

Research in a Nutshell
**Totally confused about
taxes: does working
more pay off?**

Study And
**Lessons from exchange:
enjoy the moment for
what it is**

Historical Perspective
A century of student life

Back to Bone Magazine

Preface

Dear reader,

The air in the Theil lecture hall was filled with a mix of excitement, anticipation, and anxiety during the Take-Off at the start of the academic year, where I addressed the new cohort of bachelor students for the first time as Programme Director.

For me, it was a throwback to about 25 years ago, when I started as an undergraduate at our School, with limited knowledge of the discipline and the profession. In these 25 years, our School has allowed me to develop into a confident academic economist. I feel strongly committed to contributing towards making Erasmus School of Economics a community where students and staff can thrive.

In my view, our programmes must remain firmly grounded in research, offer practically relevant skills and insights, and address societally relevant issues. Our programmes transform our students into analytical, quantitatively skilled, and social-minded economists, business economists, and econometricians. Our graduates know their strengths and weaknesses and are open to insights from other disciplines.

A core aspect of academic education is interaction among students as well as lecturers and students. These interactions allow students to personalise their learning. It also helps in making students feel part of the academic community at Erasmus School of Economics. Making all of our students, with their highly diverse backgrounds, feel that they belong at our School remains an important challenge for us.

Society faces challenging times. As the subject of Economics offers a strong framework for analysing and addressing societal challenges, our students will get to a wide variety of positions and sectors where they can make a difference. Our mission is to prepare them as best as possible.

Enjoy your reading!

Josse Delfgaauw
Programme Director of
Erasmus School of Economics



Discover the Nederlands Fotomuseum in Rotterdam, the national centre for photography and one of the world's largest photographic collections.

The Nederlands Fotomuseum offers a unique and immersive cultural experience for every visitor. It brings over 6.5 million objects to life through inspiring exhibitions and behind-the-scenes collection spaces. From early daguerreotypes to contemporary digital works, the museum showcases the rich history of Dutch photography while

revealing how photographs are made, preserved, and why they matter.

The museum is housed in the beautifully renovated historic Santos warehouse in the Rijnhaven harbour, situated on the border of the revitalised Katendrecht neighbourhood and the diverse Afrikaanderwijk.

Meet your Professor
Carlo Cavicchia



Study And
Aiming high: Elise de Jong



Research in a Nutshell
When news crosses borders,
so do stock returns



Meet our Alumni
Belinde Bakker



Tell us in two minutes
what you think about
Backbone Magazine!

Research in a Nutshell

Disability insurance applications: how human judgment favours lower-waged candidates	10
It is never too late to quit: lung cancer screening is particularly effective in former smokers	24
When news crosses borders, so do stock returns	42
Women in STEM: why relatively few women choose higher education in science	50
Totally confused about taxes: does working more pay off?	64
Videogames on demand: a new business model?	74

Meet Rotterdam

Laila Kozarki Making Rotterdam my home	6
Rotterdam: a city of many sounds	54

Meet our Alumni

William Steenbergen Finding a good problem to your solution	14
Belinde Bakker Leading change among flamingos and giraffes	36
Bas Nederpelt Crossing oceans with innovation and creativity	56
Alycia Colijn Chasing impact, not perfection	68

Meet your Professor

Carlo Cavicchia	18
Charlotte Antoons	28
Michel van de Velden	48
Yao Chen	60

Study And

Lessons from exchange: Enjoy the moment for what it is	20
Aiming high: Elise de Jong	40
Pulling ahead: Linn van Aanholt	62

Your gateway to success	34
-------------------------	----

Facts & Figures	
Erasmus School of Economics in numbers	30

In the Spotlight Measuring what works: Esther Duflo's experimental economics	46
--	----

Historical Perspective	
A century of student life	72

Noted & Quoted	78
----------------	----

Colophon	79
----------	----

Making Rotterdam my home

Hi! My name is **Laila**, and I'm currently in my third year of the International Bachelor Economics and Business Economics (IBEB). I moved to the Netherlands for my studies, and in this interview, I'll take you through the ups and downs of being an international student in Rotterdam. Over the years, I've explored the city in many ways, but its international food scene remains my favourite. Read on to discover some of the places I love most.





‘The biggest lesson I had to learn upon moving here is that you have to be proactive’

Why did you choose to study in Rotterdam?

‘My mum studied in the Netherlands for her master’s and always spoke very positively about the country and its educational system, so it had been on my radar for a long time. In high school, I really liked maths, but I also wanted to do something with a social dimension, so economics felt like the perfect combination.

When I started looking at university rankings, I narrowed it down to Erasmus University Rotterdam, Tilburg University, and the University of Amsterdam. What attracted me to Erasmus School of Economics was the option to do a double bachelor’s in econometrics and economics.’

How did you experience moving here?

‘Most of the process I handled on my own: immigration, opening a bank account, and finding housing. Luckily, my mum helped me move my things, and we turned it into a week of exploring different places together.

I had already moved several times in my life, so packing up my belongings was not the hardest part. I think moving out will actually be more difficult, because I’ve now lived in the same place for three years.

For me, the hardest part was leaving people behind. In the beginning, I felt homesick from time to time, but that does get better. Even now, whenever I visit my family, it can still be hard to leave again.

At the same time, adjusting to life here was relatively smooth. Rotterdam is a modern city, and almost everyone speaks English. The university also offered a lot of useful information through its

“one-stop shop”, and there are many international communities that help you find your way. One of the best tips I got was simply on where to find the cheapest supermarkets.

In the beginning, the academic transition was quite tough. I had to adjust to a completely new educational system, and econometrics was challenging. After block three, things started to fall into place, but in the end, I didn’t have enough ECTS to continue. After a lot of careful thought, I decided to drop econometrics and switch to IBEB*. I then made a conscious decision to also commit to extracurriculars, such as joining committees, so I would have something outside of studying. That choice feels like yesterday, but I’m still so happy I made it. It has brought me a lot.’

What do you like about studying at Erasmus School of Economics?

‘I really like the quantitative approach in my classes. The university works closely with many organisations, which creates interesting opportunities for students. I also enjoy the flexibility of student life. I can make plans with friends and organise my studying around that, which helps a lot with my motivation and focus.’

What was the biggest lesson you had to learn when you moved here?

‘That you have to be proactive. In my first year, I didn’t really reach out to people or explore the city that much. Later, I started actively looking for activities and realised there is so much you can do here. That’s when I joined committees and started looking for student jobs. I wanted to do something that would help me build my CV, but that I would also genuinely enjoy. That’s how I found things like Turing Students, which gives coding classes to students.’

What surprises you the most about living here?

‘I’m still impressed by how cultural Rotterdam is. There are so many great places for music, art, theatre, and film. The Rotterdam Pass really surprised me. It gives you access to so much in the city, and for me, that’s a great incentive to go out and explore. I’m not used to municipalities offering something like that, so I think it’s amazing.

People often have stereotypes about Dutch people, but I have to say I’ve been positively surprised. Lately, I’ve even noticed that I’ve adopted some Dutch traits myself: I’ve become more direct, I use my calendar more, and I’m almost always on time.’

How would you describe your student life?

‘Vibrant. I get to do a lot of different things, and I really enjoy that. Since this year, I’ve had a sports pass from Erasmus Sport, which is a great break from studying. I try all kinds of classes and just have a lot of fun.

I also really value the mix of people I meet. My friends come from different countries and don’t necessarily study economics, which pushes me outside my bubble in a way I really appreciate. The international character of Rotterdam is also reflected in the food scene. I love food, so my friends and I have already discovered a lot of places together.

Besides that, I write a column for Erasmus Magazine, where I share stories about my student life, and I’m currently doing an internship as well. All of these experiences bring me into contact with very different groups of people, and each of them requires a slightly different attitude. That variety is something I really value.’

What is your favourite spot in the city?

‘Donner bookstore is amazing. My family has always loved bookstores, and whenever we go on holiday, we make a point of visiting them. So, when I arrived in Rotterdam, I loved discovering such a large bookstore that offers much more than just books. The café inside overlooks part of the city, and it feels very peaceful.

At the same time, there are still so many places I want to discover. I keep a list of favourites on Google Maps where I save everything I still want to visit. Right now, that list includes Vrijmoed, Mimoza Smashburgers, Wester Paviljoen, and the Boijmans museum.’

Do you have any advice for international students coming here?

‘Be stubborn. I think you can interpret that in many different ways: be stubborn with yourself, with life, with challenges, and with other people. Stand up for yourself and keep pushing through. Things can be difficult at times, but if you stay positive and keep going, you can get very far.’ ◀

Laila's tips

As I mentioned already, I am a big fan of exploring different cuisines in the city. These are some of my favourite spots.



Gamasot (Korean)

This spot is my hidden gem of Rotterdam. My favourite: rich chapjae (glass noodles) fried in a rich sauce with fragrant beef and succulent mushrooms. But when I really want to treat myself, I get their dosirak: an all-in-one lunch-box filled with fatty slices of salmon sashimi, crispy shrimp tempura, and a generous serving of beef and veggie stir fry. All on top of a hot bed of fluffy rice!



Yellow River Lanzhou Noodles (Chinese)

My go-to spot for incredible hand-pulled noodles! Generous servings fit for a king. Their classic spicy, beef-broth noodle soup has an earthy, aromatic depth to it that could only be achieved by extended time spent simmering all those flavours together. Inside, you’ll find noodles stretched and cut by hand to achieve the perfect chewy yet smooth texture (plus, you get to choose your cut of choice for optimal chewing experience!)



Spirit Rotterdam (International)

Heavenly levels of vegan food. This fully vegan pay-by-weight buffet serves all meals from breakfast to dinner, including a wide selection of ice cream and cakes. Something you’ll always find on my plate is their hibachi fried rice that is exceptionally light yet flavourful and filled with all the right textures. As for dessert, try their chocolate raspberry cake: a rich chocolatey base that’s broken by sweet-sour notes of raspberry.

*Note: As of September 2026, switching study programme within the academic year is no longer possible.



'The discretion that remains is consequential for the benefits awarded'



The aim of disability insurance is to compensate for lost earnings when somebody can't work as much because of ill-health or injury. The challenge for the insurance agency lies in determining that loss. In the Netherlands, there is a sophisticated, semi-automated assessment of how much applicants are entitled to. But even this system relies on human judgment, to some extent. Our research shows that subtle decisions of public officials who assess these applications meaningfully affect how much somebody can receive from their disability insurance.

How disability insurance applications are assessed

Dutch disability insurance is administered by a public agency that employs physicians to conduct a standardised medical examination of each applicant. The results are fed into an algorithm that finds feasible jobs consistent with the applicant's functional capacities. These job matches determine the applicant's potential post-disability earnings. Benefit entitlement is based on the gap in earnings compared to before the applicant became disabled.

The algorithm-generated job matches are reviewed by an agency official, who may classify some of them as infeasible. In some cases, this can result in somebody receiving a higher benefit. Our research reveals a systematic pattern in these changes.

Lower-wage applicants get favoured

We use data on all disability insurance applications filed in the Netherlands between 2006 and 2017. We compare the amounts that applicants, who are assigned to different officials but within the same office, receive. In the end, we find that, when officials intervene, applicants who earned less prior to becoming

disabled receive more favourable benefits. Human intervention tends to help low-wage applicants with more limitations to qualify for higher benefits.

Variation in the strictness of assessments affects low-wage and high-wage applicants differently. When the applicant is among the poorest 30%, officials are more likely to overrule the algorithm on job matches.

How this benefit isn't equal

While the Dutch disability insurance system is often cited as a model of rule-based assessment, we show that the discretion that remains is consequential for the benefits awarded. More importantly, that discretion is not exercised randomly: it is more likely to favour lower-wage applicants. Maybe this reflects concerns about how vulnerable the labour market position of certain applicants is.

Additionally, there is a horizontal inequity: otherwise similar applicants can receive different awards simply because they are assigned to a different official.

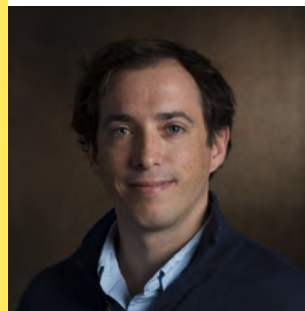
While limiting subtle human interventions would enhance consistency, it would risk overlooking information that is relevant to an applicant's predicament but is ignored by an algorithm. Allowing such discretion can increase responsiveness to individual circumstances, however, at the cost of increasing variability. It creates an administrative risk: the outcome of an application depends on the chance of assignment to a particular official. So, strengthening training and monitoring, and investment in decision-support tools may reduce variation while preserving the benefits of informed discretion. ◀



Pilar Garcia-Gomez
is Professor of Applied Economics at Erasmus University Rotterdam. Her research focuses on the intersection of health and labour economics.



Owen O'Donnell
is Professor of Applied Economics at Erasmus University Rotterdam. His research examines health inequality and links between labour markets and health.



Carlos Riumallo Herl
is an associate professor in the Applied Economics Department. His research examines the effects of policies on health outcomes in low- and middle-income countries.

Ida Grueva
Master Health Economics

'Somewhere along the way, I realised my economics bachelor's degree opened more doors than I could have imagined'

Finding a good problem to your solution

By: Tom Lelieveldt

When **William Steenbergen** moved to California for a master's at Stanford University, he didn't expect to start a company. He simply wanted to deepen his knowledge of statistics and maybe earn back some of the high tuition costs by working at a tech company. Instead, he ended up launching a startup in Silicon Valley, raising millions in investment and building software that is now used by major insurance companies. Today, he is the youngest entrepreneur on Dutch Magazine Quote's top 100 self-made millionaires list.

How did you experience the Econometrics programme at Erasmus School of Economics?

'It was really fun, but also really hard. I didn't have the usual background because I didn't do an econometrics bachelor's, so in the beginning, I felt like I was the least prepared person in the room. I spent a lot more time studying than most of my peers. I was reading textbooks constantly, asking questions, and just working very long hours to catch up. But I actually enjoyed that process. After three or four months, I started to get the hang of it. Once I had some of the basics down, the programme became a lot more fun.'

The analytical thinking you learn in econometrics is extremely valuable. Even later at Stanford, where the courses were also very difficult, there is no way I could have kept up without the foundation from Rotterdam. Econometrics teaches you state-of-the-art statistics. That's much harder to learn on your own than something like programming, which is relatively easy to pick up independently.'

What did you do outside your studies in Rotterdam?

'I was involved with De Kleine Consultant, a student consultancy organisation where students work on projects for companies. There, I worked on a project with a startup that financed community initiatives in Africa, like wells and schools. Later,

I worked on a project with a large shipyard. During this time, we were still students, so I'm not sure our advice was always the most valuable, but it was a fantastic learning experience.'

