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Volume 21, first edition, November 2012

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Preface

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Sweet Nostalgia



First of all, let me go back in time to share some nostalgic youth memories with you before I start promoting this magazine. I want you to know that I am aware of the fact that this story might sound a bit stupid. However, I will overcome this feeling of embarrassment especially for you, the reader.

You might think that my new position as editor-in-chief of this magazine is something new for me. The contrary is true, for I used to be an editor-in-chief a long time ago. When I was just an eight year-old, little, bespectacled and somewhat geeky girl, I produced several magazines together with the boy from next door. I can tell you these were not just ordinary magazines! We made up stories about our (local) heroes and wrote them down on paper. Reading these stories nowadays, I can only say that we were very, let me say, creative. Of course, pencils and markers were picked off the shelf in order to make fancy drawings. Furthermore, we were conscious of the fact that every magazine needs advertisements. Therefore, as real editors, we cut out pieces of shop leaflets and rearranged them in a way it looked very professional. In these days, I was fully convinced of the fact that the magazines produced by me and my friend could be displayed in stores between Elsevier and Vogue.

Obviously, now I know better. Although my magazines were not that successful and all had a circulation of just one, I really enjoyed producing them. Now it is time for me to do this on a more professional level. I am hundred per cent sure that accompanied by my amazing committee, we will produce four editions of Nekst which are hopefully interesting to read. If you are interested in the Nekst committee members, then please read the committee introduction on pages 6 and 7. Apart from some minor changes in the lay-out, we changed the table of contents compared to previous editions.

Contentwise, I can say that this edition of Nekst contains many interesting interviews and articles, for an audience ranging from freshmen to professors. If you are interested in politics, then please read the column of professor R.J. Mahieu, the special about mathematics applied to elections and the interview with Ilja Boelaars. Furthermore, as you may all know, a new board has settled down in room E1.10. In the Board to Board special, the old board shares their experiences with the new board. If you are curious about the future perspectives and peculiarities of the old board members, then this article is absolutely advisable. Moreover, believe it or not, econometricians seem to be very athletic, as can be read in the articles about the LEVT, the Hart van Brabantloop and last but not least about freshman and top-judoka Maurice Peters.

After having shared my deepest childhood memories with you, there is only one thing that you, the reader, can do back for me: please lean back and enjoy the read.

Suzanne Vissers

Editor-in-chief

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The old board of Asset | Econometrics and the new board came together and discussed their experiences of being a board member. Curious about how the life of a board member looks like? Then find out!

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Probably you expect elections in Western countries to be fair and democratic. However, as was proven by Kenneth Arrow, this might not always be the case. This special discusses the mathematical background of this issue.

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Contents



In August, a bunch of new and enthusiastic students arrived in Tilburg. Accompanied by their mentors, they discovered the city. Emile Kragten, a first year econometrician, shares his experiences of the TOP-week with us.



Last September, 28 econometricians divided into a professional team and a 'beer' team participated in the Hart van Brabantloop. The professional team was ranked on the 25th place and thereby beat all other Asset teams!

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An Introduction

Let us present to you the editors of the Nekst committee 2012-2013, who all put a lot of effort in doing interviews, writing articles and correcting them for every single edition of Nekst. Always wanted to know what their hobbies are, what they used to be in a previous life or what their personal motto is? Then take your chance and find out the peculiarities of the Nekst committee!



Anouk Claassen

Helpful, calm, perseverant, a perfectionist and enjoying life: these words used Anouk Claassen to describe herself. This 19 year old second year econometrician is responsible for the layout of Nekst. She loves to meet up with friends, to play tennis and to watch GTST. The strangest object in her room in Tilburg is a pair of bunny ears. She

wore those during the beer race of last year, but never gave them back... If you ever decide to wake her up in the middle of the night, be sure to bring a chocolate fondue set with you, otherwise things could get wrong.

Chris Pustjens

Chris is a fourth year econometrician and she loves to be creative, to hang out with friends or to workout. She describes herself as calm and trustworthy. Chris lives in a cozy house in Tilburg, together with three other girls. She still wants to go to New York once in her life. If she would ever win 10 million in the lottery, she would buy a nice

apartment (probably in New York), including a cleaning lady, so that she does not have to clean the apartment herself. When Chris was young, she liked to watch Lizzie McGuire. Furthermore, she loves to eat homemade apple pie during the weekends.



Daniëlle van Dalen

The coordinator of the Nekst committee is Daniëlle van Dalen. This third year econometrics student loves to play tennis or to play the clarinet. She lives on her own in Tilburg, is straight to the point, perseverant and her childhood heroes are Samson & Gert (who does not like them?). Her personal motto is: 'Stay yourself!' Moreover, she loves to

achieve her goals after having worked hard for it. Daniëlle might be a bit naïve. Perhaps that is why she wants to participate in WipeOut... She does not believe that it is that difficult to do. If she had only one day left to live, she would have a great party with all of her friends and family, preferably something like a beer cantus.

Ernst Roos

Ernst is a second year econometrician. He is friendly, enthusiastic and responsible, but sometimes he is also a bit lazy and a control freak. If you wake him up in the middle of the night for pancakes with vanilla ice cream, he would definitely not get angry. He would probably reply with 'awesome', which is the word he uses the most. He still

wants to fly a helicopter once. Furthermore, it is worth noticing that Ernst was a real dinosaur in a previous life. Awesome right? He also loves ballroom dancing and playing computer games. If he would have to describe himself as a jigsaw, he would be a bridge connecting two islands.



Leon de Wit

Leon de Wit is 22 years old and a fifth year econometrics student. He is friendly, easy going and he is very passionate about his favorite sport, soccer. Sometimes he is a bit lazy, but most of the time he is a hard working mathematician and sportsman. He has a room in Tilburg, with a huge

teddy bear in it. His childhood hero is Dennis Bergkamp, a professional soccer player. The one thing he always wanted to do is skydiving. His personal motto is: 'Do not drink that last beer, because that is the one which often kills you!'



Michiel van Erp

Michiel van Erp, a 19 years old second year econometrics student, lives in lodges in Tilburg. He sees himself as a tranquil and relativistic person. If he would ever win 10 million in the lottery, he would buy a boat in Saint Tropez. His childhood hero was Thomas the Train. He loves to play monopoly; even in the middle of the night you can

call him to play this game. One of his favorite ways to spend his free time is to hang out with friends. One day he woke up with a sombrero in his room, not knowing where it came from. Luckily, seeing the pictures from the previous night gave him some insight in what had happened. If you want to hear the full story, feel free to ask him.

Robbert van Gaal

The 19 year old Robbert is a second year econometrics student. He has a lot of hobbies, of which swimming, squash, playing both board games and computer games are just a few. He lives in Tilburg and he does not like to sit still and talk for a long time. If there is a friend in need, Robbert will gladly help, even if it is in the

middle of the night. The word he uses the most is 'unbelievable'. He really wants to participate in expedition Robinson once, because he thinks you will learn a lot from it, both mentally and physically. If Robbert would ever win 10 million in the lottery he would keep on studying to learn all the beta courses. That is unbelievable right?



Tim Gijbers

Tim is 18 years old and the only first year econometrics student in this committee. He likes going out with friends, making bad word jokes, playing games and cooking. Tim is impulsive and sometimes pretty 'random', but he will always help a friend in need. His personal motto is: 'Live your life before life lives you.' If you ever want to wake

him up in the middle of the night (good luck with that) try bringing some homemade apple pie. In a previous life Tim was Arthur Guinness, the Irish brewer. His childhood hero is Big Bird from Sesame Street. The one thing he really wants to do one day is playing paintball inside one of the campus buildings!

Vera van der Lelij

This 19 year old second year econometrician lives on her own in Tilburg. She loves to snowboard, go to scouting or to hang out with friends in her free time. Her most important character trait is that she is a loyal friend. Vera adores the show 'Wie is de Mol?' and thus she wants to participate in this show if she was given the opportunity. Whenever you are staying at her room for the night, you

do have to kiss Horny Harry the Garden Gnome goodnight before you go to sleep. She also loves to have deep conversations in the middle of the night, during which she probably says the sentence: 'Oooh op die fiets...' a lot of times. The personal motto of Vera is: 'Everyone looks better with a box on his/her head!'



Text by: Tim Gijbers

Life Cycle Behavior under Prospect Theory Preferences

Expected utility theory has been subject to considerable criticism. Perhaps the most promising alternative decision-making theory is prospect theory. We examine optimal life cycle behavior under prospect theory preferences. The results show that an agent with these preferences may behave differently than one with standard preferences.



Name:
Servaas van Bilsen

Position:
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Expected utility theory (EUT) is by far the most dominant paradigm for analyzing (economic) decisions under risk. It goes back at least as far as Gabriel Cramer (1728) and Daniel Bernoulli (1738). They were both seeking a solution to the famous St. Petersburg puzzle, posed in 1713 by Daniel's cousin Nicolas Bernoulli. The St. Petersburg game can be described in the following manner:

Peter tosses a coin and continues to do so until it should land "heads" when it comes to the ground. He agrees to give Paul one ducat if he gets "heads" on the very first throw, two ducats if he gets it on the second, four if on the third, eight if on the fourth, and so on, so that with each additional throw the number of ducats he must pay is doubled. Suppose we seek to determine the value of Paul's expectation (from Bernoulli, 1738, p. 31).

The value of Paul's expectation \mathbb{E} is simply the sum of all individual probabilities multiplied by their corresponding payoffs. More formally,

$$\mathbb{E} = \sum_{k=0}^{\infty} \frac{1}{2^{k+1}} \cdot 2^k = \sum_{k=0}^{\infty} \frac{1}{2} = \infty.$$

Although the value of Paul's expectation \mathbb{E} is infinitely great, no fairly reasonable man would be willing to pay a large amount of ducats to participate in the St. Petersburg game.

Daniel Bernoulli resolved the St. Petersburg puzzle by arguing that the marginal utility of money is not constant, but diminishes. He said: "There is no doubt that a gain of one thousand ducats is more significant to a pauper than to a rich man though both gain the same amount." Specifically, Bernoulli suggested to measure the utility of money on a logarithmic scale rather

than a linear scale¹. Indeed, under logarithmic utility, Paul's expected utility \mathbb{U} is finite:

$$\mathbb{U} = \sum_{k=0}^{\infty} \frac{1}{2^{k+1}} \cdot \log 2^k = \log 2 < \infty.$$

Although Bernoulli resolved the St. Petersburg puzzle, EUT did not receive much attention in the economic literature until the second half of the twentieth century.

Interest in EUT was revived when John von Neumann and Oskar Morgenstern (1944, 1947) showed that EUT can be derived from four axioms of rational choice. These axioms are stated in terms of lotteries, where a lottery L can be represented by a probability distribution $L = (p_1, \dots, p_n)$ over a fixed set of outcomes $X = (x_1, \dots, x_n)$. Here, $p_i \in [0, 1]$ denotes the probability associated with outcome x_i and $\sum_i p_i = 1$. The axioms of rational choice are as follows²:

- **Completeness.** For all lotteries L, M : either $L \succeq M$ or $M \succeq L$ or $L \sim M$.
- **Transitivity.** For all lotteries L, M, N : if $L \succeq M$ and $M \succeq N$, then $L \succeq N$.
- **Continuity.** If $L \succeq M \succeq N$, then $\exists p \in [0, 1] : pL + (1 - p)N \sim M$.
- **Independence.** If $L \succeq M$, then for any N and $p \in [0, 1] : pL + (1 - p)N \succeq pM + (1 - p)N$.

¹Daniel Bernoulli does not completely resolve the St. Petersburg puzzle. As long as the utility function is unbounded, the puzzle can be regenerated by redefining the player's payoffs.

²The symbol \succeq has the interpretation "at least as good as" and the symbol \sim has the interpretation "equally as good as".

If all four axioms are satisfied, agents' preferences can be represented by:

$$\mathbb{U}(L) = \sum_i p_i \cdot u(x_i),$$

where L is any prospect and $u(\cdot)$ is a utility function. The *expected utility hypothesis* asserts that a person will (weakly) prefer the lottery L over the lottery M if and only if $\mathbb{U}(L) \geq \mathbb{U}(M)$.

EUT has been subject to considerable criticism, especially relating to the independence axiom. One of the most famous challenges to EUT was presented by the French economist Maurice Allais (1953). He posed a hypothetical pair of decision problems. Consider the following two gambles:

gamble 1A		gamble 2A	
payoff	probability	payoff	probability
\$1M	0.89	\$1M	0.89
\$1M	0.11	\$0	0.01
		\$5M	0.1

If you had to choose, which one would you opt for? Now imagine yourself choosing between the following two gambles:

gamble 1B		gamble 2B	
payoff	probability	payoff	probability
\$0	0.89	\$0	0.89
\$1M	0.11	\$0	0.01
		\$5M	0.1

Which one would you prefer? Several studies have found that most people would choose gamble 1A and gamble 2B. Closer inspection reveals that the second set of gambles is obtained from the first by removing a "common consequence", an 89% chance of winning \$1M. According to the independence axiom of EUT, this operation should have no effect on the relative desirability of one gamble over the other.

A large number of *non-expected utility theories*³ have been developed to overcome the shortcomings of EUT. Perhaps the most promising non-expected utility theory is cumulative prospect theory (Kahneman and Tversky, 1992). This theory incorporates the following *behavioral* aspects:

³Examples include generalized expected utility theory, weighted utility theory, quadratic utility theory and rank-dependent expected utility theory.

1. the carriers of value are gains and losses defined relative to a reference point (i.e. status quo);
2. losses loom larger than equivalent gains, a property called loss aversion;
3. agents are risk-averse in the region of gains and risk-prone in the region of losses;
4. objective probabilities are replaced by subjective decision weights.

Under cumulative prospect theory, agents' preferences can be described in the following way. Let θ be a reference point and π_i a subjective decision weight. For gains (losses), π_i is the difference between the subjective probability of the event "the outcome is at least as good (bad) as x_i " and the subjective probability of the event "the outcome is strictly better (worse) than x_i ". Agents' preferences are now given by:

$$\mathbb{U}(L) = \sum_i \pi_i \cdot v(x_i - \theta),$$

where L is any prospect and $v(\cdot)$ is the two-piece power utility function:

$$v(x_i - \theta) = \begin{cases} -\kappa \cdot (\theta - x_i)^{\gamma_1} & \text{if } x_i < \theta \\ (x_i - \theta)^{\gamma_2} & \text{if } x_i \geq \theta \end{cases} \quad (1)$$

Here, $\gamma_1, \gamma_2 \in (0, 1]$ are preference parameters and $\kappa > 1$ is the index of loss aversion.

In the sequel, we are interested in optimal consumption and portfolio choice under a general class of reference-dependent preferences. Following Köszegi and Rabin (2006), we assume that the agent's instantaneous utility function at time $t \in [0, T]$ is given by:

$$w(c_t; \bar{c}_t) = \alpha \cdot u(c_t) + (1 - \alpha) \cdot v(u(c_t) - u(\bar{c}_t)), \quad (2)$$

where $\alpha \in [0, 1]$ is a weighting parameter, $v(\cdot)$ is the two-piece power utility function (1) and \bar{c}_t is the reference level of consumption. The first term on the right-hand side of (2) represents "consumption utility", that is, utility derived from the absolute level of consumption c_t . In most applications, $u(c_t)$ is assumed to be continuously differentiable, strictly increasing and globally concave. The second term on the right-hand side of (2) captures gain-loss utility, that is, utility derived from the deviation of $u(c_t)$ from the reference level of utility $u(\bar{c}_t)$.



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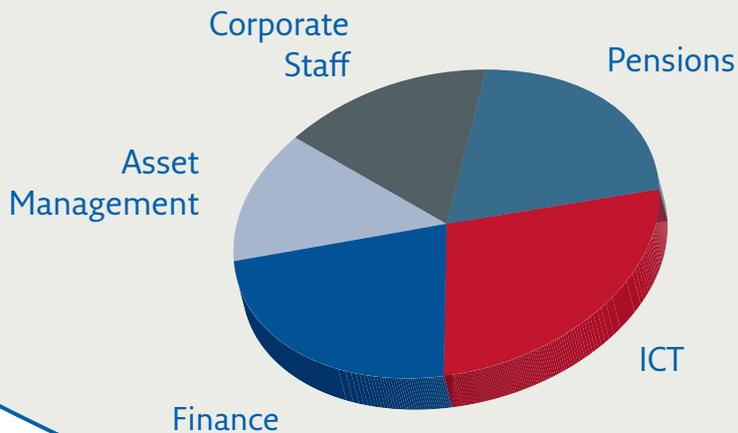
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For the sake of simplicity, we make the assumption that the reference level of consumption is exogenously determined: the agent enters the labor market with a given prior belief about his future consumption levels.

The agent's lifetime utility function is given by⁴:

$$\mathbb{V}(c; \bar{c}) = \int_0^T e^{-\delta t} \int_0^\infty w(c_t; \bar{c}_t) dT(F_{c_t}(c_t)) dt, \quad (3)$$

where $\delta \geq 0$ is the rate of time preference, $w(\cdot; \cdot)$ is given by (2), $T: [0, 1] \mapsto [0, 1]$ is a probability weighting function and $F_{c_t}(\cdot)$ is the cumulative distribution function of c_t .

The agent wishes to maximize his lifetime utility function (3) over admissible consumption and portfolio strategies subject to his dynamic budget constraint⁵. In a complete market setting, certain special cases of the optimization problem can be solved by using the martingale method of Cox and Huang (1989).

