

NEKST

VOL. 23
NO. 2

WINTER 2014
NEKST-ONLINE.NL

REAL-TIME CREW
RESCHEDULING

NS IN PROGRESS

ALSO FEATURING

- ▶ INTERNATIONAL BUSINESS TOUR 2014
- ▶ TRIANGLE: SHARING RULE IN COLLECTIVE MODELS
- ▶ SPECIAL: NEW OPPORTUNITIES IN EOR

ASSET

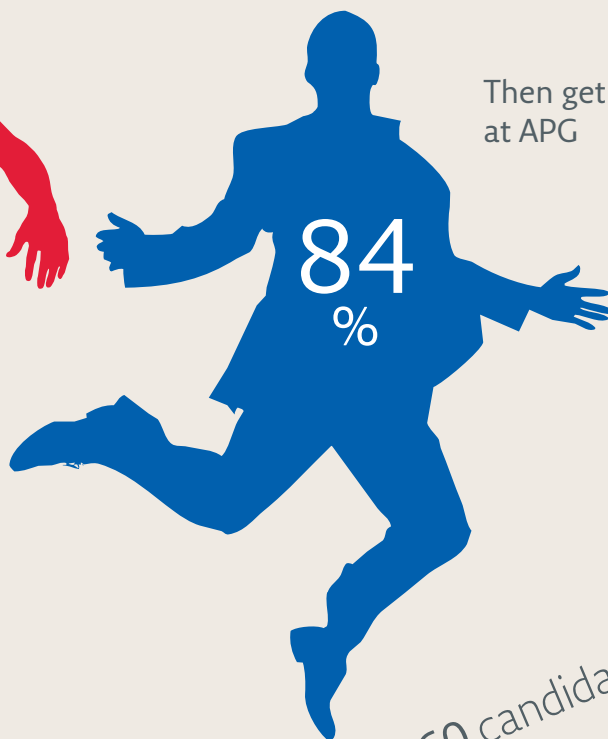


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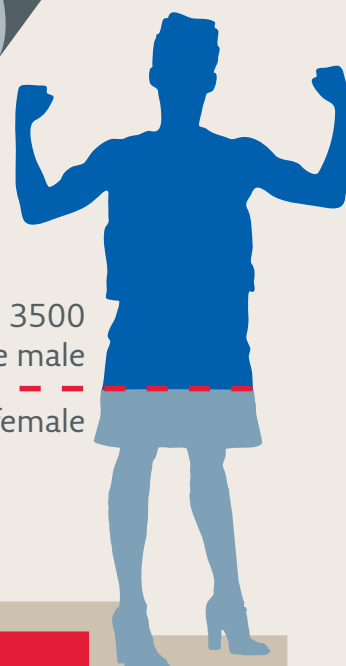
10 trainees

60 candidates

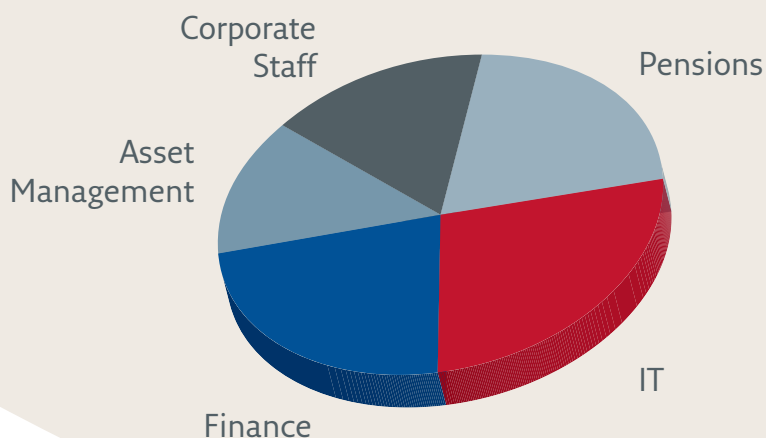
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Entering a New Year



As 2014 is coming to an end, I think it is time to look back at the past year. Much has happened, both inside and outside the world of Asset | Econometrics. Our very own seventh Lustrum might be nothing compared to the global Ebola outbreak, but it is certainly something worth remembering. Another example is this year's International Business Tour to New York, which you can read all about in this issue of Nekst.

Let us also not forget to look ahead to the upcoming year! For instance, right after the exams in January, the Hitchhiking Trip to Frankfurt will take place. Also some new changes in the Bachelor program will be made, which you can read about in our department special. In fact, from next year on, it is possible to go on an exchange without having any study delay. Does that sound interesting? Then you should certainly read Senna Jansing's exchange report, as she is currently studying in the USA.

If you feel like you have had enough of studying, then you can try solving our puzzle. You might even win a pie or a crate of beer! If that is still too mathematical for you, then what might interest you is the article about former board member Ad van Herpen, who decided to do voluntary work in Kenya after his studies. You can read Ad's story exclusively on www.Nekst-Online.nl. Besides, you can also find the winning recipes of Asset | Econometrics' Cycling Dinner there. Perhaps you will find something to prepare for when you have recovered from Christmas?

Ennia Suijkerbuijk
Editor-in-chief

COLOPHON

Nekst is the quarterly magazine of Asset | Econometrics ©2014

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Printing

Puurdrukken

Circulation

1250

VSAE 24

For this Nekst issue, we interviewed the board of Amsterdam's Study Association of Econometrics and Actuarial Sciences.



Robert de Veer 14

Are you curious about what it is like for an econometrician to live and work in New York? Ex-board member Robert de Veer shares his stories about 'the Big Apple', where he has been employed for four years now.

Asset Gala 44

Kristel van de Riet explains why Asset's annual Gala is a wonderful place to connect with students from other Asset departments.



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Exchange Report

Tilburg University differs quite a bit from North Carolina State University. Senna Jansing is currently studying in the USA and is happy to share her experiences.

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Heb jij een **scriptie** voor de opleiding Actuariële Wetenschappen of een vergelijkbare kwantitatieve opleiding geschreven? Dan kun je in aanmerking komen voor de Johan de Witt prijs!

Johan de Witt scriptieprijs 2015



- Eén prijs ter waarde van € 5.000.
- Jouw scriptie dient te bestaan uit een theoretische benadering en/of uit empirisch onderzoek en moet een reële bijdrage leveren aan de ontwikkeling van het actuariële werkterrein.
- Bij de beoordeling van de inzendingen worden tenminste de volgende criteria in acht genomen: wetenschappelijk gehalte, relevantie en stilistische kwaliteit.
- De scriptie mag maximaal 50 pagina's beslaan –exclusief bijlagen– en dient voorzien te zijn van een aparte samenvatting welke maximaal twee pagina's (A4) bevat.
- Deadline voor inleveren is vrijdag 27 maart 2015.

Deelnemers

Studenten van het Actuarieel Instituut, studenten Bachelor of Science of Master of Science in Actuariële Wetenschappen of aanpalende disciplines (Econometrie, Bedrijfswiskunde), studenten HBO en niet-leden werkzaam in het actuariële werkveld.

Deelnemen aan de Johan de Witt prijs 2015?

Ga voor meer informatie naar www.ag-ai.nl (AG-Johan de Witt prijs).
Heb je vragen, stuur deze dan naar johandewittprijs@ag-ai.nl.



Dear Members,

The days are becoming shorter and our faces longer. The exams approach at a rapid pace, but the wrestle with our blankets seems to become harder and harder every morning. If you have nearly drowned in readers, lecture notes and your grandmother's Christmas sweater, please allow me to shed some light on these dark days for you.

First of all, have you registered for the LED? If you have, you can look forward to participating in the most prestigious career day for econometricians. In fact, did you know that no other study program in the Netherlands has a national career event and that more than 35 companies from different sectors within econometrics will participate in this edition? All the more reason to seize this great opportunity, so register for the LED (and the sleepover) before the end of this year.

However, you might be way ahead of me and wonder what Asset I Econometrics has to offer for next year. If you want to take up a new challenge in 2015, consider joining one of the Asset I Econometrics committees starting in January. You could start small and organize the Introduction Activity for next year's freshmen in September, or take up the responsibility for esteemed career events, such as the Finance Expedition and the Business Dinner. In fact, since you are enjoying this magazine, you might consider contributing to it by joining the Nekst committee! I highly recommend you to contact our Internal Affairs officer Roxanne and make an appointment to discuss these options and many more.

Many of the committees that started in September are already working hard to organize some fantastic events in the months to come. The Actuary Day of Tilburg will take place on April 1 and will provide some invaluable insight into the actuarial world. Later that month, on April 30, inspiring speakers will give us their views on 'Saving Lives' during the OR Symposium. Of course we are not all business: you should certainly join our informal activities, such as the Astrics Cantus or the monthly drinks. Keep a close eye on the Asset I Econometrics app for more information on upcoming events.

If you would like to be involved rather than

informed, please come to the Department Members Meeting on January 22. We encourage all members to be critical, ask questions and provide valuable feedback on all Asset I Econometrics affairs. Also, we reward each attending member with a delicious cherry turnover during the break, so you definitely want to be there.

As you see, 2015 will be another great year for Asset I Econometrics. We as the board are looking forward to our second semester and we hope that you are too, but do not forget to enjoy the last days of 2014.

I wish you happy holidays and much success with your exams in January!

On behalf of the board,

Cleo Mauritsz
*Chairman Asset I Econometrics
2014-2015*





Crew Rescheduling at NS

Every day, Netherlands' largest railway passenger operator Dutch Railways (NS) faces disruptions due to unforeseen problems with the infrastructure, rolling stock, weather conditions, accidents, etcetera. These disruptions might lead to conflicts in the crew schedules. Human dispatchers try to solve these conflicts by adapting the schedules. However, they have limited solving capacity. During busy days, the workload and pressure on dispatchers is enormous and in extreme cases this could lead to canceled trains or even cancelation of all train traffic.

One of NS' highest priorities is to improve their worst case performance; therefore NS is building on more algorithmic support for human dispatchers. For big disruptions such as blocked tracks, NS has algorithmic support from a solver developed by Potthoff (2010). However, smaller disruptions such as delays, canceled trains and detours are still manually solved by dispatchers. In my thesis the rescheduling for crews in case of small disruptions is modeled as an iterative-deepening depth-first search in a tree, which is combined with several OR techniques obtaining a heuristic method that finds good rescheduling solutions within fraction of seconds. The heuristic focuses on real-life usability and uses the updated rolling stock schedule as input. Some ideas from an actor-agent approach, as discussed in the literature by Abbink et al. (2009, 2010), are combined with other OR techniques.

Methodology

The schedule of a single driver for a day is called a driver's duty and consists of several tasks that the driver has to perform. An

example of a task might be driving an intercity train from station s_{dep} to s_{arr} from time t_{dep} to t_{arr} . There are several rules for duties to be feasible, including labor rules regarding working times and minimum transfer times between consecutive tasks. If these rules are satisfied, we consider duties as feasible. Disruptions lead to infeasibilities in the duties. During small disruptions, dispatchers are usually able to repair infeasible duties into feasible ones by creating unplanned tasks, which are driving tasks that need to be performed by one of the drivers but which are not planned in one of their duties yet. These tasks must be planned into driver's duties in order to prevent canceled trains. NS also deploys reserve drivers who are standby at railway stations in order to cover tasks in case of disruptions. However, during small disruptions NS prefers not to use reserve duties; they are saved for bigger disruptions which might occur later in time. Planning unplanned tasks in duties is the most time consuming part of the rescheduling process and therefore my thesis focuses on a solution method for unplanned tasks.

When inserting an unplanned task in a duty some new unplanned tasks might be created. These are iteratively solved in order to solve the original unplanned task. Inserting the unplanned task in a duty and iteratively solving new ones can be seen as a search in a tree. To distinguish between different solutions in this tree an objective function is defined. This objective consist of penalties for changed duties, changed breaks and used overtime, in such a way that the chosen solutions are desired by train drivers and dispatchers. Labor rules defined by Dutch regulations for real-time crew rescheduling are satisfied.

The root node of the tree is the original schedule, consisting of all feasible duties and a non-empty set of unplanned tasks M . An edge (s, s_i) indicates the insertion of the first unplanned task in M in duty i , where s_i denotes the new schedule after insertion. The root node has an outgoing edge to each train driver in the population of train drivers, with exception of the reserve ones. Several OR techniques are combined to find solutions in the tree:

- Insertion of an unplanned task in a duty might not be possible at all. Therefore a **basic feasibility check** is developed to prune branches of the tree that would lead to impossibilities. The check examines whether the driver is able to take over the unplanned task regarding his route and rolling stock knowledge. Lower bounds on travel time are used.
- After the basic feasibility check the unplanned task can still be inserted in many duties. We define a **priority**

system which predicts how good the task would fit in each of these duties. The system uses prediction values based on linear regression, which are sorted using bucket sort. For example, drivers who are geographically close to the unplanned task or drivers who have lots of spare time in their duty obtain higher priority. The task is inserted in the most promising duty first, expecting to find a solution more quickly.

- A very high prediction value from the priority system indicates that a task is not likely to fit in the duty. If the prediction value is too high, the **unpromising part of the tree is pruned**. In this way the solving time decreases significantly while hardly any feasible solution is lost.
- Since there are more possible ways to insert a task in a duty we developed a systematic **method to insert a task in a duty**. The outcome of this method is either: insertion is possible without creating any new unplanned tasks (unconditionally possible), insertion is possible by creating unplanned tasks (conditionally possible), or insertion is impossible.
- If insertion is conditionally possible, we generally branch further using the new unplanned tasks. If lots of unplanned tasks are created, the problem could grow in an unbounded manner. To avoid this, the number of new unplanned tasks created when inserting a task in a duty is maintained below certain **threshold**. Iteratively the threshold is increased during the execution of the heuristic.
- Solutions in some branches of the tree are of poor quality since they require many changed duties.

Therefore, the **number of changed duties allowed** is bounded. Iteratively this bound is increased. The maximum on this bound is set to 5, since solutions with more changed duties are not desired by NS.

- The objective function is non-decreasing as we search deeper in the tree. Therefore, at each node lower bounds for the solutions are defined. As soon as a solution is found, we set the cost of this solution as upper bound. We fathom parts of the tree with lower bounds higher than the upper bound **fathoming** idea from branch and bound. This idea works well when a solution of good quality is found quickly, because large parts of the tree can be pruned.
- Some parts of the tree only have solutions at very (undesired) high costs. Therefore, we prune parts of the tree where the lower bound is above a certain threshold.
- We develop a **depth-first iterative-deepening** (DFID) search in a tree, in which the depth is bounded by the number of changed duties. DFID combines breadth-first search's completeness and depth-first search space efficiency, which is optimal when the path cost is a non-decreasing function of the depth of the node (Korf 1985).

Outcomes of time-consuming computations are stored in registers. Whenever such a computation is required again, results from the register are used, saving computation time. The tree search stops as soon as no further explorations occur or two seconds of solving time have elapsed. →

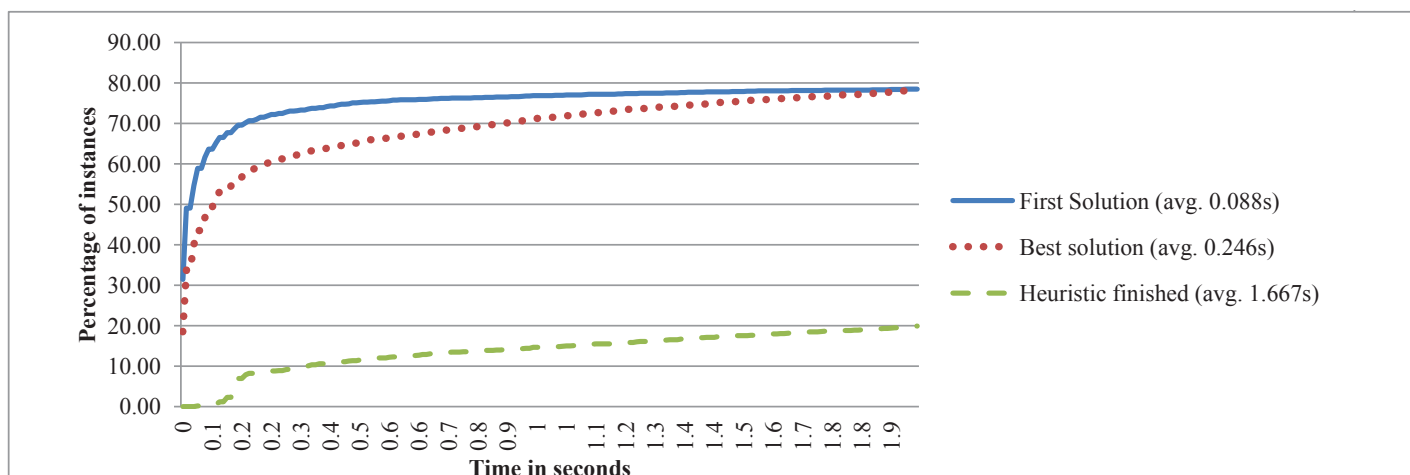


Figure 1 Even within one fifth of a second over 70% of the instances are solved

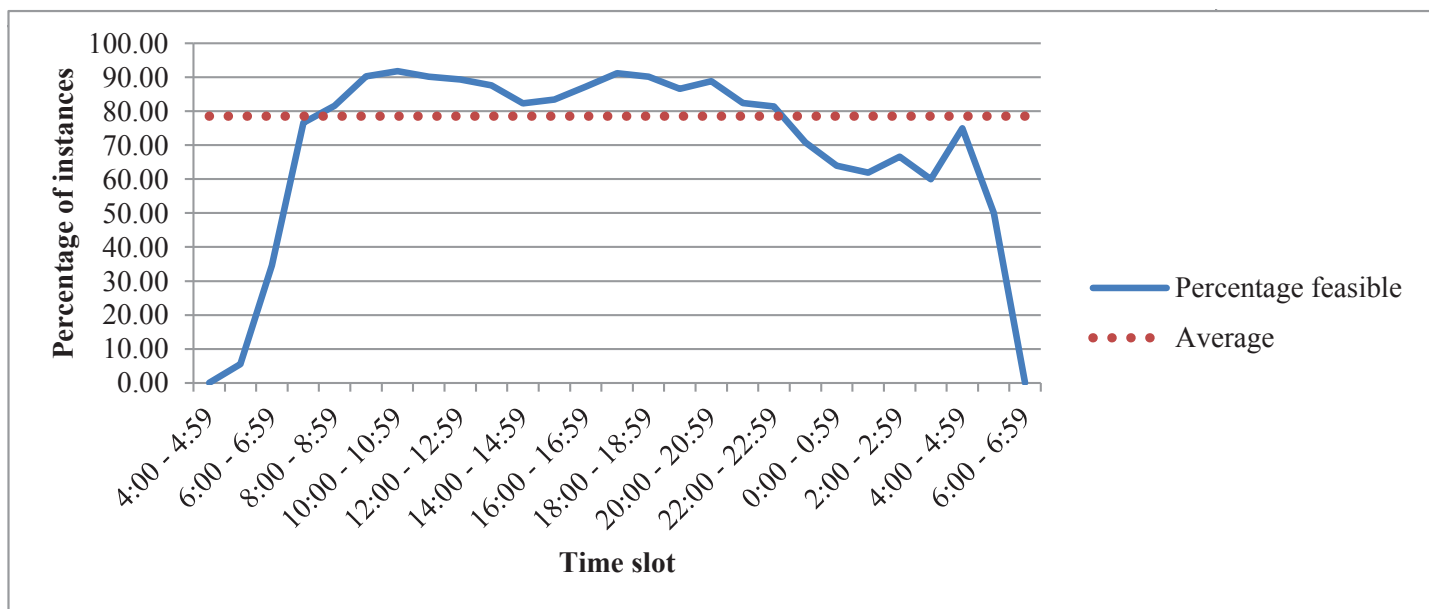


Figure 2 Heuristic finds feasible solutions in over 78% of the instances

Data

The daily schedule of Thursday June 14, 2012 is used as input data. This day was an average work day at NS with over 10,000 tasks planned in about 1,000 feasible duties. There were no unplanned tasks at the beginning of the day. A test instance is created by copying one of the 10,000 tasks and adding the task to the set of tasks. This task is not planned in one of the duties yet and hence is considered as unplanned. We try to solve this unplanned task, meaning that we look for solutions with only feasible duties and no unplanned tasks. This procedure is repeated for each task to create 10,000 test instances. Half of them are used for fine-tuning the heuristic, the other half are used to test the heuristic. For each instance, we assume it is known 45 minutes in advance that the unplanned task is unplanned, meaning that no changes are allowed to any of the duties more than 45 minutes before the start of the unplanned task.