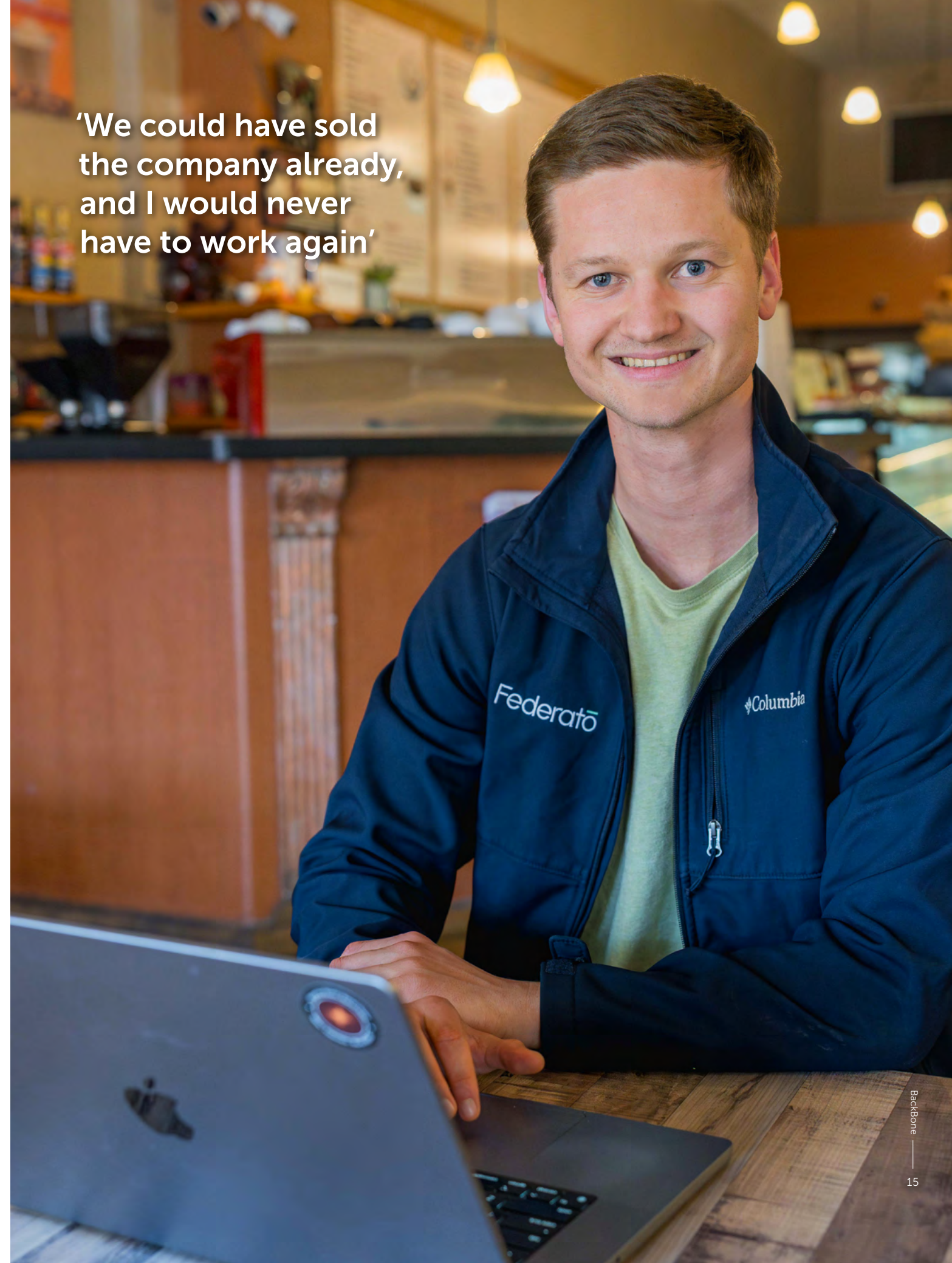
In the last quarter, I became the leader of the Rotterdam team. That meant I stopped working on projects myself and focused on leading the group. Looking back, that experience was actually very helpful for what I do now, because today I do something similar on a larger scale.'

After Rotterdam, you went to Stanford. What's the difference between studying and working in Rotterdam and California?

'The pressure is much higher. People really feel pressure to get good grades and achieve things. That environment can be partly good and partly bad. Honestly, I wouldn't raise my kids here. But at the age when I was there, it was a great environment because it pushes you to perform.'

Another big difference is the networking culture. In the Netherlands, professors are mostly there to teach. However, in the US, especially at places like Stanford, professors are leading researchers and very respected figures. Students actively try to work with them, do research together, and build relationships.'

'We could have sold the company already, and I would never have to work again'





In terms of work culture, I really like the Netherlands in many ways, but sometimes ambition is viewed a bit cautiously. In Silicon Valley, it's the opposite. People love taking risks and trying to build something big. That is why there's also a huge amount of extracurricular activity. Students are constantly building things, joining clubs, or starting companies.

For me, that environment was important because I'm actually quite introverted. I'm not one of those people who sold lemonade on the street as a kid. That's why I wanted to surround myself with people who push each other to build things. If everyone around you is starting companies or working on ambitious projects, it becomes much more natural to try something yourself.'

Did you move to Stanford with the plan to start a company?

'Not at all. I knew tuition was expensive, and I actually thought I might work at a company like Google to earn some of that money back. Instead, I decided to take the risk and build something without taking a salary.

It started almost by accident. There's a famous Stanford course called Lean Launchpad where students simulate building a startup in ten weeks. You apply in teams and pitch your idea to a panel. It's basically like Shark Tank. You present your idea to a panel of billionaires who decide whether you get into the course or not. My co-founder and I applied, but we got rejected because our idea was terrible.

But we liked working together, so we kept researching the industry and refining the problem we wanted to solve. Eventually, a venture capitalist who had seen our pitch invited us into an incubation programme. They offered us \$100,000 and mentorship if we worked on the idea over the summer. I had already lined up an internship at Coursera, but I cancelled it and decided to take the chance.

The two of us spent the entire summer cold-messaging underwriters on LinkedIn, asking for thirty minutes of their time. We would show up on Zoom with hand-drawn screens on paper and ask: Would this actually solve your problem? By the end of the summer, we had no product and nothing built, but we knew exactly what problem we were trying to solve.

What problem did you decide to focus on?

'We started by looking at macro-economic trends to find a really big problem. The one that stood out was the so-called "coverage gap". That's the growing gap between economic losses and what is actually insured. Over the last decade, more and more people and businesses have lost their insurance safety net, which is a huge problem globally.

When we researched the industry, we realised that many insurance companies were still managing their portfolios using Excel spreadsheets. That makes it incredibly difficult to understand risk across thousands of policies. So, we built software that helps insurance companies analyse their portfolios and decide which risks they should take. It helps them diversify better, which ultimately allows them to insure more people.'

'Starting a company is not about having a great idea. It's about defining a real problem'

Many founders sell their companies once they become successful. Is that something you consider?

'Not really. We probably could have sold the company already, and I would never have had to work again. But that's not why I'm doing this. If you build a company only to sell it quickly, you're not really trying to solve the problem you started with. I sometimes compare it to the Olympics. If you're competing at that level, you're not doing it to finish fourth. Selling the company early would feel like giving up before the race is really finished.

For me, success is about impact. Our goal is to make insurance more accessible by helping companies manage risk better. And if hundreds of insurance companies can use our technology to provide more coverage and lower costs, then we've really achieved something.'

What advice would you give students who want to start a company?

'The biggest misconception is that you need a brilliant idea. Finding a well-defined problem is actually way more important. Once you truly understand the problem, smart people will eventually find a solution.

The other thing is simply doing things: don't overthink everything. Build something, show it to others, and learn from their feedback. In the beginning, we literally sketched product screens on paper and showed them to potential customers on Zoom. It doesn't have to be perfect, you just have to start.' ◀

Meet

Carlo Cavicchia

My name is Carlo Cavicchia, and I am an assistant professor at Erasmus School of Economics. I am originally from Italy, but I have been living in the Netherlands for several years now. I truly love Rotterdam's energy. My favourite thing is simply walking through the city and experiencing it as it is.

Hobbies

In my free time, I have been going to the cinema more often, where I have had the opportunity to discover movies that I probably would not see at home by myself. One of my recent favourites is Anora, which received a lot of attention and won several awards. Furthermore, I like going to the gym, playing squash, and cycling out of the city when I have the time and if the weather is nice.

I have also been very lucky to travel a lot. Taiwan inspired me because of the incredible kindness of the people and its amazing food culture. Every meal felt like a new experience. Another country I loved was Costa Rica, for its breathtaking nature. I was amazed by how many shades of green exist.

Road to academia

I started my career in academia mainly because a professor encouraged me in that direction. At the time, I was more or less ready to go into business and find a job in a company. But looking back, I am glad of the choice I made, as I think it makes sense that I ended up in research. As a kid, I was always a bit curious, and I always wanted to discover new things and invent ideas.

My research revolves around data science in general, especially the computational and methodological aspects of statistics. More specifically, I work on clustering and dimensionality reduction. These methods help capture and uncover patterns in high-dimensional datasets.

My goal is always to find something insightful from data in a fast and efficient way. That is why I focus a lot on algorithms: they need to be efficient in terms of time, storage, and memory, but also interpretable. The statistical side is essential because it helps us understand and explain what we are finding.

Application makes theory come to life

I sometimes feel that theoretical approaches in economics can become too abstract and somewhat heavy for students, especially if they are not clearly linked to applications. As a teacher and researcher, I try to build a bridge between real-world problems and theory. In my experience, that is what makes a topic come alive for students.

When I moved here about five years ago, I found a very vibrant academic environment. At Erasmus University Rotterdam, scholars from different fields collaborate, share ideas, and learn from one another. I really value that atmosphere, because it makes research more open and actively creative.

Stay curious

I like working with students who are curious. It does not matter how much background knowledge you already have. What matters is that you want to learn, that you enjoy the process, and that you do not rush success. If I could give one piece of advice, it would be this: stay curious and develop critical thinking. That is one of the most valuable skills you can build as both a student and a person.

Also, do not limit yourself to one narrow topic too quickly. Economics and data science are both highly interdisciplinary, and you gain a lot by exploring broadly. Do not focus only on becoming an expert in one small area but try to build a wider perspective and connect ideas across fields.

And finally, don't rush the outcome. Enjoy the process of learning and growth, because that is where the real progress happens. ◀

**'Don't rush the outcome.
The real progress happens
in the process of learning
and growth'**

Lessons from exchange: enjoy the moment for what it is

By: Tom Lelieveldt

Raiden Metsa spent four months on exchange at Thammasat University in Bangkok. He came back with a custom cassette tape from a Thai friend, a local vision on the Thai political system, and the conviction that happiness is not something you can put on a checklist.

‘When a stranger just opens their door to you without a second thought, that is something I will remember for a long time’



Why did you pick Bangkok?

‘I had Japan and South Korea already picked out, and I was struggling to choose a third option. I was debating between Hong Kong and Bangkok. Then I went to KINO to see a Thai film called How to Make Millions Before Your Grandma Dies. I didn’t understand much of it because my Dutch is a bit limited, but the city where it was set just looked incredibly interesting to me. I’d never seen anything like it. I got home that night and thought, I’ll pick Bangkok. The deadline was two days later. They accepted me, so that was that.’

What was arriving like?

‘I had to stay in Finland for a day because of a delay, so I arrived exhausted and very jet-lagged. I got into a taxi to the first introductory event with the only other Erasmus student who was supposed to be going there with me. He told me he didn’t like the

city at all and that he was thinking about catching a plane home that night.

That was only my first hour in Bangkok, so I had to build some sort of other connections quickly. And in a way, that pushed me into meeting people I might not have met otherwise. I got lucky with my accommodation, which was basically a dorm for exchange students. Every day in the lobby, there was someone to talk to. Most of the friends I ended up spending my time with, I met during that first day.’

Besides other exchange students, did you make any local friends?

‘Easier than I initially expected, honestly. The university assigned me a study buddy who showed me around during my first

weeks, took me through Chinatown and its art district, and introduced me to karaoke bars. But some of the most memorable connections happened completely by chance. I met one of my closest Thai friends in a cinema. We got talking after the film, just about what we thought of it, and then we kept meeting up. He was moving on from his family’s business to open his own music store. Watching someone have that kind of drive was genuinely inspiring. Before I left, he even gave me a custom cassette tape from the store.

It also helps that Thai people are very open and approachable. One of the first times I got caught in a monsoon, I was completely soaked trying to get to the gym and ended up sheltering under the roof of someone’s shop. They were watching a Muay Thai fight with friends, saw the state I was in, and just invited me to join them. They didn’t speak any English. We communicated through body language and vibes, mostly. They told me it would rain for another 30 minutes and to just sit and wait. That kind of moment, where a stranger just opens their door to you without a second thought, is something I will remember for a long time.’

How did the city itself surprise you?

‘The transport was the biggest shock. I knew Bangkok was a big city, but I hadn’t realised how completely car-centred it is. Motorbikes improvise their own lanes, two-lane highways become three-lane highways and then four-lane highways. Everything moves by car, because the public transport network is not that extensive. I used taxis almost everywhere. My friends all used motorbike taxis, but given the traffic situation, I decided against that.

The other surprise was the pace. Bangkok never really sleeps. In Rotterdam, by ten in the evening, most things have closed. In Bangkok, ten o’clock is when I would normally go out for dinner. That took some adjusting to. The sun also sets at six every day without fail, so if you wanted to see anything outdoors or visit a park, you had to plan around that.

Did you ever experience actual culture shock?

‘The hardest thing was the scale of Bangkok. In Rotterdam, there might be one or two big events a month, and you can plan for them. In Bangkok, there was something I wanted to do almost every single day. I had to learn to pace myself. To accept that it

was okay if I didn’t make it to a gallery opening or a film screening, because I had been out six days in a row and I needed to rest. You can spend 30 years in Bangkok and still not see everything.

The one night I would do again without hesitation was a free gallery night organised by the French arts institute. It was their last year, and they spent everything that was left in the budget. Around 50 to 100 galleries were open, transport between them was free, and each gallery had free food and drinks. I spent eight hours with friends moving through it.’

What did the exchange teach you?

‘I think it taught me that happiness genuinely starts with you. Not with a checklist of things you have or don’t have. Seeing people who were happy talking to strangers, happy to sit with a soaked tourist under their roof, happy to spend an evening explaining politics to someone they’d just met, it made me slow down. In Rotterdam, I was always in a rush. Get the assignment done, send the internship email, prepare for the exam. In Bangkok, I learned to enjoy the moment for what it is. And I think the culture helped. If I had done my exchange in Tokyo or Hong Kong, where the culture is very work-focused, I might have sat around thinking I wasn’t doing enough. The Thai way of life just helped me come to terms with taking it easy.’

What would you say to Erasmus School of Economics students considering exchange?

