwin van Dam and Ruud Hendrickx was planned to talk about all the changes in the programs, especially the new Data Science master and the recent changes in the bachelor course Improving Society Lab, which will be further improved. They were very eager to talk about the idea behind the current program as well. Furthermore, an interview with Marion van Heijningen was held subsequent to the interview with Edwin van Dam and Ruud Hendrickx. She is

the program coordinator of EOR and the corresponding master programs, and we met up with her to talk about her involvement in the programs and the students.

The current study program of EOR and the subsequent masters are developed in such a way that they connect well to the business areas in which companies are interested in EOR students. For this reason, when corporate life adapts, the study program needs to adapt accordingly. This makes for some changes in the bachelor program next year, but also a major change for the master programs and the creation of a new study program, that is related to Econometrics and Operational Research.

Bachelor program

In the bachelor program there will be no major changes. Most of the important parts of the bachelor EOR, such as the backbone in the form of the mathematical and statistical component in the first year, are kept intact. Last year, there has been a shift in the first year of the program, by adding the Improving Society Lab, which is used to give students early on in the study program a better view on how the things they learn are used in practice. In the second and third year the main goal is applying the things learned in

this solid basis. The department has also learned from experience that new students need more motivation, so they already have their first exams in October rather than only in December. The more applied courses in the second and third year really need the fourteen weeks they currently have, which thus explains the difference in time frame between the first year and the second and third years.

As said, there will be some changes in the program from next academic year onwards. The Improving Society Lab is a new course, and thus it can still use some improvement. This improvement is implemented in the second year, where the Improving Society Lab will be introduced as well; it will merge with the current course Modeling in Practice. In this new course groups will work out real-life cases which need different skills such as basic mathematics and programming, but also presenting and organizing. In the meantime, a new course will be introduced, named Communication and Information Skills. This course will focus on competences that are important in corporate life, such as presenting, academic writing and gathering information in a correct way. The course also is connected to the Improving Society Lab. Together, they give the students more insight into their future career possibilities.



Business and EOR at Tilburg

The labor market has changed over the years, but EOR still scores very good on labor market possibilities, the labor probability is 100%. The corporate sector likes mathematicians that are practically involved. The connection to the labor market is more important than ever, and Tilburg University tries to connect networks like the alumni network to the studies, for instance with the aforementioned Improving Society Lab. The fact that many of the employees at the department of Econometrics and Operations Research have connections with companies as well, is another indication of the practical side of the study program.

Even though the new changes described before are not necessarily focused on the mathematical basis, this solid basis is considered to be very important at Tilburg University. Because of this solid basis, students can manage far more complicated problems in their third year and master's than without this mathematical basis. Because proofs are a substantial part of the program, students can apply this way of thinking in practical problems. Another important point about the approach in Tilburg is the relatively small exercise classes. These small classes make Tilburg feel very personal, making the approach more effective. The department has noticed that the amount of students

interested in EOR is increasing, but in the end the total of registered students turns out not to have changed much. And even if it does change, Tilburg University tries to maintain its approach.

Assets of Asset

Ruud Hendrickx and Edwin van Dam think Asset I Econometrics contributes in a positive way to the current position of the program, the feedback they give is considered to be very important. The sounding boards give feedback and useful tips on how the courses can be further improved and how the students think about the program. Asset I Econometrics is very involved with the studies and organizes interesting activities, of which several are relevant for the study program and help in gaining insights into the future labor market. Furthermore, there is enough room for fun as well.

Data Science

According to Edwin van Dam, data science is one of the new hot topics in corporate life, and has connections with econometrics and, especially, operations research. As a result, the Operations Research and Management Science (ORMS) master will change a lot to incorporate the data science developments in the program. The whole data science and data analysis subject will be more clearly present. The exact format will become available

soon. Furthermore, there will be optional courses on data science for students in the other masters (Quantitative Finance & Actuarial Science, Econometrics & Mathematical Economics) as well.

Parallel to these developments within EOR, there are several new programs initiated jointly by the TU Eindhoven and Tilburg University. The new bachelor Data Science is considerably less quantitative than EOR and considers many subjects, such as engineering, sociology, law, and economics. EOR on the other hand is much more focused on the mathematical and statistical side of data science and its applications in business. A data science master will start in Den Bosch, one engineering data science master in Eindhoven and one social data science master in Tilburg. These new data science master programs will be available for students who have completed a bachelor EOR, but the new ORMS master program will provide a better fit.

Another development is the introduction of seminars/master classes such as OR Masterminds for the third year and master students. These sessions are currently being organized for the ORMS master, but in the future such seminars will be organized for the other two master programs as well. Third year students who are interested or unsure which master program they are most interested in, are recommended to attend these seminars too.

Why EOR?

We asked Ruud Hendrickx, Edwin van Dam and Marion van Heijningen why new students should choose EOR. The answer is pretty straightforward: if you are good at mathematics and like it, and furthermore want to be practically involved and contributing to business and society, Econometrics and OR could be a good study program for you. One of the most important things is that one should not neglect the importance of mathematics in the study. A nice extra is that the perspective on the labor market is very good, but if that is the only reason to choose EOR, think twice. It is not an easy study program and one really needs to like it to make sure they pass everything. According to the three of them, new students →



should consider carefully what to choose. It is a choice which is maybe for a lifetime; your entire career could rely on your study choice. Things that can help to make this choice are attending many open days, tasters (meeloopdagen) but far more essential: joining in on lectures to really see what the everyday study life is like. Marion also thinks that the personal contact in Tilburg is a good reason to go for Tilburg over other universities, as well as that EOR in Tilburg is very practically involved and that this could help on the labor market.

New students who have chosen to study EOR in Tilburg will be helped very early on by means of a mentoring system. Especially in the early weeks of the study, there are many people who can help new students on their way and are willing to help. Lastly, Ruud Hendrickx and Edwin van Dam consider it important that the focus of first-year students is really on the study: it is the most important year due to the binding study advice (BSA).

Program coordination

A change that has been incorporated already into EOR and the corresponding masters a couple of years ago, but has not been noticed by everybody, is the introduction of a program coordinator which is the main contact for students: Marion van Heijningen. She is in charge of quite some topics, such as counseling for students, but also helping students who are going to their master phase, answering practical questions about the program and regulations, questions from tutors, coordinating evaluations, and working on short term and long term changes in the program. All in all, an important task, which takes a lot of time at any moment during the year. In the start of the academic year, her main task is answering questions of students, while around the end of each semester she has to help student in decisions related to the master choice. In January and at the end of the academic year she spends time on discussions with first year students concerning the binding recommendation and all throughout the year she works on promotion and counseling activities.

There are many more questions that can be asked to Marion, such as how to make a studyplan, what the financial consequences are with regard to the tuition fees if you are following multiple programs, thinking about what EOR means for a student, questions about what can be done to broaden one's personal horizons and questions about possible personal problems which can harm one's study results. Last but not

least, she is also there to discuss the possibilities for exchange programs, master programs, and many more things. Next to answering all those study related questions, counseling is an important task for Marion as well, and as such she is showing herself at most of the counseling activities, which makes her more noticeable for new students.

Advantage for students

For Marion, the progress of students makes her work so interesting. Seeing students achieve their goals, with or without the need of her help, is what drives her. Not every student is in contact with her, and that is perfectly fine when a student does not need anything from her, as long as they know that if they have a question or problem, they should feel free to ask her for help. Next to this, Marion also very much enjoys all the positive stories she hears about the exchanges. According to Marion, she can provide students with options for an exchange, and she has never, not even once, heard a negative story about an exchange. It is a really useful way to broaden one's horizons, because of all personal development involved with the culture change and all new experiences when living in a different country. This year is the first year offering the possibility to drop five courses, and take five substitute courses at the exchange destination instead. According to Marion, this is an important change: it means that students can go on exchange without having delay in their studies.

There are many ways for students to have contact with Marion. Student can just mail her if they feel the need to ask her something, or, if they think it is really important to tell or ask her something in person, they can arrange a meeting with her. They could of course also try to meet up with her in her room (K10) without an appointment, but she could be out when they barge in. Marion also tries to maintain contact with students by mailing them twice a year, asking if everything is okay. All in all, the system with the program coordinator (one person for one education program) seems to work very well, as in other faculties the same system will be incorporated. ●

Negotiations Using a Matrix

This year the very first edition of the Evening of the Committees took place. All active members of Asset | Econometrics were invited for free pizza and multiple trainings, to improve their potential as active members. All participants were able to choose between a training in leadership, negotiation or acquisition, and afterwards there was a training in teamwork.

The evening started in the Warande building at 18.00 hours. We first had some drinks and after twenty minutes of chatting and catching up with everybody, the pizza finally arrived.

At 19.00 hours the first round of trainings started and I participated in the negotiation training. I chose this training because I thought it will always be useful to be able to negotiate well, and you are probably going to do this the rest of your life. This training was taught by Erwin van Oosten, a former EOR student at Tilburg University. He discussed all the things you should be thinking about when you are negotiating, and explained that there are only two situations you want to end up with, namely: "win-win" or "no deal". Any other outcome would not be favorable, even the "win-lose" situation in which you are the winner. At first this may seem kind of weird, but if you think about it, it does make sense. If you win and the other person loses, you have a high possibility that this person or company does not want to negotiate with you anymore in the future. As a company this is of course not what you want. Thus, to keep your business contacts and your reputation intact, the "win-win" situation should be your only favorable outcome.

To negotiate well, you need to know what you want. Since we are all econometricians in heart and soul, we made a matrix. As an example, we

made a matrix for somebody who was looking for a job. You make your matrix by adding different dimensions to the discussion, such as wage, vacation days, a car, working hours and travel allowance. For all these dimensions you have to specify four positions: your 'want' position, your 'best reasonable' position, your 'worst accept' position and your walk away point. If you determine these four positions for each dimension, you will be well prepared for

'The "win-win" situation should be your only favorable outcome'

your meeting. During your negotiation, you should try to discover the matrix of the person you are negotiating with. To accomplish this, you should simply ask a lot of questions, and listen carefully.

After Erwin explained everything, it was our turn. We all had to think of a negotiation we have had in the past, and we had to make the corresponding matrix for this particular situation. You can actually negotiate about a lot of things. For example Anouk, my partner during this training, wanted to negotiate about dinner: what would they eat, how much could it cost and who would do the dishes?

When the first training ended we had a short break, after which the teamwork

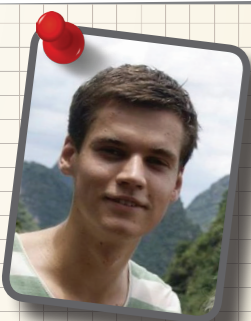
training began. This training was given by Cas Luijten, also a former EOR student. He told us about all the things that are important when you work in a team or committee, such as



Rachel van der Velden
AGE: 18
Began studies in 2015



Exploring the World of Finance



Stan Olijslagers

AGE: 20

Began studies in 2013

The Finance Expedition is a trip for finance orientated students, in which you will visit several companies in Amsterdam to get a better view of the financial sector. A friend of mine, Pepijn van den Brink, was member of the Finance Expedition committee and persuaded me to apply and send my CV. I thought: "Why not?" A few weeks later I got the news that I was selected, and Tuesday November 17 was the starting day.