Results

The heuristic is implemented in C++ on an Intel Core i7 processor with 2.96 GB RAM clocked at 2.80 GHz. When searching in the tree, only the changes are saved and not the nodes, since loading the data in the nodes is more time consuming than performing the changes. An overview of the main results include the following items:

- Consider figure 1 in which the solving time is plotted versus the percentage of instances. Within two seconds, the heuristic finds solutions in over 78% of the instances.

- The average time to find the best solution (that is found within 2 seconds) is only 0.246 seconds, while the first solution was found in on average 0.088 seconds, i.e. good solutions are found quickly.
- The best solution changes on average two duties, uses seven minutes of overtime and changes half a break.
- Consider figure 2, it shows that rescheduling is more difficult around 2 p.m. and during the nights. At NS, many duties start in the early morning and end around 14:00, and many new duties start around 14:00. Drivers have to return home around 14:00 so around this time there are less rescheduling possibilities.

Conclusions

Concluding, the heuristic works fast, delivers good and desirable solutions and outperforms other well-known methods from the literature. My thesis focuses on train drivers only and a similar approach might be developed for train guards. The process from small disruption to unplanned tasks might be modeled. This solution method might be useful to improve the solver for bigger disruptions. It might be interesting to test the solution method in case of bigger disruptions. Last but not least it might be interesting to consider the rolling stock rescheduling and crew rescheduling at once. ●

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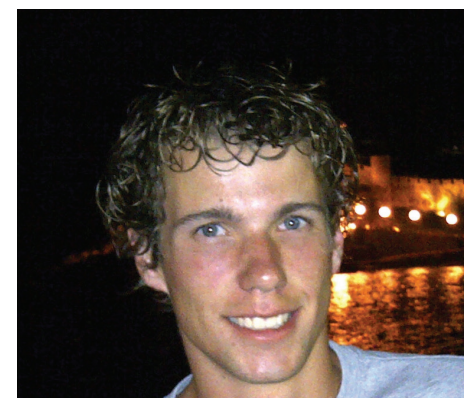
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Thijs Verhaegh

Age: 22

Began studies in 2010

Econometrics and the Real World...

Econometrics offers a toolkit that is extremely useful in a wide variety of real-life applications. Not surprisingly, many companies try to recruit the best students even before they finish their MSc thesis. Nevertheless, in my experience many students do not have a clear view on which aspects of their training will be valued most in the real world.

Many things changed over the 25 years that I teach at Tilburg University. Almost all lectures are in English nowadays and students have much better presentation skills than 25 years ago. Moreover the level of the courses has gone up substantially although the students now have to finish their studies in a much shorter time span than in the old days. However, one aspect definitely did not change: students in econometrics are still tempted to think that an answer with five decimals is to be preferred over an answer with three decimals. I guess this tendency for pseudoprecision reflects the emphasis on mathematical precision especially in the BSc curriculum. This emphasis is useful to be able to read the academic literature or even contribute to it and to understand what you do in applied work. Nevertheless, econometrics in the real world requires a different attitude. Many assumptions are to be made that could have an impact on the result. Typically not all simplifying assumptions can be avoided simultaneously in building a manageable model to address the question at hand. Likewise input parameters (e.g. the expected return on investments) are often highly uncertain. The dominant model and parameter risk in application urges one to be very cautious with the precision that is claimed for the empirical findings.

As an example of the above, consider informing retail investors about the possible returns an investment product can achieve. In the Netherlands, providers of investment products are obliged to inform the investors about the investment risk using a so-called Essential Investors Information Label (see figure). The econometrics behind this label is developed in Tilburg and is in fact surprisingly simple. The assumption is made that all risk drivers (e.g. stock returns) are i.i.d. (log)normal. First-year econometrics students can easily test and reject this hypothesis. The true distribution is much more complicated, has fat tails (more extreme outliers) and time varying variance. Moreover subsequent returns are correlated, though that is not the point. To be able to offer a label to alert retail investors to risky investment products it is important to use accessible simple models that even lawyers can understand.

The Dutch parliament currently considers a new law that, in econometric language, will prescribe that pension funds provide information on the quantiles of the purchasing power of their future pension income to all participants. A big step forward, because now only the currently accrued rights are reported, as if there is no uncertainty in future pension income. Modeling these quantiles is even more challenging than modeling future investment returns. The Dutch government has selected the so-called KNW model, proposed in a paper with Ralph Koijen, Bas



Werker and the undersigned in an academic top journal (Review of Financial Studies), to do the job. The KNW model models the uncertainty in equity returns, interest rates and inflation rates. Ralph was a Tilburg Econometrics student not too long ago and is now a very visible top-researcher. His career could be your future

as well. However the brightest minds are not only needed just to extend the toolkit even further, but also to set it to work in real-life applications. The KNW model can be simulated and quantiles can be computed within the model in as many decimals as the user prefers, but that does not solve the real-life challenges to be answered. Pension and insurance products are often highly complex and while simulation of the KNW model provides all answers, many econometricians in the industry are currently looking for simplifying models and computational procedures that provide reliable risk information to participants but avoid computational complexities. KNW also implies (log)normal (excess) returns on equities. Even a model that can be rejected by first-year econometrics student has to be simplified to be used in

society. A true challenge for econometrics to offer adequate but simple models, which focuses on what is needed in the application at hand! ●



Theo Nijman

Theo Nijman is chaired professor in the Econometrics of Financial Markets, as well as Pension Provision and Risk Management. He is also Scientific Director of Netspar.

Renewing the Bachelor Program

In some aspects a few changes and additions will be made to the Econometrics and Operations Research (EOR) Bachelor program, which is a valid reason to interview the people behind it. Via this special, we would like to inform you some more about the opportunity to go on exchange without having a study delay, but also about the Mastermind sessions and Improving Society Lab.

Text by: Max Kaumo

The exchange program

Having the opportunity to go on exchange is a very valuable addition to the Bachelor program. However, until now an exchange was almost inseparable paired with your study program being delayed, which was a great turn-off for many students. While interviewing EOR's academic director Edwin van Dam, he brought up that he had been on exchange to Denmark himself when he was a student. Looking back, he can say that it was very educational, not only because of the courses, but also because of the other (life) lessons you learn while you are trying to adapt to another culture. Besides, the ability to cope independently is a very important aspect of the exchange experience.

Over the years, the EOR department has received quite some feedback from students who pleaded for the ability to go on exchange without facing a study delay. This feedback was something that put the department up for quite a challenge, as it is rather difficult to put together a program of courses at a foreign university that corresponds with our very specific Bachelor program at Tilburg University. As the TiU already has a big list of exchange partners, the department made a list of all the third-year Bachelor program courses, such that they could find a matching university. This approach proved to be successful, because they found a way to make it all happen.

From next year on, it is possible for third-year students to choose two courses out of a list of preselected courses, which fit within the Tilburg Bachelor program. Besides, the third-year course Philosophy of Science and Statistics is something that can be replaced by another philosophy course at almost every university, and in addition, the two elective courses in the third year give numerous opportunities to find suitable courses. Therefore, there now exists a list of exchange partners that fulfills the requirements of the department such that the first semester of the Bachelor program can be followed at one of the exchange partners on the list.

The department does not expect a real limitation on the number of students that can enter in the exchange project. However, it should be mentioned that it is up to the partners to decide the number of students that get the green light at their university. Hereby it is not possible to make exact statements or give a guarantee for a place at your 'first choice university'. A partner university can for example impose a language requirement, and also your motivational letter is something that can both make and break your dream exchange.





For those of you interested in going on exchange, there are a few requirements that you ought to meet. At the point of signing up you should have earned at least 48 ECTS during your first year. Besides, you can only go on exchange when it fits within four years of your Bachelor. Furthermore you need to have obtained at least 90 ECTS in total, you should have participated in a workshop to increase international awareness, and you have to live up to the language requirement (if there are any). A partner university can also add more requirements to this list, but that may differ per situation. As a student, you will be asked to give your preferred exchange top three, such that the exchange office can try to match everybody's exchange preferences.

Improving Society Lab

To start, it is worth mentioning that the 'Improving Society Lab' is a completely new idea, which is still in its early stages. The EOR department strives to make the Lab part of the Bachelor program for first year students, from next year onwards. The idea of Improving Society Lab arose when the department received quite some feedback about the first two years of the Bachelor program being very theoretical as opposed to being practical. Another reason for this new idea is the success of the Mastermind sessions, which is an initiative that just started in September 2014, but is already quite popular. More information about these sessions will be given later in this article.

The main idea of Improving Society Lab is for it to be an addition to the study program, in the form of guest lectures.

These lectures are meant to create insights in the practical applications of the Bachelor program. This way, students can actually form an idea of the practical use of what they are studying. In addition, it is also a career orientation for freshmen, as students will get in touch with both companies and working areas that result from and connect to the bachelor program EOR.

The Lab will be arranged around seven or eight times a year by professionals, who either have an econometrical and/or operational background or are currently active in econometric and/or operations research disciplines. The EOR department has a lot of members that are active in the business world in EOR areas. Normally as novice Bachelor students though, you will not get in touch with these professionals that often. Therefore the Lab creates the opportunity for students to become aware of the valuable insights of professionals. Attending the Improving Society Lab sessions will be a compulsory part of the first two years of the bachelor program, in which students can earn one ECTS. How this ECTS can be earned is still something the department is working on.

Masterminds

The general idea of Masterminds is more or less the same as the idea of the Improving Society Lab, which is to provide practical insides as an addition to the program. Unlike the Lab though, the idea of Masterminds is already in a further stage. For the Master program Operations Research and Management Science (ORMS) there have already been a few Mastermind sessions and

the idea is to do something similar for the other Master programs Quantitative Finance and Actuarial Science (QFAS) and Econometrics and Mathematical Economics (EME). Ideally, the EOR department would like to give students the opportunity to visit them around six times a year.

As the Mastermind sessions are not a compulsory part of the program, the number of people attending these sessions is a good indication of the demand for this addition to the program. As many students have already attended an OR Mastermind session, it is safe to say that students regard them as valuable and useful. The three companies that have already been guest to the sessions are CQM, Gordian Logistics and the Dutch Railways (NS).

The Mastermind sessions are in the form of a one-hour lecture, during which also the coordinator of the ORMS Master program Dick den Hertog, will be present. After the lecture, students will have the opportunity to discuss the subject matter with the lecturers or professor Den Hertog. Through this close communication and insights in companies, students will be able to create a clearer picture of their own preferences, so that they will be better prepared for what is waiting for them after the EOR program or their Master program. In addition, it can help Master students to find a company to write their thesis.

What else is new?

Where it used to be possible to follow both Dutch and English lectures in the first year of the Bachelor program, this year it is only possible to follow lectures in English. However, from next year on, the old system will be used once more, as the department feels that many Dutch students prefer the possibility of having Dutch lectures. Besides, the previous system gives students the opportunity to choose between going to Dutch, English or even both lectures, which can be a nice advantage. ●

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**Irmgard Oude
Alink**

AGE: 19

Began studies in 2013

Exploring Econometrics

On November 19, it was time for the EOR students to orientate themselves on the Master programs following Econometrics & Operations Research and also on the career perspectives after finishing a Master program. I myself participated in the Econometrics Orientation Day as well.

The day started with a very delicious lunch where we could talk to other students, but some employees from the participating companies were also present. Duisenberg School of Finance, Pointlogic and PwC were represented and I talked to a young woman who studied Econometrics & Operations Research at Tilburg University. She graduated only last September for the master Econometrics and Mathematical Economics (EME) and is currently working for Pointlogic. This was in fact only her sixth week of working there and it was very nice to hear the experiences of someone who just started to work. It is always exciting to make such a big step. You never know whether this is what you are going to do for the rest of your life and whether you actually like the job, so therefore it was refreshing to find some insights from someone who just started working.

After lunch we went to the Cobbenhagen building, where several presentations took place. When we signed up for the EOD, we had to choose which presentations we wanted to follow. In the first round I visited the presentation of professor Den Hertog about the master Operations Research & Management Science (ORMS). He told us about a project he did together with Ruud Brekelmans, a few other companies and the University of Delft. It was about the dikes in the Netherlands and whether they have to be expanded or not. Of course, such a project is very extensive and takes multiple years to solve and their team actually won the Franz Edelman Award for it!

Of course not everybody who studies ORMS will find himself working on such a project, but the presentation did give us some nice information on the Master, as they had to use techniques that are also taught during the ORMS Master program. I thought it was an interesting presentation and not too difficult to follow. Professor Den Hertog used a lot of pictures and videos to make clear what he meant. Before this presentation, I actually thought the ORMS Master program would not interest me, but now I am not so sure anymore. The other presentation in this round was about the research master you can do after finishing your Bachelor program.

In the second round you could choose for a case of PwC, but I decided to go to two different presentations. The first one was from the Duisenberg School of Finance (DSF), which is a school in Amsterdam where you can do a Master in Finance. What really struck me about this presentation was the level of difficulty, as they assumed we already knew a lot of the things he told. For some third-year students this was the case, but for the second-year students it was a little too difficult. To me, this is also a reason why it was less interesting.

Students who study at DSF have to get 70 ECTS instead of 60 ECTS, which makes it a rather tough Master program. After the presentation of DSF we listened to a presentation of Pointlogic, which

I liked the most. If the presentation is representative for what I will learn during this Master, then I know what I am going to choose. Pointlogic is more or less a consultancy company. Sometimes they only have to perform a quantitative analysis, but sometimes they also have to advise the company about, for example, the best way to advertise. The company has two departments: one where software is produced and one where the analyses are performed, the Business Intelligence department. A lot of econometricians work in this second section, and I like the idea of working with other econometricians.

At the end of the Econometrics Orientation Day, there was a Q&A session. Four students were invited to tell something about the things they had done besides their studies. Suzanne Vissers told us about her year as chairman of Asset I Econometrics, Thijs Verhaegh (alumnus) about his master thesis for the NS, Masum Rahman spoke about the Honors Program at Tilburg University and Anniek Joosten talked about her exchange to Canada and about being a working student.

There were not many second-year students present at the EOD, but I think it is better to start early with orientating on Master programs and the job market. It is better to know what you will do one year before you have to choose, than making your decision too fast. I can certainly recommend this day to everyone who has not participated yet! ●

An Econometrician Living in New York

Text by: Anouk Claassen

As you all may know, a group of Econometrics students visited New York earlier this year for the International Business Tour. This was a unique opportunity to meet one of our former board members, who currently lives in NYC. During our first evening in New York, Cleo and I had dinner with Asset | Econometrics' former board member Robert de Veer. Are you curious about his experiences on the other side of the ocean? Then continue reading!

Robert's time at Tilburg University

Let us start with giving you some background about Robert de Veer; who is this former board member? Robert started with his study Econometrics and Operations Research in 2002, but the first two years turned out to be quite tough for him. Robert did not particularly like most courses that much because he considered them to be too abstract. As a result, he lost some of his interest in the program and decided in 2004 to begin his studies International Business alongside Econometrics & OR. He liked the business related courses, but at the same time it made him realize that he appreciated Econometrics much more than before, ultimately finishing both studies in 2008.

During his studies International Business, Robert became an active member of VITE International (Vereniging van Internationale Tilburgse Economen en Juristen), the predecessor of Asset | International Business & Management. He quickly began to entertain the idea of a full-time board year and given his active membership, VITE International would have been the obvious candidate. However, during the 2005 Business Research Program (the International Business Tour's predecessor), Robert worked closely on a case study with Maaiké and Remco, who were TEV (Tilburgse Econometristen Vereniging) board members at the time. Discussions with them about the association and active membership made Robert decide

to follow a different course. After this trip Robert became an active member of the TEV as chairman of the Symposium committee, which was a collaboration with MA Tilburg (predecessor of Asset | Marketing). Later that academic year Robert applied for the TEV board 2006-2007 and would become the board's secretary.