We illustrate the optimal consumption profile for a special case where:

$$u(c_t) = \frac{1}{1-\eta} c_t^{1-\eta}; \quad \gamma_1 = \gamma_2 = 1; \quad T(p) = p.$$

Figure 1 displays the optimal consumption profile⁶ as a function of the state price density. For the sake of comparison, we also illustrate the optimal consumption profile for an agent with only "consumption utility" (red dashed line). As can be seen in Figure 1, the optimal consumption profile falls into three regions. In good states of the world (i.e. low state prices), the agent gives up some upward potential in order to protect himself against low consumption levels. In intermediate states of the world (i.e. moderate state prices), the optimal consumption profile is constant at the reference level. In bad states of the world (i.e. high state prices), the agent's wealth is insufficient to finance consumption at the reference level.

The above discussion reveals that an agent with alternative preferences may behave very differently than an agent with standard preferences. Further research is needed to completely understand the effects of e.g. subjective probability weighting, loss aversion and reference-point formation on optimal life cycle behavior.

⁴We abstract from longevity risk and bequest motives.

⁵We assume that the agent invests his wealth in a financial market consisting of one risky stock and one risk-free asset.

⁶The optimal portfolio strategy is the one that replicates the optimal consumption strategy.

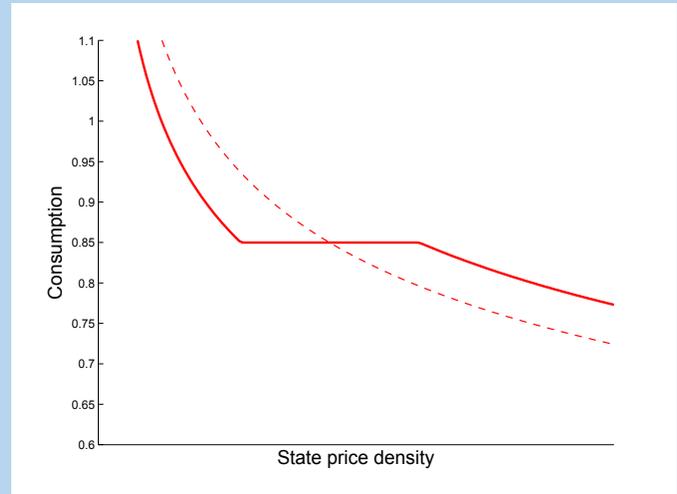


Figure 1: Optimal consumption profile.

This figure displays the optimal consumption profile for an agent with reference-dependent preferences (red solid line) and an agent with only "consumption utility" (red dashed line). Consumption levels are expressed in terms of labor income. The underlying preference parameters are as follows: $(\bar{c}_t, \delta, \alpha, \eta, \kappa) = (0.85, 0.04, 0.5, 5, 4.5)$.

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APG: A Pension Giant

On October 5, Daniëlle and I travelled to Amsterdam to interview Kay Mennens, an employee of APG. This company is one of the largest pension investors of the Netherlands and certainly very interesting for econometricians who are interested in pension investments and asset management.

The Company: APG

APG used to be part of ABP, the pension fund for employees working for the government and in the educational sector. ABP and APG had to split up because of new regulations in the Netherlands. In the beginning, ABP was the only customer of APG. After APG merged with Cordares, a smaller pension investor, they attracted more customers. At the moment, APG is taking care of the pension investments for more than 4.5 million people. Still, the biggest client of APG is ABP. APG has offices in Amsterdam, Heerlen, New York and Hong Kong and employs over 4000 employees in total, most of them working in Heerlen. The reason for this is the fact that the back office and asset management department are situated in Heerlen. In Hong Kong and New York two offices are located, since APG wants to be close to the international trading floors. Kay Mennens works at the location in Amsterdam, where the European investments decisions are made.

The Employee: Kay Mennens

APG is located near the train station Amsterdam Zuid, so we only had to walk for a few minutes to their building. When we arrived at the reception desk, we were friendly asked to wait for Mr. Mennens to pick us up. The receptionist gave us visitor passes and after a few minutes of waiting, Kay arrived to welcome us. He guided us to a meeting room where we could enjoy a beverage while doing the interview. Originally, Kay is from Venlo, where he lived until he finished his secondary school in 2004. After secondary school, he moved to Tilburg where he studied econometrics and finished his master QF/AS in 2009. "My economics teacher advised me to take a look at econometrics, since I was interested in economics. In the beginning I doubted between several technical studies, but when I looked at this study and its possibilities I was quickly convinced. I moved to Tilburg to study econometrics and that is

something I have never regretted." During his student time in Tilburg, Kay organized a congress and he was in the board of Asset | Econometrics of 2007-2008 as treasurer. For this reason, he was immediately enthusiastic and offered himself as volunteer when we asked if we could interview an employee of APG. "I thought it was too early to start working on the age of 22. Moreover, I think that a board year is a good addition to your study program. Therefore, I decided to do a board year in 2007." He started working for APG in November 2009 directly after his graduation and quickly moved from Tilburg to Amsterdam. At this moment he is still living in Amsterdam together with his girlfriend, though he has moved several times within Amsterdam. In his free time he likes to swim and to spend time with friends, most of them also living in Amsterdam. However, most of his free time he spends on his latest hobby: writing a master thesis. After one year of working experience, he decided to start a new master in investment management on the VU University Amsterdam. This master is developed by the association of investment analysts. In the beginning he had to follow classes in the evenings from 19:00 to 22:00. Fortunately, he passed all the courses, so now he can focus on writing his master thesis. "I chose this study program because it gives a really practical look on investments, instead of the theory that you learn when studying econometrics. This way I can use my knowledge immediately in practice."

Kay's work at APG

Working at APG provides you many opportunities, for instance it has offices abroad which gives you the possibility to get working experience abroad. Furthermore, working at a Dutch location of APG does not necessarily mean that you will never have business trips to other countries. "I have a lot of contact with the location in London and therefore I travel to London quite often. Sometimes we invest

Name:
Kay Mennens

Position:
Portfolio
Manager-
Credits



in companies with quite high risks, for example in banks in Portugal or Spain. In these cases, we want to look how such a bank handles with problems with customers who, for example, are not able to pay the interest on their loan. Therefore, we travel to these countries to get a good look at the situation in such a company on site." However, these kinds of trips abroad take place sporadically. At a normal working day in Amsterdam, Kay starts working between 8:00 and 8:30 and normally he is finished around 18:00. "My day exists of looking at our investments, finding new data about investments and possible new investments, processing that data and looking for new investment possibilities." There are no hard deadlines for Kay, since the time horizon of a pension fund is very long. Hence, it does not matter whether you invest in an asset today or tomorrow. An advantage of this, according to Kay, is that you have rather flexible working hours. At the moment, Kay does not have the intention to leave APG. "First I want to finish my master thesis first and after that I have some possibilities to make promotion within the company, so my focus is here."

Working at APG

After talking about his specific job at APG, Kay told us how it is for most employees to work at APG and what the possibilities and advantages are for working at APG. "APG has a flat structure so you can walk right into your manager's office whenever you like. Within the company there are enough possibilities to grow into better positions. APG has employees working on various departments, such as pension administration, management, marketing, communication, asset management and finance. Obviously, most econometricians work on the management, asset management or finance department. After some research we found out that APG is looking for people that can strengthen their finance department. They are especially interested in financial specialists, econometricians or actuaries. Within the market of pension funds there are only a few competitors, which all have their own big client. For that reason, the employees of APG do not experience that much competition between the big companies. All these factors contribute to the fact that working at APG has a lot of benefits,

which Kay sums up for us to get a clear view. "The first advantage is that APG is a big company, so there are a lot of people working at various positions, which means that there is always a job that suits someone who wants to work in the financial world. The second advantage is that the company operates on an international level, so there is a possibility to go abroad if you would like to. Another advantage is that in most positions at APG you are not restricted to tight working times and therefore can work flexibly. Furthermore, the different departments often do some relaxing activities together to get a better connection. Of course there are a lot more advantages of working in this company."

After Kay summed up some benefits of working at APG we had a clear view of who Kay is, what his work entails at APG and what kind of company APG is in general. Having received a good impression of APG, it was time to close the interview with Kay. On behalf of Asset | Econometrics, we offered him a bottle of wine, wished him good luck with his career and his master thesis, and travelled back to Tilburg.

Text by: Leon de Wit

Politician, Ph.D. Student and Pension Specialist

On the 27th of September the Pension Symposium organized by Asset | Econometrics and Asset| Economics took place. One of the speakers this day was Ilja Boelaars. He told us about his student life, politics and most of all about his refreshing view on the current Dutch pension system.



Name:
Ilja Boelaars

Position:
Ph.D. researcher
at University of
Chicago

Student time

Ilja is 28 years old and currently he is a Ph.D. student in Economics at the University of Chicago. Besides this, he is an active member of the Jonge Democraten (English: Young Democrats), the youth party of the D66. He is strongly involved in the discussion on the current Dutch pension system. Ilja grew up in Apeldoorn and after secondary school he did not know exactly what he wanted to do, so he decided to work for one year. At secondary school Ilja was good in subjects like mathematics, physics and chemistry. However, he was more interested in social problems. Therefore, he did not know exactly which study program to choose. He considered studying mathematics or sociology: two subjects that differ a lot. By accident he found the perfect combination of mathematics and society at the Utrecht University: economics.

great time with his fellow students. In fact, he thinks that this one year was too short.

University of Chicago

Before going to the University of Chicago, he worked for three years in order to earn some money. As mentioned before, nowadays Ilja is a Ph.D. student in economics. Ilja likes the University of Chicago a lot, since for example five out of his 22 professors have won a Nobel Prize. The professors teach their students in quite a traditional way; group work is not of application. Although the students do not have any team assignments, they study and discuss a lot in groups, since this is the best way to understand the difficult study material. Another aspect Ilja likes about this university is the fact that the professors are very motivated. In contrast to some Dutch professors, the professors at the University of

‘Do not think in impossibilities but rather in chances.’

Unfortunately the students at his study were not as enthusiastic as he hoped for. After the lectures, everyone returned home as fast as possible, while Ilja was in fact interested in continuing the discussion after lectures. According to Ilja, a large part of the Dutch students is not very motivated. For that reason, Ilja started looking for something more challenging after receiving his bachelor degree. He became interested in studying at the London School of Economics. However, he first thought it was too hard to be admitted to this famous university. Nevertheless, he became very motivated and his grades soon increased to an eight on average. Against his earlier expectations, he was admitted to the Masters program in economics at the London School of Economics. Ilja had to study a lot at the London School of Economics but still had a

Chicago enjoy it when students ask difficult questions and in fact they realize that the students are very talented. At the University of Chicago there is a lot of interaction between the teachers and the students during lectures, which is made possible by the small groups the students are in. In the Netherlands, most students keep silent when the professor asks them a question. On the contrary, in Chicago the students like to participate in the lecture. Ilja has recently finished his first year and now he has to choose a direction. He does not know yet what he is going to do, but probably he will choose a direction related to pensions.

Politics

Since Ilja is an active member of the youth party of D66, he travels between The Netherlands and Chicago on a regular base. This year,



he already travelled six times to the Netherlands in order to stay in touch with the Jonge Democraten. The youth party of D66 is the biggest youth party of all Dutch political parties. They try to influence the plans of their mother party D66. At the Jonge Democraten, Ilja is particularly involved in the pension cases. He is interested in this subject since it is not only a hot topic in politics, but it is also very technical and profound. Moreover, the voice of young people is very important and relevant in the pension system problem.

An important point of focus of Ilja in his activities for the Jonge Democraten is the reform of the Dutch pension system by means of the introduction of individual accounts instead of collective pension funds. He wants to increase the freedom of choice and to make the system less complex than it is nowadays. In his opinion it should be made possible for people to decide for themselves in which pension fund they want to invest and to be able to easily see what amount of money they are saving. People should be given the chance to adapt their pension fund choice to their own wishes. For example, if you are young, you probably dare to take more risk than older people.

PensioenOpstand

Next to his activities at the Jonge Democraten, Ilja also participates actively in the Dutch project PensioenOpstand. This project is a cooperation of several Dutch youth parties. When the pension agreement was set one and a half year ago, the political youth parties noticed that there are some very disadvantageous consequences for young people

scheduled. The structural reforms that are needed according to these youth parties were not yet arranged. Therefore they decided to come together to give their opinion on this subject. The attention for this project was great. For example, Ilja was invited to go the House of Representatives twice with PensioenOpstand. Ilja thinks that the attention for young people increased a lot in comparison to the past.

The most important element of PensioenOpstand is the discount rate. According to the pension agreement, the plans were to increase this rate a lot. Fortunately for the young people, the discount rate did not increase as much as expected. Perhaps the PensioenOpstand project has affected this. Moreover, the difference between the amount of money that young and old people have to pay, has to change according to PensioenOpstand. Another issue that should be reformed according to Ilja is the fact that the representatives in the boards of pension funds are employers and employees who are all rather old. PensioenOpstand wants every age category to be represented in the boards of pension funds.

Ilja can recommend everyone to become a member of a political party. Since most of the important people in the world are older than 50, young people have to find ways to influence the views of political parties. Being a member of a political party gives you the opportunity to have a real influence on congresses.

Inspiration

We asked Ilja whether he admires someone and he certainly does, namely

top economist Willem Buiter. Buiter studied economics at the University of Cambridge and received his Ph.D. in economics at Yale University. Buiter was professor on several top Universities, the Woodrow Wilson School of Princeton University, Yale University, University of Cambridge and the London School of Economics. Willem Buiter is also an external member of the Bank of England's Monetary Policy Committee. What Ilja admires about Willem is the way he speaks, really like a Dutchman; steady, raw, clear, a-politic, undifferentiated and honest.

The advice

Ilja advises students to go abroad and to look which other possibilities you have. Maybe you can find interesting challenges in academic environments at Universities like Oxford or Cambridge. Although it seems hard to be admitted to good universities, it is possible to go to universities like The London School of Economics. The best universities in the field of economics can definitely be found in the USA and the UK. Last but not least he advises us students not to think in impossibilities but rather in chances!

We would like to thank Ilja Boelaars for this interview.

Text by: Chris Pustjens

Optimizing Room to Breathe

Today, there is an ongoing discussion on the increasing costs in health care. Pressure is put on hospitals to cut costs, whereas the quality of care needs to remain at a high level. Therefore, hospitals aim at increasing efficiency. During my internship at the HagaZiekenhuis, I was able to increase efficiency while improving the service level.



Name:
Marleen Balvert

Age:
23

Begin Studies:
2007

Introduction

The HagaZiekenhuis in The Hague facilitates a lung department, where all medical facilities concerning the lungs are located. The lung department consists of lung specialists, an inpatient department for lung patients and a lung function department. This research focuses on the lung function department. Here, a number of tests can be performed, each giving information on several capabilities of a patient's lungs. At the HagaZiekenhuis in The Hague, 23 different tests can be performed, and each patient undergoes a selection of these tests based on the information the lung specialist or general practitioner is interested in.

Currently, the lung department as a whole copes with a room shortage. However, the rooms at the lung function department seem to be unused rather often. This leads to the main question of this research: is it possible to operate the lung function department with fewer rooms? We look at the possibilities of using a room completely for other purposes as well as releasing a room on fixed days in the week, such that on those days, this room can be used for other purposes.

Current planning practice

When a patient is referred to the lung function department, he contacts the secretary, who makes an appointment. The patient is assigned to a time slot and a lung function analyst. At the beginning of the patient's appointment, the analyst determines in which of the nine available rooms the treatment will take place. Preferably, this is a room where all examinations of this patient can be performed. However, some combinations of examinations are not available in one room. Besides, since the rooms are not taken into account when scheduling patients, the room containing all necessary equipment is often already occupied. In that case, the patient needs to undergo some of

his examinations in one room, and then move to another room for the remainder of his examinations.

Data analysis

Before investigating in detail whether it is actually possible to close rooms at the lung function department, a data analysis is performed in search for indicators that rooms can be (partly) released. We did not have to search long: the average room utilization over the year 2011 appears to be only 48%. Furthermore, the working hours of analysts prevent a high room utilization. During 2011, each day the number of analyst hours available for examination lay far below the number of room hours. This implies that with the current staff, it is not possible to reach a high room utilization.

Despite these figures, the lung function department feels that all rooms are necessary. According to the department, at several moments in time all rooms are occupied, which is at odds with the very low average room utilization. This contradiction can be explained by the spread of the patients over time: the demand strongly varies per day. On top of that, hardly any patients are scheduled early in the morning, whereas around 2 pm each analyst is performing examinations, resulting in peak moments.

A final interesting feature that becomes apparent from the data analysis is the usage of room 9. This room contains only two devices, both of which are needed for only a small amount of time per week. This results in room 9 being used for only 15 minutes a day. Therefore, during the course of this research, management has decided to give this room another purpose. Room 9 is thus not taken into account in this research anymore, and eight rooms remain.

The data analysis thus indicates that it is possible to reduce the number of rooms used at the lung function department. An uneven spread of patients over time causes the department to feel that they need all of their rooms. Therefore, this research aims at a better spread of patients over time. However, this might result in patients waiting for their appointment, which we need to try to avoid.

Planning method

As explained before, the secretary assigns each patient to an analyst. However, the analysts redistribute the work among them at the beginning of each day. Furthermore, scheduling per analyst has some disadvantages. As explained before, the preferred room for a patient might not be available,

such that as many patients as possible can visit a single room.