The group, consisting of five women and nineteen men, met at Tilburg central station in the morning. Everyone was already dressed up, since our tight schedule did not allow time to change in Amsterdam. After a quick visit to the hotel, to drop off our baggage, we started our trip at Kempen&Co, a merchant bank located at the 'Zuidas'. A lunch was prepared at the 17th floor, where we had a nice overview of the other offices surrounding the building. After a few presentations about the company we started working on a case in groups, which was about creating portfolios for three rich individuals with different risk profiles. Our group won the case and we were awarded a bottle of wine. It was a good start, but unfortunately that was also the only case that I won during the trip. We finished the day with a drink and a buffet. In the evening we went to Holland Casino to gamble and make some money, in which most of us did not succeed unfortunately. Afterwards we went to café Smokey for some drinks.

The next day we had to get out of bed at 07.00 hours to visit the head office of ING. Everyone knows ING as a Dutch bank, but it was interesting to hear about all foreign activities of the company. After that it was time for us to show our skills: this time the case concerned managing

a bank. There were three rounds, and in each round you had to make investment decisions, of which the effects were calculated after the round. The goal was to make as much profit as possible and our bank did great: after two rounds we

On Thursday we had to get up even earlier since we were visiting Zanders, which has its office in Bussum. Zanders is a consultancy company which is specialized in financial consultancy. After some background information on

'We went bankrupt because we took too much risk'

had the most profit. However, a crisis broke out and together with two other banks we went bankrupt because we took too much risk.

In the afternoon we went to Deloitte, which was also located on the Zuidas, in a very new and modern building. For their case we split up into four groups, of which two were pension funds and two were insurance companies. The pension funds had to negotiate with the insurance companies to make a pension deal. We thought we did a great job since we brought in both deals and still made a profit, but it turned out that we had made no profit at all due to a calculation mistake. After a drink at Deloitte we went for a dinner at Humphreys in the city center, and ended the evening at a luxury lounge & cocktail bar, which turned out to be a bit overpriced.

the company, the case started. We had to present a proposal to a potential customer, which was interested in risk consultancy. Our team apparently estimated the price of the deal way too high, so we were not chosen to do it. We ended the trip with a visit to the trading company Optiver, where we visited the trading floor and afterwards had to make some money in a trading game ourselves as well.

Overall I think it was a great experience! We had a really nice group so I had a lot of fun. Besides that, I know a lot more about the atmosphere and cultures of those financial companies, which is really useful for applying for a job or internship. ●

From Great to Good...

One Monday afternoon, I received a phone call from my ORTEC colleague, who is based in Atlanta. He was really struggling with the implementation of a routing solution at Coca-Cola, despite all the efforts we have put in the optimizer. Since Coca-Cola has worked with static routes for ages, the step towards having completely dynamic routes every day is quite a big one. Their input data turned out to be of less quality than expected so that added an extra challenge. My colleague asked: "What should we do?" Planners are not that easy to convince, and at Coca-Cola Enterprises USA alone there are 200 planners in 25 planning centers, not to talk about the 10,000 drivers.

We were getting nervous. After some brainstorming, we came up with two ideas. First, we included a "cluster factor" in the optimizer. The user can change this parameter to any value between 0 and 1, where 0 means staying close to the current static routes, and 1 means a complete dynamic result. Our second idea was to have a workshop with a competition element: let teams of planners plan against each other with the challenge 'what is the best implementable plan'. Planners would have a chance to change and experiment with the cluster factor and some other parameters. During this workshop, teams started to convince each other on why a certain solution was feasible and acceptable, rather

than debating with us about the quality of the data and the optimizer. The final result was that Coca Cola started with the cluster factor close to 0, but this factor increased quite fast towards 1.

This anecdote is a typical example of how Operations Research works in practice. We are all focused on obtaining optimal results, taking more and more restrictions and data into account, applying the latest modeling techniques and checking robustness. This is all very true, but we (including myself) greatly underestimate the mindset of the people involved in logistic processes. Similarly, we assume that all data is well organized and has perfect quality. As a result, I have seen various failures of great operations research projects where the optimization result was perfect, at least in theory.

Econometricians are very good at coming up with brilliant solutions for the wrong problem. They make five big assumptions first and then start calculating with five digits behind the dot (quote Prof. Den Hertog). A company supervisor of a master student said to me last week: "It is better to be roughly right than exactly wrong." We always claim to go from Good to Great (also the title of a leading management book), but we econometricians have to learn to go down from Great to Good. Try to get something in place and running first, before you switch on all the whistles and

optimizers. Walk before you run. Avoid big bangs in the implementation process and go for continuous improvement projects.

How did the situation at Coca-Cola end? The implementation was very successful at last. They achieved 45 million dollars in yearly savings, increased customer satisfaction and had considerable emission improvements. The project became a finalist for the prestigious Franz Edelman Award (for best operations research implementation worldwide) and is currently implemented in all continents, with over 17,000 trucks and drivers involved. Furthermore, they have implemented new optimization solutions, e.g. for loading, maintenance and warehouses. So, if you receive a nervous phone call on a Monday afternoon, try to think small instead of

big. Sometimes you need to start with something Good, before you can make a big leap towards Great. ●



Goos Kant

Goos Kant is a part-time full professor at the Department of Econometrics and OR, as well as partner and member of the supervisory board of ORTEC. His research interests include logistics and supply chain optimization.



Not the American Dream

Text by: Jesson Einmahl

Me and my fellow interviewer Stefan, who happened to be fully suited up because of another interview before, went to interview Arthur van Soest, who I happen to know for all of my life as well. I therefore chose to interview him and this made it extra fun. After we arrived at his room, he got himself a coffee and offered us some drinks. It was time to start the interview. An interview about choices and making the right decisions to pursue a path in life you like. Even I learned a lot about him during the interview.

A quick introduction

Arthur van Soest is a 57 year-old full-time professor. He was born here in Tilburg and now lives close by the city. His research is in the field of applied econometrics, more specifically about variables in the population. He has been working in Tilburg for many years now, but before that he studied and worked in many different cities in The Netherlands and even in the United States.

As a student

After high school Arthur went to study mathematics in the city of Nijmegen. In his studies, from 1975 to 1980, he happened to be in the same year as now fellow colleague and friend John Einmahl. In the beginning of their studies

they became friends and two years later he was asked to come live into the same student house. "It was all rather leisurely" he says as he looks back on his student time in Nijmegen. He attended some lectures once in a while, studied a bit and went to an exam after that, but it was not all that intensive in his opinion. Outside of university he liked to run and he also played guitar, which he even lent me for over a year.

The right path

Originally, his plan was to study mathematics and become a teacher in mathematics. Arthur: "This was the standard for mathematics back then as there were no computers yet." He said no computers were used in his study

at the time. After completion in five years he went to the city of Leiden to obtain a PhD in the field of theoretical mathematics by writing an article about harmonic analysis on Lie groups. Arthur: "Unfortunately all I did there was staring in front of myself all the time without much result. To be honest, I still do not know what harmonic analysis on Lie groups means."

He decided he should still study a mathematics related subject, however, it should be more practical. He chose to begin his second study, econometrics, back in Tilburg in 1981. Arthur: At that time I was a bit older, and I considered myself to be more serious." He found econometrics a lot more practical than mathematics. In his opinion mathematics mostly involves sitting behind his desk all day long, attempting to invent clever ideas, whereas in econometrics there is a lot more cooperation with others.

It turned out to be a good choice, because the practical side of econometrics was a much better match for him. He thought he would be working at a company after completion of his studies, but this expectation did not become reality. He became a student assistant during his studies and stayed at the university as he obtained a PhD position. He also worked at the Economic Institute Tilburg (EIT) at this time, which was a predecessor

THE TEACHER

of CentERdata, a research data institute at the university. Eventually he came to work full-time at the university as a teacher and finally as a professor, which he is still doing. The diversity of his work is the most interesting he says. Arthur: "At my work I am often in contact with colleagues, students, PhD assistants and even with people at ministries." This makes his work incredibly varied every day.

He likes to teach econometric students and currently teaches the courses Introduction Econometrics in the bachelor EOR and Panel Data Analysis in the master Econometrics & Mathematical Economics. He also teaches Statistics 1 in the bachelor IBA. However, he states that he would like to teach more and prefers to teach an analysis course in the bachelor, to go back to the basis. Analysis was his favorite subject when he studied mathematics. Of the courses he currently teaches, Panel Data Analysis is his favorite.

He prefers working at a university over working at a company, but he cannot really compare the two as he has not really worked at a company in his life. If he would not be professor, he would not choose to work at a company, but would probably be a mathematics teacher on a high school. His hobbies still include running, and he also practices fitness and he reads novels and history books. On a side note, he enjoys reading remarks of teachers in the Quatsch and would like to see more of those.

Not the American dream

In the period 2003-2005, Arthur made a big change and left Tilburg to work in sunny Santa Monica, United States, a city close to Los Angeles. He did this because his PhD supervisor convinced him it would be interesting for him. It was a position at a research institute known as the Rand Corporation, which some of you may have encountered in the lectures of one of the philosophy courses.

The Rand Corporation is a very big company with 1500 employees. Arthur: "Half of the company is very secretive as it works for the American defense and even the military visited at times. In a part of the big building there were secured doors through which I was not allowed to enter as I needed a pass. It was required to obtain an American citizenship in order to be allowed to work there and you needed



clearance as well, which means you had to answer difficult questions". In the end he was able to work there, but could not enter the secured parts of the building as a foreigner. His research was in the field of applied econometrics on subjects as aging, health and retirement of the population, very similar to in Tilburg. "The main difference with working at the university is teaching was not part of my work. Instead I had to write research proposals." However he disliked this situation as he prefers to teach as well.

Looking back, Arthur enjoyed his time working there, as he worked with very good researchers and he invented new ideas, which was very interesting. The biggest deception however, was that he did not like living there. "Americans tend to say that it takes seven years to become a real American, but I left too early for that". After he had worked and lived for one and a half years in the United States, he came back to work at the university in Tilburg. He still worked for two and a half more years part time at Rand Corporation, for which he flew to the USA five times a year to work for a few weeks or one month.

Arthur likes to be back in the Netherlands and does not fly to the United States that often anymore. He does not stay in the Netherlands permanently though. This year, he has already been to Italy five times: he went to the University of Turin as a visiting scholar. Last summer he went on holiday to the province of Friesland to cycle, run and visit some of the famous eleven cities; he did not want to travel so far because of the extensive amount of traveling for his work.