Questioning the obvious, we asked Robert whether he learned a lot during his board year. "Of course", he answered affirmatively, "I learned to be accurate and thoughtful in communication, to trust others as you cannot do everything on your own, to take your responsibilities and to work as a team." One particular project Robert spent a lot of time on

was the inevitable merger of TiSEM's study associations. Every chairmen and vice-chairmen of the associations belonging to TiSEM participated in lengthy discussions, including a two-day off-site, on the possible scenarios for the merger. Needless to say that there were a lot of different opinions and interests at stake, which lead to very interesting and challenging dynamics. All in all, Robert thinks working with different associations together is very valuable, since we will have to deal with different opinions and points of view in our future career as well.

Moving to New York City

The first time that Robert visited New York was during the 2005 Business Research Program. At that moment he did not feel



the urge to move there, although he did already have a desire to go abroad for a (shorter) period of time. While studying, he thought that Buenos Aires would be a very interesting place to live, but momentarily he is very happy that he is not living in Argentina: "I think life in Buenos Aires is much more hectic than in New York and at least as expensive. Living in New York on the other hand is often rather easy. For example, you never have to think about when to go to the pharmacy or where to get your dinner from, as a lot of shops are open 24/7. If not, then we always have the delivery guys."

Robert moved to New York in 2010 when the company he worked for in the Amsterdam asked him to move to the New York office. After his girlfriend, today his wife (who can be seen together with Robert on the very American 'engagement shoot' picture), was also given the opportunity by her employer to transfer to New York, they moved. Initially for a two- to three-year period, but "the city grows on you" as Robert puts it. Up to today they still very much like working and living in New York and therefore they do not want to go back to the Netherlands in the short-term. With work visas expiring within a year, they are currently in the process of obtaining their green cards.

Dissimilarities

"Something that surprised me when I just moved here is the 'in your face' poverty. There are not only a lot of homeless people, but also quite some buildings are in bad repair. The differences between poor and rich are really quite big." Robert estimates that approximately 10% of New York's society has a 'good life', whereas the other 90% works for the rich. Most of the 10% lives in Manhattan around or below Central Park. The other 90% lives above the Park (Harlem) or in any of the other four boroughs (Brooklyn, Queens, the Bronx and Staten Island).

As someone who has worked both in the Netherlands and in the U.S., we asked whether Robert has experienced any big differences between working in the two countries. "For me the workload is comparable. The Amsterdam office is at least as internationally oriented as the New York one. However, the office culture in New York is definitely much more hierarchical than the Dutch one. An analyst in the U.S. will almost obey to



everything the more senior employees tell them." Robert tells us the anecdote that when he asked a junior to prepare an analysis for him that was not very urgent, this person immediately started working on it and actually continued working the entire night in order to complete it without asking any questions. This is rather different from the Netherlands, where most people would have asked when the work needed to be completed, how important it is and (luckily!) sometimes challenges you before doing all the work. In New York most people have the same mindset: you will need to work very hard to move up. Robert feels that he sometimes needs to slow down some of the juniors so that they are not completely burned out.

Another big difference is that most people are responsible for investing and saving for their own pension. As only a fraction of people understand the complexities involved, including the impact of compounding returns and fees, there are quite a lot of Americans with insufficient pension assets.

Tips

Because of the hierarchical office structure in New York, Robert advises to begin your career in Europe, such that you have some work experience before moving to New York. If not, you will have to start at the bottom of the food chain and work, most often, very long hours to move up. Something else to keep in mind is that you should not be too modest when looking for a job in New York. After graduating

in Econometrics you are well-educated and have a lot of quantitative skills, which are very valuable in the U.S. As a result of the Liberal Arts programs at most U.S. colleges and the fact that most Americans only obtain a Bachelor's degree, there is quite a shortage of properly educated quantitative people, so there should be plenty of suitable options to get a job for econometricians in New York. However while finding a job might be feasible, getting the required work visa might turn out to be much more difficult.

Moreover, Robert advises students who are contemplating to work in New York not to focus on too short of a period. There will be so many things you want to see and do in the City that if you do not take enough time for them, you will live too fast and simply cannot enjoy your time there. After four years Robert feels that he has done most of the things he really wanted to in NYC, but there are still numerous things to do outside the City. For example, being outdoors in upstate New York or visiting cities like Pennsylvania or New Orleans. However, during the summer Robert loves staying in the City. "After all these years the weekends in the summer period still feel like mini-vacations."

Last but not least, we want to thank Robert for his time and we wish him the very best. We believe that his experiences and tips can be very useful for any student who is considering working in New York. ●

Exploring Financial Amsterdam



Jorn Veeneman

AGE: 24

Began studies in 2009

This year I was one of the lucky few that got selected for the Finance Expedition. After several failed attempts I pimped my CV to such an extent that they could no longer refuse me to take part in this expedition. Out of the 24 selected students, sixteen students had a Finance background while the other eight had a background in Econometrics. After one kick-off meeting in which we got to know each other a little better, we went to Amsterdam on November 11. We arrived at the hotel in the evening and had a few drinks. Nothing too crazy as for the next two days the schedule was full of cases, lunches and dinners with companies.

Wednesday morning we visited our first company: Deloitte. Unfortunately, the new building on the Zuidas was not yet taken into use, so we went to their old office. The case focused on two departments of Deloitte, namely Pension Advisory and Financial Risk Management, and was about two insurance companies trying to take over pension obligations of a certain company. Every group presented a stakeholder and had their own interest in the transaction. In the end the board of the company decided which insurer could take over the portfolio. My group did not succeed in being the winning offer, though we did a good job.

After lunch it was time for the second company. This time it was more finance-

oriented since we went to Kempen & Co, a Dutch merchant bank. After the speech of the CEO and a tour around the trading floor (if you have the opportunity, go see one, it is a sort of 'The Wolf of Wall Street'-light), it was time for us to get involved. We were divided in four groups and all groups represented a company active in the bicycle industry. The idea was that each company looked at the possibilities for merging or acquiring other companies and would try to get the best deal possible. In the beginning the offers between the companies were quite unrealistic and not much happened, but as the deadline was approaching quickly all sorts of deals were offered and dirty sly games were played. In the end the most cunning team won.

The dinner that night was at Kempen & Co as well, after which we tried our luck at the casino. I had never been there and was not too lucky. However, it was fun to experience the atmosphere in a casino and some students actually made quite some money out of this activity.

The next day, after a short night's sleep, we went to visit Duff & Phelps. This company focuses on valuation of companies in various industries. This was also what we had to do in the case, which clearly was in favor of the Finance students. My group, with three out of four students being Econometricians, had a hard time. Nevertheless, we did

manage to give some decent results in the presentation.

The last company of this expedition was Optiver. This firm aims to provide liquidity to the financial markets bringing supply and demand together on the stock market. As there are more companies aiming to do the same, it is all about being the fastest and providing the correct price at the right moment. First, we did the Optiver computation test, which is about doing simple calculations as fast as possible without making mistakes. Next we played a game in which everyone was a trader and we had to buy and sell stocks at the correct price. This got everyone quite fired up and the competitiveness in this game was high, so you had to be very fast in order to be able to participate in the game.

The closing activity was eating pizza at Optiver, after which we went home by train to Tilburg. I think it was a very nice experience to participate in the Finance Expedition. We had the opportunity to see four distinctive companies in the field of finance, which helps to decide upon what I want to do after my Master program. Furthermore, the organization of the event was flawless and the group of students mixed very well, causing the event to be a fun experience as well as an educational one. ●



**Rick van de
Meulenhof**

AGE: 22

Began studies in 2010

Our First Experience

Hong-Kong sounds like a decent location for Asset | Econometrics' next International Business Tour, but the traveling distance of 9277 kilometers might be somewhat too far to let this metropolis be the location of the Hitchhiking Trip 2015. We do not want our fellow econometricians to be stuck in the coldness of Russia or in the heat of the desert in the Middle East, do we?

No, let us try to find a country closer to home, such that we can experience what it is like to be an adventurous hitchhiker, without getting totally lost. Germany sounds like the perfect destination for our first experience, as it is a country that is generally well known for its hitchhiking possibilities. Traveling a little under 400 kilometers in South-East direction will get us to Frankfurt, home of the European Central Bank and located around the riverbanks of the Main. Let us discover the kindness of our eastern neighbors and hitchhike our way to Frankfurt!

From as this year, our association has a brand new committee, the Hitchhiking committee, established after the big success of last year's Lustrum Tip. We are giving our members the possibility to get to know each other outside the lecture

rooms, by discovering a European city for a weekend. Introducing this committee, the first thing to notice is the lack of women, how could we actually act without? Nevertheless, together with Milan, Tim, Mitchell and Bas, we have been busy setting up this committee that is supposed to become a yearly event from now on.

While looking for the perfect location, we had to consider a lot of criteria. Is that not too far away, are those people kind enough to help us, is that city not somewhat boring? Some discussions and headaches further, we finally decided what would be the perfect location for our trip. During our stay, thirty econometricians will discover the beauty of one of Germany's largest cities. The Museum Embankment of Frankfurt, just

south of the Main, is a cultural wonder to behold. And what to think of the City Zoo, located in the city center, or the City Hall that is in fact one of the biggest sightseeing spots of Frankfurt.

Before the sightseeing can actually begin, the most exciting part of the trip will take place. Perhaps most of our adventurers never even hitchhiked before, which makes it even more exciting! What are good tactics to be the fastest hitchhiker and how can this be done in a safe way are questions that immediately come up in the minds of our co-travellers. Hitchhiking is a way of traveling which got more ordinary over the years. Where a couple of years ago there were only a few Dutchmen who actually dared to try it, nowadays it is considered to be way more safe. Rightly so, there are a lot of, mostly young, travelers who actually see hitchhiking as a convenient way to arrive at their destination, not only because it is a cheap way of traveling, but also because of the experiences on the road. Hitchhiking is about meeting people from different origins and different religions, whom all have a different look on the world. Hopefully, our hitchhikers will experience this trip the way it should be experienced: making friends with foreigners and learning about the phenomenon of hitchhiking. Eventually, hearing their stories and using their hints, maybe, just maybe, it might be that in a few years the location of the hitchhiking trip will indeed be Hong Kong. ●

From left to right: Rick, Milan, Mitchell, Tim and Bas



Nonparametric Identification in Collective Models with

Collective consumption and labor supply models have become increasingly popular in family economics. Although the availability of datasets with information on intra-household allocation of consumption is increasing, it is still a challenge to identify structural components of the model, especially if one allows for unobserved heterogeneity. In this essay I will present a general approach how such a problem can be approached in a nonparametric way.

Consumer decision making has always been a central component of economic analysis. Hence, modeling of consumer demands in terms of marginal utility has a very long tradition dating back to the early contributions of Jevons, Menger and Walras in the late 19th century. In the 1930's their theory was formalized by Hicks and Slutsky to the standard indifference-curve based approach we use now. It was Richard Stone in 1954 who estimated the first system of demand equations. All these endeavors laid the groundwork for the neoclassical framework we use today in order to model household decisions and estimate consumer demands. However, this unitary approach suffers from one important drawback: it assumes one utility function per household, disregarding any interaction between the households' members. In his seminal work, Chiappori [1],[2] introduced the collective household consumption model, which satisfies methodological individualism by allowing every member $s \in I_S$ of the household to have his or her own utility function. Household utility can then be viewed as an aggregation rule or social choice function. It is assumed that this social choice function satisfies the Pareto-efficiency axiom, which allows us to write household utility as a linear combination of individual utilities u^s and define the optimization problem as

$$X^*(p, p^0, w) = \arg \max_{(x, x^0)} \sum_{s \in I_S} \mu^s(p^s, p^0, w) u^s(x^0, x^s) \quad (1)$$
$$s.t. \sum_{s \in I_S} p^s x^s + p^0 x^0 \leq w$$

with Pareto weights μ^s representing the members' bargaining power, endowment w and prices $p = (p^1, \dots, p^S)$ and p^0 for privately and publicly consumed goods $x = (x^1, \dots, x^S)$ and x^0 , respectively. We denote the number of non-restricted privately and publicly consumed goods by L_1 and L_0 , respectively.

Before we solve this collective household optimization problem, let me briefly discuss the issue of demand estimation. After all, as econometricians we are interested in the empirical content of the model. So far we have not talked about any form of unobserved heterogeneity ε . We implicitly assumed that every household has the same underlying utility functions and Pareto weights. If that was the case, every household would attain the same optimum X^* (demands) for given (p, p^0, w) . It is generally accepted that this restriction does not hold, since group statistics still exhibit a significant amount of variation in almost any domain of application. A rather ad hoc way this issue is usually dealt with, is to first solve the model as if there was no unobserved heterogeneity and then include an additive error term ε in the demand equation that is estimated: $X^*(p, p^0, w, \varepsilon) = X(p, p^0, w) + \varepsilon$. The problem with this approach however is that even within the scope of the standard unitary model it is very hard to find a utility function that, when optimized under a budget constraint, would result in a demand function which has such an additively separable form. In general, a stochastic demand system that admits a broad class of underlying utility functions, turns out to be non-separable in the error term(s) ε . Fortunately, there are techniques (see [4],[5],[6]) that allow us to estimate even non-separable functions, however they must satisfy certain regularity conditions. To be more specific, X^* (vector-valued) must be monotone and triangular with respect to ε . If this is the case, we are able to identify conditional quantiles of the (components of) demands, by exploiting one of their equivariance properties, the invariance with respect to monotone transformations. Now, since X^* is only the solution of the consumers' problem, we have to investigate which properties does the underlying structure $\Omega := (\mu^s, u^s)_{s \in I_S}$ have to satisfy in order for the solution to be of such a form. To answer this ques-

ation of the Sharing Rule

Heterogeneous Agents

tion we have to solve problem (1) and use the first order conditions, which define X^* in terms of functionals of Ω (system of partial differential equations) to establish restrictions how unobserved heterogeneity ε has to enter Ω such that X^* satisfies the desired properties.

In order to solve the model, it will be handy to follow Chiappori [3] who shows, that under the efficiency axiom it is possible to rewrite program (1) as an equivalent two-step procedure, in which the members agree on the sharing of total household income as well as consumption of public goods in the first stage and then, conditional upon this outcome, privately optimize individual consumption. In formal terms this means that there exists a map $(p, p^0, w) \mapsto \rho^s$, the so-called sharing rule, such that every $X^*(p, p^0, w)$ that solves (1) is also a solution of the following two-stage optimization process. Using indirect individual utilities v^s from the second stage, letting $\pi^0 := [p^0, p, w]$, in a first stage the household optimizes

$$\begin{aligned} \left[\begin{matrix} x^0 \\ \rho \end{matrix} \right] (\pi^0, \varepsilon^0, \varepsilon^\mu, \varepsilon) = \operatorname{argmax}_{(x^0, \rho)} \sum_{s=1}^S \mu^s(\pi^0, \varepsilon^{\mu, s}) v^s(p^s, \rho^s, x^0, \varepsilon^s, \varepsilon^0) \\ \text{s.t. } \sum_{s \in I_S} \rho^s + p^0 x^0 \leq w. \end{aligned}$$

In the second stage, all members $s \in I_S$ of the household individually optimize, conditional upon optimal public consumption x^0 and the sharing rule ρ^s

$$x^s(\pi^0, \rho^s, x^0, \varepsilon^0, \varepsilon^s) = \operatorname{argmax}_{x: p^s x \leq \rho^s} u^s(x, x^0, \varepsilon^s, \varepsilon^0).$$

Note that we have also added unobserved heterogeneity into our model structure by defining a vector of random variables $(\varepsilon^\mu, \varepsilon^0, \varepsilon)$ where ε^μ represents an S -dimensional vector of unobserved bargaining powers, ε^0 unobserved taste shocks for public goods (L_0 -dimensional) and $\varepsilon = (\varepsilon^1 \dots \varepsilon^S)$ unobserved taste shocks for private goods for each member $s \in I_S$ (each L_1 -dimensional).

We are interested in estimating the (stochastic) demands, which represent the solution of the respective stages. The focus lies on the sharing rule ρ which allows us to inves-

tigate not only the aggregate effect of a policy on the household, but also how it is passed on to each member. In general however, a distinction between public and private demands is not possible in many datasets. It can be shown that under such circumstances we can not identify the sharing rule if we allow for unobserved heterogeneity. For this reason, we have to restrict ourselves to datasets that include information on intra-household allocation, which allow us to separately estimate individual private demands x^s and public demands and the sharing rule (x^0, ρ) .

It is easy to see, that in general the solution of the first stage program depends on unobserved bargaining power, public taste shocks $(\varepsilon^\mu, \varepsilon^0)$ and private taste shocks ε , of which the dimensions are $S + L_0$ and SL_1 respectively, while the number of equations in the system (x^0, ρ) is only $L_0 + S$. In the presence of such excess heterogeneity, triangularity of the demand system with respect to the error terms, cannot be satisfied. To overcome this, we will exploit information from the second stage by first predicting ε , using demands for private goods x^s for all $s \in I_S$. It can be shown that we can then in a second step consistently estimate demands for public goods and the sharing rule conditional upon these predictions of ε , once we have shown that x^s is identified. Hence, only $(\varepsilon^\mu, \varepsilon^0)$ is unobserved and we were not required to make an assumption on the structure. As for the individual demand systems in the second stage, we can treat ε^0 as a household fixed-effect and are left with unobserved ε^s .