Assignment of equipment

In order to redistribute the equipment among the rooms, two assignments of equipment are developed based on intuition. Furthermore, a third equipment assignment is found as a result from a mixed integer programming (MIP) model. The input data for the model consists of the patient data over the year 2011. For each patient, it is known when he had his appointment, and which set of examinations he needed to undergo. Furthermore, for each examination, the planned duration is known.

The model has two important decision variables. The first variable assigns

appointment, and in a room where the right equipment is available. The assignment of the equipment is also subject to several constraints. Some of the devices are very large, and thus have to be located in the largest room. Furthermore, the small rooms cannot contain too many devices because of their size.

In 2011 there were busy and quiet weeks. As one can imagine, allowing the model to schedule patients freely results in delaying patients as long as needed, until the room where they can undergo all of their examinations is free. However, a patient should not be delayed too much because of health risks. Therefore, patients can only be delayed for one week and a penalty is included for each delayed patient.

‘Our data analysis showed that the body box might form a bottle neck.’

resulting in moving patients between rooms. It is also hard to see at a glance how many patients are already planned at a certain moment in time, which makes spreading appointments over time more difficult. Scheduling per room instead of per analyst can solve these problems.

The assignment of patients to rooms instead of analysts has one main disadvantage. Due to the distribution of equipment over the rooms, for several patients it is inevitable to visit multiple rooms. These patients should thus be scheduled at two or even three rooms consecutively. However, since we are dealing with patients, the treatment durations are highly variable. A delay for a patient on his first room thus results in a delay on his second room, which yields a high risk of delays at several rooms throughout the day. Therefore, the first step in this research is to investigate the possibilities of moving equipment between the rooms

equipment to rooms, and the second variable schedules the patients by assigning them to a room and a week. Patients are not assigned to a specific time slot or day, since this would result in too many variables, and thus a model that is too large to be solved. The objective is to assign as many patients as possible to a single room, under the constraint that the time spent on a certain room during a certain week cannot exceed the maximal available time. Naturally, each patient should be scheduled and must undergo all of his examinations in a single



Simulation study

Our MIP model considers an off-line scheduling problem, which implies that it has the liberty to fit all patients into the schedule in an optimal way. However, in reality we are facing on-line scheduling: patients are scheduled in order of arrival, and a scheduled patient cannot be rescheduled. Therefore, the MIP model is able to find better solutions than what is possible in reality. Therefore, the equipment assignments are tested by means of a simulation study.

The scheduling of patients is simulated week by week, and schedules all patients who have visited the department in 2011. First, all patients who were originally scheduled in week 1 in the year 2011 arrive in random order. Each patient is assigned a time slot in week 1 on a room (or rooms) where he can undergo all of his examinations. When there is no suitable room available for the patient, he is scheduled in the next

week. This procedure continues until all patients who were originally scheduled in the first week have an appointment, and then the model moves on to week 2. This process is repeated until we have reached the end of the year.

During the past decade, the lung function department has grown steadily. Therefore, the simulation study is not only run for all patients of the year 2011, but for an increase in patient demand of 10% and 20% as well.

From the simulation study, for each equipment assignment we obtain information on the number of delayed patients. As stated before, we may not delay too many patients, and thus the number of delayed patients becomes our main performance indicator.

Additional interventions

Besides redistribution of equipment among rooms, other interesting interventions are evaluated by means of the simulation study. From our data analysis, it became clear that one of the devices, namely the body box, might form a bottle neck: many patients make use of this device, while there are only two body boxes available. The easiest solution is to invest in an extra body box. However, this is a very costly investment. Therefore, we also consider the possibility of extending the workday for 15 to 30 minutes on the two rooms containing a body box. The effects of these two interventions are investigated by means of the simulation study. For each



configuration, i.e., for each equipment assignment with or without additional body box and extended workdays, we try to close as many rooms as possible without delaying too many patients.

Breathtaking results

From the data analysis, we know that the room utilization at the lung function department has been very low. We thus suspected that the department could function well with fewer rooms. The results from the simulation study confirm that this is very well possible.

First of all, the three equipment assignments are compared to each other as well as to the current situation. The simulation study clearly shows that the current assignment of equipment is not even capable of handling a 10% growth in demand, whereas the new assignments are. Furthermore, one of the intuitive assignments significantly outperforms the other two assignments. Therefore, we only consider this assignment in the remainder of this article, and try to close as many rooms as possible.

When considering the patient demand of 2011, without any additional interventions, already two out of eight rooms can be closed completely, and one room can remain unused for two days per week. When adding a body box, another room can be closed completely. Extending the workday on the two body box rooms even results in a total of four closed rooms.

A demand growth of 10% gives similar results, but naturally, fewer rooms can be closed. Without interventions, we can close one room completely and one room for a few days per week. With an additional body box and extended workdays on two rooms, this can be improved to closing three rooms.

The results for a demand growth of 20% are quite shocking: without additional interventions, the department has to delay an unacceptably high number of

patients. Even extending the workday does not yield a sufficiently low number of delayed patients. However, when a body box is added to the system, the department is capable of examining a sufficient number of patients within a week. Remarkably, when investing in a body box, the department is even able to close two complete rooms and have two free days on the third room. From this, we can conclude that the number of rooms is not the bottleneck at the lung function department, but the number of available body boxes is.

Conclusions

The lung department of the HagaZiekenhuis in The Hague is coping with a room shortage. This research has shown that the problem of room shortage can easily be solved. The lung function department can operate at a high service level using fewer rooms, simply by scheduling per room instead of per analyst. In order to make this type of scheduling work, the examination equipment needs to be redistributed among the rooms. Investing in additional equipment increases the flexibility of the department, and is even inevitable in case of a large expected demand growth.

This research shows how efficiency at the lung function department can be improved, without decreasing the quality of care. We have even increased the service level at the lung function department: for patients it is more convenient to stay in one room during all examinations, instead of moving between rooms. This research is now one of the many examples where, with the aid of operations research techniques, efficiency and improved quality in care can go hand in hand.

When the leaves are falling again...

COLUMN

The new academic year has started! When you read this column you are probably submerged in lectures, exercises and the like. Also for me as a teacher, the year has started with courses, lectures and grading papers and assignments. The relatively quiet summer months with an almost empty calendar are over.

This September, the most important event in the Netherlands was undoubtedly the elections for parliament. The two key issues in this year's elections were the national economy and Europe. For the latter even a newspaper like the Wall Street Journal was highly interested in the outcomes of these elections. However, as of the time of writing this column a new government is yet to be appointed. After a disastrous loss to Belgium in soccer in August, we do not want to lose to the Belgians again in surpassing the time it takes to form a government!

One of the key observations in the campaign was that the statements made by politicians

'Numbers from the CPB calculations typically get a life of their own.'

in debates were checked by the media. 'Meten is weten', we say in Dutch, or 'measurement is knowledge'. As an econometrician you must certainly like this saying. And even more than before, a lot of numbers were thrown at us in debates, newspapers, and other media, to support the many claims made by politicians.

Before the elections the Central Planning Bureau (CPB) had calculated the impacts of the different economic programs of the political parties. And indeed, some big differences were found; in expected economic growth, budget deficits, national debt, housing prices, household purchasing power and the like. These numbers from the CPB calculations typically get a life of their own, as politicians happily endorse them and conveniently pick out those numbers that they can use as weapons against each other when debating. I can imagine that many voters lost track in this number jungle.

As an econometrician I have always looked upon these CPB calculations with some amazement. Why only provide point estimates? Given the huge uncertainties in economic projections, I would not be surprised to learn that the different estimates for the policy measures by the different parties are not significantly different from each other. As the English would say: 'It is Tweedledum and Tweedledee'; . It does not matter which economic program you choose; all of them would a priori lead to outcomes that are statistically indistinguishable. That would make political debates a lot easier. There would be no need any more for technical economic discussions.

So what should politicians be talking about then? If the numbers do not matter anymore, it should be about people and the way we organize our society. How can we make our country ready for challenges like aging, increasing health care and pension costs, environmental pollution and improving education? In other words, instead of economics, we should be focusing on political economy; the visions are more important than the numbers.

Going back to the numbers, I think it is almost an insult to Dutch people to withhold information about the dispersion of projected policy outcomes. Nowadays most weather forecast services, on internet and also on TV, provide us with nice graphs of temperature scenarios. And we all understand them. So why not provide the projections for economic variables in this way as well? It would be nice to see Coen Teulings, the director of the CPB, as an economic weatherman showing us the projected future developments of the Dutch economy using colorful scenario trees. My guess is, this will never happen...

Anyways, I wish you all the best in all your academic activities this year. A Happy New (Academic) Year!



Name:
Ronald Mahieu

Position:
Associate professor
(TiSEM)

Professor
(TiasNimbas
Business
School)

Solving a problem requires another way of thinking

Perhaps you have already cast a glance on the article about the Lecturer of the Year Award on page 43, in which you can read that professor Hans Schumacher won the award for best Master lecturer. As it is not the first time that this professor won an award, we became curious about him and his teaching style.



Name:
Hans
Schumacher

Position:
Full professor

We entered his office and our eyes immediately fell on one of the bookshelves. On eye height, in front of some books, there was his award, so we could definitely not miss it. His office looks like a library for mathematical books and also some economics books and papers. If you did not know that he was a mathematician, you would probably think that he is a historian.

Schumacher lives in Amsterdam and he travels to Tilburg by train every day. If he is delayed by travelling with the NS, his colleagues put a signboard in front of his office, so visitors know he will arrive later. In the train, he always reads articles about his area of expertise. In case of delay during the travelling, he uses this time to finish reading the articles. According

mindset of the people at the MIT was rather different compared to academia at that time in the Netherlands. "The researchers at MIT felt they were standing at the beginning of a new revolutionary science era and that all important things were discovered there or should be discovered there." In fact they had good reasons to assume that, as there were loads of discoveries at this university. In the Netherlands and in many other countries, researchers often go to colleagues at their own department, who share almost the same expertise, if they are in need of inspiration. At MIT, people think differently. There, as a researcher you should know about all the major discoveries in science. Therefore, if there was a breakthrough in physics, the entire

'The main buildings of MIT and Harvard are situated in the same street.'

to Schumacher, one of the reasons that he lives in Amsterdam instead of Tilburg is the fact that his wife teaches at the VU University Amsterdam. Schumacher himself studied mathematics at this university in Amsterdam. During his student time, he was active in many ways. For example, he was also an editor for the student journal of the university and he was a member of several boards. After receiving his Master's degree in mathematics, he got his Ph.D. in mathematics in Amsterdam.

Subsequently, he went to the United States of America for one year together with his wife and children. During this time, he mainly conducted research at MIT, the Massachusetts Institute of Technology and his wife followed some courses at Harvard University. "The main buildings of MIT and Harvard are situated in the same street." Schumacher noticed that the

university was interested. Hence, when you have a model that applies to physics, maybe you can also implement or rephrase it into an economic model. Although expertise is needed, still some techniques from different fields of science could be used.

Schumacher also worked at the ESA, the European Space Agency, and at the Erasmus University in the econometrics department. Naturally, we became curious why he had so many different jobs in such a short time period. He explained to us that in the time he got his Ph.D., it was becoming common to go abroad for one year to another university after receiving your Ph.D. The idea behind this was to bring information of different universities to the Netherlands. Furthermore, he did not get a permanent job offer until after a few years, so he had to go from one job to another.



It was 'normal' and it was useful to expand your knowledge.

In the beginning, Schumacher worked on a part-time basis at Tilburg University. The reason for this was that he worked at the CWI, the Center for Mathematics and Computer Science, in Amsterdam. The CWI arranged an exchange with Tilburg University to let researchers experience what teaching was like and to do more than pure mathematics. For one day a week Schumacher was exchanged with an employee from Tilburg University. When a researcher at Tilburg University retired, Schumacher got a full time job in Tilburg.

I experienced that the lectures given by Schumacher are really useful, which is probably the reason he won the award. He really tries to make contact with students and he is always very passionate about his topic of interest. In his lectures he makes use of many metaphors. For example, he explains the subject material by means of ice cream, so you get very hungry, or about going to the cinema, which makes you want to go to the new James Bond movie. These metaphors make the subject material clearer and easier to understand for the audience.

Schumacher's passion is to invent something that has never been shown or done before. However, his view is realistic enough to see that his retirement is coming closer, so a big breakthrough is becoming more difficult to achieve. Schumacher admires Paul Samuelson, who was the first American to win the Nobel prize in economics. It is not difficult to see the connection with Schumacher's field of interest, since Samuelson makes use of mathematics a lot in order to solve economic problems.

In several ways, Schumacher is active in the econometric community. In the first place, he is the coordinator of the QFAS Master's

program. Also, he is doing research for Netspar. Moreover he is the academic director of the Executive Master of Actuarial Science (EMAS) at TiasNimbas Business School. If this is not enough yet, currently he is also starting up a project with a new Ph.D. student. The funny thing about this is that Schumacher also guided this student through his bachelor thesis and his master's thesis. The EMAS program keeps him quite busy; he gets mails from his program manager on average twice per day, weekends included.

Schumacher's vision of the future is that a lot of financial expertise is needed in every company. Nowadays, we experience many problems in the public sector, for they do not make use of derivatives well enough. The government tries to prevent this from happening again by means of stricter rules on derivatives. Schumacher understands why the government is doing this, but disagrees with the constraints. In his opinion, it gives you fewer options and if you understand the use of derivatives you can handle the more difficult ones as well.

We congratulate Hans Schumacher with his award and thank him for his openness during this interview.

Text by: Robbert van Gaal

Hans Schumacher's choices:

Bert or Ernie?
Bert

Pension or assurance?
Pension

Beer or Wine?
Wine

Calculator or Mental Arithmetic?
Mental Arithmetic

Mathematics or Econometrics?
Mathematics

Mensa or cooking?
Cooking

Stress or boredom?
Stress

Amsterdam or Tilburg?
Amsterdam

The Holistic Balance Sheet Method as Supervisory Instrument for Pension Funds

This article explains what the 'holistic balance sheet' (HBS) is and its relation with supervision on pension funds. The method gives a more complete view of the financial situation of a pension fund, because the HBS include more elements than the traditional balance sheet. But complexity and subjectivity are serious issues.



Name:
Hans Staring

Position:
Balance Risk
Manager



Name:
Jan-Willem
Wijckmans

Position:
Expert Balance
Risk Manager

Background

In the Netherlands, the supervision on pension funds has to meet the requirements of the European supervision directive, the IORP Directive (Institution for Occupational Retirement Provision Directive). The European Commission (EC) started with a revision of that directive in 2011. Originally, they had three reasons to do that, with two reasons added in most communications in a later stage:

1. Since the first directive from 2003, new member states joined the EU with pension systems which do not fall under this directive;
2. Further stimulation of risk-based supervision;
3. Promotion of the internal market to stimulate cross-border pension funds;
4. Development of pension coverage, especially in the context of poverty among elderly people;
5. Improvement of the role of pension funds as providers of long term capital.

The EC asked EIOPA, the European supervisor, for advice on how to build a harmonized framework that would achieve these goals. To accomplish a harmonized supervision, EIOPA came up with the holistic balance sheet, or HBS¹.

Design of the HBS

Like the traditional balance sheet, the HBS shows assets on the left side and liabilities and surplus on the right side. The HBS intends to include also the market consistent value of all steering and security mechanisms. See figure for a comparison of the traditional balance sheet with the HBS². We can see that the balance sheet is extended with conditional assets. For example, one can think of a sponsor guarantee or a rise of the incoming contribution in case

¹See EIOPAs Advice to the European Commission on the review of the IORP Directive 2003/41/EC, 15 February 2012.

²For the original HBS as EIOPA presented, see the EIOPA advice, p.73.

of a low funding ratio.

The liabilities are extended with two elements: increasing conditional liabilities and decreasing conditional liabilities. In the Netherlands we have conditional indexation which is given in prosperous times and the possibility to lower pension benefits in bad times.

The idea is that such a balance sheet gives a more complete view on the financial situation of a pension fund. For example, two pension funds with the same traditional balance sheet are not in the same situation when one of the funds has a sponsor guarantee. The pension fund with the sponsor guarantee can have a lower capital buffer to give the same security to the pension benefits.

The calculation of the conditional elements in the balance sheet should be market consistent. This means that the value should be a trustworthy view of the value if it could be traded on the free market. The cash flow of most conditional elements depends on specific circumstances. Think of a sponsor guarantee that only pays out when the funding ratio is below for example 90%. Due to these specific circumstances the conditional elements have the same characteristics as for example equity options.

The HBS faces some challenges

When using the HBS, there are still some open ends and challenges to face³:

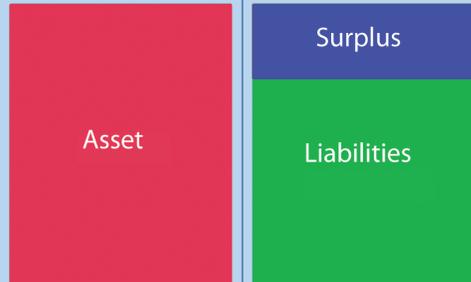
- The calculation of the conditional elements is complex.