Choices

When asked for advice for students, Arthur indicated: "you should do what you like. If you do what you like it is fine to work hard. In order to choose which direction to go, you should not focus so much on career but rather do what you think is interesting." This is not just plain advice, it applies to himself as well, as he chose to change his field of study from theoretical to practical, and he decided to come back from the United States to Tilburg. In the future he thinks he will stay in the Netherlands, and continue to work at the university, he simply likes it here. In the end, Arthur thinks he made the right decisions. ●

Bert & Ernie Questions

Bert or Ernie?
Bert

Education or research?
Education

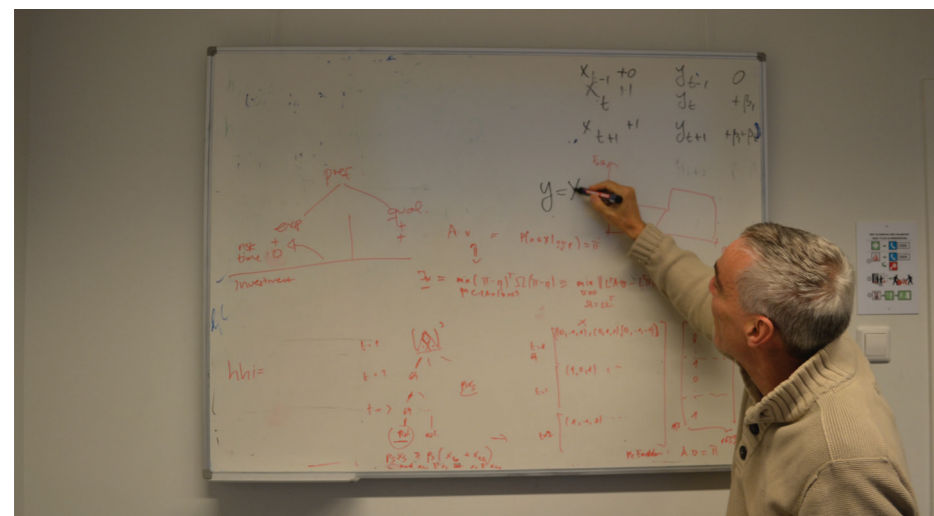
Theory or practice?
Practice

Mathematics or Econometrics?
Econometrics

The Netherlands or the United States?
The Netherlands

Tilburg or Los Angeles?
Tilburg

Soccer or running?
Running



ASSET



Econometrics



**International Business Tour
Cape Town 2015**



Jelle de Rooij
AGE: 21
Began studies in 2012

A Divided and Beautiful City

Last October, I and 23 other students went to the beautiful city of Cape Town: a city that our ancestors helped build and in which signs of our culture were left behind. We visited several landmarks and historical places, and learned a lot about the South African culture and way of life. I am happy to tell you about my experiences there.

The morning of the day of departure, I still had to take a midterm. Afterwards, I went home to pack the last things for our trip. When finished, I went to Tilburg Central Station, where we gathered to take the train to Schiphol Airport together. At the airport, we fortunately did not have to wait for long before we could board the plane. The flight was more pleasant than I thought it would be, partly due to the fact that everybody had their own entertainment system on which they could watch movies or play games. Also, we flew at night, what definitely helped me sleep through the largest part of the flight to Dubai. We arrived there in the morning and immediately felt the hot desert air in our faces. After waiting a while on this huge, over-the-top airport, we could board our plane to Cape Town. Finally having arrived there, a friendly guy from the hostel was waiting to pick us up. We drove to the hostel in



minivans, getting our first impressions of Cape Town along the way. I saw a lot of slums, it did not really look that good. Fortunately, the houses got better and our hostel turned out to be in a relatively nice neighborhood.

The land of wine

On our first morning in Cape Town, we were allowed to get up a little bit later than planned. The first part of our visit to the Stellenbosch University, attending a lecture, was canceled due to the huge student protests. Stellenbosch is best known for producing the best wines of South Africa - something we get back to later - and we arrived there after an hour by metro. Having arrived at the university, we started with an amazing campus tour. The campus looked really nice; we saw a botanical garden and lots of nice looking buildings, displaying the names of the respective departments written in African, which looks rather funny. Also, as a side note, it is the only university in the world offering a study program on how to make wine. The tour was followed by a presentation about the university. This marked the end of our stay at the university, so we got on a tour bus to visit a couple of wine farms for some wine tasting. Driving through the area was already an amazing experience on its own, seeing all those grape farms lying on the hills. At the wine farms, we tasted some delicious wines. Personally, I do not like red wine that much and as such I did not find every wine to be equally great. This concluded our stay in Stellenbosch, and we returned to Cape

Town to have some dinner. With the alcohol already present in our systems due to the wine tasting, we went to a karaoke bar to sing as well as we could.

The next morning, there was another small change of plans. The plan was to go to the District 6 Museum and the parliament, but because of student protests, the parliament was closed for visitors. Hence, we went the Waterfront, which is the touristic area of Cape Town, and a port, instead. We walked around the coast for a bit and ate delicious pasta before we got on the boat to Robben Island. Half an hour later, we arrived on the island. First, we went to the prison area, where we got a very impressive tour. Afterwards, we had a guided bus tour around the island. During this tour, we saw the houses where the guards lived, the first couple of penguins and a beautiful view of Table Mountain and Cape Town. When we had come back from Robben Island, we went back to the hostel for a typically African "braai". At a braai, you sit around a barbecue with beer or wine in your hand, lighting the barbecue together and you discuss how the meat should be prepared. The hostel invited a local singer-songwriter to play some songs while the meat was being prepared, and after waiting and drinking for over an hour we could finally start our meal.

The South African nature

The next morning, we had to get up early, since we were going on safari! During our drive to the reserve in

minivans, I noticed how beautiful and green South Africa actually is; we could see small hills everywhere and there was a lot of farmland. After a three hour drive we finally arrived at the reserve, where we were split into two groups and drove through the reserve separately. It was really nice to see giraffes, elephants, lions, buffalos, gnus and other animals up close. When the safari was over, we went to Ceres, a small village, where we had a choice to go zip-lining or mountain biking. My pick was zip-lining, and it turned out to be amazing. The temperature had dropped a little since the time of the safari and the cables were mostly in the shade of the hills. Adrenaline went through my body and the view over the valley was stunning! Returning to Ceres again, the rugby game South Africa vs New Zealand had begun, and it was clear that it was a big deal. Apparently, South African people like sports in general a lot: in every restaurant, there was always some form of sports on the television. Dinner concluded our stay in Ceres, and we returned to the minivans for our trip back.

The next day, we were picked up by a guide who would bring us to the township Langa. Langa is the home of the poorer people, but our guide told us that a lot of progress is being made in this township. Most houses are made from stone, although we also visited some neighborhoods where everything was constructed using weaker and less suitable materials. Our visit to Langa also included a church visit, where we attended a regular mass. This mass was really different than what we are used to in the Netherlands: it consisted of singing practically all the time, instead of just the psalms, which I consider to be boring. As a funny side note, we sat on the last couple of rows in the church, and when everyone had to stand we were really tall in comparison with the other attendees. We did not wait until the end of the mass and left the church to join our guide to the Cape of Good Hope. However, on our way to Cape of Good Hope, we first stopped at Simonstad; a wealthy suburb of Cape Town, famous for the African penguins who live there. →





After everyone had their photoshoot with the penguins, we grabbed some lunch and continued our journey to Cape of Good Hope. First, we stopped at the point where the Atlantic Ocean and the Indian Ocean met. We climbed a small hill and were rewarded with a very nice view over the ocean. Having returned to the bus, we went to Cape Point and after climbing once more, we were now higher than before and had an amazing view over the ocean and the tip of the peninsula.

The African way of work

Monday was a more serious day: in the morning we were supposed to go to Cape Town University, but due to the student protests we did not go there. Instead, we went to the District 6 Museum. Being the history geek that I am, I thought it was a very impressive museum and I definitely enjoyed it. After we were done in the museum, we went to the parliament. The buildings looked nice; from the inside they looked rather British. The tour itself was unfortunately not that enjoyable since most facts were not so interesting. We continued this day at Wesgro, which can best be described as some sort of promotion company for the province of Western Cape, of which Cape Town is the capital. In their presentation we learned a lot about how business is done in South Africa.

In the evening, I joined a small group of people to climb the Lion's Head, which is a mountain near Table Mountain. We took some bread and a couple of bottles of wine with us and started climbing. We wanted to

be at the top before sunset, so that we could see the sunset over the ocean. The climb to the top, where we first saw the sunset and later the city with all the lights, was one of the most amazing things I have done in Cape Town.

The next day, we went to visit Frost & Sullivan, a company that consults for other companies on how best to do business in Africa, since not all African country are alike. After the presentation we could ask a lot of questions; it was definitely very informative. The second company of the day was SAS, the statistical software company. During our drive there I noticed that the neighborhood where the SAS office is located looked very nice. When we arrived at the office, we first received a finger food lunch, which tasted delicious. Afterwards, the actual presentation started and we were allowed to ask any question we wanted to ask. It was a very informal meeting, making it most pleasant.

The last days

On Wednesday, we went to the biggest attraction in all of Cape Town: the Table Mountain. After waiting for over an hour at the cable cars, it was finally our turn to go up. It was definitely worth the waiting; it was simply amazing up there. The mountain was, as the name implies, very flat indeed; the view, yet again, was stunning. On one side we had a view over the city and the ocean and the other side revealed mountains and nature. After we walked around on the top for a while, some of us prepared ourselves to climb

down, whereas several others went abseiling instead. We were told the climb down was not that hard, but it turned out to be a very long climb. Because it was very hot as well, it was more difficult than expected. When we finally arrived at the foot of the Table Mountain, we were exhausted. However, there was no time to recover, as we immediately went to the Waterfront, where we had to catch a boat; we had planned a booze cruise. This turned out to be really fun, but I was actually still a little bit tired from the long climb. Returning back to the harbor, we went to eat something at the Waterfront. Everybody had a really good mood due to all the alcohol, and after eating, laughing and drinking there for a while we went to a bar, but soon after I went back to the hostel.

The next morning was already our last morning. After packing our bags, we first went to the NGO Learn to Earn, where people come to learn about computer skills and basic jobs such as carpentry, which hopefully give them a better chance on the labor market. Also, they offer courses on work ethics, which is an important issue since many South Africans are not as familiar with ethics as most western people.

After we visited this great initiative we went back to the hostel to get our bags, and headed straight for the airport. The flight went pretty smooth, again partly because the entertainment on the plane was good; after 24 hours of traveling we were back in Tilburg. ●



It is Tuesday afternoon, I come home after a game of tennis. Mother Nature has decided that halfway through November, 17.30 hours is an apt time for the sky to go dark. Whatever remnants of an internal clock I have left in me tell me that this is a good time to switch into lazy-mode and spend the rest of my day hanging in the living room, partially hoping one of my roommates will walk in with enough food for the both of us. Instead, one enters and asks at what time I am going to the Asset Gala. As with about ninety percent of the entries in my non-existent planning, I had completely forgotten. Not only that - my jacket was still at home, too. My plans for lazy-mode are now completely off the table. I race past home, get changed on the way (do not ask me how) and arrive absolutely exhausted at the MIDI-theater, half an hour early.

The venue is nicely decorated with balloons and tablecloths bringing the red and white Asset colours. The other handful of people already present have, too, brought out the style, with suits and dresses galore on the dance floor, though at this point in the evening most people are casually chatting. I grab a drink, join some conversations, explain how my bowtie got lost on the way in all of them, and generally enjoy the nice and relaxed atmosphere. The instruments set up on the podium, however, already hint at the change of pace that is to come!

A Night to Remember

Throughout the year, Asset | Econometrics provides us with plenty of opportunities to have some uncontrolled fun and, perhaps at times, let go of any gentlemanly or ladylike behaviour we so naturally possess. Luckily, once a year, we can compensate for those times at the classiest event of the bunch: the Asset Gala.