Now, how can we link the demands (x^0, ρ) and x^s to the underlying structure? Without explicitly solving the model, let $\Xi^0(\rho, x^0) = 0$ and $\Xi^s(x^s) = 0$ for all $s \in I_S$ be the first order conditions of the two stages and define $\xi := (\rho, x^0)$ and $e := (\varepsilon^\mu, \varepsilon^0)$. Using the implicit function theorem, our first-stage demand system, in which public consumption and the sharing rule are allocated can be represented as

$$\nabla_e \xi(\pi^0, e) = - [\nabla_\xi \Xi^0(\xi, \pi^0, e)]^{-1} \nabla_e \Xi^0(\xi, \pi^0, e)$$

in a neighborhood of π^0 . Similarly, each members' private demands can be written as

$$\nabla_{\varepsilon^s} x^s(\pi^s, \varepsilon^s) = - [\nabla_{x^s} \Xi^s(x^s, \pi^s, \varepsilon^s)]^{-1} \nabla_{\varepsilon^s} \Xi^s(x^s, \pi^s, \varepsilon^s)$$

around some $\pi^s := (p^s, \rho^s)$. Note that the existence of the two inverses follow directly from the rationality properties of the individual utility functions. But more importantly, triangularity and monotonicity of ξ and x^s are satisfied if and only if their Jacobian with respect to the error terms is non-zero for all π^0 and (p^s, ρ^s) , respectively. As we can see, that is if $\nabla_e \Xi^0(\xi, \pi^0, e)$ and $\nabla_{\varepsilon^s} \Xi^s(x^s, \rho^s, \varepsilon^s)$ both have full rank. These restrictions are defined in terms of our first order conditions, which consist of functionals of the underlying structure Ω . Hence we get a set of economically traceable restrictions which, from a mathematical perspective, constitute mostly weak separability conditions. If we are willing to impose these conditions, we can then non-parametrically estimate conditional quantiles of the central structural component of the collective model, the sharing rule. This allows for a range of applications for example to estimate the effect of a policy on the welfare of each spouse or to construct a test that can empirically distinguish the standard unitary model from the collective model. ●



Stefan Hubner
PhD Candidate

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Catching up with Former Active Members & ZO



Inge Pulles

AGE: 27

Began studies in 2005

After a pleasant (Aspirant) Former Active Members Dinner, I already noticed a board member sneaking around trying to persuade one of the attendees to accept the honor of writing an article for Nekst. Whereas during my studies I was known as the girl that would not resist another (free) wine at an Asset | Econometrics drink, I realized while writing this article that I turned into the girl that would not (or could not) resist to write this article.

records ranging from committees to board member experience. Whereas (being kind of a tradition, as I was told) most recent boards

irresponsibly drunk attendees or committee members and stories for which you should have been there to understand.

'We are not optimizing our most fertile years'

I will not bore you with flashbacks of my very pleasant time as editor of the Nekst in my freshman year and will skip straight to the goal of the evening: catching up with econometrician friends, in my case from the TEV (Tilburgse Econometristen Vereniging) era. For this occasion, we met up in a restaurant called 'Brasserie & ZO' in the lovely city of Houten on a Saturday evening in October. Before revealing the latest gossips and fun facts, I would first like to thank the current board for organizing the evening close to Utrecht. Despite all charms Tilburg has to offer, most attending alumni have moved to the 'Randstad' after having finished their studies and were delighted to meet each other close to home.

Now it is time for some statistics: the activity was visited by approximately 25 econometricians, with ages ranging from 20 to 30+ and track

were present at the event, board year 2009-2010 was standing out by not attending the event... Be sure not to miss out next time, guys! When it comes to the types of econometricians present, it seemed that the QFAS track was far better represented than the ORMS track. All attendees together only have one child and one child 'on the way'. We are obviously not optimizing our most fertile years, girls. Most attendees have a car, whereas the majority came to the event by train. I expect some significant correlation with planned alcohol consumption.

While dinner was served and recent career moves were discussed, some attendees who majored in ORMS talked about optimizing the distribution of the side dishes. Some things never change! Another frequently discussed topic was study tours. Apparently, almost every study tour contained some

After having enjoyed a nice meal and some delightful glasses of wines, we finished catching up and continued to a (pretty lame to be honest) bar next door to end the evening. Hopefully next time the event will be hosted at a place close to some nice bars, since most alumni were up for partying afterwards (but were let down by the pubs present in Houten city, which were nothing compared to the bars we remember from our student past). I look forward to see all alumni at the next Former Active Members event and suggest we will party afterwards like we did back in 2005 (or insert the year you started studying here). ●

THE TEACHER



A Revealing Interview

On a Wednesday afternoon, Vince and I met up at the Koopmans building to visit professor Etienne de Klerk. Neither of us knew much about this professor who has been teaching Linear Optimization for two years now, but we were determined to get to know him at least a little better. What followed was a revealing interview.

Text by: Steffie de Roover



Etienne de Klerk
Full Professor

About Etienne

Etienne welcomed us heartily in his office on the fifth floor of the Koopmans building, immediately apologizing for his somewhat creaky voice. He had fallen ill a few days ago and he was still recovering. We reassured him that the interview would not deplete his voice completely. Since we had so many questions to ask him, we started right away. Already at the basic introductory questions he surprised us with the answers that he gave. Of course we noticed an uncommon accent in his speaking, but how could we ever guess that he was South-African?

Born on December 24, 1968, Etienne was born and raised in Pretoria, a city near Johannesburg. He studied Physics and Technical Mathematics - a double bachelor degree - before moving to the Netherlands at the age of 25. The reason he came to the Netherlands? A teacher from the Technical University of Delft was traveling through South-Africa to recruit PhD students and crossed Etienne's path. At this time, apartheid (the racial

segregation system in South-Africa) had just collapsed and it was difficult to find a job for an Afrikaner (white person) in the changing society. Etienne thus seized the opportunity and moved to the Netherlands to start his PhD in Optimization.

Directly, we asked him what his first impression of the Netherlands was. Well, he had to learn how to cycle again - which is quite challenging if you have not done it since your childhood. Not only did he master cycling rather quickly, he also learned some Dutch. As it is quite similar to Afrikaans, it was not so difficult to speak or read it. Already in primary school in South-Africa, they were reading books like Koning van Katoren (an awarded book by Jan Terlouw). Etienne explains, however, that understanding spoken Dutch caused more difficulties. Watching TV was a remedy to acquire a large vocabulary:

he watched the news to practice and the words he would not learn from the news, he learned from the Dutch soap 'Goede Tijden, Slechte Tijden'. This show was quite often shown in the student house he lived in, he explains. Etienne also mentioned the differences in culture. Being used to a somewhat closed British culture, it took some time getting used to the Dutch open culture. When we ask what he prefers, he says that if you know how the system works, it is quite convenient. You know your exact place while interacting with the Dutch, as they do not mince their words.

Globetrotter and international differences

Upon finishing his PhD in Delft, working life started and ever since, Etienne has been a teacher at several universities across the globe. Besides having been a teacher in Delft, he has also traveled to



Canada and Singapore to teach. He was only in Singapore for a year, as there are quite some differences when it comes to university life there and here in the Netherlands. Etienne: "Firstly, the students in Singapore spend about double the hours studying when compared to an average Dutch student. Singaporean students aim to be in the top 1% of their class, pressured by their family. Sounds like the perfect students for a professor, but that is not completely true. Though they work extremely hard, Singaporean students are much less independent and cannot handle assignments without a clear instruction. Dutch students are cockier and are more outspoken in their own opinions."

Etienne then explains that the intense pressure in student life in Singapore does not only hold for the students. Teachers themselves are also submitted to hard work and high requirements. In addition, the hierarchy is almost military-like in Singapore. Hence, Etienne decided to come back to our tiny country. He feels more comfortable in the open structure and flat hierarchy here. This seems the end of our topic on Asian versus European culture, though we ask one more question out of curiosity. If performance in terms of grades is so important, do they not deem extracurricular activities important? Etienne explains Singaporean students actually do so, although for different reasons than Dutch people do mostly. Where we actively participate in student life to improve our résumé, the students from the Singaporean school had to prove they had done something for the university to be able to live on campus. As living on campus is quite wanted, this resulted in activities such as the founding of a group to feed the stray cats at university.

First-year vs Masters

After his time in Singapore, Etienne came back to the Netherlands. He got married and spent a year teaching in Canada. Eventually he ended up working at Tilburg University. Here he does not only teach first-year Bachelor students in Linear Optimization, but also Master and PhD students in the Mastermath program. We can imagine this must be two different things and we ask Etienne about which he prefers. De Klerk: "I like both. Where Master or PhD students actively participate and ask thorough questions, first-years are young and enthusiastic."



Teaching to either one of the groups is completely different, which makes it most fun."

Extraordinary pastimes

Besides his (academic) career, we are also really curious about the professor doctor's private life. We ask him what he likes to do in his spare time and for the second time this interview we are surprised by the answer. Etienne tells us he likes to scuba dive, which is not really a standard hobby. He picked it up as a student in South-Africa, where he would go and see the most beautiful corals. Since he has been in the Netherlands, unfortunately, he only goes scuba diving on holidays. Did he ever try it in the Netherlands? Etienne: "I did it once, exploring the Oosterschelde under water, but it is definitely not the same as in my home country. It is dark and cold and all you see are crayfish."

Since he is not scuba diving all the time, we ask Etienne whether he has any other pastimes. When we thought we could not hear any more extraordinary things, Etienne tells us he plays the flamenco guitar. For the ignorant among us – I admit I was – this is an acoustic guitar with a distinct sound and technique used in the Flamenco music (and dances). When we ask whether he also picked it up in South-Africa, he denies this. "In my student house in Delft, there was always a guitar lying around and that is where I found my love for playing the flamenco guitar." Though there are quite a lot of flamenco guitar players in the Netherlands, you have to be Spanish to really excel at it, Etienne explains.

Wise last words

Deciding not to stress Etienne's voice any further, we ask him one final question: if he could give a word of advice to econometricians, what would it be? To start, Etienne tells us that he thinks it is better if a student is a bit cocky then when he or she is quiet, continued by saying: orient yourself on what you want to do later. Is it a job at a company or at university? A big or a small company? Do you like programming or contact with the client? Moreover, he claims that doing an internship often helps in finding out at an early stage what suits you best. ●

Bert & Ernie Questions

Bert or Ernie?
Ernie

Education or Research?
Research

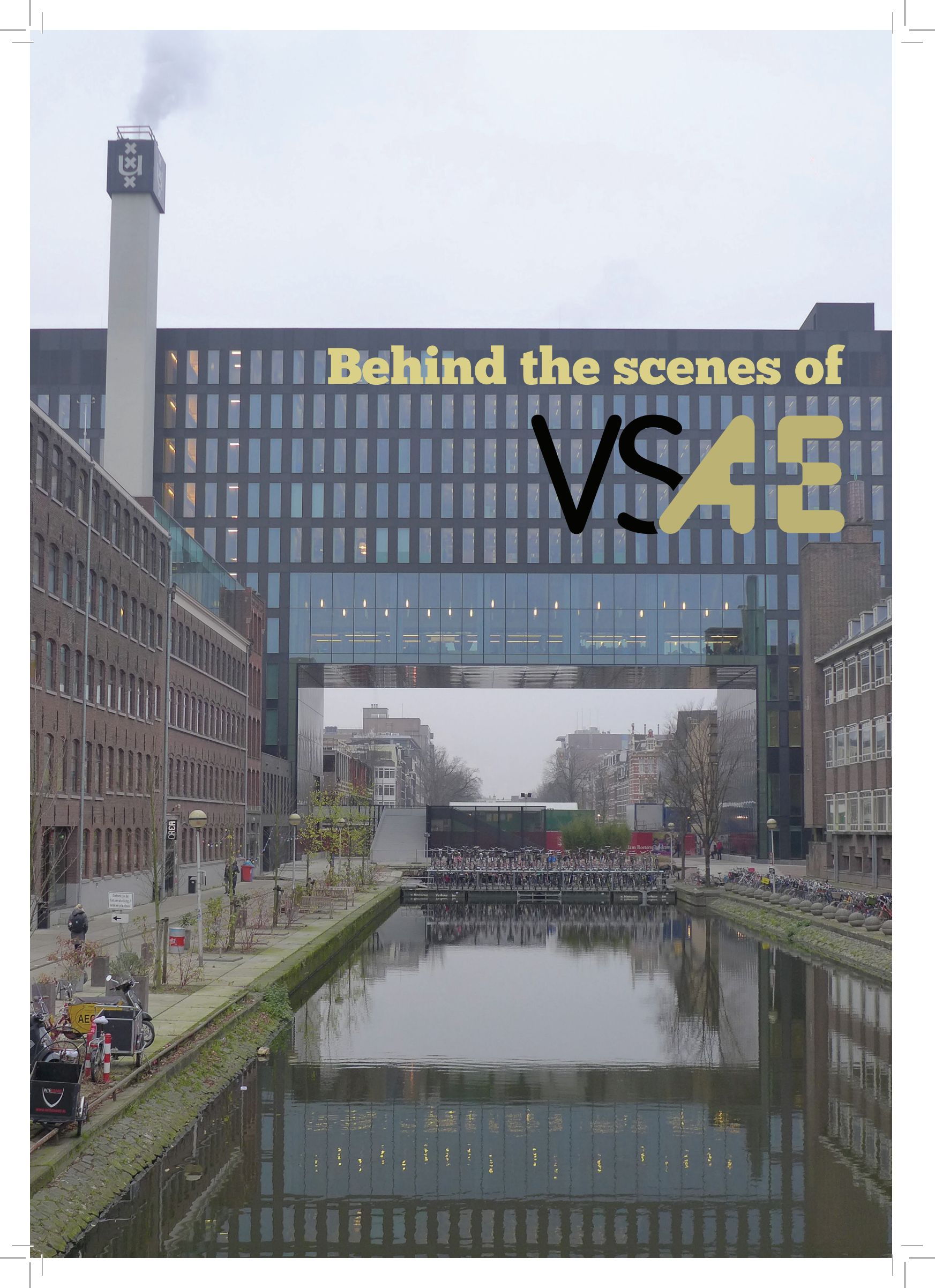
Cinema or Theatre?
Theatre

Student or Scientist?
Scientist

Pancakes or Fries?
Pancakes

Word Finder or Sudoku?
Sudoku

Carnival or Christmas?
Christmas



Behind the scenes of VSAE

Anecdotes from Amsterdam

In contrast to previous interviews with study associations, Anouk and I did not have to go through a lot of trouble to arrive at our destination. The reason is that VSAE actually came to Tilburg for the BID: "Board Integration Day". We asked Kasper (Chairman), Glenn (Vice Chairman and External Affairs), Aletta (Secretary and Internal Affairs) and Nousjka (Treasurer and External Affairs) about all the ins and outs of their study association, the VSAE. Text by: Mike Weltevrede

VSAE is short for "Vereniging Studenten Actuarial, Econometrie en Operationele Research". It was established in 1963 by a group of friends that wanted to do something besides their studies. Originally, the association was only based on informal activities. However, since twenty-five years, the study association also focuses on more serious matters. As Kasper states: "Everything starts off small." The Bachelor in Econometrics is only offered in Dutch, but all Masters tracks are only available in English. As opposed to the three possible Master programs in Tilburg, the University of Amsterdam (UvA) offers five Master programs: General Econometrics, Financial Econometrics, Mathematical Economics, Big Data & Business Analysis, the Free Track and Actuarial Sciences & Mathematical Finance. They have actually recently dropped the Operations Research Management Master program.

Quite obviously, Amsterdam is a much bigger city than Tilburg is, leaving us to wonder what it is actually like to live in such a big city. What do you think?

A: "Well, everybody thinks that Amsterdam is a really big city, which it is, but it actually seems smaller than it is. This is because everyone seems to know each other. Student life connects us and you keep seeing the same people around."

G: "There are a lot of different people to meet and a lot of places to go. Of course, among these people there are some tourists as well, some easy targets to laugh at, or with."

K and A: "What is also nice about the UvA itself is that it lies in the city center of Amsterdam, so you do not feel as if you are going to some remote area."

One of the things that might repel people from Amsterdam are the high prices for the lodges. What I would pay for a studio here in Tilburg is the price of a regular room in Amsterdam. However, we were told that it is not that big of a problem. You can find a relatively cheap room via DUWO, but you do have to make sure that you subscribe quickly and that you do not set your hopes and demands too high. Kasper claims that the disadvantage simply is not big enough not to study in Amsterdam. Everything is just more expensive over there.

Even though VSAE does not have a specific hangout, they do organize their monthly drinks in one specific pub: De Heeren van Aemstel. The pub even opens especially for VSAE, as it is generally closed on Tuesday. It is however not the perfect place to go out, so therefore at approximately 00:30, some sixty to seventy people cross the road to go to some other cool café and sow their wild oats over there.

In contrast to Asset | Econometrics, you change boards at the start of February. What do you think are some advantages and disadvantages of this?

A: "Well, September is obviously one of the busiest months. You have to →



welcome all freshmen and such. Since we already have half a year of experience, it is much easier to accomplish this, while still performing your actual duties. You are simply much more prone to make mistakes if you start in September and do not have that much experience yet."

G: "One of the biggest advantages for me is that I only lose one summer. In your case, you lose two summers since you need to take care of two transfers. A disadvantage in my opinion is that you do start your board year halfway through your study year, but that is not so important as you can just continue your study afterwards."

A: "We also do not choose the board ourselves, actually. We have a special "Searching committee" to help us form the next board. This committee consists of Glenn and myself, members of the supervisory board and an external member."

So why did you become active and more importantly, why did you choose to do a board year?

N: "People had often asked me to become an active member, but it took quite some time before I succumbed. Everyone around me was active though. At one point, one of my friends had to quit and I kind of replaced her. I joined the board of VSAE because I was tired

of studying. Besides that I just found being active a lot of fun and I wanted to continue experiencing this excitement."

A: "I met a lot of people during the Introduction Day of which most also became active members. I decided that I would become active too and joined the Party Committee. I enjoyed my time as active member a lot and it was a logical step to also do a board year. I knew everyone within the association very well after being active for two-and-a-half years. That is also why I chose to be responsible for Internal Affairs."

G: "My story actually resembles Aletta's story a lot. I also got into the Party Committee from the start and found it to be a lot of fun. I joined the board mostly because it is good for self-development with regards to social and personal affairs and because the VSAE is a great organization."

K: "A friend of mine actually became the Internal Affairs at some point and convinced me to become an active member of VSAE. In the beginning, I did not enjoy being an active member that much, but I started to like it more and more over time. I liked it so much that I felt that a board year was the right move for me to make."

Something that you may have heard of is the Econometric Game. During this

event, participants are presented with a case, which they solve over the course of two days, after which the finalists are presented with a second case. The Econometric Game actually started off as a competition between the UvA and the VU (another university based in Amsterdam), but over the course of time, participants came to join this event from all around the world; from England to South-Korea, from South-Africa to Singapore. The unique thing about the Econometric Game is that the subjects are related to society and research, showing that econometricians are not solely focused on money. Kasper tells us that even though there is no prize for the winner, except for the coveted title of Econometric Master (year x), everyone is extremely zealous and fanatic, which does provide for a feeling of satisfaction.