‘Just go. I have not read a single exchange report from any student at any university who said they regretted it. Even an internship or a minor are things you can do at other points in your life. Living for four months in a foreign country, surrounded by other people doing the same thing, meeting friends of friends who are on their own exchanges in Japan or India, doing gallery nights in Bangkok with a friend who just flew in from Seoul: that is only available to you right now. In a few years, when you want to spend a week in Tokyo, you are not going to have ten people ready to show you around. That window is open now, just take it.’ ◀

‘In Bangkok, there was something I wanted to do almost every single day, and I had to learn to pace myself’

It is never too late to quit: lung cancer screening is particularly effective in former smokers

By: Andreas Alfons and Max Welz

Lung cancer is one of the most common and deadliest cancers, as it is often diagnosed at an advanced stage. In lung cancer screening, individuals at risk are offered health check-ups using state-of-the-art medical imaging. This enables the detection of lung cancer at an early stage, which improves the possibility of undergoing curative treatment. Clinical trials have shown that lung cancer screening can greatly reduce the number of deaths. But which individuals benefit the most from screening?





‘Some long-term smokers think that the damage in terms of cancer risk has already been done, but this is a myth’

New insights through advanced modelling

Advanced statistical models and machine learning methods allow us to understand the different reasons why outcomes differ between various groups of individuals. Recently, these methods have been successfully applied to evaluate the different kinds of personalised medical treatments each individual receives.

With colleagues from Erasmus MC, this led us to ask the question: ‘What insights can we obtain by applying these techniques to lung cancer screening?’ We analysed two large randomised clinical trials involving people with an extensive history of smoking. This showed us that screening is particularly effective in former smokers and less heavy smokers compared to current smokers or heavy smokers.

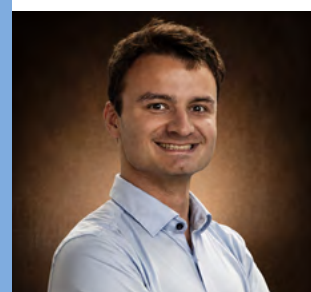
The relevant next question we asked is: ‘How can we explain this finding?’ To answer this, we included the form of lung cancer that was detected in the analysis. While this information is not available at the time of screening, incorporating it into our models afterwards allowed us to reveal the driving mechanism.

Former smokers or less heavy smokers tend to develop forms of lung cancer that are less aggressive, resulting in better treatment options. Moreover, these less aggressive types often develop in locations where they are easier to detect. In short, lung cancer screening is most effective for former smokers or less heavy smokers, because they develop better treatable forms of cancer.



Andreas Alfons

is an associate professor at the Department of Econometrics at Erasmus School of Economics and the Academic Director of the Master Programme Data Science for Econometrics. His expertise lies in the intersection of statistics and machine learning. He is particularly interested in applications in the behavioural and medical sciences.



Max Welz

obtained his PhD at the Department of Econometrics at Erasmus School of Economics. He is now a Postdoctoral Researcher at the University of Zurich. His current research is focused on methods for robustly analysing high-dimensional questionnaire data, for which he uses modern techniques from statistics and machine learning.

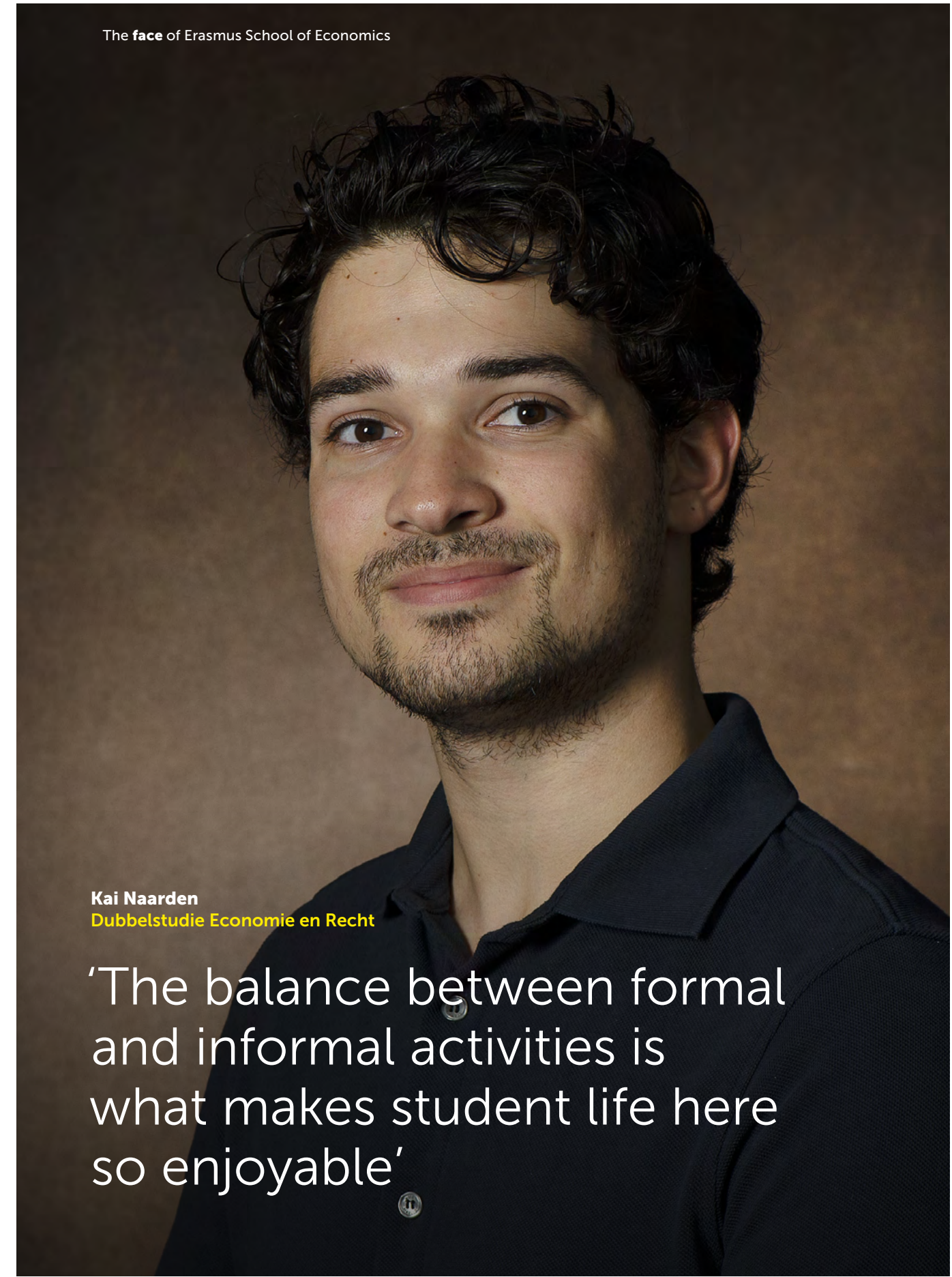
This insight would not have been possible with traditional analyses that are still common in medical research. In these traditional analyses, separate comparisons are made of, for example, former smokers to current smokers, or among groups with different smoking intensity. Only by including all the different factors in advanced models, including the detected form of lung cancer, could we draw this conclusion. That is how econometric models contributed to medical research.

Convergent expertise leading to impactful research

To succeed, our research needed the combination of medical knowledge of Erasmus MC and modelling expertise of the Department of Econometrics at Erasmus School of Economics. We also obtained an Open Mind grant from the Convergence Alliance of Erasmus University Rotterdam, Erasmus MC, and TU Delft, which aims to transcend boundaries between institutions and disciplines. To our delight, it was reported on by mainstream media. Finally, this project demonstrates the wide applicability of the skills taught in Erasmus School of Economics’ econometrics programmes, in this particular example, to biomedicine.

It still matters to quit

Some long-term smokers think that the damage in terms of cancer risk has already been done, so they may as well keep smoking. But our findings suggest that this is a myth. By quitting smoking, individuals can not only lower their overall risk of developing lung cancer but also lower their risk of developing one of the more aggressive types of lung cancer. ◀



Kai Naarden

Dubbelstudie Economie en Recht

‘The balance between formal and informal activities is what makes student life here so enjoyable’

Meet

Charlotte Antoons

My name is Charlotte Antoons, and I am an assistant professor at Erasmus School of Economics. On campus, one of my favourite places is the green area next to the tennis courts. In summer, it's ideal for a short walk, and during lunch, my colleagues and I often sit there to eat outside and unwind.

Accounting as a language

I have always been curious about how societies and organisations work: why do some businesses succeed and others fail? Why do economies grow? And how do decisions today shape outcomes tomorrow? That curiosity led me to study business economics, and over time, I became increasingly drawn to accounting.

One common misunderstanding is that accounting is boring. Many people imagine endless calculations, spreadsheets, and rigid rules. Technical skills do matter, but the field is far richer than that. For me, accounting is about the story behind the numbers. It helps explain how a business creates value, where it invests, and which trade-offs it makes.

‘Just start walking step by step and you will come a long way’

For my master's, I decided to specialise in accounting and finance because I realised that accounting is essential if you want to understand what is really happening inside an organisation. It is the language firms use to describe performance, risks, and priorities. What fascinates me is that accounting is not only about getting the numbers right, but it is also about using information to ask better questions and solve practical problems.

In my work, I study how organisations use accounting information to guide decisions and influence behaviour. My research looks at corporate governance, executive compensation, and management control systems. I am interested in how incentives

and performance measures shape the choices managers make. I enjoy combining analysis with questions that matter in practice. In the classroom, I try to show students that accounting is much more than numbers: one that connects strategy, incentives, and accountability.

Adapting to international environments

International experiences have played a big role in my development. During both my bachelor's and master's, I went on exchange. Once within Europe and once outside Europe. Later, during my PhD, I spent a semester in Australia for a research visit. Being originally from Belgium and working in the Netherlands has also allowed me to experience different academic environments.

Keep moving step by step

One of my favourite activities is going on multi-day hikes. During holidays, I love packing a backpack and spending several days walking outdoors. Hiking taught me a lesson I often bring back to studying and research: the route can feel long and tough, but if you break it into smaller parts and keep moving step by step, you will get there. On a steep climb, you don't focus on the entire mountain, you only focus on the next bend in the path.

I also enjoy creative outlets. Recently, I took a sewing class, simply to try something new. I also like experimenting in the kitchen, especially with plant-based dishes inspired by Mediterranean and Middle Eastern flavours.

Embrace opportunities

My advice to students is to embrace opportunities. There is a lot to explore within your courses, but also outside your programme. University is a unique time to try new things. Attend guest lectures, join a student or study organisation, take an elective outside your comfort zone, or apply for an exchange. At the same time, don't forget to enjoy your time here. Ask questions in lectures, discuss ideas with your peers, and learn from the people around you. ◀

Erasmus School of Economics in numbers

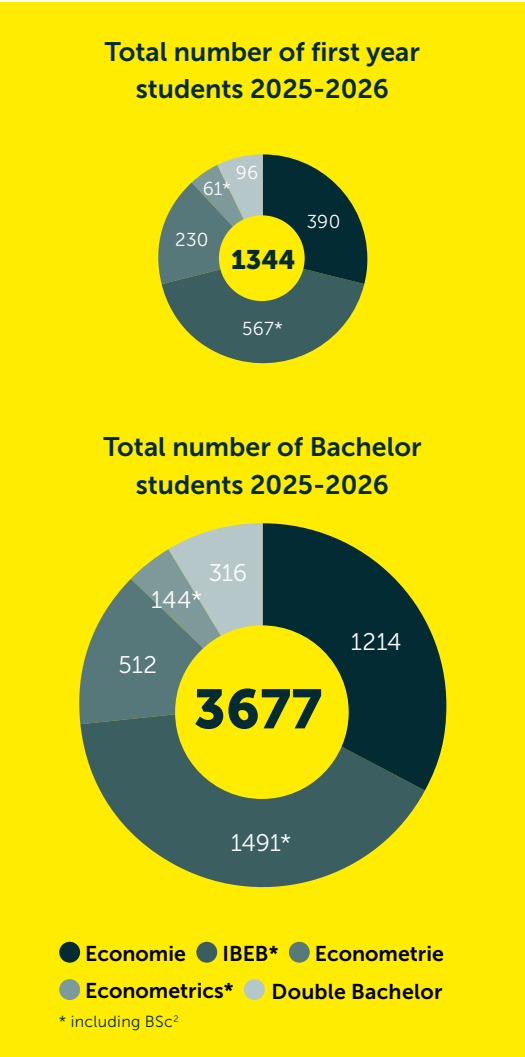
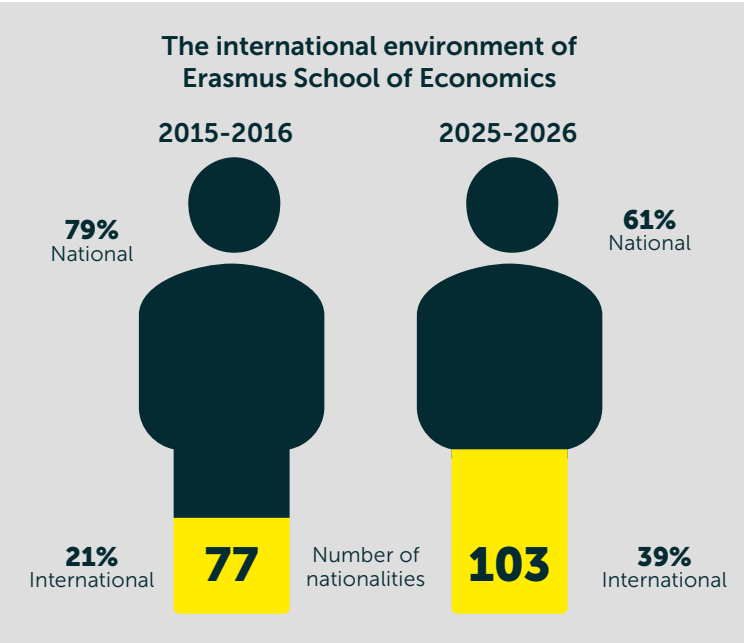
Erasmus School of Economics competes with the best universities in the world. To provide our students with the best opportunities, we offer our students a variety of study programmes and lectures by top researchers.

Here are some of the essential facts & figures.

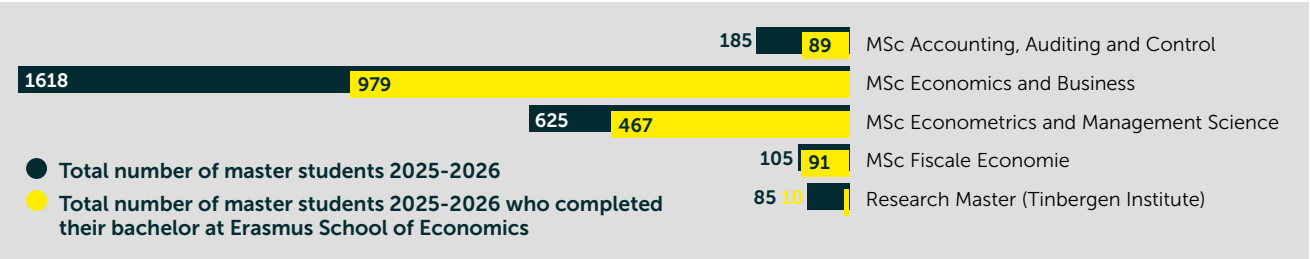
Bachelor

We offer the following Bachelor's degree programmes

- (International) Bachelor Econometrics and Operations Research
- (International) Bachelor Economics and Business Economics
- Double Bachelor BSc² Econometrics and Economics
- Double Bachelor in Economics and Philosophy of Economics
- Double Bachelor in Econometrics and Philosophy of Econometrics
- Dubbelstudie Economie en Recht



Master



58% of the students who obtained their bachelor's degree at Erasmus School of Economics in 2024-2025 have **started the subsequent academic year with a master's programme** at Erasmus School of Economics.