The evening progresses and people start to flock in. Combined with Asset's neat arrangement of all free drinks nicely ensuring we all drink too much, this means the party is quickly getting started - and if that is not enough, the DJ now makes way for the night's main musical attraction, cleverly named "Weet je moeder wel dat je hier band?". They bring the room to life with songs we dance to every week, like Shotgun and Policeman, as well as songs we had all forgotten we knew, such as Hot in Herre. It turns out to be a nice take on repertoire as everyone is having a lot of fun blurring out the lyrics (except for Freestyler, I still have no clue how to sing along to that). After a couple of hours of dancing, my roommate and I suddenly remember we should still go and get our picture taken, but the photographer is long gone as it turns out to be 01.00 hours already. That is probably a good sign, though: time flies when you are having fun!

We head back to the dancefloor, grab some more drinks (I mean, they are free), watch how I am somehow not awarded the prom king award, and finally start wrapping up an evening that completely differed from what I imagined. Now I will admit that at this point, my memory has probably not picked up all that happened. It is therefore entirely possible that I forgot a three hour waiting period to pick up our jackets, but for some reason it is instilled in my mind that I was impressed with how efficiently everyone was returned their coats.

So if my memory does serve me right, I would say it was a fitting ending to an evening so well-organized that even I, despite my best efforts, was not able to mess up for myself. Come to think of it, I might just write down next year's date already. Because if it is anything like this year's Gala, you certainly do not want to miss it! ●



Young Professionals on working at Capgemini:

'An Open and Honest Atmosphere'

After getting a degree in a science/technical field, a position in IT consultancy might not be the obvious choice. But Capgemini offers an exciting work environment with many different possibilities.

Jeroen Korremans (30) received his master's in Business Information Systems, the link between business and IT.

"In short, what it comes down to is that I study how you could use information systems to further optimize business processes." He finished his master's degree in 2013. He did his graduate internship at the Catharina Ziekenhuis in Eindhoven, on the possibility of applying workflow technology to the dermatology department. After completing his master's, he applied for jobs in both the public and private sectors, at businesses and at consultancy firms. "It gave me the opportunity to figure out in what environment I would feel at home. Enjoying myself and being surrounded by great people is more important to me than the salary I earn."

"Capgemini was the last company I came in contact with. I followed an XperienceDay at their location. It is difficult to describe why, but I felt at home right away. A nice culture, which made me feel that I could really see myself working there."

Is Capgemini a company that gives you the opportunity to use your skills as a graduate of a technical university?

"Definitely. I now work as a Business Intelligence Consultant. I have had a number of assignments in which I analyze how business processes run and what role business intelligence plays in that. The degree program encompasses the subjects that come up here and there in my current work. The way of thinking, the method for analysis and communication arise from the degree program. Things



Jeroen Korremans

like data modeling and business process management are also skills from my degree which are now coming in handy

What are you working on now?

"I first did a number of short projects, each of which took two months. That mainly involved BI scans: what is a company's maturity level in terms of business intelligence? At the moment I am working on a longer project at a network manager, which involves data management and the setting up of a business data model."

Do you have other colleagues with a technical/science background?

"There are two colleagues in my department who completed the same master's degree program. There may be more, but not everyone ends up in the same division. There are also people from very different backgrounds. I also have colleagues who have been

trained as pilots or hold degrees in space technology or physics. So other specializations from the technical university can also fit in here."

How would you describe the atmosphere at Capgemini?

"Very open and honest. Personally I find it very pleasant that there is little hierarchy and it is an open work environment where everyone is easily approachable."

You work at the customer. How do you stay in contact with your colleagues at Capgemini?

"I work at this network manager 40 hours per week. But there is usually room for flexible working, which means I can sometimes work from home. I try to come to Capgemini's head office (in Utrecht) once a month, to stay in touch with my colleagues there. We also have evening meetings and sessions where I bump into my colleagues. And we can of course go out for a drink or organize something else. But my reason for choosing Capgemini was precisely to have the opportunity to come in contact with different companies and experience different corporate cultures. I am learning so much this way."

Plenty of opportunities

Ton Godtschalk (29) studied mathematics and decided to do a master's degree program in Industrial and Applied Mathematics, specializing in Stochastic Probability in Operations Research.

"I focused on applied statistics and queuing theory. For example, the theory behind deciding which line to wait in at the supermarket: which one will get you out of the store quickest? It seems very concrete, but the mathematics behind it is quite complex. I did my graduate internship at T-Mobile in Berlin; there the principle of the cash register problem involves thousands of servers that have to process tens of thousands of tasks: which line do you choose?" Ton also followed teacher training alongside his study, but teaching is a difficult field.

After his study a former classmate suggested he might have a look at Capgemini. Ton got a good feeling at the XperienceDay. Math is in everything, so there certainly had to be a possibility at Capgemini as well. "What appealed to me was that the people here immediately recognized that as well. A specialization like risk management has a lot to do with statistics, for instance. That appealed to me a great deal."

During his first year, Ton worked in Antwerp as a tester of online office



Ton Godtschalk

applications. A year later he started as a modeler at a bank. "It always involves thinking in structures, and making the translation from a practical problem to a mathematical model, in order to use that to tackle the problem."

What gave you a good feeling at Capgemini?

"The openness of the company, that made me feel very welcome. And the sense that there was hardly any hierarchy."

How do you stay in contact with Capgemini when you are posted at a customer?

"We have a lot of courses in which you learn about the things that you are working on at the customer. But other meetings as well. In the beginning I was at the head office in Utrecht two or three times a month. Now that is about once a month."

What makes working at Capgemini so enjoyable for you?

"As a mathematician, I can explore different directions and for every area I dip into, there are supporting courses to help me do my work well in that area. I get the opportunity to constantly develop myself further. Capgemini offers you many different directions. You do have to pay attention to where you end up. You have to make it clear if you want to go in new directions. But there are plenty of opportunities!" ●



About Capgemini

Capgemini is one of the world's largest providers of consulting, technology and outsourcing services. Capgemini currently has 180,000 employees active in more than 40 countries. We help our customers with transformations to improve their results and competitiveness.

The information contained in this document is proprietary. ©2015 Capgemini. All rights reserved. Rightshore® is a trademark belonging to Capgemini.

Interested in getting to know Capgemini at the XperienceDay?
Sign up via
www.xperiencedays.nl.

Capgemini Nederland B.V.
Reykjavikplein 1
PO box 2575
3500 GN Utrecht
T 030 - 689 64 96
www.werkenbijcapgemini.nl



The Life of a Competitive Rower

Ennia and I got the opportunity to interview Esther Welten, a first-year EOR student who recently moved into a new student residence of Vidar. For many econometrics students it is already a challenge to obtain the required credits during the first year, but she decided to challenge herself even more by becoming a competitive rower as well.

Text by: Claire Vink

How it all began

It all started nineteen years ago, when Esther was born in the vibrant city of The Hague. Due to a job opportunity for her father, she moved to Germany at the age of three. After ten years her family decided to move back to the Netherlands, and this time they moved to Rosmalen. The rudeness of students towards teachers, and the directness of the Dutch people shocked her at first. Nonetheless, after two years she got completely used to the cultural differences. After her graduation she moved again, but this time on her own, since she started to study Economics at Radboud University in Nijmegen. This was definitely not her last move, because she just recently moved to Tilburg. The reason for this move was related to her studies, because throughout the previous year she realized that studying just Economics was a little too easy and too shallow for her. Therefore she started to reorientate, and eventually she decided to start studying Econometrics, which seems to be the perfect fit for her since it is definitely more challenging.

Last year has been an incredible year for her, she had amazing roommates and she also had an amazing time at Phocas, the student row association in Nijmegen. At first she planned to continue to live in Nijmegen, and just travel to Tilburg. Soon she discovered that it was not manageable to study over here and still travel to Nijmegen every single



day. After this realization, she started looking for a room in a student residence of Vidar. She was quite specific in what kind of residence she wanted to live, because she did not just want any room: she wanted to live in student residence of Vidar for competitive rowers. By word of mouth she was assigned to a room very quickly, a room located in a student house of Vidar which she shares with five other competitive rowers. The house is perfectly located, since it is very close to the city center, and it takes just ten minutes to bike to the university. The size of her room is 8m², which is a perfectly fine size for her since she does not spend much time in her room. Besides, the house consists of a spacious living room which does compensate her relatively small room.

Her passion for sports

As we all know, competitive rowers



and other professional athletes train many times a week. This is nothing new to Esther either, it is not the first time that Esther is so devoted to a sport: she has been into sports for as long as she can remember. As a child she started with athletics, and from the age of twelve she started playing basketball on a high level. Until last year she kept playing basketball, and now she decided to completely devote herself to rowing. It does not come as a surprise that she decided to join a sport association, but what motivated her to start rowing? Undoubtedly rowing is an extremely popular sport among students, and during the introduction period in Nijmegen she noticed how vibrant and fun rowing associations are. She was especially surprised by the atmosphere during the matches, these matches have quite a unique setting in comparison to other sports. All the row associations come together and the non-competitive rowers come along for support. The large number of students that are present really turns the matches into big events.

One of the other advantages is that rowing is also a sport that people start with in their late teens. This means that within a few years it is possible to become one of the best rowers, which is obviously different in comparison to other sports, such as hockey or football, where people start at a very young age. All together this motivated her to join Phocas in Nijmegen, and since

her move to Tilburg she has become a member of Vidar. Esther noticed that one of the differences between Phocas and Vidar is that Vidar focuses more on ensuring that all first years also get to know the older members. Besides this minor difference the two student associations do not differ a lot.

Finding the right balance

Studying, rowing and partying at the same time seems almost impossible to combine. Mainly due to the introduction period of Vidar, the first

knee, but if she recovers soon there is a high chance that she will be selected. Due to all the introduction periods and the large quantity of trainings it is more than understandable that combining studying and rowing has been quite tough. Fortunately, her introduction period has ended, and from now on she can focus more on her studies. This especially holds when the seasons starts, because then every competitive rower is obligated to stick to certain rules and schedules. For example, they are forbidden to party or consume alcohol, they have training sessions almost every day and they have to sleep for at least seven to eight hours a day. These rules will give her daily life a lot of structure, and since all of her roommates are as devoted to this as she is, she will be able to combine it all together. Not to forget, Tilburg University also advocates top athletes by lowering the number of obligated credits for their binding study advice. All top athletes have to obtain six credits less than the regular students.

Time and dedication is not the only cost she has to pay, there are high financial costs as well. Buying all the necessary clothing is not the only expense, joining a student association is quite expensive itself as well since you have all kinds of fees. However, besides these fees there

‘Rowing matches have quite a unique setting in comparison to other sports’

few weeks have been quite tough for her. During this introduction period every freshman has to do many different exercises in order to be become a part of the association and to become part of a certain fraternity or sorority within Vidar. During this period, everyone is still allowed to attend their lectures, but since these assignments are quite time consuming it is often impossible to spend enough time on your studies. Besides the regular introduction assignments she also had to train intensively in order to prepare herself for the selections rounds for competitive rowers. Unfortunately she suffers from a minor problem with her

are a lot of expensive extra activities which are not included, such as trips, fancy parties and dinners.