After this interesting conversation it was time for Anouk and our esteemed interviewees to join the boards of the other Econometric study associations for the Board Integration Day. I would like to thank Nousjka, Aletta, Glenn and Kasper to free their schedule a bit for us and to let us in on all kinds of juicy details. I wish them good luck in their last months as the board of VSAE. ●

From left to right: Glenn, Nousjka, Aletta and Kasper



Politics, Art and Mathematics

Politics and Art are like Siamese twins: one cannot be without the other. Politicians use Art to convey their message to the people. Whether it is Italy's pompous architecture from the fascist era, North Korea's immense statues of the Great Leader or republican France's Marseillaise, Art has been commissioned by the state to reinforce the image of the group that happens to be in power.

The other way around, artists use their Art to put political themes into the spotlight. This can happen covertly, like Shostakovich's music, or very publicly, like Picasso's *Guernica*. Satire, like Orwell's *Animal Farm*, is a very potent method of conveying your displeasure with people in power.

The question whether it is legitimate (whatever that means) to appreciate a piece of Art while at the same time fully disagreeing with the Politics behind it has led to many heated debates. Shelves full of books have been written about whether it is somehow "wrong" to listen to Wagner's operas, in which he incorporates the anti-Semitic theme that is present in most of his polemical writing. Frankly, I think it is rather absurd to conclude that by listening to Wagner's music, I somehow endorse the very unkosher views that he happened to hold. The correct conclusion would be that I am of the opinion that

he simply wrote monumental music that is worth listening to over and over again. Whereas producing Art can be a Political act if the artist so chooses, appreciating Art is a private affair. I guess Picasso's work, rather than his views, was also appreciated by Spaniards on the falangist side of the civil war.

So what about the relation between Politics and the Art of Mathematics? Mathematical models of voting systems abound, in a field referred to as social choice theory. With the advent of the European Union, in which institutions had to be designed from scratch, research activity in this field has exploded. Moreover, political parties use advanced statistical techniques to identify and then target key voters, especially in non-proportional electoral systems. Analysts use statistics to predict election results (a field called psephology). Governments use statistics to back up policy initiatives. As Jorge Luis Borges put it: democracy is an abuse of Statistics.

When as an econometrician you read or listen to the news, it strikes you that statistics are nearly always quoted out of context in order to defend a political position or track record. "Our plan for recovery is working, because exports are up 1%", "Under the previous government, investment in education was €400 million lower" and such statements are typical

for a politician's use of statistics. Never mind that in the meantime investment has collapsed or the number of pupils has risen considerably: statistics have the aura of being an objective measure and should therefore be taken at face value.

Should we as econometricians be worried about such blatant abuse of Statistics? Well, not more than our fellow citizens, I reckon. Making selective use of data is a scientific sin, but in Politics such behavior should be considered as a form of Art. Just as Picasso shows us what he wants us to see, Wagner composes what he wants us to hear and Orwell writes what he wants us to read, it is the politician's prerogative to let voters believe what they want them to believe. Whether we appreciate this politician's Art is, again, a private affair. Of course we are perfectly entitled to agitate against it and become politically engaged ourselves. Or we could simply ignore it, relax and listen again to Wagner, whose fairy tales are much, much more enjoyable. ●



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ASSET



Econometrics

International Business Tour **New York 2014**



Visiting the CITY that Never Sleeps

Last October twenty-four students, and our children's toy dragon called 'Bitch', got the chance to visit The Big Apple. The place we see in all those movies and pictures would finally become reality to us. Of course, we were proper tourists and visited most of the mainstream attractions; however we did numerous other amazing activities as well. Now we are back in the Netherlands and Juul and I (also known as 'De Eenheid') are happy to share our experiences!

Our amazing trip started pretty early in the morning at the Professor Verbernelaan. A touring car would pick us up and take us to Brussels Airport, where our seven-hour flight would take off only a few hours later. The flight was not bad at all, as everyone had a private screen to watch movies or play games and the flight attendants would not stop bringing us free drinks. Immediately after landing we spotted our first 'true American', or in other words, someone who was incredibly overweight. One of the first things everybody started to notice, while walking through the airport, was the huge amount of people who have a job that could just be replaced by a simple sign pointing people in the right directions. There was even

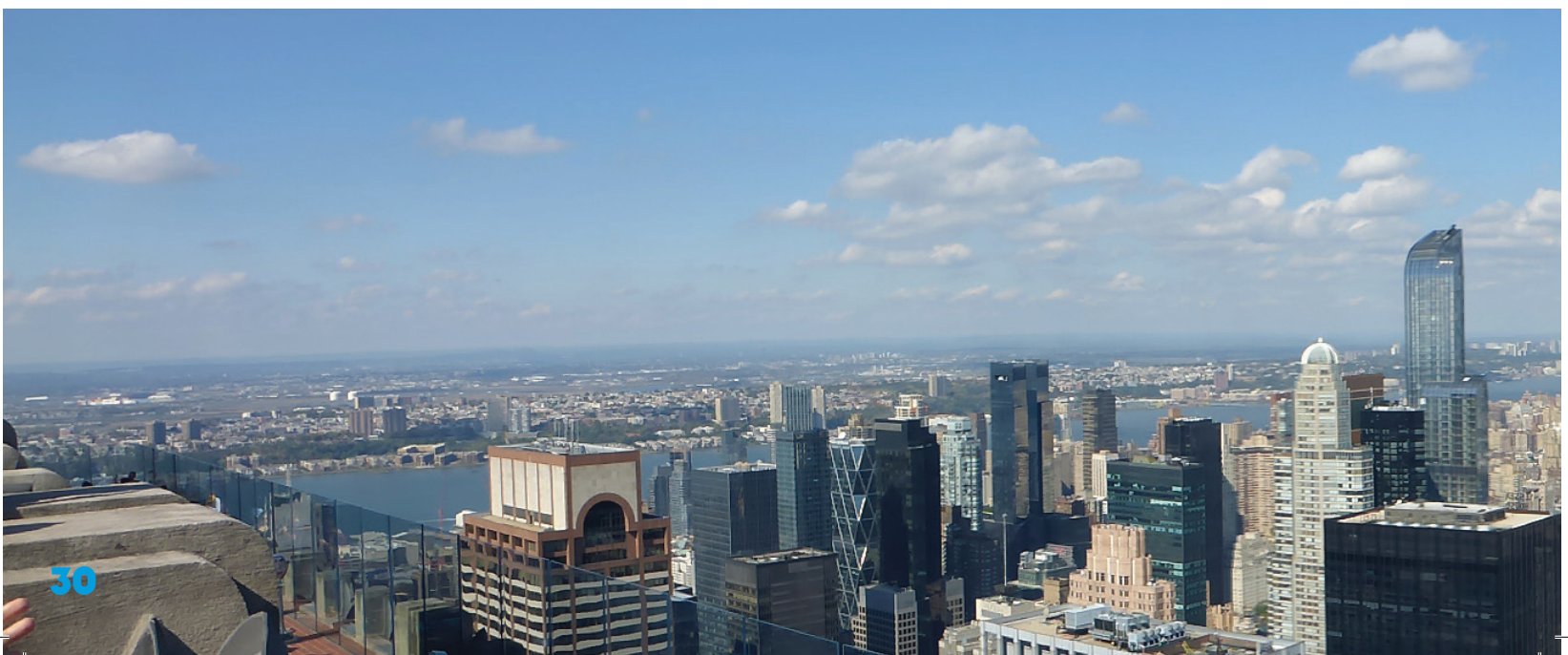
someone whose entire job consisted of telling people to stand closer to each other while waiting in line for a passport check.

When everybody was accepted into America, we headed to our hostel. Unfortunately, the committee could not buy our metro tickets with a credit card, so we had to spend approximately half an hour in a shady metro station which smelled like, and offered, lots of unhealthy food. After a while people got bored and went on to the streets for a first glimpse of New York. This was pretty impressive and obviously a lot of pictures were taken. By the time everyone was downstairs again, the tickets had been bought and we could take our first metro

ride! Finding the right metro was a bit of a challenge, but after a short while we arrived close to Central Park. Our hostel was located just around the corner, in a nice quiet street with many trees.

Our accommodation for the week

There was a nice young man who welcomed us in our hostel and told us we could not take our luggage up to our room. This was somewhat inconvenient, because we had to leave our suitcases in a small room in which a maximum of ten suitcases could be opened simultaneously. Since everybody wanted to get stuff from their suitcases this caused a bit of trouble, but in the end we all arrived in a room carrying everything we needed. Anouk and Cleo got lucky



and had a room for themselves, while the others had to share a room with either ten or twelve people. Each room got one bathroom, which led to the next problem. Immediately, everyone started to worry, because how do you share one bathroom with eight boys and four girls? Luckily all the boys managed to shower in less than three minutes, which was a big plus, and at the end of the week we realized that sharing one bathroom had not been a problem at all.

Coming back on the subject of sharing a room and bathroom with boys and girls; there were quite a few moments when the ladies wished they could have slept on the all-female-floor above us. Especially, when you are sleeping peacefully, but are woken at six in the morning because someone is farting really loud. Also, later in the morning while getting ready for the day, we would get gassed for the second time. However, this second time it was not by farts, but by the boys who would all take out their deodorants and apply it happily all over the room. Luckily, there were not just downsides to sharing a room, but there were also some positive things. For example, we could enjoy the view of their six-packs the entire week, since our boys were not exactly shy while undressing.

First impressions

Getting back to the main subject of our article, let us talk about our first night in New York, as we split up in smaller groups and went out to explore the city. Together with some others, we went to Madison Square Garden. What we did not know was that the New York Rangers



would play an ice hockey game in an hour and that the entire square would be filled with people in blue, red and white. When we saw all the excitement, we were absolutely sure we had to visit one of their matches as well and entered the stadium. Willem and Dirk set out to find tickets, but came back empty-handed. However, on Sunday there would be another match for which we were still able to get some tickets, so we decided to come back Sunday and try again then. By this time we were pretty hungry, so we started looking for a restaurant. We found a pretty cheap Vietnamese restaurant not too far away, but the main reason we went inside was the beer price, which was incredibly low for New York standards. We enjoyed a

nice meal, but afterwards everyone was pretty exhausted since it had been a very long day. Therefore, we went back to the hostel and went to bed early.

Sleeping in turned out to be impossible in New York City, since we were woken by traffic sounds as well as bird sounds at 07:00 in the morning. Everyone happily got out of bed to enjoy our first American breakfast. We set out in small groups to several different eating locations, as the entire street consisted of places where you could eat or drink large amounts of coffee. We ended up in a shady looking eating joint. However, the food was not bad at all and also not that expensive. After breakfast it was time for our →





very first tourist attraction, better known as the Federal Reserve Bank of district 2. Here we got a guided tour and we learned a lot about the monetary system of the United States. However, to be honest, the most exciting part about the tour was the view of the world's largest gold deposit. If you had small fingers, you could even touch it! When the tour was finished we went to the observation deck of the GE Building skyscraper, also known as 'The Top of the Rock', but not before enjoying some lunch. We wanted to live the American life, so we bought hot dogs at a stand next to the road. This turned out to be a disaster, because we paid four dollars for a cheap bun with an even cheaper sausage on it. However, the sauce was for free!

Being true tourists

During our second day we would visit the Statue of Liberty and Ellis Island, which has the immigration station complex situated on it. We were proper tourists and some of us even bought a Statue-of-Liberty hat. The statue itself was nice to take pictures of, and the skyline of Manhattan looked amazing from the ferry. However, the immigration station could not interest all of us, since a part of the group was outside trying to sunbathe, meanwhile trying not be eaten or pooped on by gulls. We took the ferry back to the mainland, where a dance show was just about to start. Unfortunately, the committee had no interest whatsoever in watching it, so some of us just followed them in a small polonaise. We made our way to the 9/11

party. There was a continuous flow of food and we just kept eating and eating. After a delicious main course, we had pretty high expectations for the desert. When the first plate arrived, filled with two slices of both melon and tangerine, we were still excitedly awaiting the other plates. Sadly, they never showed up, so everyone had one small piece of melon and a quarter of a tangerine as dessert. Nonetheless they did taste good, so that was a plus. After everyone's stomach was filled with food, Ernst asked for the bill. However, this turned out to be a hard task for the waiting staff. Our waitress was close to tears, so she just decided we could have our last drinks for free. Besides, our entire bill seemed to be much cheaper than expected, which was another plus. Next, when we left the room to go for a drink elsewhere, all the party people in the room started cheering and applauding us.

'Sleeping in turned out to be impossible in New York City'

Anyway, the view on the observation deck was really impressive. You could see Central Park and Times Square and numerous other buildings. After forty-five minutes of taking pictures and making selfies, we went back down again, as it was time for our very first company visit! We visited the Netherlands Club of New York, where we received a talk from KPMG. It was an amazing old-fashioned building with beautiful decorated rooms and a lot of stairs, which the high-heeled girls obviously did not enjoy. However, we did enjoy the talk and some free drinks sponsored by KPMG. Soon it was time for dinner, and the troublesome journey of finding a place to eat which we could actually afford started all over again.

Memorial on foot, which gave us our first look at Wall Street. It was very crowded at the memorial, but that did not make it less impressive. Everyone got some time to look around on their own. Afterwards we decided to get back to the hostel to get ready for the evening.

The party crash, the gay bar and the hike

On Saturday evening we would enjoy our first meal together in China Town. When we had finally found the place, it turned out there was a big family party going on. Apparently, someone had just given birth and so we happened to be present at a baby shower. While being split up over three tables, we joined the

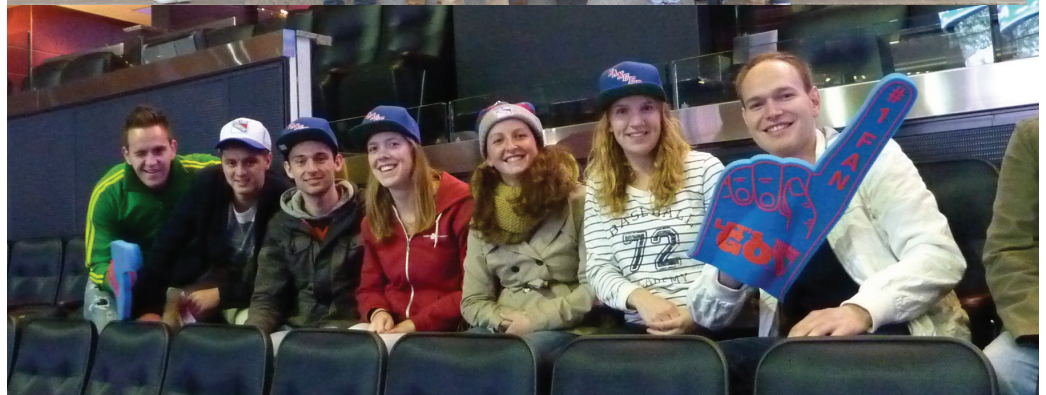
After a short walk through China Town, which was not very impressive, we started looking for a bar large enough to fit us all. We found a suitable candidate and spent a few hours there, drinking beer and enjoying each other's company. From time to time small groups of people left to get a good night sleep. Meanwhile, the 'Die Hards' (consisting of 'De Eenheid', Jan, Jim, Jeroen and Yannick) got somewhat tipsy. Around 01:00 we went outside and our drunken search for a cool night club began. Pretty soon we found a trendy looking club and it was only after ordering large beers for everyone that we spotted some guys making out and realized we were in a hardcore gay bar. We should have realized it earlier, since there was

a naked guy dancing on the bar and the staff was wearing sparkling speedos only. While trying to drink our beers as fast as possible, our boys got a lot of unwanted attention, especially Yannick was very popular! However, as us girls wanted some attention too, we left this 'special club' to search for something more appropriate. Upon leaving the club, we texted Ferry, Dirk and Tim the address of the club, saying we found a very nice spot, as we did not want them to miss this experience!

What was supposed to be an amazing evening out, turned out to be more like a hike of the girl scouts, with the only difference being that we were drunk and girl scouts are not. We asked lots of people for directions, but none of them led to an appropriate place. We did however see a lot of New York at night and actually had lots of fun, for instance by spending our time singing and making bird sounds. After forty blocks and a few streets we lost hope and decided to go back to our hostel. Luckily, the other three students did find a club, so they also had a great night out.

Fast forward

On Sunday morning we went to Central Park to enjoy the view from a rowing boat. In groups of four we spent an hour on the water and in the sun. It was very relaxing, unless you got hit by other groups and fell off your bench. Afterwards we went to visit the High Line. The High Line is located on a former elevated railroad in the Chelsea neighborhood in the lower West Manhattan. The High Line offered a spectacular view on the streets of New York and it was a perfect way to get over your hangover from last night. When we reached the end of the High Line, we had the rest of the day off and we rushed to Madison Square Garden to try to buy some tickets for tonight's match. Upon arriving at the stadium, this turned out to be easier than expected. We had five seats next to each other in the first ring, so we were very lucky. After buying some fan gear to cheer the Rangers on, we entered the real stadium and soon the match would start of. It was amazing to experience something like this in real life and for most of us it was one of the highlights of the week. It was three hours of pure entertainment and we witnessed the fastest back-to-back goal of the Rangers, with only four seconds between the two goals. →





Brooklyn Heights and Times Square

For the first time ever, our plastic toy 'Bitch' got the chance to really experience New York City, because we took her with us on our Brooklyn Heights tour. We met up with our tour guide, who happened to carry a light saber, an hour later than planned. In this hour we wanted to chill in Columbus Park, which was described in our travel guide as a park full of screaming children and women playing cards. However after ten minutes of playing cards, an attendant who was utterly surprised that someone had entered the park came to us and told us we could not be in there, so we had to find another way to kill time. When the

tour finally started, we walked through Brooklyn Heights and saw all of its highlights. We now know of every building which celebrity couple has tried to move in there and we ate some delicious chocolate in a famous store. It was nice to see a different side of New York City and to be able to cross a street without fearing for your life.