University economists typically find substantial employment within four months of graduation, according to the annual SEO Studie & Werk survey.

Erasmus School of Economics offers **6 master's degree programmes**, with a variety of specialisations:

MSc in Economics and Business

- Behavioural Economics
- Data Science and Marketing Analytics
- Economics of Sustainability
- Financial Economics
- Health Economics
- International Economics
- Marketing
- Policy Economics
- Strategy Economics
- Urban, Port and Transport Economics

MSc in Econometrics and Management Science

- Analytics and Operations Research in Logistics
- Data Science for Econometrics
- Econometrics
- Quantitative Finance

MSc in Accounting, Auditing and Control

- Accounting and Auditing
- Accounting and Control
- Accounting and Finance

Research Master programmes

- Research Master in Business Data Science
- Research Master in Economics
- Research Master in Philosophy and Economics

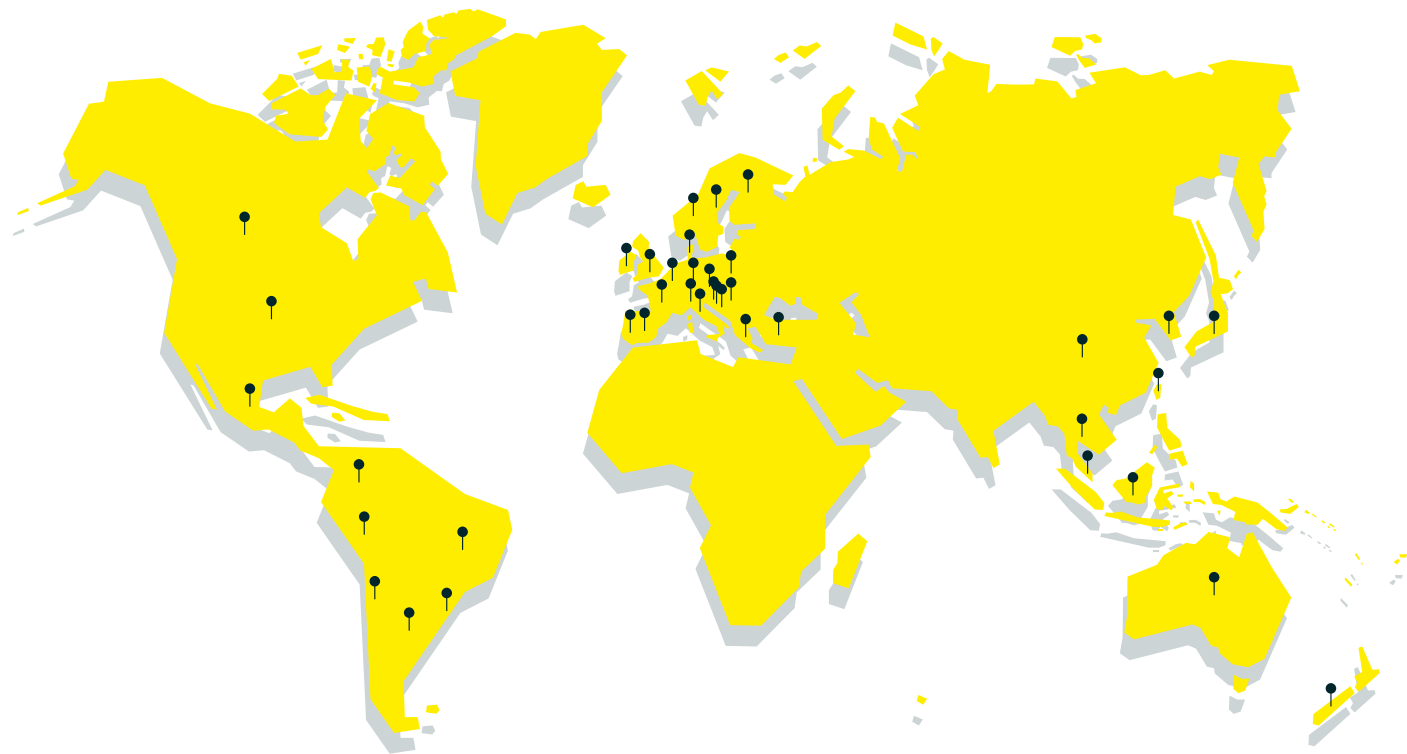
Online Master programmes

- Marketing and Data Intelligence

MSc Fiscale Economie

- Directe Belastingen
- Indirecte Belastingen

For more information about our study programmes please visit: ese.eur.nl/education



Where do our students come from - and go to for exchange?

- Argentina
- Australia
- Austria
- Belgium
- Brazil
- Canada
- Chile
- China
- Colombia
- Croatia
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- Indonesia
- Ireland
- Italy
- Japan
- Mexico
- New Zealand
- Norway
- Peru
- Poland
- Portugal
- Singapore
- Slovenia
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- Thailand
- Turkey
- United Kingdom
- United States
- Uruguay



Interested in an exchange?

Scan the QR-code

Check this out!

MentorMe

MentorMe is a free, online platform that connects current Erasmus School of Economics students with alumni through mentoring. MentorMe is designed to develop voluntary, one-on-one relationships between students and alumni to share knowledge and insights gained through the years.

Thesis Coaching

Many students face challenges with planning, setting goals, stress, procrastination, or motivation at some point during their thesis. This can get in the way of progress and finishing on time. For bachelor's and master's students, Erasmus School of Economics offers thesis coaching to help during this process.

Erasmus Language Sharing

Erasmus Language Sharing (ELS) offers our students the opportunity to learn about a language and its culture in an interactive way. They take on a 'for students, by students' approach, so they can offer affordable courses three times a year. Check out their site to see what courses they offer!

The **face** of Erasmus School of Economics

Rupali Mishra
International Bachelor Economics and Business Economics

'My curiosity thrives in an environment that pushes me to learn in all dimensions of my life, and that is the environment that Erasmus School of Economics offers'

Your gateway to success

School and study associations

The students in the photo are full-time board members of FSR, one of the ten school/study associations that are affiliated with Erasmus School of Economics.

‘The Financial Study association Rotterdam is the place for students with an interest in finance, consultancy, and accountancy. Our goal is to bridge the gap between theory, as taught at university, and the versatile financial world in practice. With over 4,000 members, FSR organises various prestigious events such as the International Banking Cycle, International Research Project, Corporate Finance Competition, and Private Equity Days.’

Petran Bos, Chair of FSR

Leading change

among flamingos and giraffes

By: Madeleine Kemna

'With an open attitude, opportunities tend to present themselves when you know what you are looking for'

At the beginning of this year, **Belinde Bakker** took up her role as CEO of Diergaarde Blijdorp, Rotterdam's iconic zoo. In this interview, she looks back fondly on her time at Erasmus School of Economics and her extracurricular activities. Having made her mark as a consultant and in the retail sector, does she find it makes a difference whether your office overlooks airport shops or sits between the flamingos and the giraffes? For Belinde, the context may change, but the leadership principles remain the same.

When we meet Belinde, we are running slightly late. A small misunderstanding about the meeting location has sent us on a brief detour through Diergaarde Blijdorp. In hindsight, this feels almost symbolic. Belinde does not work from the stately director's house but has chosen to work among the staff to stay close to daily operations and people in the

zoo. For this interview, however, she has opted for the calm of the historic building, listed as a national monument, where portraits of former directors line the hallway. Having navigated our way from the giraffes to the meerkats, we are greeted warmly. 'Did you stop to see the baby giraffe?' Belinde asks as we shake hands. 'There's also a new zebra and a small bison.'

From family business to zoo CEO

Her interest in economics was shaped early on. Growing up in a retail family, Belinde was involved in the family business from a young age, taking on roles that ranged from working in the warehouse to helping out in the shops. While she knew she 'wanted to do something with economics', she didn't have a clear picture of what that should be. Belinde: 'I deliberately chose a broad economics programme, trusting that my future would crystallise along the way. Rotterdam was an obvious choice: Erasmus School of Economics had the best reputation when it came to business economics.'

Her love for animals has been a constant in her life. 'I grew up in the South of the Netherlands, so De Beekse Bergen was the zoo of my childhood. Giraffes have always been a favourite of mine, but besides seeing the animals, I also enjoyed wandering through the landscape. That appreciation is something I have clearly passed on to my two sons. They were thrilled when I told them about my new job.'

Learning outside the lecture hall

Belinde was active in several committees at student association RVS and spent two years at the Economic Faculty Association Rotterdam (EFR). In her first year, she helped organise the EFR Business Week; the following year, she joined the board, responsible for PR and communication. 'I am still in touch with my fellow board members because those two years created a strong bond. I found that EFR offered a wonderful combination of studying and direct contact with businesses. Thanks to the reputation of the Business Week, we were able to sit down with top executives. Suddenly, you're interviewing captains of industry and seeing how theory is applied in real companies.'

Finding the right fit

A few years into her study, Belinde wanted to specialise in marketing. The University of Michigan offered a programme, based in Chicago, that included an assignment for international students. This really appealed to her. However, the popularity of the specialisation meant that places were allocated by lottery, and she was not selected.



'I learned that those closest to the operation usually know best what is really happening'

What felt like a disappointment at the time turned out to be decisive. She redirected her focus towards consultancy-related courses, which exposed her to a wide range of organisational challenges. That breadth suited her far better than a narrow specialisation. 'I realised that I thrive on variety and on looking at organisations as a whole,' she says. 'In hindsight, I believe self-knowledge is crucial: understanding early on what you enjoy and what motivates you makes it easier to set meaningful goals. With an open attitude, opportunities tend to present themselves when you know what you are looking for.'

A leader successful at transformation

Belinde's leadership style is based on communication and trust. She combines a drive for change with a strong focus on listening and collaboration. Her LinkedIn page shows she has managed successful transformations as Director Concessions & Advertising for Schiphol Airport and Chief Development Officer for Landal Green Parks, just to name a few. When she talks about teamwork, she often borrows metaphors from sport: 'The defence needs to understand you need the strikers and vice versa. No one achieves success on their own, no matter how talented they are.'

Creating a safe working environment is central to her approach. So, open communication matters, as does approachability. As part of her introduction at Blijdorp, she spends half a day with each team, listening and getting to know everyone. 'I've already noticed that people are starting to share their feedback,' she says. 'That is very important to me because during my time in retail, I learned that those closest to the operation usually know best what is really happening.'

Shaping the future of Blijdorp

The transformation Belinde hopes to realise at Blijdorp is both structural and strategic. When the zoo became independent from the municipality in 2012–2013, this brought complex challenges, including the maintenance of 21 listed monuments. This required significant investment, which remains an important task for the coming years. The Riviera Hall is a case in point. Once a city festival hall, it now requires a major renovation.

But for Belinde, renovation alone is not enough. 'Visitor numbers for zoos are relatively stable while the public's expectations are changing, and debate about the role of zoos continues. That is why we also have to rethink what happens inside those walls,' she explains. The ambition is to create more reasons to come, also on bad-weather days, and to diversify income streams. Balancing animal welfare, heritage, innovation, and a future-proof business model is the challenge Belinde has taken up.

Zoos as knowledge hubs

For those who question the role of zoos, Belinde points to Blijdorp's Master Plan 2050, developed before her arrival. At its core lies the belief that the ultimate goal is to help endangered

species survive in their natural habitats. Blijdorp has identified ten of them, such as the red panda.

Working closely with conservation organisations in Nepal and India, the zoo shares scientific knowledge and practical expertise to improve conditions in the wild. One flagship initiative is a reforestation project in Nepal, where one million trees are being planted to reconnect fragmented habitats.

In this, research plays a crucial role, from GPS studies on pygmy hippos to using Blijdorp's extensive knowledge on elephant DNA to protect populations in the wild.

This is a story Belinde believes should be told more clearly to visitors. 'Much of what we do happens beyond our gates,' she says, 'Visitors don't always realise that.' She has been very impressed by the dedication of Blijdorp's staff, animal welfare underpins everything they do. She considers her own role as a link between these chains: 'I see it as my responsibility to come up with a business model that enables us to continue fulfilling our important scientific role.'

A little-known fact is that Blijdorp is also a botanical garden with specialised staff to protect and care for what is sometimes called 'the green heart of Rotterdam'. It houses the Rwandan water lily, one of the rarest water lilies in the world.

An international perspective

Belinde's professional outlook has also been shaped by extensive international experience. Assignments in Argentina and later in India taught her that leadership is deeply influenced by culture. 'Over time, it has given me a strong sensitivity to cultural differences, which is an essential skill when managing teams. You start to sense dynamics more quickly, you're more alert to what's happening beneath the surface, and you can respond to that more thoughtfully.'

'Dutch directness doesn't work everywhere,' she notes. In Argentina, for example, hierarchy and status played a far greater role. Leading a project there at a young age forced her to adapt her leadership style while still delivering results.

Advice to students

Her message to current students is straightforward: enjoy your time at university. The pressure to obtain credits can make extracurricular activities seem expendable, but she urges students to make room for them. 'They're fun, they help you get to know yourself, and they shape you in ways lectures alone can't,' she says.

Above all, she advises choosing activities you genuinely enjoy. 'If you don't, it becomes a long and arduous journey, while it could be so much more enjoyable.' ◀

Aiming high:

Elise de Jong

Student Elise de Jong (20) is a top-level pole vaulter and simultaneously doing courses from her second and third year of the Bachelor's programme in Econometrics at Erasmus School of Economics. Her elite sporting career played a major role in her choice of study programme: 'By studying in Rotterdam, I was able to maintain my training schedule.'

'I don't want to spend all day doing sport, I want to do other things too!'

Elise has been jumping since she was a child and is now breaking record after record. In 2025, she competed in the European Championships U20 in Tampere, Finland, where she won the gold medal for Team NL.

Living at home makes it easier

After high school, she faced a difficult choice: whether to start a university degree alongside her professional sports career. It quickly became clear to her that she wanted to go to university. Her trainer suggested she go to a university of applied sciences and set the bar a little lower for her studies, but Elise wasn't keen on that: 'I wanted the challenge of university.'

At first, she didn't want to choose Rotterdam, because she already lived there, and she also wanted to get to know another student city. After visiting many universities and figuring out what was logistically feasible, she decided on Rotterdam after all, because feasibility is an important condition for successfully combining studying and top-level sport.

She chose to study Econometrics because Mathematics D, a subject offered at her high school, was her favourite subject. Alongside this, she does fitness and strength training at the PAC athletics club in Rotterdam and trains in Alphen aan den Rijn for pole vaulting. 'After a tough training session, a hot meal is waiting for me at my parents' house. That support also makes it possible for me to do all this!' Elise says.