After all, I can conclude that I am even more impressed than I expected. Esther is someone who is not afraid of a challenge, and she always strives for the best. This is not only visible in her devotion to sports, but also in the study choices she has made, she never settles for less. I wish her all the best, and I hope that she succeeds in both her study and her sport. At the very least, her motivation, discipline and devotion will not be the problem. ●



Setting up the First ORC



Vera van der Lelij

AGE: 22

Began studies in 2011

This year, Asset | Econometrics joined forces with study associations GEWIS (Applied Mathematics) and Industria (Industrial Engineering) from the Eindhoven University of Technology. Six students, two from every association, are spending one day a week together to set up the first ever Operations Research Conference (ORC), which will take place in Den Bosch on April 26, 2016.

The committee

Because all three associations wanted to start the ORC committee as soon as possible, Asset | Econometrics sent an email to all its active members last summer, asking them to reply if they were interested in joining the ORC committee. We were asked to attach a short motivation to our reply, in which we explained why we would be a good fit for the committee. A few weeks later Bart and I got an email telling us we would be the two committee members from Tilburg. When GEWIS and Industria had also selected their committee members, it was time for our first meeting. Unfortunately, our train to Eindhoven was delayed, so we did not have a very good start. Luckily for us, the other committee members turned out to be very nice. For me it was a funny surprise to learn that one of the guys from Industria was one of my introduction week 'brothers', who I had not seen in the past four years.

During our first meeting we did not do much besides dividing the different roles (i.e. chairman, treasurer etc.). However, we did decide we wanted to get to know each other better before we started working on the ORC. So, we decided to meet up the next week at an escape room in Tilburg, to see if we could work well together. After 54 minutes we managed to break out of our room, and we did set the second best time ever. We considered this a great omen for our upcoming collaboration.

The process

In the first week I learned that this committee would take up more time than I initially expected. This is due to the fact that every association has its own ways and opinions, when it comes to organizing a symposium or conference. Therefore, we spent hours debating on everything and it can take a really long time before a decision is reached. Besides that, the OR Conference is an entirely new concept, so we have to think about, and discuss everything. As a result, we are spending almost our entire Friday working on the ORC. On average we start around 13.00 hours and people start leaving at 18.00 until 19.00 hours.

Already in the first couple of weeks it became apparent that the associations have very different approaches when it

comes to several issues. The one that comes up the most is how we pronounce the name ORC. During the summer it has become a habit in Tilburg to pronounce it like 'orc' (the ugly creatures from The Lord of the Rings). Funnily enough, the guys from Eindhoven have an extreme aversion against pronouncing it like that. So, when Bart or I say something during a meeting and we say 'orc' in a sentence, someone will always take the time to correct us and say: O R C! Furthermore, there are practical differences such as prices we want to ask companies to pay, or whether or not we should pay the speakers at the ORC or not.

Even though the ORC committee is costing a lot of time, I am very glad that I have the opportunity to organize this event with an amazing committee. •



Irmgard Oude Alink

AGE: 20

Began studies in 2013

At around 18.00 hours we gathered with most of the participants at the Asset | Econometrics rooms to have a delicious meal from New York Pizza, before we went to the Warande building to start with the actual meeting. Before we started with the AMM though, we first played a dice game. The idea was simple: there was a big, soft dice which has to be thrown in turns. On the blackboard it was indicated what had to be done for each of the six numbers. The first five exercises concerned actions such as 'take a present from the big pile in the middle', 'unpack a present' or 'change seats with somebody, while the presents stay at the seat'. Throwing six caused the most laughter and fun: you had to do a random exercise. These included exercises such as 'do the chicken dance', 'yodel for thirty seconds' or 'sell a pen to someone'. Each time Ashley had to throw the dice people started laughing,



as she has only once thrown a number different from six. In the end, some people ended up with three presents, which they could keep, and others had nothing. I must say, I am very happy with my washable plastic fries trays!

After this entertaining game it was time for some serious business. I think all the people enjoy the activities and events of Asset | Econometrics, but there are always some things that can be improved. The group was divided into four smaller groups to brainstorm about the topics. We started with brainstorming about the Training Day. This year the association organized the first edition of the Evening of the Committees, a training evening for active members. The intention is to organize a training day for all members of Asset | Econometrics next year, both passive and active. Many ideas were put forward, such as the time moment it has to take place, the duration of the trainings and the sort of trainings that should be offered, but in the end all groups reached almost the same conclusions.

The next topics to be discussed were the Symposium and the Career Website. Could the name Symposium be outdated? Does the day need another program? The conclusion was that overall the concept and name are still good, but that it is a very long day. For the Career Website the main conclusion was that it is very important to promote the website

St. Nicholas & Flip

Just like in other years, the Asset | Econometrics board asked for ideas of its active members on how to improve the association. This year the Active Members Meeting (AMM) took place on Tuesday December 1, and it was combined with a dice game for St. Nicholas. With a small group of active members we participated in this meeting and afterwards everybody went to Café De Nachtwacht for a drink, and of course to meet St. Nicholas and Black Peter.

more, because a lot of students do not even know of its existence. Besides, there could be some little improvements to the website itself as well, for example the ranking of the vacancies could be done in a different way. We ended the AMM with brainstorming about the Asset | Econometrics rooms. All furniture has to get out of the rooms during the holidays, so the rooms can be furnished in a different way. Every group made a layout for this, and I think everybody is looking forward to see the new rooms.

At 10.00 hours it was time to go to the St. Nicholas Drink for free beer and beautiful poems of St. Nicholas Linda, who got help of two Black Peters: Nikkie and Anouk. There were poems for St. Nicholas' well-known friends Pepijn, Coenraad and Masum, but also poems for new relations of St. Nicholas like Julia, Eline, Christel, Juul and for me. I was picked because of my best idea in the history of Asset | Econometrics: a guest bear for the committees! The board was not very excited about this idea, so now I received my own Flip the Bear from St. Nicholas. Thank you St. Nicholas! •

'The Pearl of the Orient'



Vince Dentener

AGE: 24

Began studies in 2013

Everything about Hong Kong made me want to hop on a plane immediately. The combination of a (clearly different) Asian world and the influences of very western values embedded into Hong Kong culture by our northern imperialist neighbors really spoke to my imagination. All the stories I had heard from friends who went there in previous years just added more fuel to the fire. It turned out I was not the only one who was drawn to the magic of Hong Kong, as the Dutch Consulate stated that the amount of Dutch exchange students in Hong Kong nearly doubled compared to last year! What could be the reason for this? Why this apparent attraction to Hong Kong? I was determined to find out and now, almost at the end of my exchange, I can tell you that I did!

Getting there

Unfortunately for me, getting accepted was just the first step in my journey to Hong Kong. The fall semester of last year had not been a very successful one,

Already almost a year ago was a pretty exciting time for me, since it was around that time that the results came in whether, and to which university, your exchange would be going. My first choice was Hong Kong by far; so much so that if I would be assigned to my second or third choice, I was seriously considering not to go on exchange at all. So as you might imagine, opening the letter and reading I got into the University of Hong Kong (HKU) was one of my best moments that year.

academically speaking, since I was very busy organizing that year's edition of the Asset Conference. So in the spring semester, I had to pass six courses, which is doable, but HKU also had a grade requirement of an eight which made things considerably more difficult. It was a pretty nervous time for me and I cut it far too close for comfort, but when I was finally given green light to go to Hong Kong, it tasted all the sweeter. Arranging the visa, housing, tickets, sending all the relevant documents, sometimes even in threefold (welcome to Hong Kong bureaucracy) and all other paperwork that needed to be done actually felt like fun after that semester. I said goodbye to all my family and friends, packed my suitcase and happily hopped on the plane straight to Hong Kong!

Arrival

After arrival, I exited the airport into this huge, extremely luxurious shopping mall, encountering Hong Kong's massive level of consumerism for the first time. The temperature inside was pretty chilly, which surprised me, but little did I know that Hong Kong probably has the highest density of air-conditionings

per square meter in the world: when I stepped outside, it was literally so warm and humid that I had to sit down and catch my breath for a second. Since I had not slept for almost forty hours, I decided to pick a random hostel in town, take a powernap and then go explore the city. By sheer randomness I ended up in a complex called the Chungking Mansions which I later found out to be pretty infamous. I could write a whole report about that place, but let us just say it was so dodgy that my future roommate started laughing loudly when he heard that I stayed there for a few days... Anyway, after wandering around the city for a few days, getting taught how to eat with chopsticks by locals, getting my picture taken by hordes of mainland Chinese people and mostly eating at places where the menu was in Chinese only, I decided it was time to travel to Hong Kong Island itself and check in to the HKU student flat I was assigned to.

HKU residential hall life

At HKU you have several "halls" into which you need to be accepted, based on your résumé and a form you have to



fill in. I got accepted into the R.C. Lee hall, located about ten minutes from the campus by bus. A residential hall is kind of comparable to a student association in the Netherlands, complete with the hazing of freshman and older students being more "senior", which gives them more rights and privileges. Exchange students were excluded from the hazing, which was a little disappointing, since getting hazed by skinny Asian dudes half your size could prove to be pretty interesting.

My room was on the 14th floor, which turned out to be the exchange student floor. With maybe half of the residents being international, this made for some awesome nights, even if we decided to stay at home. You have to be a pretty solid sleeper though, as there is activity in the halls until deep in the night. Having friends stay overnight is not allowed in the residential halls and even drinking alcohol is against the general policy. Luckily, we found some pretty sneaky and ingenious ways to do both, and actually ended up hosting some pretty big parties in our hall. The rooms are pretty minimalistic and are shared by two students. I was paired up with this cool local dude, which was pretty lucky as most people were only paired up with other exchange students. However,

for the first few months, I only used the place to sleep, since there is way too much to discover in Hong Kong to stay home for even a single night!

The city of Hong Kong

Everything about Hong Kong is completely different from Tilburg or the Netherlands in general. Granted it is extremely busy with over seven million people on an area even smaller than Utrecht, it can be quite smoggy from time to time and let us just say I can understand why the city was given the

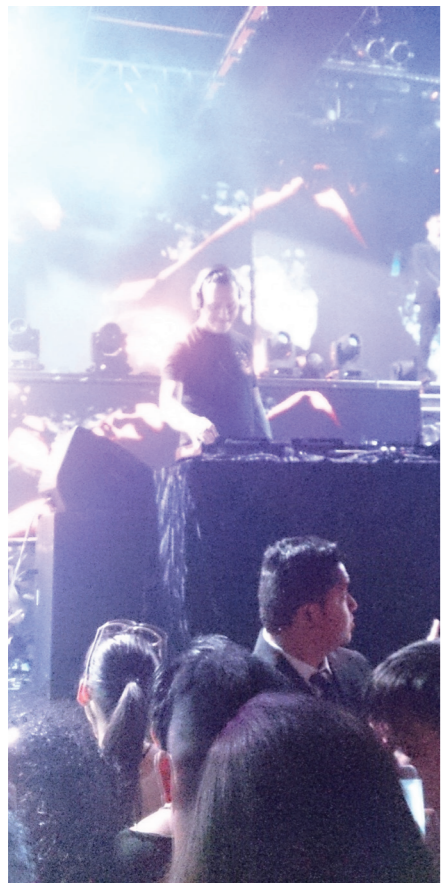
name Hong Kong, which means 'Smelly Harbor' in English. But frankly, I could not care less, because the sheer activity and energy pulsing through and emanating from this city is probably unrivaled by any other place in the world. Hong Kong is a city of extreme consumerism, where it is possible to open a company in literally five minutes; commerce is everywhere. Every crack, corner or alley has companies crammed into it.