While the elements can be compared to standard options, there are hardly any standard formulas to determine the value. The valuation models look like more complex variants of an ALM-model. To meet the supervisory requirements, costs will likely rise. The supervisory demands will ask for more

³The pros and cons of the HBS are more extended described in The design of European supervision of pension funds, Broeders, Kortleve, Pelsser and Wijckmans, Design paper 6, Netspar, February 2012

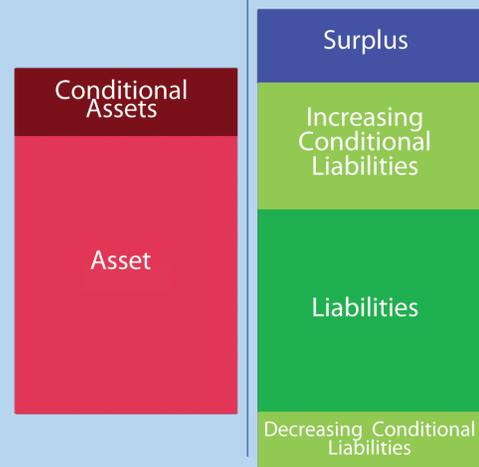
Traditional Balance Sheet

Assets Liabilities and Surplus



Holistic Balance Sheet

Assets Liabilities and Surplus



expertise from supervisors, pension administrators and pension fund boards. This gives job opportunities for econometric students who like to combine their technical knowledge with the dynamic pension world and who wants to work in a field of great social importance;

- The calculation of the conditional elements is often subjective and leads to the illusion of accuracy.

The data which is needed for the calculations is often not available. For example, an 'indexation option' has a far longer duration than what is commonly traded in option markets and depends on wage and price inflation which is not traded at all. To come to a valuation several assumptions have to be made which can lead to entirely different outcomes;

- Proportionality: The need for extra expertise and manpower is easier to overcome for larger pension funds than for small ones. The extra costs can be a problem for small funds;

- The HBS surplus is an aggregate figure difficult to interpret.

It is important to understand that the surplus that the HBS gives is not as straightforward to interpret as the surplus in the traditional balance sheet. In the traditional way a higher surplus is always better. The sponsor has a lower risk of additional contributions; participants have more chance on indexation and less on lowering pension rights. In the HBS this does not have to be the case. A higher surplus can come forth from high expected benefit cuts. The higher surplus is in that case a worsening of the situation for the current participants. Or, the higher surplus can come forth due to a higher value of the sponsor guarantee.

The higher surplus is then good news for the participants but not for the sponsor. This simple illustration shows that the HBS gives a more complete view on the financial situation of a pension funds but also calls for more knowledge and expertise to 'read' the balance sheet.

The HBS is part of more proposals

The HBS has been brought forward as a tool to bring harmonization in supervision and to cope with the many different pension schemes in the EU. Other important parts of the advice are:

- There are proposals about how to value the liabilities. It looks like the preference is the same 'risk-free' interest rate as in Solvency II⁴. This can affect many British pension funds that currently base their funding needs on expected asset returns⁵.

- EIOPA wants a harmonized security level. In the Netherlands, we currently use a level of 97.5%. We accept that when we start at equilibrium level, we end in deficit once every forty years. If the harmonized security level becomes 99.5% as in Solvency II, we accept that this only happens once every two hundred years. Security buffers will have to rise, meaning that in the short run less indexation will be given, contributions may rise and the chance on cutting pension rights will increase.

- Perhaps a risk margin above the

⁴Solvency II is the upcoming supervisory tool for European insurers.

⁵For example. I have 950,- now. I need 1000,- in two years time and I make an expected asset return of 5% per year. I only need 907,03 now. My surplus is thus 42,97. But when I have to value with a risk-free return of 2%, I need suddenly 961,17 and my surplus is turned in to a deficit of 11,17.

liabilities is introduced. This could mean a rise of the liabilities with 10%. All proposals are in a phase of consideration. As of this moment, a Quantitive Impact Study is conducted to investigate the impact of the proposals on European pension funds. The first proposal for an official directive is expected in 2013 or later. Due to European procedures which are necessary, the actual implementation of the new directive shall take a couple of years.

About the authors

Hans Staring studied Actuarial Sciences and Mathematical Finance at the University of Amsterdam (2010). He started working at PGGM in 2010 with a focus on analysis of current and future pension liabilities, the cost-efficient contribution and the actuarial part of the annual financial statement of pension funds. Now he works at the ALM department of PGGM. Hans' main interests besides ALM are the new pension contract and the interest rate. Jan-Willem Wijckmans has studied econometrics in Groningen between 1997 and 2003. He has started working in the field at Cardano, where he has gained expertise in risk management solutions using derivative overlays. Since 2010, Jan-Willem works at the ALM department of PGGM with a focus on strategic risk management. At PGGM, the goal of strategic risk management is to help pension trustees to make better and more informed decisions regarding the financial setup and the strategic investment policy, taking into account the interests of all stakeholders. For this, PGGM has developed state of the art models and methods to support its clients.

Beginner of belofte?



PGGM: werken aan een waardevolle toekomst

PGGM is een vooraanstaande pensioenuitvoeringsorganisatie met haar oorsprong in de sector zorg en welzijn. We verlenen aan diverse pensioenfondsen diensten op het gebied van pensioenbeheer, integraal vermogensbeheer, bestuursondersteuning en beleidsadvisering. Momenteel beheren we circa 105 miljard pensioenvermogen van ruim 2,3 miljoen deelnemers.

PGGM is een organisatie waar gewerkt wordt met geld, maar waar het draait om mensen. Vanuit dat perspectief zijn we elke dag bezig om mensen te helpen bij het realiseren van een waardevolle toekomst. Zo lopen we voorop op het gebied van verantwoord beleggen.

En investeren we als coöperatie zonder winst oogmerk we actief in een waardevolle toekomst door verder te kijken dan pensioen alleen. Samen met partners en meer dan 562.000 leden werken we aan een nieuwe oude dag door de domeinen pensioen, zorg, werk en wonen actief aan elkaar te verbinden.

Een veelbelovende start?

Bijna afgestudeerd in Actuariële Wetenschappen, Econometrie of Wiskunde? Op zoek naar een onvergetelijke stageplek? Toe aan je eerste baan? Het actuaariaat van PGGM is een geweldige plek om ervaring op te doen in de wereld van de financiële dienstverlening.

Ons actuaariaat bestaat uit twee afdelingen van totaal dertig mensen. Bij Actuariel Advies & ALM ben je bezig met bestuurlijke advisering. Je werkt aan vraagstukken als de houdbaarheid van het huidige pensioencontract en de optimale beleggingsmix. En bij Actuariële Verantwoording & Analyse gaat het om het analyseren van de pensioenverplichtingen voor nu en in de toekomst. Bestandsanalyse is belangrijk voor diverse pensioenvraagstukken en voor jaarverslaglegging.

Kom kijken!

Nieuwsgierig geworden? Bel met de afdeling Recruitment (030) 277 72 41, mail naar solliciteren@pggm.nl of kijk op internet: www.pggm.nl/werkenbij

The Economics Ph.D. Program in Tilburg

COLUMN

Since the start of the fall semester, I am education coordinator for econometrics in the Graduate Program in Economics (GPE) at Tilburg University. In this column, I would like to write about this program and about my experience as education coordinator.

The Graduate Program in Economics in Tilburg is one of the top Economics Ph.D. programs in Europe. The program is very selective. Every year we receive around 200 applications and the incoming class of first year research master students consists of around 20 students. Students can start the program directly after the bachelor program. The application deadline is on the 1st of February and it takes some time to prepare an application. Applicants need to submit their grades, a CV, two letters of recommendation and their scores on the GRE and TOEFL exams. TOEFL scores should be above 600 and quantitative GRE scores should be above the 90th percentile. Studying econometrics in Tilburg is a very good preparation for an Economics Ph.D. program,

rules. During the first year of the research master program in economics students follow a review course in statistics and mathematics and they take courses in the core disciplines of microeconomics, macroeconomics and econometrics. These courses are mandatory and they provide a common basis of knowledge for all students. In the second year, students can choose from circa 20 specialized courses in fields such as behavioral economics, industrial organization or econometrics. During the second year students also write a research master thesis. After two years, students with good grades and strong support from their thesis supervisor will be offered a Ph.D. position.

Ph.D. students are employees of the University. Their most important task is to write a dissertation which typically consists of three or more separate research articles. In the beginning of the program, Ph.D. students often collaborate with their supervisor and other professors, but later on many Ph.D. students are ready to also pursue independent research projects.



Name:
Martin Salm

Position:
Associate
Professor

‘The Graduate Program in Economics is a difficult and demanding program’

and it would be very nice if we received more applications from econometrics students in Tilburg. There are some fellowships for research master students. The most promising students receive a Koopman fellowship of around 1000 Euro per month, and some other students receive a partial fellowship of around 420 Euro per month.

The Graduate Program in Economics at Tilburg takes five years, and it consists of two phases: Two years for a research master and three years for writing a dissertation. The program has been reorganized last year. The new structure of the program is very similar to Economics Ph.D. programs at other top American and European Universities. There is also a separate Graduate Program in Business with somewhat different

The Graduate Program in Economics is a difficult and demanding program, though it can also be very rewarding. As a Ph.D. student you will have the time and freedom to seek answers to questions that interest you and to keep asking until you are satisfied with your answers. Research means doing things that have never been done before. Writing a dissertation often implies that you will spend a lot of time by yourself. But there are also many opportunities to exchange ideas and receive feedback from your supervisors, from other Ph.D. students and from professors at other universities who come to Tilburg to give a seminar presentation. Moreover, you can present the results of your research at conferences that often take place at nice locations around the globe.

Board to Board

Time flies when you are having fun. Or is a board year not just fun? The academic year 2012-2013 has started and the former board started being students again. Now it was up to the current board to meet the old board once again to discover the ins and outs of their board year. If you want to know more about the experiences of the board members, then continue reading!

Last year the old board, as interviewer of BoardtoBoard, ended the article with wondering what they would answer to some questions in this year's BoardtoBoard. Now the time has come to examine them and to look back on the former academic and econometric year, where the first question to be asked is about this year's highs and lows. The nadir of last year was definitely the letter they received from

Committees & Activities

Of course everyone is also curious about what their favorite activity of last year was. Jasper thinks of the Actuary Day of Tilburg being the nicest activity, since there was a lunch, a snack, a drink and besides that also some nice cases and presentations. Also, the soup should not be forgotten. Wilbert agrees about this and adds that it was a successful activity with a great

with former active members, Janneke liked the KOALA committee the most. Fang Qi mentions the Finance Expedition committee, since this was her first formal committee as coordinator and besides Nekst, it was the most challenging one. Wilbert agrees again with Jasper about the LED being the nicest activity, since this is the biggest event you can organize, it was challenging for them and there

	Robbert	Wilbert	Fang Qi	Janneke	Jasper
Beer or wine?	Beer	Beer	Beer	Beer	Wine (red)
First at the Astrics room or last to leave?	First to arrive	Last to leave	Both	Last to leave	Last to leave
Send e-mails or make calls?	Make calls	Make calls	Make calls	Facebook	Send e-mail
Brown or blond?	Brown	Brown (curly)	Blond	Brown	Brown
Board meeting or committee meeting?	Board meeting	Board meeting	Board meeting	Board meeting	Board meeting

Hein van Oorschot (chairman Executive Board Tilburg University until last year) about the situation with Asset, which was very depressing. However, strong as they were as a board, they did not give up. Then, according to Janneke, the evening with the information session in which the new plan was presented was definitely a highlight. Thereafter, the creation of the new structure of Asset and the approval of the new plan were again a highlight. According to Jasper, it was highlight after highlight, starting with a record of 100 pizzas at the Game Afternoon. Another personal highlight for Jasper was the fact that every Asset association now uses our budget composition. Speaking about highlights, Wilbert and Robbert mention the Orientation Day because of the time they spent on this and Fang Qi mentions the Batavierenrace, where they achieved a very high place.

ambiance. According to Janneke, the Batavierenrace was the nicest activity because it was the first time the association participated in this event. Robbert mentions the Parents Evening, he liked the fact that a lot of people were present, although it was the 11th of the 11th (November 11, start of the carnival season). The first big formal activity the board organized was the Healthcare Symposium, and therefore Fang Qi enjoyed this activity the most.

Now moving on to the committees which they were a member of, which one was their favorite? Everyone liked all the committees they were a member of, but everyone has a slight preference. Robbert liked the introduction activity committee because of the creativity of the committee members. Due to the organized activity being somewhat different from others and the contact

are a lot of things you can decide by yourself. They regret that they could not finish this committee, but they think they have 'een mooi zaadje geplant' (English: have planted a nice seed). Although Wilbert and Jasper already agreed on two questions, this was not the case during their board year. For example, they had quite some discussions about the QF/AS and OR/MS master directions.

The Board Year

The biggest advantage of a board year is the personal development. All agree on the fact that you learn and grow more, mentally and physically, in one year on the board than during one year of studying, or even during your entire bachelor program. Fang Qi would like to add that you get to know yourself very well. One characteristic Jasper discovered about himself is that he can



work together with people better than he thought he could. In the end, all are much more stress proof than they could have ever imagined. Fang Qi discovered her talent for remembering names (and telephone numbers, and email addresses, and so on..). Janneke knows that she is still bad at multitasking, while this is exactly the thing Wilbert discovered about himself which he is good at. The characteristic Robbert discovered about himself was that he can get angry or grumpy, especially when he has to order the committee pictures for room E1.09. Jasper would like to add that Wilbert did not discover yet that he has no talent for singing.

The most embarrassing moment of Jasper's board year is something with penguins and for Wilbert something with the toilet at the E-building. Robbert was embarrassed when he was pushed over by some jealous guy at a drink of another Asset association. The women had their share of embarrassing moments as well. Fang Qi made sure that no board member had access to the rooms anymore, and Janneke had an allergic reaction in the bus after the Asset Lustrum gala. Finally, the old board thought of what 'Are you aware of the fact that..?' questions

they would ask themselves. After some brainstorming and a little help from each other, they came up with some interesting questions. Janneke would ask herself the following question: "Are you aware of the fact that it is not very normal that you can only sit on one desk in the Asset | Econometrics rooms"? Jasper: "Are you aware of the fact that you should include all activities in the presentation for the GMM"? Wilbert: "Are you aware of the fact that making the same jokes all the time is not funny"? Fang Qi: "Are you aware of the fact that you were carried away in an ambulance during the TUC"? Robbert: "Are you aware of the fact that you should reply to an e-mail only once?" Fortunately, he is aware of that fact now.

Looking back

There are some things they did not expect from a board year beforehand. For instance, they did not expect that there is never a quiet moment and that you are working a lot after 18.00h at the association's rooms. One thing that they would have done differently is the OAL dinner, they should have put more effort into this and they would have planned this activity in the weekend instead of on Tuesday evening.

Now that they are back in the lecture rooms, they sometimes miss the board year. They regret that there was no time to realize how awesome such a year is, since it is not like the Hart van Brabantloop where you can say: 'Let's do another round'. In their opinion it was strange to sit on the other side of the table during the last GMM, but they liked the final speech of Janneke. Now that they are following lectures, they have plenty of time and it is much easier to be disciplined and to follow the classes. Still they are sometimes approached to give advice about Asset | Econometrics matters, for many people think that they still know everything about all the activities. After all, they had a wonderful year with each other and they can be proud of themselves about all the nice activities they organized and how they solved all the problems they had to deal with. We want to wish them all the best in the future and much fun with eating pancakes, the present Janneke gave them!

Text by: Daniëlle van Dalen

	Robbert	Wilbert	Fang Qi	Janneke	Jasper
Describe your neighbor in a few word	Social, babbeler, joker	Direct, politically incorrect, ambitious	Direct, precise, unwise	Luxury lover, complainer, humorous	Chill, relaxed, chillaxed
What is the strangest habit of your neighbor?	Telling stories about his youth, for instance the story about his 'veterstrikdiploma', ask him about this!	Putting sandwich pieces reversed on each other, so that the two different parts are symmetric after cutting	That she has fights with her sister every weekend	Claiming that he cycles regularly because he has no hobbies (see Annual Report 2010-2011)	That he puts bottles of water everywhere
What will your neighbor be doing in a few years?	Wilbert still has the passion for ORMS, is married with Stephanie and they have 2 children (one with blond and one with red hair)	Janneke is a strategy consultant, has a man who takes care of the children, is ambitious but earns less than she does	Fang Qi lives together, has no children, is head of an actuary department (damage) and designs her own stickers	Jasper works as a financial consultant, lives together with Morgan in London	Robberts works at a financial institution, lives in Leiden, has 'chill' children and works part-time to take care of the children



Board 2012-201

ASSET  Econometrics



International Business Tour

When I am writing this, only the last arrangements have to be done for the International Business Tour 2012. From the 8th until the 15th of October, 24 econometricians will go to Dubai for an international experience. Last year we, the International Business Tour committee, have been busy to arrange everything to make this possible.



Name:
Rutger van
Alphen

Age:
22

Begin Studies:
2009

Position:
Treasurer
International
Business Tour
Committee
2012

Our first meeting was in November last year and during this meeting the tasks were divided. Timo Deist became chairman, Matthijs Meijer the secretary, I the treasurer, Ilse van Loon is responsible for the external affairs and from the board of last year Robbert van Oosten and Jasper Koops joined us as a general member and coordinator respectively. The first thing we had to decide on was the location of the International Business Tour 2012. We wanted to go somewhat further compared to last years and thought of great locations. Of course we kept in mind whether it was possible to arrange a tour to such a location. When we thought about Dubai, everyone was immediately enthusiastic.