Support from the university

Because Elise had not taken her final exams in high school in Economics, she had to work hard at the beginning of her studies to catch up. She succeeded and passed all her courses in her first year. She did have a bit of luck with the timing of the tournaments: only once did an exam coincide with an international tournament, and she had to retake it. Twice, she was able to take an exam online, which helped.

About support from the university, Elise says: 'At first, I didn't know how to go about it. Then I emailed the top-level sports coordinator at Erasmus Sport. She referred me to the study adviser.'

More time for sport

Elise is really excited about combining studying and top-level sport: 'I really enjoy training and studying, I get a lot of pleasure out of it, and that makes it easier. I don't want to spend all day doing sport, I want to do other things too! I don't have much time for social activities, but because I train with a really nice group, I don't mind.'

Elise has now started her third year and pole vaulting is taking up more of her time: 'I'm training more and more, so I have less time to study. Before, I had fewer training sessions and was able to keep up with my studies a bit better. Now it's more difficult. One time, I was studying until midnight every night. As a result, my training suffered. I noticed that I was stressed. So, I dropped a course, which gave me enough space again.'

And so it remains a matter of feeling it out and finding a balance. It is possible to do both, but both her studies and her sport have busy periods and less busy periods, and these have to fit together. 'Maybe I'll train more again next year. I just take it season by season.'

The importance of support

Fortunately, Elise has people around her with whom she can talk about the choices she has to make when it comes to combining her studies and top-level sport. 'I have a training partner who also does pole vaulting. I sometimes talk to her about it; she studies in Amsterdam. And there are other ambitious athletes in the training group. Not everyone may be involved in top-level sport, but we all spend a lot of time on the sport.'

Elise can also count on support from her parents: 'They mainly say that I should enjoy myself. They want me to finish my studies, but they understand when I am falling behind. And they also check to see if I'm doing okay.'

And now?

Does Elise have any advice for top athletes who are currently deciding whether to pursue higher education? She is clear on this point: 'Ensure that you plan your time effectively. And consider whether it is truly feasible. In any case, pursue a course of study that you enjoy, otherwise it will require too much energy!' ◀

When news crosses borders, so do stock returns

By: Gustavo Freire, Ali Moin, Alberto Quaini, and Amar Soebhag

Why do markets in different countries sometimes move together, even when local economic news seems quiet? In our research, we show that daily shifts in news sentiment (how positive or negative the news feels) help predict next-day stock market returns across 14 developed economies, and that global news linkages add forecasting power beyond purely local news.



Investors, policymakers, and central banks spend a lot of effort tracking sentiment because it shapes expectations and behaviour. But most evidence in finance comes from English-language outlets or from very aggregated measures, meaning that, for example, ‘media mood’ is measured by only one number. These data and ways of measuring can hide important differences across topics and countries. We wanted to open that black box: who reports on whom, about which themes, and whether that cross-border information matters for pricing.

The intuition is simple. If the Japanese press becomes sharply negative about the US economy, or US outlets intensify coverage about European political risk, investors may react, sometimes before local news fully reflects the same story. If those patterns are systematic, we should be able to detect them and potentially use them to forecast returns.

Measuring sentiment changes from a big database

We built a high-dimensional dataset from GDELT, a global news database that tags articles by source country, the country they talk about, which we call target country, and theme. We use more than 520 million articles from 2015–2023, covering 260 major themes, such as ‘stock market,’ ‘debt,’ and ‘health pandemic’. For each day, we created measures that capture both sentiment changes and attention, so how much a theme is being discussed. Lastly, we combined these into an attention-weighted sentiment change: in plain terms, a big swing in sentiment matters more when that theme dominates the news that day.

To turn these many signals into forecasts, we used a Random Forest, which is a machine-learning model that combines many decision trees. This is useful because relationships between news and returns can be nonlinear. For example, effects might be stronger during crises.

We evaluated the forecasts in a practical way: a simple daily market-timing strategy that goes long (buys) if the predicted next-day return is positive and goes short (sells) if it is negative, with conservative transaction cost assumptions.

Local and global matter both

First, local news really matters. In 13 of the 14 countries we studied, a simple strategy worked well: buy the market when tomorrow’s news mood looks positive and sell when it looks negative. This beat the plain old ‘hold onto your stocks and wait’ approach. Take the US: our news-driven strategy roughly doubled how much return investors earned for each unit of risk they took on, and even after subtracting realistic trading costs, it still came out ahead. And when markets did go through bad patches, our strategy lost less money along the way.

Second, and this is where it gets interesting, news from other countries carries real predictive power of its own. Once we let the model listen to foreign news too, including what countries are saying about each other, the forecasts got noticeably sharper. That extra cross-border information was worth roughly 10 to 30 percent per year in additional returns, on top of what local news

alone delivered. In other words, stock markets aren’t just reacting to the story in their own backyard. They’re tuned into a much bigger, global conversation, and that conversation moves prices.

Third, we can visualise these relationships as a global predictability network. The US emerges as the dominant informational hub, China as a major secondary node, and there is strong regional clustering within Europe (with the UK and Germany acting as key hubs). Some markets appear more peripheral, with fewer strong cross-border links.

Markets put a price on international information

Our results point to a clear message: information travels internationally, and markets price according to it. For researchers, this means return predictability is not just ‘local mood’ but a network phenomenon, where who talks about whom, and under which themes, matters.

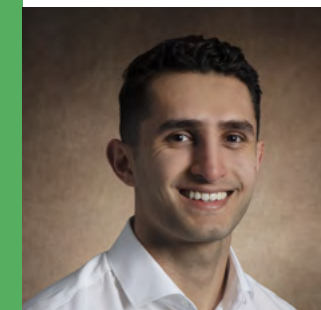
For policymakers, it highlights that global narratives can quickly transmit shocks (or optimism) across borders, sometimes faster than traditional macro indicators. For investors, it suggests that monitoring cross-country news sentiment linkages may improve risk management, especially in turbulent periods.

A question we’re left with is: if news networks shape market dynamics this strongly at the country level, what might we learn by mapping similar linkages at the sector or firm level? We are excited about what next research will unravel. ◀



Gustavo Freire

is an assistant professor in the Finance Department at Nova School of Business and Economics, and previously at the Econometric Institute of Erasmus School of Economics. His research interests are centred around asset pricing, option pricing, and machine learning.



Ali Moin

is a PhD candidate at the Econometric Institute of Erasmus School of Economics, where his current research spans financial econometrics, asset pricing, and machine learning.



Alberto Quaini

is a tenured assistant professor at Erasmus School of Economics whose research spans asset pricing, financial econometrics, and high-dimensional statistics. He was previously a Postdoctoral Researcher at Columbia University and a PhD student at the University of Geneva.



Amar Soebhag

is an assistant professor at Erasmus School of Economics and a quantitative researcher at Robeco, a leading global asset manager. His research focuses on empirical asset pricing and investments.

Measuring what works:

Esther Duflo's experimental economics

Using policy experiments to combat poverty

To do this, Duflo and her colleagues borrowed their method from medicine and agriculture: randomised control trials. This means taking a group of people and offering an intervention at random to half of them. In the end, you compare their outcomes with those of the other half, who do not receive anything.

For example, imagine you want to know whether AI tutors help pupils learn better. You could introduce them to five randomly chosen schools and compare the results with five randomly chosen schools without AI tutors.

According to Duflo, this works better than comparing schools that introduced AI on their own initiative, because those schools might already be more innovative or better funded in other ways. Random selection helps rule out those hidden factors.

She isn't the first one to try out these kinds of policy experiments in economics. They were first implemented in the United States in the 1970s and 1980s to study health insurance and negative income tax, but were eventually abandoned. 'Maybe because they were too difficult and too expensive,' Duflo says. In reality, she argues, they are far cheaper than sticking with the wrong policy for years.

Small nudges, big effects

One of Duflo's best known studies took place in Rajasthan, India, where only about 5% of children received the five standard vaccines. Setting up regular immunisation camps raised that number to 17%. In half of the villages, however, parents received a small incentive: a kilo of lentils for each vaccination and a set of plates at the end of the programme. There, vaccination rates rose to 37%.

These extra incentives were initially difficult to get through in policies, as the local government thought it was enough to simply offer the vaccines. But without that extra nudge, parents simply kept postponing them, as vaccines are never urgent and daily life brings many other concerns. Supporting these claims with clear numbers helped convince the government to implement the nudges.

Not every promising idea worked. Once, Duflo was convinced that she could offer people cleaner cooking stoves to improve health, but people did not use them. 'You simply can't change how people cook.' Publishing such negative findings turned out to be just as valuable as reporting success. And guess what? A later study on electric stoves did work, so making subtle changes and creating different environments does matter.

From big ideas to economics

For a long time, Duflo did not want to study economics at all. As a child, she already felt moved by the realities of poverty because her mother volunteered for an organisation helping children affected by war. At university, she did choose to study economics alongside history, but the first initially felt abstract and impractical.

That changed when she spent a year in Russia as a teaching assistant during the transition from communism to capitalism. There, she saw economists advising governments and shaping major decisions. 'I thought, I can be an academic, which suits my personality better than being a politician, and at the same time, actually affect the world.' Economics, she discovered, offers the time and tools to think carefully, test ideas, and base decisions on evidence.

That belief lies at the heart of her work and explains why her research has influenced not just individual policies, but an entire movement in economics, one that Erasmus School of Economics proudly recognised with an honorary doctorate.

Together with Abhijit Banerjee and Michael Kremer, Duflo helped transform development economics by introducing a more hands on, scientific approach to fighting poverty. They also co-founded the Abdul Latif Jameel Poverty Action Lab (J-PAL), a global research network that supports and coordinates policy experiments around the world to find out which anti-poverty programmes are effective and which are not. ◀

Esther Duflo at a glance

1972

Born on 25 October in Paris, France

1990s

Studied history and economics at École Normale Supérieure

1999

Completed a doctorate in economics at MIT

2003

Co founded J-PAL

2019

Awarded the Nobel Prize in Economic Sciences, becoming the youngest recipient at age 46

2025

J-PAL's work has reached an estimated 650 million people worldwide

In 2019, economist Esther Duflo won the Nobel Prize in Economic Sciences for a way of doing research that is surprisingly simple at heart: doing experiments in real-life situations. Earlier that year, Erasmus School of Economics awarded her an honorary doctorate for that very contribution. Duflo's work shows that economics does not have to stay abstract or theoretical. It can be practical, experimental, and deeply connected to real people's lives.

Esther Duflo at Campus Woudestein to receive her honorary doctorate in 2019.

Meet

Michel van de Velden

My name is Michel van de Velden, and I am an associate professor at Erasmus School of Economics. I have been working on campus for 20 years now. During this time, the campus has changed a great deal, and mostly for the better. It is greener, brighter, and feels more like a real campus now. My favourite spot has always remained the Paviljoen, especially in summer when you can sit outside and look out over the pond.

How to make data meaningful

In the Netherlands, statistics is not taught in high school, so nothing in my early education pointed me directly towards it. I discovered the subject through econometrics and became fascinated by the logic behind data. During my thesis, my supervisor insisted that I justify every statement and prove what I claimed, and that discipline has stayed with me.

My research is mainly about exploring data. I work with large data sets that have many observations, many variables, and plenty of complexity. The question is how to learn something meaningful from all of that. I develop and study methods that uncover structure in data in such a way that we can use the resulting insights in practice.

Academics across borders

During my career, I have travelled quite a bit. I did my PhD in Amsterdam and later worked in Barcelona and Groningen before settling in Rotterdam, where I have now been based for about 20 years.

I still travel to conferences, and those trips keep me connected to new ideas and new people. In recent years, I have collaborated a lot with colleagues in Italy, so I go there nearly every year. I also spent a few months working in Japan, which was a very different environment from here. This impressed me in many senses, and I really loved the experience.

Lessons in teaching

I taught my first class while I was doing my PhD, and I remember finding it genuinely fun. Later, I spent time in Barcelona teaching much larger groups, which provided some great lessons in communication.

My biggest lesson was that expertise can be a disadvantage in the classroom. At first, I had difficulty understanding students' questions. Because I was an expert in my field, some material seemed very obvious to me, even though to the students, this was not the case at all. In my years of teaching, I learned to try to listen for the real question and explain ideas in a new and clearer way.

I especially like working with students who genuinely want to learn and understand. The students who sometimes get on my nerves are those who focus mainly on grades and want you to tell them in advance exactly how to score the maximum.

Another familiar type of student is the optimiser, who tries to do as little as possible while still passing. I can relate to that because in my first year, I probably did this too, although I was risk averse and still aimed higher than a six. Later, I started to realise that it is fun to understand things, and my grades followed naturally.

Find your genuine passion

If I could give students one piece of advice, it would be to search for what genuinely interests you. Do not go to university only to chase high marks or to collect a diploma. Learning in itself is a very rewarding experience. This time is a rare opportunity to develop yourself and discover what you want from life.

And please enjoy student life as well. Socialising, meeting people from different cultures, and building friendships can be deeply enriching. When you are older, it is often harder to create that kind of community, so seize the opportunity while you have it. ◀

'Search for what genuinely interests you'



Women in STEM:

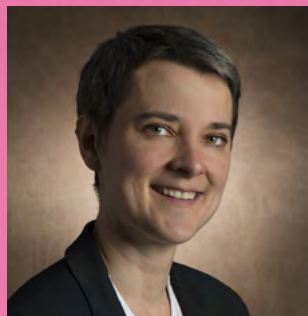
why relatively few women choose higher education in science

By: Anne Boring

How can we get more women interested in higher education in science and technology? My research tries to answer this question by taking a step back and looking at the reasons for the differences in study choices between men and women. The study finds that differences in passion, the influence of parents, and broader interests of women across study fields play a role.

'The main challenge lies in conveying a passion for science and technology to women'

More girls in science could reduce gender inequality in the labour market and support economic growth in promising fields by training more people who can contribute to innovation. That is why public authorities have been supporting initiatives in this regard for years. Previous research has already shown that persistent gender stereotypes can play a role in the differences in study choices. My research further shows that other factors also play a role.



Anne Boring is an associate professor in the field of economics at Erasmus University Rotterdam. She is a research fellow at the Tinbergen Institute and an affiliated researcher at Sciences Po. Paris (LIEPP).

Making choices

My research is based on a survey conducted by IPSOS of a representative sample of 1,500 students enrolled in French higher education. I designed the survey to examine the common trade-off students face in higher education between pursuing their passion and choosing a field of study with strong labour-market returns.

While economists often observe choices made, I used survey data in my research because it can reveal important information about students' motivations. My questions were designed to better understand how students make the decisions we observe. They can also show a better understanding of their preferences and the constraints they face, such as their tastes or parental pressure.

Determining factors in study choice

My study shows that women are more likely to choose a field of study based on their passions, even if that choice may disadvantage them later in the labour market. When women follow their passion, they are more likely to choose arts, humanities, social sciences, and healthcare than science, technology, engineering, and mathematics, so-called STEM.