In the city with the third highest price of land in the world, where a simple →



tiny one bedroom apartment will set you back at least a cool one million euros, obviously everything is built upward, WAY upward. Skyscrapers are the Hong Kong equivalent of 'rijtjeshuizen' in the Netherlands, and as such it has the highest amount of buildings over a hundred meters high in the world. They also have very liberal laws regarding development plans, so companies from all different sectors seem to be mixed randomly throughout the cityscape. This makes for an amazing urban jungle with random pubs on random floors of residential buildings, rooftop bars and terraces hidden away from sight, all sorts of amazing places one only finds if he knows where to look. You could spend years in Hong Kong and still find spots you never thought existed. The city is built around several mountains, the largest of which is called 'the peak'.

The most amazing part of Hong Kong is, in my opinion, the fact that in extreme contrast to the urban jungle of the city, one could literally walk for twenty minutes and find himself on a mountain surrounded by nature which most closely be could described



as resembling a tropical rainforest. Alternatively, one could just hop on the ferry and within an hour be on one of the vast amount of small islands Hong Kong has, to visit Buddhist temples or just to chill on a secluded beach. It is probably this extreme contrast between the urban jungle one would expect from a financial capital and all the tropical nature and rich culture that comes to mind when thinking of Asia that has made me fall in love with Hong Kong.

'The pearl of the Orient'

Eager to explore this vast urban jungle, the first two months of my stay in Hong Kong consisted mostly of going out, chilling at one of the numerous beaches, traveling around and exploring Hong Kong, meeting new people and making new friends in the process. Going out is not cheap at all, with beers costing twelve euros each easily and more often than not clubs will ask you an additional ten to thirty euros entry fee, dependent on where you go. For me, as I was going out a lot, this meant seeing my savings burn up way faster than I was comfortable with. But, like any good student, I found ways around this. Since Hong Kong is so big, there is a lot of competition and so you can always find a good cheap deal if you look closely.

Within the active exchange student community we would share all the good finds on Facebook, so there was a cheap place to go to almost every day, which we did. Think of unlimited (or even free) drink deals, all drinks for one euro, bring your own booze to the club deals, free drinks for girls or even a night of unlimited alcohol at the Dutch Consulate exclusively for exchange students. One notorious example is Mr. Wong's, a semi-illegal restaurant that changes location every few months for obvious reasons. It is always packed full with exchange students, probably because it has unlimited food and beer for only seven euros. A very welcome offer for students in a city as expensive as Hong Kong. Because of all of that moneysaving, I was able to visit some fancy clubs and parties as well, which I generally liked more. The most notable of these fancy trips was Tiësto live in the 'City of Dreams' casino in Macau.



Besides the awesome evening I also won some money, making the night essentially free, which made it even better.

The point I am trying to make is that in Hong Kong there were not just a few awesome things to do: almost every night there was something different to explore, something different to experience. Those who have been there will know what I am talking about. Other than exploring the urban jungle, we went on various hikes through the nature of Hong Kong and explored a big part of the island. For me, the best part of it all was the pretty much constant hot and sunny weather in Hong Kong. After a good night out or when just generally feeling bored, one could just hop on the bus and be chilling on the beach no more than 15 minutes later.

Of course, this party rhythm could not last forever: in the third month deadlines and assignments were starting to pile up, and the real reason for coming to Hong Kong in the first place, to study, was no longer avoidable. Not to mention money burns faster in Hong Kong than a British dude on the beach,



so academics provided a welcome change of pace.

The University of Hong Kong

Hong Kong has eight universities of which HKU is the only one located on the island itself, located at only five minutes by subway away from the Central station and thus near all the bars, pubs and the heart of the city in general. The campus is pretty big and, like the rest of Hong Kong, everything is built upward and on top of each other. This meant that for the first two months I frequently got lost going from lecture to lecture, since they were planned crisscross throughout the campus. What struck me the most is how beautiful the campus is. It is extremely clean, well maintained and there is nature everywhere. There is even a botanic garden at the center and several places to relax all over the place.

Generally, the level of education is really high at HKU, the econometric courses I took were comparable with the ones in Tilburg, which was the reason I could go there without study

delay in the first place. A big difference compared to Tilburg is that HKU gives out a lot of assignments, midterms and projects you are graded throughout the semester which makes the exam much less important. This also made for some really busy periods throughout the term while in Tilburg, studying tends to me more concentrated towards the exam period. Other than that, HKU is the most "western" university in Asia with no mandatory attendance and contact hours, similar to Tilburg. HKU also is the only university in Hong Kong that has two separate weeks off: one in the middle of the semester and the other right before the exams. Actually intended for studying and revision, exchange students tend to use it to travel around Asia and I was no exception. Me and my group of friends traveled around Thailand for a week, seeing all of the culture like any good tourist, but also partying in Thailand's almost legendary clubbing scene, which was quite amazing even though all the 'ladyboys' there kind of weirded me out. After this week, the amount of deadlines

really started to pile up and I had spent all my money in Thailand anyway, so I had good reasons to pick up the pace.

The final chapter

So that is where I am now. All the partying and procrastinating in the beginning of my exchange means that now I am mostly studying, doing assignments or writing reports. My exams are also in a few weeks, so this probably will not change any time soon. However, I know that the second holiday week is coming up and this time we will probably go to Vietnam, Cambodia or Taiwan. Or even all three of them, who knows, flights are cheap anyway.

All in all, my experience has been amazing so far, I have made a lot of new friends and met some really interesting people. I would not change those experiences for anything. So to all of you who are still in doubt about doing an exchange, I hope this report has convinced you that it is something you really cannot afford to, and do not want to, miss out on! Especially with the new program in place, to be able to go on exchange without study delay, there really are no reasons left not to go. For those still not convinced about the magic of Hong Kong, at this moment I am finishing this exchange report on my phone on a beach on Hong Kong Island. Time is fleeting, but experiences last a lifetime. Cheers! ●



Save the KOALA 007!

Although the title will have you thinking about a Greenpeace mission for koala bears in Australia, you could not have been further from the truth: in the last weekend of November a team of the most capable former active members took on a mission involving another kind of koala: the zero probability former active members activity (Dutch: KOALA, Kansloos Oud Actief Leden Activiteit), edition number seven.



Fang Qi Wu

AGE: 25

Began studies in 2009

Long before the weekend took place, though, all members of the team Former Active Members (FAM) had to take a written exam, and out of the large team only a select group of the 27 best members were selected (or rather, volunteered) to receive physically and mentally tough training to become excellent secret agents.

The actual training weekend kicks off on Friday evening with a nearly impossible task for most: finding the location where the training will be held. Tucked away amongst the cows and other lovely critters the Dutch countryside has on offer and with the unique fragrance of econometric secret agents-in-training masked by the stench of livestock dung, it is a miracle anyone was able to arrive at the camping farm 'near' Helvoirt at all. After replenishing our strength with a meal, we are asked to show off our



singing (a.k.a. shouting loudly) and drinking skills in a beer cantus, which are apparently significant skills for a secret agent to have. Even more significant is not running off to the bathroom while filling oneself up with beer after lacking years of practice, which some agents fail at as they either make a run for the door leading outside in the confusion that is called a 'polonaise' or have a go at their sneaking away skills in said confusion. Unfortunately for them, our mission leaders are quite apt at detecting these failing agents-in-training and discipline them in a student's favorite way: strafadtjes (English: punishment bottom's up) with an econometric touch to them. Think of Brownian motion, inverse or right angle bottom's up, or for certain special individuals new ones like the bunny hop. Fortunately, everyone lives through this tough session, except for a few brain cells here and there.

The next day the superfit and absolutely-not-hungover secret agents-to-be of FAM are subjected to a series of trainings:

- Interrogation about a plethora of subjects, including long-lost Asset I Econometrics history and everyone's idol James Bond factuals: after an enervating sit of two hours the team Anouk emerged victorious;
- How to handle a bow and not accidentally shoot down birds in the vicinity of the training area, of which the relevance to a present-day secret agent

is lost on me;

- Building a giant catapult and using it, which could have been useful in the Middle Ages or Middle Earth, but which I believe would not serve well as a present-day battle weapon;
- How to handle a crossbow, for those who failed to master the bow;
- How to barbecue while battling the Dutch elements of wind and rain, and eat said barbecued food;
- How to let loose in a cafe specialized in Dutch carnivalesque songs in the pleasant city center of 's Hertogenbosch;
- How to chow down a kilogram of meat in the middle of the night.

The last mission on the final morning involves bargaining at the auction for rare items such as an original TEV (Tilburgse Econometristenvereniging) polo t-shirt or not-so-rare items like a loaf of bread. Most surprisingly though, it turns out every almost-secret-agent has lousy bidding strategies as we overbid each other unnecessarily (or they can be considered acts of charity). Nevertheless, all members present graduate from the secret agent academy with flying colors and can proudly look back on being part of KOALA 007. ●

Beer and Bowling

On November 10 the first Freshmen Activity of this year took place. I already heard a lot of great stories about this activity from second and third year students, so I was quite excited. The activity consisted of bowling and dinner with free beverages - so also free beer. I have to admit that the evening did not disappoint me!

Around 18.30 hours we gathered at Dolfijn Bowling in Tilburg. We started the activity with an hour of bowling, had dinner at 20.00 hours, and then had another hour of bowling from 21.00 to 22.00 hours: it was definitely an evening filling program. For the bowling we were divided into seven groups of approximately six people. These groups were formed by the Freshmen Committee, and they tried to separate friends by dividing them into different groups so that it was possible to meet new people of our year. This was a good idea, because now I got the opportunity to meet new people who I knew by face but not by name.



Fortunately, for both of the bowling rounds I was divided into nice groups. I liked the people I had to play with and everybody talked to each other. The first round of bowling everyone was quite serious, so the bowling went quite good and at the same time we had a lot of fun.

The second round of bowling was a little less serious and went not as good as the first round (at least for me). To be honest I only threw the ball for around two times, because I was busier with socializing with other people. However, the activity was all about meeting new people and that was something I did for sure!

Between the two rounds of bowling we had dinner. We had French fries with some salad and we could choose either a schnitzel or sate. The dinner tasted very good, and I think that everybody enjoyed it. The beverages were also for free during dinner, so my table decided to do a beer race between my side of the table and the other side of the table. Unfortunately, our side lost three times in row, but that did not spoil the fun!

At 22.00 hours the official part of the activity ended, but a part of the group still went to the city center to end their night with a couple of drinks, and so did I. With somebody on the back of my bike I cycled to Bolle, the well-known student café, to have another four good hours of dancing and drinking with the people I just met. I am not very often at Bolle on Tuesday nights so it was nice to be in another place with some different people. I finally found my bed around 03.00 hours and looked back on a great evening.

To conclude, I think everybody who participated in the Freshmen



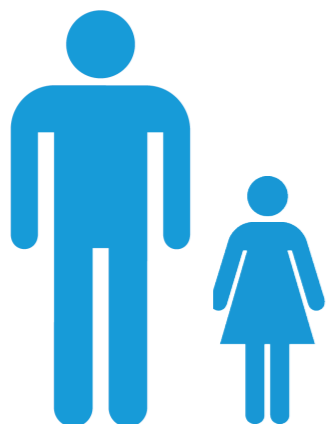
Linda Torn

AGE: 20

Began studies in 2015

Activity had a great evening and has made new friends. I definitely think Asset I Econometrics should keep this tradition for the coming years, since it is easier to get to know your fellow students during an activity rather than during the lectures. Furthermore, it is always nice to know who are with you in the lectures. I am already looking forward to the next Freshman Activity! ●





A Top-Level Sport

On a cold Friday morning Claire and I traveled southeast from Tilburg hoping to interview our fellow student Loes and her father Arno van der Linden in their hometown Veldhoven. After being picked up at the nearest bus station by Loes we headed to the Van der Linden accountants office, where we were invited into the conference room.