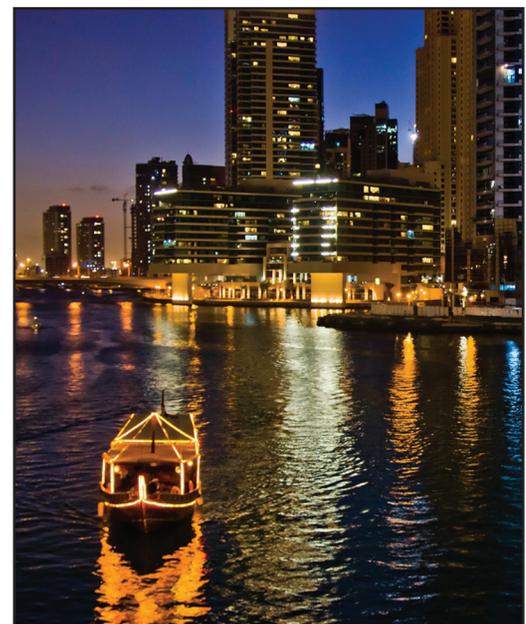
When we decided to go to Dubai we tried to keep this a secret, but it was hard not to tell anyone. The most important thing to do at this time is to find companies which are willing to sponsor us and which we can visit in Dubai. Therefore everyone searched for companies which are interesting for us as econometricians and Ilse called them to see if they were interested. I think she called hundreds of companies, asking them all the same question. Finally, out of all these companies we found two who were willing to sponsor us. These were the same companies as the ones that participated in the study tour of 2011, namely TNT Express and PwC. Furthermore, we searched for a university to visit. After some search, we were glad to find the American University of Sharjah willing to participate in our tour.

Now it was time to make sure we could get to Dubai. A flight had to be booked. But since we are econometricians, we wanted to book the flight at the optimal moment. Should we wait ordering the tickets for the prices to drop or is it better to book way in advance? We chose for the second option, since we have to fit in a plane with a group of 24 people, which might be difficult if you book at a later moment.

After having found the companies and having booked the flight, we could start planning all the activities in Dubai. Looking for activities in Dubai proved to be an easy job. The city is full of activities for groups that are visiting Dubai like us. During the summer holiday the composition of our committee changed. Jasper en Robbert finished their board year and instead Daniëlle en Senna joined us to help in the last months organizing this tour.

Now we are in the last week before the tour will take place. As you might imagine this is the busiest week for the committee. We are 'putting all the dots on the i's' for the week in Dubai, while we have to pack our bags as well. And all this takes place during a normal week of lectures.

If everything goes well, our committee will take 18 lucky members of Asset | Econometrics with us to have a great week in sunny Dubai (average temperature of 36 degrees Celsius). After all, everybody deserves a vacation after the first six weeks of lectures right?



Our New Beginning

GMM

On the 28th of August, the first general members meeting of the year took place at the Gallery. Unfortunately we had to wait for fifteen minutes before we could start the meeting, since the quorum was not reached. However, soon enough we could start with 46 members present.

The first items on the agenda were discussed quite fast, which brought us to point 7: the general report 2011-2012. The old board told us everything we wanted to know about the new structure within the faculty association Asset and we were given the opportunity to ask our burning questions. Moreover, everything that happened last year was discussed and some plans for the upcoming year were presented. Despite the fact that not all of these plans got the same amount of support, the board was confident that their plans would succeed. After a little debate we could move on to the next topic.

From both the advisory council and the finance monitoring committee one of the members came forward to tell us that the board of 2011-2012 had done a great job. That being said, we could all enjoy a little break during which we were offered a delicious 'kersenflap', or as Google translate calls it: a delicious cherry flap. Unfortunately this break did not last forever and we had to go back to our seats for the second half of the meeting. Luckily it started with a nice part in which Janneke thanked all her fellow board members and told us something funny about them. Subsequently, the other board members thanked Janneke and they gave each other some nice gifts. This was followed by the part in which the old board members were replaced by the new ones, who took their seats at the board table for the first time.

Of course the new board, consisting of Corné Ruwaard, Cas Luijten, Senna Jansing, Daniëlle van Dalen and Marleen Veldhuijzen, had to present themselves, their policies and their financial plans for the upcoming year. With a little bit of debating from time to time, all the plans were approved. This brought us to the last part of the meeting which did not take too long but was very amusing, since the old board had their chance to make fun of the new board. Sooner than expected we were able to go to the drink downstairs.

During this party, the new board had to complete several tasks. In order to do this, the new board members had to talk to random people who were present at the party and ask them if they had a slip of paper with an assignment on it. I have not seen all the tasks, but what I have seen was quite funny. The new board was defeated by the old board at the beer relay, they had to dance the Macarena, they had to tell nice things about each other and a few more things which did not make any sense either.

Overall it was a really nice evening: it was great to see everybody again after a really long summer and certainly it was a good way to start off our new year.

Text by: Vera van der Lelij



A mathematical illusion called democracy

The Dutch state representative elections are just behind us and, maybe even more important, the presidential elections of the USA between Barack Obama and Mitt Romney will soon take place. Of course, you expect these Western elections to be fair and democratic. However, this might not always be the case, as was shown by Nobel Prize winner Kenneth Arrow.

Impossibility Theorem

Elections can be regarded as democracy in action. Citizens go to polls and express their preferences and somehow all these preferences should be aggregated in order to make a joint decision. Consider the following example. In 2000, George W. Bush won the presidential elections with half a million votes less than his opponent Al Gore. This outcome can be explained by means of the district system that is being applied in the USA. This system comes down to a country being split up in different constituencies. The winner of every district will send his state representatives to the parliament, depending on the amount of inhabitants the district has. This system sometimes

voting method? According to Kenneth Arrow, the answer is 'no' – if by 'ideal' we are talking about a preferential voting method that satisfies certain criteria that a reasonable and democratic voting method should have. In other words, there is not a single electoral system with all the properties you would expect a fair electoral system to have. For this mathematical result, Arrow received the Nobel Prize in Economics in 1972. Arrow was concerned with arriving at an aggregate social ranking R defined over the set of potentially available social states A, B , etc. The basis of the social ranking R is taken to be the collection of individual rankings $\{R_i\}$, with any R_i standing for person i 's preference ranking over the alternative

using the following axioms.

- **Universality:** Each individual voter ranks the n candidates from 1 to n . The candidate ranked i is preferred to all other candidates ranked j where $j > i$. There are no further restrictions on which rankings are allowed.
- **Transitivity:** The societal outcome of an election procedure is a ranking with some boundaries. If the society prefers candidate A to candidate B and prefers candidate B to candidate C , then A is ranked above B and B is ranked above C . Because A is ranked above C , the society prefers A to C , too.
- **Unanimity:** If all voters prefer candidate A to candidate B , then the societal ranking should also place A above B .

‘There is not a single electoral system with all the properties you would expect a fair electoral system to have.’

causes paradoxes as explained in the previous example. On the contrary, in the Netherlands the proportional representation system is being applied. This means that when a political party receives for example 27% of the votes, this party will also gain 27% of the seats in the parliament. Looking back at the elections between Bush and Gore, a proportional representation system would have resulted in a different outcome. Therefore, the choice of which voting method to apply is of crucial importance.

Now you can ask yourself the following question: does there exist an ideal

social states open for social choice. It is this functional relation that Arrow calls the 'social welfare function'. In other words, voters rank all candidates in order of preference and based on these rankings, the method produces an outcome, which is another ranked list of all candidates that is supposed to represent the joint will of the people.

Arrow's axioms

Kenneth Arrow set up a few axioms that a democratic system should have. Of course, Arrow's theorem is often being investigated and for that reason there are different ways to formulate his work. One way to formulate his theorem is by

- **Independence of Irrelevant Alternatives:** The societal ranking of a pair of candidates A and B should only depend on how the voters rank these two candidates. To rank these candidates, it is irrelevant to incorporate how the voters rank other candidates. More specifically, suppose that the society ranks A above B and C . If some voters suddenly decide to change their ranking of B and C , then it should not affect the societal ranking of A and B . In other words, A should still be ranked above B .

Taken individually, these axioms appear to place logical requirements

upon an election procedure. However, to Arrow's surprise, the only election procedure that satisfies the above requirements is not much of an election procedure at all. For three or more candidates, the only procedure that satisfies the above four requirements is a ... dictatorship. In such a system, the outcome of an election always agrees with a specified voter's preference. This voter is referred to as the 'dictator'. With Arrow's democratic commitment, he added a fifth axiom.

- Non-dictatorship: There is no person i such that whenever this person prefers A to B , then socially A is preferred to B , no matter what others prefer.

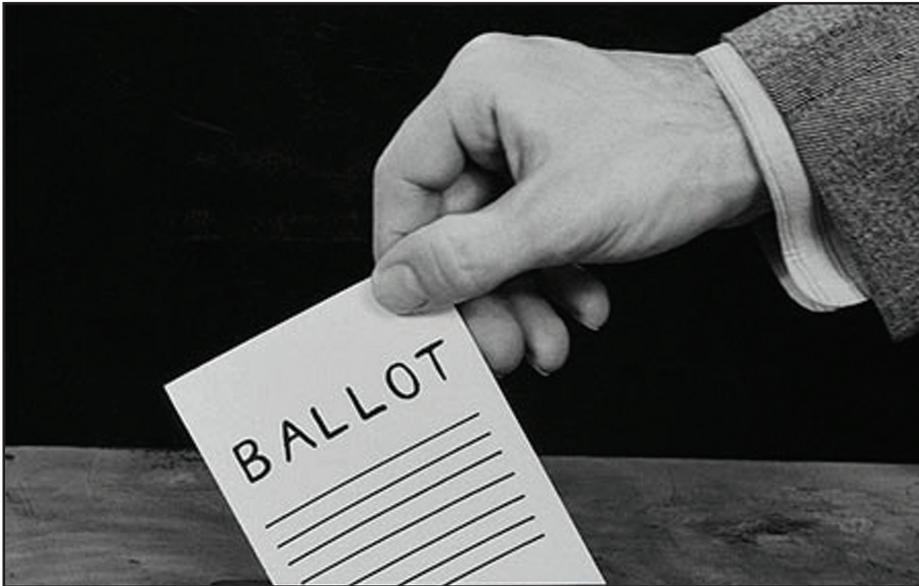
A 'brief' proof

The proof of the Arrow theorem presented here follows Arrow's own line of reasoning, but through some emendations that make it rather easy to follow. Let $A = \{A, B, \dots, C\}$ be a finite set of at least three possible alternatives. A transitive preference over A is a ranking of the alternatives in A from top to bottom, with ties allowed. Let us consider a society with N individuals, each of whom has a (potentially different) transitive preference. An electoral constitution is a function which associates with every N -tuple of transitive preferences an aggregated transitive preference called the social preference. Let us first add an extreme lemma. Let alternative b be chosen arbitrarily. At any profile in which every voter puts alternative b at the very top or very bottom of his ranking of alternatives, society must as well (even if half the voters put b at the top and the other half put b at the bottom). Now suppose to the contrary that for such a profile and for distinct a, b and c the social preference puts $a \geq b$ and $b \geq c$. By the axiom of independence of irrelevant alternatives, this would continue to hold even if every individual moved c above a , because that could be arranged without disturbing any ab or cb votes (for b occupies an extreme position in each individual's ranking). By transitivity, the social ranking would then continue to put $a \geq c$. However, by unanimity it would also put $c > a$, which is a contradiction proving the lemma.

Next we argue that there is a voter $n^* = n(b)$ who can move b from the very bottom of the societal ranking to the very top by his vote. To see this,



let each voter put b at the very bottom of his ranking of alternatives. By unanimity, society must as well. Now let the individuals from voter 1 to N successively move b from the bottom of their ranking to the very top, leaving the other relative rankings unchanged. Let n^* be the first voter whose change causes the social ranking of b to change. Denote by profile I the list of all voters rankings just before n^* moves b , and denote by profile II the list of all voter rankings just after n^* moves b to the top. Since in profile II b has moved off the bottom of the societal ranking, we deduce from our first argument that the social preference corresponding to profile II must put b at the very top. Now we argue that $n^* = n(b)$ is a dictator over any pair ac not involving b . Choose one element, say a , from the pair ac . Construct profile III from profile II by letting n^* move a above b , so that $a > n^* b > n^* c$, and by letting all the agents $n \neq n^*$ arbitrarily rearrange their relative rankings of a and c while leaving b in its extreme position. By independence of irrelevant alternatives, the social preferences corresponding to profile III would necessarily put $a > b$ (since all individual ab votes are as in profile I where n^* put b at the bottom), and $b > c$ (since all individual bc votes are as in profile II where n^* put b at the top). By transitivity, society must put $a > c$. By independence of irrelevant alternatives, the social preference over ac must agree with n^* whenever $a > n^* c$.



We conclude by arguing that n^* is also a dictator over every pair ab . Take a third distinct alternative c to put at the bottom in the construction as before. There must be a voter $n(c)$ who is an ab dictator for any pair ab or ba , not involving c . But agent n^* can affect society's ab ranking, namely at profiles I and II, hence this ab dictator $n(c)$ must actually be n^* .

Now we have proven that the only electoral system which meets the first four axioms must be a dictatorship. When adding the fifth axiom, non-dictatorship, one can see that there is not a single electoral system which serves all the five axioms.

From impossibilities to possibilities

Often, the result of Arrow's theorem is misunderstood. It does not mean that a democratic constitution is doomed to failure and that only dictators are sound political institutions. If the used axioms are an ideal that cannot be met, then other, less stringent, criteria should be used to compare and evaluate election procedures. For that reason, the selection of the 'best' electoral system is a decision about which of the mentioned axioms is less important to the application at hand. In 1785, Nicolas de Condorcet considered what would happen on elections between

all pairs of candidates and generalized the majority rule in a different manner. Consider the following example in which five voters rank the four candidates A, B, C and D.

1	2	3	4	5
A	B	D	A	D
C	C	A	B	A
D	D	C	D	C
B	A	B	C	B

When just considering the first preferences, candidate A would win. Condorcet argued that a candidate that defeats each other candidate in head-to-head elections under the majority rule should be elected, which is called the 'Condorcet winner'. For example, D defeats A, because three voters prefer D to A (columns 2,3 and 4) while only two voters prefer A to D (columns 1 and 5). Similar calculations can be used to show that D defeats A, B and C in pairwise contests. This is a different outcome compared to the outcome received from just considering the first preferences.

D	A	-	D	B	-	D	C
3	2	-	3	2	-	3	2
-	-	-	-	-	-	-	-
A	B	-	A	C	-	B	C
4	1	-	1	4	-	2	3

So what is more fair? Pairwise comparison contains more information than when only regarding the first preferences. Therefore, this method can be considered as more reliable and fair, since you not only know which party is preferred the most, but also which party is disliked the most. A disadvantage of this method compared to the majority principle is the fact that it is more difficult to carry out in real life.

Theoretically, there are numerous electoral system to come up with. However, as Kenneth Arrow proved, there is not a single system which meets all the requirements you would expect a democratic system to have. A best procedure may depend on context and which properties are deemed important for the election. One thing we can say for sure: do not vote on which election procedure to use!

Text by: Suzanne Vissers

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Study Abroad in France, China, USA or ...

OPINION POLL

Everybody loves to spend their holidays abroad. However, studying abroad is not common for econometricians, since in general this causes study delay. On the contrary, many other bachelor programs offer the possibility to go on exchange. Should it be made possible to do an exchange program that fits in our bachelor program?

Myrthe Dekker (third year student)

I have always dreamed of studying in Paris. Who does not want to wake up under the Eiffel Tower, to have dinner in the small streets around Montmartre and to understand every word of that wonderful French? Yet, I still have not studied in Paris and you are probably wondering why. Studying abroad is not so common for econometrics students, since this causes study delay. In order to avoid this study delay, it is possible to follow more courses during a semester. This is not an option for

me, because I want to spend this extra study time on other things like committees and friends. In my opinion it is a good idea to make it possible to do an exchange program that fits in the econometrics bachelor program. In this way studying abroad for econometrics students becomes more attractive and easier to arrange. However, I am convinced that if you are an econometrics student that really wants to study abroad, the Dutch proverb says the truth: 'Where there is a will, there is a way.'



Jeroen Pars (second year student)

In my opinion it should not be made possible to do an exchange in the bachelor program. Of course, studying abroad seems to be great. For econometricians however it causes study delay since there is no possibility to attend any econometrics course abroad. Therefore, the only way to make study abroad possible is by introducing courses that are given in many countries. This can only be done when typical econometric courses are removed from the current bachelor program. Econometrics

is a special study program with a special set of courses, so you cannot just simply remove courses out of the program without changing the quality of the study. Considering the fact that econometrics has a very good status in the job market, I do not think we should change the program just that a couple of students can go study abroad. Moreover, those who really want to study abroad are also willing to accept this study delay.



Helene Kratz (second year student)

I feel that studying abroad provides a great opportunity to have an interactive experience of the educational taste of another culture, even though I know some people that would not participate in an exchange program. However, it would be wonderful if econometrics students were at least presented the opportunity to study elsewhere. It seems a little sad that many, if not most of the programs at Tilburg

offer the chance to go abroad (especially without affecting the length of completion of the program) and that econometricians will not be able to enjoy this. I highly support the inclusion of a study abroad program for econometrics, as in this way, people who want to go abroad in their bachelor years have that chance.



Eating Limburg Pie with a Warm Family

On the 7th of October, only a few hours before she would take-off to Dubai, we were welcomed by Anniek Joosten in her own room in Tilburg. Both her father and mother had come with her to Tilburg to say goodbye and, fortunately for us, they could spare some time for an interesting interview.