The results also show that parents are more supportive of their daughters' choice of study than of that of their sons.

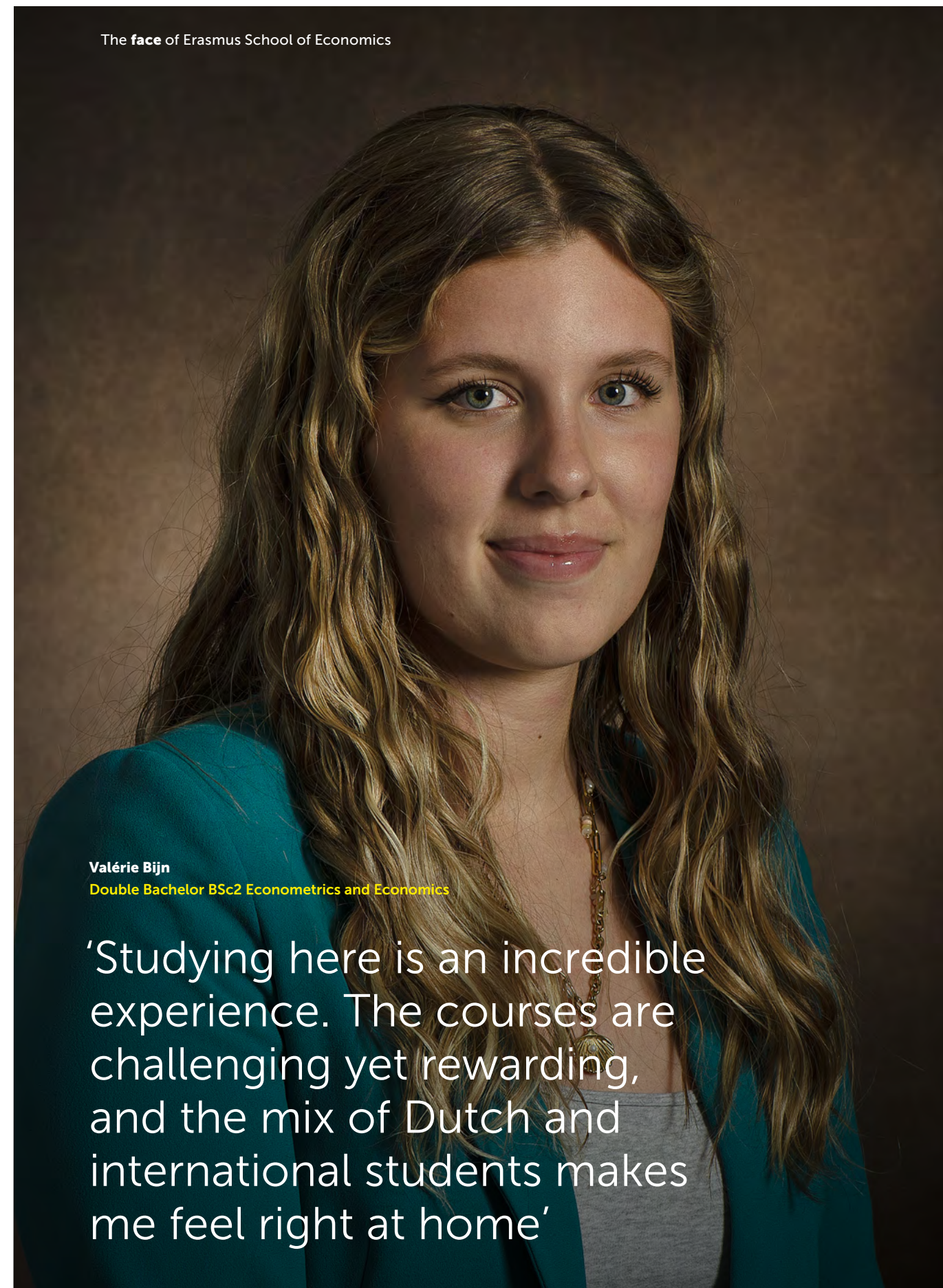
Women receive more support from their parents in whatever field of study they choose, even if this may later lead to lower paid jobs. This could explain why women are more likely to follow their passion. Men, on the other hand, say more often that their parents would not be supportive of a choice of study in a field that is lower paying or more stereotypically female. Paradoxically, women are freer to choose their preferred field of study, and this may contribute to higher inequalities in the labour market.

More than half of the differences between women and men in their choice of higher education can be explained by the preferences developed in secondary education for different subjects. Women generally have more varied tastes, and choosing courses in science and technology means that they have to give up other subjects they love.

Increasing enthusiasm for science

The main challenge lies in conveying a passion for science and technology to women, so that they are more likely to choose these fields of study. Role models can play a big part in creating this enthusiasm by inspiring women to pursue science before they choose their field of study.

Universities should also consider adapting their educational offerings to make them more attractive to female students. For instance, by highlighting how science and technology can contribute to the common good and by reformulating course titles and content to highlight issues that are of particular interest to women. Developing multidisciplinary courses that combine science with social sciences can also be a solution for women with varied interests. ◀



Valérie Bijm
Double Bachelor BSc2 Econometrics and Economics

A woman with long, wavy blonde hair is shown from the chest up. She is wearing a teal-colored jacket over a grey top and a gold-toned necklace with a large, ornate pendant. The background is a soft, out-of-focus indoor setting. Overlaid on the image is a white text quote.

'Studying here is an incredible experience. The courses are challenging yet rewarding, and the mix of Dutch and international students makes me feel right at home'

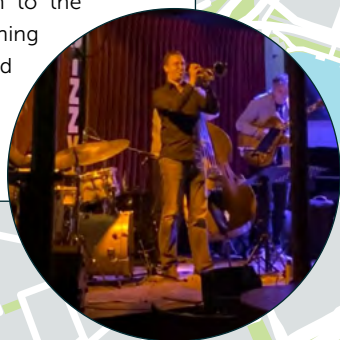
Rotterdam: a city of many sounds

Rotterdam is a city where different backgrounds, rhythms, and stories come together. That diversity can be heard in the wide range of live music the city has to offer. From intimate jazz cafés to energetic pop venues and lively pubs, each stage reflects a different side of the city's character. These live music venues together tell the story of Rotterdam.

Jazz café Dizzy

's-Gravendijkwal 127

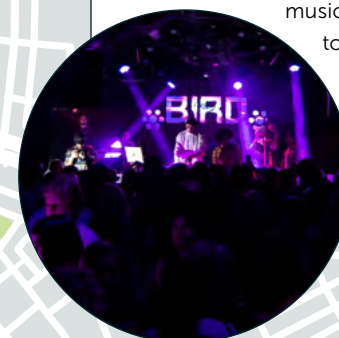
Jazz café Dizzy has been a cornerstone of Rotterdam's jazz scene since the late 1970s. Known for its intimate setting and consistent focus on live jazz, the café provides a stage for both experienced musicians and emerging talent. Across the café, small tables are available to sit at and calmly listen to the performance, creating a shared listening experience that feels authentic and unpolished. Each evening is different, shaped by the musicians on stage and the energy in the room.



BIRD

Raampoortstraat 24-28

Located under the old train tracks called Hofbogen is BIRD. Its programme focuses on jazz and related genres such as soul, funk, hip-hop, and electronic music. Performances range from structured live concerts to experimental shows and late-night club events. This flexibility attracts an audience that values musical innovation and cultural exchange, making BIRD a reflection of Rotterdam's progressive creative energy.



Paddy Murphy's Irish Pub

Rodezand 15

In the heart of Rotterdam's city centre, Paddy Murphy's Irish Pub regularly has live band performances focused on folk tunes and popular cover songs. The stage is right in the centre of the pub, allowing musicians to play close to the audience and often encouraging sing-alongs.

Inside, the warm wooden interiors and international crowd ensure an energetic night out, where music naturally brings people together. And even if music isn't your thing, the pub itself is worth drinking a pint of beer in!



Rotown

Nieuwe Binnenweg 19

Since 1987, Rotown has been a household name in Rotterdam. Its name, a Rotterdam twist on Motown, represents far more than live music. With a centre stage for emerging bands playing pop, indie, and alternative music, Rotown attracts a diverse crowd.

In recent years, Rotown has expanded beyond its own walls, programming concerts across the city and organising festivals such as Left of the Dial and The Big Blowout. Yet it remains true to its roots: an open, creative space for gigs, quizzes, and cultural events, where jam sessions remain the focus.



Crossing oceans with innovation and creativity

By: Madeleine Kemna

'The route to impossible is the way to incredible,' states superyacht builder Feadship on its website. And indeed, when they promise to deliver something, they do not rest until they have created a truly unique vessel. Alumnus **Bas Nederpelt** is Chief Commercial Officer (COO) of Feadship De Vries and supports his prestigious clientele in creating their maritime home-away-from-home, enabling them to travel the world in style.

Bas always knew he wanted to work in business. In high school, his choice of subjects showed a strong emphasis on economics, so it came as no surprise when he opted to continue his education here in Rotterdam. He was part of the first cohort to study what is now called business economics, which included additional seminars on organisation and company policy to ensure both theoretical knowledge and business practice were covered thoroughly.

The study's international orientation has inspired him to engage with foreign clients and work in many countries, an experience he considers an extension of his education. 'Spending time abroad provides valuable insights into foreign cultures and, as a bonus, you gain a fresh perspective on your native country.'

From shipping to yacht building

Growing up in the seaside village of Kijkduin, Bas developed a love for nautical life from a very young age. His affinity with the maritime world has strongly influenced his career. He started out working for Nedlloyd (now part of Maersk) in Rotterdam, Marseille, and Genoa. In 2002, having worked in various other fields, he switched to yachting, working for several international yacht builders before joining his current employer, Feadship.

This joint venture between Dutch shipyards Royal De Vries and Royal Van Lent can trace its roots back to 1849. Feadship delivers four to six ships annually with an average length of 80 metres. Prices start just under €100 million, so initial talks with potential customers can take years, sometimes even a decade. The company never discusses its clients, but it is well known that (previous) owners of Feadships include illustrious names such as Henry Ford, Malcolm Forbes, Steve Jobs, Mark Zuckerberg, and Bill Gates.

Nemo lounge

Feadship's discerning clientele often has specific requests. Bas mentions the example of a special room below water level, soon dubbed the Nemo lounge. 'In order to realise this, we included glass in the hull. During the daytime, the room functions as a cinema, but at night it offers breathtaking views of underwater sea life. Some crew members have been known to dress up as mermaids to make the Nemo experience complete for the children on board.'

Another client wished to have a wellness area and a moon pool filled with seawater, which doubles as a landing zone for the ship's submarine. On that ship, there is also a giant slide for

'Spending time abroad provides valuable insights into foreign cultures and a fresh perspective on your own'

splashes between decks. Furthermore, the designers were asked to make sure that the owner could bring a Jeep for independent mobility everywhere.

Another ship they built is called the Breakthrough, which gained a lot of media attention. With its 119 metres, it is the largest Feadship superyacht which can operate on green hydrogen.

Acquiring new clients

Sometimes it is difficult to predict when and where Feadship will find its clients. ‘We assisted an American yacht owner with the purchase of a pre-owned Feadship. He asked us to refurbish and personalise the yacht at our shipyard in Makkum. He was all excited and even more so when he saw the new Feadships under construction at the same yard. As a result, he ordered a new, even larger Feadship.

Imagine my surprise when, several years later, I got an unexpected phone call from this same client when he was celebrating his birthday on board his Feadship in St. Barths. He had decided that he wanted to give himself the biggest ever birthday present, a new yacht, on that very same day.

St. Barths is in a time zone that is six hours behind us, so it became a very busy evening, and the result was a signed “Letter of Intent” in the very late hours of that day. Today he is cruising on his dream yacht, as a result of a happy birthday.’

In 2010, Bas started looking for prospects in Asia by visiting Hong Kong. He was told it was not worth his time going there. ‘At the time, Asia was a region where Feadship had sold very few yachts in the previous decades. After several visits with many discussions about the perfect yacht during lunches and dinners, we sold the first 44 metre Feadship to an owner who would become our greatest ambassador in Hong Kong and China. Within a year, we sold three more, and many have followed since.’

Competitive advantage

From the initial design to the finishing touches, all Feadships are built in the Netherlands, where essential inputs such as labour and energy are relatively costly. Moreover, a unique design is inherently more expensive than working from a single model used for multiple vessels. So how does the company manage to stay competitive?

That question is met with a proud smile. ‘We are fortunate to be part of a long tradition of yacht building in the Netherlands. This means suppliers of top-notch components are nearby, while there is still good availability of highly skilled employees. This combination is very rare. You see it in Germany, but it is hard to find elsewhere. The company culture is our key ingredient for success. People who work for us know they are empowered to use their experience and creativity to come up with original solutions. On our work floor, the person with expertise is at the

helm. This is something you may find in other Nordic countries, but definitely not in China or the US. That is one of the reasons they are unable to offer this kind of craftsmanship.’

‘Broaden your horizon as much as possible’

As a firm, Feadship contributes actively to maintaining this tradition of craftsmanship and ingenuity by training 80 to 100 apprentices each year, many of whom go on to join the company. ‘The fact that we build 100% tailor-made means that each new order initiates a process of innovation and exploration to satisfy the client’s wishes. The discoveries we make along the way become key elements in future Feadships. That is something no one else does.’

‘The superyacht industry as a whole is much larger than people assume,’ Bas elaborates. ‘Worldwide, this new-build

sector generates thousands of jobs and around €54 billion in economic impact. Each superyacht continues to create work in maintenance, innovation, and services.’

Sustainability

To live up to its proud history, Feadship sets exceptionally high standards for sustainability. Bas explains: ‘Sustainability is deeply ingrained in our company. We are also conscious of societal debates questioning the necessity of what many people see as the epitome of luxury. Therefore, we feel a strong responsibility to focus on sustainability every step of the way. Each of our yachts is tailor-made and has a unique design. This enables us to incorporate the latest scientific insights, thus setting a new standard with every vessel we deliver.’

The bulk of a yacht’s footprint is created after production, in other words, while travelling. For that reason, Feadship endeavours to make its yachts as light as possible. The main raw materials are steel and aluminium, sourced exclusively from green suppliers. Bas adds: ‘Our yachts are built to last. The flexibility of our fuel

tanks is a good example: they will be able to accommodate cleaner fuels such as methanol, which would be impossible with traditional configurations. This is part of what we call “flexi-fuel”. We cannot predict with certainty what the standards will be ten years from now, but we can anticipate them by ensuring our yachts can handle a variety of fuels, with small modifications if necessary.’

Broaden your horizon

Living abroad in cities like Monaco, Marseille, and Genoa has given Bas a vital understanding of foreign cultures and the way business is done in other countries. This has been very important when dealing with (potential) clients and may even explain why he was able to attract new customers in Asia, where others thought it was impossible. No wonder his final remark acknowledges the positive influence his international experience has had on his career: ‘If I had to give one piece of advice to current students, it would be to broaden your horizon as much as possible!’