Text by: Max van der Lee

Arno is one of the six register accountants of the company, as well as the boss of the company like the name of the office suggests. This naturally comes with a lot of responsibility and workload. Arno is someone who enjoys his work very much, and therefore has no problem with this enormous workload. He works from early in the morning until late, and often at home in the evening or during the weekends. You could see him as a work-a-holic, in the positive sense of the word, because he is very devoted to his career. Nevertheless, the combination of his career and his family life can be very difficult.

As a student

After first studying business economics, in our very own beautiful university, Arno studied management studies and did a post-master in accountancy. Living at home in Veldhoven during his study, as well as the rest of his life, had only one disadvantage: having less of a social

student life. He was, however, a member of the 'Smeetskring', the association for tax specialists at Tilburg University, with whom he went on trips to the European Parliament for example. At the same time he had no problems using the public transportation and later their own cars together with his friends to get to Tilburg. Arno always worked a lot next to his study, at one place in particular; a coffee company who now turns out to be his client! Living in Tilburg would have resulted in fewer working hours next to his study.

Ever since Arno was young he helped out his dad at the office, which was next to their house at the time. His first job at the office used to be sorting out all the bills and invoices. At a later age, before starting for himself, Arno worked at Moret, known as Ernst & Young (EY) nowadays, which is one of the 'Big four' audit companies of the world. He also did a postdoctoral in taxation at the time but never finished all the exams, although he did learn a lot from the program.

Obstacles

The office was founded in 1953 by the father of Arno. He built up a company with many loyal customers from all over the area. Arno became interested in becoming an accountant from a young age, which explains why he chose to study business economics. Since his two sisters were certain that their fields of interest lied elsewhere, studying nursing and studying at the hotel school, Arno was left with taking over the responsibility of his father's company in 1982.

Arno took over the company after the sudden and tragic loss of his father. At that time Arno was only 24 years old, while

the office only had fifteen employees. Arno had very little experience until then, particularly in an executive function. He did manage to finish his study fairly easily and quickly, and he was able to leave EY unpaid for a year to continue what his father had started. He received a lot of support and confidence from his clients and employees, which made things go relatively smooth at the office for the young Arno. He directly was engaged with two trials for his clients, which he both won, to get off to a flying start.

The office has now grown to 35 employees, and besides accountancy services they provide fiscal advice, management consultancy and business administration. Arno has the responsibility to keep the quality of the office as high as possible, due to both an increase in the work load and an increase in regulations. The goal of the company is to help their clients to reach their financial targets. However, in the legal audit the emphasis is not in the first place on the client but on the public interest. Stakeholders of the companies such as shareholders, creditors, the bank and employees must be sure that they can rely on the statements which have been audited by an accountant. One of the



THE FATHER OF

most important backbones of the office is that they were ahead on computerization. Buying their first computer in 1967 for a hundred-thousand guilders, they had one of the first computers that were useful for the accountancy business. The office still is on top with the latest developments and is actively using clouds and portals to provide their clients with sufficient information.

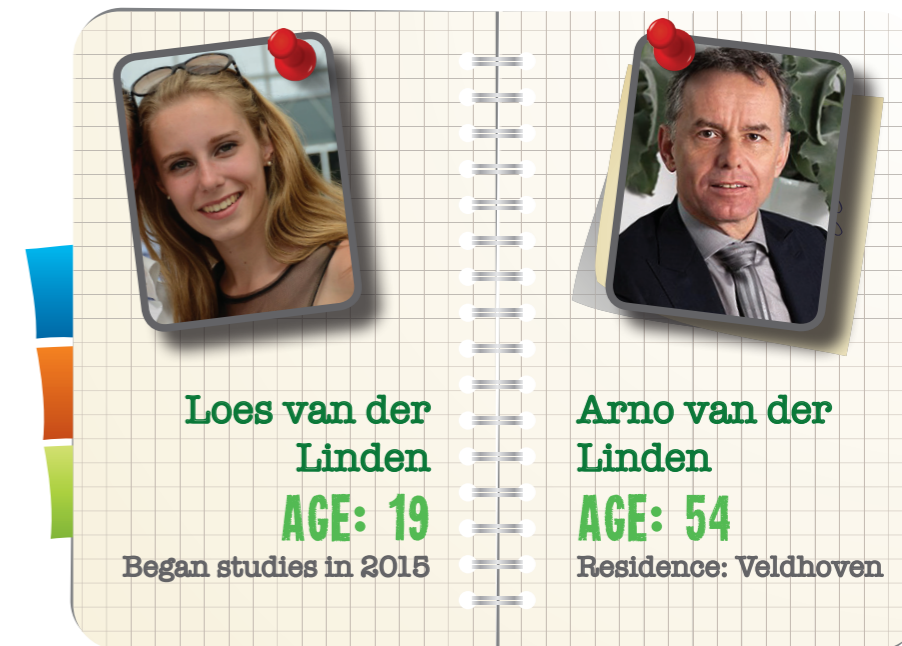
Another shot

Loes, as the youngest of three, has always been very competitive with her elder brother and sister. Arno thinks that she has always felt like she was obligated to prove herself. Therefore she was, and still is, exceptionally aspiring, motivated and driven. Likewise, Loes would always want to come out on top with every game you play with her, and would never grant you a win. Loes also does, and so do the others of her family, love her food. Another trait she inherited from her father is being obliging and wanting to have everything under control, while inheriting social skills and a little creativity from her mother.

Ever since Loes was young she has been good with numbers, resulting in good grades during primary and secondary school. After getting very close to, but not actually meeting the conditions for her binding study advice (BSA) in Maastricht for Econometrics, Loes was very disappointed. Loes and her father think it is important to do something you like, for this reason she decided to give it another shot in Tilburg.

Combining work and his family can be difficult from time to time, but Arno tries to see his family as much as possible. Almost every day he comes home for lunch, because his office is only a kilometer away. Both Arno and his daughter have an affinity for cooking and shopping. Antwerp is one of their favorite places to go shopping. They also spend a lot of time together when visiting their apartment in France, where they go to during the holidays and sometimes over the weekend.

A normal day for Arno has lots of 'fifteen or thirty minute jobs' that have to be done, as he is the boss of the office. Aside from these jobs, his days are very



Loes van der
Linden

AGE: 19

Began studies in 2015

Arno van der
Linden

AGE: 54

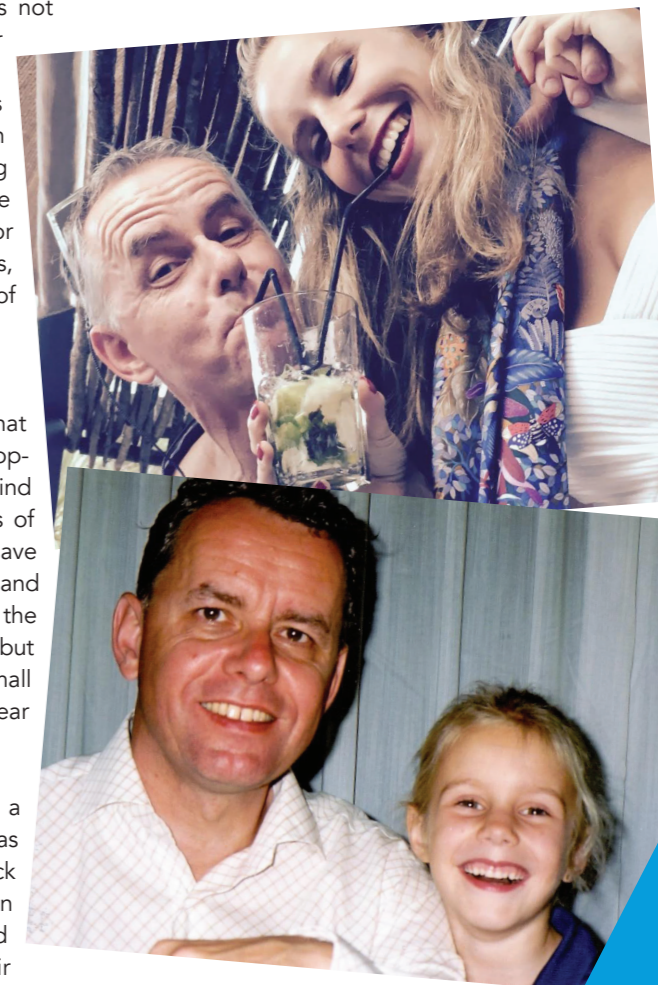
Residence: Veldhoven

diverse and unpredictable, because many internal and external problems occur spontaneously. Arno chooses not to give his mobile phone number to clients to curtail wasting time. With this in mind, he says he catches his daughter too often playing on her mobile phone and watching meaningless television programs. He would rather like to see her watch or read more about interesting topics, for example a financial article out of the FD ('Het Financiële Dagblad').

What the future will bring

Arno concludes with the fact that having your own business is like top-level sport, in the sense that it is a kind of lifestyle. You need to invest lots of time in it, which means you will have less time left for social activities and hobbies. He hopes to see Loes with the same ambitions he had at the time, but admits to us that the chances are small Loes will work for his office in the near future.

After an interesting interview and a view in a different profession it was time for us to leave. Arno went back to work on his usual busy Friday when we left to catch our train. We would like to thank Arno and Loes for their time and hospitality. ●



Escape into Craziness

The Active Members Day took place on Friday October 16. We gathered at the central station for a day with a lot of fun and a delicious dinner. Everybody was very curious about what we were going to do, but the committee would not tell us anything.

When everybody had arrived at the central station we were divided into groups and received our lunch. Soon we saw that there were a lot of problems with the trains, so everybody was wondering if we would not suffer from it. Unfortunately we did: our train to Dordrecht did not depart. The plan was to go to an escape room and have dinner in Dordrecht. Unfortunately this was not possible anymore. The

committee had to come up with another plan for the whole day.

Luckily they handed out a paper with 88 fun exercises: Crazy 88. This included exercises like running away for a railway guard, hugging a policeman, asking a stranger for his phone number, talking about the rights of a rubber duck or acting like a frog. This meant we could start right away without getting bored. My group immediately started doing these exercises, we for example challenged another group, walked across the same zebra crossing five times and did many more of such exercises.

Soon the committee had a new plan for the day, it meant we had to stay in Tilburg and could still go to an escape room and have a dinner. Two groups had to leave with the bus to the escape rooms, and the two other groups could go to the city center to do the Crazy 88. At the end of the afternoon the groups switched. Unfortunately it was a bit too cold to do all the exercises, so some groups went home and did the exercises over there. Our group just did the exercises in the city center.

After we did the Crazy 88 for a couple of hours, my group went to the escape room by bus. At the escape room, there were two different rooms, the "Pink Panther" and the "Heineken Escape". My group chose the Heineken Escape.