Name:
Frank Joosten

Residence:
Goes

An introduction to Limburg Pie

Before we were allowed to start our questioning we were offered a piece of pie which Anniek's parents had brought with them on their way from Limburg to Tilburg. Since Tim and I never had pie from Limburg (which is the real deal) before, it was our debut and we were curious to find out if it lived up to our expectations. It definitely did, so we could start our interview without offending Frank, who knows a lot about pie.

A busy life

On the 30th of August 1962 Frank was born in Goes, but he spent most of his early life in the south of Limburg together with his parents, older brother and two younger sisters. After secondary school he decided to study for becoming a teacher, but not just a teacher, since he chose to specialize in applied design. After his graduation, he had to go into military service, where he followed an officer training. When he was finished with his duties in the army, he came to the conclusion that he wanted to go in a different direction. Therefore he combined working with yet another HBO education. All of this has led up to him working in business development, which he is really passionate about. During all of this, he even found the time to meet his current wife Manuela on the 15th of August, whom he married exactly ten years later.

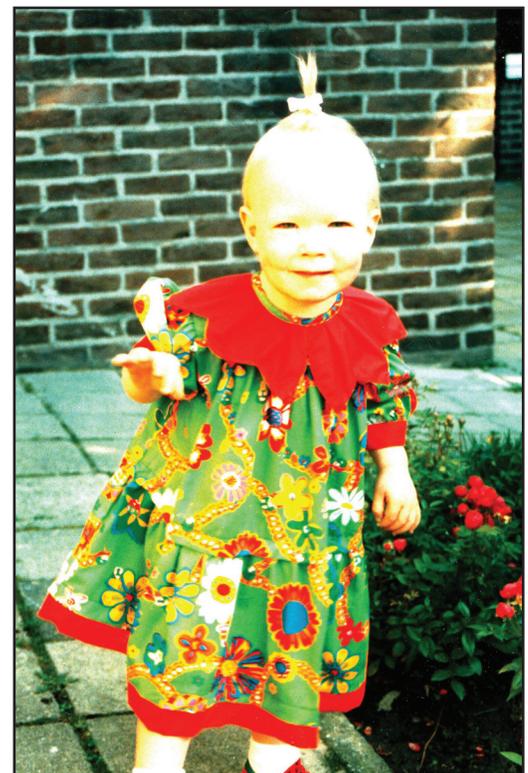
Luckily for Frank there are many things besides his job that he is also very passionate about. He enjoys all kinds of sports, he plays tennis (though not as much as he would like to), often he goes out cycling in the lovely hills of Limburg and in cooperation with a physical therapist he makes sure his body stays in shape. When he is not sporting he loves to visit cathedrals, museums and other cultural places.

If you thought that because of all these activities he cannot have more time to spare,

you were mistaken. His biggest passion, and probably the most time consuming of them all, is really special: Frank is a member of a Rotary club. It is hard to explain in a few words what this really means, but it comes down to thinking of other people in the first place and putting your own interests aside. You could think of it as being a charity organization on an international scale which has set certain goals they want to achieve over the years. For example, the Rotary organization had the goal to ban out the disease polio, which they pretty much achieved in a time span of 25 years.

She knows what she wants

From everything we heard about Anniek there was one thing that came back in every story. Anniek knows what she wants and she makes sure she gets it. From when she was a





little child to the adult she is now, she is very practical and assertive. She could not care less about trends that are going on around her. She will only keep up with them if she likes them, not because she is expected to. A good example of how Anniek's mind works is the following. Ambitious as she is, Anniek told her parents she wanted to play an instrument when she was only eight years old. Her parents loved the idea so they bought her a flute. At the age of seventeen, Anniek managed to get all the music certificates she could get and after accomplishing that she put the flute in its box and said: "So that is it, I am done with it." That being said, she never touched her flute again. She reached the goal she had set and that is enough.

The family life

Fortunately for Anniek's parents, her deterministic will did not make her a stubborn child, instead she was an easy child. She could get along with her brother just fine. They spent a lot of time together. For instance, they could play for hours if they had enough wool. They would attach a string of wool to a chair or a table and then walk or climb around the room, making sure the strings of wool formed some sort of spider web. After a few hours their parents would walk in and find the mess they made. With a big pair of scissors the room had to be made wool free. After that they had to call grandma again to get some new wool. When they were not completely covering the house in wool, Anniek would push her brother in a buggy of one of her dolls and then she would run around pushing him through the house. Unfortunately, after a few years her brother got a little bit too big for the buggy, so when Anniek pushed him in he would get stuck while sitting in the buggy. Apparently he did not even mind.

Although she is older now and does not live at her parents anymore, Anniek goes back to her

parents almost every weekend. When she gets back home, they will always find a moment to sit with each other as a family and talk about the past few days. When Anniek is too busy to come over, for example when she has to study for exams, her parents will make the 1,5 hour drive just to have lunch with her. They also try to go out together as a family a few days a year on a small vacation.

Franks prediction

When we asked Frank how he expected Anniek's life to be in ten years, he did not have to think for long. "She will live in a big city, probably not even in the Netherlands and have an amazing career ahead of her." After telling us this, he recalled a memory of two years ago. Anniek had just graduated from secondary school and they told her she could choose any city in the world where she wanted to go to. This probably was not their best idea ever, since Anniek chose for New York. Upon arriving there she felt at home right away. While her parents were wandering around nervously, Anniek immediately stopped taxis and managed to decipher the map of the subway, like she belonged there.

Characteristics

According to Frank, Anniek looks more like her mother Manuela. They both need structure and certainties in their lives. But she got her tenacity and passion from her father. This brings us to the one thing Frank would like to advise his daughter: sometimes you just have to let it go. It does not always have to be the best when it is already amazing. With that being said, we put an end to the interview. After wishing Anniek a lot fun in Dubai and a safe trip, we left her and her parents alone to enjoy the rest of the delicious pie.

Text by: Vera van der Lelij



Name:
Anniek Joosten

Age:
20

Begin Studies:
2010



Carioca or Gringo?

'A true Carioca is a person who: A. lives in the city of Rio, preferably on or near the beach (or else aspires to), B. professes to being between 15 and 39 years old, and C. makes it a habit of going to the beach before, after or instead of work.' Let us see how well I am doing in becoming a true Carioca.



Name:
Kiona van
Campenhout

Age:
20

Begin Studies:
2010

When I told my parents I wanted to go to Rio de Janeiro, they were not happy at all. Why I would pick one of the most dangerous cities in the world to study, was something they could not understand. For everyone who thinks alike, just look at the beautiful views, amazing beaches and the great weather and you will be convinced to study in Rio. However, I must admit that before I left, I was a bit scared because of all the stories I heard about how dangerous the city is. I was seriously considering leaving some heels at home, because I was scared they would be stolen. Instead, I did the opposite: with about 50 kilos (perhaps more) of clothes and shoes I arrived at the airport. How I managed to fit everything in my two suitcases? Please do not ask.

Living in Rio de Janeiro

After a long day of traveling, I finally arrived in Rio. All I wanted to do was going to my host family and sleep. I thought I would be there very quickly, because I already arrived at the airport. However, this was not the case, since although we had already arrived in Rio, the airport was still about 25 km away from my host family. This may not seem that far, but because of the traffic here it definitely is. Everyone drives like crazy here and even when the roads are entirely filled with cars, they will hit the gas as much as they can and just stop one cm before they hit another car. When the roads are not entirely crowded, prepare yourself for a rollercoaster ride.

As you already could read, I stayed with a host family in Rio. My host family consisted of a lady of about 40 years old, her 12-year old daughter and another exchange student. The location of the house was great. It was located in Ipanema, close to Copacabana (two of the nicest neighborhoods in Rio) and was situated only three street corners from the beach. Even though the location was absolutely great, I moved out after one month.

The reason for this was that although the lady of my homestay was nice, she had some rules I did not like. For example, I could not bring a friend home, not even for studying. Now I live at another great location: Copacabana, close to Ipanema and situated just one block from the beach. I live here with a Brazilian, a French and an Argentinean guy. I really like my place, but there is one drawback: my bed. Both in my homestay and in my current living place, I have an extremely hard and uncomfortable bed. I suppose Brazilian people like sleeping on hard beds, but I definitely do not!

Learning the language

The first month of my stay here in Rio I spent on taking an intensive Portuguese course. This was not mandatory, but I thought it would help my exchange a lot, because I was going to take





some classes in Portuguese and not all Brazilian people speak English. I was already confronted with the language barrier in the first bus ride back home from the university. My bus ride to the university went great, since my host lady just told me which bus to take and that I had to get off at the last stop. However, going back home turned out to be more difficult. When I went to the university in the morning, I was so glad I found the right bus that I did not pay attention to where I got on the bus. On my way back home I tried to explain the bus driver where I lived so he could tell me where to get off. Unfortunately, he did not speak English. Luckily I recognized some buildings and got off not too far away from my homestay.

a real tourist visiting Cristo (the famous statue on the mountain), the Maracana stadium, Sambodrome (the street where the samba schools compete during Carnival) and I went to Petropolis, an imperial city in the mountains close to Rio. There are also many great hiking routes in Rio, so every now and then I did and still do some of these routes. The views during these hikes are so beautiful. Often you can look out over a big part of the city, see the ocean and the mountains and one time we even hiked to some waterfalls. It is just unbelievable that such a huge city with so many people also has beautiful nature in the middle of the city. During the hikes you can see little cute monkeys quite often.

Like in the Netherlands, Thursday is the student night in Rio. All students go to a place called Baixo Gavea every Thursday. However, the students do not stay at the bars very long, but everybody orders their drinks in the bars and then goes outside to party on the streets. On Friday nights a neighborhood called Lapa is the place to be. Then Lapa is filled with numerous people. Every Friday the streets in Lapa are closed for traffic and you can buy drinks and food from the street vendors. Moreover, you can enjoy the bands playing samba music in the streets and if you are brave enough, you can do an attempt in dancing the samba. The only disadvantage of Lapa is that a lot of people get robbed there.

‘When I tell Brazillian people I am from the Netherlands, they immediately remember the game of the last world cup.’

Therefore, already the first day, I was quite glad that I had decided to do the intensive language course. For three and a half weeks I went to class from 8.30 till 13.00 and afterwards we would usually go to the beach with a couple of exchange students. I feel like I have definitely improved my Portuguese language skills a lot with this course. Now I can manage myself really well while ordering in restaurants, asking questions in stores and asking where to get off in the busses.

Exploring Rio de Janeiro

During my first month I did not just study Portuguese. I was also being

Even on campus these can sometimes be seen.

Of course I also went out during the intensive course. On Tuesdays there is always a great party in a club with free caipirinhas until midnight. Caipirinha is the most popular drink here in Brazil and it tastes so good. It is made with cachaça, limes and sugar and can sometimes be really strong. Because of the sweet taste of the sugar, you often do not taste this and you will only notice how strong it is when you have already had too much. For those who are interested in visiting Brazil, be very careful with the caipirinhas!

Little children from the favelas, the poor neighborhoods of Rio, come to Lapa to steal from everyone. They do not even try to do it secretly; they just rob people right where everyone can see it. That is why I never bring a purse or anything valuable with me when I go there. Luckily, I have never been robbed and I hope I will never be. On Saturdays, many parties are organized in Rio. One of the greatest parties I visited was a pool party at a big mansion. Unfortunately, my cell phone and my friend's camera did not survive the night, since we were thrown into the pool. At least we can say that it was an amazing night.



After the intensive course we had a week off before the actual semester started, so of course we wanted to do something special during this week. Some people spread the word and suddenly we went to Ilha Grande, an island close to Rio, with a big group of students. When we arrived at the island it was very calm and peaceful. We arrived at a little town without any cars where the beach was one of the main streets. On this island we hiked to beautiful beaches, we did a boat trip and we snorkeled. The days in Ilha Grande were absolutely unforgettable.

Studying in Rio de Janeiro

Now the actual reason I came here was about to start: studying in Rio for one semester. I am taking four courses here: Portuguese, Strategic Global Management, International Negotiation and Princípios de Marketing. As you might already have noticed when reading the last name, one of these courses is taught in Portuguese. Although I improved my Portuguese a lot during the intensive course, actually following a course in Portuguese on university level is definitely too hard. The way of teaching here is quite similar to high school: our class consists of about 30 students, every teacher knows your name, it is mandatory to

go to class, if you miss more than 25% you will fail the course and you have to actively participate during the classes. Thus in my class taught in Portuguese I have to participate a lot as well. The teacher already knows I hardly ever understand what he is telling, but he still keeps trying to ask me questions. Beforehand, I always assume that I do not know the answer, because I almost never understand the question. Therefore I always answer saying 'Não sei', which means 'I do not know' in Portuguese. One time my teacher asked me a question and I said my usual answer 'Não sei' again and everybody started laughing. Then I was thinking about what it was he asked me and I realized he just asked me for my age, so now everybody thought I was so stupid that I did not even know my own age. Great.

Soccer and trips

That is enough about school, now let us talk about soccer. I think everybody knows soccer is the most popular sport in Brazil. When I tell Brazilian people I am from the Netherlands, they immediately remember the game of the last world cup when Holland defeated Brazil. If they do not immediately remember this, I always enjoy telling them. Since soccer is so big here, I

wanted to go to a soccer game in a stadium in Rio. Here it is a lot easier to get tickets and they are a lot cheaper than in the Netherlands, hence we bought tickets for a game between two clubs of Rio. Before we went into the stadium we bought a shirt of the club we were supporting. Inside there was a great atmosphere, where supporters were playing drums and singing the entire match.

Some weekends ago I went to Buzios. This is a small city located on a peninsula. REI RIO, a organization for exchange students that organizes a lot of activities for exchange students, arranged this trip. We left with three busses to Buzios for the best weekend I had so far in Rio. When we arrived, a barbecue was yet organized for us. The next day we went on a boat trip with free caipirinhas and music where everybody was dancing. The last day I rented a buggy with another exchange student from Tilburg, two American friends and a Mexican friend and we crossed through the city and enjoyed ourselves a lot.

Going home soon

The last two weeks my parents have been here. I was the happiest girl in the world when I saw my parents at the airport. Although I am having a really good time here, I really miss my parents, brother and friends sometimes. In the Netherlands I saw my parents almost every weekend, so I had never been away from them for such a long time. At the moment, they are back in the Netherlands, but I am already going back home in a little bit more than two months, so I will see them again soon. The time has already gone so fast since I arrived here and I believe it will continue going this fast with all the trips that are coming up. I have already got the tickets to São Paulo, Buenos Aires and Foz de Iguaçu and we are busy planning a trip to Salvador. Therefore, my time here will probably fly by and you will all see me back in the Netherlands soon!

Pensions Investigated

FINANCE
SYMPOSIUM

On September 27 the Pension Symposium took place. With the increasing life expectancy, falling interest rates and bad investment results of today, the pension system of the Netherlands is a hot topic of debate. This was confirmed by the fact that during this day the House of Representatives also debated about this subject.

The symposium, which was organized by Asset | Econometrics and Asset | Economics, started at 12:00 in the Auditorium, where we had a delicious lunch. At 13:00 the official part of the symposium began. After the opening by the chairman of the organizing committee Donny Bleekman, the floor was given to Dr. Theo E. Nijman, the chairman of the day. Dr. Nijman is the Van Lanschot professor in Investment Theory at Tilburg University and Scientific Director of Netspar. Moreover, he was a member of the Goudswaard committee, which was appointed by the government to make a report about the Dutch pension system. Nijman gave us an overview of the current state of the pension system in the Netherlands. The Netherlands has a sophisticated pension system, as international comparison shows, but according to most experts it should be reformed. He also introduced us to the two speakers of the day: Prof. Dr. Lans Bovenberg and Ilja Boelaars.

Bovenberg is a professor of Economics at Tilburg University and the founder of Netspar. Boelaars is a PhD student at the University of Chicago and spokesman for pensions on behalf of the 'Jonge Democraten', the youth organization of the Dutch political party D66. Both speakers gave their own opinion upon the current pension system. The opinions of both speakers were very different, which might be caused by the generation gap. While Boelaars wanted to individualize the pension system, Bovenberg thought that this was not the best solution, because in this case people of his generation would have to pay the highest costs. Still, both speakers agreed on the fact that something needs to be changed in the Dutch pension system and that it should definitely be more transparent.

After they had shared their thoughts with the audience, there was a short debate between Bovenberg and Boelaars. This debate was about

some interesting pension related subjects provided by Nijman. During the debate, the audience was given the opportunity to participate and to ask questions. When the debate had come to an end, it was time for a break. After all, we had already been listening to speakers for two hours.

When we had drunk something and had stretched our legs, the program continued with the parallel sessions. There were three options: a workshop from Towers Watson, a workshop from The Dutch Central Bank or you could attend a lecture from Roel Mehlkopf and the Dutch Actuarial Association. I myself attended the last session. First Roel Mehlkopf, who also was an econometrics student on Tilburg University, told something about his research on pensions for the CPB. Subsequently, it was time for an interactive session, during which the audience had to guess the answers of some issues that Mehlkopf had examined. He even offered a bottle of wine to the person who did best. The last part of the session consisted of a lecture of a spokesman of the Dutch Actuarial Association, who told us about current research on the increasing life-expectancy with respect to the pension system. At half past five the session was finished and the symposium was concluded with a drink.

In short, it was a very informative and well-organized day and therefore I would like to thank the Symposium Committee for all their effort.



Name:
Boukje
Schellens

Age:
19

Begin Studies:
2011

Green, Green, a Superteam...