Fun facts

All Feadships, with their specifications, are listed on feadship.nl/fleet

.....

Feadships always make a trial journey on the North Sea before delivery. Reports of where and when they can be seen on their trip from the shipyard to open sea can often be found in the media.

.....

Most Feadships can be rented, including their crew. If done cleverly, this covers the owner's annual operating costs.

.....

The price of a pre-owned Feadship is usually higher than that of a new one. This is explained by the fact that building a new Feadship takes, on average, three and a half years from contract to delivery.

Meet Yao Chen

My name is Yao Chen, and I am an associate professor in the Economics Department at Erasmus School of Economics. I moved to Rotterdam about seven years ago after completing my PhD in Germany. While I was studying, I already spent an exchange semester at Rotterdam School of Management (RSM). Since then, the city has improved in so many ways.

Encouraging curiosity

As a child, I wanted to be an astrophysicist, or perhaps even an astronaut. I was fascinated by everything to do with space: galaxies, stars, and planets. My parents encouraged my curiosity by buying me books on physics and astrophysics. That early fascination shaped my broader interest in complex systems, later also including the economic system.

I did not originally plan to study economics. At first, I considered physics, but I eventually chose business administration in Germany. During my bachelor's and master's studies, I attended a seminar on international macroeconomics and found the discussions genuinely exciting. That was the moment when my interest in economics commenced.

After finishing my master's degree, I worked in the private sector for a few years as a consultant. However, I quickly realised I missed the freedom as well as the intellectual challenge that come with academia. In the private sector, you rarely have the luxury of thinking deeply about a topic for months at a time.

How art can border on academics

People around me know I am good at drawing. At one point, I even considered becoming an architect because of it. These days, I enjoy painting with watercolours, especially landscapes and flowers.

I am also, admittedly, quite a nerd. My favourite TV character is Data from Star Trek: The Next Generation. If you have not seen it, I would highly recommend it. Data is an android: highly intelligent, deeply logical, and genuinely curious about humanity. In a way, he reflects how economists try to think, rationally and structurally, searching for patterns, asking questions, and trying to make sense of human behaviour.

I also love the music of Johann Sebastian Bach. His compositions have a beautiful complexity that feels almost mathematical. That combination appeals to me, both personally and academically.

Intersection of human behaviour and patterns in data

For me, economics is about understanding how human behaviour translates into patterns we observe in data. I am particularly interested in these patterns at the aggregate level, which is why I work as a macroeconomist and focus on the bigger picture. More recently, I have been thinking about the effects of fiscal policy on productivity growth, particularly in the European Union. In my work, I use mathematical models to provide structure and ensure that arguments are coherent and consistent. I then analyse those models to understand mechanisms and trade-offs. This makes economics rigorous and formal. At the same time, because economics is a social science concerned with human behaviour and institutions, it cannot be reduced to mathematics alone.

Economics inside and outside the classroom

I really enjoy discussions with students, because they challenge me and often offer new ways of thinking about familiar topics.

Economics is not just the numbers and equations you see on lecture slides or in textbooks. Economics is everywhere: when you plan a holiday with friends, shop in the supermarket, or make choices about your future career. It is worth taking the time to connect what you learn in class with what you encounter outside the classroom and with what you read in the news. Doing so makes your studies feel more relevant and, in my experience, far more interesting. ◀

'Economics is everywhere, when you plan a holiday with friends or shop in the supermarket'

Pulling ahead:

Linn van Aanholt

Student Linn van Aanholt (25) won gold as a rower at the World Championships in Shanghai and gold and silver at the European Championships in Plovdiv. She is also in the final phase of two master's programmes at Erasmus School of Economics.

'I actually only started rowing for the fun and the drinks, but that plan failed'



Linn started the International Bachelor Economics and Business Economics programme at our School at the beginning of the coronavirus pandemic. At the last minute, she also joined the Skadi student rowing club because of all the drinks, parties, and social activities. That way, she would be able to see people a few times a week, even during lockdown. Linn: 'It seemed like it would be fun during the pandemic.'

Rapid progress

Linn quickly got into competitive rowing and found it much more enjoyable than she had expected. The fact that she turned out to be good at it helped, of course, but so did the great group of students she met at Skadi. She recalls that period: 'In my second year, things suddenly started moving very quickly. I was allowed to compete in the Under-23 World Championships, which was much sooner than usual. Then everything went into a rapid acceleration. Big tournaments, lots of training. It was a shock, but also a lot of fun.'

She found it easy to combine rowing with her bachelor's degree. 'Rowing gives you a regular routine: first rowing, then off to university and studying,' says Linn. Things got tougher when she joined the TeamNL development team (TalentTeam). 'I was abroad about 30% of the time. And I went from eight to nine training sessions to 14 training sessions per week. In combination with my master's study, that was quite a lot of work, and I thought it would take me a year longer. Still, I managed to finish all courses at the end of the year. So, I decided to enroll for another master's specialisation.'

A different life

Competitive rowing gave Linn a completely different life. While her fellow students were quietly waking up in their lecture halls during a 9 am morning lecture, she had already had a full day. Training, rushing around, drinking coffee to stay awake. 'Rowing is time-consuming, but the biggest problem is that you're always tired.'

This is also because rowing is a very physical sport: 'Training sessions are often very long, you put in a lot of hours. You often train at a leisurely pace, but competitions are very tough. You see black spots, you get sore, you almost pass out.'

Linn: 'But even without the beautiful medals, I would choose it again in a heartbeat. You spend a lot of time in nature, it's nice to have a goal, and the people around you are really nice. I'm glad I chose rowing.'

Support from university

Linn finds the involvement of the club very special. The fact that rowing is a typical student sport helps: 'Competitive rowers and non-competitive rowers are very involved in important events. They watched the World Cup final together at the club, and when we won gold, many rowers were picked up at Schiphol Airport by their club.' When she returned home from Shanghai, Linn was honoured

at Skadi. Linn: 'It was overwhelming. I thought, "Everyone is here for me!" and actually also, "Guys, go home and have a cup of tea." But it's nice to see that I can also give something back to the club through rowing!'

She has also experienced support from the School. Of course, some lecturers are more understanding than others. Sometimes, lecturers can help a little and think along with you when your studies clash with your top-level sporting career. 'A study adviser can think along with you, but it has to fit within the rules,' says Linn. ◀



Totally confused about taxes:

does working more pay off?

By: Robert Dur and Arjan Non

People complain a lot about taxes, their level, and their complexity. In virtually every Dutch national election campaign over the past 20 years, a simplification of the tax system has been promised. However, once in government, parties do not live up to this promise. Likewise, in many other Western countries, tax systems have become very complicated.

'Informing people led those who were initially too pessimistic about how much extra they would earn to increase their working hours'



Complexity easily leads to confusion, which may result in suboptimal decisions – suboptimal for the individual taxpayer, and maybe also for society at large. In a recent study, we assessed whether people in the Netherlands are confused by the tax system. Together with Job Harms, we asked people: 'How much more would you be left with if you earn an additional 100 euros gross income per month?' We find that, indeed, many people hold strong misperceptions and that this differs between income groups.

People with a lower income underestimate how much more they will actually earn if they work more. More specifically, if they earn an additional monthly 100 euros, they will have 28 euros more left after taxes than they estimate themselves. People with a higher income actually overestimate how much they will be left with.

Moreover, we find that when people get a realistic perception of how much more they can earn when working more, they will start working more. So, these current misperceptions result in suboptimally low work hours and an unnecessarily high income inequality.

How people assess their gains after taxes

To study this, we did several surveys. First, we asked a representative sample of the Dutch working-age population to estimate how much their after-tax monthly income would increase if they earned an additional 100 euros gross income per month. We instructed them to take into account both the additional taxes

that they may need to pay, but also possible changes in their tax credits and tax allowances (such as rent allowance, healthcare allowance, childcare allowance, and child budget).

We contrasted their estimate with how much they would actually gain, something we calculated using rich background information about their income, household composition, living situation, and so on. We find that the estimates of approximately 40% of the Dutch are 'about right'. A third overestimates how much they would gain on net, while the remaining 25% underestimates it.

The latter group is concentrated among people with a low income. They tend to think that a higher gross income would not significantly raise their net income, whereas in fact it oftentimes does.

The effects of informing people

In the next step, we implemented three kinds of information interventions. For the first one, we provided general information about the Dutch tax and allowance system, describing how it works out for most people in three different income groups. The second intervention encouraged people to use a free web-based tool developed by the National Institute for Family Finance Information (NIBUD), where they can find more detailed and personalised information after describing their personal situation. Third and last, we provided some people with a combination of the two interventions.

We made sure to also have a control group that did not get any information. And we randomised all 2,500 respondents into the control and three information-intervention groups, enabling us to get reliable estimates about the effects of the information interventions.

Two months after the first data collection, we returned to all respondents and asked them to estimate how much their after-tax monthly income would increase if they earned an additional 100 euros gross income per month.

We concluded that the information interventions were effective in increasing the accuracy of people's perceptions. Next, we also saw that informing people led those who were initially too pessimistic about how much extra they would earn to increase their working hours. On average, they started to work an additional 1.5 hours per week. This mostly applies to people with a lower income.

Hence, taking away confusion about taxes may be a way to reduce income inequality and, at the same time, increase overall labour hours. This is something that employers in both the public sector and private sector will appreciate, given the serious shortages in the Dutch labour market.

Policy implications

The research also gained political attention. Based on the research, Finance Minister Eelco Heijnen sent a letter to parliament informing

them of the research. He explained that either more information was necessary or the tax system should be less complex. Based on this, a member of parliament for CDA raised questions on what should be done with the results of the research. The State Secretary of Finance, Eelco Eerenberg, responded that it was an 'absolutely brilliant research' and that he would 'take it up' in the Ministry's agenda. This shows that economic research can have a real impact on policymaking. ◀



Robert Dur

is Professor of Economics of Incentives and Performances in the Department of Economics. His expertise lies within the field of organisation and labour economics.



Arjan Non

is Assistant Professor in the Department of Applied Economics at Erasmus School of Economics. He is also a teacher at the Teacher Academy.

Chasing impact, not perfection

By: Tom Lelieveldt

Alycia's path has been anything but linear, and that unpredictability has become central to how she now thinks about success, ambition, and impact. She has gone from corporate trainee to PhD researcher and policy advocate, navigating a period of mental health recovery along the way. Today, she combines research on responsible AI-driven marketing with her work at Encode Europe, a youth-led organisation advocating for human-centred technology policy.

What motivated you to study economics in Rotterdam?

'I didn't originally plan to study economics at all. I wanted to do communication science, but a mentor told me they didn't think it would challenge me enough. That made me rethink my choice.'

Economics was a subject I had always liked in high school, so I thought I had made up my mind quite early. However, during an open day, I ended up sitting in on a law lecture and found out I loved it. Rotterdam offered the combination of economics and law in a single programme, so that settled it.'

How did you experience your student years, and what did they teach you?

'The first half-year was genuinely difficult. I was the first in my family to go to university, and I moved to Rotterdam at 17 and knew nobody in the city. I ended up with 12 credits when I could have had 60. I even emailed the programme coordinator asking whether I should just quit. He asked me one question: "Do you think you can do it?" I decided there and then that I was going to prove to myself that I could. I finished that academic year with 112 credits.'

But honestly, what shaped me most wasn't the lectures, but everything I did alongside them. At 19, I became chairwoman of In Duplo, the student association for double degree students in economics and law. I was only the second woman ever to hold the role.'

You went on to do a traineeship at KPN. What was that experience like?

'I graduated in August 2020, right in the middle of the pandemic. Starting during lockdown was strange. I spent the first six months working from my student room, barely seeing any colleagues in real life, instead of on a screen. In a normal office, people walk past your desk and pull you into things. Online, that simply doesn't happen. Nobody knows you exist until you make yourself visible, which takes much longer.'

Once things opened up, I genuinely loved my colleagues. But figuring out what I actually wanted to do within the company became complicated. I discovered that being good at something doesn't necessarily mean it makes you happy. Project management came easily to me, but I found it unfulfilling. I needed to be closer to the content, the substance.'

You've spoken openly about mental health during that period. What happened?

'One week I was a young talent with a promising career ahead; a few weeks later, I was on sick leave, and it felt as though that label of "young talent" had been replaced overnight with "failure". People quickly assume it is burnout if you fall sick at work, but I actually fell out with depression and PTSD. I was very open about that at work and spoke at internal events on World Mental Health Day. Therapy helped me get to know myself far better.'

After two years, I came to the realisation that the whole idea of building a corporate career no longer gave me the satisfaction it

'Choose opportunities
based on what feels right'

'The world doesn't end if you change direction'

once had. My motivation had shifted entirely towards doing work that was intellectually meaningful and socially relevant. I couldn't find a role at KPN that brought those things together. So, I made the decision to leave, with a plan to walk the Camino de Santiago and think things through.'

Did the Camino give you the answers you were looking for?

'Just a few weeks before I was due to leave, a vacancy appeared for a PhD on AI, ethics, and marketing. I had studied data science and marketing and had been wanting to do something more socially relevant. This application felt like it was written for me. I applied, but told them during the first interview that I wasn't going to postpone the Camino for the process. They told me to go first and decide afterwards whether I still wanted it.

The funny thing about walking the Camino is that you never get the clear answers you expect. I walked for 32 days. Somewhere in the second-to-last week, alone on the path, I realised I didn't actually need certainty. I was curious enough to try something new. And if it didn't work out, I could pivot again. The world doesn't end if you change direction. When I got back, I told them I still wanted it.'

What is your PhD research about?

'The central question is how to distinguish between harmless influence and manipulation, and how we can help marketers stay away from the latter in an AI-driven era. When AI decides what products you see, what content reaches you, and what prices you are offered, the line between genuine preference and manufactured desire becomes very thin.

Think about how a personalised feed works: the more you engage with something, the more you see of it, until you can no longer tell whether you sought it out or were gradually steered towards it. The same logic applies to marketing. If an algorithm knows that showing you a particular image at a particular moment will make you more likely to buy something, is the resulting purchase really a free choice?

My research tries to map where the boundaries of responsible personalisation lie and what it would take to implement it in a way that genuinely respects people.'

Alongside your PhD, you co-founded Encode Europe. What does the organisation do, and what has it achieved?

'Encode has two main strands. One is education: helping young people develop critical AI literacy so they have the skills to understand and question these systems, rather than just consume them. We are also wary of the fact that most AI education is currently delivered by the companies that built those systems, a bit like the tobacco industry funding health research. The other strand is policy and advocacy: pushing for regulation at national, European, and UN level that keeps people, rather than technology, at the centre.

One of the areas I'm most actively involved in is the UN discussions around a possible legally binding instrument on autonomous weapons. These are drones or systems that can identify and kill targets entirely without human intervention.

When I first attended those sessions in Geneva, there were roughly 500 seats in the room. Two of them were occupied by data scientists, of which I was one. That is a serious problem. You can have all the military experts, international relations specialists, and disarmament lawyers you want, but if nobody in the room truly understands how these systems work, the nuances that such a regulation actually needs will be missed. There is now a growing consensus that fully autonomous weapons should be banned and that lesser degrees of autonomy need to be regulated carefully. We try to make sure the technical perspective is present in those conversations.'