After the tour, we walked back to Manhattan via the Brooklyn Bridge and we had the rest of the day off. 'De Eenheid' used this opportunity for a good day of shopping in Soho. Afterwards, we went to a restaurant called 'Vapiano', where we met up with some of the other econometricians. When everyone had finished their meals, we all went our separate ways. Some people went to a comedy club, Jan wanted to go to a jazz club, there were people who went to a musical and the rest decided to go back to the hostel to drop off our stuff before going to Times Square. This was the first time we would see Times Square, so obviously we were pretty excited. We took many pictures, spend a lot of time in Toys"R"Us (where some of us went on the indoor Ferris wheel ride) and walked around the square for an hour or so.

Companies everywhere

Our last few days were all about visiting companies. We went to Pointlogic, APG, Columbia University and ended with a

visit to Moody's. When the presentation at Moody's had ended, our host took us to his favorite bar and treated us with lots of beers. We happily accepted this, because the beer price in New York is pretty high. When everyone had had enough beer, we went to a typical American burger bar, where we all ate really big, greasy burgers covered in fries. When everyone felt really fat, it was time to get back to the hostel and put on somewhat more comfortable clothes, because it was time for our pajama beer cantus. Everyone came together in the lounge of our hostel, where we started singing all kinds of songs until we got complaints from the staff. Then we started playing other silly games and we had a great last night together with the entire group.

The end

The last day should have included a brunch in Central Park, but it got canceled because of the bad weather. We all spent the last morning doing whatever we wanted and getting food, after which it was time to get back to the airport for our six-hour flight back home. Luckily, we got a little upgrade and we had more space in the plane, so it was a perfect end of a perfect week. ●



Burning some Calories with Several Ball Games!

The first sport activity took place on Monday November 3. Beforehand the committee told us that the activity would consist of playing several ball games. Therefore, everybody who wanted to burn some calories from either the COdE beercantus or a good night out, or those who just like to play some ball, should have subscribed for this activity before October 30.

We had to gather at the Sports Center of Tilburg University at 14:45, so that we could start with the games at 15:00. There were twenty-five people who joined the sports activity and the Sport committee had already made five groups of four people and one group of five people. When the activity started, we all had to find our own group and the first exercise was to make a yell for your team.

The first game we had to play was called 'Hollandse Leeuwen'. Three 'lions' were chosen who had to lift the other people while they were running to the other side of the gymnasium. Once lifted, you also became a lion. The game was finished when everybody had been lifted and hence had become a lion. Afterwards, everybody was already somewhat exhausted, so the committee chose to do a less intense sport: blocks soccer. Everybody had to put their block in the field and the aim

two games of basketball and two games of floor ball, which is a type of hockey. All six groups were very competitive and wanted to win all of the games, so after a few matches everybody was sweaty, thirsty and hungry. Therefore the Sport committee arranged something to drink and to eat. Still being a sports activity, the committee arranged some healthy apples and bananas.

After these games it was time for the last game: dodgeball. As you need only two teams for dodgeball, the original groups teamed up. For those of you who do not know, dodgeball is a game in which players of two teams try to hit each other with a ball, while trying to avoid being hit themselves. After you are hit, you have to go to your opponent's field to try to pass balls back to your own team. Besides, every team had to put six blocks at the backfield of their playing field and

'It was time for the actual competition'

of the game was to hit the blocks of the other players with a soccer ball. If somebody had hit your block, you had to switch with a person who was not in the field.

Afterwards it was time for the actual competition! Every group had to play

you had to try to hit your opponent's blocks. When a block was down, all the team members who were hit, were allowed to come back to the playing field. The first team that had either hit all the blocks of the other team, or had hit all the team players of the other team, won the competition.



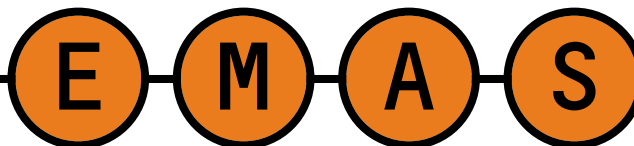
Moniek Verlinde

AGE: 21

Began studies in 2014

There were three teams who had won three out of the four basketball and floorball games that were played, but only one of these three teams had won with dodgeball and so they were the final winners. This was group 6, consisting of Floris, Tim, Laura and Christel. The winners all received a chocolate letter, which together formed the appropriate word SPORT.

I would like to thank the Sport committee, Ferry Adriaansen, Jeroen Pars, Anouk Verhagen and Roxanne Beerkens for this fun and successful first sport activity of this year! ●



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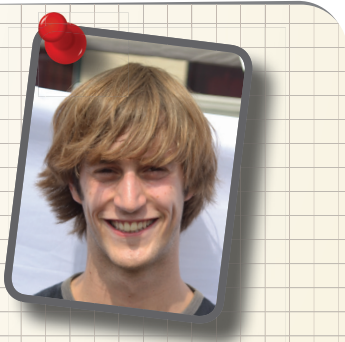
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**Zeger van
Nieuwenhove**

AGE: 20

Began studies in 2012

The Life of Monks: Brewing Beer

"Solely then thou are genuine monks, if thou live of the labor of thy hands." This is a quote from Benedict of Nursia, the founder of Western monasticism that influences the monks at the Koningshoeven up to this day. Yes, for this year's Active Member Day we visited a monastery!

As a day exclusively for active members of Asset I Econometrics, the activity remained secret up to the point where we entered the monastery itself, as tradition holds. However, it was not just any monastery we visited: it was the famous monastery in the Netherlands where Trappist beer is produced. This monastery produces one of the two Dutch Trappist beer made: La Trappe.

'Beer is to amuse, not to abuse'

First being a sheep cage, the monastery was founded in 1891. We learned this during a tour of the monastery and brewery, along with a lot of other things! For example, we learned that there are still sixteen monks living in the monastery, that the monks follow a daily scheme of seven services and prayers while working for the remaining time that they are awake, that the brewery has a yearly production of about 160,000 hectolitres, etcetera. Something else our friendly tour guide taught us: "Beer is to amuse, not to abuse!" In Dutch this translates to: "Bieren is om te genieten, niet om te gieten!"

After the tour, we were shown a short film about the life of the monks, during which we could enjoy our first La Trappe beer of the day. When the film ended, the real fun began: we would be having a beer tasting of almost all sorts of beer made by La Trappe. Including the beer we had during the film, we tried six out

of the eight kinds of La Trappe beer that exist. Ordered from light to heavy beer we drank: white, blond, double, Isid'or, triple and quadruple. Unfortunately the quadruple, last and immediately the heaviest with its 10% alcohol percentage, had to be drank pretty fast since we did not want to miss the bus and risk a walk back to Tilburg. It was not easy to determine a favorite of the six,

but this only shows that all of them were pleasantly tasteful!

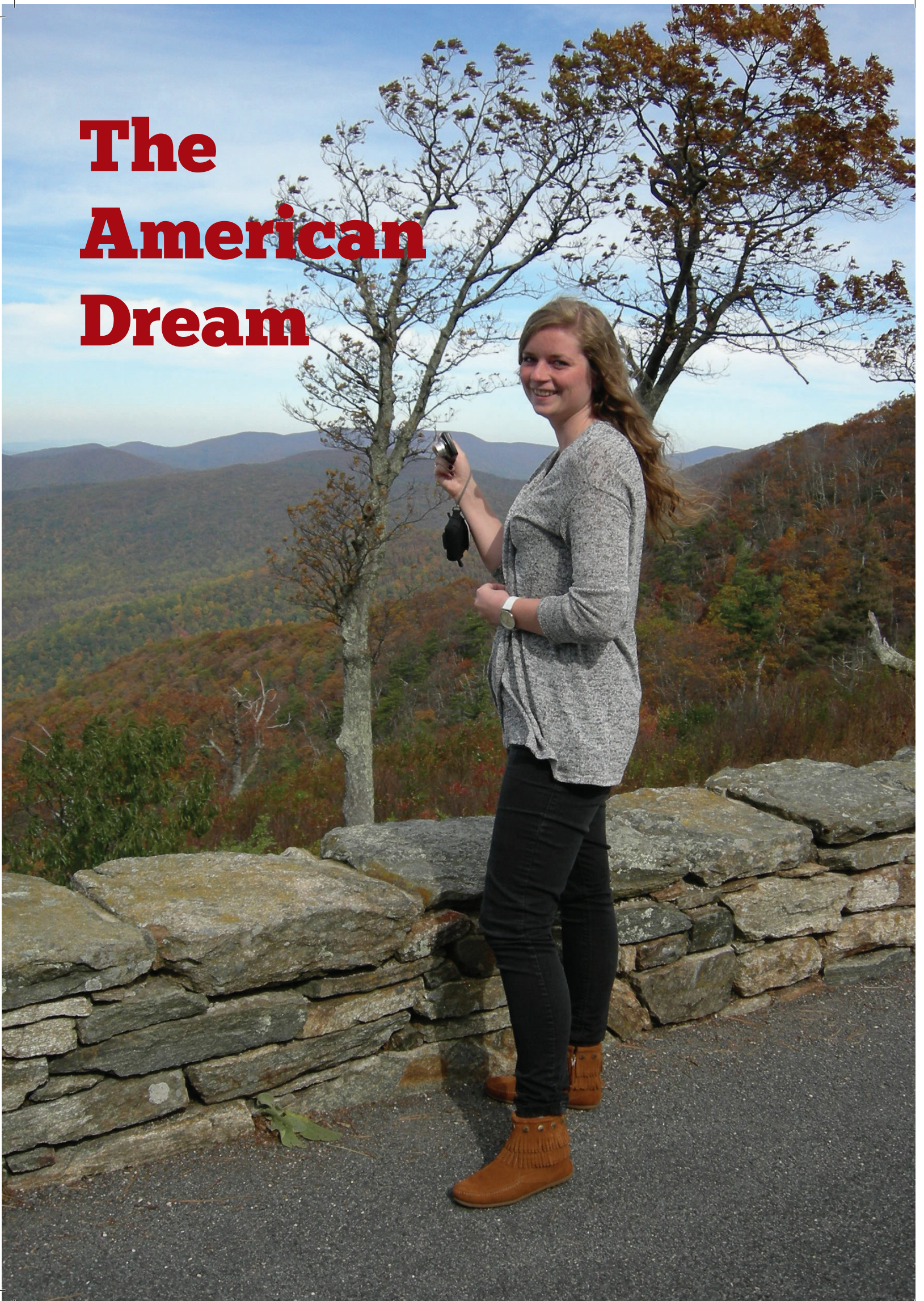
When we returned, our bunch of tipsy econometricians strolled towards Happy Italy. Here we ate a delicious pizza and some of the econometricians could let their inner child break free in the ball pit.

As if this was not enough for one day yet, the day ended with a short quiz where the winners would receive a large, immense, fantastic, beautiful, colorful, fabulous, marvelous, super, top notch, impressive, amazing, astonishing, brilliant, fascinating, expansive, formidable, interesting, luxurious, majestic, moving, noble, proud, sensational, spectacular, striking, awing, grand present. Jeannine Beker and Nicole Verbeek were the lucky winners of a six pack La Trappe double and triple bottles, respectively.

A big thanks to the (Active) Members Day committee consisting of Tim, Jelle, Rik and Anouk for this wonderful day! ●



The American Dream



For a long time I knew that I wanted to go the United States of America. This country has such a huge influence on the world, for example via the economy, in wars and in the TV industry. Through the news and films we all hear about America rather often, about their culture and their dreams. This made me want to experience it all. An exchange to North Carolina State University is the perfect opportunity turn this into reality.

After a gigantic amount of paperwork, arranging housing, getting my visa, booking my flight and saying goodbye to all my friends and family, it was time for me to go to the other side of the ocean. Early in the morning, I left Schiphol and after changing flights I was finally there. I arrived in the evening and went straight to my hotel, to rest in a king-sized bed after this long trip. The next day I had to go to the campus to get settled in my room, before the introduction week started. The NCSU campus is huge, so it took me a while to find my building. When I arrived at my hall, ambassadors were already waiting for me, in order to help me get to my room and to make sure I met the other students of my building. As I was one of the first exchange students arriving at the housing, everyone was brought to my room to be introduced. This gave me the opportunity to meet many of the students living in my hall on the first day. I did not have much time to unpack and to get some rest, because the next day the introduction period started; a week full of activities to get familiar with the American culture, studying at NCSU and all the other exchange students.

Living on campus

As I mentioned, I am living on the NC State campus. I live in a dorm, which is one of the buildings of what is called Global Village. Global Village is located at the center of the campus and consists of multiple

residence halls. Some of these halls are for people with a certain interest, for example art or engineering, and some halls are just general halls. Everyone who lives in Global Villages has a roommate, shares bathrooms and has a basement to chill with friends and fellow hall members.

I myself live in a hall for international students. This hall focusses on the integration and blending in of international students in America and wants to make sure that we learn about the American culture, habits and holidays. Every international student is paired up with an American roommate. This way there is always an American who can show you around and help you if you do not understand something about the American culture. Furthermore, this hall organizes many events for the students to get familiar with the American culture. These activities consists for example of talks, movies, an all-American dinner and pumpkin carving for Halloween.

Thus, when I got assigned to my room, I also got matched with an American roommate. Her name is Yaseline and now I have been with her for the past months, I know that I am very lucky to have her as my roommate. We get along great and have lots of fun together. Besides, we know that communication is very important when you have to share a room. When you are living together with someone in one room, it is also important to think about the little

things, for example keeping the room clean, not waking your roommate when she is sleeping, taking out the trash and trying to be quiet when you come in late. These things seems easy and straightforward, and for me they indeed are. However, this may not be straightforward for everyone, or for every culture. Therefore, like I said, communication with your roommate is very important.

Eating on campus

Obviously, students living on campus are also eating on campus. There are several places where you can eat, but the most popular one is the dining hall. In a dining hall you can eat as much as you want and you can get everything you want from the menu. The menu of the dining hall differs from day to day, but pizza, hot dog and fries are always on the menu. Lucky for me they also serve normal food besides the fast food. It is unbelievable what some of the American students eat; they keep amazing me with their choice of food.

The food on campus is something I really had to get used to. American food is similar to the food in the Netherlands, but the taste of food here differs a lot from what →



Senna Jansing

AGE: 23

Began studies in 2009



I am used to in the Netherlands. Everything here is either very sweet, contains lots of fat or is fried. For example, bread is sweet and salty here and also yoghurt is extremely sweet, unlike the sour yoghurt I am used to. Moreover, all the international students mix their sodas with water to make it less sweet and strong.

To compensate for their bad dieting, American students sport a lot. The gym is huge and has everything you can imagine. During the introduction week, we got a tour through the sports

complex and it took our guide one and a half hours to show us everything in the buildings. We did not even see all the fields that are outside! This amazing complex and the mentality of the American students encourages you to go to the gym as much as you can.

Game day

While playing sports is so very important in the United States of America, their favorite game is American Football. In the fall semester, every other Saturday is 'Game Day'. This means that there is a home football game which takes place in the

football stadium in Raleigh. People call these days Game Day because your whole day is solely about football. About three hours before the game starts, everybody (also people who did not get a ticket for the game) starts to tailgate. During the tailgate, people are getting ready for the game and start wearing university clothing. By playing traditional American games in the parking lot of the stadium, people are getting in the cheering mood. Just before the game starts there is a show of the university music band and they march in multiple figures, while playing music. When this show is over, the cheerleaders enter the field to do their tricks and to make the crowd excited for the game. Next, from both sides the team members of both teams come running onto the field, after which they can start playing. A game takes on average three hours and I do not know how they do it, but everybody keeps cheering until the last minute. When you are in the stadium, you will constantly hear the team/university songs from the audience.

The university clothing is not only worn on Game Days. Students also wear NC State cloths on the university campus, so everywhere you look you see their red color. This way students show there pride of being an NC State student. Most students also wear their university T-shirts and sweatpants to their lectures.

Traveling

One thing that is an important part of my exchange, and I think of everybody's exchange, is traveling. By seeing many places in the United States of America, I really got a good impression of how people live here. My traveling experiences started with a camping trip on the beach and a camping trip in the mountains with both international and American students. During these two weekends we enjoyed the sea and the beautiful weather here. We hiked in the woods and went to a waterfall.

Two of my American friends invited me and a couple other exchange students to their home and offered to give us a tour in the town they grew up. We were welcomed in their typical American home and family and we saw the local

places Charlotte and Ashville. During one of these two weekends we went to Scarowinds: an amusement park which had a Halloween theme at that time. In Scarowinds there was a rollercoaster in which you had to stand the whole ride, which was a cool experience. Also the Haunted Houses in the park were extremely scary and set up well.

In the beginning of October, all students had Fall Break, so we decided to go to Chicago with a group of thirty exchange students. We did a city tour through Chicago and saw the tourist highlights. It was awesome to see things from movies and TV series, such as for instance from the films 'Home Alone' and 'The Dark Knight'.

Shortly after coming back from Chicago, my mum and aunt visited me; it was time for me to show them America. This amazing trip of course started in Raleigh and on the NC State campus. After I had showed them my place and introduced them to all my friends, it was time to start our road trip through North Carolina. What made this trip so incredible was for instance

seeing the Great Smokey mountains, learning the history of the United States of America in Williamsburg and Jamestown, seeing dolphins swimming in the sea of Virginia beach, watching a wild bear in the Shenandoah and exploring the White House in Washington. The traveling of the past months has been such a wonderful experience. Therefore, I cannot wait for Thanksgiving break and the traveling after my exchange!

An amazing experience

During my exchange, I kept a diary in which I wrote all the little things that happened or the things that people said, and I took pictures of pretty much everything. There is so much that happens during an exchange and this way I can remember everything. It will take me some time to sort out all the pictures and make a photo album, but in the end I will have an overview of my exchange. These past few months have been an amazing experience, which nobody can take away from me!

I want to end this exchange report with a quote that Daniëlle van Dalen

posted on the internet because I think everyone who went on exchange can completely relate to this quote. "You will never be completely at home again, because part of your heart will always be elsewhere. That is the price you pay for the richness of loving and knowing people in more than one place." ●



LIVING IN LODGES



Four Econometricians in a Row

For this edition of Living in Lodges, we decided to interview freshman Anne Tacke, who currently lives at the Hogeschoollaan. She shares her house with several other students, of whom two happen to be econometricians themselves as well: Corné Ruwaard and Masum Rahman. Therefore, this was a perfect opportunity for us to pay a visit to the Hogeschoollaan. Text by: Max Kaumo

The house

When Ennia and I arrived at the complex, which is located more or less on the university's campus, we received a warm welcome from Anne and her housemates. There was some nice music playing and everybody at least tried to add his or her contribution to the dinner they were preparing. Neither cost nor effort was spared to create a vegetarian variation on the dish they had planned to make for us.