As we, freshmen, tried to let the information of the linear algebra lecture sink in, we walked to a certain hidden room in the Cobbenhagen-building where we received a lunch and were divided into groups. The attendance for the introduction activity had never been so big, which was promising for a nice afternoon.



Name:
Belle de Veer

Age:
17

Begin Studies:
2012

While eating the last bread crumbs, we were taught our absolutely original and imposing yell: 'Groen, groen kampioen. Groen, groen kampioen!' (English: 'Green, green champion! Green, green champion!'). With this yell, the spirit was set and we were all eager to win this contest gloriously. The contest consisted of three parts. The first part was about obtaining clues by winning six different mini-games. We started with the game called mine-field. Due to good teamwork we were fast enough and did not step on too many plastic cups, which had to represent the mines, to obtain the first clue! 'Groen, groen, kampioen!'

Not only did we perform very well at the first game, but also the other games were a piece of cake for our superteam. We did really well at the game based on 'Ik hou van Holland' (English: I love Holland), because of our hero Jasper who knew all the songs on the top 40 chart. During the communication game, we managed to guess all the words correctly within the time



limit. Clearly we were in shape, because at the eating and drinking game we were right about enough drinks, so we did not need to eat more of the green (!) mashed potatoes with candy strips. This was a big relief for me, because I thought these mashed potatoes were more than disgusting. I did not even finish my first portion. Luckily our team leader Erwin was hungry, so he could help us eat the leftovers.

There were two more mini-games to go. The photo quest of the campus went quite good, although our route was not well mapped, which made us walk all over the campus. We made up by earning bonus points, because we had the exact same 'tree photo' as the original one with Pieter-Jan. The game we performed the best was evidently the beer crate game. Here you had to use beer crates to pass the route with your whole team. The encouragement of Erwin made us go as fast as we could and, of course, we won. 'Groen, groen, kampioen!'

Because we managed to collect all the clues, the second part was easily done and therefore we received an advantage for the last part. You would say that nothing was standing in our way. Unfortunately we had quite some bad luck. The game with the beer coaster was tricky for us and we got totally stuck with the puzzle. This made us, believe it or not, end last!

After this disappointing defeat, we cycled to the Olympia building for a nice barbecue. While enjoying the meat, salads and bread, we had a chance to chat with the other groups and share our experiences of the day. Everybody has had a nice time and it was a great opportunity to get to know more fellow econometricians. In short, it was a very pleasant day! ('Groen, groen, helaas geen kampioen...')

Pizza, Games and Beer: a Perfect Combination

LECTURER
OF THE YEAR
AWARD & GAME
AFTERNOON

On September 25 the lecturer of the year award took place. Subsequently, many econometricians gathered to play a variety of board games. Following the games, a drink was organized at Café Van Horen Zeggen. Besides having a good time, the event created the opportunity for the freshmen to become acquainted with fellow econometricians.

The afternoon started with the lecturer of the year award where several teachers were awarded for exceptional teaching. After Corné Ruwaard opened the event, the Education committee of 2011-2012 presented the winners in all five categories. The winners were: Henk Norde, best bachelor lecturer, Hans Schumacher, best master lecturer, Jasper Koops, best student-assistant, Ruud Hendrickx, best interactive lecturer and Dolf Talman, funniest lecturer. Congratulations to all lecturers who won an award or were nominated!

Thereafter, the game afternoon took place in two rooms in the Warande building and was organized by the Drinks & Activities committee of 2012-2013. About sixty students signed up to enjoy a good evening. Besides the board games, that were more or less arranged by the committee, the students could also enjoy a free pizza. The pizza, salami, Hawaii or fungi, was one of the stimuli leading to the many attendants. Next to the pizzas, soda was also present to lessen the thirst. All in all, the Drinks & Activities committee made sure that the students were greatly taken care of.

Besides pizza, the activity also included winners and losers, frustration and determination and strategy and luck. The many games that were present contributed to these factors, each game in its own way. Where the game Halli Galli would make you hurt your hand and requires focus, Settlers of Catan was about a plan, gathering resources and earning points. Next to these two examples, there were more games to play like Risk or Uno, which brought up some nostalgic memories. There even was a beamer connected to a computer projecting the online game 'Achtung die Kurve'. Therefore, there were many ways for us students to enjoy ourselves with either online, card or board games. Unfortunately, at 9:30, the game afternoon came to an end. Luckily, it was followed by a drink.

The drink took place at Café Van Horen Zeggen and the official opening time was 10.30, but the drink could not really start before a few words were spoken by one of the members of the Drinks & Activities Committee. This also meant the opening of the first barrel of beer for the evening, with two more barrels to come. This golden liquid was well supplied. Sadly enough, the attendance rate of the freshmen had decreased compared to the game afternoon, but this did not mean a decrease in the sociability. On the contrary, the drink began to evolve when more alcohol reached the bloodstream of the econometricians. Even at a certain time, the request came for the song 'Gangnam Style' and a dance by a few econometricians became the centre of the cafe for a moment. Summarized, one can say that the drink was a success.

Looking back, one can conclude that we did not have to be bored this day, which is definitely worth repeating.



Name:
Joost Melchers

Age:
18

Begin Studies:
2012



A world player that stays himself

From Japan to Nederweert and from Canada to China, no place in the world seems to be too far away for our freshman and present Dutch Judo Champion Maurice Peters. Chasing that big athletic dream, the Olympics, Maurice is willing to give up many things most students cannot live without. **Nekst wanted to find out more: a portrait of a winner.**



Name:
Maurice Peters

Age:
19

Begin Studies:
2012

How it all began

Early 1993 Maurice was born in a village called Nederweert near the city of Roermond. Already in a young stadium of his life, his father encouraged him to start trying martial arts, something his father had done before as well. After having tried some of these Asian sports, karate among others, he soon found out that it was not karate, but judo that fascinated him so much. At the age of seven, Maurice was already playing at the local judo club SHINTAI in Nederweert. He still visits his first club quite often, for example to train junior judo players. As last year, Maurice graduated on teaching judo to kids up to twelve, which makes him an authorized teacher. After asking him, Maurice has to admit, indeed, he has quite a few fans out there. Still, he has an idol himself as well: Mark Huizinga.

Present judo life

He soon appeared to be a talent in judo and within five years he was playing among the best judokas of our country. On his training centre, located in Eindhoven, Maurice is still training to stay at this top level and trying to become even

better, since like a true sportsman, Maurice can only look forward. Eventually his dream is becoming a champion at the Olympic Games. Nowadays Maurice is practicing five days a week among other top judokas in Eindhoven, supervised of course, by one of the best trainers available. His present trainer is Mark Earle, former international top judoka. Under his supervision, Maurice developed fast and nowadays he competes with the best players in the world. His opponents fear Maurice mostly for his grip fighting technique, which is an important component of judo, since this is the way judokas grab each other and in the end it is about getting your opponent to the ground.

Injury

At the moment, Maurice is recovering from an injury to his wrapper (Dutch: kruisband) that he got three years ago in a match. Since an operation to this vulnerable part of his knee on the age of sixteen would have resulted in a growth stagnation of this leg, resulting in an unbalanced body, it was decided to postpone this operation. However, a few months ago



it was time to meet the surgeon. His wrapper got cured and now Maurice is frequently visiting the physiotherapist to recover. This operation will not only restore Maurice to his former level, but is expected to bring him to a level that he did not reach before, since before the operation it was clear that the knee he had, functioning at 80%, was not good enough to stay up with the level of his opponents. After recovery, his knee is expected to be functioning on a 100% level again, which should take him to a higher level.

Seniors

Moreover, Maurice will shift to a different category in judo. After his recovery he will start to compete with seniors up to 66 kg, which is a pretty big difference with his former category, men under twenty up to 60 kg. All this makes the coming period a very challenging one during which Maurice has to prove his judo skills once again, but now in the new category he will be playing as long as his muscle mass allows him to. In general, judokas are physically at their top level on the age of 28, so Maurice has still quite a few years to develop his skills.

Accomplishments

Last February, Maurice won his biggest title so far: the Dutch Championships for men under the age of twenty up to 60 kg. After a stunning series of matches, he won all of them in this Championship and Maurice became the best judoka of The Netherlands in his category. Besides the Dutch title he has some regional titles from championships in Limburg. Also, in 2007 he became third at the Dutch Championships for men under the age of 17.

Making concessions

All this training, practicing, and getting back in shape from the operation must be pretty hard to combine with studying, right? "I feel that everything is going well at the moment. However, when the matches will start again



in spring 2013, it could become harder", Maurice says, "but I definitely think judo is very important, so I will always make enough time for it." On the question if he still has time to go out and do nice things with friends he answers, "Of course I have to make concessions; you cannot have it all. For me, going to the city every Saturday is no option, but I have enough discipline and pleasure in judo, that I can skip going out sometimes." Getting active in a student association is another thing that he cannot do because of his busy schedule. Also Maurice has to constantly mind his weight. "Especially in match season weight is an important factor to hold in mind." To stay in the right category, men up to 66 kg, he must certainly not weigh more than 66 kg at match time. Though, most of the time, his weight is above 66 kg. This is because in the match his optimal weight is precisely 66 kg, not less, since weight means power and most of the weight is muscles.

Foreign trips

"One of the things that make playing judo on an international level so exciting is the foreign experience. I have been to Moscow in December 2009 for a seven-day training. Furthermore, in 2010 I have been to Leibnitz, Austria, for

a judo tournament and a training camp as well. In the summer of that year, I went to Wladyslawowo, Poland." All of these impressive trips make us curious if Maurice has ever been to that one big judo country, Japan. "Of course I have been there! Two years ago I travelled to Japan to train two weeks in a row. It was very impressive. In Japan judo is the biggest sport under the people, even bigger than soccer is in Holland. Nearly everyone plays or has played judo over there. You can even study judo at the university." Maurice tells us that in Japan judo is not only seen as a sport, but as a philosophy as well. Judo was originally invented by the pedagogue Jigoro Kano, who believed judo was a special Zen-art since it teaches players to positively use their aggression. It is a civilized fighting technique that combines sports with a philosophy.

Then it is almost time to go. Maurice has to catch the train since a training is planned in the afternoon. We are very thankful for this frank view in the life of an athlete and hope to see him in four years in Rio de Janeiro. Also before that time, we wish him all the best on the judo mat.

Text by: Michiel van Erp

Luxury, Sailing and a Wonderful Game!

After walking around the Wilhelminapark for a couple of minutes Vera and I decided to ring the doorbell and see what it is like to live in a real sorority house. Rogier opened the door and invited us in. From this point on there is no way back, no matter what we will encounter inside!



Name:
Rogier Bresser

Age:
19

Begin Studies:
2012

Address:
Wilhelminapark
108

Room Surface:
19.5 m²

Monthly Rent:
€260

Rogier lives in the sorority house of the sorority Black & White. This is one of the many sororities that belongs to student association Olof. The most members of Black & White live in this house, but there are also a few members that live elsewhere. When we were shown Rogier's room, the first thing we asked is whether all rooms are this big and especially this high. We found out all of the fifteen bedrooms in the house are around 20 square meters and all ceilings are around 3 and a half to 4 meters high.

Although the rooms on the upper floor do not differ in size from those on the ground floor, you do move up one floor for every year you have lived in the house. Rogier explains this has to do with the amount of noise coming from the living room and later on the evening from the bar. We can indeed imagine studying and sleeping can be quite hard when there is a party going on just two doors down. While walking back down the stairs we noticed some certificates on the wall. These turned

out to be the certificates of membership of all the sorority members. We were told that the oldest one is from somewhere around 1965. While I was wondering if he has ever met any of these former sorority members, Rogier enthusiastically explains that former members are often still quite active in participating in activities. They play golf with them once in a while and organize some other activities.

Then we enter the backyard and we immediately noticed Rogier has saved the best for the end of the tour. In the backyard are a Jacuzzi and a sauna, what a luxury! Unfortunately he cannot tell us if they are any good, since he has not used either one yet. After the tour we went to Rogier's room to get to know him better. It turns out that Rogier really wanted to live in lodges as soon as he started studying. He thinks it is simply a part of a student's life and teaches you to take care of yourself. Although he really enjoys his time in Tilburg, which he thinks is a wonderful city, he still travels back to Uden every weekend. The main reasons for





this are his friends who still live there and his brother who gets really bored sometimes now Rogier is not around anymore.

Roommates

In the middle of this conversation we were rudely interrupted by the loud sound of a bell. We immediately assumed something to be wrong, but luckily this was not the case. The bell is ringed for anything that is related to food and or drinks. In this case it meant there were some snacks ready for everyone. Rogier also told us that the bell is ringed every morning about 15 minutes before people take off to the university to invite others to drink coffee together and then cycle to the university. After being assured the house is not on fire or anything like that, we decided we would like a snack and followed Rogier into the living room where a few of his roommates were already enjoying some French bread.

After introducing ourselves to them we sat down and asked whether Rogier got his room via Olof or in another way. Together with his roommates he told us that there are two ways to get a room in the house. You can be chosen as a potential member of the sorority at the famous night called 'Koehandel' where all first year Olof students can be asked to join a sorority. The other way to obtain a room is via the famous Dutch website 'Kamernet'. Rogier actually found the room on the internet and then was invited to have a nice evening with all his future roommates. They told us they liked his personality and thought he was quite a nice chap. Therefore he was offered the room. A

prerequisite was that he had to join Olof and the sorority, but he did not mind that at all.

As soon as we asked his roommates if Rogier completes all his tasks in the house they begin to laugh. Afterwards they told us he is a bit lazy and does not finish his tasks, which are not a lot we are told, very quickly. However, we are assured that in the end everything is done. This partly results from the fact that they have a cleaning lady who cleans all the hallways and shared rooms twice a week. Next to that all drinks, both with and without alcohol, are refreshed by a company that stops by every Wednesday. All in all it almost seems like nothing is too luxurious for these guys.

Daily Life

The next thing we would like to know is how an average day in Rogier's life looks like. With some 'help' of his roommates he tells us he usually spends his whole day at the university. From the time he gets up, which heavily depends on the lecture times of the day but also on the previous night, till about 17:00. Then he goes home and has dinner with most of his roommates, depending on who is at home at that moment. At night he hangs out with some of his roommates or with other people from Olof. There are about six other sorority houses of Olof within walking distance and they are visited on a regular basis. On Wednesday evenings there is the so called sorority evening, which is obligatory. This always starts with a meeting which Rogier and the other freshman are not allowed to attend yet, since they are not full members yet. They will only be full members as soon

as they pass their initiation. After the meeting the partying takes place.

During the weekends and the holidays, Rogier has one more hobby he can talk about very enthusiastically. This hobby is sailing. He absolutely loves to sail and is actually just a few training hours away from getting his instructor license for two different ships. However, he is not just going to be a regular sailing instructor; instead he will be training new sailing instructors. Besides all the sailing, there is also a lot of time to socialize and make friends during these weekends and holidays and Rogier definitely recommends trying it.

After dinner, we were surprised by a special game. Everyone eligible to do the dishes stands up and participates. In each round a player has two options: close his fist or open his hand and thus showing zero or five fingers. One player starts and shouts a multiple of five. At exactly that moment everyone picks his choice, either zero or five fingers. If the player whose turn it was has the total amount of fingers shown correct he wins and is allowed to leave the game. The last player standing loses and therefore has to do the dishes.

After this wonderful game the interview had come to an end. If we look back at it, all we see is a wonderful experience and we both had a really nice time. We would like to thank Rogier and his roommates for sharing their stories and answering our questions.

Text by: Ernst Roos

The First Week of the Rest of Your Life

On Monday morning I was looking for group Yellow 19. I introduced myself to everyone, but just as I expected, I had already forgotten most names after a while. I did not know that there would be only econometricians in my group, but soon I realized that these are the people I will deal with in the coming years. The TOP-Week has started!



Name:
Emile Kragten

Age:
18

Begin Studies:
2012

Monday should be the start of an unforgettable week. So, what is a better way to start an introduction week than with a Study Introduction Day! Despite the fact that it was quite a boring day for which I had high expectations, it was certainly useful. The wonderful barbecue made up for this somewhat boring day though. It was a delicious meal and moreover there was a much better atmosphere in the group. Everyone was getting ready for the night, for the first party. Pop stage 013: there we go!

The next morning we hurried to the hypnosis show. I had already seen the exact same show before on high school, so it was not really a highlight for me. Another setback on Tuesday was that I was told that the week after the TOP week, lectures would already start, while I first thought that we had another week of vacation left. However, that did not spoil the fun, especially after a good massage at the TOP festival. Definitely recommended! There were many other stands at the TOP festival. However, having no idea of what they tried to convince us of, it turned out to be a quest for the best gadgets. I have to say that the water gun was my favorite! It was absolutely useful these days.

At the beginning of the evening we went to the student association Olof. After a short tour we were ready for the real thing, the beer relay. The first round we competed against other econometricians. The expectations were high, since you do not want to lose your first round from econometricians. I was surprised by our team, with our 'skilled' Scottish Daniel as our front man. The next team did not show up, so we got another opponent. The other opponent was an Olof team... Against all expectations, we won with a surprisingly large time difference. In the end we lost in the quarterfinals, so we really deserved that slice of pizza. The evening ended with a good party at Café De Boekanier.

Then it was Wednesday already, on which we had to get out of bed early for breakfast. Fortunately, I have slept all week at Rick's place, the perfect place to stay for this week, thanks again for that Rick! Prepared with a towel and swimming trunks, we were prepared for the game afternoon in the Leijpark. Some water games were really awesome, for example the living shuffleboard, which was definitely good for the teambuilding. Despite the fact that I had a good time this afternoon, I was especially looking forward to the evening.