Why do you believe young people should have a stronger voice in AI policy, and what concerns you most about the current landscape?

'Young people will live the longest with the consequences of AI and technological disruption, yet they are rarely included in policymaking. Our generation is the first that genuinely grew up with social media, so we understand both its opportunities and its harms from lived experience.

What concerns me more broadly is how quickly the political climate has changed. The EU AI Act was a real achievement, an acknowledgement that responsible innovation requires guardrails. Now there are voices trying to unpick parts of it. The argument is always that regulation stifles innovation. But that is simply not true, especially with AI. Everything a model learns, it



cannot unlearn. If we release these systems without constraints and only then discover the harms, some of those harms become permanent. The only thing deregulation actually enables is irresponsible innovation.'

Looking ahead, what impact would you ultimately like to make?

'I have stopped making strict long-term plans. I once had a very clear career trajectory mapped out, and shortly afterwards, I spent two years at home working on my mental health. Since then, I choose opportunities based on what feels right at the time. I still have political ambitions, whether that's a local council, the national parliament, or something at a European level. I genuinely

don't know yet, and the political landscape is unpredictable enough that planning feels futile. What I do know is that I want to keep working at the intersection of technology, society, and wellbeing. We need more people with technical backgrounds in politics. And the state of mental health care for my generation is alarming. That is something I care about deeply and want to address. Those two things, responsible technology and human wellbeing, feel increasingly connected to me.

For students still figuring out their direction, I would say: stop trying to optimise for the perfect path. Choose based on what feels right at the time. The world doesn't end if you pivot.' ◀

A century of student life

Every generation of students leaves its mark on campus. Since the founding of Nederlandsche Handels-Hoogeschool in 1916, and later the construction of Campus Woudestein in 1963, student life has taken many forms. These archive photos capture moments from the past hundred years, showing that some things about being a student never really change.



Students celebrating the Dies Natalis of Rotterdamsche Studenten Bond at Parkhotel in **1930**. The association, founded in 1919, was one of the early student societies connected to Nederlandsche Handels-Hoogeschool. Almost a century later, student celebrations still look surprisingly familiar!



The university library around **1970**, not long after Campus Woudestein was built in the 1960s. The colourful mural survived the major renovation in 2017, even though the rest of the interior was completely redesigned.

Students from basketball association Baros playing on campus around **1998**, somewhere between Tinbergen building and the future location of Erasmus Paviljoen. Student life has never been only about lectures and libraries!



Students queue in the corridor at 3 in the morning on 3 September **1989**, to secure a spot in a popular elective course. Their dedication turned out to be unnecessary; the course didn't even fill up that year.

Sometimes, there are disturbances outside the classrooms. During a talk by NATO secretary-general J. Luns in Theil building in **1974**, students organised a demonstration calling for the Netherlands to leave NATO. Campus has long been a place where students make their voices heard.

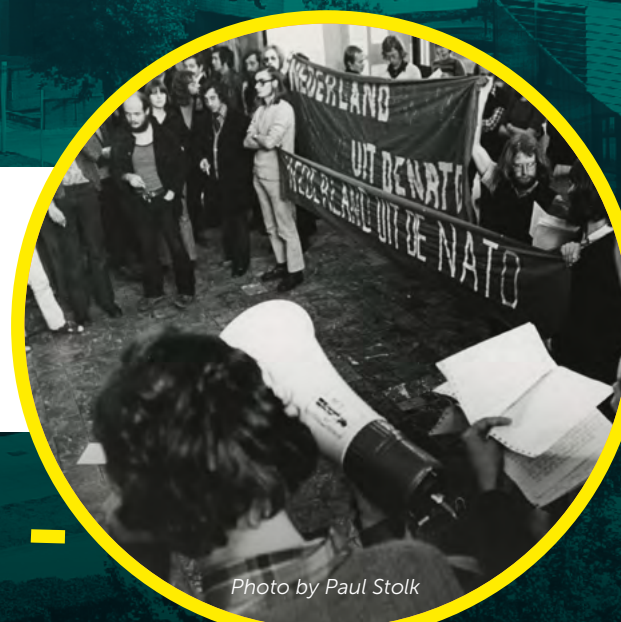


Photo by Paul Stolk

Videogames on demand: a new business model?

By: Michiel Van Crombrugge and Stefan Stremersch

In June 2017, Microsoft launched Game Pass for Xbox, a subscription service offering access to hundreds of games for a monthly fee. This was a major shift in their business model. Dubbed the Netflix of gaming, it moved Xbox away from only product sales, such as consoles and games, and toward a platform service that targets product usage. Today, subscription services have become central to how Xbox and PlayStation compete for players.

Xbox Game Pass now generates nearly \$5 billion in annual revenue. But what does the shift from selling games to engaging players mean for platforms and developers? And does such a subscription model not cannibalise sales, as it did in music and film?

'Sales data reveal what consumers decided to buy, not what they decided to play'



What do players want to play?

As subscription services become the dominant business model in video games, platform success increasingly depends on whether consumers actually use the software and the platform. That raises a critical question: what drives engagement success?

A natural instinct is to look at sales data, the industry's go-to metric for decades. But sales data are fundamentally uninformative here: they reveal what consumers decided to buy, not what they decided to play, and those may be very different decisions. Our research remedies this. We tracked over 14,000 Xbox users between 2020 and 2022, comparing daily usage and monthly sales for over 2,700 game titles.

The difference is substantial: of the top ten most played games, only two appeared within the top ten most sold. Likewise, most top-selling titles display disproportionately little engagement. The drivers of engagement, it turns out, are fundamentally different from the drivers of sales. Titles with high review scores – which we call superstar titles –, exclusive games, and new intellectual properties (IP), which are traditionally the pillars of software and console success, decline sharply in relative importance.

For instance, superstar games sell about ten times more than non-superstars; in engagement, that gap almost entirely disappears. What rises instead? Non-superstars, non-exclusives, and franchises, especially when available on a subscription service like Game Pass, which emerged as the single most powerful driver of engagement. Game Pass participation matters more for a title's engagement than its review scores, IP, or exclusivity.

Theories of consumer behaviour explain this. Buying a game is a one-time, high-stakes commitment where consumers rely on quality signals before spending \$60 or more. Choosing what to play on a given evening is fundamentally different: faster, lower-stakes, and repeated daily in a far more crowded market. In that



Michiel Van Crombrugge

is an associate professor at Erasmus School of Economics.

His research focuses on strategic marketing issues surrounding new business models in multichannel retail and platform markets.



Stefan Stremersch

holds a chair in Market Insights and Innovation at Erasmus School of Economics.

His research explores the frontiers of innovation, the commercialisation of technology and science, healthcare and pharmaceutical marketing, and international marketing.

context, consumers seek variety over quality, and regress to what is familiar. Subscription services cater to both impulses.

Do subscriptions cannibalise sales?

If subscriptions are this powerful at driving engagement, the natural follow-up question is whether they are commercially sustainable. In a follow-up study, we examined the commercial consequences of Xbox Game Pass (2017) and PlayStation Plus (2022).

Four findings stand out. First, both services generated enormous subscription revenue, estimated at billions since launch.

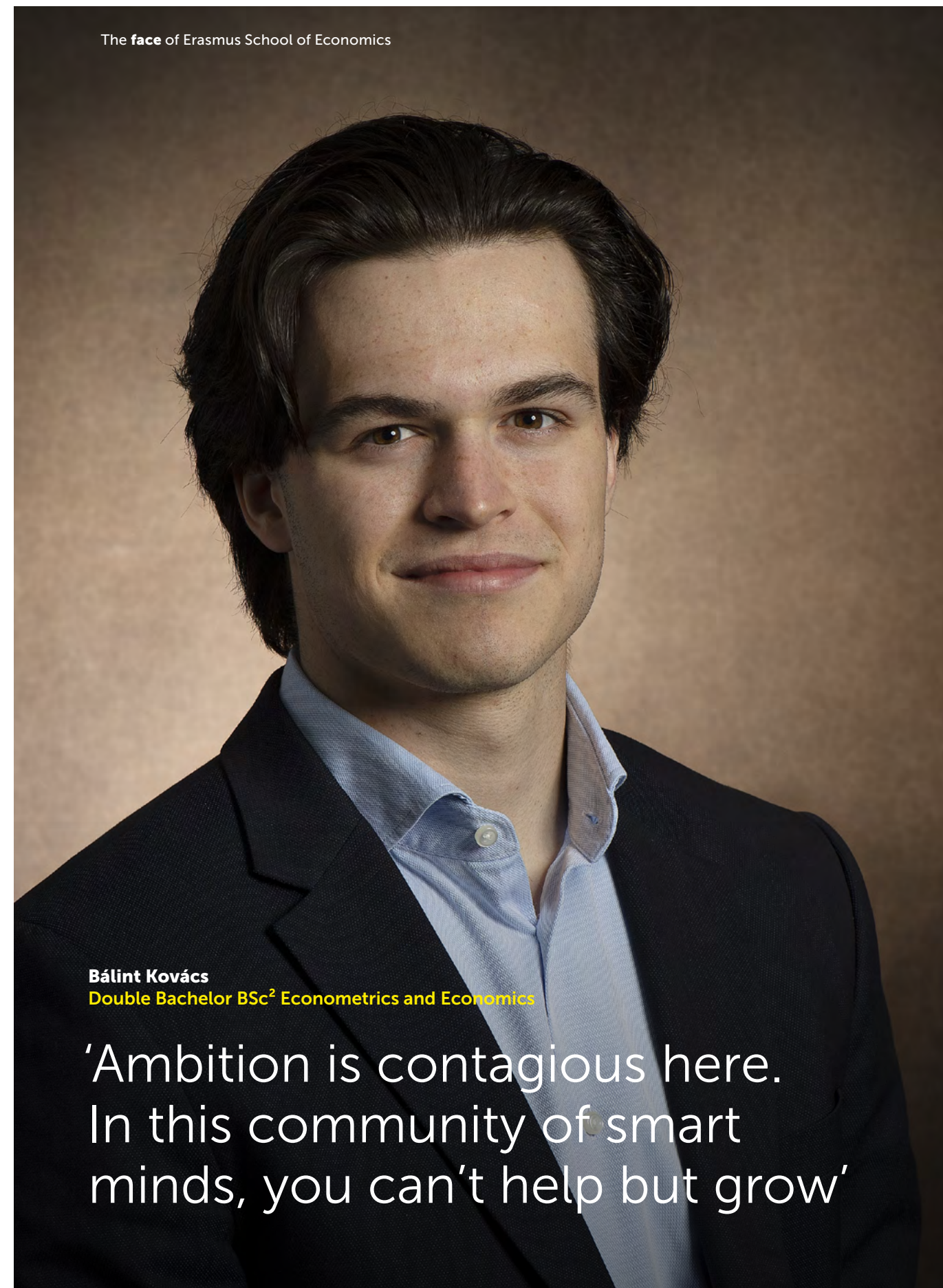
Second, both Xbox and PlayStation saw large increases rather than decreases in hardware revenues (65.9% and 121.5%, respectively) compared to what they would have generated without subscriptions: consumers who know they have access to a large library of games have a stronger reason to buy a console.

Third, the impact on game sales was limited; unlike in music and film, gaming subscriptions did not significantly cannibalise software revenue. This is because gaming subscriptions still integrate a storefront where discovered content, as well as expansions, sequels, or other entries in the franchise or genre, can be bought for permanent ownership.

Finally, subscriptions were associated with a healthier supply of new games, with more (in the case of PlayStation) and higher quality (in the case of Xbox) titles entering the market.

Taken together, these studies show that the subscription model paid off enormously. Not just for Microsoft and Sony, who gained billions in subscription revenue without cannibalising their existing sales, but for developers too. For them, success no longer requires a \$200 million bet on the next superstar title or exclusivity deal. Non-superstars and multihomed titles generate substantial engagement too, especially when released in a subscription catalogue. And unlike in music and film, this does not necessarily hurt sales. ◀

The **face** of Erasmus School of Economics



Bálint Kovács

Double Bachelor BSc² Econometrics and Economics

'Ambition is contagious here. In this community of smart minds, you can't help but grow'



Alumni Day

Throughout the year, we organise several alumni events. One of them is the Alumni Dinner, during which our community is brought together for an evening of connection and ideas. Between courses, alumni enjoy stories, research and education highlights, and inspiring talks on the ideas shaping our future.

How to learn a language at home

1

Podcast: **Easy Languages**

2

Podcast: **Coffee Break**

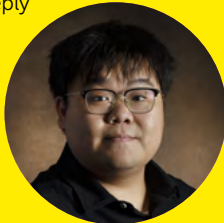
3

YouTube: **elysse daVega**

Book recommendations from our PhD candidates

The Road Less Travelled by M. Scott Peck

'This book made me reflect deeply on how love, self-worth, and emotional growth shape who we become. It reminds us that real love is not only about intense feelings, but also about responsibility, wise choices, and supporting others' growth.'



Ming Yin

Fooled by Randomness by Nassim Taleb

'I think people should read this book because it offers refreshing views on the role of uncertainty in our daily lives. Taleb is not afraid to criticise the work of many, including us economists, which makes for an amusing and thought-provoking read. I actually own two copies, so I always like to lend them to others'



Igo Dobbe

Get to know us!
visit eur.nl/ese

COLOPHON Publication Erasmus School of Economics, Erasmus University Rotterdam **Editors** Apollonia Duijster, Rinske Hoogwout, Anouk Hilbelink, Madeleine Kemna, Tom Lelieveldt, Ronald de Groot **Photography** Kees Stuip, Vera IJzelenberg, Mirjam Lems, Iwan Baan, Mike Towers, Paul van Stolk, Book 'Ambitie en Identiteit', Alexander Santos Lima, BIRD Rotterdam, Harrison Truong, Chris Gorzeman, Arie Kers, Gerhard Nel, Coen Schilderman, Benedict Tufnell, Sonja Ruckstuhl **Illustrations** Carolyn Ridsdale **Concept, design, and realisation** Canon, The Creative Hub **Print** Drukkerij OBT by Circulation 2,000 copies

For their contribution to the realisation of this Backbone Magazine, a special thanks goes out to all the participating faculty members, students and alumni of Erasmus School of Economics.

Copyright © 2026 Erasmus School of Economics

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law. For permission requests, write to the publisher at: communications@ese.eur.nl



Erasmus School of Economics is defined by its groundbreaking research and excellence in education. We are leaders in our field. The founders of econometrics. Strong in behavioural economics. We are committed to finding solutions for today's and tomorrow's economic issues by challenging yesterday's economic theories as well as building from and valorising existing models and methods. We know our ambitions are as bold as our opinions, but our performances and publications show: we make it happen. Just like the countless leaders in business, research and politics did, who started their careers in Rotterdam. Just like our students will do, as they are taught and inspired by the best.

Back to Bone

For more information visit us at ese.eur.nl