We were locked up with handcuffs in two different rooms, we had to work together to escape this room. When we escaped these rooms, we came into one bigger room where we had to escape again. Unfortunately we did not make it on time, but luckily the kidnappers were delayed so we got a few minutes extra, and could escape anyway. After our escape we all got a cup of tea or coffee and a chocolate and talked about the rooms.

At the end of the day everybody went to the city center again. We all went to Happy Italy to have dinner. Everybody could show each other the pictures and movies of the day, and the committee could think about who had won the Crazy 88. Unfortunately my group was not good enough, but we had a fun day. Before we got our dinner they awarded the prizes, the winning group got a nice drinking game. Everybody was hungry, but of course a lot of people did not eat their whole pizza. Luckily we had Coenraad among us who is always hungry, so he ate some extra pizza. ●

Student Chefs: Ready, Steady, Go!

November 3, the date of this year's cycling dinner of Asset | Econometrics. This whole day, many econometricians cycled through the beautiful city of Tilburg, to go to the next destination for a lovely dinner or just to buy the last groceries. After such a great event we had to end with a 'little' party, of course. This time the party was organized at Café De Nachtwacht.

For the main course we first had to go through the whole of Tilburg to get to our destination: Linda and Juul. The other couple that ate the main course with us were Anne and Freek. Linda and Juul had to serve a dish that started with the letter F, and they cooked pasta pesto for us, which was very tasty. During this dish, we mostly discussed the other courses we will get during the rest of the first year of EOR. Anne, Freek and Juul gave advice for several courses, which was very helpful. Again, we left too late because we lost track of time due to all the stories...

When we arrived at the last destination, our hosts Julia and Anouk arrived at the same time. The other couple were also two ladies: Nina and Maud. Julia and Anouk had been very creative with the letter they received, which was a Z. They had created a theme, namely zebra, and a very enjoyable cocktail. When we finished our cocktails we all together went to Café De Nachtwacht for the drink.

Almost everyone came to the drink, and here we had the opportunity to have a chat with the other chefs. So, this event was not only a lot of fun, but you had the chance to meet new students as well, which is very useful for us as freshmen! ●



Quatsch!

Erwin van Oosten: 'Kinderen zijn lief, zolang ze stil zijn en je koper poetsen.'

Maud Lich over een kerkhof: 'Wat een leuk parkje!'

Kristel van de Riet over een grafiek: 'Dit zou veel vloeibaarder moeten zijn.'

Jochem Bruijninx: 'Er zijn vijf klimaten: lente, zomer, herfst, winter en George Washington.'

Thomas van Manen: 'Voor 14 euro kan het nooit heel duur zijn.'

Ashley Beringer: 'Je mag van mij best een narcist zijn, als het maar terecht is.'

Björn Floor: 'Ze was wel weer single, want haar man was overleden.'

Elles Tempelman: 'Ik heb nog nooit drugs gedaan. Zelfs geen energydrank.'

Charlotte Nijman: 'Zaterdag is de intocht van Sinterklaas in Nederland.' **Vera van der Lelij:** 'Ja, maar dan is dus nu de uitvaart van Sinterklaas in Spanje.'

Erwin van Oosten over safari: 'Alles wat je aanrijdt, mag je meenemen.'

Tim van der Heijden: 'Ik ben gewoon een mislukking van de evolutie.'

Masum Rahman: 'Mijn leven bestaat alleen uit: jeej ik heb het nog.'

Wise words of ...

Pavel Cizek: 'Now, there is a simple trick for this. Well, simple, there is a trick.'

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!

PUZZLE

We are approaching the ever-present December dilemma: should you study for exams or celebrate Christmas? Let us contribute as well, and turn this dilemma into a trilemma: why not try to solve the puzzle below?

On a cold afternoon, six plus operators and six minus operators want to get to their beloved equation, which is on the north side of a river called the pi. The operators are on the south side and none of them has the ability to swim. Luckily, there is a ferry with a friendly skipper, who is willing to transfer them to the north side.

The ferry can only carry three operators at a time, and it turns out the operators are not the easiest creatures to deal with either. To keep the plus operators in a positive mood, neither one of the three locations – the north side, the south side and the ferry itself – should be occupied by more minus operators than plus operators, unless there are no plus operators at that location at all. This includes the moments of change at either side of the river, as all operators have to leave the ferry before others are allowed to board. Lastly, on every ride at least one operator should be on board. Because these operators are very elementary, they require you to devise a plan so that they can make it to their equation.

Is there a solution such that the friendly skipper can transfer all twelve operators to the north shore, whilst keeping the plus operators in a positive mood?

Please send your solution to Nekst@Asset-Econometrics.nl before March 18. A crate of beer or a delicious pie, whichever the winner prefers, will be waiting for whoever has 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



Robin Buijs 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 previous puzzle had several solutions. If you want to know the solutions visit www.Nekst-Online.nl.

Agenda

Winter 2015



DMM and New Year's Drink

Tuesday January 19

The time has come for the semi-annual Department Members Meeting (DMM), during which the board discusses the ins and outs of the first semester. Our New Year's Drink will take place right after in Café de Nachtwacht, where you can celebrate the end of the exam period.

LED

Tuesday February 2

This year's Landelijke Econometristen Dag (LED) takes place in the World Trade Center of Rotterdam, where more than thirty companies will be present to offer you the opportunity to explore a wide range of companies. The day will include company cases, a lunch, a networking drink and a recruitment dinner. The day will end with the legendary LED party.

General Members Meeting

Monday February 15

Are you interested in what happened the past semester at Asset? Then visit Asset's semi-annual General Members Meeting (GMM), during which the general board members will present a report about the past few months.

Freshmen Information Day

Thursday February 18

Are you in your first year of the EOR program and are you not sure what to expect of the upcoming years? Then visit the Freshmen Information Day, where you will learn everything you need to know about the upcoming years of the Bachelor.

Freshmen Activity

Thursday January 28

The first Freshmen Activity was a great success, and this event promises to be unforgettable as well, as all second-year students are also invited. So if you are interested in meeting and connecting with first-year or second-year students, make sure that you register on time!

Pre-Carnaval Party

Thursday February 4

In order to make sure that 2016's Carnival will be amazing, Asset organizes a Pre-Carnavalsparty in Café de Boekanier, on February 4. There will be ten barrels of free beer, so make sure that you buy a ticket and choose your most creative outfit!

Après-Ski Drink

Wednesday February 17

It is time for one of our most famous drinks: the Après-Ski Drink! Special Asset | Econometrics beer mugs will be present, along with a great deal of alcoholic beverages, and a prize will be awarded to those who have the best après-ski outfit.

Trip

Friday February 26 – Sunday February 28

This year's Trip will go the beautiful city Ghent, where thirty students will get the possibility to discover the historic, cultural, modern and night-life part of the city. Furthermore, paintball will also be included. The registration deadline is January 20, so make sure that you register on time for this promising weekend!

COdE Beer Cantus

Thursday March 3

The second edition of the notorious COdE Beer Cantus will take place on March 3. All Asset members are invited to join this large scale event, where hundreds of students will celebrate student life with an amazing cantus and a party afterwards.

Board Information Session

Monday March 21

Are you interested in learning soft skills, boosting your CV and making new friends? Doing a board year gives you precisely those opportunities and the current board is happy to tell you all about their experiences during the Board Information Session on March 21.

Active Members Weekend

Friday April 1 – Sunday April 3

All our active members are invited to the Active Members Weekend in April. The weekend will include sportive activities, drinking games, a beer cantus, teamwork and a secret location: clearly, it will be a lot of fun!

Members Day

Friday April 8

This year's Members Day will take place on Friday April 8 and all members, both active and passive, are invited to this event. The activity remains a secret for now, but will certainly be worthwhile.

Symposium & Drink

Tuesday March 15

This year's Symposium is called 'Marketing Intelligence: the art of smart marketing'. All students are invited to join this day which will include multiple prominent speakers, presentation rounds and company cases. Afterwards, our monthly drink will take place in Café de Nachtwacht.

Asset Active Members Day & Faculty Wide Drink

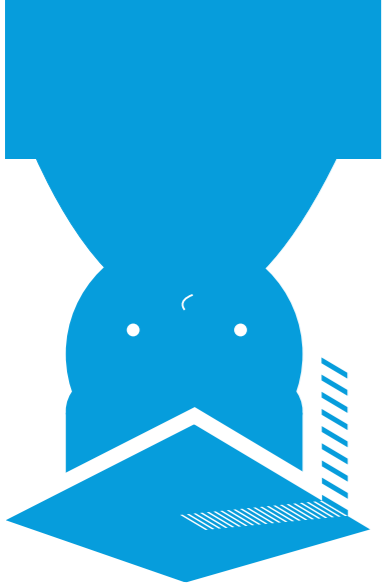
Wednesday March 23

Asset wants to give all her active members the possibility to get to know each other, the association and her departments even better, and therefore the Asset Active Members Day is organized. The activity itself remains a secret for now, but it promises to be a lot of fun.

ParTIE

Wednesday April 6

The International Experience is a three-week project that gives twenty students the possibility to change lives by means of a volunteering project. In order to raise money, the ParTIE will be organized in Café de Boekanier on April 6.



Asset | Econometrics congratulates...

Name:	Werner Jongenelis
Title:	Customer Clustering Methods applied in Warehouse Logistics
Supervisors:	Prof.dr. G. Kant, Dr. G. Knox
Name:	Joren Koëter
Title:	Strategic Asset Allocation and the Valuation of Embedded Options
Supervisors:	Prof.dr. T.E. Nijman, Dr. S.J. Sender
Name:	Steffie de Roover
Title:	Delay Management: Solving the delay management problem with rerouting of passengers using different objectives
Supervisors:	Prof.dr.ir. R. Sotirov, Prof.dr.ir. J. Ashayeri
Name:	Martijn de Vries
Title:	Pricing Risky Corporate Debt Using Default Probabilities
Supervisors:	Prof.dr. B.J.M. Werker, Dr. F.C. Drost
Name:	Misha van der Waard
Title:	Interest Rate Hedge Strategies Analysing the impact on the solvency ratio and change in own funds
Supervisors:	Dr. F.C. Drost, Prof.dr. J.M. Schumacher
Name:	Senna Jansing
Title:	Modeling the conditional distribution of claim reserves using the bootstrap method
Supervisors:	Dr. R. van den Akker, Dr. F.C. Drost
Name:	Gijs IJsebaert
Title:	Equilibrium Selection in Currency Markets under Speculative Attack
Supervisors:	Prof.dr. H.W. Norde, Prof.dr. P.E.M. Borm

Name:	Martijn Heinen
Title:	A thesis on the customers' continuous choice of supermarkets: Which attributes of the the Dutch supermarket are perceived as most important and how are retailers living up to these (promised) attributes?
Supervisors:	Dr. M.H. ten Raa, Prof.dr. A.H.O. van Soest
Name:	Qiyi Wang
Title:	Applications of Hawkes' Process in Finance
Supervisors:	Dr. G. Nieuwenhuis, Prof.dr. J.H.J. Einmahl
Name:	Marjolein Kroon
Title:	Optimisation of beam selection for small animal radiation therapy
Supervisors:	Prof.dr.ir. D. den Hertog, M.Balvert, MSc.

Ninos de
Guatemala

...on obtaining their
Master's degree.

Aegon