Although it may be quite a bike ride, I think that the student rowing association Vidar is the nicest of all student associations in Tilburg. After a short tour we were given the opportunity to row on an ergometer. This, however, went completely wrong. After a few strokes, I had already fallen off the seat of the ergometer and therefore lost the competition with a big lag. But I got a second chance, because I could not resist the temptation to row in a real men's eight. Of course I have seen boat races at the television, for example at the Olympics. It really was a great experience; it caused a real adrenaline boost. It was nice to see how everything is arranged in the boat. Afterwards it sounded quite logically, but I never thought there would be microphones in the boat. Only when you are in the boat, you experience how fast it goes, but also how difficult it is to keep the pace.

Subsequently, I had to rush to another highlight of the day at Vidar, namely a workshop 'how to draft the perfect beer'. This workshop was not about just a good beer, but about the best one you have ever tasted. We were told that you have to pay attention to about twenty important aspects of drafting your perfect beer. For example, it is important to have a foam layer with a height of two fingers. It was really interesting to listen to this explanation, but then the moment of truth came: everyone had only one attempt for the perfect draft. I have to say I was satisfied with my result: the beer looked good and tasty. Of course not perfect, but I can say that I have learned something useful this afternoon. After I had really enjoyed this almost perfect beer, the real party could get started. I was quite impressed by the astonishing live band. This performance was the perfect start of a fantastic evening. At the end of the evening, I was entirely covered by fluorescent paint.

Thursday was the day of the infamous beer cantus. I had never been to a



cantus before, but I had heard the stories. Everyone was waiting curiously and the tension rose. There was an explosion of joy and happiness when the singers entered the tent. It did not start with calm singing and drinking, but immediately from the start it went full speed. It was long ago since I had sung in German. At the end it was finally time for the prohibited but equally great beer shower. Is it not a wonderful sight, everyone singing and dancing on the tables? The atmosphere was great and it was a pity that it came to an end. On the way home I was promised that I would never forget the pub crawl. Unfortunately, not everyone agreed in the end. It was fun but it could not beat the beer cantus.

The next day was the perfect time for a refreshing dive at the Stappegoor swimming pool. I enjoyed floating on an inflatable walrus and lying in the grass. It was also very useful to rest a bit and to prepare ourselves for the upcoming and last night of this wonderful week. When the sun disappeared and the bar at the swimming pool closed, we went to Plato for dinner. I have to say it was quite dull over there, since there were no special activities arranged for us. After having eaten quickly, we went to Café De Boekanier for a lottery. One of

my group members won a liter of beer with a drinking straw. Then it was time for the closing party. We certainly did not celebrate that the TOP-week had finished, but we celebrated a successful week.

This year could not have started better. Rowing in a men's eight, the beer cantus; it all was amazing. I would like to thank Yellow 19 and our mothers for all the highlights in these days. I expect everything will turn out alright with Yellow 19, since in Holland they say: 'A good start is half the work'. It was a great week that I will never forget!

Champions' Chronicle

This year's LEVT was arranged and organized by the Vesting study association from Groningen and following the tradition of previous years, Asset | Econometrics participated with several high quality teams. In total, eight teams from Tilburg joined the tournament which took place at the V.V. Maarsse soccer club near Utrecht.



Name:
Carlos Ruiz

Age:
23

Begin Studies:
2011

It is worth remembering that Tilburg came in second last year and this time there was one clear 'goal': bringing the LEVT cup back home. Under the name of 'Tilburg 1' the winning team consisted of:

- Merwin de Jongh (keeper, captain, spokesman)
- Lars Koopman (defender, improbable goal-getter)
- Daan Marechal (midfielder, pictures manager)
- Dennie van den Biggelaar (all-over-the-place player)
- Benito van Breugel (midfielder, professional drinker)
- Gidi Ronnes (midfielder, cold-blooded penalty kicker)
- Mark Musters (midfielder, keeper sub)
- Carlos F. Ruiz (cramp-free striker)
- Bob Grijpstra (I am-out-of-shape striker)

A pool consisted of five teams. The first team from each pool would go through to the quarterfinal and only the best three teams that finished second would join them. Our squad got off to a nervy start, but all in all the debut was really good thanks to two goals in the last minutes of the game which yielded a 3-1 victory.

The remaining matches in the pool stage helped build up the team's confidence as we fought back from a 0-2 deficit to finish our second game with a score of 2-2. We won our third game with a 5-2 result (even with a unjustified referee call against us) and crushed our opponents with Barcelona-like soccer display in our last pool game with 11-0 as the final score. The remarkable performance from each one of our team members allowed us to qualify undisputedly as first of our pool.

After the group stage, we enjoyed a nice lunch arranged by the tournament organizers and a short rest that got us ready for the

quarterfinals. The quarterfinal match proved to be challenging as we trailed 0-1. Nevertheless, we pulled ourselves together, equalized and then never looked back as we beat our rivals with a score of 5-2. Then it was time for the semifinal and the team on the other side was last year's winning team who had claimed the 2011 cup with a 1-2 score in the final. We quickly put ourselves on the scoreboard with a corner kick goal and lead the score. However, the 2011 champions equalized and a penalty shootout was needed to decide this year's finalist.

After a sloppy start, with two penalties missed, we trailed 2-3 in the shootout with our opponents due to kick. However, our captain Merwin de Jongh had other plans as he showed all his skills during this important penalty as well as the next one giving our team a shot to go for the title at the final match. Payback time!

After 120 minutes of play, we started the decisive match and had the initiative. Thanks to a 'panna' followed by a beautiful assist, we scored the first goal in the match and it proved to be too much for the other team to come back from. The final minutes of the match featured both teams playing conservatively and when the final whistle was blown the celebration started for the rightful champions of the 2012 LEVT.

After the final the organizers of the event arranged a very nice barbecue in which all the teams in the tournament took part. During the barbecue a small award ceremony was held in which we received the winners' trophy. As said in this small ceremony we would like to thank Asset | Econometrics for all the support and arrangements for the eight participating teams from Tilburg. We are already looking forward to another performance worth remembering next year!

Econometricians: the Fastest Amongst Asset

HART VAN
BRABANTLOOP

On the 29th of September, two Asset | Econometrics teams participated in the Hart van Brabantloop; the professional Econometrics 1 team and the Econometrics 2 'beer' team. Both teams had to run 105 km divided in 15 stages: five stages for women and ten stages for men.

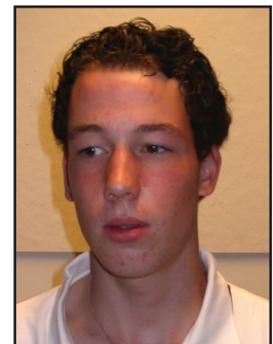
The day started very early for most of the participants. At 6.30 we were expected to be at the parking lot behind the Warande building. Here we were offered a nice breakfast in the back of Cas' car. This was the perfect moment to discuss which car had to go to which switch point and who was supposed to be in that car. When this was arranged, the first runners, Fang Qi from Econometrics 1 and Marleen from Econometrics 2 had to go to the start at 7.30 to run the first stage. All other runners got in the cars and were brought to their switch point. At every switch point the runner has to hand over his vest, which has a tracking device to measure the time to the next runner.

Every runner was accompanied by a biker who advised and supported the runner during the stage. I needed to support Robbert on the second stage. This was not very easy, since you need to cycle, point out the way and support the runner all at the same time. Luckily for me, Robbert did not need that much advice as he had run at an astonishing average speed of almost 15 km/h. Once Robbert was done with his stage, he took some rest before the whole thing started over again.

We got back into the car and rushed to the next switch point, at the start of stage five. Together with Corné, who had to run for Econometrics 2, we waited for our teammates to arrive. The vest was handed over from Maartje to me, so my torture could begin. I still remember Cas, who was cycling along with me, saying I had only one km to go. This was the moment I was waiting for and I gave everything I had. There were more and more people alongside the track and finally I saw the finish line. During the last meters I took off my vest and gave it to Floris who was waiting to start his 10 kilometer long run. I searched for the nearest lamppost to prevent me from falling and tried to catch my breath. I thought I was done for the day, but nothing could be further from the

truth. Despite the careful planning and all the preparations, there was no runner for the sixth stage of team 2 because of illness. We decided to put two runners on this stage who would both run 5 km, which was half of the distance. Those runners would be me and Corné, who also had to run the previous stage. At the moment I saw him passing the finish line, I knew he could not run another 5 km and so I decided to run the whole distance myself. After this my day was truly finished. We arrived at the Leijpark where a new group of runners was waiting for us to take over. At this first restart point Econometrics 1 was the 23th team and Econometrics 2 was on place 78. But as always, the best runners come in the last part. Thijs finished with an average speed above 15 km/h, despite some troubles with running at his own speed.

The objective for the rest of the day was to maintain this position. Thanks to all the runners and bikers team 1 lost only two places and ended on the 25th place. Team 2 also had to give in a few places and ended 78th. The most important aim of the day was to beat all other student teams of Asset, which turned out to be a piece of cake. Therefore, all participants should be proud of themselves and everyone deserved a nice and long sleep at the end of this successful day.



Name:
Martijn Heinen

Age:
20

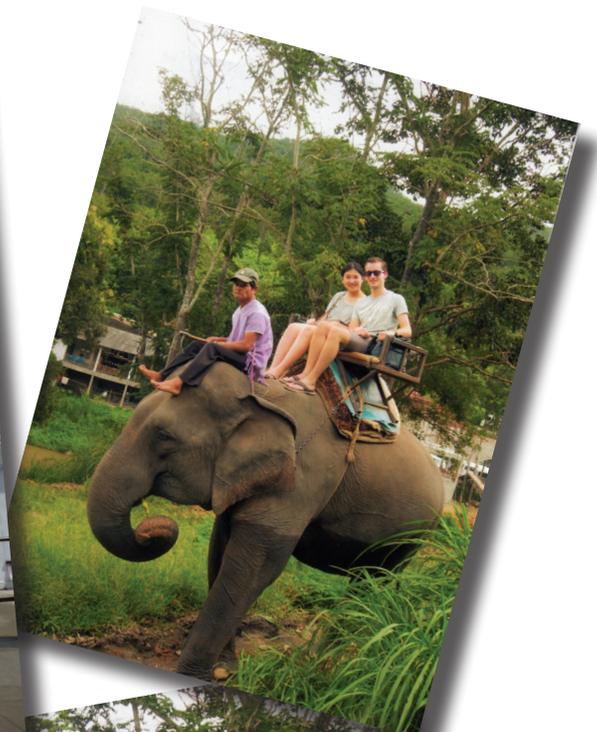
Begin Studies:
2010

SUMMER PHOTO
CONTEST

Astrics' Next Top Model is...

At the end of last academic year, all recipients of this magazine were invited to enter this year's summer photo contest. The task was to take a photo armed with the official Asset | Econometrics umbrella and sunglasses, preferably both. Although we did not receive that many contributions, it was fun to see on which places in the world the weather protective accessories came in handy.

Together with last year's Editor-in-Chief, it was decided that **Anniek Joosten**, **Janinke Tol** and **Maarten van Liempd** are the proud winners of this year's contest! Apart from standing in front of a beautiful golden Buddha in Nepal during the International Experience, they were the only participants who were both wearing the official Asset | Econometrics umbrella and the Asset | Econometrics sunglasses. Congratulations on your victory, we invite you to come over to grab a pie or a crate of beer!



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 well-filled page with some striking and funny quotes! Please mail all remarkable quotes you have heard to **Nekst@Asset-Econometrics.nl!**

English Quotes

Hans Schumacher during Financial Models, asked about the partial derivative of xy to x . He answered: "It is y . Usually it is the question, now it is the answer."

Dutch Quotes

Tjeerd van Campen met bril van Dieuwertje Verdouw op kijkend naar een schoorsteen: "Nu kan ik die kerktoeren tenminste scherp zien."

Senna Jansing terwijl ze Wordfeud speelt: "Ja, ik dacht ik leg 'pennel', maar dat kent hij niet. Dat is toch een soort jury ofzo?"

Robbert-Jan Tjihuis: "Ik heb mijn 2e jaar eerder gehaald dan mijn 3e jaar."

Dieuwertje Verdouw: "Dat is logisch want het 2e jaar komt voor het 3e jaar".

Robbert-Jan: "Hoezo komt het 2e jaar voor het 3e jaar?!"

Dieuwertje Verdouw: "Daar is mijn reactievermogen te snel voor."

Wilbert Kistemaker: "De contracten liggen in het la-LEDje."

Anouk Claassen: "Ik weet zijn naam niet meer." Ernst Roos: "Hoe heet hij dan?"

Tjeerd van Campen: "Hij gaat het hoog schoppen."

Jeroen Pars en Suzanne Vissers zijn aan het fitnesssen op een stepapparaat. Suzanne kijkt naar de display en schrikt: "Ik heb geen hartslag!" Jeroen: "Joh, je hebt geen hartslagmeter om."

Daniëlle van Dalen over de jaarplanning: "Het was dit jaar echt lastig; Koninginnedag valt namelijk precies op 30 april dit jaar."

Ad van Herpen tijdens een LED-vergadering tegen Ozgur: "Go your gang!"

Dirk Parren: "Het is uit met mijn vriendin, sinds een week." Willem Jongen, aangeschoten en schreeuwend: "Bij wie is het uit sinds een week?!"

Dirk: "Bij mij..."

Willem: "Echt? Rot man! Sinds wanneer?"

Dieuwertje Verdouw: "Lelijke mensen zijn vaak aardig omdat ze dat nodig hebben." Robbert-Jan Tjihuis: "Oh, dus daarom ben je altijd zo aardig."

Anouk Claassen en Suzanne Vissers lopen samen door gebouw P. Anouk: "Eh bah, het regent!" Suzanne: "O ja?" Anouk: "O nee, het is de fontein."

Marleen Veldhuijzen: "Ik ben een keer wagenziek geworden van mijn eigen rijgedrag."

Robbert van Oosten: "Ik ben echt een worstenman."

Senna Jansing: "Ik kan wel kneiterbezopen worden maar dan ben ik nog niet zat."

Dieuwertje Verdouw: "Het wordt helemaal niet licht in de winter."

Sandra Feenstra tijdens borrel: "Now we have a free fust of beer!"

Daniëlle van Dalen in de woestijn van Dubai tijdens de jeeptour: "Als je zo'n heuvel op rijdt, weet je helemaal niet wat erachter komt!" Marleen Veldhuijzen: "Ja, zand."

Joep Olde Juninck in de taxi in Dubai: "Verkeersregels zijn hier geen verkeersregels, maar suggesties."

Suzanne Vissers en Anouk Claassen hebben het over de kaft voor de Nekst. Suzanne: "Beter vier vogels in de lucht dan één in de hand"

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...on obtaining their Master's degree.

Agenda

Thursday November 1

Freshmen Activity

The first freshmen activity of this year will take place at November 1 and will be organized by our new freshmen committee. During this activity you will get to know your fellow freshmen, so make sure you will be there!

Tuesday November 6

Activity & Lecture Drink

On Tuesday November 6 the first activity organized by the Drinks & Activities committee will take place. The activity is still unknown, but we can guarantee you it will be a great evening! After the activity there will be a lecture provided by a company, after which the drink will start.

Friday November 16

Active Members Day

This day will be organized to thank our active members for their contribution to the association. The program of the day will be kept secret for all active members except for, of course, the organizing committee. We can assure you that it will be a fun activity!

Wednesday November 21 up to and including Friday November 23 Finance Expedition

Finance Expedition

During the Finance Expedition, four renowned financial institutions will be visited at their offices in Amsterdam, Bussum and The Hague. Here you will get an insight in what they do on a day-to-day basis. Each company offers a challenging case in the field of Asset Management, Banking, Corporate Finance, Risk Management or Trading.

Thursday November 22

Orientation Day

The Orientation Day is a faculty-wide activity. On this day first and second year students can learn more about the rest of their studies and the different econometrics master studies. Several companies will also introduce themselves through cases and presentations.

Tuesday November 27

Saint Nicholas Drink

This year we will have our annual Saint Nicholas drink at our favorite pub 'Café Van Horen Zeggen'. We hope that Saint Nicholas himself will also bring a visit this year.

Thursday November 29

Asset Gala

Asset will organize a nice gala for all Asset members. So find yourself a nice outfit and score yourself a hot date, because this will surely be a night to remember. More information will be available soon at www.Asset-Tilburg.nl.

PUZZLE

Coconometrics

The first puzzle of this academic year is presented to you by professor Willem Haemers. After a relaxing and exotic holiday, we all had to go back to work. In order to retain this holiday feeling, let us combine econometrics with tropical coconuts: coconometrics!

Koos Kraker lives in an apartment building with 36 floors and wants to find out from which floor a coconut falls into pieces when dropped. If Koos has one nut he can find this out by dropping the nut from Floor 1, Floor 2, Floor 3, etc., until the coconut breaks. Then the maximum number of trials is 36. But Koos has two (identical) coconuts. Develop a strategy for Koos to find out the lowest floor from which a coconut will break, which minimizes the maximum number of trials.

Please send your solution to Nekst@Asset-Econometrics.nl before November 30, 2012. A crate of beer or a delicious pie, whichever the winners prefers, will be waiting for whoever has the best (partial) solution! Good luck!

Jaap Abbring was the winner of the previous puzzle. As a reward, he can come and pick up a crate of beer or a pie at room E1.10. 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.



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