After arrival, we were given a tour through the house, during which we passed eight bedrooms. Something special I noticed was the difference between the decoration and feel of each of the rooms. It varied from an extremely tidy and sleek room full of guitar equipment (Corné's) to a room they all called 'het tentenkamp' (English: 'the encampment'),

named as such because its inhabitant (Masum) does not own a drying rack. This implied that the room seemed exploded, as every inch was covered by clothes. Anne's room itself had an enormous desk in it, about which she claims herself that every square centimeter of it is needed, 'to study'.



Anne Tacke

AGE: 18

Address:

Hogeschoollaan 126

Rent: € 327,-

Another room in the house that is worth mentioning was the storage room. This particular area roomed more guitar gear, stuff from old housemates and a television tower of at least seven old televisions. After finishing the tour, we set out for the living room where Corné poured me a Karmeliet (in an original Karmeliet glass) and Ennia was provided with half a bottle of Hugo wine. Then dinner, and hence also our interview, could start.

Their living room also contains quite some specialties. Except for a huge television with an Xbox, a stereo installation and an exceptional videotape collection, there is a little memorial for an old housemate, with some candles and an old picture of the housemate. There are also quotes everywhere on the walls. Apparently, the inhabitants of the Hogeschoollaan have a special group-chat in which they post all sorts of quotes of housemates which have been taken completely out of context. Every now and then they decide which are worthy enough for a permanent place on the walls.



The why and the how

It was quite clear for Anne that she wanted to live in lodges when she started studying, because traveling to Tilburg was just something she did not want to do everyday. This is quite understandable, because Anne is originally from Sittard, Limburg. This equals a travel time of one-and-a-half hours from door to door. Sittard is also the place Anne went to 'Trevianum', the high school where she got her VWO diploma.

After a few open house evenings, Anne had not yet found a room that really appealed to her. However, a friend of Anne named Julia was also searching for a room during the same time-period as Anne, who had just came across a nice house on the TiU campus. As it happened, there were two rooms available in the house at the Hogeschoollaan. Its inhabitants thought that Anne fitted right in, partially because there were already three econometricians living there in a row and she would become the final piece of a four-year quest to create a hallway of four econometricians (at that time, Pieter-Jan van Kessel was also still living there).

Anne's roommates only had one 'serious' remark about Julia and Anne, which is that both of them are from Limburg. This is something I have even experienced myself as well while living in Tilburg; any Limburg jokes that can be made, will be made. It is more or less a variant on Murphy's Law and it is safe to say that Anne's housemates are no exception to that rule. However, during our interview I

noticed that there was an open and playful ambiance in the house. This ensured that jokes could be made which you normally only hear in a cafeteria. It seemed to me like everybody was each other's friend, so we shared quite some laughs while I was there.

Specialties

One tradition of Anne's house is 'shoarma Wednesday', which came into existence when a new (vegetarian) housemate started living in the house. Another rather unwritten tradition of the house is throwing the most unusual objects from the balcony. To give you an idea: a microwave, shopping carts and Masum himself have all been thrown from the balcony already.

When I asked Anne if she had an object in her room which meant a lot to her, the name 'Meneer Schaap' (English: 'Mister Sheep') popped up. It turns out that her housemates had found out that Anne cannot throw away her stuffed animals. Therefore their plan was to completely fill Anne's room with stuffed toys, and 'Meneer Schaap' was a harbinger of what her housemates had in mind. However, owning stuffed toys is not that uncommon in their house. As it happens, an old housemate of theirs had stored a one-meter tall stuffed donkey in the living room for a couple of months after he had already moved out. Four years later, some of his possessions still remain in the house.

Having dinner together is something that happens quite often and I am the living proof that is not a bad thing with

chefs like Masum and Corné. Everyone likes to hang around the kitchen or the living room before and after eating, and I think this contributes to the house's easy ambiance. However, apart from Anne and Julia, the eight housemates do not often go out as a group. However, because every econometrician in the house is also an active member at Asset I Econometrics, they do go to Asset drinks together.

The house itself is often the place where everybody meets up and has a drink. According to the sensational stories that were being told to me, the house has been turned upside down from time to time. Nevertheless, this was not something that you could see while walking through the house. Everything was really tidy and clean, especially for student-terms. The only bizarre thing that I saw was the broken couch that was placed on top of another broken couch in the middle of the living room. Apparently everybody in the house was too lazy to dispose it, so it just stood there and people started using the stacked couch as a couch again.

A real econometricians house

As Corné and Masum were already active members of Asset I Econometrics, I asked Anne whether they had talked her into becoming active herself as well. However, Anne says that that was her own initiative. Anne: "I do not regret becoming an active member at all, as I have already met so many nice and outgoing students. I feel right at home here at the Hogeschoollaan and I think the upcoming years will certainly be entertaining."

All three econometricians try to help each other with their assignments and exams, but the amount of time they put into that is nothing compared to the time they spend making econometrics jokes. The only time that they are really serious is when they have an email conversation at 04:00, in the middle of the night, when they need to hand in an assignment the next day.

Coming to an end

After we blathered a little further about music and more fun stories, I was completely put to shame with my rather rusty FIFA skills. This seemed to me like a nice moment to go home and end the fun night we had had at their place. I hope they will enjoy the Asset I Econometrics wine bottle as a big thanks for the great dinner and evening. ●

Dress, Drink, Date, Dance



Kristel van de Riet

AGE: 20

Began studies in 2012

When eventually the sign stating “De Heuvel Gallery” became visible, the cold guests could heave a sigh of relief and fasten their pace towards the entrance. The door opened and immediately they could feel the comforting warmth and hear the music which was lighting up the atmosphere. Some people were already dancing on the dance floor, showing off their beautiful clothes. Others were talking and leaning on the standing tables, watching the dance floor and the band while enjoying a drink.

The band was playing and dancing on the stage in the spotlights, visible for everyone in the ballroom. A woman

of the band, who was wearing a dress that maybe did not cover all the usually covered body parts, was singing popular songs together with another man of the band, thereby making it impossible for everyone not to move their hips. Laughter could be heard, alcohol flowed abundantly, pictures were taken which some regretted later, hips were moving, couples were kissing and new love was blossoming.

from seeing her performing this ladylike act, she hid in the corner while her date kept watch. Finally they were properly dressed, so that they could blend in and join the party. I would have loved to tell you that these two students consumed extraordinary amounts of alcohol, that they did the craziest things, that they replaced the band, that Ariana Grande was also present at the party, that they could suddenly spit fire, but no. Nothing

‘Suddenly something terrible happened. There is no hero in this story’

Meanwhile in the guarded bicycle shed, a girl was trying to take off her charming Asset I Econometrics sweatpants, which she was wearing beneath her gala dress to face the cold. To prevent everyone

extraordinary happened. They had a nice time together and with their friends. But who can blame them? After all, they are econometricians.

However, around 02:00 suddenly something terrible happened. Something everyone knew would happen, but nobody tried to think of. No one could stop it, so everyone tried to forget it. There is no hero in this story. No one was brave enough to stop it from happening. It was inevitable. The lights went on and the music stopped. The party was declared over. The guests spread out over our lovely town, as they went home or kept on partying at other places. Nonetheless, every single one of them had to wait a year for another wonderful gala like this one. ●



One



Three



It was a rainy Tuesday in October, when many econometricians cycled through the city looking for their next dish, all meeting four new people at every course. After this great dinner, there was a lecture drink of KMPG at Café De Nachtwacht.

& Delicious Food

Christel and I decided to participate at the Asset I Econometrics Cycling Dinner. Next to our love for cooking, we liked the opportunity as freshmen to meet new econometricians. This activity actually starts a few days beforehand, as everybody is curious about which dish they will have to prepare. Christel and I had to prepare an Italian dessert, so obviously it was not difficult to choose: tiramisu! Preparing food in a student kitchen had its charm, as well as covering the table with a variety of tableware. After putting our tiramisu in the refrigerator, we planned our bike route to the starter and the main course.

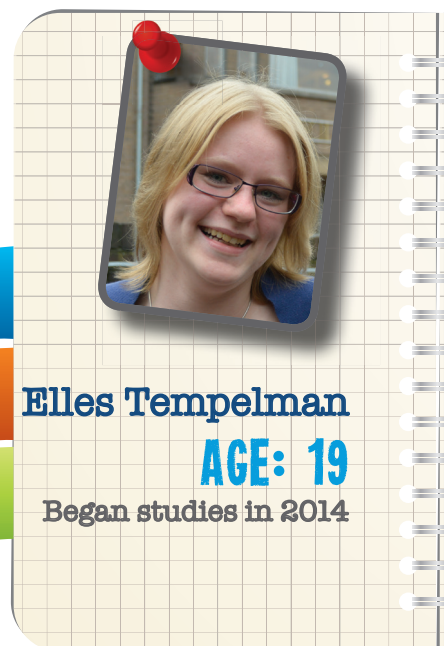
Our starter was a great French onion soup created by Ennia and Lotte, and Robbert and Celine were the other guests. The combination of baguette,

French cheeses and French wine was perfect. We talked a lot about food, econometric courses and our hobbies. It was quite cozy, so we easily forgot the time and we left too late after our starter. Luckily, the main course was not served yet when we arrived at our new location.

The second kitchen was from Floris and his two lovely rabbits. Floris and Jeroen are really two fabulous chefs. They had to serve an Mexican main dish. The Desperados and nachos with homemade guacamole were very tasty, and next came the highlight of the evening: the pie recipe of Floris and Jeroen. The secret recipe included wraps.

We had to leave a little bit early, because we had to serve our dessert. Luckily the supermarket was open until 22:00, so we still had some time to buy real Italian Prosecco. We arrived right on time in our kitchen. A few seconds later Anouk, Rick, Jeanine and Esmee arrived. Our tiramisu was a bit too soft, but the flavor was good. After this appetizing dessert we all went to the city centre for the lecture drink.

While most lecture drinks are organized by only one Asset department, this lecture drink of KMPG was organized by both Asset I SBIT and Asset I Econometrics. For us, it all sounded a bit vague, because we had only had six weeks of lectures in total before this drink. However, it did give us



Elles Tempelman

AGE: 19

Began studies in 2014



an impression about life after studying Econometrics & Operations Research. Not only was it a very interesting evening, we also had a very good time. Once more, we had the opportunity to meet new econometricians! ●

THE PASSION OF... BRAM POELL



Max and I picked a date that could fit the busy schedule of freshman Bram Poell. We were eager to meet up and hear the story of this soccer talent, so we met on Wednesday November 19. We planned some dinner beforehand and many drinks after, since we suspected his story might be a long but interesting one. Right we were!

Text by: Vince Dentener



Bram Poell

AGE: 23

Began studies in 2014

The Pretty and Ugly Side of Soccer

A quick introduction

Bram Poell is a 23-year-old, first-year econometrician who already has a bachelor degree from the Johan Cruijff University. As the introduction text probably already suggested, his true passion is soccer. Now a lot of people love soccer, but Bram's story is different. He was a child talent rumored to make it to the Eredivisie and maybe even beyond. Things did not exactly go as planned however, which brings us his story. A story that highlights the pretty, but also the ugly sides of soccer.

Once upon a time...

Bram was born on December 19, 1991, and grew up in Nederweert where he joined the local soccer club 'RKSV Merefeldia' when he was just six years old. A few years later he was discovered by a scout from 'VVV-Venlo', who allowed him to come and show his skills together with other talents, maybe even earning him a place at the club. He was talented, but unfortunately VVV did not recruit players that young. A year later he got another offer by 'Helmond Sport' and 'MVV Maastricht'. A tough decision followed between VVV and the other two clubs. He eventually settled upon Helmond Sport, since they could pick him up and drop him off at home, instead of having to travel by train, something his parents understandably preferred. So at the age of ten, while Bram was still in primary school, his big soccer adventure began.

The Helmond Sport Saga

Bram went to high school in Weert but right from the start, Helmond Sport was his true school where he was educated in the things he loved most. The next few years Bram learned a lot. He trained

three to four times a week directly after school and he also had at least one soccer game every weekend. Through the years, he steadily progressed from the D-category at the age of ten, all the way to the first year A-category at seventeen. Bram realized that this was the time he needed to shine. Looking at his heroes, such as Robben and Van Persie, he realized that they were all discovered and recognized around that age.

Luckily, that year was a great year for Bram. Everything went well, he played great and so he got the attention of the trainer of their first team, who quickly started to believe in him. He then was allowed to play in their second team, where things also progressed smoothly. Eventually they became champion, in which Bram played a very prominent role. As a result, barely seventeen years of age, he was allowed to sit on the bench on their first team, something that was truly very uncommon. On his last day of high school, he was finally allowed to make his debut in the first team against Excelsior Rotterdam. Even though they lost 0-1, he understandably says this easily was one of the proudest moment in his life. After this, he got praise all over, and was even rumored to make it to the Eredivisie in two to three years. Everything seemed to go perfectly for Bram and besides this, he also passed his exams and graduated high school. He was determined to keep up the pace and embraced this new chapter with both hands!

Surviving the cut

With high school finished, Bram enrolled in the Johan Cruijff University, instead of focusing fully on soccer, just to have a

back-up. Officially, Bram played in the second year A-category, but he was the only one who was allowed to train and go on training camp with their first team. At this camp however, things went less smooth. The atmosphere was very different playing with people who make their living out of soccer and who were also much older. He was very nervous, got grilled and pressured mentally, both by the trainer and by his fellow players. As he was the rookie, they were really giving him a hard time.

Sport came to a sudden and painful end. Bram, understandably disappointed, was not about to give up just yet, and tried his luck across the border, in Belgium!

One last stand

Bram, now 20 years old, used his connections to do a try-out game at 'Lommel United' in Belgium and since he made a beautiful goal, he was hired on the spot for their second team. That year he scored during most games, so for the

'Chase your dreams, never give up, but use your head and always have a back-up'

As a result his learning stagnated and looking back, Bram knows that he was just too young for such severe pressure. They decided he was not yet ready and he could try again at next year's training camp. This time things went much better, but in the last match in the second year A-category, he sustained a gruesome injury to his knee, making him miss preparations for the first team. Therefore he missed out and had to play in their second team instead. His injury kept bothering him however and meanwhile the economic crisis hit hard, forcing the club to discontinue with their entire second team. Therefore, at the end of that season, when he was 19 and still not entirely fit, they decided to let him go. A 10-year period with Helmond

next season he was allowed to regularly join their first team. That year was a perfect one for Bram and so during its second half he got lend out to another club in Belgium, who eventually won the title, for which Bram was personally responsible. Now he was really getting noticed in Belgium and clubs were lining up to sign him on. Eventually he decided to stay at Lommel United and work his way up from there. He signed a two-year contract, and in the meantime he also graduated from the Johan Cruijff Universiteit. Bram was back in the game!

Déjà vu

After the first six months of his contract, Bram was well on his way to obtain a permanent base spot in their first team, when a fellow competitor committed a horrible foul during training. Bram again sustained a massive injury and was forced to leave training, but his trainer was not supportive. He said Bram was a quitter, started mentally pressuring him again and even said that he would rather see him leave. Bram, who as it turns out actually had a complicated ankle fracture, had seen this all before and really had enough! With a severe ankle injury and his chances at a base spot now all but gone, he decided to cancel the remainder of his contract and do the two things that he always wanted



to do: play soccer just for fun and, believe it or not, study Econometrics! So he passed the required math entry exam, and signed at 'KFC Oosterzonnen', a club playing one division lower, who would love to have him. This turned out to be a good choice and after six months of rehabilitating in a rehabilitation center, he now was able to enjoy soccer again and with that, his form returned. He played very well that year and they happily prolonged his contract!

Back to the present

Now Bram is a first-year Econometrics student and still enjoys playing at KFC Oosterzonnen. Every weekday he leaves the university at 18:00 and drives to Belgium for a training or a match, besides playing matches in the weekend. This feels like a full-time job but somehow he is able to combine it all with his studies, and still come out ahead. Since this is Bram's second Bachelor, he needs the soccer income to pay for his tuition, which can be quite stressful. However, Bram loves Econometrics and is confident he will get his BSA. Soccer might not have turned out the way he imagined, but now he has a new and more academic career in front of him and he is determined to embrace this one just the same! ●



Freshmen Pool



Bart Hampsink

AGE: 19

Began studies in 2014

Every year the Freshmen committee of Asset | Econometrics organizes three activities and their first activity was planned on November 25. After handing out flyers before lectures and some face-to-face advertisement, there were about thirty econometricians that wanted to have dinner, play pool and get three drinks for only five euros!

All the participants gathered around 18:15 at Polly Maggoo to have a nice dinner with the board members of Asset | Econometrics, the Freshmen committee and all the other freshmen that subscribed. There was a big assortment of burgers made available for us. We could choose for example the Trappist burger, a Mexican style burger, a vegetarian burger and many others. The dinner was a nice opportunity to meet other students who are more or less interested in the same things as you are, because in the end you still chose the same study program. I also think that at such an occasion you get to know your fellow students a lot better, as a tabled dinner really gets conversations going.

Bruijninx, who is part of the Drinks & Activities committee. We played against a lot of other teams and had a great time together with the other groups. It was quite clear to see who had and who had not played pool before, but at some point everybody started sharing techniques. The joy in the eyes of some people when they finally got their first good shot, was therefore fairly fun to see.

After the Freshmen Activity we went to Café De Nachtwacht with the entire group, to have a drink organized by the Drinks & Activities committee. I think that it was the first time for many freshmen to go to this pub, but now

talk on his lap, and I have to grant him for being as sharp as always. The Saint knew all the inside stories, which was quite amusing. There were a lot of students at Café De Nachtwacht listening to the modern music and talking with all the other people, while enjoying a drink. After some time Asset | Econometrics gave a present to everybody present at the drink: a free barrel of beer! What a great surprise that was! I cannot speak for everyone of course, but I think everyone really enjoyed the drink and chatting with the other students, together with the free beer.

This night was actually the first Asset | Econometrics activity that I had subscribed for, but with this great experience in my mind, I know I will participate in the next activities as well! I am already looking forward to meet more students from our association. ●

‘I am already looking forward to meet more students from our association’

The burgers we received were in fact so huge that people had difficulties eating them. When we finished the delicious meal, we went to Saints Poolcenter to have our pool activity. Everyone was randomly put into groups of two or three persons, so we could not choose our own groups, which was actually also a great way of getting to know your fellow students. The Freshmen committee placed me in a group with Jochem

everybody learned the difference with club ‘De Nacht’ (which is not really a suitable place for an Asset drink). This drink was not only organized for the first-year students like the pool activity was, as it was also planned for all the other econometricians. We celebrated a typical Dutch party called Saint Nicholas and Saint Nicholas himself even passed by to give us candy! Some people were called by the Saint to have a good old

Saint Nicholas Drink

Text by: Thomas van Manen



*Many Tuesdays in a year,
All econometricians gather,
For a drink full of wine and beer.*

*This Tuesday was the same,
After a wonderful freshmen activity,
To "De Nachtwacht" everyone came.*

*This night however was even sweeter,
Since there were not only drinks,
But also Saint Nicholas and Black Peter.*

*Around twelve he arrived as he had said,
With his merry band of helpers,
All bringing nuts of gingerbread.*

*His big book was different than usual,
Since for the econometricians,
He thought Bain & Fngelhardt was more suitable.*

*Of course our saint did not come in vain,
He also had poems and presents,
For those who sat on his lap in shame.*

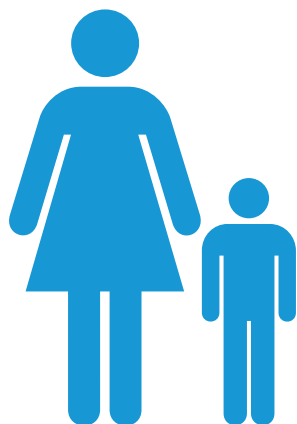
*A surprisingly large amount of people sat there,
Which probably only gave a minor indication,
Of the many things econometricians did not want to share.*

*Among those who sat there in front of all,
Were Fsmee, Thomas times two, Masum, Bart,
Pepijn, Jan, Anouk and maybe others I cannot recall.*

*All in all it was a great night many will remember,
But normal life goes on,
Which means studying for the rest of December.*

*Let us hope Saint Nicholas will come back,
We will all be there next year,
But will Saint Nicholas' Petes still be black?*

THE MOTHER OF...
MANUEL BASTIN



Planting Happiness

Far, far away, in the province of Limburg live the parents of our beloved Manuel Bastin. Ashley and I joined Manuel on the hectic train ride there, exploring the beautiful landscape that Limburg possesses, even though it looked a bit less nice due to the depressing weather that day. Despite all this, we arrived in Maastricht and took a bus to the village of Aalbeek, where we met up with Linda Bastin, Manuel's mother.
Text by: Mike Weltevrede

Linda was born in 1963 in the city of Zaltbommel. She is one of those people that despises staying indoors and would much rather go outside to see nature and hear the birds sing their songs. After having finished the MAVO at secondary school, she went to Utrecht to study 'Exhibition and Decoration'. This study required you to learn about numerous things, including the dreaded subject of statistics. Other things that she had to learn about were more aimed towards a commercial aspect, since the main point of the study was to be able to present things well and to sell your products. Linda liked the study program so much, that she never skipped one day, not even when she was ill. When we asked her whether she had ever regret her choice of study, she mentions that she once actually did a vocational test once. Linda: "Its outcome was rather interesting, as it suggested that a job as

a dentist or goldsmith would be perfect for me." The thing is that she had no interest in either of these careers, even though ironically, she finds herself asking the dentist about everything he does whenever she has to visit him. This even lead to the dentist making a joke regarding Linda being able to become an assistant if she wanted to.

Linda and Roger

However, after a while, Linda realized that she wanted to do something else, so she went on to study at the Biologically Dynamic Agricultural and Horticultural School. This is also where she met Roger, her husband and Manuel's father: "It was love at first sight." After they had finished their studies, they decided to get married after half a year. They also degreed upon setting up their own company, a plantation of Mediterranean plants. Next Joli, their oldest child and only daughter, was born and Manuel was born several years later. Their youngest child is named Simian, which apparently is Latin for monkey. Their names did pique our interest. Linda: "We had to take our last name, Bastin, into account when naming our children, as it has a French feel to is. Joli is French for beautiful, and I think that any girl would want to be called beautiful." When it comes to Manuel, she is not quite sure how they came to his name. They just thought it sounded really nice in conjunction with their last name.

As stated, Linda and Roger set up their own plantation. As you can imagine this generates a small income in the cold periods of the year, which is balanced out by a larger income during the spring and summer, as long as they are conservative with their expenses. Despite this, they have had a lot of fun running the plantation and have been doing so for 25 years already. They work together with approximately ten people, which makes the working environment very relaxed and friendly.

Manuel as a kid

When we ask Linda what Manuel was like when growing up, she says that she thinks the delivery says a lot about the child. "Manuel's delivery went quite easily and quickly, and that is precisely what Manuel is like: easy and quick." This also shows from the following anecdote that Linda told us. "I started working again rather quick after the delivery and the maternity nurse was keeping an eye on Manuel in case something might be wrong with him. When I came back inside, the maternity nurse said that Manuel only cried once, but he simply stopped when nobody came to look."



As a toddler, Linda had to teach Manuel to say no, as he would do anything you would ask him to. He also started crying whenever Linda raised a brow to state her disappointment in something Manuel had done, even though she was not angry. You can see that Manuel did not like to upset other people. Actually, he still does not. Then again, I think no one really strives to upset people, some exceptions disregarded.

At primary school, Manuel was a beloved child. Not only his classmates adored him, as they asked him to explain the exercises regarding arithmetics, but also the mothers of other children were very fond of him. Linda: "I often got called by other mothers who asked when Manuel would come over to play again, as it had been so much fun the previous time!" However, not all was as fun as it seems on primary school, as in fact Manuel had once hit someone. You would think that Manuel would get punished, but the contrary is actually true. The person that Manuel hit was told to stand in the corner, because he crossed Manuel's line. "When you cross Manuel's line," the teacher said, "you have gone too far."

■ 'It was love at first sight'

Manuel went to the 'Vrije School', where you had to choose a path out of two: science or society. Basically, you had to choose two profiles instead of one. Manuel was kind of forced to follow the society path, as his scientific side was not as strong. This did mean however that Manuel could not follow the Mathematics B course, the one required to study Econometrics. Hence, when Manuel had found out that Econometrics was definitely the study he wanted to do, he decided to catch up on the Mathematics B course all by himself and eventually scored an eight for the final exam. Having received a nine for both Economics and Mathematics A, Manuel decided to take a resit for Mathematics B, and sure enough, he managed to get a nine for that as well.

Mother and son

When we ask Linda what valuable life lessons she has taught her son, she answers: "I recall one in particular, though it is not necessarily a lesson."



When Manuel was still in high school, she realized that he did not put that much effort in it as he could have. Scoring a six was enough to pass the course, so why would he do more? "I told him that if he would study for only fifteen minutes longer, he could turn those sixes into eights." It seems that Manuel did take this advice to heart,

since he did study just a tad bit longer and managed to improve his grades. He then realized that it did feel good to get higher grades, while not even putting in that much effort. This obviously motivated him to put his best foot forward and try to be the very best.

As we have seen, Linda is an amazing person who has shaped Manuel in the beloved person that he is right now. We wish her and Roger a lot of luck and happiness in the rest of their lives. As we all know, there is a proverb saying 'he who plants a garden, plants happiness'. We would also like to thank Linda very much for the interview, the hospitality and last but not least, the 'pepernoten'. Do not forget that if you are looking for some lavender or other Mediterranean plants, Bastin's plantation (www.bastin.nl) is the place to be! ●



Quatsch!

Floris van Loo: 'Als je dan toch graag 's nachts wakker wordt, kun je net zo goed een kind nemen.'

Peter Borm: 'Hats are always special.'

Cleo Mauritsz over haar gala date: 'Tom (Scholtze) komt me straks opeten... oh nee, wacht, ophalen!'

Peter Kort: 'Dolf Talman is inside me, he possesses me'

Mitchell Dingemans: 'Hoe ouder hij wordt, des te meer vrouwen er zijn van zijn leeftijd.'

Renata Sotirov: 'If you make a picture of me and put it on Facebook, I will sue you.'

Masum Rahman en Vera van der Lelij willen Bitch mee nemen op de Hitchhiking Trip, zegt Mitchell Dingemans: 'Dan wordt het dus de Bitchhiking trip!'

Wise words of ...

Prof. Sprenger: 'It is not only important to do the right thing, but it is also important to do it for the right reason.'

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!



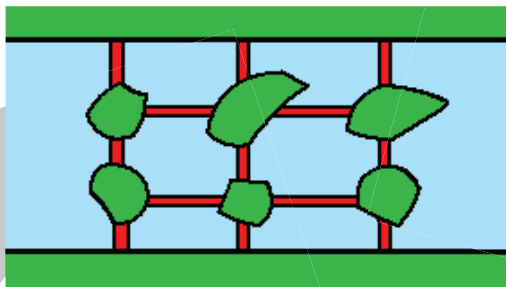
PUZZLE

Even though it is currently time for the Christmas holidays, most of us econometrics students spend their time studying for the upcoming exams. If you feel like you have had enough of Dijkstra's algorithm, AIMMS, or Maximum Likelihood Estimators, then go ahead and try to solve this puzzle!



For elaboration visit
NEKST-ONLINE

Far, far away in the kingdom of The Matherlands lies a city called Tilburg. This city actually consists of two riversides, called Tilburg-North and Tilburg-South, with six small islands lying in the river. All these islands and shores are connected with each other via thirteen bridges, as shown in the picture.



One of Tilburg-North's inhabitants, Henk, has to hand in his philosophy paper on the next day in Tilburg-South. That night however, a big storm passes over the islands and every single bridge has a probability of $\frac{1}{2}$ to collapse. Now the question is: what is the probability that

Henk will still be able to hand in his paper, meaning that he will have to find a path over the bridges from Tilburg-North to Tilburg-South?

Please send your solution to Nekst@Asset-Econometrics.nl before March 13. 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!



Miriam Loois is the winner of the previous puzzle. As a reward, she can come and pick up a crate of beer or a pie at room E1.10. The solution of the previous puzzle was **fifty minutes**.

Agenda

Winter 2014

Department Members Meeting and Drink

Thursday January 22

During the Department Members Meeting (DMM) the board will inform you about everything that happened last semester within our department. Afterwards we will celebrate the end of the exams and the New Year with a drink in Café de Nachtwacht.

Après Ski Drink

Wednesday February 4

On February 4 is it again time for our yearly Après Ski Drink. During this drink you can drink your favorite drink out of a beautiful Asset | Econometrics Beer Mug. Furthermore, make sure you wear the best après ski outfit!

LED

Tuesday February 10

This year the biggest career event for econometricians, the National Econometricians Day, is organized by our sister associations Kraket and VSAE. This edition will take place in the NBC Congress Center in Nieuwegein, where a lot of interesting companies present.

Hitchhiking Trip

Friday January 30 – Sunday February 1

This year the first Hitchhiking Trip of Asset | Econometrics will take place. The destination of this trip is Frankfurt and as hitchhiking is of course not the only activity of this weekend, the committee has arranged some great activities in Frankfurt as well.

Bachelor Information Day for Freshmen

Thursday February 5

This day, specially organized for freshmen, contains everything you should know about your study program. The day will start with a fun case on which you will work in groups. Afterwards, the program directors will tell you everything you should know about the upcoming years of your Bachelor.

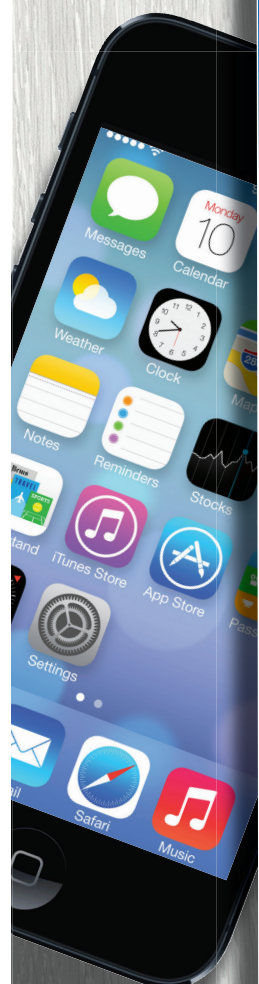
General Members Meeting Pre-Carnaval Party

Thursday February 12

Drinking beer, singing songs and dress up as crazy as possible, that is what carnival is all about. Of course you also want to celebrate this great event with your Asset friends; therefore Asset organizes the Pre-Carnaval Party for all members of Asset.

Wednesday February 11

During the General Members Meeting, the board of Asset will give you a half-yearly update about everything of importance of the past semester. Furthermore we will look forward to what is yet to come.





Sport Activity

Week 9

After a successful first Sport Activity, the committee is busy with organizing the second Sport Activity of this year. The exact activity is still secret at this moment, but we can ensure you that they have some great ideas.

Freshmen Activity

Tuesday March 3

For freshmen it is important to meet other freshmen, but connecting with older students might also be very valuable. Therefore the second Freshmen Activity is organized for both the first-year and second-year students.

COdE Beer Cantus

Thursday March 5

Twice a year, all Asset departments organize a great beer cantus together with the MAK and TFV De Smeetskring. On March 5 the second COdE Beer Cantus will take place. Also this COdE Beer Cantus will be a great party, so make sure to buy your ticket in time!

Asset Active Members Activity and Faculty Wide Drink

Alumni & Drink

Wednesday March 11

Tuesday March 24

This day, specially organized for freshmen, contains everything you should know about your study. The day will start with a fun case on which you will work in groups. Afterwards, the program directors will tell you everything you should know about the upcoming years of your Bachelor.

On February 4 is it again time for our yearly Après Ski Drink. During this drink you can drink your favorite drink out of a beautiful Asset | Econometrics Beer Mug. Furthermore, make sure you wear the best après ski outfit!

Actuary Day of Tilburg

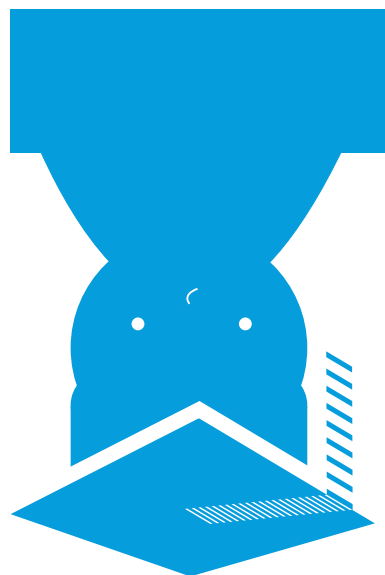
Astrics Cantus

Wednesday April 1

Tuesday April 7

This year the first Astrics Cantus will take place. Who does not like singing together with all your EOR friends? Make sure you buy your ticket in time, since there will only be a limited amount of tickets available.

For students interested in actuarial sciences, we organize the Actuary Day of Tilburg. During this day several companies and speakers within this field will provide information about the possibilities as actuary.



Asset | Econometrics congratulates...

Name: Michelle Theeuwen
Title: A household's beer choice: whether, where and what to buy
Supervisors: Dr. T. Klein, Prof.dr. E. Gijsbrechts

Name: Bas Wagemakers
Title: Optimal hedging of embedded options in variable rate mortgages
Supervisors: Dr. R. van den Akker, Dr. F.C. Drost

Name: Thijs Verhaegh
Title: Heuristic method for real-time crew rescheduling during small disruptions at NS
Supervisors: Dr. J. Vera, Prof.dr. G. Kant

Name: Sander Coenraad
Title: Demand forecasting in the travel sector: A GNL application
Supervisors: Dr. M.H. ten Raa, Prof.dr. A.H.O. van Soest

Name: Kamiel van Langen
Title: Implicit Pension Debt and Credit Rating
Supervisors: Dr. S.J. Sender, Prof.dr. J.M. Schumacher

Name: Sjors van der Schoor
Title: Values of the Structured Funding Portfolio
Supervisors: Prof.dr. B.J.M. Werker, Dr. M. Stadje

Name: Pieter Kerkhof
Title: Pension contributions and the economic value of the accrued pension entitlements in Dutch second pillar pension schemes
Supervisors: Prof.dr. Th.E. Nijman, Prof.dr. A.M.B. De Waegenare

Name: Kim Peeters
Title: Flexibility in Decumulation: Beneficial or Not?
Supervisors: Dr. F.C. Drost, Prof.dr. A.M.B. De Waegenare

Name: Lucas van de Kamer
Title: Strategic Factor Allocation Improving Asset Allocation Using Macro Risk Factors
Supervisors: Dr. F.C. Drost, Dr. S.J. Sender

Name: Marcin Rybacki
Title: Design Principles of Benchmark Curves from the Liability Driven Investment Perspective
Supervisors: Dr.ir. G.W.P. Charlier, Prof.dr. J.M. Schumacher

Name: Kate Sogulyayeva
Title: Investment with Uncertainty and Entry Deterrence: the Iso-elastic Demand Case
Supervisors: Prof.dr. P.M. Kort, N.F.D. Huberts, MSc

Name: Yifan Zhang
Title: Gender Diversity and Its Impact on Financial Performance
Supervisors: Dr. O. Boldea, Dr. T. Klein

...on obtaining their Master's degree.

***BeHoCa Foundation
is the belief, hope and care
for the street children of Kenya***



**STICHTING
BeHoCa**

The living conditions of the children on the streets are tough. They sleep and live in unsafe places, eat and drink unsafe water and food. The children face violence every day and come into contact (to survive) with crime and drugs.

Like every other child, they have the right to a carefree childhood, with a perspective of a promising future. That is why we see this as our mission. Together with charitable people, BeHoCa Foundation can offer the street children of Mombasa this opportunity.



Before



After



**Visit www.Nekst-Online.nl for the interview
with the inspiring founder of BeHoCa!!!**

Follow us on Facebook via **Stichting BeHoCa** for photos and updates.
For more information and possible donations, please visit our website:

www.behoca.nl

BeHoCa Foundation | Postbox 95943-80106 | Mkomani, Mombasa | Kenya

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